TRAC LIGHTING

JUNO®

Recessed and Trac Lighting

Trac-Master®

Trac 12™

Flex 12™

Decorative Pendants

JUNO LIGHTING GROUP

an AcuityBrands company

Juno Lighting Group...

Trac lighting products for a better tomorrow

Juno Lighting Group products have always been acclaimed for style, function and breadth of line. But today, we are just as well known for our commitment to energy conservation and sustainability. Throughout our trac lighting systems, we offer an ever-increasing selection of state-of-the-art fixtures designed to drastically reduce energy consumption without compromising lighting performance. Ultra-efficient technologies such as light emitting diode (LED), ceramic metal halide (CMH) and compact fluorescent (CFL) luminaires dominate our product selection. This win-win approach substantially reduces energy costs for our customers and helps save our planet at the same time.

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JUNO®
Recessed and Trac Lighting

EcoLEDgy® Driven

EcoLEDgy® driven products

Our commitment to a sustainable environment begins with the manufacture of eco-friendly lighting products. From the design of the fixture, to the characteristics of the light source, to the materials and processes used in production, environmental stewardship is a primary concern.

Our rapidly expanding line of LED fixtures is the current benchmark in eco-friendly lighting. We say they are "EcoLEDgy Driven" because they use just a fraction – as little as 15% – of the energy consumed by conventional lighting and offer an amazing service life of 50,000 hours. Plus, unlike many traditional light sources, LEDs have no toxic mercury, lead, or PCBs; no UV or IR emissions; and are RoHS compliant.

Sustainable solutions

LEDs are only part of the sustainability story. CMH and CFL trac fixtures also offer substantial energy savings and operating cost reductions compared to conventional lighting. And there is an extensive range of these fixtures to choose from, covering virtually any trac lighting application.

Juno current limiting feeds and subpanels are another important part of the story. These innovative supplementary devices enable you to design for the exact power requirements of your trac system and avoid the watts-per-foot "penalties" imposed by many national and local energy codes. In combination with high-efficiency trac fixtures, our current limiting devices permit optimal lighting density and flexibility while conforming to stringent energy codes.

Advanced illumination technologies such as LED, CMH, CFL and current limiting devices have a common goal: To help you achieve your illumination objectives while participating in the global quest for energy sustainability. In the process, you can reduce your operating costs, meet today's stringent energy codes such as California Tile 24 and ASHRAE Standard 90.1 and pursue "green" initiatives such as the LEED Certification program.

Making a difference

At Juno Lighting Group, we are fully committed to making a difference in two principal ways: 1) by producing energy-efficient, eco-friendly lighting products; and 2) by following operating policies and practices intended to minimize the environmental impact of our facilities. It's our contribution to preserving the planet and creating a better environment for all its inhabitants.

Grocery

Successful grocery retailers excel at making their stores bright and welcoming, and their merchandise appetizing and appealing. Juno Trac systems help grocers make the right impression. From accent lighting for produce displays, to linear lighting for refrigeration cases, to decorative lighting at counters, and task lighting at checkout...Juno has the perfect solution for every trac application. With a variety of efficient light sources including LED, CMH and CFL, Juno Trac systems offer substantial energy and maintenance savings, while presenting food products in the best possible light.

Hospitality

From restaurants to reception areas to hotel rooms, Juno Trac lighting helps welcome, acquaint and comfort guests by producing just the right ambiance. Whether creating spaciousness or intimacy, illuminating a task, or highlighting art or architectural details, Juno Trac lighting creates an engaging environment, while providing a high degree of flexibility for fine-tuning the lighting design.

Retail

Selling…it's the name of the game in retail. And successful retailers know that a properly illuminated store not only drives sales, but also reduces operating costs, resulting in a healthier bottom line. Juno Trac systems offer exceptional retail lighting solutions that create image, attract attention and enhance merchandise appeal. Combining performance, efficiency and versatility, Juno Trac systems can readily adapt to changing store configurations and offer a wide range of light sources and fixture designs to show merchandise to its best advantage.

Corporate

Juno Trac systems play an important role in illuminating corporate, commercial and general office spaces. From reception areas to private offices and conference rooms, they are well suited to diverse applications including task lighting, accenting vertical surfaces and highlighting artwork. Juno Trac lighting is attractive and flexible and has a positive impact on employee comfort, productivity and motivation.

Residential

From family rooms and great rooms, to kitchens and home offices, Juno Trac systems provide flexible, affordable and stylish lighting alternatives. They excel at illuminating task surfaces, artwork or vertical elements and help create mood and atmosphere. Use the miniaturized Trac 12™ system in coves and cabinets… or the hand-bendable Flex 12™ monorail system with decorative pendants over tables and counters…or any of the Juno systems for accent lighting anywhere in the home. Wherever you look, there is a Juno Trac lighting solution to create a special residential experience.

Exhibit

Juno Trac lighting is the first choice of exhibit and display designers everywhere. The tremendous variety of systems, fixtures and options yields diverse lighting solutions, from art galleries, to kiosks, to trade show booths. Whatever the application, Juno Trac systems deliver unmatched versatility in lighting effects, mounting methods and aesthetics.

Juno. . .the industry leader in trac lighting systems.

A culture of excellence predicated on superior design, performance and service.

Design

Juno Trac systems are unsurpassed for innovation and style, earning industry design awards with regularity. It all starts with a commitment to engineering excellence, resulting in products that combine grace and beauty with supreme functionality. And contractors love them because installation is simple, economical and reliable. Clearly, Juno is the design leader in the world of trac lighting.

Performance

Juno Trac products perform at the highest level in terms of illumination effectiveness, energy efficiency and operational economy. With the industry's most extensive range of fixtures, light sources, mounting options, accessories and light control media, Juno products perform above-and-beyond expectations. Whatever the lighting challenge, Juno has a superlative solution.

Service

Juno Lighting Group has a long-held commitment to excellence in customer service. It begins with our nationwide network of sales representatives and distributors who are lighting industry experts. They are backed-up by an inside sales and service team dedicated to keeping the order, delivery, billing and communication process on track. Throughout the industry, we are renowned for pre- and post-sale service that is without equal.

Juno Trac Lighting Systems...

solving a multitude of lighting challenges with unprecedented flexibility, product options and performance.

PAGE 10

Trac-Master®

Juno's hardest-working trac system featuring the widest selection of fixtures, light sources, accessories and mounting options for accent, ambient, wall washing and spotlighting.

PAGE 164

Trac 12™

Miniaturized, low voltage trac system goes where no other trac can go. It can be ceiling mounted or suspended in cramped quarters or integrated into casework, coves, and displays for dramatic accent, spot or linear lighting effects.

PAGE 194

Flex 12™

Literally one of the most flexible trac systems available, this elegant monorail can be hand-bent into shapely curves that lend an artistic flavor to any environment. Flex 12 offers unlimited creative potential.

PAGE 214

Decorative Pendants

Stylish decorative pendants make a splash in any décor. Compatible with Juno line voltage and low voltage trac systems or monopoints and available with ultra-efficient, long-life LED or low cost halogen lamp options.

See website for details, www.junolightinggroup.com

PAGE 74
Multi-Lamp
The AVIO® and Uno/Duo™ present evocative multi-lamp fixture alternatives that bring a unique look and new possibilities to trac lighting.

PAGE 88
Wall Washing
A full selection of wall wash luminaires utilizing energy efficient fluorescent, ceramic metal halide and halogen sources.

PAGE 118
Classics Series
Patented Juno design classics includes Gimbal Rings, Universals, Mini-PARs, RLMs and Cylinders.

PAGE 94
Designer Halogen Series
Striking new fixture designs that make a bold contemporary statement.

PAGE 104
Designer Exclusives
The Gyrus™ and Trapezia™ are two of the newest style additions to the Juno Trac-Master® family.

Trac-Master®

Visualize a lighting effect…create it with Trac-Master. A comprehensive selection of fixtures, light sources, light control accessories and mounting options makes Trac-Master the perfect choice for flexible, efficient and attractive lighting solutions.

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CMH MH_2® and MH_V™
A collection of advanced, super-efficient ceramic metal halide luminaires with aiming/ rotation locks, 360° plus rotation and dual accessory capability.

PAGE 214

Decorative Pendants
LED and halogen luminaires in a broad spectrum of shapes, colors and finishes in both lustrous metals and luminescent glass to complement virtually any interior palette.

PAGE 12

Cylindra™ LED
The beauty of Cylindra… the power, performance and efficiency of LEDs.

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Low Voltage
The complete selection of Trac-Master precision low voltage fixtures is brought together in this section for easy reference.

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See website for details, www.junolightinggroup.com

LED

LED
Trac Lighting

Cylindra™ Series fixtures have always been aesthetic masterpieces, blending elegant, gentle arcs with bold edges for a unique, yet timeless appearance. Now, thanks to state-of-the-art LED technology, they also offer unsurpassed performance and operating efficiency. Available in 22 watt and 15 watt directional fixtures with spot, narrow flood and flood beam spreads, Cylindra LED fixtures produce brilliant white light while using less than one-third the energy of equivalent halogen. In addition there is also a 6 watt LED Mini-Cylinder trac fixture, offering energy efficiency in a miniature line voltage luminaire, as well as a 35W LED wall/wash fixture designed for perimeter lighting applications. All Trac-Master LED fixtures offer expected service life of 50,000 hours…up to 25-times longer than halogen. They have no UV or IR emissions and no toxic mercury, lead or PCBs, making them an environmentally responsible choice. Dramatic energy savings, reduced maintenance and eco-friendly… it's the win-win trac lighting solution.

See website for details, www.junolightinggroup.com

T253LED

T251LED

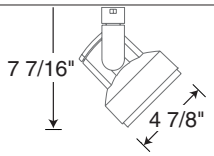
NEW Cylindra™ Series LED – 22 Watt

22 watt Cylindra LED fixtures produce nearly 1000 useable lumens, illumination approximating 75 watt PAR30 halogen…an energy savings of about 70%. The expected service life of 50,000 hours yields more than 10 years of maintenance-free operation in typical commercial applications. In lower-usage residential installations, they may never need replacement. Available in 2700K, 3000K and 4100K color temperatures with a typical 85 CRI, Cylindra LED fixtures incorporate all the outstanding features of the entire Cylindra Series such as durable die cast aluminum construction, 360° horizontal rotation, 105° vertical aiming, integral on/off switch, and a media cartridge with quick-release bayonet mounting.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

	CATALOG #	WATTAGE/LAMPS
10° Spot	T253LED-XX-SP	22W LED
23° Narrow Flood	T253LED-XX-NFL	22W LED
53° Wide Flood	T253LED-XX-FL	22W LED

DIMENSIONS



Color Temperatures: 27K=2700K, 3K=3000K, 4K=4100K

Energy Star® qualification applies to 2700K and 3000K color temperatures only.

ACCESSORIES FOR T253:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
Cube Cell Louver	T569BL

T5618 corrects 3000K color to approximately 2700K and 4100K color to approximately 3500K.

For complete catalog number, specify finish when ordering fixture - ordering example:
T253LED-**27K**-NFL-**WH** (replace **XX** in catalog # with color temperature code)

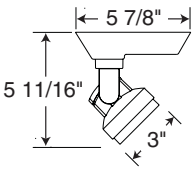
NEW Cylindra™ Series LED – 15 Watt

15 watt Cylindra LED fixtures produce as much as 625 useable lumens, illumination approximating 50 watt MR16 halogen…an energy savings of about 70%. The expected service life of 50,000 hours yields more than 10 years of maintenance-free operation in typical commercial applications. In lower-usage residential installations, they may never need replacement. Available in 2700K, 3000K and 4100K color temperatures with a typical 85 CRI, Cylindra LED fixtures incorporate all the outstanding features of the entire Cylindra Series such as durable die-cast aluminum construction, 360° horizontal rotation, 105° vertical aiming, integral on/off switch, and a media cartridge with quick-release bayonet mounting. T251LED fixtures are sold complete as shown and include an integral LED driver housed in contemporary, low-profile housing.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

	CATALOG #	WATTAGE/LAMPS
16° Spot	T251LED-XX-SP	15W LED
22° Narrow Flood	T251LED-XX-NFL	15W LED
38° Flood	T251LED-XX-FL	15W LED

DIMENSIONS



Color Temperatures: 27K=2700K, 3K=3000K, 4K=4100K

Energy Star® qualification applies to 2700K and 3000K color temperatures only.

ACCESSORIES FOR T251:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Color Correction Filter	T7418
Dichroic Filters	T7401-16
Hexcell Louver	T7459BL

T7418 corrects 3000K color to approximately 2700K and 4100K color to approximately 3500K.

For complete catalog number, specify finish when ordering fixture - ordering example:
T251LED-**27K**-NFL-**WH** (replace **XX** in catalog # with color temperature code)

Cylindra Series is also available in CMH, halogen line and low voltage.
See pages 24-31, 44-51 and 71.

TQJ114 WITH
T537QJU TRANSFORMER

T256LED

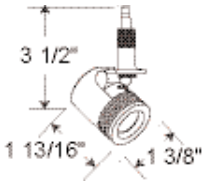
EcoLEDgy Driven

NEW Quick Jack LED Mini-Cylinder Spotlights – 6 Watt

The 6 watt Quick Jack LED Mini-Cylinder fixtures produce as much as 200 useable lumens, illumination approximating 20 watt MR11 halogen…an energy savings of about 70%. The expected service life of 50,000 hours yields more than 10 years of maintenance-free operation in typical commercial applications. In lower-usage residential installations, they may never need replacement. Available in 2700K, 3000K and 4100K color temperatures with a typical 85 CRI, LED Mini-Cylinder fixtures offer precision machined aluminum and die cast aluminum construction. To operate on Juno line voltage trac, TQJ114 fixtures require the T537QJU LED-compatible transformer (sold separately – see page 155). May also be used on LED-compatible Alfa Quick Jack systems and MonoPoints - consult factory for details.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
16° Spot	TQJ114-XX-SP	6W LED	
22° Narrow Flood	TQJ114-XX-NFL	6W LED	
38° Flood	TQJ114-XX-FL	6W LED	



Color Temperatures: 2K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example:
TQJ114-**2K**-NFL-**WH** (replace **XX** in catalog # with color temperature code)

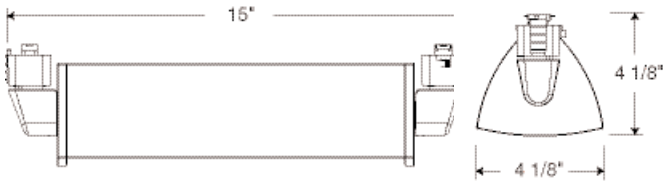
Mini-Cylinder Spotlight Series are also available for Trac 12™ and Flex 12™. See pages 172 and 196.

NEW Close-to-Trac LED Wall Wash/Flood

The 35W Close-to-Trac LED Wall Wash/Flood fixture produces up to 2000 lumens, illumination approximating a 39W CMH fixture. It delivers a powerful and uniform punch of light, utilizing less energy than a similar CMH fixture and offering up to 4 times the rated life. Its sleek, shallow profile enables it to virtually blend in with the trac. Its unique thermal management design yields a maintenance-free 50,000 hours service life at 70% lumen maintenance. Available in 2700K, 3000K, 3500K and 4100K color temperatures with a typical 80 CRI.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	WATTAGE/LAMPS	DIMENSIONS
T256LED-XX	35W LED	



Color Temperatures: 27K=2700K, 3K=3000K, 35K=3500K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example:
T256LED-**27K-WH** (replace **XX** in catalog # with color temperature code)

Cylindra™
Conix®
Concentric Cylinder
Pro-Gimbal
Universal
Wall Wash/ Floods
Pendants

Juno CMH Trac Lighting

Juno CMH Trac Lighting offers the industry's widest selection of ceramic metal halide fixtures and lamp choices. When it comes to meeting the challenges of today's commercial lighting environment, no one can match the performance, energy savings and cost efficiency of our CMH trac products. CMH fixtures for the Juno Trac-Master system feature state-of-the-art electronic ballasts, precision optical components and durable metal construction. It's all backed-up by our exceptional sales and service organization, dedicated to helping you determine the best combination of fixtures, features and lamp characteristics to solve your exact lighting requirements. It's no wonder that Juno is recognized as the clear category leader.

See website for details, www.junolightinggroup.com

Juno CMH Trac Systems

Features & Benefits

MH_V™ – Vertical Ballast Fixtures

Offering the narrowest fixture footprint, Juno MH_V Series trac fixtures can be mounted tightly together when faced with demanding light level requirements. They also facilitate mounting in tight spaces like recessed troughs and coves.

MH_2® – Modular Ballast Fixtures

With its linear ballast format, Juno MH_2 Series trac fixtures are closely mounted to the trac, minimizing intrusion into the visual space. The modular ballast offers simplified fixture maintenance and the maximum flexibility to adapt to changing lighting requirements.

Functional Versatility

An entire range of spotlights, wall washers and pendants are available to solve any application requirement. Accent objects, flood perimeter displays, highlight feature areas or provide adaptable general lighting with the wide selection of fixtures – the options are endless.

Elegant Styles

Often imitated but never duplicated, Juno's patented, innovative fixture designs feature dramatic but practical styling which complements any environment.

High Performance Electronic Ballasts

Juno uses only high quality, brand name electronic ballasts from reputable manufacturers. This insures that your fixtures will perform reliably and consistently over time.

Dual Media Capability

Both MH_V Series and MH_2 Series fixtures offer the ability to simultaneously use two light control accessories in most fixtures. All accessories can be easily installed or removed without the use of tools; however, they remain in place during relamping, simplifying fixture maintenance.

Mounting Options

Most Juno CMH Trac fixtures can be mounted on either Juno Trac or Monopoints. This mounting versatility makes it easier to specify and configure the right solution for any application.

Integral On/Off Switch

This feature enables individual fixtures to be serviced without extinguishing the power to the entire trac run. Plus, the power to the ballast can be cycled when changing lamps, again without having to cycle power for the entire installation.

Energy Efficiency of CMH Technology

Ceramic Metal Halide (CMH) lighting has become the preferred light source for commercial, retail and display lighting applications. With its outstanding efficacy, reduced maintenance and exceptional dimensional and color rendering capabilities, Juno CMH trac lighting is the energy efficient answer for today's trac lighting challenges.

Reduce Energy Consumption

The challenge to reduce energy use has never been greater. Whether due to the ever-increasing adoption and enforcement of national or local energy codes, or due to the need to reduce operating costs to improve corporate profitability, or due to the desire to be "green" and act as the best possible steward of the environment, Juno CMH trac lighting offers an outstanding solution to help meet any of these challenges.

Here's how. Typically, CMH fixtures are chosen to replace halogen fixtures on a one-for-one basis. As shown in the comparison below, equivalent light output is readily achievable with much lower wattage CMH lamps. This can yield up to 75% less energy use, which translates to lower operating costs, while also significantly reducing energy code calculations. In addition, CMH lamps offer 2-3 times greater life than their halogen counterparts. Replacing multiple halogen fixtures with a single Juno CMH fixture can yield even greater savings. Examples of typical replacements include:

Halogen Fixture Replaced	Juno CMH Fixture Replacement	Wattage Reduction	Relative Light Output	Energy Savings Over Life of Lamp	CMH Avg. Rated Life (hrs)
50W MR16 25°	20W MR16 CMH 25°	26W	100%	$37.44	12,000
50W MR16 25°	20W T4 GU6.5 CMH 25°	26W	108%	$37.44	12,000
75W PAR30 25°	20W T4 G8.5 CMH 24°	51W	126%	$73.44	12,000
75W PAR30 25°	20W T4 G8.5 CMH 27°	51W	107%	$73.88	12,000
75W PAR30 25°	39W PAR30 CMH 25°	30W	255%	$43.20	12,000
90W PAR38 25°	39W PAR30 CMH 25°	45W	183%	$64.80	12,000
100W PAR38 HIR 25°	70W PAR38 CMH 25°	25W	209%	$30.00	10,000
100W PAR38 HIR 25°	39W T6 G12 CMH 24°	55W	161%	$99.00	15,000

Reduce Overall Operating Costs

Reducing operating costs yields improved profitability. Juno CMH trac lighting facilitates reduced operating costs without sacrificing light levels.

CMH vs. Halogen: Accent Lighting Operating Cost Comparison

CMH 39W PAR30L CMH	VS.	Halogen 100W PAR38HIR
CMH39/PAR30L/FL25	Lamp Designation	100WPAR38/HIR/FL25
25 Degrees	Beam Spread	25 Degrees
45 Watts	Total Input Watts	100 Watts
12,000	Max. Center Beam Candlepower	7,000
12,000 Hours	Lamp Life	3,000 Hours
Center Footcandles	Mounting Distance (Beam Diameter)	Center Footcandles
306	6′ (2′-10″)	194
172	8′ (3′-7″)	109
110	10′ (4′-6″)	70
76	12′ (5′-5″)	49
56	14′ (6′-2″)	36
$23.65	Annual Energy Cost Per Lamp*	$52.56
$1.83	Annual Per Lamp Relamping Costs**	$7.30
$25.48	Annual Operating Labor Costs	$59.86
	Annual Per Lamp Operating Cost Savings CMH vs. Halogen $34.38	

*(Total input watts x 12 hours/day x 365 days/year x $.12 KWH) / 1000

**($5/lamp change x 4380 Hours of operation per year) / Lamp life

Additional equipment and operating cost savings will also be realized as a result of a reduced HVAC load.

Insuring Energy Code Compliance

Juno Lighting Group can help you meet the challenge of energy code compliance with either a Current Limiting Subpanel or Current Limiting Trac Feeds. The Subpanel design installs between the branch circuit breaker and the trac lighting equipment and provides the lowest installed-cost solution. The Current Limiting Trac Feeds are intended to be installed at every trac feed location in place of a standard non-limiting feed, making it perfect for either new construction or upgrading existing circuits in a remodel application. By incorporating either current limiting solution into company-wide trac lighting specifications, multi-facility organizations can be assured of lighting code compliance regardless of location. And no matter which system is best suited to a given application – Subpanel or Feed – Juno can provide either solution *(see pages 160-163 for more information).*

JUNO

See website for details, www.junolightinggroup.com

Trac-Master

MH_V™

Integral Ballast Ceramic Metal Halide

The MH_V Series smartly integrates the CMH electronic ballast into a sleek extruded aluminum vertical housing that efficiently dissipates heat. The narrow trac footprint allows tight lampholder spacing and is compatible with 120V monopoint canopies. These versatile fixtures are available in several attractive styles and accommodate practically all types of CMH lamps.

TM252

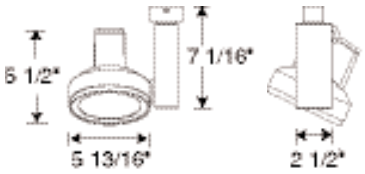
MH_V™ CMH T4 G8.5 Cylindra™ Series

The Cylindra T4 Series fixtures employ computer-contoured faceted custom reflectors to deliver outstanding optical performance. Reflectors can be easily removed and replaced without tools. Designed to accept T4/T4.5, G8.5 base lamps, T4 fixtures are available in wattages ranging from 20W to 70W to accommodate an extensive variety of lighting applications. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W T4/T4.5	CATALOG #	WATTAGE/LAMPS
13° Spot	TM252-20-XX-SP	20W CMH T4/T4.5, G8.5 Bi-Pin
24° Narrow Flood	TM252-20-XX-NFL	20W CMH T4/T4.5, G8.5 Bi-Pin
36° Flood	TM252-20-XX-FL	20W CMH T4/T4.5, G8.5 Bi-Pin
CMH 39W T4/T4.5		
13° Spot	TM252-39-XX-SP	39W CMH T4/T4.5, G8.5 Bi-Pin
24° Narrow Flood	TM252-39-XX-NFL	39W CMH T4/T4.5, G8.5 Bi-Pin
36° Flood	TM252-39-XX-FL	39W CMH T4/T4.5, G8.5 Bi-Pin
CMH 70W T4/T4.5		
13° Spot	TM252-70-XX-SP	70W CMH T4/T4.5, G8.5 Bi-Pin
24° Narrow Flood	TM252-70-XX-NFL	70W CMH T4/T4.5, G8.5 Bi-Pin
36° Flood	TM252-70-XX-FL	70W CMH T4/T4.5, G8.5 Bi-Pin

DIMENSIONS



ACCESSORIES FOR TM252:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example:
TM252-20-**WH**-SP (replace **XX** with finish in catalog #.)

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

TM251

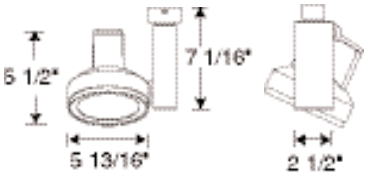
MH_V™ CMH T6 G12 Cylindra™ Series

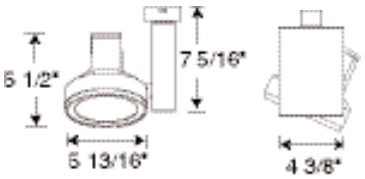
The Cylindra T6 Series fixtures employ computer-contoured faceted custom reflectors to deliver unmatched optical performance. Reflectors can be easily removed and replaced without tools. Designed to accept T6/T4.5, G12 base lamps, T6 fixtures are available in wattages ranging from 20W to 150W to accommodate an extensive variety of lighting applications. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W T6/T4.5	CATALOG #	WATTAGE/LAMPS
13° Spot	TM251-20-XX-SP	20W CMH T6/T4.5, G12 Bi-Pin
24° Narrow Flood	TM251-20-XX-NFL	20W CMH T6/T4.5, G12 Bi-Pin
36° Flood	TM251-20-XX-FL	20W CMH T6/T4.5, G12 Bi-Pin
CMH 39W T6/T4.5		
13° Spot	TM251-39-XX-SP	39W CMH T6/T4.5, G12 Bi-Pin
24° Narrow Flood	TM251-39-XX-NFL	39W CMH T6/T4.5, G12 Bi-Pin
36° Flood	TM251-39-XX-FL	39W CMH T6/T4.5, G12 Bi-Pin
CMH 70W T6		
13° Spot	TM251-70-XX-SP	70W CMH T6, G12 Bi-Pin
24° Narrow Flood	TM251-70-XX-NFL	70W CMH T6, G12 Bi-Pin
36° Flood	TM251-70-XX-FL	70W CMH T6, G12 Bi-Pin
NEW **CMH 100W T6**		
13° Spot	TM251-100-XX-SP	100W CMH T6, G12 Bi-Pin
24° Narrow Flood	TM251-100-XX-NFL	100W CMH T6, G12 Bi-Pin
36° Flood	TM251-100-XX-FL	100W CMH T6, G12 Bi-Pin
CMH 150W T6		
13° Spot	TM251-150-XX-SP	150W CMH T6, G12 Bi-Pin
24° Narrow Flood	TM251-150-XX-NFL	150W CMH T6, G12 Bi-Pin
36° Flood	TM251-150-XX-FL	150W CMH T6, G12 Bi-Pin

DIMENSIONS





ACCESSORIES FOR TM251:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example:
TM251-20-**WH**-SP (replace **XX** with finish in catalog #.)

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

See website for details, www.junolightinggroup.com

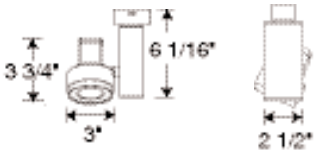
See pages 156-159 for complete accessory descriptions.

TM241-20

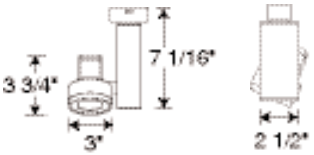
MH_V™ CMH MR16 GX10 Cylindra™ Series

The Cylindra MR16 fixture combines the energy efficiency of a CMH light source with the compact size of the MR16 lamp profile. The distinctive lamp design incorporates an integral cover glass lens and a convenient GX10 twist and lock base, making relamping effortless. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W MR16	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM241-20	**20W CMH MR16, GX10 Twist & Lock**	

NEW

CMH 39W MR16			
	TM241-39	**39W CMH MR16, GX10 Twist & Lock**	

ACCESSORIES FOR TM241:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Color Correction Filter	T7419
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM241-20-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

See website for details, www.junolightinggroup.com

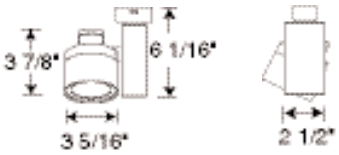
TM254-20

MH$_V$™ CMH T4 GU6.5 Cylindra™ Series

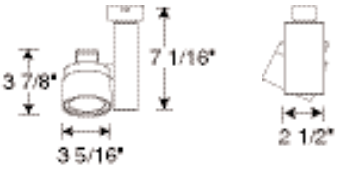
The Cylindra T4 fixture delivers small size thanks to its miniature T4 lamp and features unmatched optical performance with its computer-contoured faceted custom reflectors. The T4 lamp employs a convenient GU6.5 twist and lock base, making relamping quick and easy. The fixture front housing simply twists off to allow easy access to the lamp compartment. If desired, the factory-supplied clear lens can be replaced with one light control accessory.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W T4 GU6.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
13° Spot	TM254-20-XX-SP	20W CMH T4, GU6.5 Twist & Lock	
25° Narrow Flood	TM254-20-XX-NFL	20W CMH T4, GU6.5 Twist & Lock	
38° Flood	TM254-20-XX-FL	20W CMH T4, GU6.5 Twist & Lock	



NEW CMH 39W T4 GU6.5			
13° Spot	TM254-39-XX-SP	39W CMH T4, GU6.5 Twist & Lock	
25° Narrow Flood	TM254-39-XX-NFL	39W CMH T4, GU6.5 Twist & Lock	
38° Flood	TM254-39-XX-FL	39W CMH T4, GU6.5 Twist & Lock	



ACCESSORIES FOR TM254:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

All MH$_V$ fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example:
TM254-20-**WH**-SP (replace **XX** with finish in catalog #.)

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

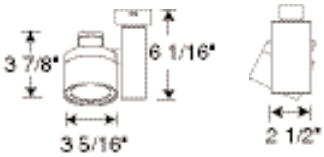
TM255-20

NEW MH_V™ CMH BT-5/T3.5 PGJ5 Cylindra™ Series

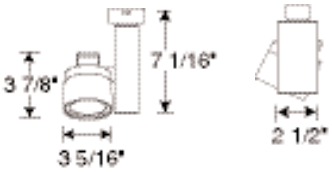
The Cylindra BT-5/T3.5 fixture delivers small size thanks to its miniature BT-5/T3.5 lamp and features unmatched optical performance with its computer-contoured faceted custom reflectors. The BT-5/T3.5 lamp employs a convenient PGJ5 twist and lock base, making relamping quick and easy. The fixture front housing simply twists off to allow easy access to the lamp compartment. If desired, the factory-supplied clear lens can be replaced with one light control accessory.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W BT-5/T3.5 PGJ5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
10° Spot	TM255-20-XX-SP	20W CMH BT-5/T3.5, PGJ5 Twist & Lock	
20° Narrow Flood	TM255-20-XX-NFL	20W CMH BT-5/T3.5, PGJ5 Twist & Lock	
28° Flood	TM255-20-XX-FL	20W CMH BT-5/T3.5, PGJ5 Twist & Lock	



CMH 39W BT-5/T3.5 PGJ5			
10° Spot	TM255-39-XX-SP	39W CMH BT-5/T3.5, PGJ5 Twist & Lock	
20° Narrow Flood	TM255-39-XX-NFL	39W CMH BT-5/T3.5, PGJ5 Twist & Lock	
28° Flood	TM255-39-XX-FL	39W CMH BT-5/T3.5, PGJ5 Twist & Lock	



ACCESSORIES FOR TM255:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example:
TM255-20-**WH**-SP (replace **XX** with finish in catalog #.)

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

See website for details, www.junolightinggroup.com

See pages 156-159 for complete accessory descriptions.

TM244

TM245

TM246

MH_V™ CMH PAR Cylindra™ Series

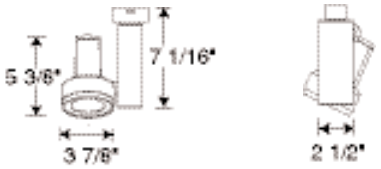
The Cylindra PAR Series offers fixtures compatible with PAR20, PAR30L and PAR38 lamps, and available wattages ranging from 20W to 150W to work in a wide variety of lighting applications. This series features deep lamp regression for reduced glare and optimum visual cut-off. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR20

CATALOG #	WATTAGE/LAMPS
TM244-20	20W CMH PAR20
TM244-39	39W CMH PAR20

DIMENSIONS

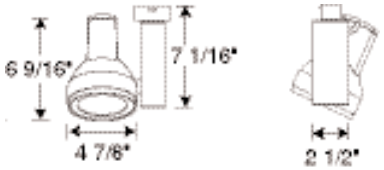


ACCESSORIES FOR TM244:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

CMH PAR30L

TM245-20	20W CMH PAR30L
TM245-39	39W CMH PAR30L
TM245-70	70W CMH PAR30L

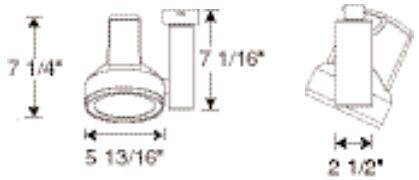


ACCESSORIES FOR TM245:

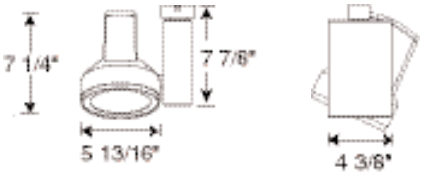
Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

CMH PAR38

TM246-70	70W CMH PAR38
TM246-100	100W CMH PAR38
TM246-150	150W CMH PAR38



(70W)



(100/150W)

ACCESSORIES FOR TM246:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM244-20-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

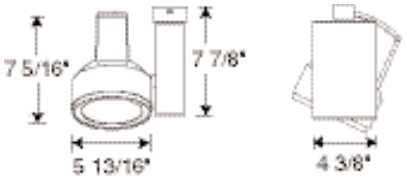
TM250

MH_V™ CMH ED17 Cylindra™ Series

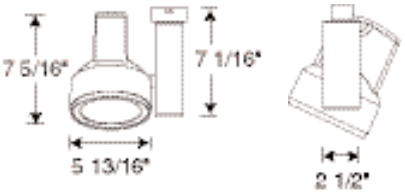
The Cylindra ED17 Series fixtures employ computer-contoured faceted custom reflectors to deliver exceptional optical performance, and each fixture comes complete with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories. ED17 fixtures are often specified with ED17 downlights, allowing lamp standardization within a space to simplify relamping maintenance. The Cylindra ED17 Series is designed to accept commonly available ED17 lamps in wattages that range from 50W to 150W, providing the versatility required to function in a wide variety of lighting applications.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

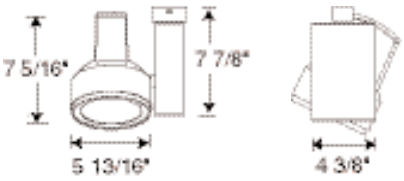
CMH 50W ED17	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
10° Spot	TM250-50-XX-SP	50W CMH ED17	
26° Narrow Flood	TM250-50-XX-NFL	50W CMH ED17	
55° Flood	TM250-50-XX-FL	50W CMH ED17	



CMH 70W ED17			
10° Spot	TM250-70-XX-SP	70W CMH ED17	
26° Narrow Flood	TM250-70-XX-NFL	70W CMH ED17	
55° Flood	TM250-70-XX-FL	70W CMH ED17	



CMH 100W ED17			
10° Spot	TM250-100-XX-SP	100W CMH ED17	
26° Narrow Flood	TM250-100-XX-NFL	100W CMH ED17	
55° Flood	TM250-100-XX-FL	100W CMH ED17	



CMH 150W ED17		
10° Spot	TM250-150-XX-SP	150W CMH ED17
26° Narrow Flood	TM250-150-XX-NFL	150W CMH ED17
55° Flood	TM250-150-XX-FL	150W CMH ED17

ACCESSORIES FOR TM250:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example:
TM250-50-**WH**-SP (replace **XX** with finish in catalog #.)

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

See website for details, www.junolightinggroup.com

See pages 156-159 for complete accessory descriptions.

TM218

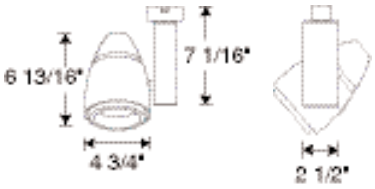
MH_V™ CMH T4 G8.5 Conix® Series

The MH_V Conix T4 integrates the latest generation of miniature single-ended T4 CMH lamps into precision computer-contoured faceted reflectors for efficient, smooth spot, narrow flood and flood beam patterns. An integral snap-in anti-glare shield/ accessory holder accepts one light control accessory.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W T4/T4.5	CATALOG #	WATTAGE/LAMPS
10° Spot	TM216-20EMH	20W CMH T4/T4.5, G8.5 Bi-Pin
27° Narrow Flood	TM218-20EMH	20W CMH T4/T4.5, G8.5 Bi-Pin
40° Flood	TM217-20EMH	20W CMH T4/T4.5, G8.5 Bi-Pin
CMH 39W T4/T4.5		
10° Spot	TM216-39EMH	39W CMH T4/T4.5, G8.5 Bi-Pin
27° Narrow Flood	TM218-39EMH	39W CMH T4/T4.5, G8.5 Bi-Pin
40° Flood	TM217-39EMH	39W CMH T4/T4.5, G8.5 Bi-Pin
CMH 70W T4/T4.5		
10° Spot	TM216-70EMH	70W CMH T4/T4.5, G8.5 Bi-Pin
27° Narrow Flood	TM218-70EMH	70W CMH T4/T4.5, G8.5 Bi-Pin
40° Flood	TM217-70EMH	70W CMH T4/T4.5, G8.5 Bi-Pin

DIMENSIONS



ACCESSORIES FOR TM216, TM217, TM218:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM216-20EMH-**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

TM213

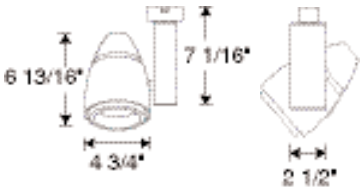
MH_V™ CMH T6 G12 Conix® Series

The MH_V Conix T6 integrates the latest generation of single-ended T6 CMH lamps into precision computer-contoured faceted reflectors for efficient, smooth spot, narrow flood and flood beam patterns. T6 lamps offer user friendly plug-in relamping and the ability to standardize on a common lamp type when CMH T6 downlights are used in the same space. An integral snap-in anti-glare shield/accessory holder accepts one light control accessory.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 39W T6/T4.5	CATALOG #	WATTAGE/LAMPS
8° Spot	TM213-39EMH	39W T6/T4.5 G12 Bi-Pin
25° Narrow Flood	TM215-39EMH	39W T6/T4.5 G12 Bi-Pin
42° Flood	TM214-39EMH	39W T6/T4.5 G12 Bi-Pin
CMH 70W T6		
8° Spot	TM213-70EMH	70W T6 G12 Bi-Pin
25° Narrow Flood	TM215-70EMH	70W T6 G12 Bi-Pin
42° Flood	TM214-70EMH	70W T6 G12 Bi-Pin

DIMENSIONS



ACCESSORIES FOR TM213, TM214, TM215:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM213-39EMH-**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

See website for details, www.junolightinggroup.com

TM207

TM208

TM209

MH$_V$™ CMH PAR Conix® Series

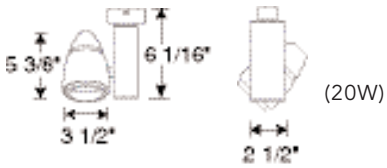
The sculpted MH$_V$ Conix PAR series can be specified for use with a versatile array of CMH PAR lamps. This series features deep lamp regression for reduced glare and optimum visual cut-off. An integral snap-in anti-glare shield/accessory holder accepts up to two light control accessories.

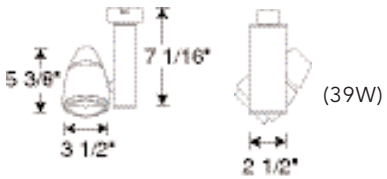
FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR20

CATALOG #	WATTAGE/LAMPS
TM207-20EMH	20W CMH PAR20
TM207-39EMH	39W CMH PAR20

DIMENSIONS



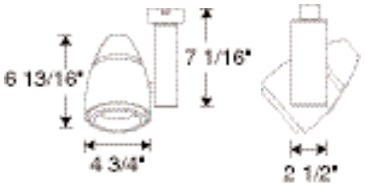


ACCESSORIES FOR TM207:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

CMH PAR30L

CATALOG #	WATTAGE/LAMPS
TM208-20EMH	20W CMH PAR30L
TM208-39EMH	39W CMH PAR30L
TM208-70EMH	70W CMH PAR30L

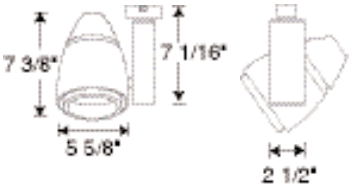


ACCESSORIES FOR TM208:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

CMH PAR38

CATALOG #	WATTAGE/LAMPS
TM209-70EMH	70W CMH PAR38



ACCESSORIES FOR TM209:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

All MH$_V$ fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM207-20EMH-**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

TM211

TM202

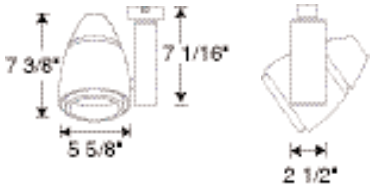
MH$_V$™ CMH ED17 Conix® Series

The sculpted MH$_V$ Conix ED17 employs built-in computer-contoured faceted custom reflectors for use with economical ED17 lamps. This series features deep lamp regression for reduced glare and optimum visual cut-off. An integral snap-in anti-glare shield/accessory holder accepts up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH ED17	CATALOG #	WATTAGE/LAMPS
7° Spot	TM210-70EMH	70W CMH ED17
23° Narrow Flood	TM212-70EMH	70W CMH ED17
50° Flood	TM211-70EMH	70W CMH ED17

DIMENSIONS



ACCESSORIES FOR TM210, TM211, TM212:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

NEW

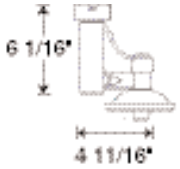
MH$_V$™ R-111 GX8.5 Swivel

The MH$_V$ R-111 Swivel is a simple, compact luminaire. Mounting the lamp at the side of the ballast housing enables the ballast to run cooler and creates a very small fixture footprint. The swivel arm with its captive lamp retention spring simplifies lamping and helps maintain the uncomplicated aesthetic. The R-111 lamp employs a convenient GX8.5 twist and lock base, adding to the simplicity of lamp installation. The collimated beam of light from the CMH R-111 lamp offers unmatched performance in pinpoint spotlighting, accent lighting and long-throw lighting applications.

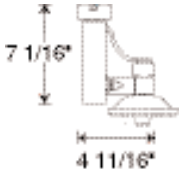
FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH R-111 GX8.5	CATALOG #	WATTAGE/LAMPS
	TM202-20EMH	20W CMH R-111, GX8.5
	TM202-39EMH	39W CMH R-111, GX8.5
	TM202-70EMH	70W CMH R-111, GX8.5

DIMENSIONS



(20W)



(39W/70W)

All MH$_V$ fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM210-70EMH-**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

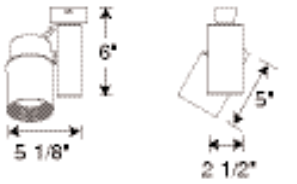
TM232

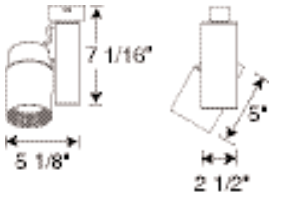
NEW MH$_V$™ CMH T4 G8.5 Concentric Cylinder Series

The ultra-compact MH$_V$ Concentric Cylinder T4 combines a simple aesthetic with premium performance. Available in spot, narrow flood and flood beam distributions, its computer-contoured faceted reflector is securely mounted to the lamp shroud for precise optical alignment with the lamp. The lamp shroud has a 1" deep integral step baffle for optimal shielding and brightness control. The detachable lamp shroud is easily removed for simplified fixture maintenance. The clear lens provided can be replaced with a variety of light control accessories for optimum beam control. Fixture rotation in two axes enables the fixture to be aimed in any direction.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W T4/T4.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
10° Spot	TM232-20-SP	20W CMH T4/T4.5, G8.5 Bi-Pin	
23° Narrow Flood	TM232-20-NFL	20W CMH T4/T4.5, G8.5 Bi-Pin	
32° Flood	TM232-20-FL	20W CMH T4/T4.5, G8.5 Bi-Pin	
CMH 39W T4/T4.5			
10° Spot	TM232-39-SP	39W CMH T4/T4.5, G8.5 Bi-Pin	
23° Narrow Flood	TM232-39-NFL	39W CMH T4/T4.5, G8.5 Bi-Pin	
32° Flood	TM232-39-FL	39W CMH T4/T4.5, G8.5 Bi-Pin	
CMH 70W T4/T4.5			
10° Spot	TM232-70-SP	70W CMH T4/T4.5, G8.5 Bi-Pin	
23° Narrow Flood	TM232-70-NFL	70W CMH T4/T4.5, G8.5 Bi-Pin	
32° Flood	TM232-70-FL	70W CMH T4/T4.5, G8.5 Bi-Pin	





ACCESSORIES FOR TM232:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922

All MH$_V$ fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM232-20-SP-**BL**

TM233

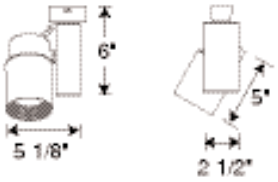
NEW MH_V™ CMH BT-5/T3.5 PGJ5 Concentric Cylinder Series

The ultra-compact MH_V Concentric Cylinder BT-5/T3.5 combines a simple aesthetic with premium performance. Available in spot, narrow flood beam distributions, its computer-contoured faceted reflector is securely mounted to the lamp shroud for precise optical alignment with the lamp. The lamp shroud has a 1" deep integral step baffle for optimal shielding and brightness control. The detachable lamp shroud is easily removed for simplified fixture maintenance. The clear lens provided can be replaced with a variety of light control accessories for optimum beam control. Fixture rotation in two axes enables the fixture to be aimed in any direction.

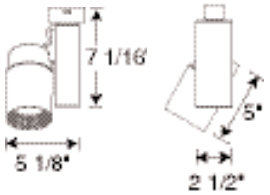
FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH 20W BT-5/T3.5 PGJ5	CATALOG #	WATTAGE/LAMPS
10° Spot	TM233-20-SP	20W CMH BT-5/T3.5, PGJ5 Twist & Loc
20° Narrow Flood	TM233-20-NFL	20W CMH BT-5/T3.5, PGJ5 Twist & Loc
28° Flood	TM233-20-FL	20W CMH BT-5/T3.5, PGJ5 Twist & Loc

DIMENSIONS



CMH 39W BT-5/T3.5 PGJ5		
10° Spot	TM233-39-SP	39W CMH BT-5/T3.5, PGJ5 Twist & Lock
20° Narrow Flood	TM233-39-NFL	39W CMH BT-5/T3.5, PGJ5 Twist & Lock
28° Flood	TM233-39-FL	39W CMH BT-5/T3.5, PGJ5 Twist & Lock



ACCESSORIES FOR **TM233:**

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM233-20-SP-**BL**

TM203

TM204

MH$_V$™ CMH PAR Pro-Gimbal Series

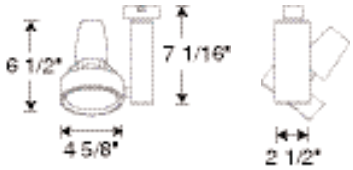
This versatile design uses PAR lamps, relamps from the front and features deep lamp shielding with a baffled aperture. The Pro-Gimbal can be easily accessorized with up to two light control accessories using an optional accessory holder.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR30L

CATALOG #	WATTAGE/LAMPS
TM203-20EMH	20W CMH PAR30L
TM203-39EMH	39W CMH PAR30L
TM203-70EMH	70W CMH PAR30L

DIMENSIONS

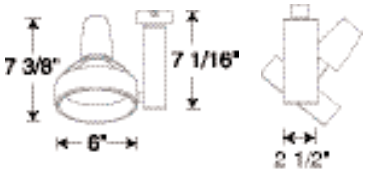


ACCESSORIES FOR TM203:

Dual Accessory Holder (Required)	TM530BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5619
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Eyebrow*	T577BL

CMH PAR38

CATALOG #	WATTAGE/LAMPS
TM204-70EMH	70W CMH PAR38



ACCESSORIES FOR TM204:

Dual Accessory Holder (Required)	TM538BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5719
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Eyebrow*	T587BL

*Filters, lenses, eyebrows and louvers require dual accessory holder for installation.

All MH$_V$ fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM203-20EMH-**BL**

Pro-Gimbal Series is also available in halogen line voltage. See page 73.

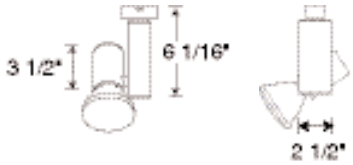
TM201

MH_V™ CMH PAR Universal Series

This very compact, low-profile lampholder accommodates PAR20, PAR30L or PAR38 CMH lamps.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM201-20EMH	**20W CMH PAR20/PAR30L**	
	TM201-39EMH	**39W CMH PAR20/PAR30L**	
	TM201-70EMH	**70W CMH PAR30L/PAR38**	



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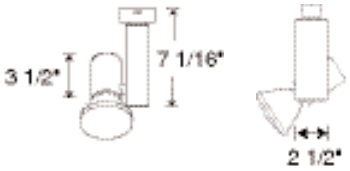


(39W/70W)

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM201-20EMH-**BL**

Universal Series is also available in halogen line voltage. See page 73.

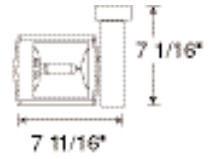
TM257

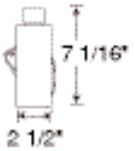
MH_V™ CMH T4 G8.5 Mini Wall Wash/Flood

The MH_V Series Mini Wall Wash/Flood fixture delivers outstanding photometric performance in a compact fixture footprint. Small T4 lamps enable a reduced housing size and excellent beam control. Its patterned specular reflector delivers a smooth, consistent beam pattern with excellent color mixing. The MH_V Series Rectangular Wall Wash/Flood fixture relamps from the front without the use of tools. Its die cast aluminum lensholder slides to expose the lamp compartment making lamp replacement a breeze.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4/T4.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM257-20	**20W CMH T4/T4.5, G8.5 Bi-Pin**	
	TM257-39	**39W CMH T4/T4.5, G8.5 Bi-Pin**	
	TM257-70	**70W CMH T4/T4.5, G8.5 Bi-Pin**	





All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM257-20-**BL**

TM256

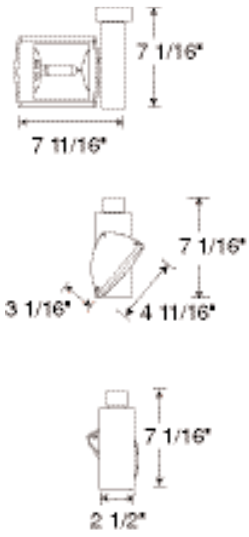
MH_V™ CMH T6 G12 Mini Wall Wash/Flood

The MH_V Series Mini Wall Wash/Flood fixture delivers outstanding photometric performance in a compact fixture footprint. Small T6 lamps enable a reduced housing size and excellent beam control. Its patterned specular reflector delivers a smooth, consistent beam pattern with excellent color mixing. The MH_V Series Rectangular Wall Wash/Flood fixture relamps from the front without the use of tools. Its die cast aluminum lensholder slides to expose the lamp compartment making lamp replacement a breeze.

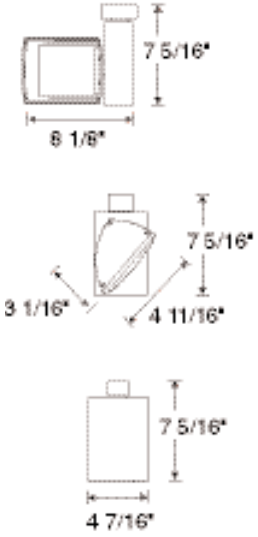
FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T6/T4.5	CATALOG #	WATTAGE/LAMPS
	TM256-20	20W CMH T6/T4.5, G12 Bi-Pin
	TM256-39	39W CMH T6/T4.5, G12 Bi-Pin
	TM256-70	70W CMH T6, G12 Bi-Pin
NEW	TM256-100	100W CMH T6, G12 Bi-Pin
	TM256-150	150W CMH T6, G12 Bi-Pin

DIMENSIONS



(20W/39W/70W)



(100W/150W)

All MH_V fixtures may be used with T43 Monopoint Canopy.

For complete catalog number, specify finish when ordering fixture - ordering example: TM256-20-**BL**

LAMBORGHINI
GOLD COAST

MH_2®

Modular Ballast Ceramic Metal Halide

The MH_2 plug-n-play system combines a low-profile electronic ballast with a modular series of spots, wall wash/floods and pendant luminaires. MH_2 provides off-the-shelf availability, maximum flexibility to adapt to new or changing lighting requirements and – thanks to its unique modular format – supreme serviceability.

TM152 with TM539
Modular Ballast

NEW MH_2® CMH T4 G8.5 Cylindra™ Series

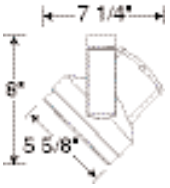
The MH_2 Cylindra T4, G8.5 Series fixtures employ computer-contoured faceted custom reflectors to deliver outstanding optical performance – choose from spot, narrow flood or flood beam patterns in wattages ranging from 20W-70W. Reflectors can be easily removed and replaced without tools. Designed to accept T4/T4.5, G8.5 base lamps. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4/T4.5	CATALOG #	WATTAGE/LAMPS
13° Spot	TM152-SP	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin
24° Narrow Flood	TM152-NFL	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin
36° Flood	TM152-FL	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin

TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

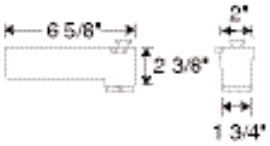
DIMENSIONS



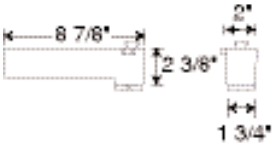
MH_2 Ballasts and Monopoints

TM520, TM539 and TM570N are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



See page 69 for monopoint mounting option

ACCESSORIES FOR TM152:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

For complete catalog number, specify finish when ordering fixture - ordering example: TM152-SP-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

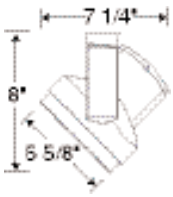
TM151 with TM539
Modular Ballast

NEW MH_2® CMH T6 G12 Cylindra™ Series

The MH_2 Cylindra T6, G12 Series fixtures employ computer-contoured faceted custom reflectors to deliver unmatched optical performance – choose from spot, narrow flood or flood beam patterns in wattages ranging from 20W-70W. Reflectors can be easily removed and replaced without tools. Designed to accept T6/T4.5, G12 base lamps. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T6/T4.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
13° Spot	TM151-SP	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5 G12 Bi-Pin	
24° Narrow Flood	TM151-NFL	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5 G12 Bi-Pin	
36° Flood	TM151-FL	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5 G12 Bi-Pin	

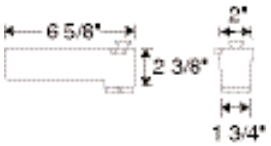


TM520, TM539, TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

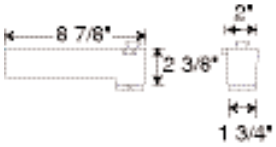
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST

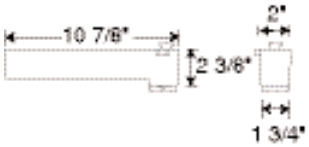


See page 69 for monopoint mounting option

ACCESSORIES FOR TM151:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

TM5100 100W BALLAST



*Use with 150W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM151-SP-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

TM141 with TM539
Modular Ballast

NEW

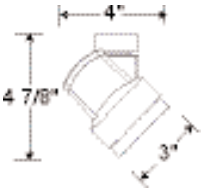
MH_2® CMH MR16 GX10 Cylindra™ Series

The MH_2 Cylindra MR16 fixture combines the energy efficiency of a CMH light source with the compact size of the MR16 lamp profile. The distinctive lamp design incorporates an integral cover glass lens and a convenient GX10 twist and lock base, making relamping effortless. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH MR16	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM141	**20W or 39W CMH MR16, GX10 Twist & Lock**	

TM520 or TM539 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



ACCESSORIES FOR TM141:

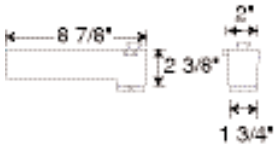
Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Color Correction Filter	T7419
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

MH_2 Ballasts and Monopoints

TM520 and TM539 are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST

TM539 39W BALLAST



See page 69 for monopoint mounting option

For complete catalog number, specify finish when ordering fixture - ordering example: TM141-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

TM154 with TM520
Modular Ballast

NEW

MH_2® CMH T4 GU6.5 Cylindra™ Series

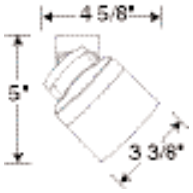
The MH_2 Cylindra T4, GU6.5 fixture delivers one of the smallest footprints in CMH Trac fixtures thanks to its miniature T4 lamp and features unmatched optical performance with its computer-contoured faceted custom reflectors. The T4 lamp employs a convenient GU6.5 twist and lock base, making relamping quick and easy. The fixture front housing simply twists off to allow easy access to the lamp compartment. If desired, the factory-supplied clear lens can be replaced with one light control accessory.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4 GU6.5	CATALOG #	WATTAGE/LAMPS
13° Spot	TM154-SP	20W or 39W CMH T4, GU6.5 Twist & Lock
25° Narrow Flood	TM154-NFL	20W or 39W CMH T4, GU6.5 Twist & Lock
38° Flood	TM154-FL	20W or 39W CMH T4, GU6.5 Twist & Lock

TM520 or TM539 MH_2 Ballast or MH_2 Monopoint required. Must order separately.

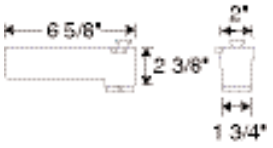
DIMENSIONS



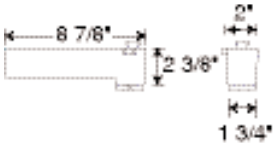
MH_2 Ballasts and Monopoints

TM520 and TM539 are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST



See page 69 for monopoint mounting option

ACCESSORIES FOR TM154:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

For complete catalog number, specify finish when ordering fixture - ordering example: TM154-SP-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

TM155 with TM540
Modular Ballast

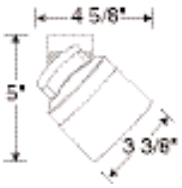
NEW MH_2® CMH BT-5/T3.5 PGJ5 Cylindra™ Series

The MH_2 Cylindra BT-5/T3.5 fixture delivers one of the smallest footprints in CMH Trac fixtures thanks to its miniature BT-5/T3.5 lamp and features unmatched optical performance with its computer-contoured faceted custom reflectors. The BT-5/T3.5 lamp employs a convenient PGJ5 twist and lock base, making relamping quick and easy. The fixture front housing simply twists off to allow easy access to the lamp compartment. If desired, the factory-supplied clear lens can be replaced with one light control accessory.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH BT-5/T3.5 PGJ5	CATALOG #	WATTAGE/LAMPS
10° Spot	TM155-SP	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lock
20° Narrow Flood	TM155-NFL	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lock
28° Flood	TM155-FL	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lock

DIMENSIONS



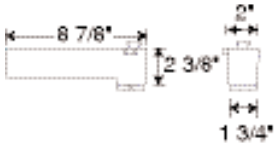
TM522 or TM540 MH_2 Ballast required. Must order separately.

MH_2 Ballasts

TM522 and TM540 are available in white, black or silver finishes. See page 68 for a full description.

TM522 20W BALLAST

TM540 39W BALLAST



ACCESSORIES FOR TM155:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

For complete catalog number, specify finish when ordering fixture - ordering example: TM155-SP-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

TM144 with TM539
Modular Ballast

TM145 with TM539
Modular Ballast

TM146 with TM570N
Modular Ballast

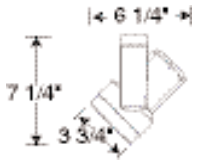
NEW MH_2® CMH PAR Cylindra™ Series

The MH_2 Cylindra PAR Series offers fixtures compatible with PAR20, PAR30L and PAR38 lamps, and available wattages ranging from 20W to 70W to work in a wide variety of lighting applications. This series features deep lamp regression for reduced glare and optimum visual cut-off. Each fixture comes complete with an integral bayonet-mount accessory holder that is designed to accept up to two light control accessories.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR20

CATALOG #	WATTAGE/LAMPS
TM144	20W or 39W CMH PAR20



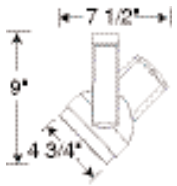
ACCESSORIES FOR TM144:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

TM520 or TM539 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

CMH PAR30L

CATALOG #	WATTAGE/LAMPS
TM145	20W, 39W or 70W CMH PAR30L



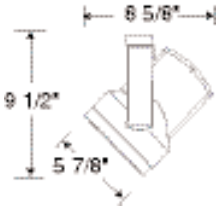
ACCESSORIES FOR TM145:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

TM520, TM539 or TM570N MH_2 Ballast or MH_2 Series Monopoint required. Must be ordered separately.

CMH PAR38

CATALOG #	WATTAGE/LAMPS
TM146	70W or 100W CMH PAR38



ACCESSORIES FOR TM146:

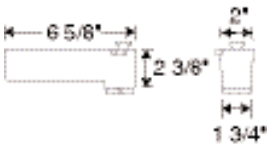
Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

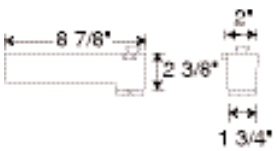
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

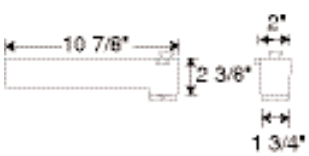
TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



TM5100 100W BALLAST



For complete catalog number, specify finish when ordering fixture - ordering example: TM144**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

See page 69 for monopoint mounting option

TM150 with TM570N
Modular Ballast

NEW MH_2® CMH ED17 Cylindra™ Series

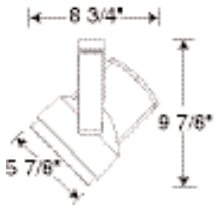
The MH_2 Cylindra ED17 Series fixtures employ computer-contoured faceted custom reflectors to deliver exceptional optical performance, and each fixture comes complete with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories. ED17 fixtures are often specified with ED17 downlights, allowing lamp standardization within a space to simplify relamping maintenance. The MH_2 Cylindra ED17 Series is designed to accept commonly available ED17 lamps in either 50W, 70W or 100W.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH ED17	CATALOG #	WATTAGE/LAMPS
10° Spot	TM150-SP	50W*, 70W or 100W CMH ED17
26° Narrow Flood	TM150-NFL	50W*, 70W or 100W CMH ED17
55° Flood	TM150-FL	50W*, 70W or 100W CMH ED17

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

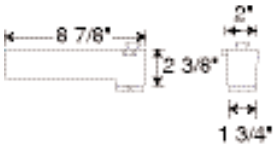
DIMENSIONS



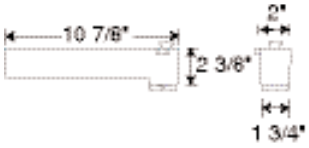
MH_2 Ballasts and Monopoints

TM570N and TM5100 is available in white, black or silver finishes. See page 68 for a full description.

TM570N 70W BALLAST



TM5100 100W BALLAST



See page 69 for monopoint mounting option

ACCESSORIES FOR TM150:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

*Use with 50W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM150-SP-**BL**

Cylindra Series is also available in LED or halogen line and low voltage. See pages 12 and 71.

TM117 with TM539
Modular Ballast

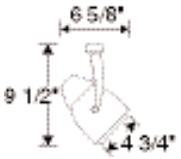
MH_2® CMH T4 G8.5 Conix® Series

The MH_2 Conix T4 integrates the latest generation of miniature single-ended T4 CMH lamps into precision computer-contoured faceted reflectors for efficient, smooth spot, narrow flood and flood beam patterns. Because of the smaller lamp diameter and resulting increased reflector surface area, it is able to produce somewhat higher center beam footcandles as compared to a similar T6 lampholder. An integral snap-in anti-glare shield/accessory holder accepts one light control accessory. MH_2 Conix fixtures feature 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4/T4.5	CATALOG #	WATTAGE/LAMPS
10° Spot	TM116	20W, 39W or 70W CMH T4/4.5, G8.5 Bi-Pin
27° Narrow Flood	TM118	20W, 39W or 70W CMH T4/4.5, G8.5 Bi-Pin
40° Flood	TM117	20W, 39W or 70W CMH T4/4.5, G8.5 Bi-Pin

DIMENSIONS

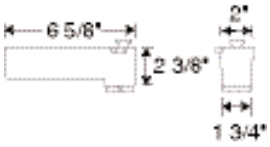


TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

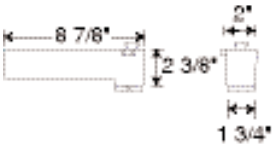
MH_2 Ballasts and Monopoints

TM520, TM539 and TM570N are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



See page 69 for monopoint mounting option

ACCESSORIES FOR TM116, TM117, TM118:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

For complete catalog number, specify finish when ordering fixture - ordering example: TM116**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

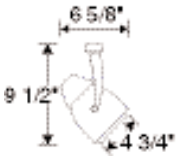
TM113 with TM539
Modular Ballast

MH_2® CMH T6 G12 Conix® Series

The MH_2 Conix T6 integrates the latest generation of single-ended T6 CMH lamps into precision computer-contoured faceted reflectors for efficient, smooth spot, narrow flood and flood beam patterns. T6 lamps offer user friendly plug-in relamping and the ability to standardize on a common lamp type when CMH T6 downlights are used in the same space. An integral snap-in anti-glare shield/accessory holder accepts one light control accessory. MH_2 Conix fixtures feature 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T6/T4.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
8° Spot	TM113	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5 G12 Bi-Pin	
25° Narrow Flood	TM115	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5 G12 Bi-Pin	
42° Flood	TM114	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5 G12 Bi-Pin	



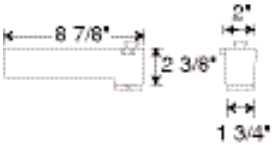
TM520, TM539, TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

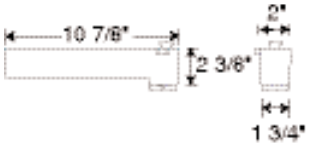
TM520 20W BALLAST

TM539 39W BALLAST
TM570N 70W BALLAST



See page 69 for monopoint mounting option

TM5100 100W BALLAST



ACCESSORIES FOR TM113, TM114, TM115:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

*Use with 150W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM113**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

TM107 with TM539
Modular Ballast

TM108 with TM539
Modular Ballast

TM109 with TM570N
Modular Ballast

MH_2® CMH PAR Conix® Series

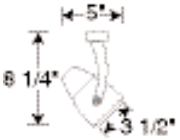
The sculpted MH_2 Conix PAR series can be specified for use with a versatile array of CMH PAR lamps. This series features deep lamp regression for reduced glare and optimum visual cut-off. An integral snap-in anti-glare shield/accessory holder accepts up to two light control accessories. Conix fixtures feature 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR20

CATALOG #	WATTAGE/LAMPS	DIMENSIONS
TM107	20W or 39W CMH PAR20	

TM520 or TM539 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



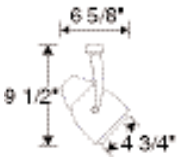
ACCESSORIES FOR TM107:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922
Hexcell Louver	T5928BL

CMH PAR30L

TM108	20W, 39W or 70W CMH PAR30L

TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



ACCESSORIES FOR TM108:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5619
UV Filter	T5622
Cube Cell Louver	T569BL

CMH PAR38

TM109	70W, 100W or 150W* CMH PAR38

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

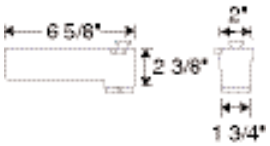
ACCESSORIES FOR TM109:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

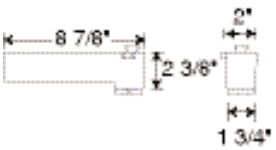
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

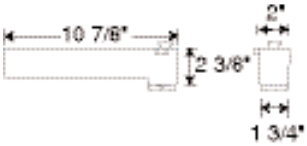
TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



TM5100 100W BALLAST



*Use with 150W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM107**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

See page 69 for monopoint mounting option

TM112 with TM570N
Modular Ballast

TM102 with TM520
Modular Ballast

MH_2® CMH ED17 Conix® Series

The sculpted MH_2 Conix ED17 series are available in three different reflector options for use with economical ED17 lamps. This series features deep lamp regression for reduced glare and optimum visual cut-off. An integral snap-in anti-glare shield/accessory holder accepts up to two light control accessories. Conix fixtures feature 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH ED17	CATALOG #	WATTAGE/LAMPS
7° Spot	TM110	50W*, 70W, 100W or 150W* CMH ED17
23° Narrow Flood	TM112	50W*, 70W, 100W or 150W* CMH ED17
50° Flood	TM111	50W*, 70W, 100W or 150W* CMH ED17

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

DIMENSIONS

ACCESSORIES FOR TM110, TM111, TM112:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5719
UV Filter	T5722
Cube Cell Louver	T579BL

MH_2® CMH R-111 GX8.5 Swivel

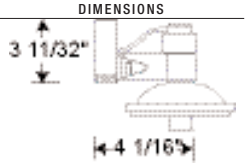
The MH_2 R-111 Swivel is a simple, compact luminaire. This very compact, low profile lampholder mounts from an extruded aluminum monolith which attaches directly under the horizontal ballast to provide a minimal fixture footprint. The swivel arm with its captive lamp retention spring simplifies lamping and helps maintain the uncomplicated aesthetic. The R-111 lamp employs a convenient GX8.5 twist and lock base, adding to the simplicity of lamp installation. The collimated beam of light from the CMH R-111 lamp offers unmatched performance in pinpoint spotlighting, accent lighting and long-throw lighting applications.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH R-111	CATALOG #	WATTAGE/LAMPS
	TM102	20W, 39W or 70W CMH R-111, GX8.5

TM520, TM539 or TM570N HID Ballast or MH_2 Monopoint required. Must be ordered separately.

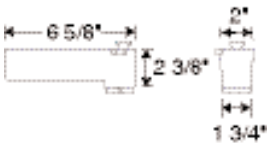
DIMENSIONS



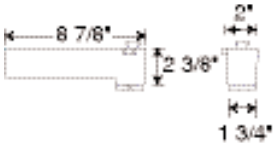
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

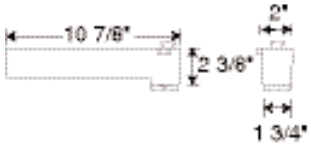
TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



TM5100 100W BALLAST



*Use with 50W, 100W or 150W monopoint based on lamp selected, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM110**BL**

Conix Series is also available in halogen line and low voltage. See page 72.

See page 69 for monopoint mounting option

See website for details, www.junolightinggroup.com

TM132 with TM520
Modular Ballast

TMP132 with TM520
Modular Ballast

MH_2® CMH T4 G8.5 Concentric Cylinder Series

The ultra-compact MH_2 Concentric Cylinder T4 combines a simple aesthetic with premium performance. Available in spot, narrow flood and flood beam distributions, its computer-contoured faceted reflector is securely mounted to the lamp shroud for precise optical alignment with the lamp. The lamp shroud has a 1" deep integral step baffle for optimal shielding and brightness control. The detachable lamp shroud is easily removed for simplified fixture maintenance. The clear lens provided can be replaced with a variety of light control accessories for optimum beam control. Fixture rotation in two axes enables the fixture to be aimed in any direction. A pendant mount version is also available; this fixture is mounted on an 18" chrome plated steel pendant stem providing up to 18" vertical displacement from the ballast, full 360° fixture rotation and direct compatibility with TMM Series Monopoints.

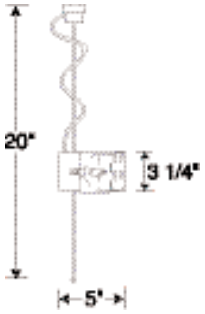
FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4/T4.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
10° Spot	TM132-SP	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	
23° Narrow Flood	TM132-NFL	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	
32° Flood	TM132-FL	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	

TM520, TM539 or TM570N MH_2 Ballast required. Must be ordered separately.

CMH T4/T4.5 – PENDANT MOUNT			
10° Spot	TMP132-SP	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	
23° Narrow Flood	TMP132-NFL	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	
32° Flood	TMP132-FL	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	

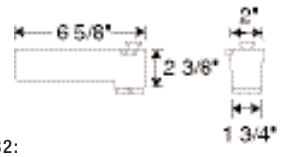
TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



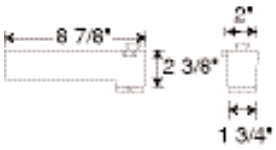
MH_2 Ballasts and Monopoints

TM520, TM539 and TM570N are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



See page 69 for monopoint mounting option

ACCESSORIES FOR TM132, TMP132:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922

For complete catalog number, specify finish when ordering fixture - ordering example: TM132-SP-**BL**

TM133 with TM522
Modular Ballast

TMP133 with TM522
Modular Ballast

NEW

MH_2® CMH BT-5/T3.5 PGJ5 Concentric Cylinder Series

The ultra-compact MH_2 Concentric Cylinder BT-5/T3.5 combines a simple aesthetic with premium performance. Available in spot, narrow flood and flood beam distributions, its computer-contoured faceted reflector is securely mounted to the lamp shroud for precise optical alignment with the lamp. The lamp shroud has a 1" deep integral step baffle for optimal shielding and brightness control. The detachable lamp shroud is easily removed for simplified fixture maintenance. The clear lens provided can be replaced with a variety of light control accessories for optimum beam control. Fixture rotation in two axes enables the fixture to be aimed in any direction. A pendant mount version is also available; this fixture is mounted on an 18" chrome plated steel pendant stem providing up to 18" vertical displacement from the ballast and full 360° fixture rotation.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH BT-5/T3.5 PGJ5

	CATALOG #	WATTAGE/LAMPS
10° Spot	TM133-SP	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lc
20° Narrow Flood	TM133-NFL	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lc
28° Flood	TM133-FL	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lc

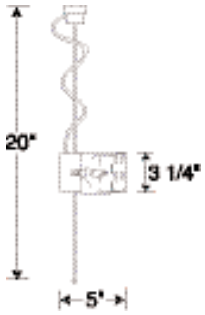
TM522 or TM540 MH_2 Ballast required. Must order separately.

DIMENSIONS

CMH BT-5/T3.5 PGJ5 – PENDANT MOUNT

10° Spot	TMP133-SP	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lock
20° Narrow Flood	TMP133-NFL	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lock
28° Flood	TMP133-FL	20W or 39W CMH BT-5/T3.5, PGJ5 Twist & Lock

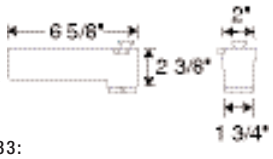
TM522 or TM540 MH_2 Ballast required. Must order separately.



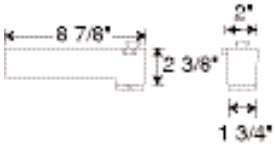
MH_2 Ballasts

TM522 and TM540 are available in white, black or silver finishes. See page 68 for a full description.

TM522 20W BALLAST



TM540 39W BALLAST



ACCESSORIES FOR TM133, TMP133:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5919
UV Filter	T5922

For complete catalog number, specify finish when ordering fixture - ordering example: TM133-SP-**BL**

TM103 with TM539
Modular Ballast

TM104 with TM570N
Modular Ballast

MH_2® CMH PAR Pro-Gimbal Series

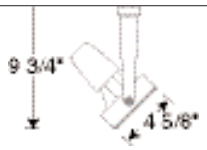
This versatile design uses PAR lamps, relamps from the front and features deep lamp shielding with a baffled aperture. The Pro-Gimbal can be easily accessorized with up to two light control accessories using an optional accessory holder. It features 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR30L

CATALOG #	WATTAGE/LAMPS
TM103	**20W, 39W or 70W CMH PAR30L**

TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



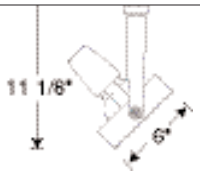
ACCESSORIES FOR TM103:

Dual Accessory Holder (Required)	TM530BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5619
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Eyebrow*	T577BL

CMH PAR38

TM104	**70W, 100W or 150W** CMH PAR38**

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



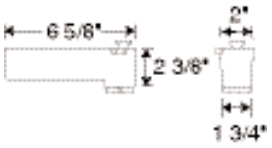
ACCESSORIES FOR TM104:

Dual Accessory Holder (Required)	TM538BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5719
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Eyebrow*	T587BL

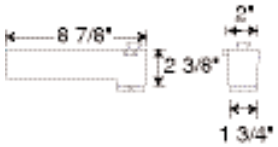
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

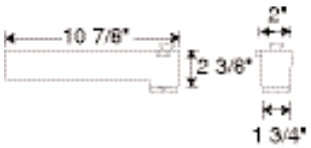
TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



TM5100 100W BALLAST



See page 69 for monopoint mounting option

*Filters, lenses, eyebrows and louvers require dual accessory holder for installation.

**Use with 150W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM103**BL**

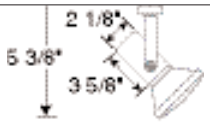
Pro-Gimbal Series is also available in halogen line voltage. See page 73.

TM101 with TM539
Modular Ballast

MH_2® CMH PAR Universal

This very compact, low-profile lampholder accommodates PAR20, PAR30L or PAR38 lamps. It features 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

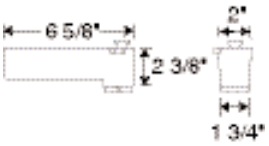
FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH PAR	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM101	20W, 39W, 70W, 100W or 150W* CMH PAR20, PAR30L or PAR38 *TM520, TM539, TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.*	

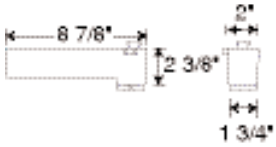
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes.
See page 68 for a full description.

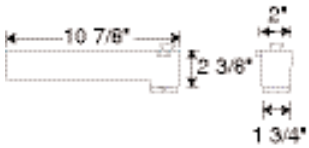
TM520 20W Ballast



TM539 39W Ballast
TM570N 70W Ballast



TM5100 100W Ballast



See page 69 for monopoint mounting option

*Use with 150W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM101**BL**

Universal Series is also available in halogen line voltage. See page 121.

TM157 with TM539
Modular Ballast

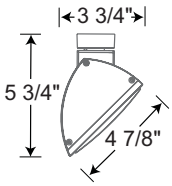
NEW MH_2® CMH T4 G8.5 Mini Wall Wash/Flood

The MH_2 Series Mini Wall Wash/Flood fixture delivers outstanding photometric performance in a compact fixture footprint. Small T4 bi-pin lamps enable a reduced housing size and excellent beam control. Its patterned specular reflector delivers a smooth, consistent beam pattern with excellent color mixing. The MH_2 Series Mini Wall Wash/Flood fixture relamps from the front without the use of tools. Its die cast aluminum lensholder slides to expose the lamp compartment making lamp replacement a breeze.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4/T4.5 G8.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM157	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	

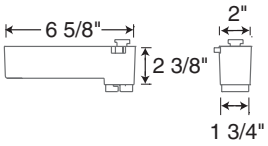
TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



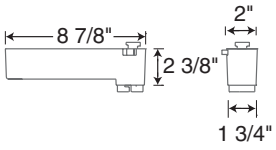
MH_2 Ballasts and Monopoints

TM520, TM539 and TM570N are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



See page 69 for monopoint mounting option

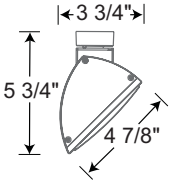
For complete catalog number, specify finish when ordering fixture - ordering example: TM157**BL**

TM156 with TM539
Modular Ballast

NEW MH_2® CMH T6 G12 Mini Wall Wash/Flood

The MH_2 Series Mini Wall Wash/Flood fixture delivers outstanding photometric performance in a compact fixture footprint. Small T6 bi-pin lamps enable a reduced housing size and excellent beam control. Its patterned specular reflector delivers a smooth, consistent beam pattern with excellent color mixing. The MH_2 Series Mini Wall Wash/Flood fixture relamps from the front without the use of tools. Its die cast aluminum lensholder slides to expose the lamp compartment making lamp replacement a breeze.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

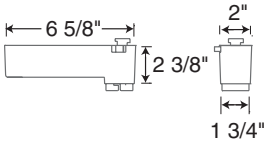
CMH T6/T4.5 G12	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM156	20W, 39W, 70W or 100W CMH T6/T4.5, G12 Bi-Pin	

TM520, TM539, TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.

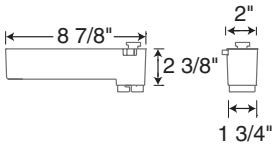
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

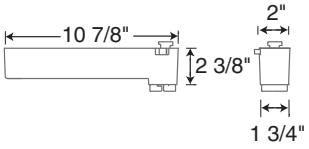
TM520 20W Ballast



TM539 39W Ballast
TM570N 70W Ballast



TM5100 100W Ballast



See page 69 for monopoint mounting option

For complete catalog number, specify finish when ordering fixture - ordering example: TM156**BL**

See website for details, www.junolightinggroup.com

TM124 with TM539
Modular Ballast

TM125 with TM539
Modular Ballast

MH_2® CMH T4 G8.5 Wall Wash/Flood – Asymmetric Mounting

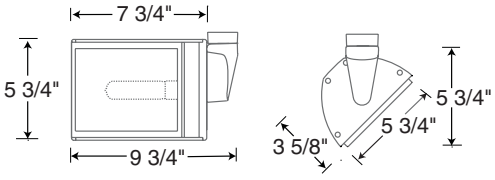
A compact, asymmetric mounting and premium performance make this flood/wall wash luminaire especially suited for merchandising applications. A small, energy efficient T4 lamp combines with the standard uniformity lens and flood reflector to deliver a widespread distribution with higher levels of illumination. The sliding lensholder design facilitates tool-less relamping and accepts the optional brightness control louver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4 G8.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM124	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	

ACCESSORY FOR TM124:
Vertical Louver TMR60BL

TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



MH_2® CMH T4 G8.5 Wall Wash/Flood – Center Yoke Mounting

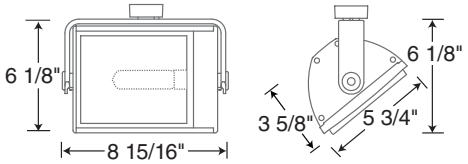
A compact flood/wall wash luminaire with centered yoke mounting design that is ideal for sloped ceiling applications and perfect for monopoint mounting. A small, energy efficient T4 lamp combined with the standard uniformity lens and flood reflector deliver premium performance for merchandising applications. The widespread distribution creates higher levels of illumination with fewer fixtures, increasing energy efficiency. The luminaire comes with a sliding lensholder that facilitates tool-less relamping and accepts the optional brightness control louver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T4 G8.5	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM125	20W, 39W or 70W CMH T4/T4.5, G8.5 Bi-Pin	

ACCESSORIES FOR TM125:
Vertical Louver TMR60BL
Extension Wands TMW Series

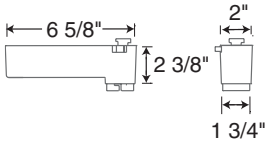
TM520, TM539 or TM570N MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



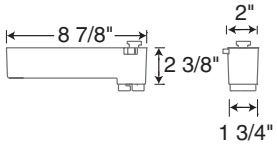
MH_2 Ballasts and Monopoints

TM520, TM539 and TM570N are available in white, black or silver finishes. See page 68 for a full description.

TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



See page 69 for monopoint mounting option

For complete catalog number, specify finish when ordering fixture - ordering example: TM124**BL**

TM122 with TM539
Modular Ballast

TM123 with TM539
Modular Ballast

MH_2® CMH T6 G12 Wall Wash/Flood – Asymmetric Mounting

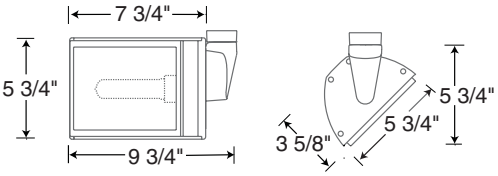
With its compact, asymmetric mounting design and premium performance, this flood/wall wash luminaire is especially suited for merchandising applications. The combination of the energy efficient T6 lamp with the standard uniformity lens and flood reflector delivers a widespread distribution with higher levels of illumination. The sliding lensholder design facilitates tool-less relamping and accepts the optional brightness control louver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T6 G12	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM122	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5, G12 Bi-Pin	

ACCESSORY FOR TM122:
Vertical Louver TMR60BL

TM520, TM539, TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



MH_2® CMH T6 G12 Wall Wash/Flood – Center Yoke Mounting

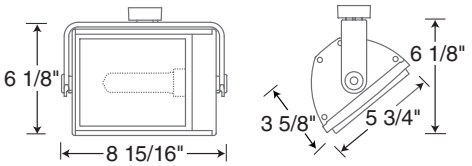
The center yoke mounting design in this compact flood/wall wash luminaire makes it ideal for sloped ceiling applications and perfect for monopoint mounting. The T6 lamp combined with the standard uniformity lens and flood reflector deliver premium performance for merchandising applications. The widespread distribution creates higher levels of illumination with fewer fixtures, increasing energy efficiency. The luminaire comes with a sliding lensholder that facilitates tool-less relamping and accepts the optional brightness control louver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH T6 G12	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM123	20W, 39W, 70W, 100W or 150W* CMH T6/T4.5, G12 Bi-Pin	

ACCESSORIES FOR TM123:
Vertical Louver TMR60BL
Extension Wands TMW Series

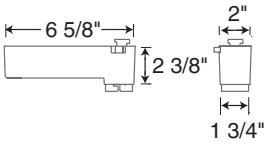
TM520, TM539, TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.



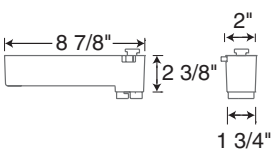
MH_2 Ballasts and Monopoints

TM520, TM539, TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

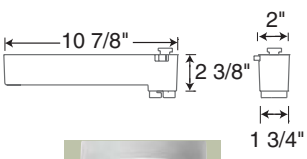
TM520 20W BALLAST



TM539 39W BALLAST
TM570N 70W BALLAST



TM5100 100W BALLAST



*Use with 150W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM122**BL**

See page 69 for monopoint mounting option

See website for details, www.junolightinggroup.com

TM120 with TM570N
Modular Ballast

TM121 with TM570N
Modular Ballast

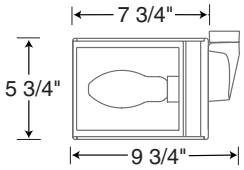
MH_2® ED17 Wall Wash/Flood – Asymmetric Mounting

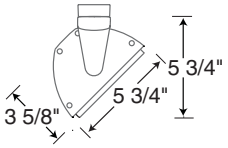
This compact luminaire, with an asymmetric mounting design, delivers premium performance using economical, commonly available ED17 lamps. The widespread distribution creates the higher levels of illumination required for effective merchandising using fewer fixtures in a very energy efficient package. The sliding lens holder facilitates tool-less relamping and easily accepts the optional brightness control louver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH ED17	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM120	**50W*, 70W, 100W or 150W* CMH ED17**	

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.





ACCESSORY FOR TM120:

Vertical Louver	TMR60BL

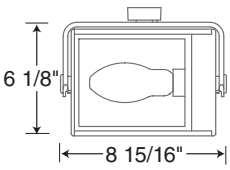
MH_2® ED17 Wall Wash/Flood – Center Yoke Mounting

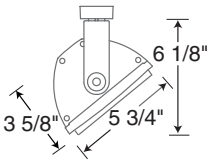
Because of its centered yoke mounting design, this compact luminaire is ideal for sloped ceiling applications and perfect for monopoint mounting. It delivers premium performance using economical, commonly available ED17 lamps. The widespread distribution creates the higher levels of illumination required for effective merchandising using fewer fixtures in a very energy efficient package. The sliding lens holder facilitates tool-less relamping and easily accepts the optional brightness control louver.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CMH ED17	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
	TM121	**50W*, 70W, 100W or 150W* CMH ED17**	

TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.





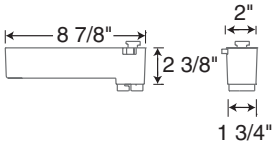
ACCESSORIES FOR TM121:

Vertical Louver	TMR60BL
Extension Wands	TMW Series

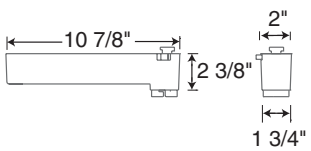
MH_2 Ballasts and Monopoints

TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

TM570N 70W BALLAST



TM5100 100W BALLAST



See page 69 for monopoint mounting option

*Use with 50W or 150W monopoint based on lamp selected, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TM120**BL**

kids' playaway

MH_2® Pendants

MH_2 Pendants offer a high-bay aesthetic in either a flexible trac-based format or an elegant monopoint mounting format. The clear or diffuse prismatic acrylic refractor shade provides efficient downlighting along with visual sparkle and a small uplighting component to brighten ceilings and upper wall cavities. The metal reflector shade produces controlled downlighting. Optional lenses may be specified to add a decorative aesthetic, broaden the light distribution or to provide lamp containment when using unprotected lamps in metal shades.

TMP1120 cordset with TMP1220PL shade and TM570N ballast

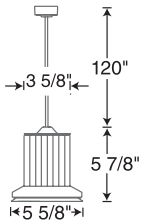
TMP1120 cordset with TMP1222HZ shade and TM570N ballast

TMP1120 cordset with TMP1221PL shade and TM570N ballast

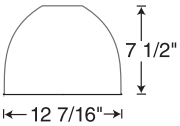
MH_2® PENDANTS

FINISHES: WHITE ADAPTER & CORDSET (WH) BLACK ADAPTER & CORDSET (BL) SILVER ADAPTER & BLACK CORDSET (SL)

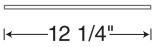
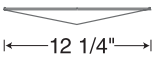
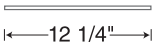
10 FT. ADJUSTABLE CORD ASSEMBLY

CATALOG #	WATTAGE/LAMPS	DIMENSIONS
TMP1120	**50W*, 70W or 100W CMH ED17** *Note: Protected (open-rated) lamps must be used in all open pendants; unprotected lamps may be used with metal pendant shade only when combined with glass lenses.* *TM570N or TM5100 MH_2 Ballast or MH_2 Monopoint required. Must be ordered separately.*	

PENDANT SHADES (Order separately)

CATALOG #	DESCRIPTION	DIMENSIONS
TMP1220PL	12" Clear Prismatic Refractor Acrylic Shade	
TMP1221PL	12" Diffuse Prismatic Refractor Acrylic Shade	
TMP1222HZ	12" Metal Reflector Haze Finish	

OPTIONAL LENSES (Includes clamp band for attaching to shade)

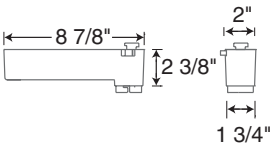
CATALOG #	DESCRIPTION	DIMENSIONS
TMP1230CL	12" Clear Glass Lens	
TMP1231PL	12" Conical Prismatic Acrylic Lens	
TMP1232UL	12" Fine Prismatic Glass Uniformity Lens	

When using unprotected lamps in metal pendant shades, accessory lens must be specified for code compliance.

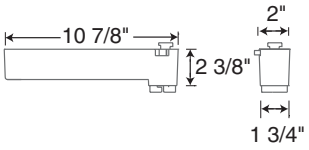
MH_2 Ballasts and Monopoints

TM570N and TM5100 are available in white, black or silver finishes. See page 68 for a full description.

TM570N 70W BALLAST



TM5100 100W BALLAST



*Use with 50W monopoint, see page 69.

For complete catalog number, specify finish when ordering fixture - ordering example: TMP1120**BL**

MH_2®

Ballasts & Monopoints

MH_2 Ballasts and Monopoints offer the latest in electronic HID technology. The modular ballast/lampholder format allows more compact and attractive fixture designs. It also extends ballast service life by isolating the ballast from the lamp heat source and facilitates field servicing. These ballasts may be combined with all Juno MH_2 lampholders and pendants for optimum flexibility.

MH_2 MODULAR BALLAST ADVANTAGE

- Premium, high efficiency, constant power electronic ballast with slim-line profile
- Provides optimum CRI performance and consistent color uniformity from fixture to fixture
- Controlled starting current and stable normal operation maximizes lamp life
- Automatic resetting thermal protection
- MOV transient protection
- Lamp end-of-life shutdown prevents nuisance cycling and flashing
- Integral On/Off switch
- High impact polycarbonate ballast housing
- Secondary latch on 39W and 70W versions securely attaches housing to trac on both ends to prevent sagging
- Easily and securely attaches to lampholder with locking collar
- UL Listed, CSA certified
- Complies with FCC Part 18
- Sound rated "A" for indoor applications

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

TM520 20W Modular MH_2 Ballast
With on/off switch. Electronic. Use with MH_2 Series lampholders or pendants. Rated for 20W metal halide lamps except BT-5/T3.5, PGJ5 lamps
DIMENSIONS: $2^3/_8$"H X 2"W X $6^5/_8$"L

TM539 39W Modular MH_2 Ballast
With on/off switch. Electronic. Use with MH_2 Series lampholders or pendants. Rated for 39W metal halide lamps except BT-5/T3.5, PGJ5 lamps
DIMENSIONS: $2^3/_8$"H X 2"W X $8^7/_8$"L

TM570N 70W Modular MH_2 Ballast
With on/off switch. Electronic. Use with MH_2 Series lampholders or pendants. Rated for 70W metal halide lamps.
DIMENSIONS: $2^3/_8$"H X 2"W X $8^7/_8$"L

TM522 20W BT-5/T3.5, PGJ5 Modular MH_2 Ballast
With on/off switch. Electronic. Use with MH_2 Series lampholders or pendants. Rated for 20W BT-5/T3.5 PGJ5 metal halide lamps only.
DIMENSIONS: $2^3/_8$"H X 2"W X $6^5/_8$"L

TM540 39W BT-5/T3.5, PGJ5 Modular MH_2 Ballast
With on/off switch. Electronic. Use with MH_2 Series lampholders or pendants. Rated for 39W metal halide lamps including BT-5/T3.5, PGJ5 lamps.
DIMENSIONS: $2^3/_8$"H X 2"W X $8^7/_8$"L

NEW **TM5100** 100W Modular MH_2 Ballast
With on/off switch. Electronic. Use with MH_2 Series lampholders or pendants. Rated for 100W metal halide lamps.
DIMENSIONS: $2^3/_8$"H X 2"W X $10^7/_8$"L

For complete catalog number, specify finish when ordering fixture - ordering examples: TM520**BL,** TM570N-**WH**

MH_2® MONOPOINTS

Recessed Mount MH_2 Monopoint

TC construction. Includes electronic HID ballast, pre-wired recessed housing with commercial mounting brackets (order bar hangers separately), wiring box and canopy. Use with MH_2 Series lampholders or pendants. On/off switch. **120V/277V operation.**

DIMENSIONS: HOUSING: 4 3/8" DIA. X 5 1/4" H CANOPY: 5" DIA. X 1 7/8" H

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

	CATALOG #	DESCRIPTION	FINISHES
NEW	TMM5420E-R	20W Recessed Mount Monopoint	White(WH), Black(BL), Silver(SL)
	TMM5439E-R	39W Recessed Mount Monopoint	White(WH), Black(BL), Silver(SL)
NEW	TMM5450E-R	50W Recessed Mount Monopoint	White(WH), Black(BL), Silver(SL)
	TMM5470E-R	70W Recessed Mount Monopoint	White(WH), Black(BL), Silver(SL)
	TMM54100E-R	100W Recessed Mount Monopoint	White(WH), Black(BL), Silver(SL)

Surface Mount MH_2 Monopoint

Includes electronic HID ballast. Mounts over standard ceiling outlet box. Use with MH_2 Series lampholders or pendants. On/off switch. **120V/277V operation** (except 150W).

DIMENSIONS: HOUSING: 6 5/8" DIA. X 3 3/4" H

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

	CATALOG #	DESCRIPTION	FINISHES
NEW	TMM5420E-S	20W Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)
	TMM5439E-S	39W Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)
NEW	TMM5450E-S	50W Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)
	TMM5470E-S	70W Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)
	TMM54100E-S	100W Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)
NEW	TMM54150E-S-120	150W, 120V Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)
NEW	TMM54150E-S-277	150W, 277V Surface Mount Monopoint	White(WH), Black(BL), Silver(SL)

MH_2 EXTENSION WANDS

MH_2 Extension Wands can be used to suspend all MH_2 lampholders down from either the MH_2 Series Modular Trac Ballasts or TMM Series Monopoints. Enables the fixture plane to be lowered without lowering the entire trac or ceiling plane. Constructed of rigid tubular steel and polycarbonate materials.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	DESCRIPTION	FINISHES
TMW12	14-3/8"	White(WH), Black(BL), Silver(SL)
TMW18	20-3/8"	White(WH), Black(BL), Silver(SL)
TMW24	26-3/8"	White(WH), Black(BL), Silver(SL)
TMW36	38-3/8"	White(WH), Black(BL), Silver(SL)
TMW48	48-3/8"	White(WH), Black(BL), Silver(SL)

Consult factory for MH_V™ Extension Wands.

For complete catalog number, specify finish when ordering fixture - ordering example: TMM5439E-R-**BL**

Professional Halogen Display Lighting

The halogen Cylindra™, Conix® and Pro-Gimbal fixtures integrate handsome styling with features ideally suited for professional-quality display lighting. All three models can accommodate up to two light control accessories including louvers, spread lenses, color correction filters, color filters and UV filters. The Conix and Pro-Gimbal models offer aiming and rotation locks to maintain positioning during relamping. Models are available for both line voltage and low voltage applications: PAR halogen Cylindra, Conix and Pro-Gimbal for line voltage; MR16 halogen Cylindra and Conix for low voltage.

T841 with T537 Transformer

T844

T845

T846

NEW

Cylindra™

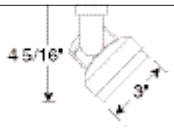
Applying a new twist to a traditional design, the Cylindra Series offers a unique, contemporary aesthetic based on a step cylinder fixture platform. Gentle arcs elegantly blend with bold edges to provide a unique yet timeless visual appeal. Cylindra's close-to-trac mounting minimizes its visual intrusion into a space. Cylindra accommodates a wide range of halogen lamps including PAR20, PAR30, PAR38 and low voltage MR16. All are constructed of rugged die cast aluminum.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

Professional-Grade Media Cartridge

All Cylindra lampholders feature a quick-release bayonet-mount media cartridge that simultaneously accepts up to two light control accessories. Media can be easily installed or removed without the use of tools. The bayonet-mount attachment simplifies relamping and fixture maintenance, making Cylindra a popular choice with owners, designers and installers.

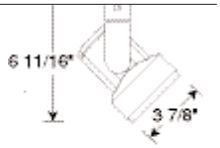
CATALOG #	LAMP	DIMENSIONS
T841	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T841:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

T537 or T538 Transformer required. Must be ordered separately.

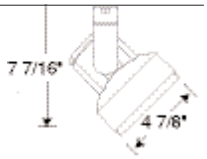
CATALOG #	LAMP	DIMENSIONS
T844	**35-50W PAR20**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T844:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5918
UV Filter	T5922
Hexcell Louver	T5928BL

T845 **35-75W PAR30**



FINISHES: WH, BL, SL

ACCESSORIES FOR T845:

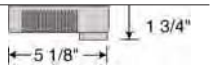
Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
UV Filter	T5622
Cube Cell Louver	T569BL

20-75VA 12V TRANSFORMERS

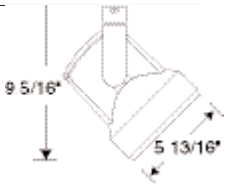
Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



T846 **45-120W PAR38**



FINISHES: WH, BL, SL

ACCESSORIES FOR T846:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL

See website for details, www.junolightinggroup.com

Conix®

The sculpted Conix fixtures include an integral snap-in anti-glare shield/accessory holder that accepts up to two light control accessories. 360 degree plus rotation eliminates dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

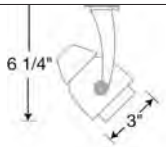
FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T406	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T406:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



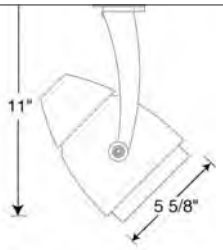
T537 or T538 Transformer required. Must order separately.

T410 12V, 35-50W PAR36

FINISHES: WH, BL, SL

ACCESSORIES FOR T410:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL



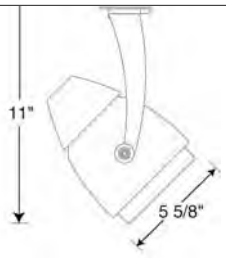
T537 or T538 Transformer required. Must order separately.

T411 12V, 35-75W AR111

FINISHES: WH, BL, SL

ACCESSORIES FOR T411:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL



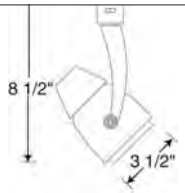
T537 or T538 Transformer required. Must order separately.

CATALOG #	LAMP	DIMENSIONS
T407	**35-50W PAR20**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T407:

Uniformity Lens	T5921
Prismatic Spread Lens	T597
Linear Spread Lens	T598
Color Filters	T591-6
Color Correction Filter	T5918
UV Filter	T5922
Hexcell Louver	T5928BL

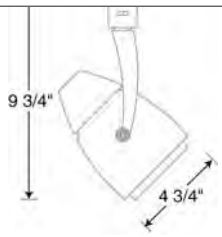


T408 35-75W PAR30

FINISHES: WH, BL, SL

ACCESSORIES FOR T408:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
UV Filter	T5622
Cube Cell Louver	T569BL

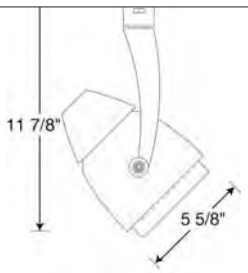


T409 45-150W PAR38

FINISHES: WH, BL, SL

ACCESSORIES FOR T409:

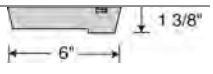
Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL



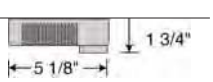
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes.
See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538



See website for details, www.junolightinggroup.com

T403

T404

Pro-Gimbal

This versatile design uses PAR lamps, relamps from the front and features deep lamp shielding with a baffled aperture. The Pro-Gimbal can be easily accessorized with up to two light control accessories using the optional accessory holder. It features 360 degree plus rotation to eliminate aiming dead zones. Rotation and aiming can be locked into position using a standard Phillips screwdriver.

FINISHES:

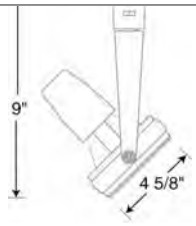
WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T403	**35-75W PAR30**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T403:

Accessory Holder (required)	TM530BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Black Eyebrow*	T577BL
Cube Cell Louver*	T569BL

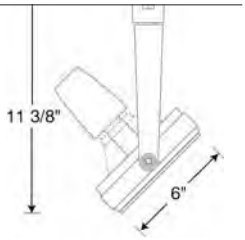


T404 45-150W PAR38

FINISHES: WH, BL, SL

ACCESSORIES FOR T404:

Accessory Holder (required)	TM538BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction FIlter*	T5718
UV Filter*	T5722
Black Eyebrow*	T587BL
Cube Cell Louver*	T579BL



*Filters, lenses, eyebrows and louvers require dual accessory holder for installation.

An Alternative

AVIO creates a floating, consistent lighting plane that visually downplays the trac without compromising mounting flexibility.

AVIO®

AVIO offers multi-lamp functionality and exciting contemporary design in a trac-based fixture that's easy to specify and install, simple to reconfigure and cost-effective to operate. AVIO's precision, die cast frame with curved spanners creates a unique, consistent, dropped-visual plane of clustered lighting. The dual-gimbal lamp mechanism permits full rotation and 45° aiming, while the stationary frame creates a consistent appearance throughout the space. Specify the open frame design for a technical aesthetic or the optional curved airfoil for a more sophisticated sculptural look. MR16 light sources include low voltage halogen and super-efficient ceramic metal halide. Halogen PAR30 models can be specified for line voltage applications. Matching surface mount and recessed fixtures round-out the AVIO line, yielding a unique family of fixtures capable of transforming the appearance of any interior.

Trac

AVIO trac fixtures offer a clean, consistent appearance and the economy of a multi-lamp luminaire.

Surface

AVIO surface fixtures mount over a ceiling electrical box and perfectly complement the appearance of AVIO trac fixtures.

Recessed

AVIO recessed fixtures feature a low-profile look at ceiling level and integrate nicely into the AVIO fixture family.

XT16101-39H

XT16101-39H
with X16101 Airfoil Trim

NEW

AVIO®

CMH MR16

The AVIO CMH MR16 system integrates one to four energy efficient CMH MR16 lamps into linear or quad-configured, trac-mounted luminaires. High power factor electronic ballasts provide optimum CRI performance along with lamp color consistency and stability. The concentric gimbal ring design provides aiming in all directions while the fixture plane remains aligned to the trac. Matching surface and recessed mount fixtures are available in the Indy Performance Series to complete this versatile and visually compelling series.

TECHNICAL SPECIFICATIONS:

- One piece die-cast aluminum grid frame
- Die-cast aluminum dual gimbal ring lampholders
- Dual gimbal ring design allows 45° off-vertical adjustment in any direction
- Stainless steel suspension cables
- Integral electronic ballast(s)
- Trac Super Adapter with on/off switch
- Operates on all Juno line voltage trac including 2-circuit trac
- May be used with TW Series Extension Wands in high ceiling applications
- Matching surface mount and recessed versions available
- Compatible with up to two 2 dia. filters, lenses and louver

ACCESSORIES FOR AVIO CMH MR16 FIXTURES:

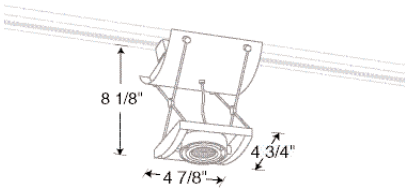
Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Color Correction Filter	T7419
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

AVIO® CMH MR16 1-Lamp

FINISHES:

WHITE (WH) · SILVER (SL) · BLACK (BL) · GRAPHITE (GP)

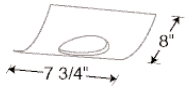
CATALOG #	LAMP	FINISHES
XT16101-20H	ONE 20W CMH MR16 GX10	WH, BL, SL, GP
XT16101-39H	ONE 39W CMH MR16 GX10	WH, BL, SL, GP



Airfoil Trim

		FINISHES
X16101	AIRFOIL TRIM	WH, BL, SL, GP

(ORDER SEPARATELY)



XT16201-39H

XT16301-39H

XT16201-39H
with X16201 Airfoil Trim

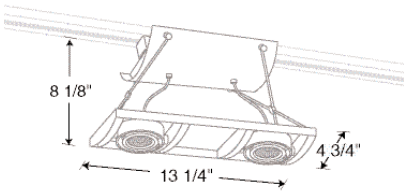
XT16301-39H
with X16301 Airfoil Trim

AVIO® CMH MR16 2-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

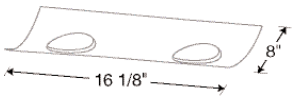
CATALOG #	LAMP	FINISHES
XT16201-20H	**TWO 20W CMH MR16 GX10**	**WH, BL, SL, GP**
XT16201-39H	**TWO 39W CMH MR16 GX10**	**WH, BL, SL, GP**



Airfoil Trim

		FINISHES
X16201	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)

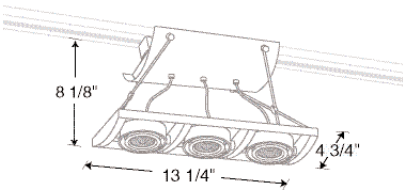


AVIO® CMH MR16 3-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

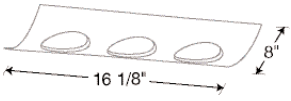
CATALOG #	LAMP	FINISHES
XT16301-20H	**THREE 20W CMH MR16 GX10**	**WH, BL, SL, GP**
XT16301-39H	**THREE 39W CMH MR16 GX10**	**WH, BL, SL, GP**



Airfoil Trim

		FINISHES
X16301	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)



XT16401-39H

XT16404-39H

XT16401-39H
with X16401 Airfoil Trim

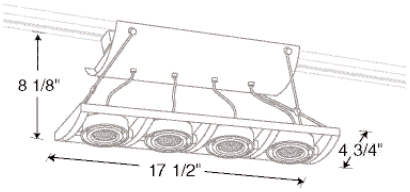
XT16404-39H
with X16404 Airfoil Trim

AVIO® CMH MR16 4-Lamp Linear

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

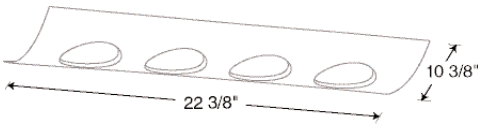
CATALOG #	LAMP	FINISHES
XT16401-20H	FOUR 20W CMH MR16 GX10	WH, BL, SL, GP
XT16401-39H	FOUR 39W CMH MR16 GX10	WH, BL, SL, GP



Airfoil Trim

		FINISHES
X16401	AIRFOIL TRIM	WH, BL, SL, GP

(ORDER SEPARATELY)

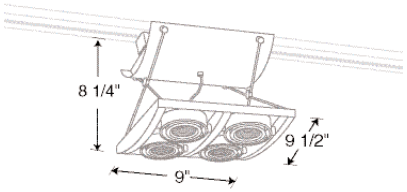


AVIO® CMH MR16 4-Lamp Quad

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

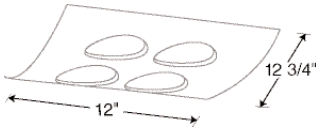
CATALOG #	LAMP	FINISHES
XT16404-20H	FOUR 20W CMH MR16 GX10	WH, BL, SL, GP
XT16404-39H	FOUR 39W CMH MR16 GX10	WH, BL, SL, GP



Airfoil Trim

		FINISHES
X16404	AIRFOIL TRIM	WH, BL, SL, GP

(ORDER SEPARATELY)



XT16101

XT16201

AVIO®

Halogen MR16

XT16101
with X16101 Airfoil Trim

XT16201
with X16201 Airfoil Trim

The AVIO Halogen MR16 system integrates one to four MR16 halogen lamps into linear or quad-configured, trac-mounted luminaires. The concentric gimbal ring design provides aiming in all directions while the fixture plane remains aligned to the trac. Matching surface and recessed mount fixtures are available in the Indy Performance Series to complete this versatile and visually compelling series.

TECHNICAL SPECIFICATIONS:

- One piece die-cast aluminum grid frame
- Die-cast aluminum dual gimbal ring lampholders
- Dual gimbal ring design allows 45° off-vertical adjustment in any direction
- Stainless steel suspension cables
- Integral electronic transformer (one per fixture)
- Dimmable – for best results use dimmer designed for use with electronic transformers
- Trac Super Adapter with on/off switch
- Operates on all Juno line voltage trac including 2-circuit trac
- May be used with TW Series Extension Wands for high ceiling applications
- Matching surface mount and recessed versions available
- Compatible with up to two 2"dia. filters, lenses and louver

ACCESSORIES FOR AVIO HALOGEN MR16 FIXTURES:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

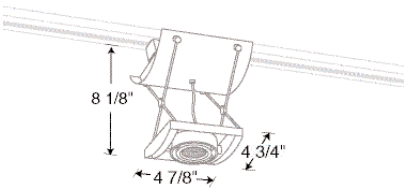
AVIO® MR16 1-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

CATALOG #	LAMP
XT16101	**ONE 75W MR16 MAX.**

Integral 12V Electronic Transformer



Airfoil Trim

	FINISHES
X16101 AIRFOIL TRIM (ORDER SEPARATELY)	**WH, BL, SL, GP**

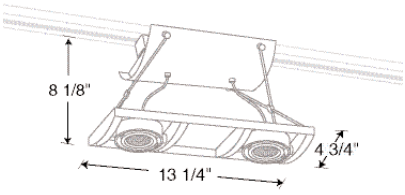
AVIO® MR16 2-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

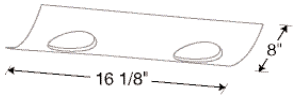
CATALOG #	LAMP
XT16201	**TWO 75W MR16 MAX.**

Integral 12V Electronic Transformer



Airfoil Trim

	FINISHES
X16201 AIRFOIL TRIM (ORDER SEPARATELY)	**WH, BL, SL, GP**



XT16301

XT16401

XT16404

XT16301
with X16301 Airfoil Trim

XT16401
with X16401 Airfoil Trim

XT16404
with X16404 Airfoil Trim

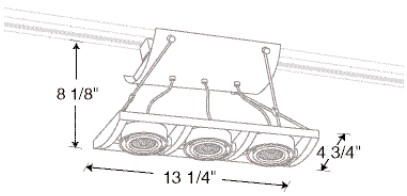
AVIO® MR16 3-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

CATALOG #	LAMP
XT16301	**THREE 50W MR16 MAX.**

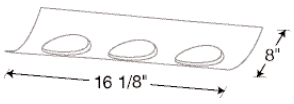
Integral 12V Electronic Transformer



Airfoil Trim

		FINISHES
X16301	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)



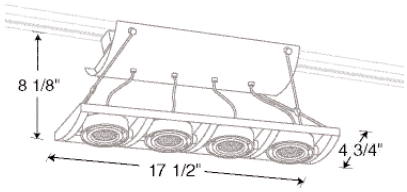
AVIO® MR16 4-Lamp Linear

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

CATALOG #	LAMP
XT16401	**FOUR 50W MR16 MAX.**

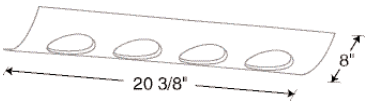
Integral 12V Electronic Transformer



Airfoil Trim

		FINISHES
X16401	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)



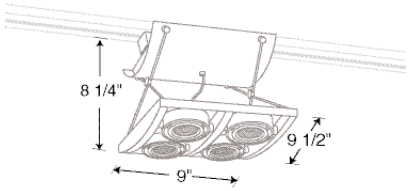
AVIO® MR16 4-Lamp Quad

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

CATALOG #	LAMP
XT16404	**FOUR 50W MR16 MAX.**

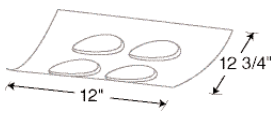
Integral 12V Electronic Transformer



Airfoil Trim

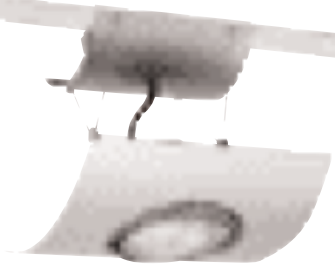
		FINISHES
X16404	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)



See website for details, www.junolightinggroup.com

XT30101



XT30101
with X30101 Airfoil Trim

AVIO®
Halogen PAR30

The AVIO Halogen PAR30 system integrates one to four PAR30 halogen lamps into linear or quad-configured, trac-mounted luminaires. The concentric gimbal ring design provides aiming in all directions while the fixture plane remains aligned to the trac. Optional airfoil trims can be specified to hide the lamp socket and wiring above the fixtures. Matching surface and recessed mount fixtures are available in the Indy Performance Series to complete this versatile and visually compelling series.

TECHNICAL SPECIFICATIONS:

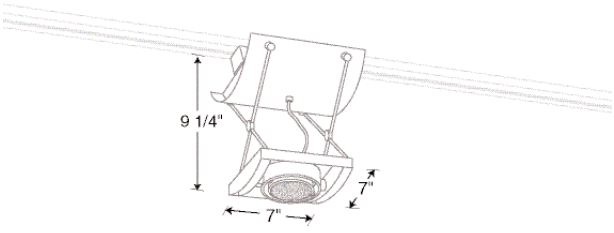
- One piece die-cast aluminum grid frame
- Die-cast aluminum dual gimbal ring lampholders
- Dual gimbal ring design allows 45° off-vertical adjustment in any direction
- Stainless steel suspension cables
- Trac Super Adapter with on/off switch
- Operates on all Juno line voltage trac including 2-circuit trac
- May be used with TW Series Extension Wands in high ceiling applications
- Matching surface mount and recessed versions available

AVIO® PAR30 1-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

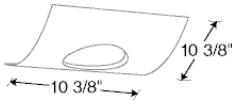
CATALOG #	LAMP	FINISHES
XT30101	ONE 75W PAR30 MAX.	WH, BL, SL, GP



Airfoil Trim

X30101	AIRFOIL TRIM	WH, BL, SL, GP

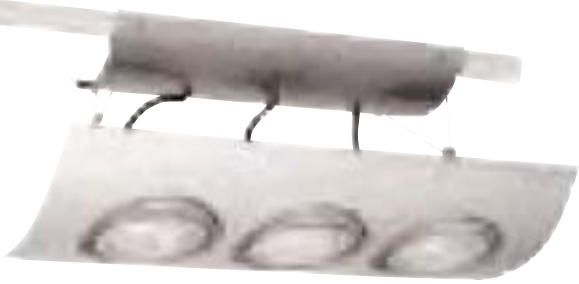
(ORDER SEPARATELY)



XT30201

XT30301

XT30201
with X30201 Airfoil Trim



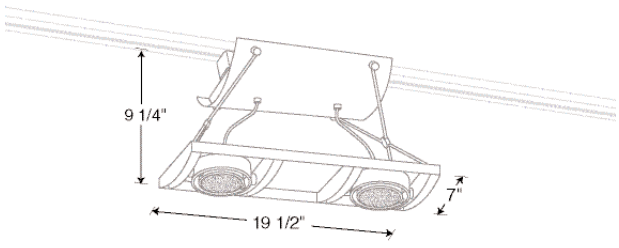
XT30301
with X30301 Airfoil Trim

AVIO® PAR30 2-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

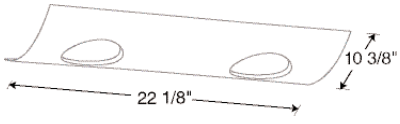
CATALOG #	LAMP	FINISHES
XT30201	**TWO 75W PAR30 MAX.**	**WH, BL, SL, GP**



Airfoil Trim

		FINISHES
X30201	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)

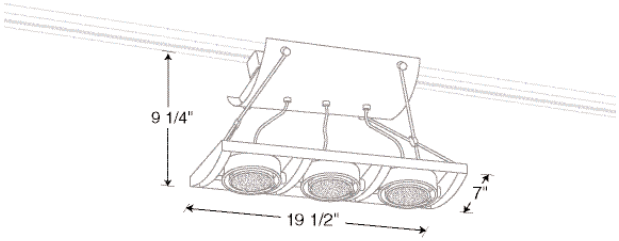


AVIO® PAR30 3-Lamp

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

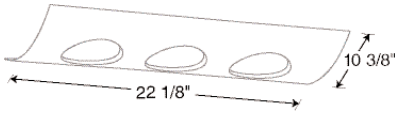
CATALOG #	LAMP	FINISHES
XT30301	**THREE 75W PAR30 MAX.**	**WH, BL, SL, GP**



Airfoil Trim

		FINISHES
X30301	**AIRFOIL TRIM**	**WH, BL, SL, GP**

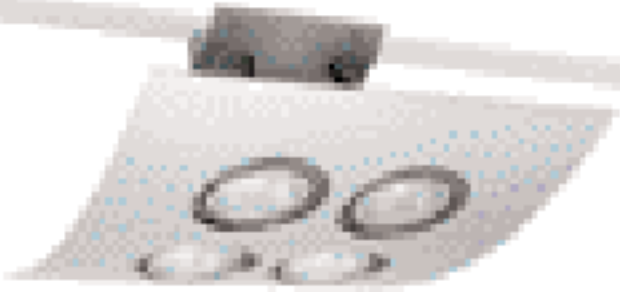
(ORDER SEPARATELY)



XT30401

XT30404

XT30401
with X30401 Airfoil Trim



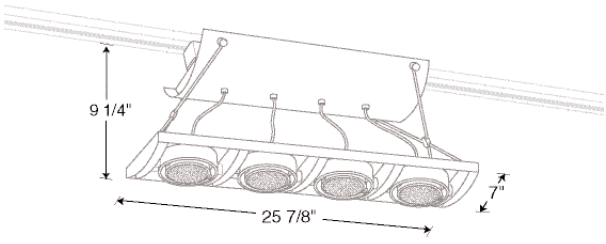
XT30404
with X30404 Airfoil Trim

AVIO® PAR30 4-Lamp Linear

FINISHES:

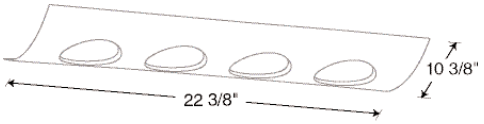
WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

CATALOG #	LAMP	FINISHES
XT30401	**FOUR 75W PAR30 MAX.**	**WH, BL, SL, GP**



Airfoil Trim		FINISHES
X30401	**AIRFOIL TRIM**	**WH, BL, SL, GP**

(ORDER SEPARATELY)

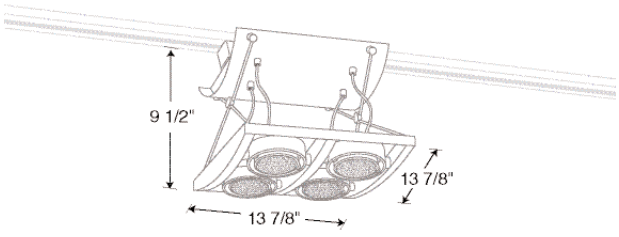


AVIO® PAR30 4-Lamp Quad

FINISHES:

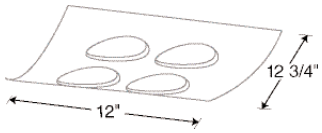
WHITE (WH) SILVER (SL)
BLACK (BL) GRAPHITE (GP)

CATALOG #	LAMP	FINISHES
XT30404	**FOUR 75W PAR30 MAX.**	**WH, BL, SL, GP**



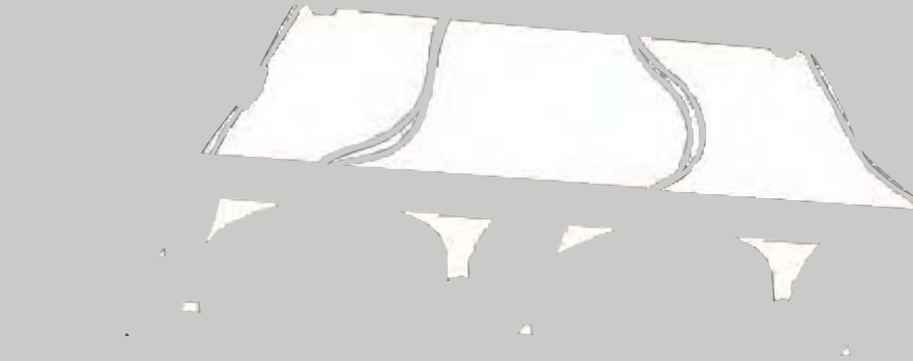
Airfoil Trim		FINISHES
X30404	**AIRFOIL TRIM**	**WH, BL, SL, GP**

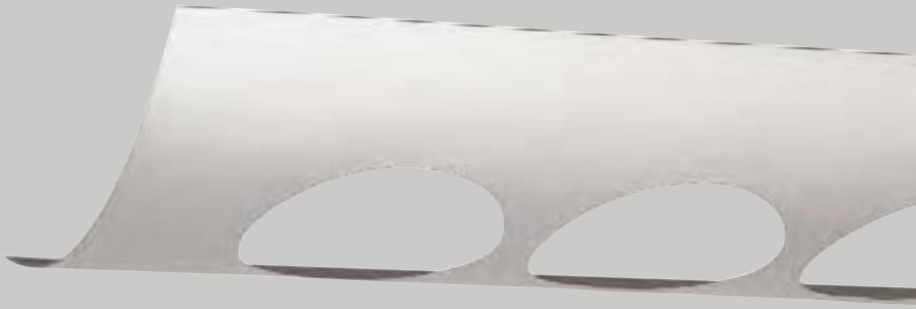
(ORDER SEPARATELY)

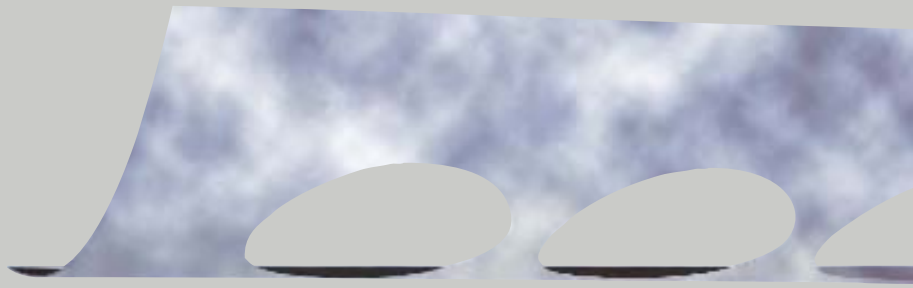


Meticulously detailed die-cast grid frames support from one to four dual gimbal ring assemblies that provide full rotation and 45˚ aiming. The frame is delicately suspended from the housing with thin-gauge crossed stainless steel cables. The cable is fixed at the center with a die cast finial for maximum stability and a finishing aesthetic touch.

The curved airfoil trim offers a fourth dimension to the AVIO® system, transforming the appearance from an open technical aesthetic to that of a more sophisticated, sculpted look. The curved airfoil trim is available in the standard AVIO silver, graphite, white and black finishes and may be custom painted or laminated* in the field to style-match the AVIO with select interior finishes. From sponge painted clouds to stressed metals to hand-rubbed wood, field-decorating the curved trims truly offers unlimited design possibilities to easily and economically create a custom luminaire.

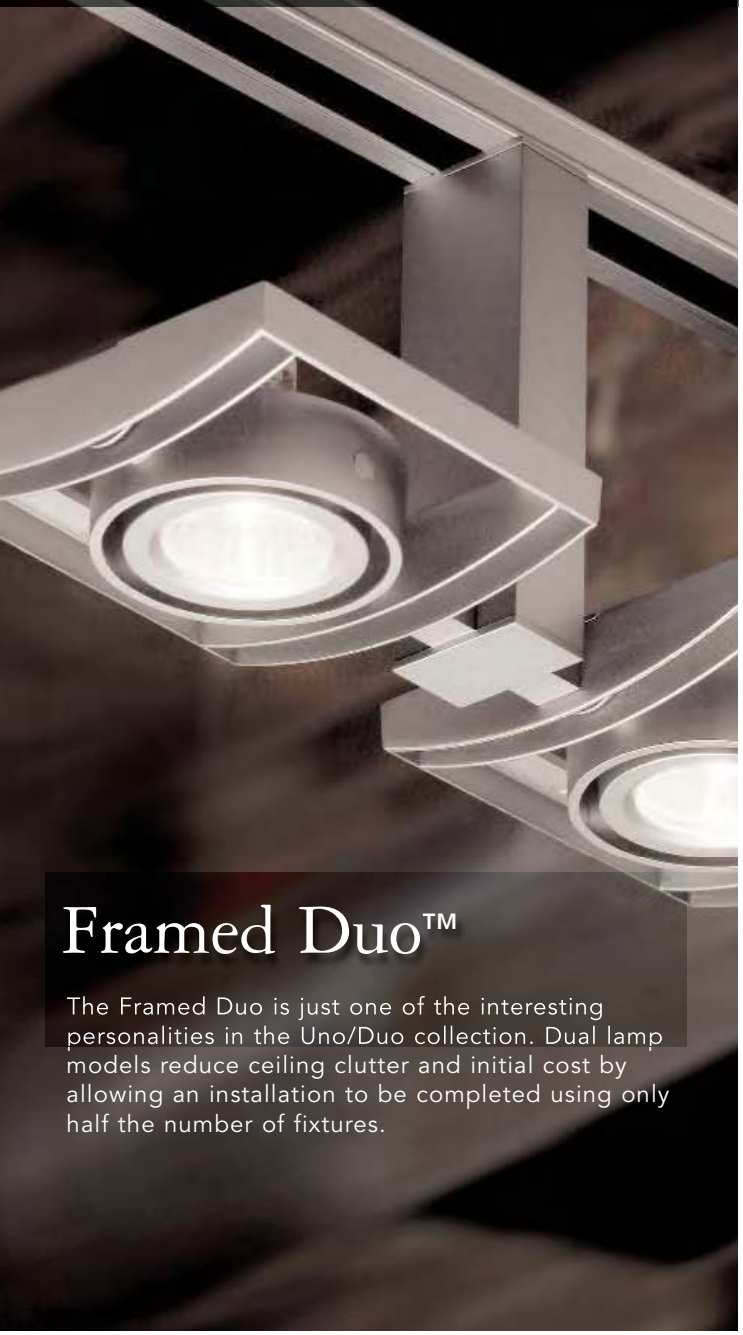






Uno/Duo™

The unique design of the all-aluminum Uno/Duo Series allows optimal lamp positioning. Concentric gimbal rings at the bottom of the chiseled monolith allow light to be aimed in all directions and is a perfect example of the design principle, "form follows function." The monolith remains in alignment with the trac, while the gimbal rings can be freely positioned, providing broad aiming capability. On MR16 open and enclosed versions, the integral transformer is cleverly concealed in the monolith. The enclosed version eliminates stray backlight from MR16 lamps.



Framed Duo™

The Framed Duo is just one of the interesting personalities in the Uno/Duo collection. Dual lamp models reduce ceiling clutter and initial cost by allowing an installation to be completed using only half the number of fixtures.

T816

T817

T819

Uno/Duo™ Enclosed-MR16

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

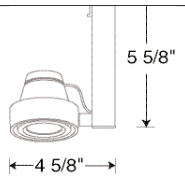
Enclosed Uno

CATALOG #	LAMP
T816	**20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: **WH, BL, SL**

DIMENSIONS

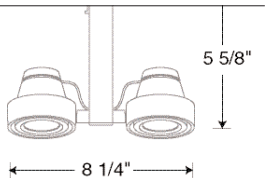


Enclosed Duo

CATALOG #	LAMP
T817	**TWO 20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: **WH, BL, SL**

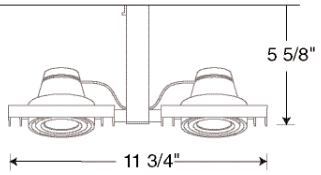


Enclosed Framed Duo

CATALOG #	LAMP
T819	**TWO 20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: **WH, BL, SL**



ACCESSORIES FOR MR16 UNO/DUO:

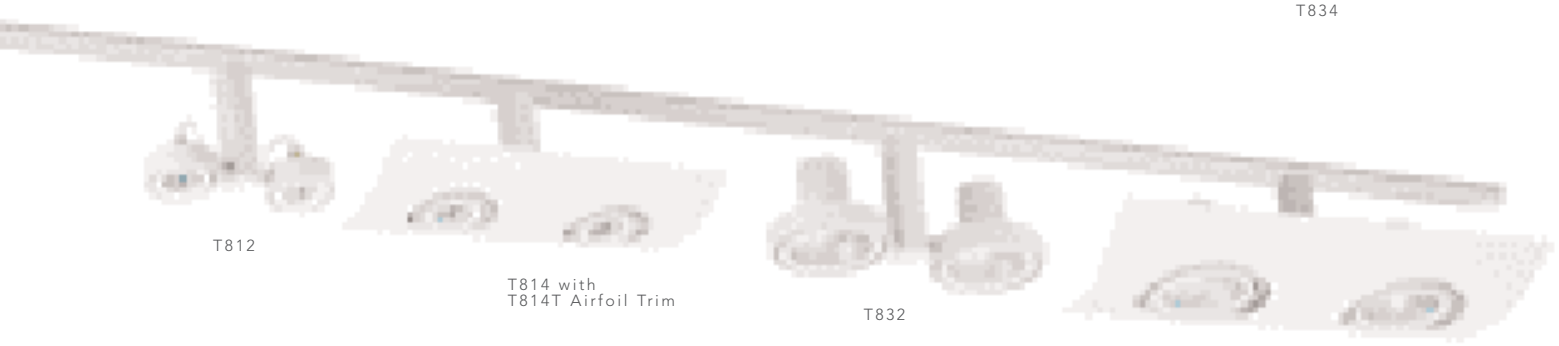
Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

T811

T814

T831

T834



T812

T814 with
T814T Airfoil Trim

T832

T834 with
T834T Airfoil Trim

Uno/Duo™ Open-MR16

FINISHES:

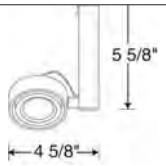
WHITE (WH) BLACK (BL) SILVER (SL)

Uno

CATALOG #	LAMP	DIMENSIONS
T811	**20-75W MR16**	

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL

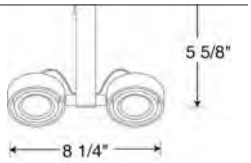


Duo

T812 TWO **20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL

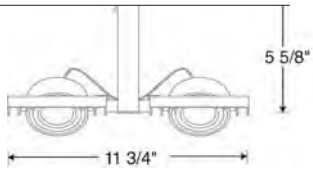


Framed Duo

T814 TWO **20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL



ACCESSORIES FOR MR16 UNO/DUO:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

Uno/Duo™ PAR30

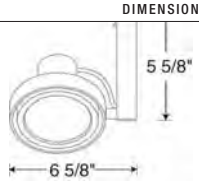
FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

Uno

CATALOG #	LAMP	DIMENSIONS
T831	**50-75W PAR30**	

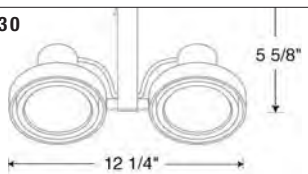
FINISHES: WH, BL, SL



Duo

T832 TWO **50-75W PAR30**

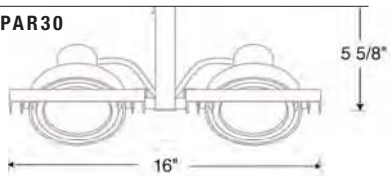
FINISHES: WH, BL, SL



Framed Duo

T834 TWO **50-75W PAR30**

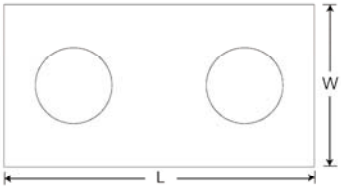
FINISHES: WH, BL, SL



Airfoil Trim for Framed Duo

	W	L	H
T814T (ORDER SEPARATELY FOR T814, T819)	7 5/8"	14 5/8"	1 1/4"
T834T (ORDER SEPARATELY FOR T834)	10 3/8"	18 5/8"	1 1/2"

FINISHES: WH, BL, SL



See website for details, www.junolightinggroup.com

See pages 156-159 for complete accessory descriptions.

Perimeter Lighting

Illuminating perimeters is one of the most challenging aspects of retail and display lighting. It greatly effects the overall perception of a space, influences traffic patterns, creates focal points and helps establish visual hierarchy. But in addition to these important characteristics, consideration must be given to perimeter lighting's contribution to ambient light levels and its impact on energy consumption. Juno shines when it comes to perimeter lighting, offering wall washing solutions that are effective, efficient and economical.

Wall Washing

Select from a wide variety of specialized wall wash luminaires to evenly illuminate perimeter walls or bathe feature display areas with energy-efficient, color correct lighting. Wall wash fixtures are often used in combination with halogen or CMH spotlights to achieve the optimum combination of energy efficiency and visual impact.

LED (Light Emitting Diode)

Juno LED wall wash/flood fixtures are the latest in energy-saving technology. They offer the longest life and approach the efficacy of CMH fixtures. Their low-profile design and robust die cast aluminum construction are ideal for commercial applications.

Ceramic Metal Halide (CMH)

CMH wall wash/flood fixtures offer the point source sparkle and compact size of halogen lighting in combination with the energy efficiency and long service life of fluorescents.

T5HO Fluorescent

Representing the latest technology in energy-efficient fluorescent lighting, T5HO luminaires offer the perfect blend of efficiency, long lamp life and uniform illumination in a sleek, low-profile housing.

Biax® Compact Fluorescent

A wide range of fixtures that capitalize on the virtues of this popular compact fluorescent lamp provide practical, efficient, cost-effective illumination of vertical surfaces.

Halogen

Halogen floods produce effective, high-quality illumination and are a great choice when economy is a primary consideration.

Biax® is a registered trademark of General Electric.

See website for details, www.junolightinggroup.com

T5T32

T5T22

T5HO Close-to-Trac

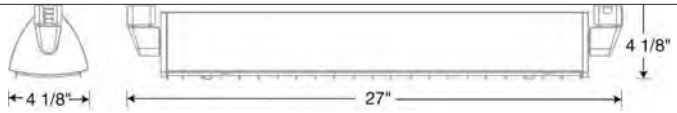
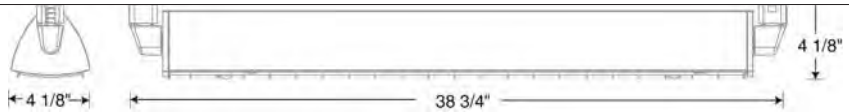
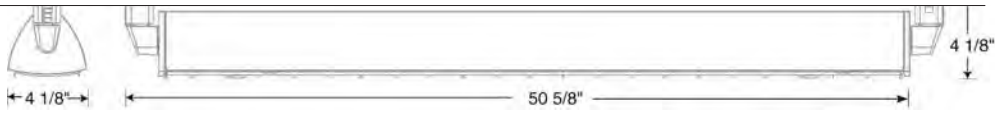
The T5HO Close-to-Trac integrates the latest generation of ultra-compact, linear fluorescent lamps that are four times more efficient than halogen. A computer designed reflector maximizes optical efficiency and produces exceptional, uniform illumination of perimeter walls and displays. Its sleek profile is so shallow that it virtually blends in with the trac.

Features:

- Electronic ballast for maximum energy efficiency and quiet operation
- 20,000-hour lamp life with exceptional lumen maintenance
- Integral one-piece, snap-in metal louver provides the perfect blend of brightness control, aesthetics and efficiency
- Optional clear acrylic lamp containment lens/barrier for food service applications

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T5T22	**TWO 24W T5HO**	
FINISHES: WH, BL, SL		
ACCESSORY FOR T5T22: Clear Acrylic Lens T5L22CL		
T5T32	**TWO 39W T5HO**	
FINISHES: WH, BL, SL		
ACCESSORY FOR T5T32: Clear Acrylic Lens T5L32CL		
T5T42	**TWO 54W T5HO**	
FINISHES: WH, BL, SL		
ACCESSORY FOR T5T42: Clear Acrylic Lens T5L42CL		

T5C22

T5C32

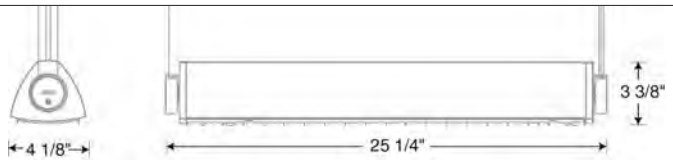
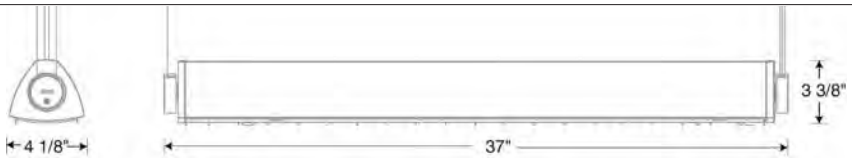
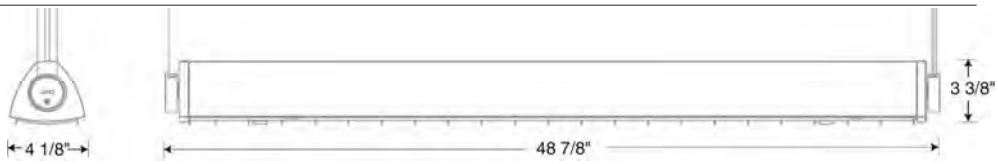
T5HO Cable Suspended

The T5HO Cable Suspended integrates the latest generation of ultra-compact linear fluorescent lamps that are four times more efficient than halogen. A computer-designed reflector maximizes optical efficiency and produces exceptional, uniform illumination of perimeter walls and displays. This shallow profile fixture is suspended from the trac on thin stainless steel cables that are easily field-adjusted to lengths up to six feet.

FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

Features:

- Electronic ballast for maximum energy efficiency and quiet operation
- 20,000-hour lamp life with exceptional lumen maintenance
- 360° vertical rotation accommodates uplight and downlight aiming
- Integral one-piece, snap-in metal louver provides the perfect blend of brightness control, aesthetics and efficiency
- Optional clear acrylic lamp containment lens/barrier for food service applications

CATALOG #	LAMP	DIMENSIONS
T5C22	**TWO 24W T5HO** FINISHES: **WH, BL, SL** ACCESSORY FOR **T5C22:** Clear Acrylic Lens T5L22CL	
T5C32	**TWO 39W T5HO** FINISHES: **WH, BL, SL** ACCESSORY FOR **T5C32:** Clear Acrylic Lens T5L32CL	
T5C42	**TWO 54W T5HO** FINISHES: **WH, BL, SL** ACCESSORY FOR **T5C42:** Clear Acrylic Lens T5L42CL	

See website for details, www.junolightinggroup.com

TMBX26

TBX18
with BL18
Louver

TBX39
with BL39
Louver

Biax® Wall Washers

Approximately three times more efficient than halogen, the Biax Series provides widespread, uniform illumination for perimeter walls and displays using popular biaxial compact fluorescent lamps. Biax models up through 39 watts, have a single adapter and can be rotated off-axis from the trac for additional aiming flexibility. TBX Series is suitable for ceiling mount applications only.

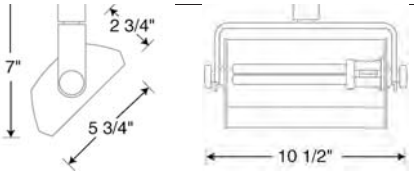
Biax® is a registered trademark of General Electric

Features:

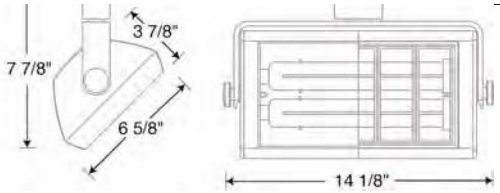
- Electronic ballast offers maximum energy efficiency and quiet operation
- Rated lamp life of up to 20,000 hours
- Optional molded louver (ordered separately) can be specified in white, specular clear or black finishes
- Ceiling mount only (TBX Series)

FINISHES:

WHITE (WH)
BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	BALLAST TYPE	DIMENSIONS
TMBX26	ONE 26W CFL QUAD 2-PIN	120V NPF MAGNETIC	

FINISHES: WH, BL

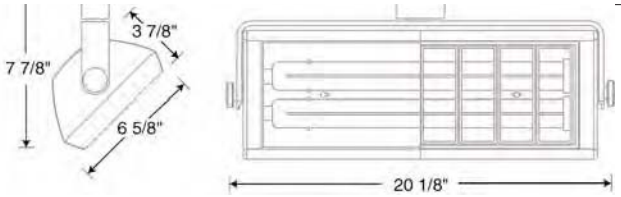
TBX18E	TWO 18W HIGH LUMEN CFL	120V HPF ELECTRONIC	

FINISHES: WH, BL, SL

ACCESSORIES FOR TBX18E:

Black Louver	BL18
Specular Clear Louver	SL18
White Louver	WL18

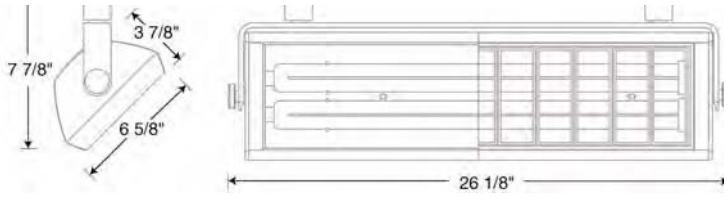
Use 10 1/2" length High Lumen Compact Fluorescent Lamps

TBX39E	TWO 36W/39W HIGH LUMEN CFL	120V HPF ELECTRONIC	

FINISHES: WH, BL, SL

ACCESSORIES FOR TBX39E:

Black Louver	BL39
Specular Clear Louver	SL39
White Louver	WL39

TBX40E	TWO 40W HIGH LUMEN CFL	120V HPF ELECTRONIC	

FINISHES: WH, BL, SL

ACCESSORIES FOR TBX40E:

Black Louver	BL40
Specular Clear Louver	SL40
White Louver	WL40

TM124
with TM570N
Modular Ballast

TM257

T366

T256LED

CMH Wall Wash/Floods

These compact luminaires deliver premium photometric performance using energy efficient T4, T6 and commonly available ED17 lamps. The widespread distribution creates the higher levels of illumination required for effective merchandising using fewer fixtures in a very energy efficient package. The sliding lens holder facilitates tool-less relamping. Choose from MH_V™ or MH_2® mounting styles.

FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

MH_V T4 AND T6

See pages 40-41 for product details and ordering information.

TM256/TM257 Series

MH_2 T4, T6 AND ED17

See pages 60-64 for product details and ordering information.

Asymmetric Mounting

TM120/TM122/TM124 Series

TM156/TM157 Series
(T4, T6 only)

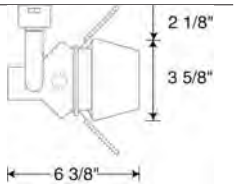
Center Yoke Mounting

TM121/TM123/TM125 Series

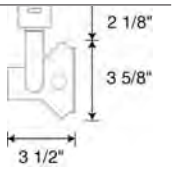
Halogen Flood

These economical quartz halogen floodlights provide crisp, white halogen light from a very compact fixture. The integral black barn doors on the T366 provide brightness control and allow shaping of the light cut-off.

FINISHES:
WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
T366	**75-250W T4 DC BAYONET IN USA**	
T366-CN	**75-250W T3 R7S IN CANADA**	
	QUARTZ HALOGEN FLOOD WITH BLACK BARN DOORS	

FINISHES: WH, BL

CATALOG #	LAMP	DIMENSIONS
T367	**75-250W T4 DC BAYONET IN USA**	
T367-CN	**75-250W T3 R7S IN CANADA**	
	QUARTZ HALOGEN FLOOD WITHOUT BARN DOORS	

FINISHES: WH, BL

NEW

Close-to-Trac LED Wall Wash/Flood

The 35W Close-to-Trac LED Wall Wash/Flood fixtures produces up to 2000 lumens, illumination approximating a 39W CMH fixture. It delivers a powerful and uniform punch of light, utilizing less energy than a similar CMH fixtures and offering up to 4 times the rated life. Its sleek, shallow profile enables it to virtually blend in with the trac. It's unique thermal management design yields a maintenance-free 50,000 hours service life at 70% lumen maintenance. Available in 2700K, 3000K, 3500K and 4100K color temperatures with a typical 80 CRI.

FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	WATTAGE/LAMP	DIMENSIONS
T256LED-XX	**35W LED**	*See page 15 for dimensional information.*

Color Temperatures: 27K=2700K, 3K=3000K, 35K=3500K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example:
T256LED-**27K**-**WH** (replace **XX** in catalog # with color temperature code)

Designer Halogen Series

Expect the Unexpected

Juno's Designer Halogen trac lighting family has redefined the world of residential and commercial illumination. With unique shapes, novel transitions and a thoroughly unconventional approach, this collection of fixtures is exciting and totally unexpected.

Five striking fixture designs make a bold statement in any contemporary décor and each integrates beautifully with Juno's popular Trac-Master, Trac 12 and Flex 12 systems. Handsomely constructed of die cast aluminum, the fixtures are offered in white, black and silver finishes. There are no conventional yokes or stems, and wiring is totally concealed.

Whether you need spot, wash or accent lighting, there is a fixture/lamp combination ideally suited to the task. For line voltage applications, choose from PAR20, PAR30 or PAR38 halogen lamps. For low voltage, choose the versatile MR16. All fixtures feature 360° rotation and over 100° vertical aiming, virtually eliminating dead spots.

Cubix, Xanadu, Glacis, Facet, Mamba…the trendsetting lineup of Designer Halogen Series trac fixtures from Juno. Where high style and precision engineering go hand-in-hand.

See website for details, www.junolightinggroup.com

JUNO

Trac adapter connects in style

A unique, high-style family of fixtures calls for an equally stylish trac adapter. This custom designed Trac-Master adapter perfectly complements the Designer Halogen Series and matches the fixtures in chic and elegance.

The conical, streamlined shape of the adapter blends effortlessly with the fixtures and provides both mechanical support and electrical connectivity for Trac-Master installations (Trac 12™ and Flex 12™ each feature their own unique mounting systems).

Advanced media cartridge

Professional-grade media cartridges* are standard on MR16 fixtures and optional on PAR30 fixtures, greatly enhancing application versatility. They feature an integral bayonet mount for easy, efficient installation and can simultaneously accommodate up to two light control accessories.

A wide range of light control accessories is available including color filters, UV filters, color correction filters, light control lenses and louvers.

See pages 156-159 for a complete listing of all applicable light control accessories.

** Because of its unique open design, the Mamba fixture is unable to accommodate a media cartridge or light control accessories.*

Trac adapter features an adjustable, positive contact lever to accommodate both one and two circuit systems.

T860 with
T537 Transformer

T863

T868

NEW

Mamba®

The Mamba is a strikingly original, front loading gimbal ring design. Gracefully curved and tapered elements flow into a gimbal ring that appears to float, while the gently scooped socket housing reinforces a concave/convex theme. Concealed wiring and sleek trac adapter create an ultra-clean appearance. The Mamba offers interesting details and elegant execution.

Mamba for Trac-Master is designed for use with up to 75W PAR30 and 150W PAR38 line voltage halogen lamps and 50W MR16CG low voltage halogen lamps with integral cover glass. Media cartridges are not available for this fixture due to the unique characteristics of the open gimbal ring design.

The Mamba features high-quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T860	**12V, 20-50W MR16CG**	

FINISHES: WH, BL, SL

T537 or T538 Transformer required. Must be ordered separately.

CATALOG #	LAMP	DIMENSIONS
T863	**35-75W PAR30**	

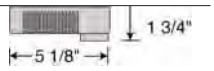
FINISHES: WH, BL, SL

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

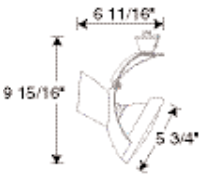
T537

T538



CATALOG #	LAMP
T868	**45-150W PAR38**

FINISHES: WH, BL, SL



T870 with
T537 Transformer

T872

T873

T878

NEW

Xanadu®

Stunning simplicity yields a classic beauty. Xanadu's stem elevates from the fixture as though carved from a section of its cone-shaped body. Its pure shape is devoid of extraneous detail. Its concealed wiring and blended trac adapter produce an ultra-clean appearance. Sleek and streamlined, the Xanadu is truly magical.

Xanadu for Trac-Master is designed for use with up to 50W PAR20, 75W PAR30, and 150W PAR38 line voltage halogen lamps and 50W MR16 low voltage halogen lamps. An optional, integral, bayonet-mount media cartridge is available for the PAR30 fixture that simultaneously accepts up to two light control accessories. A dual accessory media cartridge is standard on the MR16 fixture.

The Xanadu features high-quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T870	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

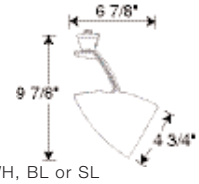
T537 or T538 Transformer required. Must be ordered separately.

CATALOG #	LAMP	DIMENSIONS
T872	**35-50W PAR20**	

FINISHES: WH, BL, SL

T873	**35-75W PAR30**	

FINISHES: WH, BL, SL



ACCESSORIES FOR T870:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

ACCESSORIES FOR T873:

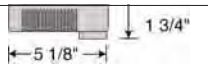
Dual Accessory Holder (Required)	T853MC-WH, BL or SL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
UV Filter*	T5622
Color Correction Filter*	T5618
Cube Cell Louver*	T569BL

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

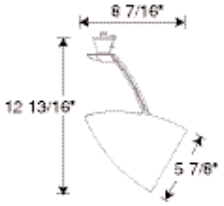
T537

T538



T878	**45-150W PAR38**	

FINISHES: WH, BL, SL



*Filters, lenses, and louvers require dual accessory holder for installation.

T850 with
T537 Transformer

T852

T853

T858

NEW

Facet®

Sweeping lines, arresting angles, and a brilliant lack of symmetry result in a totally unexpected design. Facet's socket housing morphs into a stem that is uniquely horizontal in nature. Concealed wiring and sleek trac adapter complete the ultra-clean appearance. The Facet is beautiful and always intriguing to look at.

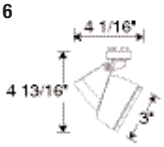
Facet for Trac-Master is designed for use with up to 50W PAR20, 75W PAR30, and 150W PAR38 line voltage halogen lamps and 50W MR16 low voltage halogen lamps. An optional, integral, bayonet-mount media cartridge is available for the PAR30 fixture that simultaneously accepts up to two light control accessories. A dual accessory media cartridge is standard on the MR16 fixture.

The Facet features high-quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T850	**12V, 20-50W MR16**	

FINISHES: **WH, BL, SL**



T537 or T538 Transformer required. Must be ordered separately.

ACCESSORIES FOR T850:

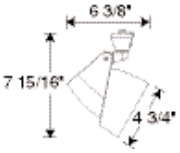
Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

CATALOG #	LAMP	DIMENSIONS
T852	**35-50W PAR20**	

FINISHES: **WH, BL, SL**

T853	**35-75W PAR30**

FINISHES: **WH, BL, SL**



ACCESSORIES FOR T853:

Dual Accessory Holder (Required)	T853MC-WH, BL or SL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
UV Filter*	T5622
Color Correction Filter*	T5618
Cube Cell Louver*	T569BL

20-75VA 12V TRANSFORMERS

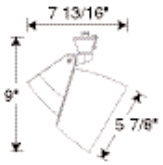
Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538

T858	**45-150W PAR38**

FINISHES: **WH, BL, SL**



*Filters, lenses, and louvers require dual accessory holder for installation.

T890 with
T538 Transformer

T892

T893

T898

NEW

Cubix®

The Cubix is a study of the visual relationship between two different geometric forms: the ring and the cube. In this design, the stem becomes a central element, forming a pleasing visual extension of the cube form. Concealed wiring and sleek trac adapter offer an ultra-clean appearance. The playful personality of the Cubix is sure to add fun to any environment.

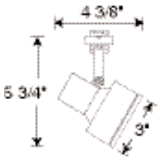
Cubix for Trac-Master is designed for use with up to 50W PAR20, 75W PAR30, and 150W PAR38 line voltage halogen lamps and 50W MR16 low voltage halogen lamps. An optional, integral, bayonet-mount media cartridge is available for the PAR30 fixture that simultaneously accepts up to two light control accessories. A dual accessory media cartridge is standard on the MR16 fixture.

The Cubix features high-quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T890	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL



T537 or T538 Transformer required. Must be ordered separately.

ACCESSORIES FOR T890:

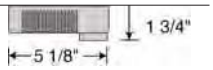
Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

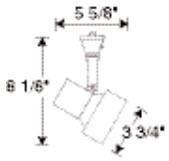
T537

T538



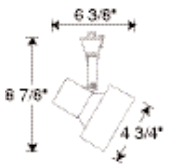
CATALOG #	LAMP	DIMENSIONS
T892	**35-50W PAR20**	

FINISHES: WH, BL, SL



CATALOG #	LAMP	DIMENSIONS
T893	**35-75W PAR30**	

FINISHES: WH, BL, SL

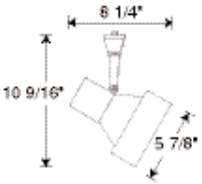


ACCESSORIES FOR T893:

Dual Accessory Holder (Required)	T893MC-WH, BL or SL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL

CATALOG #	LAMP	DIMENSIONS
T898	**45-150W PAR38**	

FINISHES: WH, BL, SL



*Filters, lenses, and louvers require dual accessory holder for installation.

T880 with
T537 Transformer

T882

T883

T888

NEW

Glacis®

The Glacis is inspired by the beauty of our natural world. The truncated conical element at the top cloaks the stem pivot when observed from conventional viewing angles. Concealed wiring and sleek trac adapter complete the ultra-clean appearance. Glacis is a breath of fresh air.

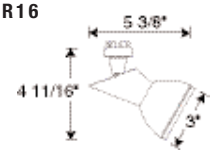
Glacis for Trac-Master is designed for use with up to 50W PAR20, 75W PAR30, and 150W PAR38 line voltage halogen lamps and 50W MR16 low voltage halogen lamps. An optional, integral, bayonet-mount media cartridge is available for the PAR30 fixture that simultaneously accepts up to two light control accessories. A media cartridge for two light control accessories is standard on the MR16 fixture.

The Glacis features high-quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T880	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL



T537 or T538 Transformer required. Must be ordered separately.

ACCESSORIES FOR T880:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

CATALOG #	LAMP	DIMENSIONS
T882	**35-50W PAR20**	

FINISHES: WH, BL, SL

CATALOG #	LAMP	DIMENSIONS
T883	**35-75W PAR30**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T883:

Dual Accessory Holder (Required)	T853MC-WH, BL or SL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL

20-75VA 12V TRANSFORMERS

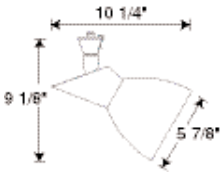
Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538

T888	**45-150W PAR38**	

FINISHES: WH, BL, SL



*Filters, lenses, and louvers require dual accessory holder for installation.

Designer Exclusives

Juno Designer Exclusives present a contemporary-yet-timeless appearance that is ideal for a broad range of commercial and residential applications, including task, accent and vertical surface lighting; as well as display, exhibition and gallery lighting. This striking fixture collection provides effective, efficient illumination and makes a bold statement no matter what the environment, no matter what the decor.

Graceful Suspension

Trapezia suspends either MR16 or PAR30 lamps from the trac with the grace of a trapeze artist.

T630-9
with T537
Transformer

T630-16
with T537
Transformer

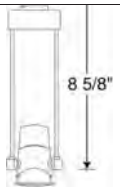
T635-9

T635-16

Trapezia™

Slender 9-inch or 16-inch long tubes conceal supply wires feeding into an elegantly sculpted die cast aluminum lamp housing. The light, airy appearance is great for display, exhibition and gallery lighting, and the downward reach can make pendant mounting of trac unnecessary.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

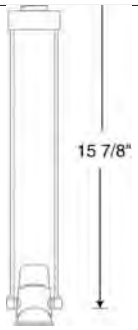
CATALOG #	LAMP	DIMENSIONS
T630-9	**12V, 20-50W MR16CG** COVER GLASS	

FINISHES: WH, BL, SL

ACCESSORIES FOR T630-9:

Dual Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Barn Doors*	T7470BL

T537 or T538 Transformer required. Must be ordered separately.

CATALOG #	LAMP	DIMENSIONS
T630-16	**12V, 20-50W MR16CG** COVER GLASS	

FINISHES: WH, BL, SL

ACCESSORIES FOR T630-16:

Dual Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Barn Doors*	T7470BL

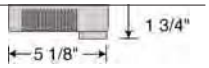
T537 or T538 Transformer required. Must be ordered separately.

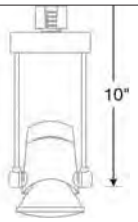
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

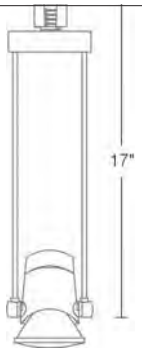
T537

T538



CATALOG #	LAMP	DIMENSIONS
T635-9	**35-75W PAR30**	

FINISHES: WH, BL, SL

CATALOG #	LAMP	DIMENSIONS
T635-16	**35-75W PAR30**	

FINISHES: WH, BL, SL

*Filters, lenses, louvers and barn doors require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

T640
with T537
Transformer

T645

Gyrus™

A new spin on a traditional design, the Gyrus combines dramatic aerodynamic styling with the convenience of a front relamping gimbal ring. The MR16 has an integral accessory holder that accepts up to two standard 2" diameter lenses and louvers. An optional snap-in, dual accessory holder is available for the PAR30 that smartly integrates into the die cast aluminum fixture design.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

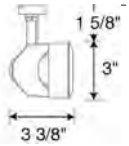
CATALOG #	LAMP	DIMENSIONS
T640	**12V, 20-50W MR16**	

With Integral Dual Accessory Holder

FINISHES: WH, BL, SL

ACCESSORIES FOR T640:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL



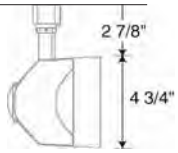
T537 or T538 Transformer required. Must be ordered separately.

T645 **35-75W PAR30**

FINISHES: WH, BL, SL

ACCESSORIES FOR T645:

Dual Accessory Holder (Required)	T645MC-WH, BL, SL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL

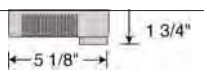


20-75VA 12V TRANSFORMERS

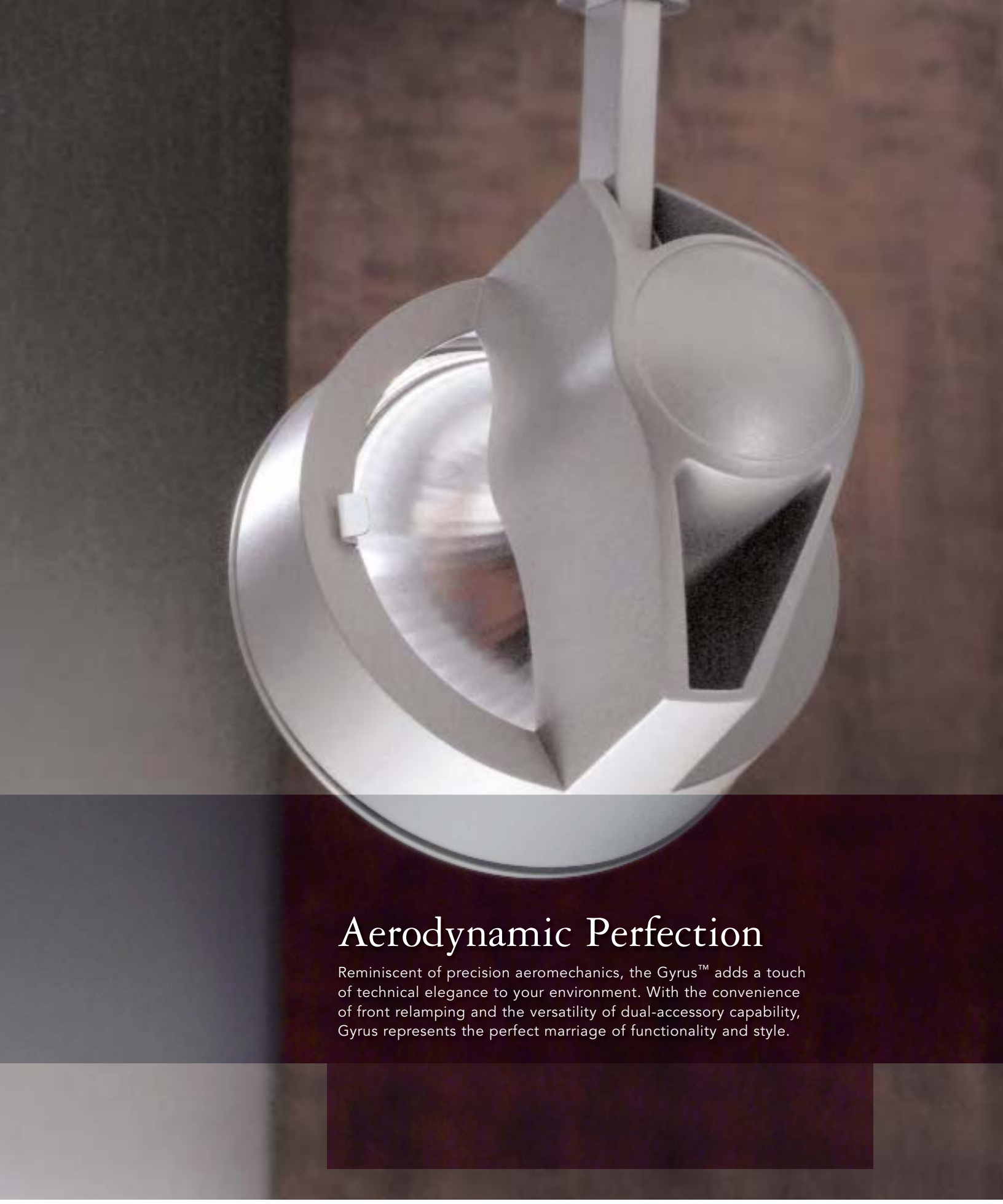
Both T537 and T538 are available in white, black or silver. finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



*Filters, lenses and louvers require dual accessory holder for installation.



Aerodynamic Perfection

Reminiscent of precision aeromechanics, the Gyrus™ adds a touch of technical elegance to your environment. With the convenience of front relamping and the versatility of dual-accessory capability, Gyrus represents the perfect marriage of functionality and style.

Timeless

Wireforms® is just one of many patented Juno classics that will stand the test of time. Its light, techno-elegance is the quintessence of timeless simplicity and is available in several lustrous finishes including satin chrome and painted silver.

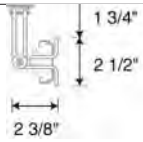
Wireforms®

Juno's timeless, patented Wireform design encircles line and low voltage halogen lamps in a light, technically appealing frame.

FINISHES:

WHITE (WH) SILVER (SL) SATIN CHROME (SC)
BLACK (BL)** RED (RD)

**Black finish lampholders are supplied with both black and red adjusting buttons.

CATALOG #	LAMP	DIMENSIONS
T430	**12V, 20-75W MR16**	

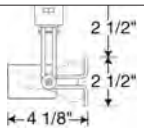
FINISHES: WH, BL, SL, RD

ACCESSORIES FOR T430:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Dichroic Filters	T5501-18
Hexcell Louver	T5559BL
Black Barn Doors	T74BL

T537 or T538 Transformer required. Must be ordered separately.

T431 **45-60W PAR16**



FINISHES: WH, BL, SL, RD, SC

ACCESSORY FOR T431:

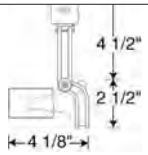
Black Barn Doors	T74BL

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538

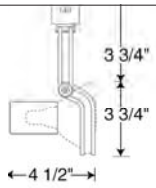
CATALOG #	LAMP	DIMENSIONS
T433	**35-50W PAR20**	

FINISHES WH, BL, SL, RD, SC

ACCESSORIES FOR T433:

Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	TW75BL

T435 **35-75W PAR30**



FINISHES: WH, BL, SL, RD, SC

ACCESSORIES FOR T435:

Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	TW71BL

T437 **45-250W PAR38**

FINISHES: WH, BL, SL, RD

ACCESSORIES FOR T437:

Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Barn Doors (Required)	TW72BL

*Filters, lenses and louvers require barn doors for installation.

Wishbones

An elegant twist on the popular gimbal ring fixture, the sculpted "wishbone" yoke and contoured socket cup produce a most pleasing combination of form and proportion. A special 360 degree plus rotation feature on this series eliminates aiming dead zones. Aiming and rotation can be locked with a Phillips screwdriver.

FINISHES:

WHITE (WH) — SILVER (SL)
BLACK (BL) — SATIN CHROME (SC) (WITH BLACK YOKE)

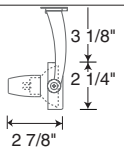
CATALOG # T480 — LAMP: 12V, 20-50W MR16

FINISHES: WH, BL, SL, SC

ACCESSORIES FOR T480:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Eyebrow	T556BL
Black Barn Doors	T74BL

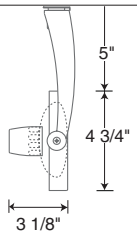
DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

T484 — 12V, 35-50W PAR36

FINISHES: WH, BL, SL



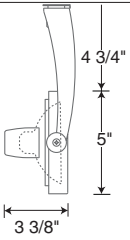
T537 or T538 Transformer required. Must be ordered separately.

T485 — 12V, 35-75W AR111

FINISHES: WH, BL, SL

ACCESSORIES FOR T485:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Black Eyebrow	T587BL
Cube Cell Louver	T579BL

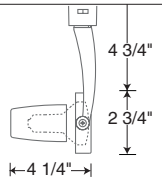


T537 or T538 Transformer required. Must be ordered separately.

CATALOG # T482 — LAMP: 35-50W PAR20

FINISHES: WH, BL, SL, SC

DIMENSIONS

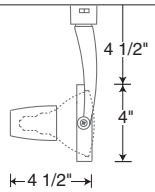


T483 — 35-75W PAR30

FINISHES: WH, BL, SL, SC

ACCESSORIES FOR T483:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
UV Filter	T5622
Cube Cell Louver	T569BL
Black Eyebrow	T577BL

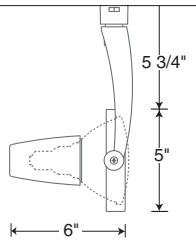


T487 — 45-150W PAR38

FINISHES: WH, BL, SL

ACCESSORIES FOR T487:

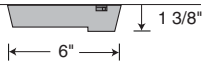
Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL
Black Eyebrow	T587BL



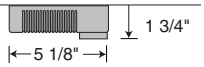
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538



See website for details, www.junolightinggroup.com

T216
with T537
Transformer

TP216
with T537
Transformer

T218

T219

Delta 200 Series®

An angular, die cast aluminum fixture body and rod-supported lamp bezel create a semi-exposed, technical appearance. The front bezel supports accessory lenses and louvers for custom-tailored lighting effects.

FINISHES:

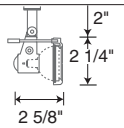
WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T216	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T216:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Dichroic Filters	T5501-18
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL



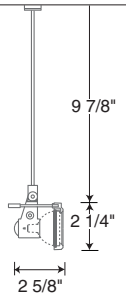
T537 or T538 Transformer required. Must be ordered separately.

CATALOG #	LAMP
TP216	**12V, 20-50W MR16**

FINISHES: WH, BL, SL

ACCESSORIES FOR TP216:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL

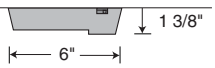


T537 or T538 Transformer required. Must be ordered separately.

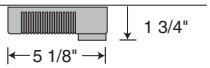
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538

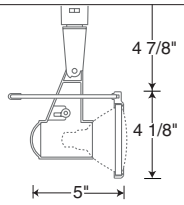


CATALOG #	LAMP	DIMENSIONS
T218	**35-75W PAR30**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T218:

Accessory Holder (Required)	T660BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver	T569BL
Black Eyebrow	T577BL

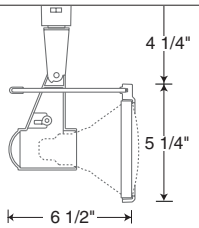


T219 45-150W PAR38

FINISHES: WH, BL, SL

ACCESSORIES FOR T219:

Accessory Holder (Required)	T670BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver	T579BL
Black Eyebrow	T587BL



*Filters and lenses require accessory holder for installation.

See website for details, www.junolightinggroup.com

T227
with T537
Transformer

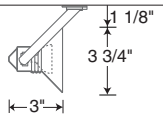
T228

T229

Flybacks

Uniquely angled back from the trac at 45 degrees, Flybacks add visual energy into a space.

FINISHES:
WHITE (WH) BLACK (BL) SATIN CHROME (SC)

CATALOG #	LAMP	DIMENSIONS
T227	**12V, 20-50W MR16CG COVER GLASS**	

FINISHES: WH, BL

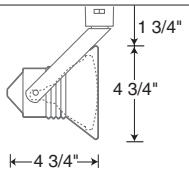
ACCESSORIES FOR T227:

Dual Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL

T537 or T538 Transformer required. Must be ordered separately.

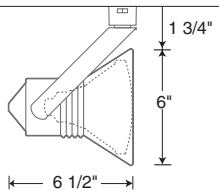
T228 **35-75W PAR30**

FINISHES: WH, BL, SC



T229 **45-150W PAR38**

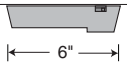
FINISHES: WH, BL



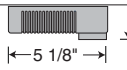
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white or black finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538



*Filters, lenses and louvers require dual accessory holder for installation.
Use of light control accessories negates the need for MR16 cover glass lamp.

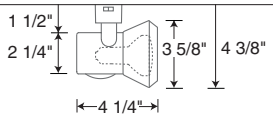
T220 T230 T231 T238 T239

Close-Ups

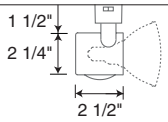
As the name implies, this compact, stylish lampholder hugs close to the trac for minimum intrusion into a space. The softly sculpted back detail and metal shades are welcome design refinements for many interiors.

FINISHES:

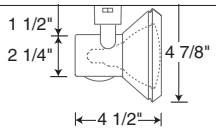
WHITE (WH) BLACK (BL) SATIN CHROME (SC) (WITH BLACK SOCKET HOUSING)

CATALOG #	LAMP	DIMENSIONS
T220	**35-50W PAR20** ENCLOSED SHADE	

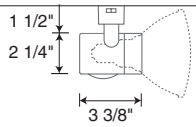
FINISHES: WH, BL, SC

T230	**35-75W PAR30** OPEN FIXTURE	

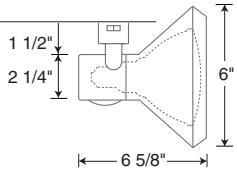
FINISHES: WH, BL

T231	**35-75W PAR30** ENCLOSED SHADE	

FINISHES: WH, BL, SC

CATALOG #	LAMP	DIMENSIONS
T238	**45-150W PAR38** OPEN FIXTURE	

FINISHES: WH, BL

T239	**45-150W PAR38** ENCLOSED SHADE	

FINISHES: WH, BL, SC

T290
with T537
Transformer

T295

T393

T395

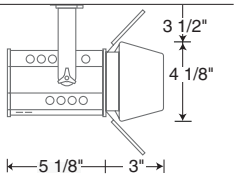
T397

Theatrical Lights

The classic stage and studio design and integral barn doors evoke the feeling of theatrical lighting.

FINISH: BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
T290	**12V, 20-75W MR16**	



FINISH: BL

ACCESSORIES FOR T290:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

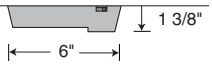
T537 or T538 Transformer required. Must be ordered separately.

Filters, lenses and louver replace clear glass supplied with MR16 fixtures. Barn Doors on T290 will also accept one additional accessory if desired – select from list of T295 accessories.

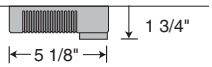
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white or black finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

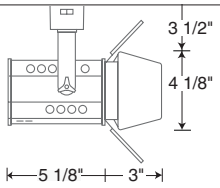
T537



T538



T295	**30-50W R20 OR 35-50W PAR20**	



FINISH: BL

ACCESSORIES FOR T295:

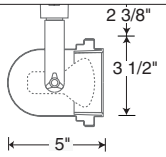
Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
UV Filter	T5622
Cube Cell Louver	T569BL

Studio I

This classic nautical look is especially popular in traditional design settings.

FINISH: WHITE (WH)

CATALOG #	LAMP	DIMENSIONS
T393	**30-50W R20**	

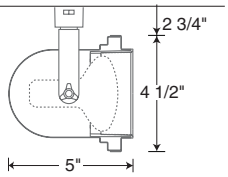


FINISH: WH

ACCESSORIES FOR T393:

Accessory Holder (Required)	T560BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	T71BL

T395	**60-75W BR30 OR 35-75W PAR30L**	

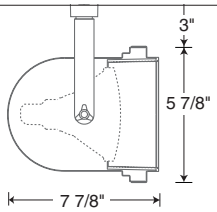


FINISH: WH

ACCESSORIES FOR T395:

Accessory Holder (Required)	T570BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Barn Doors (Required)	T72BL

T397	**45-150W PAR38 OR 65-120W BR40**	



FINISH: WH

ACCESSORIES FOR T397:

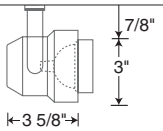
Accessory Holder (Required)	T580BL
Color Filter*	T581-6
Cube Cell Louver*	T589BL
Black Barn Doors (Required)	T73BL
White Barn Doors (Required)	T73WH

*Filters, lenses and louvers require accessory holder or barn doors for installation.

Studio II

Add theatrical styling to lighting applications. Striking finishes to innovative product details make the Studio II an important design element and an effective lighting product. Available with or without integral barn doors, Studio II adds a contemporary stage and studio flavor into an environment. Supplied with integral accessory holder.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T291	**12V, 20-50W MR16 WITH BLACK INTEGRAL ACCESSORY RING**	

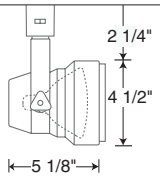
FINISHES: WH, BL, SL

ACCESSORIES FOR T291:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

T537 or T538 Transformer required. Must be ordered separately.

T293 — **35-75W PAR30 WITH BLACK INTEGRAL ACCESSORY RING**

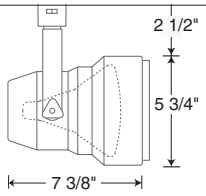


FINISHES: WH, BL, SL

ACCESSORIES FOR T293:

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
UV Filter	T5622
Cube Cell Louver	T569BL

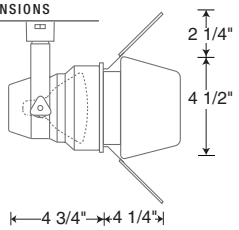
T294 — **45-150W PAR38 WITH BLACK INTEGRAL ACCESSORY RING**



FINISHES: WH, BL, SL

ACCESSORIES FOR T294:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL

CATALOG #	LAMP	DIMENSIONS
T292	**35-75W PAR30 WITH BARN DOORS**	

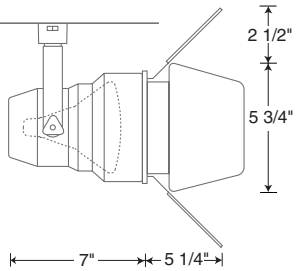
FINISHES: BL, SL

ACCESSORIES FOR T292:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL

Barn Doors accepts one lens, filter or louver

T296 — **45-150W PAR38 WITH BARN DOORS**



FINISHES: BL, SL

ACCESSORIES FOR T296:

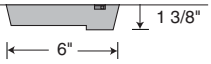
Color Filters	T581-6
Cube Cell Louver	T589BL

Barn Doors accepts one filter or louver

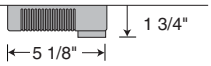
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white or black finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538



T621
with T537
Transformer

T611

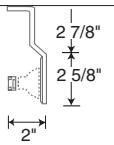
T613

T614

Straps

A widely imitated, but never duplicated Juno design classic, this series is particularly popular in the brushed satin aluminum finish, which is an exact match to Juno's natural aluminum trac.

FINISHES: WHITE (WH) BLACK (BL) SATIN ALUMINUM (SA)

CATALOG #	LAMP	DIMENSIONS
T621	**12V, 20-75W MR16**	

FINISHES: WH, BL, SA

ACCESSORIES FOR T621:

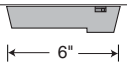
Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Eyebrow	T556BL
Black Barn Doors	T74BL

T537 or T538 Transformer required. Must be sold separately.

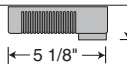
20-75VA 12V TRANSFORMERS

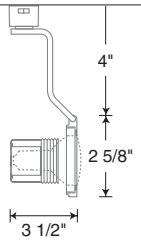
Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538



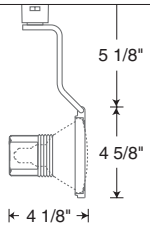
CATALOG #	LAMP	DIMENSIONS
T611	**45-60W PAR16**	

FINISHES: WH, BL, SA

ACCESSORIES FOR T611:

Black Eyebrow	T556BL
Black Barn Doors	T74BL

T613 **35-75W PAR30**

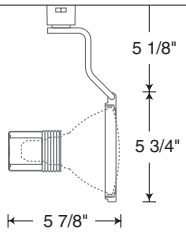


FINISHES: WH, BL, SA

ACCESSORIES FOR T613:

Accessory Holder (Required)	T660BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Eyebrow	T577BL

T614 **45-150W PAR38**



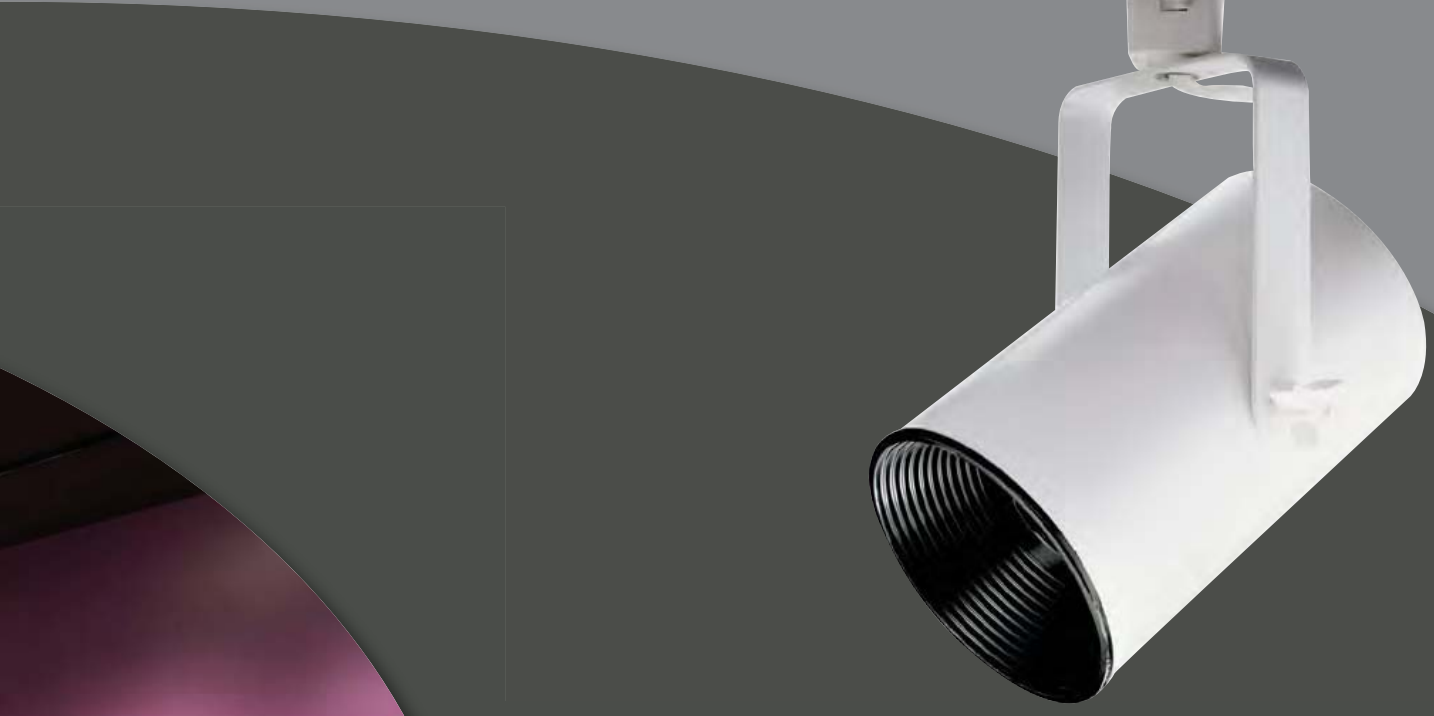
FINISHES: WH, BL, SA

ACCESSORIES FOR T614:

Accessory Holder (Required)	T670BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filters*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Eyebrow	T587BL

*Filters, lenses and louvers require accessory holder for installation.

let yourself shine
style studio
LOOKFAB
MOMENTS



Classics

Stylish Familiarity

Juno Classics are benchmark fixture designs that incorporate timeless shapes and themes. These simple yet elegant fixtures provide economical trac lighting solutions in extremely practical, functional packages. Comprised mainly of gimbal rings, cylinders and universals, Juno design Classics are offered in a variety of finishes to suit most any décor. Familiar lines and traditional shapes create levels of visual comfort typically not encountered in more contemporary styles. Primarily designed for PAR and R/BR lamps, these uncomplicated fixture styles offer unpretentious aesthetics that blend well in any environment.

Open Back Gimbals

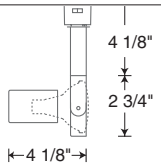
Gimbal rings are ever popular due to their long-standing use as an economical, general-purpose trac lampholder.

FINISHES:

WHITE (WH) SATIN CHROME (SC)
BLACK (BL) NATURAL (NA)

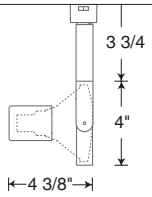
CATALOG #	LAMP	DIMENSIONS
T362	**35-50W PAR20**	

FINISHES: WH, BL, SC



T363 **35-75W PAR30**

FINISHES: WH, BL, SC, NA

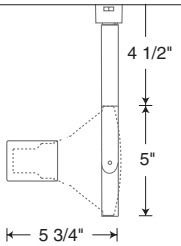


T368 **45-150W PAR38**

FINISHES: WH, BL, SC, NA

ACCESSORIES FOR T368:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL



Front Lamping Gimbals

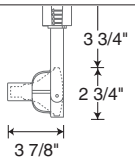
A Juno innovation, the front-loading gimbal ring combines the practicality, versatility and economy of traditional gimbal ring trac fixtures with a fixed front ring to allow simplified front relamping.

FINISHES:

WHITE (WH) BLACK (BL) NATURAL (NA)

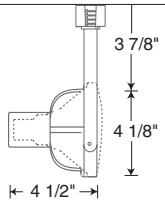
CATALOG #	LAMP	DIMENSIONS
T687	**35-50W PAR20**	

FINISHES: WH, BL, NA



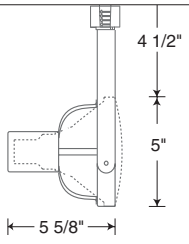
T689 **35-75W PAR30**

FINISHES: WH, BL, NA



T690 **45-250W PAR38**

FINISHES: WH, BL, NA



Note: The Natural (NA) finish is merely a raw finish with a clear protective coating applied – inconsistencies, scratches, and minor processing marks are part of the unique aesthetic created by this process and should be expected.

Universals

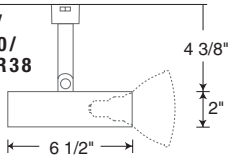
These economical, universal lampholders accept a wide range of wattages and sizes of popular halogen PAR and incandescent R/BR lamps.

FINISHES:

WHITE (WH) BLACK (BL) NATURAL (NA)

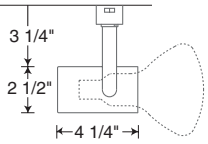
CATALOG #	LAMP	DIMENSIONS
T301	**30-50W R20/35-50W PAR20/ 45-85W BR30/35-75W PAR30/ 65-120W BR40/45-250W PAR38**	

FINISHES: WH, BL



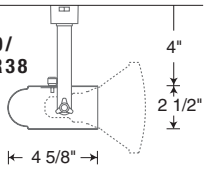
CATALOG #	LAMP	DIMENSIONS
T620	**30-50W R20/35-50W PAR20/ 45-85W BR30/35-75W PAR30/ 65-120W BR40/45-150W PAR38**	

FINISHES: WH, BL



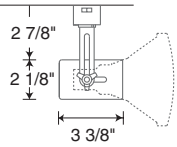
T308 **30-50W R20/35-50W PAR20/ 45-85W BR30/35-75W PAR30/ 65-120W BR40/45-150W PAR38**

FINISHES: WH, BL



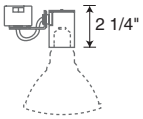
T691 **45-60W PAR16/35-50W PAR20/ 35-75W PAR30/45-150W PAR38**

FINISHES: WH, BL, NA



T359 **30-50W R20/35-50W PAR20/ 45-85W BR30/35-75W PAR30/ 65-120W BR40/45-250W PAR38**

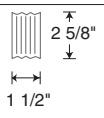
FINISH: WH



ACCESSORIES FOR T308 AND T620:

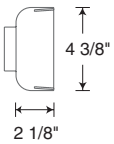
T80BL **45-85W BR30**
Black accordion collar

FINISH: BL



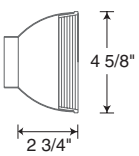
T63 **65W BR30/75W PAR30**
Baffled hood with black baffle for T620

FINISHES: WH, BL



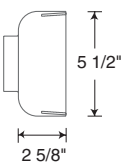
T82WH **50W PAR/R20 TO 65W BR30/75W A19**
White flare reflector with black baffle

FINISH: WH



T64 **120W BR40/150W PAR38**
Baffled hood with black baffle for T620

FINISHES: WH, BL



Note: The Natural (NA) finish is merely a raw finish with a clear protective coating applied – inconsistencies, scratches, and minor processing marks are part of the unique aesthetic created by this process and should be expected.

Mini-PARs

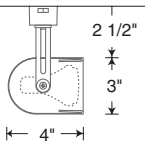
Most cylindrical trac fixtures pre-date the availability of halogen PAR lamps and are typically sized for the longer incandescent reflector lamps. On the contrary, Juno Mini-PARs are optimized around the shorter dimension of halogen PAR lamps, thus offering a more contemporary, compact appearance.

FINISHES:

WHITE (WH) SATIN CHROME (SC) BLACK (BL)**

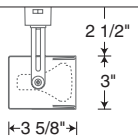
**Black finish lampholders are supplied with both black and red adjusting buttons.

Round Back

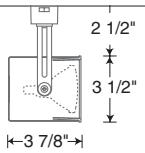
CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T420W **T420B**	**45-60W PAR16**	**WHITE BAFFLE** **BLACK BAFFLE**	

FINISHES: **T420W: WH**
T420B: WH, BL, SC

Flat Back

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T421W **T421B**	**45-60W PAR16**	**WHITE BAFFLE** **BLACK BAFFLE**	

FINISHES: **T421W: WH**
T421B: WH, BL, SC

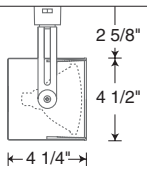
T423W **T423B**	**35-50W PAR20**	**WHITE BAFFLE** **BLACK BAFFLE**	

FINISHES: **T423W: WH**
T423B: WH, BL, SC

ACCESSORIES FOR T423:

Accessory Holder (Required)	T560BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	T71BL

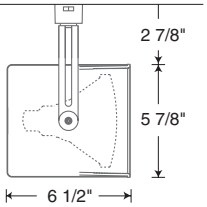
Flat Back

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T425W **T425B**	**35-75W PAR30**	**WHITE BAFFLE** **BLACK BAFFLE**	

FINISHES: **T425W: WH**
T425B: WH, BL, SC

ACCESSORIES FOR T425:

Accessory Holder (Required)	T570BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Barn Doors (Required)	T72BL

T427W **T427B**	**45-250W PAR38**	**WHITE BAFFLE** **BLACK BAFFLE**	

FINISHES: **T427W: WH**
T427B: WH, BL

ACCESSORIES FOR T427:

Accessory Holder (Required)	T580BL
Color Filters*	T581-6
Cube Cell Louver*	T589BL
Black Barn Doors (Required)	T73BL
White Barn Doors (Required)	T73WH

*Filters, lenses and louvers require accessory holder or barn doors for installation.

T371

T372

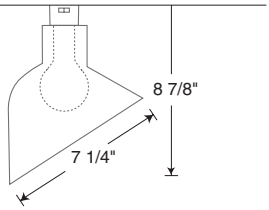
RLMs

These pendant and wall wash fixtures capture the ambiance of old-world industrial and loft spaces for which they were originally designed. They take advantage of economical A-lamps to produce soft, even illumination.

FINISH: WHITE (WH)

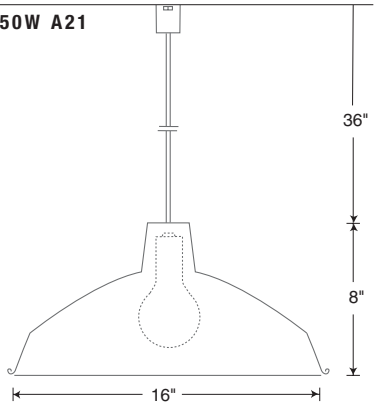
CATALOG #	LAMP	DIMENSIONS
T371	**100W A19/150W A21**	

FINISH: **WH**



T372 **100W A19/150W A21**

FINISH: **WH**



Flat Back Cylinders

These long-standing traditional lampholders accept a wide range of both halogen PAR and incandescent R/BR lamps and provide deep lamp shielding.

FINISHES:
WHITE (WH) BLACK (BL)

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T311	**15-40W R14 OR 40W R16** **INTERMEDIATE SCREW BASE WITH BLACK BAFFLE**	**BLACK BAFFLE**	3 7/8", 2 1/2", 5 1/4"

FINISHES: WH, BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T313W **T313B**	**27-50W R20**	**WHITE BAFFLE** **BLACK BAFFLE**	3 7/8", 3 1/2", 6"

FINISHES: T313W: WH
T313B: WH, BL

ACCESSORIES FOR T313:

Accessory Holder (Required)	T560BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	T71BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T315W **T315B**	**35-75W BR30 OR 45-75W PAR30L**	**WHITE BAFFLE** **BLACK BAFFLE**	4 3/8", 4 1/2", 7 1/4"

FINISHES: T315W: WH
T315B: WH, BL

ACCESSORIES FOR T315:

Accessory Holder (Required)	T570BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Barn Doors (Required)	T72BL

*Filters, lenses and louvers require accessory holder or barn doors for installation.

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T317W **T317B**	**65-120W BR40 OR 45-150W PAR38**	**WHITE BAFFLE** **BLACK BAFFLE**	3", 5 7/8", 7 3/4"

FINISHES: T317W: WH
T317B: WH, BL

ACCESSORIES FOR T317:

Accessory Holder (Required)	T580BL
Color Filters*	T581-6
Cube Cell Louver*	T589BL
Black Barn Doors (Required)	T73BL
White Barn Doors (Required)	T73WH

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T340	**12V, 20-50W MR16**	**BLACK BAFFLE**	3 5/8", 4 1/2", 7 1/4"

FINISHES: WH, BL

ACCESSORIES FOR T340 (1 3/4" DIA.):**

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

** T340 can accept one 1 3/4" filter, lens or louver in place of clear glass supplied with MR16 fixtures; in addition, T340 can also accept one 4 11/16" filter, lens or louver when combined with accessory holder or barn doors.

ACCESSORIES FOR T340 (4 11/16" DIA.):**

Accessory Holder	T570BL
Black Barn Doors	T72BL
Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T342W **T342B**	**45-250W PAR38**	**WHITE BAFFLE** **BLACK BAFFLE**	3", 5 7/8", 6 3/8"

FINISHES: T342W: WH
T342B: WH, BL

ACCESSORIES FOR T342:

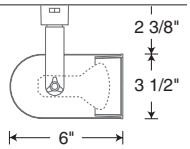
Accessory Holder (Required)	T580BL
Color Filters*	T581-6
Cube Cell Louver*	T589BL
Black Barn Doors (Required)	T73BL
White Barn Doors (Required)	T73WH

Round Back Cylinders

The timeless round-back shape accepts a range of both halogen PAR and incandescent R/BR lamps and provides deep lamp shielding.

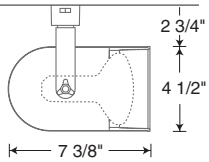
FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T326W **T326B**	**27-50W R20**	**WHITE BAFFLE** **BLACK BAFFLE**	
FINISHES:	**T326W: WH** **T326B: WH, BL**		

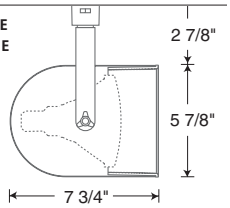
ACCESSORIES FOR T326:

Accessory Holder (Required)	T560BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	T71BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T327W **T327B**	**45-75W BR30 OR** **35-75W PAR30L**	**WHITE BAFFLE** **BLACK BAFFLE**	
FINISHES:	**T327W: WH** **T327B: WH, BL**		

ACCESSORIES FOR T327:

Accessory Holder (Required)	T570BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Barn Doors (Required)	T72BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T328W **T328B**	**65-120W BR40 OR** **45-150W PAR38**	**WHITE BAFFLE** **BLACK BAFFLE**	
FINISHES:	**T328W: WH** **T328B: WH, BL**		

ACCESSORIES FOR T328:

Accessory Holder (Required)	T580BL
Color Filters*	T581-6
Cube Cell Louver*	T589BL
Black Barn Doors (Required)	T73BL
White Barn Doors (Required)	T73WH

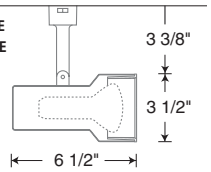
*Filters, lenses and louvers require accessory holder or barn doors for installation.

Step Cylinders

One of the original trac lampholder designs, Step Cylinders are still popular for more utilitarian applications and accept a range of both halogen PAR and incandescent R/BR lamps and provide deep lamp shielding.

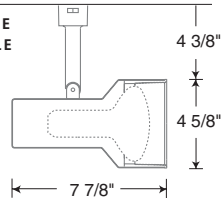
FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T303W **T303B**	**27-50W R20**	**WHITE BAFFLE** **BLACK BAFFLE**	
FINISHES:	**T303W: WH** **T303B: WH, BL**		

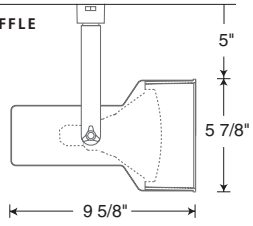
ACCESSORIES FOR T303:

Accessory Holder (Required)	T560BL
Uniformity Lens*	T5621
Prismatic Spread Lens*	T5677
Linear Spread Lens*	T5678
Color Filters*	T561-6
Color Correction Filter*	T5618
UV Filter*	T5622
Cube Cell Louver*	T569BL
Black Barn Doors (Required)	T71BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T305W **T305B**	**45-75W BR30 OR** **35-75W PAR30L**	**WHITE BAFFLE** **BLACK BAFFLE**	
FINISHES:	**T305W: WH** **T305B: WH, BL**		

ACCESSORIES FOR T305:

Accessory Holder (Required)	T570BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL
Black Barn Doors (Required)	T72BL

CATALOG #	LAMP	BAFFLE COLOR	DIMENSIONS
T307B	**65-120W BR40** **OR 45-150W PAR38**	**BLACK BAFFLE**	
FINISHES:	**WH, BL**		

ACCESSORIES FOR T307:

Accessory Holder (Required)	T580BL
Color Filters*	T581-6
Cube Cell Louver*	T589BL
Black Barn Doors (Required)	T73BL
White Barn Doors (Required)	T73WH

Low Voltage Lighting

Low voltage trac lights are one of the most popular fixture designs for creating effective, dramatic accent lighting. Juno's complete collection of low voltage fixtures are presented in this section for easy access and selection.

Precise Beam Control
Low voltage lamps are available in a wide variety of precise beam patterns, from pin-spots to floods. An array of optional accessories can be used to create an infinite range of exacting effects.

Crisp, White Halogen Light
The point-source and white-light characteristics of low voltage lamps render the color and dimension of objects with exceptional clarity.

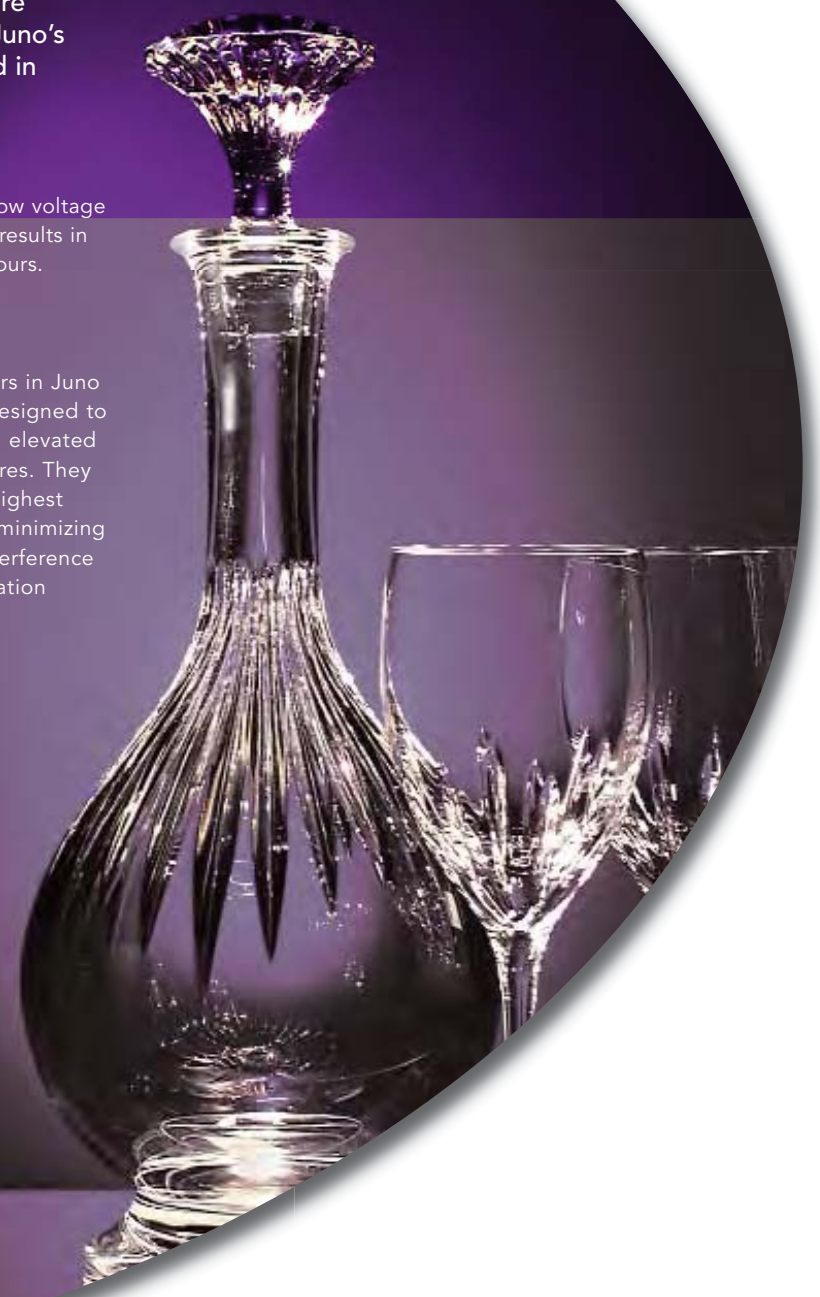
Miniature Size
Owing to their tiny filament size, low voltage lamps and their corresponding fixtures are small in scale, allowing them to be unobtrusively integrated into lighting designs

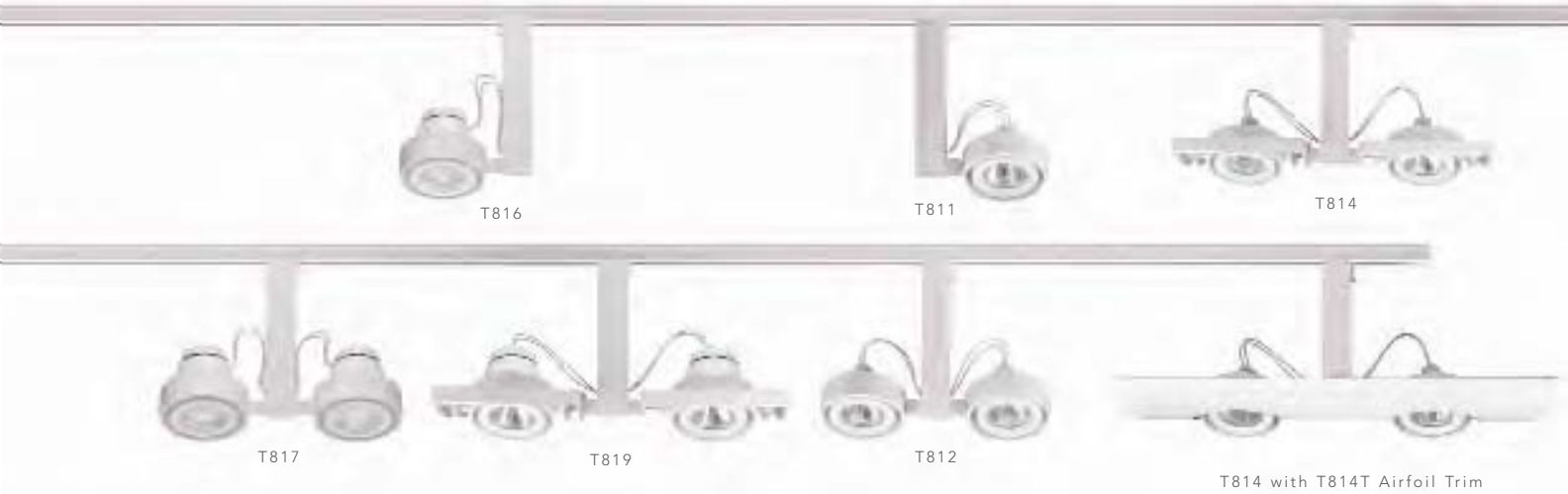
Energy Efficiency
Compared to line voltage halogen, low voltage lamps produce substantially more usable accent lighting per watt. Due to their diminutive size, they can often be positioned closer to the target object, thus requiring less wattage to produce the desired effect.

Cool Beam
Low voltage MR16 lamps are commonly available with dichroic reflector coatings that allow heat-generating infrared energy to pass out the back of the lamp. Mainly visible light is projected forward, reducing the heat that reaches objects and people.

Long Life
The compact filament of low voltage lamps is very rugged and results in lamp life of up to 6,000 hours.

Juno High-Quality Electronic Transformers
The electronic transformers in Juno low voltage fixtures are designed to last 40,000 hours, even in elevated 40° C ambient temperatures. They are FCC certified to the highest noise-limiting standards, minimizing the potential for radio interference and providing quiet operation even when dimmed.





Uno/Duo™ - Enclosed

The unique all-aluminum construction of the Enclosed Uno/Duo Series provides optimal lamp shielding, eliminating the stray backlight effect from the lamps. The concentric gimbal rings let you aim light in all directions.

FINISHES:

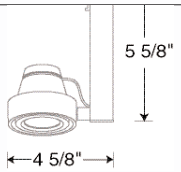
WHITE (WH) BLACK (BL) SILVER (SL)

Enclosed Uno

CATALOG #	LAMP	DIMENSIONS
T816	**ONE 12V, 20-50W MR16**	

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL

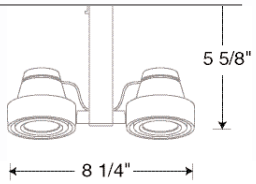


Enclosed Duo

T817 **TWO 12V, 20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL

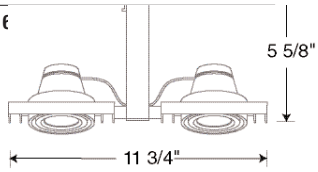


Enclosed Framed Duo

T819 **TWO 12V, 20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL



ACCESSORIES FOR MR16 UNO/DUO:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

Uno/Duo™ - Open

The concentric gimbal format allows fixtures to remain uniformly aligned with the trac regardless of how they are aimed. Duo models allow for reduction of fixture counts, with the framed models style-matched with the AVIO™ Series.

FINISHES:

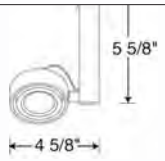
WHITE (WH) BLACK (BL) SILVER (SL)

Uno

CATALOG #	LAMP	DIMENSIONS
T811	**ONE 12V, 20-75W MR16**	

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL

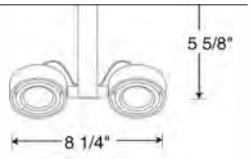


Duo

T812 **TWO 12V, 20-50W MR16**

Integral 12V Electronic Transformer

FINISHES: WH, BL, SL

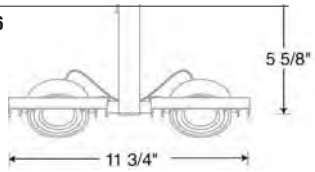


Framed Duo

T814 **TWO 12V, 20-50W MR16**

Integral 12V Electronic Transformer

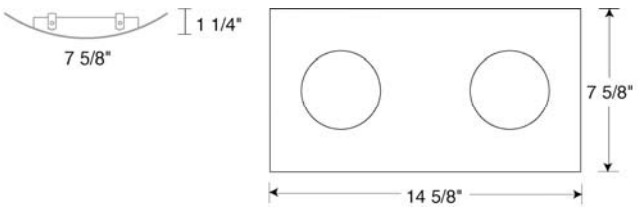
FINISHES: WH, BL, SL



Airfoil Trim

T814T (ORDER SEPARATELY FOR T814, T819)

FINISHES: WH, BL, SL



See website for details, www.junolightinggroup.com

See pages 156-159 for complete accessory descriptions.

T805 T807 T809

T216
with T537
Transformer

TP216
with T537
Transformer

Slants

The sharp, angular design of the Slant series adds a hint of energy to an interior. The slant body houses an integral electronic transformer. Unique, personable and available with open or enclosed lampholder styles.

FINISHES:
WHITE (WH) BLACK (BL)

Gimbal Ring

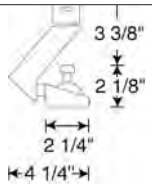
CATALOG #	LAMP	DIMENSIONS
T805	**12V, 20-50W MR16**	

Integral 12V Electronic Transformer

FINISHES: WH, BL

ACCESSORIES FOR T805:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



Round Back Mesh

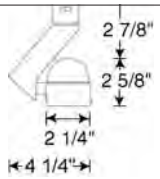
T807 12V, 20-50W MR16

Integral 12V Electronic Transformer

FINISHES: WH, BL

ACCESSORIES FOR T807:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



Step Cylinder

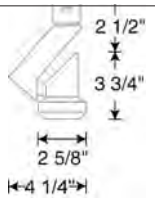
T809 12V, 20-50W MR16

Integral 12V Electronic Transformer

FINISHES: WH, BL

ACCESSORIES FOR T809:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Eyebrow	T556BL



Delta 200 Series®

An angular, die cast fixture body and rod-supported lamp bezel create a semi-exposed, technical appearance. For special effects, an optional louver or color filter can be substituted for the clear glass lens that is smartly contained in the rod-supported front bezel.

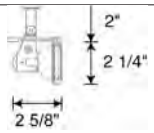
FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T216	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T216:

Uniformity Lens	T5521
Diffusion Lens	T5520
Dichroic Filters	T5501-18
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL



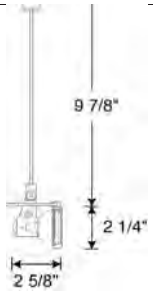
T537 or T538 Transformer required. Must be ordered separately.

TP216 12V, 20-50W MR16

FINISHES: WH, BL, SL

ACCESSORIES FOR TP216:

Uniformity Lens	T5521
Diffusion Lens	T5520
Dichroic Filters	T5501-18
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL



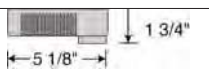
T537 or T538 Transformer required. Must be ordered separately.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



T161
with T537
Transformer

T160
with T537
Transformer

T165
with T537
Transformer

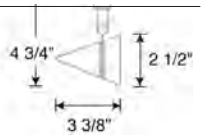
Geometrics

Choose the petite MR11 Dart for a playful accent, the MR16 Cone for a more sophisticated design statement or the MR16 Orb for balanced, consistent appearance regardless of aiming angle.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

Dart

CATALOG #	LAMP	DIMENSIONS
T161	**12V, 20-35W MR11**	

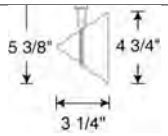
FINISHES: WH, BL, SL

ACCESSORIES FOR T161:

Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522

T537 or T538 Transformer required. Must be ordered separately.

Cone

T160	**12V, 20-50W MR16**	

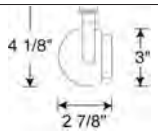
FINISHES: WH, BL, SL

ACCESSORIES FOR T160:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

T537 or T538 Transformer required. Must be ordered separately.

Orb

T165	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T165:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

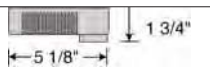
T537 or T538 Transformer required. Must be ordered separately.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



Geometrics

The Geometrics series integrates the timeless simplicity of cones and spheres with technical details that complement today's chic interior designs.

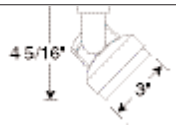
T841
with T537
Transformer

NEW

Cylindra™

Applying a new twist to a traditional design, the Cylindra Series offers a unique, contemporary aesthetic based on a step cylinder fixture platform. Gentle arcs elegantly blend with bold edges to provide a unique yet timeless visual appeal. Each fixture is supplied with an integral bayonet-mount accessory holder that is designed to simultaneously accept up to two light control accessories in place of the clear glass lens provided.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T841	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

T537 or T538 Transformer required. Must be ordered separately.

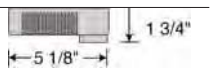
ACCESSORIES FOR T841:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

20-75VA 12V TRANSFORMERS

T537

T538



Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T860
with T537
Transformer

T870
with T537
Transformer

NEW Mamba®

The Mamba is a strikingly original, front loading gimbal-ring design. Gracefully curved and tapered elements flow into a gimbal ring that appears to float, while the gently scooped socket housing reinforces a concave/convex theme. Concealed wiring completes an ultra-clean appearance.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T860	**12V, 20-50W MR16CG COVER GLASS**	

FINISHES: **WH, BL, SL**

T537 or T538 Transformer required. Must be ordered separately.

NEW Xanadu®

Stunning simplicity yields a classic beauty. Xanadu's stem elevates from the fixture as though carved from a section of its cone-shaped body. Its pure shape is devoid of extraneous detail. Its concealed wiring produces an ultra-clean appearance. Sleek and streamlined, the Xanadu is truly magical.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T870	**12V, 20-50W MR16**	

FINISHES: **WH, BL, SL**

T537 or T538 Transformer required. Must be ordered separately.

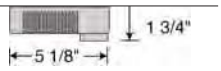
ACCESSORIES FOR T870:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

20-75VA 12V TRANSFORMERS

T537

T538



Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T850
with T537
Transformer

T850
with T538
Transformer

NEW Facet®

Sweeping lines, arresting angles, and a brilliant lack of symmetry result in a totally unexpected design. Facet's socket housing morphs into a stem that is uniquely horizontal in nature. Concealed wiring completes the ultra-clean appearance. The Facet is beautiful and always intriguing to look at.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

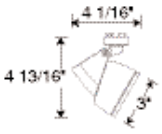
CATALOG #	LAMP
T850	**12V, 20-50W MR16**

FINISHES: **WH, BL, SL**

ACCESSORIES FOR T850:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

NEW Cubix®

The Cubix is a study of the visual relationship between two different geometric forms: the ring and the cube. In this design, the stem becomes a central element, forming a pleasing visual extension of the cube form. Concealed wiring offers an ultra-clean appearance. The playful personality of the Cubix is sure to add fun to any environment.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

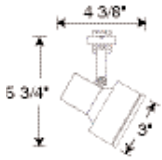
CATALOG #	LAMP
T890	**12V, 20-50W MR16**

FINISHES: **WH, BL, SL**

ACCESSORIES FOR T890:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

DIMENSIONS



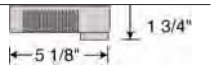
T537 or T538 Transformer required. Must be ordered separately.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



T880
with T537
Transformer

NEW

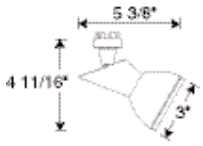
Glacis®

The Glacis is inspired by the beauty of our natural world. The truncated conical element at the top cloaks the stem pivot when observed from conventional viewing angles. Concealed wiring completes the ultra-clean appearance. Glacis is a breath of fresh air.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP
T880	**12V, 20-50W MR16**

FINISHES: **WH, BL, SL**



T537 or T538 Transformer required. Must be ordered separately.

ACCESSORIES FOR T880:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538

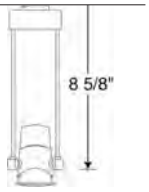
T630-9
with T537
Transformer

T630-16
with T537
Transformer

Trapezia™

Trapezia suspends the MR16 lamp down from the trac with the grace of a trapeze artist. Slender 9-inch or 16-inch long tubes conceal supply wires feeding into an elegantly sculpted die cast aluminum lamp housing. The light, airy appearance is great for display, exhibition and gallery lighting, and the downward reach can make pendant mounting of trac unnecessary.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

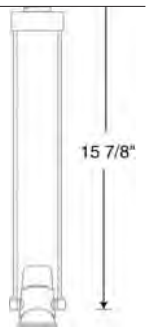
CATALOG #	LAMP	DIMENSIONS
T630-9	**12V, 20-50W MR16CG COVER GLASS**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T630-9:

Dual Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Barn Doors*	T7470BL

T537 or T538 Transformer required. Must be ordered separately.

T630-16	**12V, 20-50W MR16CG COVER GLASS**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T630-16:

Dual Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Barn Doors*	T7470BL

T537 or T538 Transformer required. Must be ordered separately.

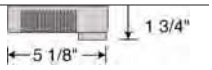
*Filters, lenses, louvers and barn doors require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



T640
with T537
Transformer

T401
with T537
Transformer

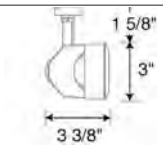
Gyrus™

A new spin on an old idea, the Gyrus combines dramatic aerodynamic styling with an integral accessory holder that accepts up to two standard 2" diameter lenses and louvers. The snap-on design makes this fixture easy to accessorize for more demanding display lighting applications.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP
T640	**12V, 20-50W MR16**

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

FINISHES: **WH, BL, SL**

ACCESSORIES FOR **T640:**

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

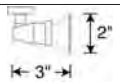
Universal

The unobtrusive MR16 Universal offers economy and simplicity but can be accessorized to create a wide variety of lighting effects.

FINISHES: WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP
T401	**12V, 20-50W MR16CG COVER GLASS**

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

FINISHES: **WH, BL, SL**

ACCESSORIES FOR **T401:**

Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Barn Doors*	T7470BL

*Filters, lenses, louvers and barn doors require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538

T480 with T537 Transformer

T484 with T537 Transformer

T485 with T537 Transformer

T406 with T537 Transformer

T410 with T537 Transformer

T411 with T537 Transformer

Wishbones

An elegant interpretation of the popular gimbal ring fixture, the sculpted "wishbone" yoke and contoured socket cup produce a most pleasing combination of form and proportion. Choose the MR16 for miniaturization and versatility. Choose the PAR36 or AR111 for tight pin-spotting over longer throw distances. A special 360-degree plus rotation feature on this series eliminates aiming dead zones.

FINISHES:

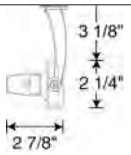
WHITE (WH) · SILVER (SL) · BLACK (BL) · SATIN CHROME (SC) (WITH BLACK YOKE)

CATALOG #	LAMP	DIMENSIONS
T480	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL, SC

ACCESSORIES FOR T480:

Uniformity Lens	T5521
Diffusion Lens	T5520
Linear Spread Lens	T559
Prismatic Spread Lens	T557
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Eyebrow	T556BL
Black Barn Doors	T74BL

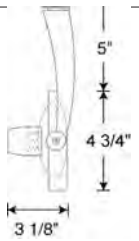


T537 or T538 Transformer required. Must be ordered separately.

T484 12V, 35-50W PAR36

FINISHES: WH, BL, SL

T537 or T538 Transformer required. Must be ordered separately.

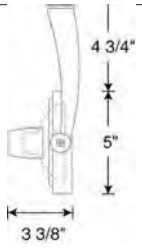


T485 12V, 35-75W AR111

FINISHES: WH, BL, SL FOR T485

ACCESSORIES FOR T485:

Uniformity Lens	T5721
Linear Spread Lens	T5778
Prismatic Spread Lens	T5777
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL
Black Eyebrow	T587BL



T537 or T538 Transformer required. Must be ordered separately.

Conix®

Conix combines elegant aesthetics with professional display lighting features. Aiming and rotation locks allow fixture aiming to be locked into position and dual accessory holders accommodate up to two color filters, louvers or light control lenses. A special 360-degree plus rotation feature on this series eliminates aiming dead zones.

FINISHES:

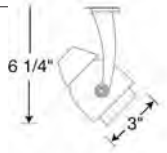
WHITE (WH) · BLACK (BL) · SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T406	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T406:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



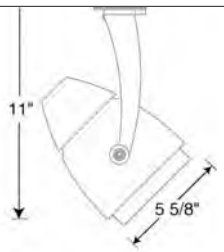
T537 or T538 Transformer required. Must be ordered separately.

T410 12V, 35-50W PAR36
T411 12V, 35-75W AR111

FINISHES: WH, BL, SL

ACCESSORIES FOR T410, T411:

Uniformity Lens	T5721
Prismatic Spread Lens	T5777
Linear Spread Lens	T5778
Color Filters	T571-6
Color Correction Filter	T5718
UV Filter	T5722
Cube Cell Louver	T579BL



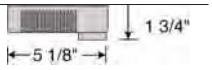
T537 or T538 Transformer required. Must be ordered separately.

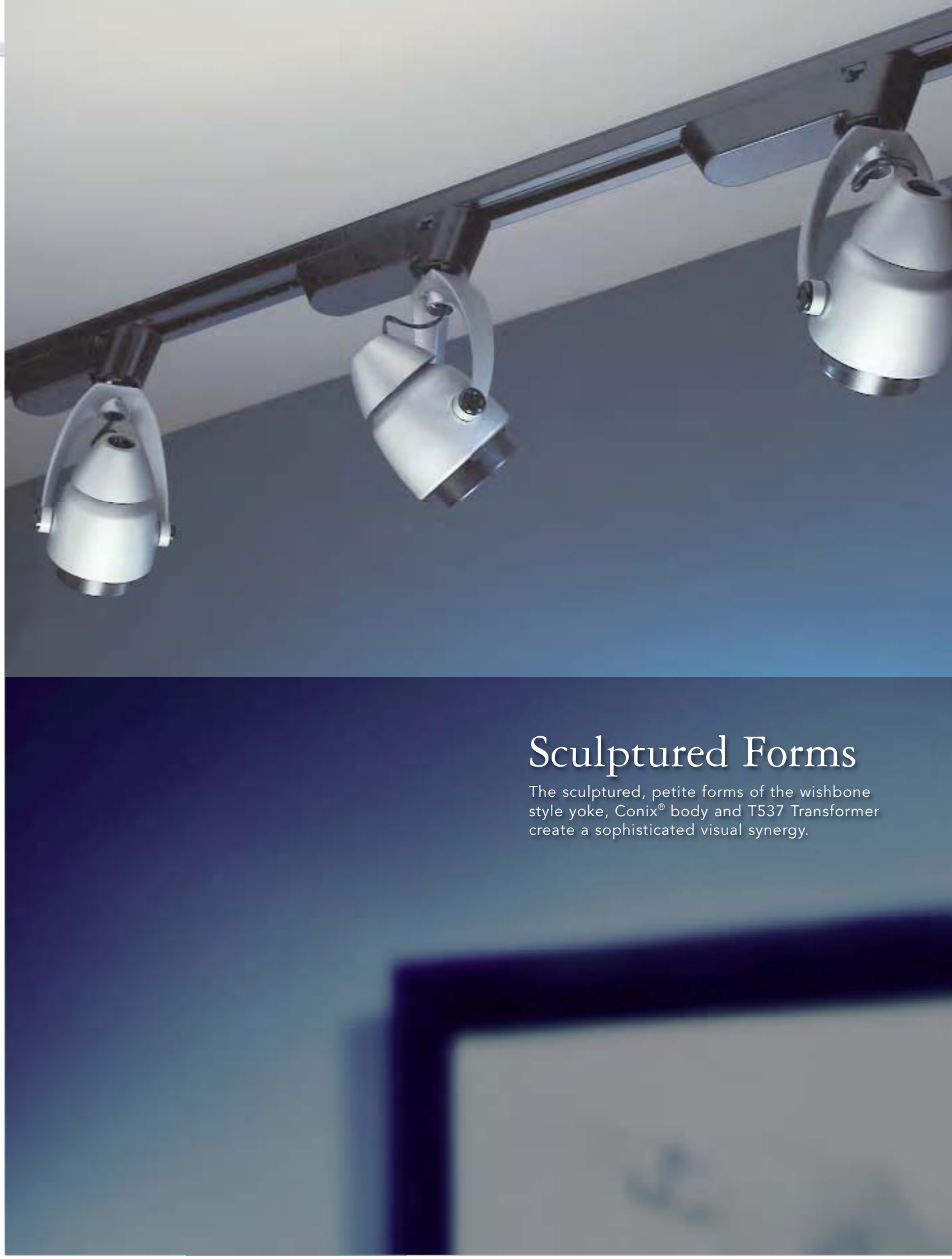
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538





Sculptured Forms

The sculptured, petite forms of the wishbone style yoke, Conix® body and T537 Transformer create a sophisticated visual synergy.

T430
with T537
Transformer

T291
with T537
Transformer

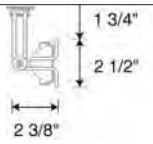
Wireforms®

Juno's timeless, patented Wireform® design encircles MR16 lamps in a light, technical-appealing frame.

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL)** RED (RD)

**Black finish lampholders supplied with both black and red adjusting buttons.

CATALOG #	LAMP	DIMENSIONS
T430	**12V, 20-75W MR16**	

FINISHES: WH, BL, SL, RD

ACCESSORIES FOR T430:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Barn Doors	T74BL

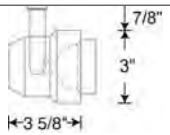
T537 or T538 Transformer required. Must be ordered separately.

Studio II

Studio II adds a contemporary miniaturized stage and studio flavor into an environment. Supplied with integral accessory holder.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
T291	**12V, 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR T291:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

T537 or T538 Transformer required. Must be ordered separately.

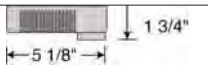
Integral accessory holder accepts one lens, filter or louver.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



T621
with T537
Transformer

Straps

A widely imitated, but never duplicated Juno design, this series is particularly popular in the brushed satin aluminum finish.

FINISHES:

WHITE (WH) BLACK (BL) SATIN ALUMINUM (SA)

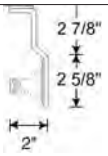
CATALOG #	LAMP
T621	**12V, 20-75W MR16**

FINISHES: WH, BL, SA

ACCESSORIES FOR T621:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Eyebrow	T556BL
Black Barn Doors	T74BL

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538

T227
with T537
Transformer

T446
with T537
Transformer

T196
with T537
Transformer

T696
with T537
Transformer

Flybacks

Uniquely angled back from the trac at 45 degrees, Flybacks add visual energy into a space.

FINISHES:

WHITE (WH) BLACK (BL)

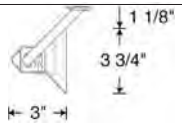
CATALOG #	LAMP
T227	**12V, 20-50W MR16CG COVER GLASS**

FINISHES: WH, BL

ACCESSORIES FOR T227:

Dual Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

PAR36 Gimbal Ring

This most basic of fixture designs supports a PAR36 lamp to produce a collimated pin spot of light that holds tight over longer throw distances. The shielded filament also reduces brightness.

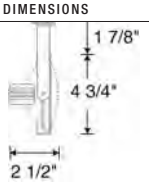
FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP
T446	**12V, 35-50W PAR36**

FINISHES: WH, BL

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

*Filters, lenses and louvers require dual accessory holder for installation.
Use of light control accessories negates the need for MR16 cover glass lamp.

MR16 Gimbal Rings

Choose the basic single yoke or the more elegant sculpted dual yoke design.

FINISHES:

WHITE (WH) BLACK (BL) SATIN CHROME (SC)

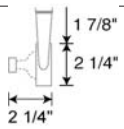
CATALOG #	LAMP
T196	**12V, 20-50W MR16**

FINISHES: WH, BL, SC

ACCESSORIES FOR T196:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

DIMENSIONS



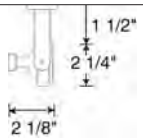
T537 or T538 Transformer required. Must be ordered separately.

CATALOG #	LAMP
T696	**12V, 20-75W MR16**

FINISHES: WH, BL

ACCESSORIES FOR T696:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

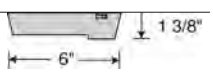


T537 or T538 Transformer required. Must be ordered separately.

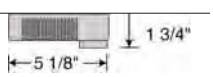
20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537



T538



See website for details, www.junolightinggroup.com

T442
with T537
Transformer

T447
with T537
Transformer

T443
with T537
Transformer

TP443
with T538
Transformer

Mini-Round Back

The mini-round back cylinder is a simple, timeless design that blends into almost any design theme.

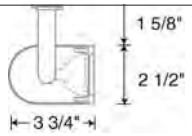
FINISHES: WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
T442	**12V, 20-50W MR16**	

FINISHES: WH, BL

ACCESSORIES FOR T442:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL



T537 or T538 Transformer required. Must be ordered separately.

Cast 16®

The square, die cast aluminum construction of the Cast 16 fixture provides a unique styling option.

FINISHES:

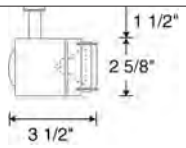
WHITE(WH) BLACK(BL)

CATALOG #	LAMP	DIMENSIONS
T447	**12V, 20-75W MR16**	

FINISHES: WH, BL

ACCESSORIES FOR T447:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



T537 or T538 Transformer required. Must be ordered separately.

Notch Backs

This classic design is available in a close-to-the-trac mounting or an adjustable height pendant rod mounting.

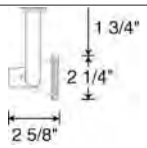
FINISHES: WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
T443	**12V, 20-50W MR16**	

FINISHES: WH, BL

ACCESSORIES FOR T443:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



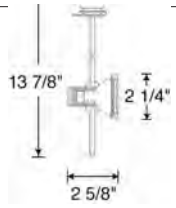
T537 or T538 Transformer required. Must be ordered separately.

TP443 12V, 20-50W MR16

FINISHES: WH, BL

ACCESSORIES FOR TP443:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



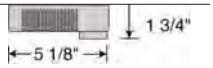
T537 or T538 Transformer required. Must be ordered separately.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



See website for details, www.junolightinggroup.com

T338

T340

T350

Integral Magnetic Transformers

The Studio I, Flat Back Cylinder and Cast 16® designs are among the original MR16 fixtures designed around magnetic transformers. They are typically chosen for special rough-duty applications where a robust magnetic transformer is desired.

FINISHES:

WHITE (WH) BLACK (BL)

Studio I

CATALOG #	LAMP
T338	**12V, 20-50W MR16**

FINISH: WH

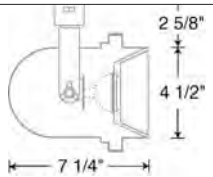
ACCESSORIES FOR T338 (1 3/4" DIA.):**

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Lenses	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

ACCESSORIES FOR T338 (4 11/16" DIA.):**

Accessory Holder (Required)	T570BL
Black Barn Doors (Required)	T72BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL

DIMENSIONS



**T338 can accept one 1 3/4" filter, lens or louver in place of clear glass supplied with MR16 fixtures; in addition, T338 can also accept one 4 11/16" filter, lens or louver when combined with accessory holder or barn doors.

Flat Back Cylinder

CATALOG #	LAMP
T340	**12V, 20-50W MR16**

FINISHES: WH, BL

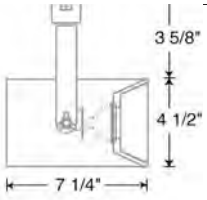
ACCESSORIES FOR T340 (1 3/4" DIA.):**

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Lenses	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

ACCESSORIES FOR T340 (4 11/16" DIA.):**

Accessory Holder (Required)	T570BL
Black Barn Doors (Required)	T72BL
Uniformity Lens*	T5721
Prismatic Spread Lens*	T5777
Linear Spread Lens*	T5778
Color Filters*	T571-6
Color Correction Filter*	T5718
UV Filter*	T5722
Cube Cell Louver*	T579BL

DIMENSIONS



**T340 can accept one 1 3/4" filter,lens or louver in place of clear glass supplied with MR16 fixtures; in addition, they can also accept one 4 11/16" filter, lens or louver when combined with accessory holder or barn doors.

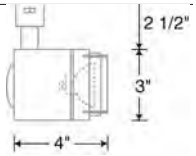
Cast 16®

T350 12V, 20-75W MR16

FINISHES: WH, BL

ACCESSORIES FOR T350:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL



*Filters and lenses require accessory holder for installation.

T290
with T537
Transformer

T398
with T537
Transformer

Theatrical Lights

The classic stage and studio design and integral barn doors evoke the feeling of theatrical lighting.

FINISH: BLACK (BL)

CATALOG #	LAMP
T290	**12V, 20-75W MR16**

FINISH: BL

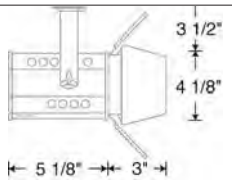
ACCESSORIES FOR T290 (1 3/4" DIA):**

Uniformity Lens	T5521
Diffuse Spread Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	TT559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5552
Hexcell Louver	T5559BL

ACCESSORIES FOR T290 (3 3/4" DIA):**

Uniformity Lens	T5621
Prismatic Spread Lens	T5677
Linear Spread Lens	T5678
Color Filters	T561-6
Color Correction Filter	T5618
UV Filter	T5622
Cube Cell Louver	T569BL

DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

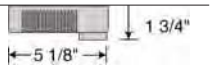
**T290 can accept one 1 3/4" filter, lens or louver in place of clear glass supplied with MR16 fixtures; in addition, T290 can also accept one 3 3/4" filter, lens or louver.

20-75VA 12V TRANSFORMERS

Both T537 and T538 are available in white, black or silver finishes. See page 155 for a full description, or page 153 for Monopoint Transformers.

T537

T538



Framing Projector

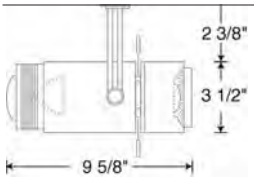
This special purpose fixture produces an evenly illuminated "frame" of light typically used to dramatically highlight artwork. The four adjustable shutters are field adjusted to size any four-sided geometric shape. Often times the frame of light is set slightly wider than the artwork to give a stronger impression of illumination against the wall. The chart below shows the relationship between distance from the wall, aiming angle and maximum achievable light frame sizes.

FINISHES: WHITE (WH) BLACK (BL)

CATALOG #	LAMP
T398	**12V, 75W MR16 FLOOD (EYC) OR EQUIVALENT**

FINISHES: WH, BL

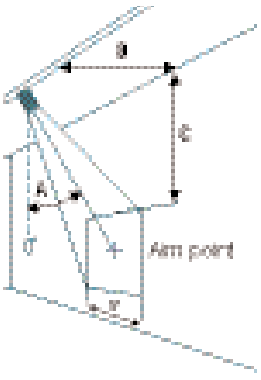
DIMENSIONS



T537 or T538 Transformer required. Must be ordered separately.

Light Beam Coverage on a Vertical Plane – AIMING ANGLES: 35˚, 45˚, 60˚

Horizontal Mounting Distance (D)	24"			36"			48"		
Aiming Angle (A)	35˚	45˚	60˚	35˚	45˚	60˚	35˚	45˚	60˚
Vertical Distance (C)	19	18	6	26	17	7	34	24	8
Width (W)	22	20	19	37	33	29	46	42	40
F.C. on Beam Axis	137	267	303	49	77	114	27	41	57



The chart indicates maximum picture width (W) and minimum distance from ceiling (C) to picture top for different projector to wall spacings and aiming angles (A). Aiming angles are measured from 0°.

Example: For a 36" mounting distance (D), and a 45° aiming angle (A), the maximum picture width (W) is 33" with the top of the picture 17" down from the ceiling (C).

Product design and photometrics are based on using a 75W MR16 wide flood lamp (EYC 75W Flood). A flood provides an even distribution of light on the picture.

Reference specification sheet D1.8.0 for more detailed application information.

Trac-Master® System

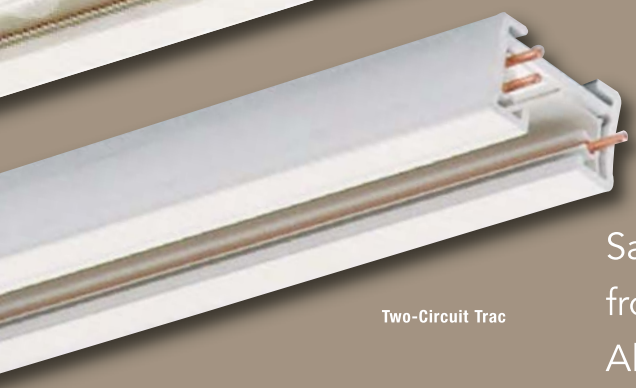
Features

Trac Sections

Key Features of Juno Trac

- Extruded aluminum channels for strength and rigidity.
- Low profile minimizes visual ceiling intrusion.
- 12 gauge solid copper conductors.
- Available in a variety of finishes: white, black, silver or natural.
- Extruded thermoplastic insulator features dimensional and thermal stability, plus excellent insulating properties 12-gauge solid copper conductors.
- Debossed visual polarity line indicates the positive conductor (+) side of the trac.

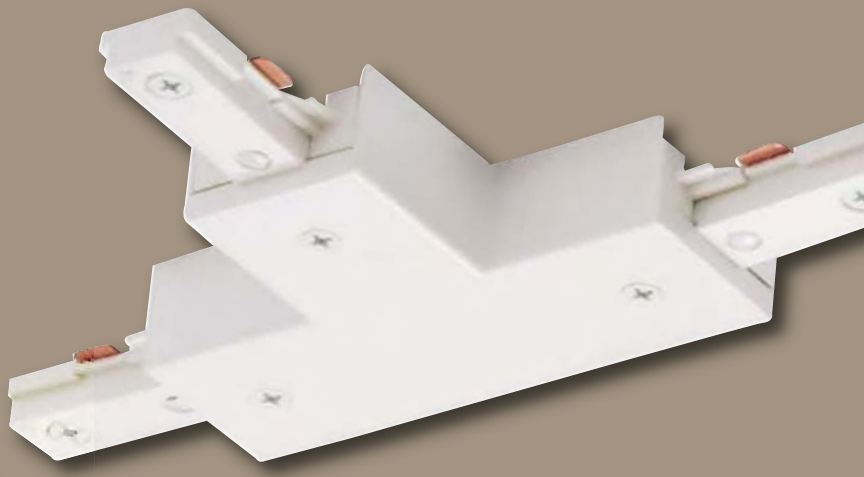
One-Circuit Trac



Two-Circuit Trac

Trac Connectors

Juno Trac "push-in" connectors mechanically and electrically join trac sections together, thereby eliminating the need for splices and greatly simplifying installation.



Key Features of Juno Trac Connectors

- Embossed polarity arrows indicate correct insertion position.
- Mechanical polarity assures proper electrical connection.
- Screw terminals simplify wiring.
- Spring-loaded phosphor bronze contacts provide excellent electrical conductivity.
- Polycarbonate cover construction provides strength, insulation and permanent color.

Safe and simple installation is what you can expect from Juno one-circuit and two-circuit trac systems. All are engineered and manufactured using the latest technology, assuring the highest possible quality.

Trac Polarity Line
Indicates positive side of trac.

Trac Fixture Polarity Arrows
Insert contacts into trac, rotate 90° so that polarity arrows point to polarity line in trac.

Connector Polarity Arrow
Insert connector with polarity arrow pointing to trac polarity line.

Polarity

Mechanical polarity is standard on all Juno Trac-Master components, thus simplifying installation and assuring correct electrical connection. Each trac section has a debossed polarity line that indicates the positive conductor side. Both the connectors and the trac fixtures have indicator arrows designed to point to the trac polarity line when installed properly. The system is virtually foolproof.

NEW

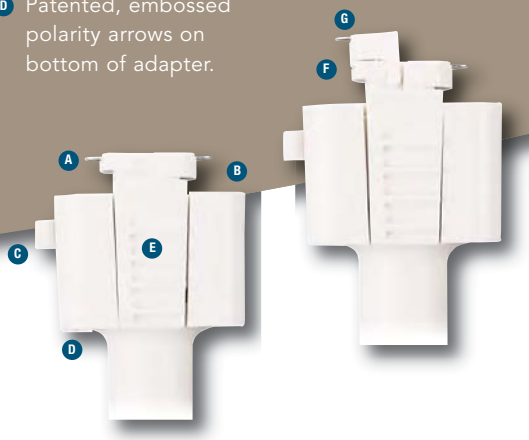
Trac Adapter
Used on a number of Juno's recently introduced fixtures, this new adapter offers the same great features as the Super Adapter but in a more contemporary aesthetic design.

The Super Adapter

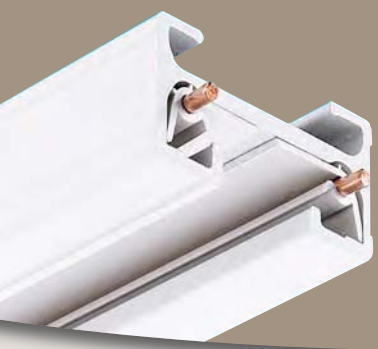
The standard Juno Super Adapter permits Juno Trac fixtures to be used on one-circuit or two-circuit trac systems.

Key Features of Juno Super Adapter

- **A** Copper alloy contacts provide the best possible electrical conductivity and precise spring action; there's no arcing and will not take a set.
- **B** True, positive electrical ground.
- **C** On/off switch included on all T-series trac fixtures with Super Adapter.
- **D** Patented, embossed polarity arrows on bottom of adapter.
- **E** Spring-loaded positive latch with embossed polarity arrows secures trac fixture to trac.
- **F** Raise contact to "up" position for two-circuit installation.
- **G** Upper-circuit contact support assures proper contact with line conductor.



See website for details, www.junolightinggroup.com

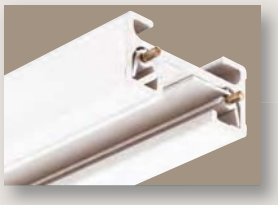


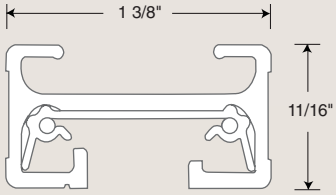
Trac-Master® System One-Circuit

One-circuit Trac-Master® sections are available as surface mounted trac or may be suspended from ceilings with pendant accessories listed on page 147.

Key Features:

- Extruded aluminum channel
- Extruded thermoplastic insulator
- Debossed polarity line
- 12 gauge solid copper conductors
- Concealed wireway on top of trac section
- 20 AMP capacity
- UL Listed, CSA Certified
- Can be cut to custom length by installer





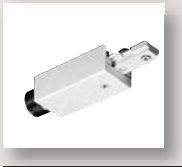
One Circuit Trac Sections Includes dead-end and mounting hardware.

CATALOG #		FINISHES
T2	**2' Trac** (actual length 19⅞")	White(WH), Black(BL), Natural(NA), Silver(SL)
T4	**4' Trac** (actual length 43⅞")	White(WH), Black(BL), Natural(NA), Silver(SL)
T6	**6' Trac** (actual length 67⅞")	White(WH), Black(BL), Natural(NA), Silver(SL)
T8	**8' Trac** (actual length 91⅞")	White(WH), Black(BL), Natural(NA), Silver(SL)
T12	**12' Trac** (actual length 139⅞")	White(WH), Black(BL), Natural(NA), Silver(SL)

Electrical End Feeds

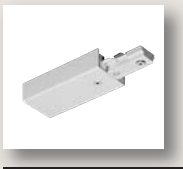
Current Limiting Feeds and Subpanels are available for use with JUNO Trac
— see pages 160-163 for details.

T21 Feed End Connector and Outlet Box Cover
For outlet box feed. Includes outlet box cover, fixture strap and ground screw.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

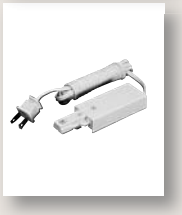


T34 Conduit Adapter
For surface wiring. Use standard ½" connector.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T36 T-Bar End Feed
Wiring compartment contains standard ½" K.O.'s. Feeds surface trac from above when T-bar is directly above trac.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



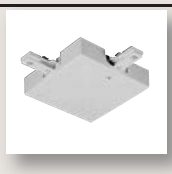
T38 Live End Feed Connector
Feed trac from above with flexible conduit, BX, etc., or end feed in pendant systems. Use standard ½" connector.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



T22 Cord and Plug Connector
Comes with 15' two-wire white cord. Includes surface wire retainers and in-line switch. Max. cap. 7 amps.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T122 Same as above, with white or black 3-wire cord. No switch.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Electrical Joiner Feeds



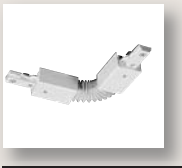
T35 T-Bar Adjustable Joiner Feed
Joins two trac sections to make 90° angle or straight run. Wiring compartment contains standard ½" K.O.'s. Feeds from above when T-bar is directly above trac.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T27 Outlet Box Cover
Use with Cat. No. T24, T25, T26, for outlet box electrical feed. Includes nipple, locknut and ground screw.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Electrical Floating Feed

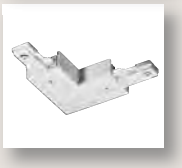
T29 Floating Electrical Feed
Permits mounting at any point of trac under outlet box. Includes floating connector and outlet box cover plus extra trac dead end.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Trac Joiners

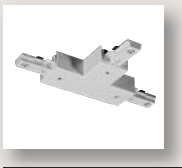


T20 Accordion Adjustable Joiner
Can flex to 90° angle to left, right, up or down. Joins two trac sections.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

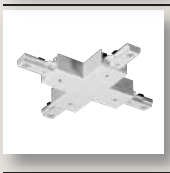
T23 Miniature Straight Connector
Joins two trac sections end to end.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



T24 Adjustable Connector†
Joins two trac sections to make a 90° angle or straight run. Straight and right angle covers supplied. For outlet box feed Cat. No. T27 Outlet Box Cover also required.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



T25 "T" Connector‡
Joins three trac sections. For outlet box feed Cat. No. T27 Outlet Box Cover also required.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



T26 "X" Connector‡
Joins four trac sections at 90° angles. For outlet box feed Cat. No. T27 Outlet Box Cover also required.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

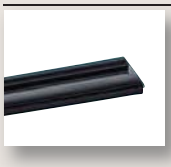
T49 Trac Continuation Kit
Permits trac to continue a run around obstructions. Includes one left and one right T34 Conduit Adapter. Fits standard ½" conduit.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Pendant Mounting Accessories

T93 Wireway Cover
For pendant stem kits T90 and T91. Conceals electrical feed wires from stem to trac connector. One cover should be used for each trac feed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

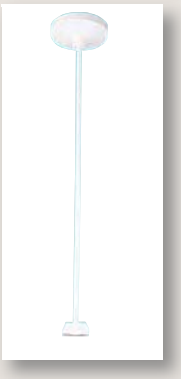
T92 Straight Structural Bridge
For use with T24 connector when used straight. Permits mounting pendant stem kits (T90, T91) at center of trac connector.

T92L Corner Structural Bridge
For use with T24 connector when used at 90°. Permits mounting pendant stem kits (T90, T91) at center of trac connector.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



T39 Trac Wireway Cover
4' long black thermoplastic extrusion, covers wire carried in trac wireway. Use one for 4' trac, two for 8' trac and three for 12' trac. Can be field cut.

T56 Solid Rod Pendant Mounting Kit
Attaches solid 5/16" threaded rod to one- or two-circuit trac. Includes: plastic cap, mounting bracket and hardware. Rod not supplied.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



T90-12 T-Bar Pendant Stem Kit
T90-18 (12", 18", 24", 36", 48")
T90-24 Use two for 2', 4' or 6'
T90-36 of trac or three for
T90-48 8' of trac and four for 12' of trac. For electrical feed, order Wireway Cover T93 and T38 Live End Feed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T91-12 Rigid Ceiling Pendant
T91-18 Stem Kit
T91-24 (12", 18", 24", 36", 48")
T91-36 Attaches directly to
T91-48 junction box. Use two for 2', 4' or 6' of trac or three for 8' of trac and four for 12' of trac. For electrical feed, order Wireway Cover T93 and T38 live end feed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T94 Slope Ceiling Adapter
Allows T90 or T91 pendant to hang straight down from sloped ceilings. Can be used to electrically feed trac at up to a 60° angle.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T96 Pendant Stem Coupling
Joins pendant stems for use in higher ceiling applications.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Trac Accessories

T31 Pendant Adapter
Adapts cord, swag or chain-hung fixture to trac. Supports up to 25 lbs. Not UL listed. 2.5A max.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T32 Planter or Utility Hook
Supports up to 25 lbs. Not UL listed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T33 Outlet Adapter
Provides electrical receptacle. Not UL listed. 7A max.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

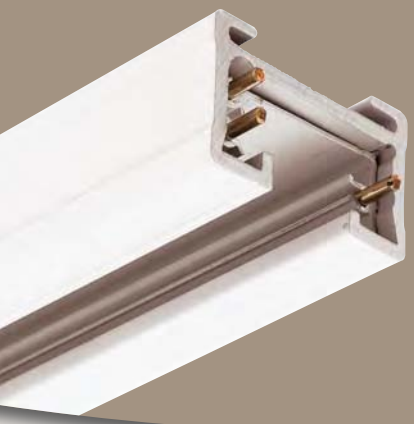
T37F T-Bar Attachment Clip
Attaches trac to 15/16" inverted tee flush tile ceiling. Use two for 2' or 4' trac and three for 6', 8' or 12' trac.
T37F-9-16 T-Bar Attachment Clip
Same as above but for 9/16" inverted tee.

T37D T-Bar Attachment Clip
Attaches trac to 15/16" inverted tee drop tile ceiling. Use two for 2' or 4' trac and three for 6', 8' or 12' trac.
T37D-9-16 T-Bar Attachment Clip
Same as above but for 9/16" inverted tee.

See website for details, www.junolightinggroup.com

†Use T24F as a feed connector in Canada.

‡T25 and T26 cannot be used as feed connectors in Canada.



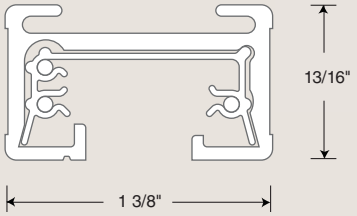
Trac-Master® System Two-Circuit

Juno two-circuit Trac-Master® features a sleek low profile design with the flexibility of individual circuit control for combining dual lighting effects along a single trac.

Juno two-circuit Trac-Master® trac offers maximum switching flexibility and two 20AMP circuits (2400 watt each). The system permits individual circuit control (for both circuits) with the use of switches, dimmers or timers. In long trac runs, the increased capacity eliminates 50% of the feed points. Two-circuit Trac-Master® will accept all Juno Trac-Master lampholders. Trac sections are available as surface mounted trac or may be suspended from ceilings with pendant mounting accessories listed on page 149.

Key Features:

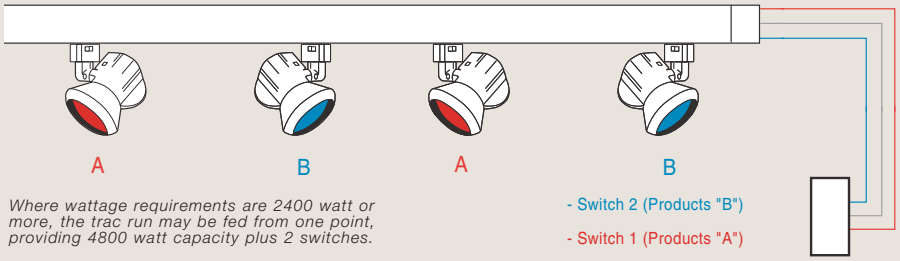
- Extruded aluminum channel
- Extruded thermoplastic insulator
- Debossed polarity line
- 12 gauge solid copper conductors
- Concealed wireway on top of trac section
- UL Listed, CSA Certified
- Can be cut to custom length by installer



Two-Circuit Trac Sections Includes dead-end and Super Adapter upper-circuit contact supports.

CATALOG #		FINISHES
TU4	**4' Trac** (actual length 43⅞") 3 contact supports included	White(WH), Black(BL), SILVER(SL)
TU8	**8' Trac** (actual length 91⅞") 6 contact supports included	White(WH), Black(BL), SILVER(SL)
TU12	**12' Trac** (actual length 139⅞") 9 contact supports included	White(WH), Black(BL), SILVER(SL)

Switching Use two switches for greater light control, two circuits for greater capacity.



Where wattage requirements are 2400 watt or more, the trac run may be fed from one point, providing 4800 watt capacity plus 2 switches.

One Circuit with Two Switches 2400W MAX.
Two switches may be used on each trac run with a portion of Juno Trac lights controlled by Switch 1 and the balance on Switch 2. Dimmers or timers also can be utilized to provide other lighting effects.

Two Circuits with Two Switches 4800W MAX.
Juno two-circuit Trac-Master® provides a load capacity of 4800 watts (two 2400 watt circuits). This "double capacity" eliminates 50% of the feed points in long runs reducing wiring costs and simplifying the installation. Two separate circuit switches permit flexibility in combining lighting effects along the run.

Electrical End Feeds

TU21 Feed End Connector and Outlet Box Cover
For outlet box feed. Includes: outlet box cover, fixture strap and ground screw.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TU38 Live End Feed Connector
Feed trac from above with flexible conduit, BX, etc., or end feed in pendant systems. Use standard ½" connector.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TU34 Conduit Adapter
For surface wiring. Use standard ½" connector.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TU36 T-Bar End Feed
Wiring compartment contains standard ½" K.O.'s. Feeds surface trac from above when T-bar is directly above trac.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Electrical Joiner Feeds

Current Limiting Feeds and Subpanels are available for use with JUNO Trac
— *see pages 160-163 for details.*

TU35 T-Bar Adjustable Joiner Feed
Joins two trac sections to make 90° angle or straight run. Wiring compartment contains standard ½" K.O.'s. Feeds from above when T-bar is directly above trac.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T27 Outlet Box Cover
Use with Cat. No. TU24, TU25, TU26, for outlet box electrical feed. Includes nipple, locknut and ground screw.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

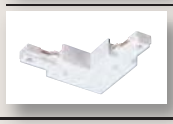
Trac Joiners

TU20 Accordion Adjustable Joiner
Can flex to 90° angle to left, right, up or down. Joins two trac sections.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TU25 "T" Connector†
Joins three trac sections. For outlet box feed Cat. No. T27 Outlet Box Cover also required.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

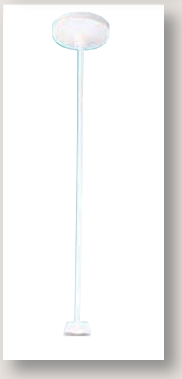
NEW **TU23 Straight Connector**
Joins two trac sections end-to-end.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TU26 "X" Connector†
Joins four trac sections at 90° angles. For outlet box feed Cat. No. T27 Outlet Box Cover also required.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)



TU24 Adjustable Connector†
Joins two trac sections to make a 90° angle or straight run. Straight and right angle covers supplied. For outlet box feed Cat. No. T27 Outlet Box Cover also required.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Pendant Mounting Accessories



T90-12 T-Bar Pendant Stem Kit
T90-18 (12", 18", 24", 36", 48")
T90-24 Use two for 2', 4' or 6'
T90-36 of trac or three for
T90-48 8' of trac and four for 12' of trac.
For electrical feed, order T93 Wireway Cover & TU38 Live End Feed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T91-12 Rigid Ceiling Pendant
T91-18 Stem Kit
T91-24 (12", 18", 24", 36", 48")
T91-36 Attaches directly to
T91-48 junction box. Use two for 2', 4' or 6' of trac or three for 8' of trac and four for 12' of trac. For electrical feed, order T93 Wireway Cover and TU38 Live End Feed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T96 Pendant Stem Coupling
Joins pendant stems for use in higher ceiling applications.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T93 Wireway Cover
For pendant stem kits T90 and T91. Conceals electrical feed wires from stem to trac connector. One cover should be used for each trac feed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T56 Solid Rod Pendant Mounting Kit
Attaches solid 5/16" threaded rod to one- or two-circuit trac. Includes: plastic cap, mounting bracket and hardware. Rod not supplied.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T94 Slope Ceiling Adapter
Allows T90 or T91 pendant to hang straight down from sloped ceilings. Can be used to electrically feed trac at up to a 60° angle.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Trac Accessories

T31 Pendant Adapter
Adapts cord, swag or chain-hung fixture to trac. Supports up to 25 lbs. Not UL listed. 2.5A max.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T33 Outlet Adapter
Provides electrical receptacle. Not UL listed. 7A max.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T32 Planter or Utility Hook
Supports up to 25 lbs. Not UL listed.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T37F T-Bar Attachment Clip
Attaches trac to 15/16" inverted tee flush tile ceiling. Use two for 2' or 4' trac and three for 6', 8' or 12' trac.

T37F-9-16 T-Bar Attachment Clip
Same as above but for 9/16" inverted tee.

T37D T-Bar Attachment Clip
Attaches trac to 15/16" inverted tee drop tile ceiling. Use two for 2' or 4' trac and three for 6', 8' or 12' trac.

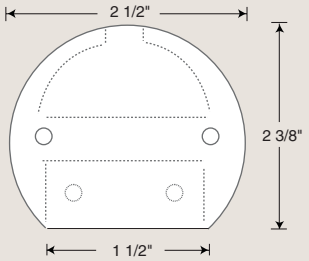
T37D-9-16 T-Bar Attachment Clip
Same as above but for 9/16" inverted tee.

Trac Tube System

The tubular design of this system adds style and flexibility to trac systems. The Juno Trac Tube System can be surface, pendant or wall mounted for a fresh perspective in lighting design.

Key Features:

- 2½" diameter extruded aluminum housing
- Straight runs or geometric patterns
- 20AMP capacity
- UL Listed, CSA Certified
- Field cutting is not recommended



Trac Tube Assembly Includes tubular housing, end caps, trac section, starter and end connectors.

CATALOG #		FINISHES
TT4	**4' Tube Trac Assembly** (One circuit. Actual length 48⅜")	White(WH), Black(BL)
TT8	**8' Tube Trac Assembly** (One circuit. Actual length 96⅜")	White(WH), Black(BL)

Joiner Kits

Juno's Trac Tube System is available in two finishes only, black and white and uses one-circuit trac. Right angle corners and flexible accordion joiners can be combined to create unique and distinctive design to trac lighting schemes.

TT503 Straight Joiner Kit
Joins two trac tube sections in a straight run. Includes electrical jumpers, joiner bracket and joiner cover.
FINISHES: WHITE(WH), BLACK(BL)

TT520 Flexible Accordion Joiner
Joins two trac tube sections. Adjusts from 60° to 300°. Includes electrical jumpers and joiner brackets.
FINISHES: WHITE(WH), BLACK(BL)

TT524 90° Right Angle Corner
Joins two trac tube sections. Includes electrical jumpers and joiner brackets.
FINISHES: WHITE(WH), BLACK(BL)

Mountings

TT528 Surface Mount Bracket
For mounting on T-bar or rigid ceiling. Supports trac housing 1½" from ceiling. Use two for each trac tube section.
FINISHES: WHITE(WH), BLACK(BL)

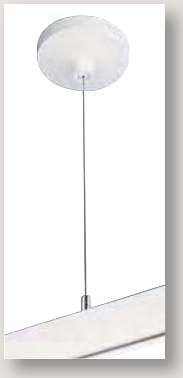
TT590-12 T-Bar Pendant Stem Kit
TT590-18 (12", 18", 24", 36", 48")
TT590-24 Use two for 4' or 8'
TT590-36 of trac tube. Continuous
TT590-48 runs require one every 4'. Mechanically suspends and electrically feeds trac tube. Feed wires can be routed through pipe.
FINISHES: WHITE(WH), BLACK(BL)

TT591-12 Rigid Ceiling Pendant
TT591-18 Stem Kit
TT591-24 (12", 18", 24", 36", 48")
TT591-36 Use two for every 4'
TT591-48 and 8' of trac tube. Continuous runs require one every 4'. Similar to above but for rigid ceiling.
FINISHES: WHITE(WH), BLACK(BL)

T94 Slope Ceiling Adapter
Allows TT590 or TT591 pendant to hang straight down from sloped ceilings. Can be used to electrically feed trac at up to a 60° angle.
FINISHES: WHITE(WH), BLACK(BL)

T96 Pendant Stem Coupling
Joins pendant stems for use in higher ceiling applications.
FINISHES: WHITE(WH), BLACK(BL)

TT529 Wall Mount Bracket
For mounting trac tube from wall. Trac tube extends 17¼" from wall. Use two for each trac tube section.
FINISHES: WHITE(WH), BLACK(BL)

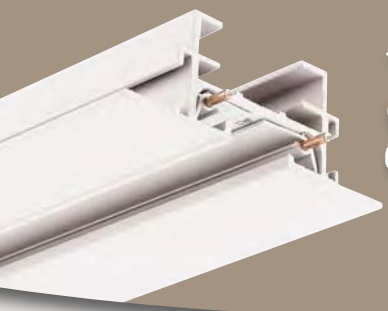


TT595 T-Bar Ceiling Pendant Cable
Mechanical suspension for trac tubes. Continuous runs require one every 4'. Adjustable 48" cable.
FINISHES: WHITE(WH), BLACK(BL)

TT596 Similar to above but with 48" electrical feed flexible wireway and wires.
FINISHES: WHITE(WH), BLACK(BL)

TT597 Rigid Ceiling Pendent Cable
Mechanical suspension for trac tubes. Continuous runs require one every 4'. Adjustable 48" cable.
FINISHES: WHITE(WH), BLACK(BL)

TT598 Similar to above but with 48" electrical feed flexible wireway and wires.
FINISHES: WHITE(WH), BLACK(BL)

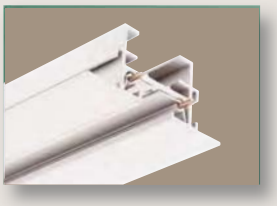


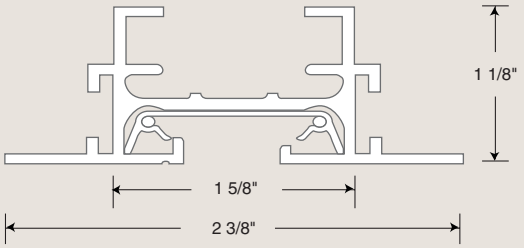
Recessed Trac-Master® System

Recessed trac provides a clean, built-in and finished look to lighting designs. Juno's recessed trac installs into plasterboard and suspended ceilings for polished, professional decor. One-circuit Trac-Master recessed trac sections allow trac lights to be mounted flush to the ceiling.

Key Features:

- Extruded aluminum channel
- Extruded thermoplastic insulator
- Debossed polarity line
- 12 gauge solid copper conductors
- 20AMP capacity
- UL Listed, CSA Certified
- Can be cut to custom length by installer





Recessed Trac Sections For dry ceilings (Straight runs only)

CATALOG #		FINISHES
T14	**4' Recessed Trac** (One Circuit. Actual length 43⅞")	White(WH)
T18	**8' Recessed Trac** (One Circuit. Actual length 91⅞")	White(WH)

Recessed Trac Connectors

T121 Feed End Connector
With wiring box for electrifying trac.
FINISHES: WHITE(WH)

T123 Mini Straight Joiner Connector
Mechanically and electrically joins two trac sections end to end.
FINISHES: WHITE(WH)

Monopoints

Monopoints increase the versatility of Juno Trac fixtures by allowing them to mounted where trac sections do not offer the best aesthetic or functional solution.

Outlet Box Monopoints

T40 Monopoint
Mounts directly to outlet box. Accepts Juno 120V trac lights.
DIMENSIONS: 4¾"DIA. X ⅝"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL), GRAPHITE(GP)

NEW **T40F Monopoint (Flush Mount)**
DIMENSIONS: 5¼"DIA. X 1/32"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T58 Monopoint
Mounts directly to outlet box. to be used with T537 or T538 Transformer. Detent locks transformer in place.
DIMENSIONS: 6½"DIA. X ½"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T43 Monopoint
Mounts directly to outlet box. For use with MHv CMH trac fixtures and 18W or 39W Biax trac fixtures (ceiling mount only).
DIMENSIONS: 4¾"DIA. X ⅝"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T41 Duopoint
Mounts directly to outlet box. Accepts two Juno 120V trac lights.
DIMENSIONS: 13"W X 4"D X ⅝"L
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Special Monopoints

T42 Weighted Base
For portable use. Accepts Juno 120V trac lights. Supplied with 8' cord and plug.
DIMENSIONS: 4¾"DIA. X ⅝"H
FINISHES: WHITE(WH), BLACK(BL)

T45 Pin-Up/Monopoint
Accepts Juno 120V trac lights. 8' cord and plug supplied.
DIMENSIONS: 2"W X 4¼"H X ½"D
FINISHES: WHITE(WH), BLACK(BL)

T46 Clamp/Monopoint
Clamps to pipe or planking up to 2½" thick. Accepts all Juno 120V trac lights. 8' 3-wire black cord and plug supplied.

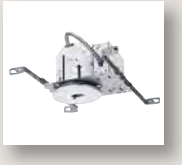
Monopoints for 6" Recessed Housings

T57 Monopoint Cover – Line Voltage
Permits Juno line voltage trac lights to be attached directly to Juno 6" recessed housings.
DIMENSIONS: 7⅝"DIA. X 3/16"H
FINISHES: WHITE(WH)

T539 Monopoint Cover – Low Voltage
Contains integral electronic transformer. Permits Juno low voltage lights to be attached directly to Juno 6" recessed housings.
DIMENSIONS: 7⅝"D X 3/16"H
FINISHES: WHITE(WH)

Low Voltage 4" Recessed Monopoints

T542 Monopoint Transformers
For remodel construction. Includes 50VA-12V magnetic transformer, wiring box, canopy, and thermal protector. Accepts Juno Trac lights that operate using a separate low voltage transformer.
DIMENSIONS: CANOPY: 5"DIA. X ¼"H
RECESSED HOUSING: 5¼"H
FINISHES: WHITE(WH)



T543 Monopoint Transformers
For new construction. Includes 50VA-12V magnetic transformer, pre-wired recessed housing, canopy, adjustable bar hangers and thermal protector. Accepts Juno Trac lights that operate using a separate low voltage transformer.
DIMENSIONS: CANOPY: 5"DIA. X ¼"H
RECESSED HOUSING: 5¼"H
FINISHES: WHITE(WH)

Mounting Accessories

Coil Cord Clamp-Ons With Monopoint

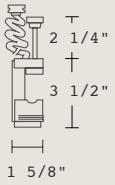
Coil cord clamp-ons provide an innovative way to mount fixtures to pipe and flat surfaces up to 1½" thick. Designed with futuristic styling in mind for dynamic displays and special mounting situations.

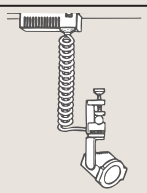
Trac Low Voltage

T135 Trac Low Voltage Coil Cord Clamp-On

Attaches to T537 or T538 Transformer. Accepts Juno low voltage mini spots. 2' coil cord extends to 5'.

FINISHES: WHITE(WH), BLACK(BL)



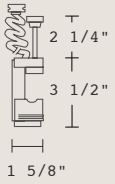


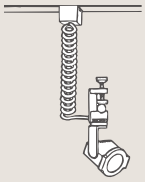
Trac Line Voltage

T132 Trac Line Voltage Coil Cord Clamp-On

Attaches to all Juno Trac sections. Accepts Juno 120V trac lights (with square Super Adapter only). Includes on/off switch. 2' coil cord extends to 5'.

FINISHES: WHITE(WH), BLACK(BL)



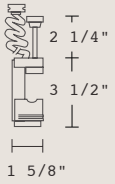


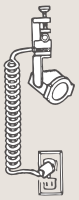
Plug-In Line Voltage

T133 Plug-In Line Voltage Coil Cord Clamp-On

With coil cord and male plug (for standard 120V receptacle). Accepts Juno 120V trac lights (with square Super Adapter only) 2' coil cord extends to 5'.

FINISHES: WHITE(WH), BLACK(BL)





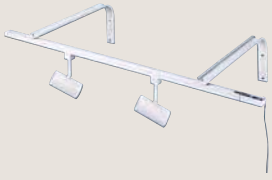
Outrigger Trac Mounting Bracket

T47 Trac Outrigger (non-electrified)

For mounting trac out from wall. Use 2 for 2', 4' or 6' trac sections, 3 for 8' sections. Order trac and trac connectors separately. For portable electric feed, use T22 or T122 Cord and Plug Connector. For permanent wiring use T38 Live End Feed.

DIMENSIONS: 24"L X 8"H

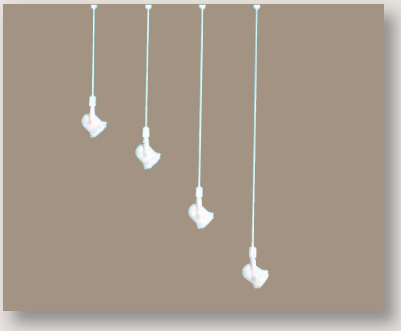
FINISHES: WHITE(WH), BLACK(BL)



Extension Wands

Extension Wands suspend fixtures precisely where they are needed without lowering the trac section. On/off switch is standard.

Line Voltage



Line voltage extension wands suspend all Juno line voltage trac lights (with square Super Adapter only) from all Juno Trac. May also be used with Monopoint connections. Can be used on all 120V trac. Constructed of ½" rigid tubular steel and Lexan® plastic.

CATALOG #	OVERALL LENGTH	FINISHES
TW12	13½"	White(WH), Black(BL), Silver(SL)
TW18	19½"	White(WH), Black(BL), Silver(SL)
TW24	25½"	White(WH), Black(BL), Silver(SL)
TW36	37½"	White(WH), Black(BL), Silver(SL)
TW48	49½"	White(WH), Black(BL), Silver(SL)
TWS24†	28"	White(WH), Black(BL), Silver(SL)

†Wand with slope adapter on top.

For Biax Series or MHv Series Extension Wands consult factory.

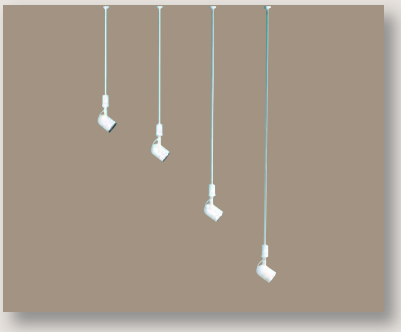
T95 Slope Ceiling Adapter

Attaches to Trac, permitting Juno Trac-Master and Trac-Lites Trac fixtures (with square super adapter only) to be hung vertically from sloped ceiling. 90° maximum adjustment.

4-3/4"H

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Low Voltage



Low voltage extension wands suspend low voltage mini spotlights from Juno T537 and T538 Transformers (transformers can be used on all 120V trac). May also be used with low voltage Monopoints T539, T542, and T543. Constructed of ½" rigid tubular steel and Lexan® plastic.

CATALOG #	OVERALL LENGTH	FINISHES
TWL12	13½"	White(WH), Black(BL), Silver(SL)
TWL18	19½"	White(WH), Black(BL), Silver(SL)
TWL24	25½"	White(WH), Black(BL), Silver(SL)
TWL36	37½"	White(WH), Black(BL), Silver(SL)
TWL48	49½"	White(WH), Black(BL), Silver(SL)

Low Voltage Transformers

12-Volt Transformers

T537 Transformer

Low profile designer solid state electronic 12V transformer with on/off switch. Attaches to all Juno 120V trac and T58 Monopoint. Rated for fixtures using 20-75W 12V halogen lamps.

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T538 Transformer

Solid state electronic 12V transformer with on/off switch. Attaches to all Juno 120V trac and T58 Monopoint. Use Rated for fixtures using 20-75W 12V halogen lamps.

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Quick Jack Transformers

T537QJ Quick Jack Transformer

Low profile designer 12V electronic Quick Jack Transformer for Alfa Quick Jack directionals or pendants. For use on all Juno 120V Trac and T58 Monopoint. Rated for fixtures using 20-75W 12V halogen lamps.

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

NEW **T537QJU LED-Compatible Quick Jack Transformer**

Similar to T537QJ above except compatible with both 12V LED and halogen fixtures. 50W max. rating.

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

T538QJ Quick Jack Transformer

12V electronic Quick Jack Transformer for Alfa Quick Jack directionals or pendants. For use on all Juno 120V Trac and T58 Monopoint. Rated for fixtures using 20-75W 12V halogen lamps.

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Trac-Master® Light Control Accessories

Light Control Accessories

Juno offers a complete selection of light control accessories to enable the customization of lighting effects.

		1 3/4" DIA.	COMPATIBLE WITH	2" DIA.	COMPATIBLE WITH
Accessory Holders					
Required for listed fixtures. Accepts one filter, lens, and louver except where noted.				**T7400BL** **T7400SA** Accepts up to 2 accessories	T227, T401, T630
UV Filters					
These museum quality lenses filter out ultraviolet radiation below 400 nanometers to protect fade sensitive art and objects.		**T5522**	T160, T161, T165, T196, T216, T290**, T291, T338**, T340**, T350, T406*, T430, T442, T443, T447, T480, T621, T696, T805, T807, T809, TP216, TP443	**T7422**	T640*, T811*, T812*, T814*, T816*, T817*, T819*, T841*, T850*, T870*, T880*, T890*, TM141*, TM241*, XT16 Halogen Series*, XT16 CMH Series and fixtures with T7400 Accessory Holder
Dichroic Color Correction Filters					
Color Correction Filters correct the light, either to warm it up to approximate incandescent, or cool it down to approximate daylight.	Halogen-to-Incandescent, 2700K	**T5518**		**T7418**	
	Halogen-to-Daylight, 4250K	**T5516**		**T7416**	
	HID-to-Incandescent for HID Lampholders			**T7419**	
Color Filters	**Colored Glass Filters**				
Color Filters change white light into colored light and are available in colored glass and more efficient/saturated dichroic filters.	Medium Pink	**T551**		**T741**	
	Warm Red			**T742**	
	Daylight Blue			**T743**	
	Medium Blue	**T553**		**T744**	
	Medium Amber	**T555**		**T745**	
	Medium Green			**T746**	
	Dichroic Glass Filters				
	Red	**T5501**		**T7401**	
	Medium Green	**T5503**		**T7403**	
	Medium Blue	**T5504**		**T7404**	
	Yellow	**T5505**		**T7405**	
	Magenta	**T5506**		**T7406**	
	Blue-Green (Cyan)	**T5511**		**T7411**	
Light Control Lenses					
These alter the light distribution of a given lamp, enlarging or elongating it, softening the beam edge or removing striations.	Uniformity Lens	**T5521**	T160, T165, T196, T216, T290**, T291, T338**, T340**, T350, T406*, T430, T442, T443, T447, T480, T621, T696, T805, T807, T809, TP216, TP443	**T7421**	
	Diffusion Lens	**T5520**		**T7420**	
	Prismatic Spread Lens	**T557**		**T7477**	
	Linear Spread Lens	**T559**		**T7478**	
Louvers					
Hexcell and Cube Cell louvers reduce perceived fixture | brightness.	Hexcell Louvers	**T5559BL**		**T7459BL**	
	Cube Cell Louvers				

*Simultaneously accepts any combination of up to two filters, lenses or louver.
**T338, T340 can accept 1 3/4" filters, lenses and louver standard and can also accept 4 11/16" filters, lenses and louver when combined with T570 Accessory Holder or T72 Barn Door accessory. T290 can accept 1 3/4" filters, lenses and louver standard and can also accept 3 3/4" filters, lenses and louver standard.

Trac-Master® Light Control Accessories

2 3/4" DIA.	COMPATIBLE WITH	3 3/4" DIA.	COMPATIBLE WITH	4 11/16" DIA.	COMPATIBLE WITH	5 1/2" DIA.	COMPATIBLE WITH
		T560BL	T303, T313, T326, T393, T423	**T570BL**	T305, T315, T327, T338**, T340**, T395, T425	**T580BL**	T307, T317, T328, T342, T397, T427
		T660BL	T218, T613	**T670BL**	T219, T614		
		T645MC Accepts up to 2 accessories	T645	**TM538BL** Accepts up to 2 accessories	T404, TM104, TM204		
		T853MC Accepts up to 2 accessories	T853, T873, T883				
		T893MC Accepts up to 2 accessories	T893				
		TM530BL Accepts up to 2 accessories	T403, TM103, TM203				
T5922	T407*, T844*, TM107*, TM132, TM133, TM144*, TM154, TM155, TM207*, TM232, TM233, TM244*, TM254, TM255, TMP132, TMP133	**T5622**	T290**, T293, T295, T408*, T483, T845*, TM108*, TM113-TM118, TM145*, TM208*, TM213-TM218, TM245* and fixtures with T560, T645MC, T660, T853MC, T893MC or TM530 Accessory Holder	**T5722**	T292, T294, T368, T409*-T411*, T485, T487, T846*, TM109**TM112*, TM146*, TM150*, TM151*, TM152*, TM209*-TM212*, TM246*, TM250*, TM251*, TM252* and fixtures with T570, T670 or TM538 Accessory Holder		T296 and fixtures with T580 Accessory Holder
T5918		**T5618**		**T5718**			
T5919		**T5619**		**T5719**			
T591		**T561**		**T571**		**T581**	
T592		**T562**		**T572**		**T582**	
T593		**T563**		**T573**		**T583**	
T594		**T564**		**T574**		**T584**	
T595		**T565**		**T575**		**T585**	
T596		**T566**		**T576**		**T586**	
T5921		**T5621**		**T5721**			
T597		**T5677**		**T5777**			
T598		**T5678**		**T5778**			
T5928BL							
		T569BL	T218, T290**, T293, T295, T408*, T483, T845*, TM108*, TM113-TM118, TM145*, TM208*, TM213-TM218, TM245* and fixtures with T560, T645MC, T660, T853MC, T893MC or TM530 Accessory Holder	**T579BL**	T219, T292, T294, T368, T409*, T485, T487, T846*, TM109*-TM112*, TM146*, TM150*, TM151*, TM152*, TM209*-TM212*, TM246*, TM250*, TM251*, TM252* and fixtures with T570, T670 or TM538 Accessory Holder	**T589BL**	

*Simultaneously accepts any combination of up to two filters, lenses or louver.
**T338, T340 can accept 1 3/4" filters, lenses and louver standard and can also accept 4 11/16" filters, lenses and louver when combined with T570 Accessory Holder or T72 Barn Door accessory. T290 can accept 1 3/4" filters, lenses and louver standard and can also accept 3 3/4" filters, lenses and louver standard.

See website for details, www.junolightinggroup.com

Trac-Master® Light Control Accessories

Snoots and Eyebrows

Snoots and Eyebrows extend lamp shielding and can reduce spill light in the edge of a beam pattern.

Barn Doors

Barn Doors create a theatrical look and allow control of the spill light coming off of a lamp.

	1 3/4" DIA.	COMPATIBLE WITH	2" DIA.	COMPATIBLE WITH
Snoot	**T558BL**	T216, T442, T480, T809, TP216		
Eyebrow	**T556BL**	T480, T611, T621, T809		
Barn Doors Does not require separate accessory holder except where noted.	**T74BL**	T216, T430, T431, T480, T611, T621, TP216	**T7470BL** Also requires T7400 Accessory Holder	T401, T630

Trac-Master® Light Control Accessories

2 3/4" DIA.	COMPATIBLE WITH	3 3/4" DIA.	COMPATIBLE WITH	4 11/16" DIA.	COMPATIBLE WITH	5 1/2" DIA.	COMPATIBLE WITH
		T577BL	T218, T613, T483	**T587BL**	T219, T485, T487, T614		
		T71BL Accepts 3 3/4" filters, lenses and louver	T303, T313, T326, T393, T423	**T72BL** Accepts 4 11/16" filters, lenses and louver	T305, T315, T327, T338**, T340**, T395, T425	**T73BL** **T73WH** Accepts 5 1/2" filters, lenses and louver	T307, T317, T328, T342, T397, T427
		TW71BL Accepts 3 3/4" filters, lenses and louver	T435	**TW72BL** Accepts 4 11/16" filters, lenses and louver	T437		
		TW75BL Accepts 3 3/4" filters, lenses and louver	T433				

**T338, T340 can accept 1 3/4" filters, lenses and louver standard and can also accept 4 11/16" filters, lenses and louver when combined with T570 Accessory Holder or T72 Barn Door accessory.

Current Limiting Subpanels

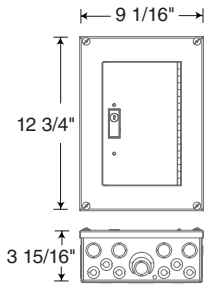
The Juno Current Limiting Subpanel lets you optimize the potential of line voltage trac lighting without being penalized by watts-per-linear-foot code calculations. The subpanel installs between the branch circuit breaker and the trac lighting equipment and limits the amount of available power to only that required by the lighting plan. As a result, trac installations designed around energy-efficient fixtures can provide all the lighting density and application flexibility you need, while remaining code compliant.

The Current Limiting Subpanel is typically installed out-of-sight in an electrical control room, providing a centralized location for installation wiring and breaker resetting. Installation labor is minimized since multiple trac runs can be fed from a single current limiting circuit breaker. The subpanel is offered in any configuration from 4 through 42 circuits and is available in either surface mount or flush mount versions. Current limiting is provided by 1A to 13A supplementary breakers that are selected on the basis of actual lighting loads specified. Units are factory pre-assembled…no programming is required. Our exceptional sales and service team will guide you through the easy specification process.

Surface Mount

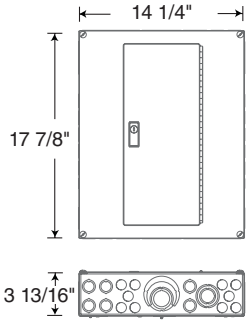
4-12 Circuit Panel

NEW	Catalog #	Description
	CLS4M	Surface Mount, 4 Circuit
	CLS5M	Surface Mount, 5 Circuit
	CLS6M	Surface Mount, 6 Circuit
	CLS7M	Surface Mount, 7 Circuit
	CLS8M	Surface Mount, 8 Circuit
	CLS9M	Surface Mount, 9 Circuit
	CLS10M	Surface Mount, 10 Circuit
	CLS11M	Surface Mount, 11 Circuit
	CLS12M	Surface Mount, 12 Circuit



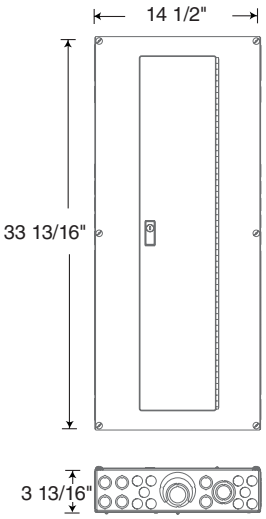
6-21 Circuit Panel

Catalog #	Description
CLS6	Surface Mount, 6 Circuit
CLS7	Surface Mount, 7 Circuit
CLS8	Surface Mount, 8 Circuit
CLS9	Surface Mount, 9 Circuit
CLS10	Surface Mount, 10 Circuit
CLS11	Surface Mount, 11 Circuit
CLS12	Surface Mount, 12 Circuit
CLS13	Surface Mount, 13 Circuit
CLS14	Surface Mount, 14 Circuit
CLS15	Surface Mount, 15 Circuit
CLS16	Surface Mount, 16 Circuit
CLS17	Surface Mount, 17 Circuit
CLS18	Surface Mount, 18 Circuit
CLS19	Surface Mount, 19 Circuit
CLS20	Surface Mount, 20 Circuit
CLS21	Surface Mount, 21 Circuit



22-42 Circuit Panel

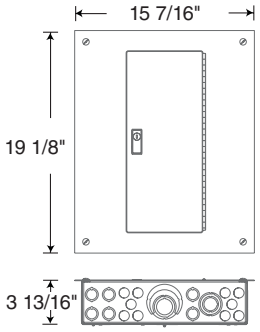
Catalog #	Description
CLS22	Surface Mount, 22 Circuit
CLS23	Surface Mount, 23 Circuit
CLS24	Surface Mount, 24 Circuit
CLS25	Surface Mount, 25 Circuit
CLS26	Surface Mount, 26 Circuit
CLS27	Surface Mount, 27 Circuit
CLS28	Surface Mount, 28 Circuit
CLS29	Surface Mount, 29 Circuit
CLS30	Surface Mount, 30 Circuit
CLS31	Surface Mount, 31 Circuit
CLS32	Surface Mount, 32 Circuit
CLS33	Surface Mount, 33 Circuit
CLS34	Surface Mount, 34 Circuit
CLS35	Surface Mount, 35 Circuit
CLS36	Surface Mount, 36 Circuit
CLS37	Surface Mount, 37 Circuit
CLS38	Surface Mount, 38 Circuit
CLS39	Surface Mount, 39 Circuit
CLS40	Surface Mount, 40 Circuit
CLS41	Surface Mount, 41 Circuit
CLS42	Surface Mount, 42 Circuit



Flush Mount

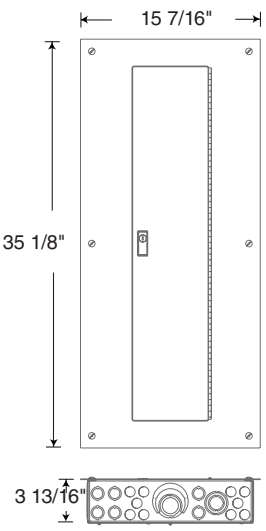
6-21 Circuit Panel

Catalog #	Description
CLS6F	Flush Mount, 6 Circuit
CLS7F	Flush Mount, 7 Circuit
CLS8F	Flush Mount, 8 Circuit
CLS9F	Flush Mount, 9 Circuit
CLS10F	Flush Mount, 10 Circuit
CLS11F	Flush Mount, 11 Circuit
CLS12F	Flush Mount, 12 Circuit
CLS13F	Flush Mount, 13 Circuit
CLS14F	Flush Mount, 14 Circuit
CLS15F	Flush Mount, 15 Circuit
CLS16F	Flush Mount, 16 Circuit
CLS17F	Flush Mount, 17 Circuit
CLS18F	Flush Mount, 18 Circuit
CLS19F	Flush Mount, 19 Circuit
CLS20F	Flush Mount, 20 Circuit
CLS21F	Flush Mount, 21 Circuit



22-42 Circuit Panel

Catalog #	Description
CLS22F	Flush Mount, 22 Circuit
CLS23F	Flush Mount, 23 Circuit
CLS24F	Flush Mount, 24 Circuit
CLS25F	Flush Mount, 25 Circuit
CLS26F	Flush Mount, 26 Circuit
CLS27F	Flush Mount, 27 Circuit
CLS28F	Flush Mount, 28 Circuit
CLS29F	Flush Mount, 29 Circuit
CLS30F	Flush Mount, 30 Circuit
CLS31F	Flush Mount, 31 Circuit
CLS32F	Flush Mount, 32 Circuit
CLS33F	Flush Mount, 33 Circuit
CLS34F	Flush Mount, 34 Circuit
CLS35F	Flush Mount, 35 Circuit
CLS36F	Flush Mount, 36 Circuit
CLS37F	Flush Mount, 37 Circuit
CLS38F	Flush Mount, 38 Circuit
CLS39F	Flush Mount, 39 Circuit
CLS40F	Flush Mount, 40 Circuit
CLS41F	Flush Mount, 41 Circuit
CLS42F	Flush Mount, 42 Circuit



Note:
Individual current limiting circuit breaker ratings are determined by the electrical layout drawings. A submittal package will be provided by Juno Lighting Group for customer approval following receipt of order. Current limiting circuit breaker ratings and panel position must be provided at the time of order but are not required to be specified as part of the catalog number.

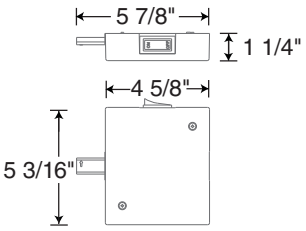
Current Limiting Feeds

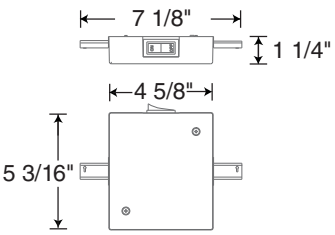
Juno Current Limiting Feeds are the perfect solution for bringing both new and existing line voltage trac lighting installations into conformance with today's stringent energy codes. They enable you to take full advantage of energy-efficient, high-performance LED, CMH, and CFL trac fixtures without being penalized by watts-per-linear-foot code requirements, reducing calculated watts by as much as 75% or more.

Current Limiting Feeds are designed to take the place of standard feeds and are installed at every trac feed location. The feeds are compact and mount close to the ceiling for an unobtrusive appearance. Each feed connector accepts up to two current limiting circuit breakers simultaneously. Feeds are supplied with tamper-resistant cover screws and screwdriver bits for installation convenience and security. Available in both end feed and in-line feed configurations for either Trac-Master one-circuit, Trac-Master two-circuit, or Trac-Lites one-circuit systems.

Current limiting circuit breakers (ordered separately) are available in increments from 1A to 14A to accommodate planned wattage use. Color-coded on/off indicators clearly identify breaker status and are easily resettable in the event of an overload situation.

Trac-Master

End Feeds	Catalog #	Description	Trac Type	Finish	Dimensions
	TCLF11BL	End Feed	1-Circuit	Black	
	TCLF11WH	End Feed	1-Circuit	White	
	TCLF11SL	End Feed	1-Circuit	Silver	
	TUCLF11BL	End Feed	2-Circuit	Black	
	TUCLF11WH	End Feed	2-Circuit	White	
	TUCLF11SL	End Feed	2-Circuit	Silver	

In-Line Feeds	Catalog #	Description	Trac Type	Finish	Dimensions
	TCLF21BL	In-Line Feed	1-Circuit	Black	
	TCLF21WH	In-Line Feed	1-Circuit	White	
	TCLF21SL	In-Line Feed	1-Circuit	Silver	
	TUCLF21BL	In-Line Feed	2-Circuit	Black	
	TUCLF21WH	In-Line Feed	2-Circuit	White	
	TUCLF21SL	In-Line Feed	2-Circuit	Silver	

Current Limiting Circuit Breakers - Order Separately

Catalog#	Description	Wattage	Finish
TCL0.5	0.5A Current Limiting Circuit Breaker	60W	WH, BL
TCL1	1A Current Limiting Circuit Breaker	120W	WH, BL
TCL2	2A Current Limiting Circuit Breaker	240W	WH, BL
TCL3	3A Current Limiting Circuit Breaker	360W	WH, BL
TCL4	4A Current Limiting Circuit Breaker	480W	WH, BL
TCL5	5A Current Limiting Circuit Breaker	600W	WH, BL
TCL6	6A Current Limiting Circuit Breaker	720W	WH, BL
TCL7	7A Current Limiting Circuit Breaker	840W	WH, BL
TCL8	8A Current Limiting Circuit Breaker	960W	WH, BL
TCL9	9A Current Limiting Circuit Breaker	1080W	WH, BL
TCL10	10A Current Limiting Circuit Breaker	1200W	WH, BL
TCL12	12A Current Limiting Circuit Breaker	1440W	WH, BL
TCL14	14A Current Limiting Circuit Breaker	1680W	WH, BL

Ordering Example: TCLF11BL and TCL5BL

Linear Lighting Lampholders	**168**
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PAGE 174

Spotlights
A wide selection of MR11 and MR16 miniature-scale spotlights for accent and display lighting.

PAGE 171

Halogen Flood
Provides wide-spread, uniform illumination from 10-20W halogen capsules.

PAGE 173

MR11 Mini-Spots
The perfect easy-to-conceal, ultra-miniature accent lights for spotlighting in cabinetry and displays.

PAGE 170

Xenon Lampholders
3-10 watt single and double wedge base and rigid loop lampholders provide a complete selection to satisfy any cabinetry or cove lighting need.

PAGE 172

LED Mini-Cylinder SpotLight
Miniature spotlights offer effective, energy-efficient accent lighting.

PAGE 171

LED Mini-Flood
Effective flood and task lighting in a low-profile, energy-efficient package.

PAGE 168

LED Module
Ultra-efficient, maintenance-free linear lighting for coves, cabinetry, and casework displays.

Trac 12™

The miniaturization of Trac 12 provides unique versatility with a flexible, low-voltage trac system.

PAGE 214

Decorative Pendants
LED and halogen luminaires in a broad spectrum of shapes, colors, and finishes in both lustrous metals and luminescent glass to complement virtually any interior palette.

Linear Lighting – Thanks to its ultra-slim profile, Trac 12 can be easily installed in coves, cabinetry and casework displays to produce uniform linear lighting. Variable spacing of the modular lampholders permits on-site fine tuning to create even illumination at the desired intensity.

Spotlighting – Trac 12 is easily integrated into displays, low soffits and ceilings or can be pendant suspended for dramatic accent lighting. The diminutive dimensions of Trac 12 allow it to squeeze into tight spaces inaccessible to standard size line voltage track systems. Trac 12 is powered by remote transformers, eliminating the need for transformers at each fixture. This can be helpful in meeting today's ever-more-stringent energy codes, since consumption calculations are often based on the capacity of the transformers, rather than the linear feet of installed trac.

Energy-Efficient Illumination – The Trac 12 system is offered with a variety of light sources, including the latest in ultra-efficient LEDs. An extensive range of state-of-the-art LED fixtures for linear, spot and flood applications feature unparalleled energy savings and remarkably long service life.

Trac 12™ and Trac 12/25 System Comparisons

The original Trac 12 and the new rigid profile, higher amperage Trac 12/25 systems each offer unique features and advantages that are best suited for particular applications. Both systems accept the full complement of Trac 12 linear, spotlight and decorative pendant fixtures.

Trac 12 & Trac 12/25
(shown actual size)

Trac 12™

Trac 12 is the original extruded thermoplastic 20-amp system that Juno introduced when it first pioneered the concept of miniature low voltage trac. It is optimized for cabinetry, special displays, exhibits and other confined spaces where minimal size is required, either because the trac must be concealed from view or is being mounted closer to eye level.

Key Features

- 20 amps maximum per cir
  480 watts at 24 volts
- Ultra-miniature ⅜"H x ¾"W thermoplastic profile
- Surface mounting only
- White or black finish

Best Applications

- Linear lighting in cabinetry and casework
-
- Displays, exhibits and kiosks wher
  runs are mounted closer to eye level

Trac 12/25

Trac 12/25 offers a rigid aluminum profile and an increased 25-amp capacity that makes it ideally suited for general display lighting and longer cove lighting runs. The rigid profile requires fewer installation mounting points, holds straight and true over long runs and can be surface or pendant mounted. The increased 25-amp capacity allows more fixtures per run of trac, which can reduce the installed system cost.

Key Features

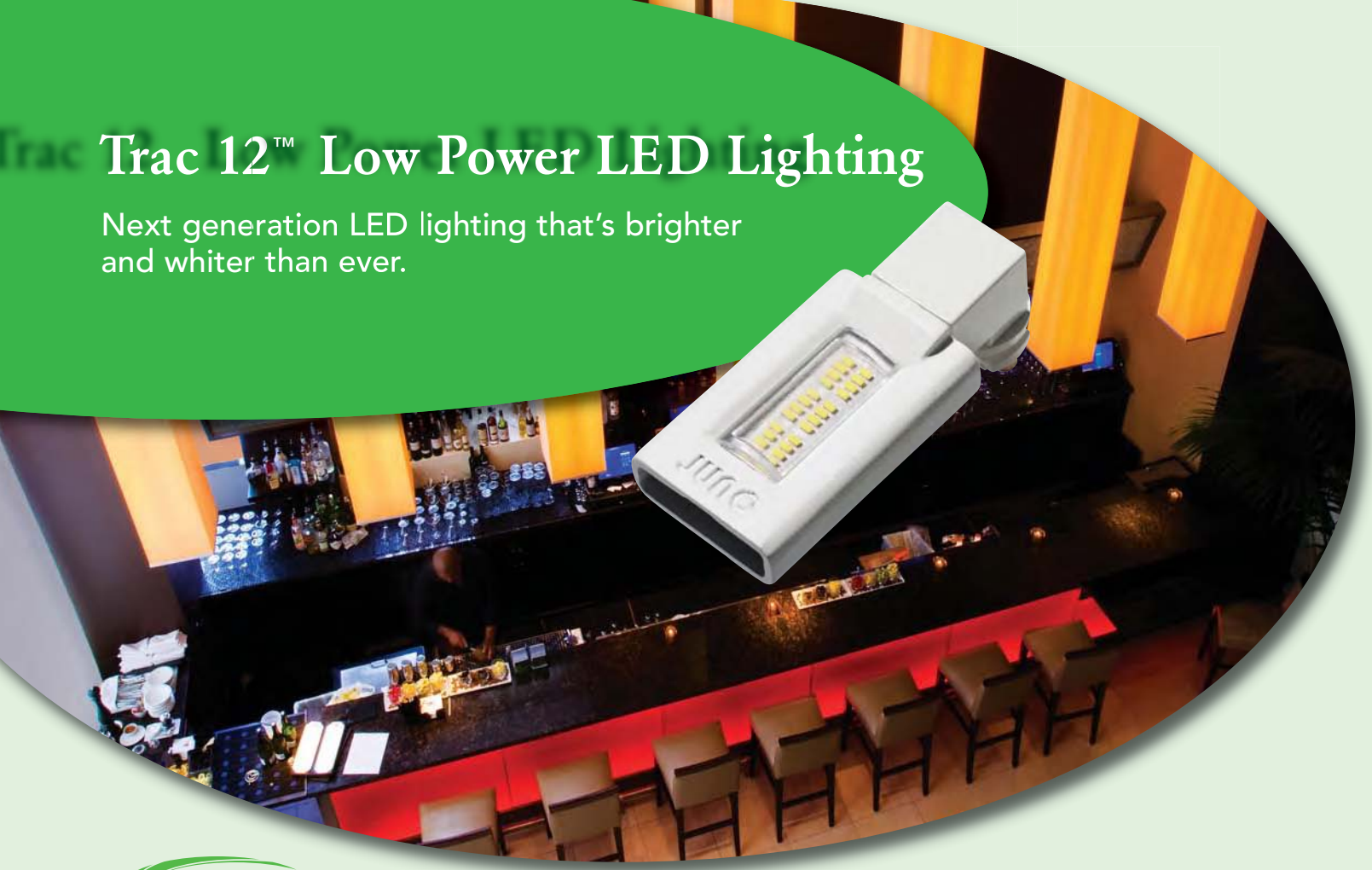
- 25 amps per circuit: 300 watts at 12 volts or 600 watts at 24 volts
- Miniature $\frac{5}{8}$"H x $\frac{15}{16}$"W rigid aluminum profile
- For surface or pendant mounting
- White, black or silver finish

Best Applications

- Ceiling or pendant mounted trac display lighting
- Longer linear lighting cove or casework runs up to 600 watts

Trac 12™ Low Power LED Lighting

Next generation LED lighting that's brighter and whiter than ever.



EcoLEDgy® Driven

Juno's new LED modules deliver light output equivalent to conventional Xenon lamps but consume less than one-eighth the energy. And with a 50,000 hour service life, you can expect over 10 years of maintenance-free operation[1]. The performance is simply brilliant!

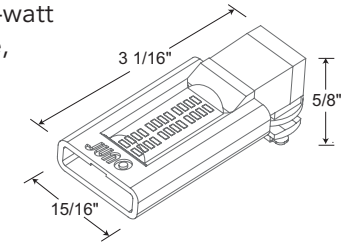
- Citizen Electronics package using Nichia LEDs provide outstanding reliability, performance and color quality/consistency.
- "Next Generation" performance—Three wattages produce up to 305 lumens per foot based on typical lamp spacing; fixture efficacy up to 38 lumens per watt.
- Unprecedented energy savings—0.7W, 1.3W, and 1.6W LEDs produce light output equivalent to 5W-10W Xenon, while reducing energy required by over 85%.
- Exceptional service life—LEDs do not burn out. At 50,000 hours they maintain 70% of initial lumens.
- Cool operation—Virtually no forward projected heat.
- No UV—Will not fade objects sensitive to ultraviolet radiation.
- Wide, uniform light distribution—Places more lumens in useful zone as compared to Xenon lamps.
- Longer runs/fewer transformers—Installs directly on Trac 12 using a variety of standard 12-volt AC magnetic transformers or electronic drivers. Lower power consumption permits longer runs using fewer transformers than comparable Xenon installations.
- Warm or cool color temperatures—Available in warm 3000K or higher-efficiency, cooler 4100K color temperatures, offering choices for commercial and retail applications.
- Constant color dimming—Color temperature remains constant over the full dimming range using Juno-qualified, widely available, two-wire low voltage dimmers[2].

[1] Based on operating 12 hours per day.
[2] See transformer specification sheets for list of Juno-qualified dimmers.

NEW Trac 12™ Low Power LED Module

Miniature LED light module replicates the light output and distribution of 5-watt to 10-watt Xenon lamps. Ideal for linear lighting applications including cove, undercabinet, undershelf, task and casework display lighting.

FINISHES: WHITE (WH) BLACK (BL)



TL201LEDX1

CATALOG #	WATTAGE/COLOR TEMPERATURE	LUMENS
TL201LEDX1-3K	**0.7 Watts/3000K**	**21**
TL201LEDX1-4K	**0.7 Watts/4100K**	**24**

TL201LEDX2

CATALOG #	WATTAGE/COLOR TEMPERATURE	LUMENS
TL201LEDX2-3K	**1.3 Watts/3000K**	**40**
TL201LEDX2-4K	**1.3 Watts/4100K**	**46**

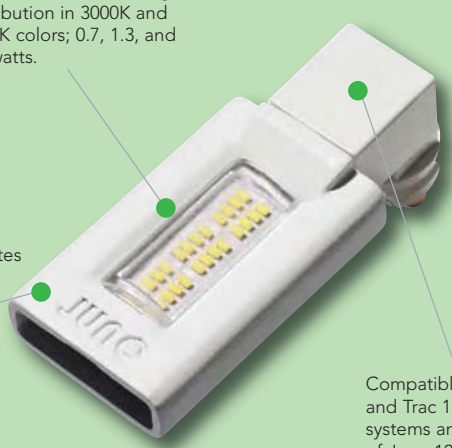
TL201LEDX3

CATALOG #	WATTAGE/COLOR TEMPERATURE	LUMENS
TL201LEDX3-3K	**1.6 Watts/3000K**	**53**
TL201LEDX3-4K	**1.6 Watts/4100K**	**61**

Compatible with a wide variety of 12VAC electronic and magnetic transformers - *see pages 185, 187 and 188 for LED compatibility*

High efficiency, long-life LED with uniform 140° light distribution in 3000K and 4100K colors; 0.7, 1.3, and 1.6 watts.

Engineered thermoplastic enclosure electrically insulates and protects circuit board. Available in white or black finish.



Shown actual size.

Compatible with Trac 12 and Trac 12/25 trac systems and a variety of Juno 12-volt AC electronic drivers and magnetic transformers.

See website for details, www.junolightinggroup.com

TL201 TL202 TL211

Xenon Wedge Base

Xenon lampholders are ideally suited for linear lighting applications. They have a minimum profile and produce a white light that approximates the color of halogen, but have up to a 20,000-hour lamp life and do not require fixture lenses or special handling.

FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL201	**12V OR 24V ONE 3W-10W T3-1/4 XENON WEDGE BASE LAMP**	5/8" / 1 5/16"
TL202	**12V OR 24V TWO 3W-10W T3-1/4 XENON WEDGE BASE LAMPS**	5/8" / 2 5/16"

FINISHES: WH, BL, SL

T3-1/4 Wedge Base Lamps

CATALOG #	WATTS	VOLTS	CLEAR/ FROSTED	RATED LUMENS
TL900	3	12	Clear	15
TL901	5	12	Clear	33
TL903	10	12	Clear	83
TL905-24V	5	24	Frosted	29
TL910-24V	10	24	Frosted	91

Xenon Rigid Loop

The rigid loop lamp carries all of the advantages of the wedge base lamps, but offer a more perfectly symmetrical light distribution and slightly higher output that is more optimized for cove lighting applications.

FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL211	**12V OR 24V 5W-10W T3-1/4 XENON RIGID LOOP LAMP**	1 1/16" / 2 3/16"

FINISHES: WH, BL

T3-1/4 Rigid Loop Lamps

CATALOG #	WATTS	VOLTS	CLEAR/ FROSTED	RATED LUMENS
TL950CL	5	12	Clear	45
TL950FR	5	12	Frosted	45
TL951CL	10	12	Clear	100
TL951FR	10	12	Frosted	100
TL952CL-24V	5	24	Clear	40
TL952FR-24V	5	24	Frosted	40
TL953CL-24V	10	24	Clear	90
TL953FR-24V	10	24	Frosted	90

TL103LED

TL103

Big Illumination

NEW LED Mini-Flood

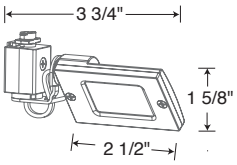
The Trac 12 LED Mini-Flood offers effective flood and task lighting in a low-profile, energy-efficient package. Consuming only 4 watts of power, it approximates the lumen output and light distribution of a 20W halogen flood, utilizing less than 25% of the energy and providing a rated life of 50,000 hours. Unlike conventional incandescent light sources, LEDs have no IR or UV in their beam – this makes them an ideal choice when illuminating heat-sensitive or UV-sensitive objects. Available in 3000K (192 lumens) and 4100K (217 lumens) color temperatures, the white-light Trac 12 LED Mini-Flood is compatible with standard Trac 12 and Trac 12/25 trac operating with 12V AC transformers approved for use with Juno LED products.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	COLOR TEMPERATURE	WATTS
TL103LED-3K	3000K	4
TL103LED-4K	4100K	4

FINISHES: WH, BL, SL

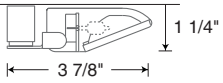


Halogen Flood

The Trac 12 Halogen Flood offers effective flood and task lighting in a low-profile, package. It is compatible with 10W or 20W halogen lamps to suit a variety of applications. The halogen lamp is rated at 2000 hours. The Halogen Flood is compatible with any 12V or 24V Trac 12 and Trac 12/25 12V AC transformers adding to its specification flexibility.

FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL103	12V OR 24V 10W-20W T3 HALOGEN BI-PIN LAMP	

FINISHES: WH, BL

T3 Halogen Bi-Pin Lamps

CATALOG #	WATTS	VOLTS	CLEAR/ FROSTED	RATED LUMENS
TL922	10	12	Clear	134
TL923	20	12	Clear	307
TL924-24V	20	24	Clear	288

See website for details, www.junolightinggroup.com

TL114LED

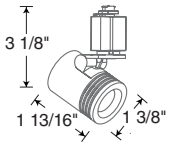
NEW LED Mini-Cylinder Spotlights

EcoLEDgy Driven

The Trac 12 LED Mini-Cylinder Spotlights offer effective accent lighting in a miniature, energy-efficient package. They approximate the light output and distribution of 20W MR11 halogen lamps (see page 245 for photometric data), utilizing approximately 1/3 of the energy and providing more than 10 times the rated life. Unlike conventional incandescent light sources, LEDs have no IR or UV in their beam – this makes them an ideal choice when illuminating heat-sensitive or UV-sensitive objects. Available in 2700K, 3000K and 4100K color temperatures, the white-light LED Mini-Cylinder Spotlights are compatible with standard Trac 12 systems operating with 12V AC transformers approved for use with Juno LED products. These fixtures can be placed anywhere along the trac, and the trac can be cut-to-length during installation, making the LED Mini-Cylinder Spotlights a versatile accent lighting choice.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

	CATALOG #	WATTAGE/LAMPS	DIMENSIONS
16° Spot	TL114LED-XX-SP	6W LED	
22° Narrow Flood	TL114LED-XX-NFL	6W LED	
38° Flood	TL114LED-XX-FL	6W LED	

Color Temperatures: 2K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example:
TL114LED-**2K**-NFL-**WH** (replace **XX** in catalog # with color temperature code)

Actual size

See website for details, www.junolightinggroup.com

TL110

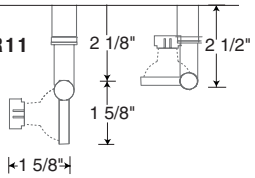
TL112

MR11 Mini-Spot

With a minimal 2½" displacement from the trac, the MR11 Mini-Spot is the clear choice for spotlighting in confined spaces such as cabinetry, casework or displays.

FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL110	**12V OR 24V 20-35W MR11**	
FINISHES:	**WH, BL**	

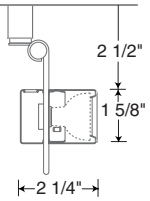
ACCESSORY FOR TL110:
Hexcell Louver T5558BL

MR11 Suspended Cylinder

Suspended Cylinder provides an enclosed lamp option for miniature display lighting.

FINISHES:

WHITE (WH) SATIN CHROME (SC)
BLACK (BL) POLISHED BRASS (PB)

CATALOG #	LAMP	DIMENSIONS
TL112	**12V OR 24V 20W MR11**	
FINISHES:	**WH, BL, SC, PB**	

ACCESSORY FOR TL112:
Hexcell Louver T5558BL

24V MR11 Lamps

CATALOG #	WATTS	VOLTS	BEAM TYPE	BEAM SPREAD
TL938-24V	20	24	SP	12°
TL939-24V	20	24	NFL	30°

Spotlighting from Suspended Trac 12/25

The rigid aluminum, miniaturized Trac 12/25 system can be easily suspended from cables or stems to bring the fixtures closer to the objects being illuminated. This installation technique not only looks great, but can also save energy because lower wattage lamps can often be employed. And lower wattage lamps mean more fixtures can be powered by the same transformer, saving even more.

TL130-9

TL130-16

TL140

Trapezia™

Trapezia suspends the MR16 lamp down from the trac with the grace of a trapeze artist. Slender 9-inch or 16-inch long tubes conceal supply wires feeding into an elegantly sculpted die cast aluminum lamp housing. The light airy appearance is great for display, exhibition and gallery lighting and the downward reach can make pendant mounting of trac unnecessary.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL130-9	**12V OR 24V 20-50W MR16CG COVER GLASS** **FINISHES: WH, BL, SL**	9 1/2"
TL130-16	**12V OR 24V 20-50W MR16CG COVER GLASS** **FINISHES: WH, BL, SL**	16 1/2"

Gyrus™

A new spin a traditional design, the Gyrus combines dramatic aerodynamic styling with an integral accessory holder that accepts up to two standard 2"diameter lenses and louvers. The snap-on design makes this an easy to accessorize fixture for more demanding display lighting applications.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL140	**12V OR 24V 20-50W MR16** **FINISHES: WH, BL, SL**	2 1/2", 3", 3 3/8"

ACCESSORIES FOR:	TL130-9, TL130-16	TL140
Dual Accessory Holder (Required)	T7400BL, SA	–
Uniformity Lens*	T7421	T7421
Diffusion Lens*	T7420	T7420
Prismatic Spread Lens*	T7477	T7477
Linear Spread Lens*	T7478	T7478
Color Filters*	T741-6	T741-6
Dichroic Filters*	T7401-18	T7401-18
UV Filter*	T7422	T7422
Hexcell Louver*	T7459BL	T7459BL
Black Barn Doors*	T7470BL	–

*TL130-9 and TL130-16 require dual accessory holder for filters, lenses, louvers and barn doors. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

See website for details, www.junolightinggroup.com

See page 192 for complete accessory descriptions.

TL155

TL170

TL150

NEW Mamba®

The strikingly original, daring aesthetic of Mamba has been perfectly proportioned for the miniaturized Trac 12 system. The Mamba combines gracefully curved and tapered elements to produce a unique and totally unexpected result. Its front-loading gimbal ring design makes lamp maintenance simple and convenient.

Mamba for Trac 12 is compatible with 50W MR16CG low voltage halogen lamps with integral cover glass. The Mamba features high quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES:
WHITE (WH) BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL155	12V OR 24V 20-50W MR16CG COVER GLASS	4 7/16", 5 13/16", 2 13/16"

FINISHES: WH, BL, SL

NEW Xanadu®

The stunning simplicity of this design, a pure shape devoid of any extraneous detail, makes Xanadu a classic beauty. Its yoke appears to have been carved directly from its conical form which has been perfectly proportioned for the miniaturized Trac 12 system.

Xanadu for Trac 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Xanadu features high quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES:
WHITE (WH) BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL170	12V OR 24V 20-50W MR16	4 1/4", 6 7/8", 3"

FINISHES: WH, BL, SL

ACCESSORIES FOR TL170:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

NEW Facet®

The sweeping arcs and arresting angles of the Facet deliver a unique asymmetrical aesthetic that is perfectly proportioned for the miniaturized Trac 12 system. With a socket housing that morphs into a stem completely horizontal in nature, its bold simplicity gives Facet an ultra-clean appearance.

Facet for Trac 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Facet features high quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES:
WHITE (WH) BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL150	12V OR 24V 20-50W MR16	4 1/16", 5 7/16", 3"

FINISHES: WH, BL, SL

ACCESSORIES FOR TL150:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

TL190

TL180

NEW Cubix®

Cubix is a study of the visual relationship between two different geometric forms, the ring and the cube. In this most playful design, the stem becomes the central element, forming a pleasing visual extension of the cube form. The interplay of each of the elements has been perfectly proportioned for the miniaturized Trac 12 system.

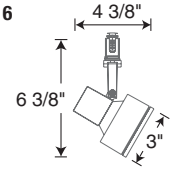
Cubix for Trac 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Cubix features high quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES:

WHITE (WH) BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL190	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL, SL



ACCESSORIES FOR TL190:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

NEW Glacis®

The flower-like Glacis reflects the beauty of the natural world. Its truncated conical element at the top cloaks the stem pivot when viewed from the conventional viewing angles. Its natural form has been perfectly proportioned for the miniaturized Trac 12 system.

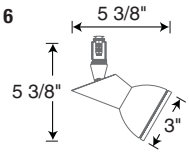
Glacis for Trac 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Glacis features high quality, die cast aluminum construction in attractive white, black and silver finishes.

FINISHES:

WHITE (WH) BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL180	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL, SL



ACCESSORIES FOR TL180:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

See website for details, www.junolightinggroup.com

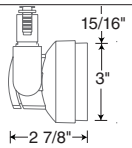
TL141

NEW Cylindra™

The Trac 12 version of the Cylindra Series translates the unique Cylindra styling into a miniature, low-profile MR16 fixture. This fully-enclosed fixture is ideal where shielding from lamp backlighting is desired. The Cylindra fixture is designed with an integral bayonet-mount media cartridge that is capable of simultaneously accepting up to two 2" diameter light control accessories. The Trac 12 Cylindra fixtures include a clear glass lens.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL141	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR TL141:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

Professional-Grade Media Cartridge

All Cylindra™ lampholders feature a quick-release bayonet-mount media cartridge that simultaneously accepts up to two light control accessories. Media can be easily installed or removed without the use of tools. The bayonet-mount attachment simplifies relamping and fixture maintenance, making Cylindra a popular choice with owners, designers and installers.

See website for details, www.junolightinggroup.com

TL106

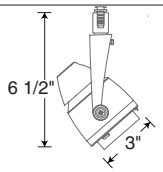
NEW

Conix®

The stylish Conix, featuring Juno's proprietary wishbone yoke design, possesses a fully enclosed lamp housing and can rotate more than 360° to eliminate aiming dead spots. The Conix Trac 12 low voltage is designed to use 50W MR16 halogen lamps. Each fixture includes an integral snoot that is designed to simultaneously accept up to two light control accessories.

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL106	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL, SL

ACCESSORIES FOR TL106:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Dichroic Filters	T5501-18
Color Filters	T551-5
UV Filter	T5522
Hexcell Louver	T5559BL

TL301

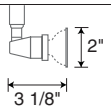
TL301 with TF308BL | TL301 with TF308SL | TL301 with TF308WH | TL301 with TF309BU-WH | TL301 with TF309W-WH | TL301 with TF309YL-WH

Universal

Use the minimalist universal by itself for a do everything basic lampholder, or in combination with one of the scoop accessories for a playful metallic or colorful accent. (Designed for use with integral cover glass MR16 lamps.)

FINISHES:

WHITE (WH) BLACK (BL) SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL301	**12V OR 24V 20-50W MR16CG COVER GLASS**	

FINISHES: WH, BL, SL

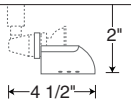
ACCESSORIES FOR TL301:

Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Black Barn Doors*	T7470BL

*Filters, lenses, louvers and barn doors require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

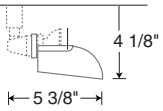
Accessory Scoops

Universal halogen spotlights take on a whole new appearance when you dress them up in one of these metal or luminous scoops.

CATALOG #	DESCRIPTION	DIMENSIONS
TF308	**PERFORATED METAL SCOOP**	

FINISHES:

WHITE (WH)
BLACK (BL)
SILVER (SL)

CATALOG #	DESCRIPTION	DIMENSIONS
TF309	**LUMINOUS SCOOP**	

SCOOP FINISHES:

WHITE (W)
BLUE FROST (BU)
YELLOW FROST (YL)

RETAINING COLLAR FINISHES:

WHITE (WH)
BLACK (BL)
SILVER (SL)

ORDERING EXAMPLE:

TF309BU-SL

TL161

TL160

TL165

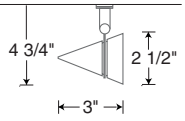
Geometrics

The timeless simplicity of cones and spheres. Choose the petite MR11 dart for a playful accent, the MR16 Cone for a more sophisticated design statement or the Orb for a balanced, consistent appearance regardless of aiming angle.

FINISHES:

- WHITE (WH)
- BLACK (BL)
- SILVER (SL)

Dart

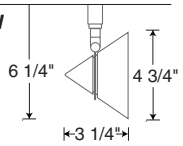
CATALOG #	LAMP	DIMENSIONS
TL161	**12V OR 24V 20-35W MR11**	

FINISHES: **WH, BL, SL**

ACCESSORIES FOR **TL161:**

Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522

Cone

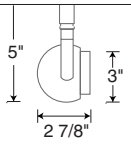
CATALOG #	LAMP	DIMENSIONS
TL160	**12V OR 24V 20-50W MR16**	

FINISHES: **WH, BL, SL**

ACCESSORIES FOR **TL160:**

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

Orb

CATALOG #	LAMP	DIMENSIONS
TL165	**12V OR 24V 20-50W MR16**	

FINISHES: **WH, BL, SL**

ACCESSORIES FOR **TL165:**

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Lenses	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522

Studio II

Studio II adds a contemporary miniaturized stage and studio flavor into an environment.

FINISHES:

WHITE (WH) BLACK (BL)
SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TL191	**12V OR 24V 20-50W MR16**	1 3/4", 3", 3 5/8"

FINISHES: WH, BL, SL

ACCESSORIES FOR TL191:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Dichroic Filters	T5501-18
Hexcell Louver	T5559BL

Slant Cylinder

A simple, solid form, this unique stepped cylinder adds a subtle hint of design into applications that call for a fully enclosed lamp.

FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL109	**12V OR 24V 20-50W MR16**	2 1/4", 2 5/8", 3 3/4"

FINISHES: WH, BL

ACCESSORIES FOR TL109:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Dichroic Filters	T5501-18
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Eyebrow	T556BL
Black Barn Doors	T74BL

Delta 200 Series®

An angular, die cast fixture body and rod-supported lamp bezel create a semi-exposed, technical appearance. For special effects, an optional louver or color filter can be substituted for the clear glass lens that is smartly contained in the rod-supported front bezel.

FINISHES:

WHITE (WH) SILVER (SL)
BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL116	**12V OR 24V 20-50W MR16**	2 7/8", 2 1/4", 2 5/8"

FINISHES: WH, BL, SL

CATALOG #	LAMP	DIMENSIONS
TLP116	**12V OR 24V 20-50W MR16**	10 3/4", 2 1/4", 2 5/8"

FINISHES: WH, BL, SL

ACCESSORIES FOR TL116 AND TLP116:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
UV Filter	T5522
Dichroic Filters	T5501-18
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL

TL143

TL117

TL196

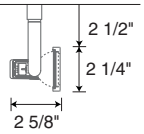
TL296

Notch Back

The rectangular back of this contemporary design offers visual lines that parallel the trac itself.

FINISHES:

WHITE (WH) BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL143	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL

ACCESSORIES FOR TL143:

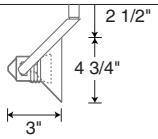
Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

Flyback

Uniquely angled back from the trac at 45 degrees, Flybacks add visual energy into a space.

FINISHES:

WHITE (WH) SATIN CHROME (SC)
BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL117	**12V OR 24V 20-50W MR16CG COVER GLASS**	

FINISHES: WH, BL, SC

ACCESSORIES FOR TL117:

Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL

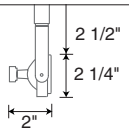
*Filters, lenses and louvers require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp.

Gimbal Rings

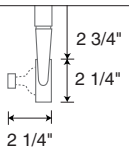
Choose the basic single yoke or the more elegant sculpted dual yoke design.

FINISHES:

WHITE (WH) SATIN CHROME (SC)
BLACK (BL)

CATALOG #	LAMP	DIMENSIONS
TL196	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL

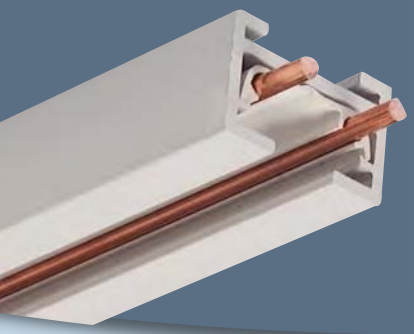
CATALOG #	LAMP	DIMENSIONS
TL296	**12V OR 24V 20-50W MR16**	

FINISHES: WH, BL, SC

ACCESSORIES FOR TL196 AND TL296:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

See website for details, www.junolightinggroup.com



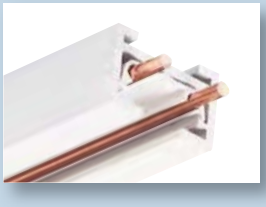
Trac 12/25
Low Voltage Trac System

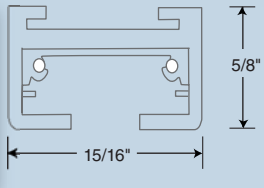
Trac 12/25 combines the 25-amp capacity of 10 gauge conductors with a miniature rigid profile that can be surface mounted or pendant suspended. The system operates using remotely located 12-volt or 24-volt transformers. A maximum of 300 watts (12 volts) or 600 watts (24 volts) can be placed per circuit of trac.

Key Features:

- 10 gauge solid copper conductors with 25-amp capacity
- Rigid aluminum miniature ⅝"H x 15⁄16"W profile
- Accepts all standard Trac12® lampholders
- Can be surface or pendant mounted
- White, black or silver finish
- Can be cut to length by installer

Trac 12/25 Trac Sections Includes dead end and mounting hardware.





CATALOG #		FINISHES
TLR2	**2' Trac** (actual length 20⅝")	White(WH), Black(BL), Silver(SL)
TLR4	**4' Trac** (actual length 44⅝")	White(WH), Black(BL), Silver(SL)
TLR6	**6' Trac** (actual length 68⅝")	White(WH), Black(BL), Silver(SL)
TLR8	**8' Trac** (actual length 92⅝")	White(WH), Black(BL), Silver(SL)

Electrical Feeds and Dead End

TLR21 End Feed Connector and Outlet Box Cover
Allows trac to be fed via remote transformer from an outlet box. Includes terminal block, cover and mounting plate.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR38 End Feed Connector
Allows trac to be fed via remote transformer from top using standard electrical connectors. Includes terminal block connector and cover.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR34 End Feed Connector and Conduit Feed
Allows trac to be fed via remote transformer with conduit through the end or top using standard ½" electrical connectors. Includes terminal block feed connector, mounting plate and cover.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR36 Outlet Box/T-Bar Ceiling Canopy
Mounts over outlet boxes or on T-bar ceiling to feed up to four tracs via a remote transformer. Includes one TLR36TB, mounting plate and cover. To feed more than one trac, order additional TLR36TB connectors. Requires TLR37 for T-bar installation.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR36TB Terminal Block Connector
FINISHES: WHITE(WH), BLACK(BL)

TLR28 Dead End
Dead end to use on extra field-cut trac sections.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR50 Pendant Feed End Connector
For use in conjunction with TLR90/91 Pendant Stem assemblies to feed power into end of trac. Includes terminal block connector, support plate and cover.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Joiners and T-Bar Attachment Clip

TLR23 Miniature Straight Connector
Joins two trac sections end-to-end. Includes terminal block joiner and cover.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

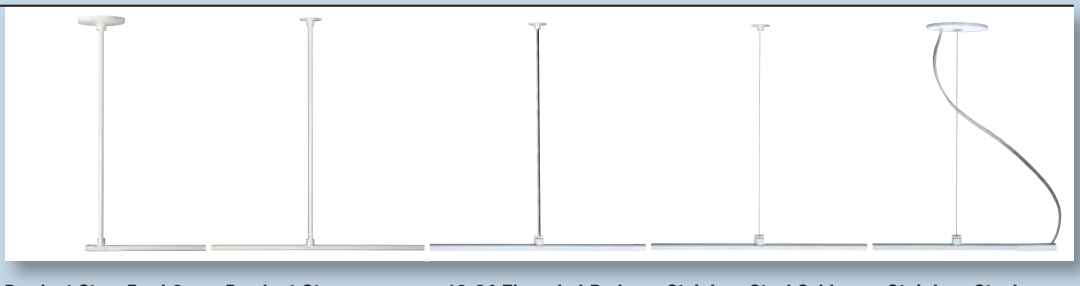
TLR24 Adjustable Connector
Joins two trac sections to form a 90-degree corner or straight coupling. Includes two terminal block connectors, joiner wires and both 90-degree and straight covers.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR20 Accordion Adjustable Joiner
Joins two trac sections at variable angles to left, right, up or down. Includes two terminal block connectors, joiner wires and covers.
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TLR37 T-Bar Attachment Clip
To attach trac to inverted 15⁄16" T-bar ceiling runner. Compatible with either flush tile or drop tile installations.

TLR37-9-16 T-Bar Attachment Clip
Same as above but for 9⁄16" inverted tee.

Pendant Mounting Accessories



Pendant Stem Feed & Mechanical Support

TLR90*
T-Bar Ceilings

TLR91*
Rigid Ceilings

STEM LENGTHS:
-12 12"
-18 18"
-24 24"
-36 36"
-48 48"

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

ORDERING EXAMPLE:
TLR90-12-WH*

Pendant Stem Mechanical Support

TLR92

STEM LENGTHS:
-12 12"
-18 18"
-24 24"
-36 36"
-48 48"

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

ORDERING EXAMPLE:
TLR92-18-BL

10-24 Threaded Rod Mechanical Support

TLR93
Includes ceiling canopy and trac mounting hardware only; threaded rod by others.

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

ORDERING EXAMPLE:
TLR93BL

Stainless Steel Cable Mechanical Support

TLR95

CABLE LENGTHS:
-48 48"
-144 144"

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

ORDERING EXAMPLE:
TLR95-144-WH

Stainless Steel Cable Feed & Mechanical Support

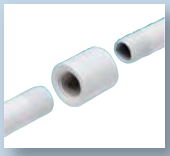
TLR96*

CABLE LENGTHS:
-48 48"
-144 144"

FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

ORDERING EXAMPLE:
TLR96-48-SL*

*Order TLR50 pendant end-feed connector separately.
Use 2 supports for each 2', 4' or 6' section of trac, 3 supports for each 8' section of trac. Stainless steel cable recommended only for trac patterns, not straight runs.

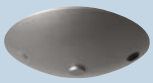


T96 Pendant Stem Coupling
Joins pendant stems for use in higher ceiling applications.
FINISHES: WHITE(WH), BLACK(BL), SILVER (SL)

T94 Sloped Ceiling Adapter
Permits pendant stems to be hung vertically from sloped ceilings. Used in conjunction with TLR90, TLR91 or TLR92 Ceiling Canopies (not included). Allows feeding of wires to trac at up to a 60 degree angle. Accommodates a maximum of two 12 gauge solid THHN copper wires. 20-amp capacity. FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Surface Mount Transformers

Designed to mount over standard 4" ceiling outlet boxes, surface mount transformers can be used with a single pendant stem to support/feed one end of a trac run. May also be used with a Flexible Feed Kit (TF950) to create a non-rigid floating feed, independent of mechanical support of the trac. The TF6150E Electronic Surface Mount Transformer has automatic resetting overload and short-circuit protection. Should be mounted within 5' of trac. The TF6300 Magnetic Toroidal Surface Mount Transformer has a manually resettable circuit breaker. 120VAC input. Not compatible with LED luminaires.



CATALOG #	OUTPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/ WATTAGE PER CIRCUIT	RECOMMENDED WATTAGE RANGE PER CIRCUIT	DIMENSIONS
TF6150E-SL*	12V	150 watts	1 / 150 watts	50-150 watts	3"H x 12"Dia.
TF6300SL**	12V	300 watts	1 / 300 watts	150-300 watts	3"H x 12"Dia.

*Dimmable-for best results use dimmer designed for use with electronic transformers. **Dimmable-for best results use dimmer specifically designed for use with magnetic transformers.

Trac 12/25 Remote Mount Magnetic Transformers

Trac 12/25 Remote Mount Magnetic Transformers are designed to be installed in remote locations such as basements, attics, plenums and electrical closets. The location must be accessible and well ventilated with ambient temperatures below 140°F. 12-volt transformers are typically used for spotlighting applications due to the ready availability of 12-volt MR11 and MR16 lamps. 24-volt transformers double the wattage capacity vs. a 12-volt system and are more commonly selected for linear lighting due to their capacity for longer runs per circuit. These transformers are designed for either 120-volt or 277-volt input, and have premium resettable magnetic circuit breakers, dual-tap standard/boost tap primary input leads to adjust for voltage drop and may be dimmed using dimmers qualified by Juno. See specification sheets for a list of qualified dimmers. Primary and secondary circuits are physically and electrically isolated and grounded. Trac 12/25 may also be used with other transformers listed under the standard Trac 12 system on page 187 (except TL546). Compatible with all Trac 12 low voltage luminaires including halogen and LED (12V transformers only).

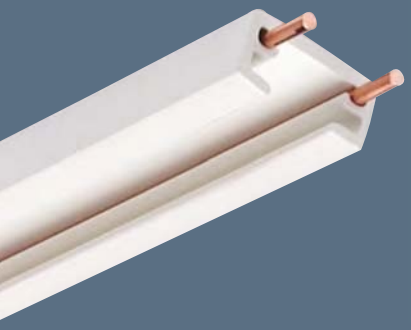
12V Transformers

CATALOG #	OUTPUT VOLTAGE/ INPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/ WATTAGE PER CIRCUIT	DIMENSIONS
TF5150BL	12V/120V	150W	1/50-150W halogen, 75-150 watts LED	10-1/2"H x 3-5/8"W x 3-7/8"D
TF5150BL-277	12V/277V	150W	1/50-150W halogen, 75-150 watts LED	10-1/2"H x 3-5/8"W x 3-7/8"D
TF5300BL	12V/120V	300W	1/150-300W	10-3/4"H x 4-3/8"W x 4-1/8"D
TF5300BL-277	12V/277V	300W	1/150-300W	10-3/4"H x 4-3/8"W x 4-1/8"D
TF5600BL	12V/120V	600W	2/150-300W	11-3/8"H x 5-3/8"W x 5-1/8"D
TF5600BL-277	12V/277V	600W	2/150-300W	11-3/8"H x 5-3/8"W x 5-1/8"D

24V Transformers

CATALOG #	OUTPUT VOLTAGE/ INPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/ WATTAGE PER CIRCUIT	DIMENSIONS
TF5600BL-24V	24V/120V	600W	1/300-600W	11-1/2"H x 5-3/8"W x 5-1/8"D
TF5600BL277-24V	24V/277V	600W	1/300-600W	11-1/2"H x 5-3/8"W x 5-1/8"D
TF51200BL-24V	24V/120V	1200W	2/300-600W	12-1/2"H x 6-1/8"W x 5-7/8"D
TF51200BL277-24V	24V/277V	1200W	2/300-600W	12-1/2"H x 6-1/8"W x 5-7/8"D

NOTE: 120V magnetic transformers are available with a 6-foot cord and plug option. For cord and plug installation, add -CP6 as suffix to catalog number. Example: TF5150BL-CP6.



Trac 12™
Low Voltage Trac System

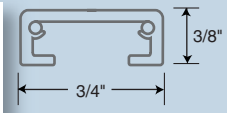
Trac12 is the original miniature low voltage system that combines a 20-amp capacity with an extremely miniature engineered plastic profile. The system operates using remotely located or in-line 12-volt or 24-volt transformers. A maximum of 240 watts (12 volts) or 480 watts (24 volts) can be placed per circuit of trac.

Key Features:

- 12 gauge solid copper conductors with 20-amp capacity
- Engineered thermoplastic ultra-miniature ⅜"H x ¾"W profile
- Accepts all standard Trac 12 lampholders
- White or black finish
- Can be cut to length by installer

Trac 12 Trac Sections Includes end feed connector, dead end and mounting hardware. End feed connector converts to a straight connector when joining multiple trac sections.

NOTE: When joining trac sections, overall length is 1 7/16" shorter than individual trac section lengths.



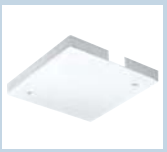
Electrical feeds with terminal block connector supplied with Trac 12. Converts to straight connector when joining multiple tracs.

CATALOG #		FINISHES
TL2	**2' Trac** (actual length 20⅝")	White(WH), Black(BL)
TL4	**4' Trac** (actual length 44⅝")	White(WH), Black(BL)
TL6	**6' Trac** (actual length 68⅝")	White(WH), Black(BL)
TL8	**8' Trac** (actual length 92⅝")	White(WH), Black(BL)

Electrical Feeds

TL38 End Feed Connector/Straight Joiner with Dead End
For use with field cut-off trac sections. Includes terminal block connector with cover and dead end. Terminal block connector also serves as a straight joiner to join two trac sections.
FINISHES: WHITE(WH), BLACK(BL)

TL34 End Feed Connector for Conduit
Allows trac to be fed via remote transformer with conduit through the end or top using standard electrical connectors. Includes, mounting plate, surface conduit adapter and cover.
FINISHES: WHITE(WH), BLACK(BL)



TL21 Outlet Box/T-Bar Ceiling Canopy
May be mounted over outlet boxes or on T-bar ceiling runners to feed up to four trac sections via a remote transformer. Includes mounting plate and cover with four breakouts. Requires TLR37 for T-bar ceiling installation.
FINISHES: WHITE(WH), BLACK(BL)

Joiner Connectors

TL24 Right Angle Joiner
Joins two trac sections to form a 90-degree corner. Includes one terminal block connector with cover and joiner wires.
FINISHES: WHITE(WH), BLACK(BL)

TL20 Adjustable Joiner
Joins two trac sections at variable angles to left, right, up or down. Includes one terminal block connector with cover and 4" flexible joiner cable.
FINISHES: WHITE(WH), BLACK(BL)

Mounting Accessories

TLR37 T-Bar Attachment Clip
To attach trac to inverted 15/16" T-bar ceiling runner. Compatible with either flush tile or drop tile installations.
TLR37-9-16 T-Bar Clip for 9/16" Grid Ceiling

TL4000 Extruded Aluminum Fascia
Conceals trac and Xenon linear lampholders. 6' length may be field cut to size. 1⅜" x 1⅜" profile.
FINISHES: WHITE(WH), BLACK(BL)

Transformers

Trac 12™ Electronic Transformers

Electronic transformers are compact and lightweight and thus ideal for mounting in close proximity to the trac. They may be dimmed using better quality incandescent dimmers, but for optimal/ consistent performance, dimmers specifically designed for use with low voltage electronic transformers are recommended. All electronic transformers include automatically resetting overload, short circuit and thermal protection. They are recommended for trac run lengths not exceeding 20 feet. Not compatible with LED luminaires.

Direct Wire Electronic Transformers

TL547 150-Watt Surface Transformer
Low profile electronic 12-volt transformer for loads between 50-150 watts. May be installed in-line with trac (Trac 12 only) or remotely mounted up to 5' away (Trac 12 or Trac12/25). 120-volt supply can be fed into end or top using standard ½" electrical connectors. Includes On/off push button switch.
DIMENSIONS: 1⅝"H x 2½"W x 7"L
FINISHES: WHITE(WH), BLACK(BL)

TL546 150-Watt Canopy Transformer
Canopy mount electronic 12-volt transformer for loads between 50-150 watts. Mounts over standard 120-volt ceiling outlet boxes and can end-feed one trac section or center feed two trac sections.
NOTE: This is not a floating feed and is not suitable for use with Trac 12/25.
DIMENSIONS: 2⅛"H x 4¾"W x 5"L
FINISHES: WHITE(WH), BLACK(BL)

Portable Electronic Transformers

TL548 60-Watt Plug-In Transformer
Integral plug-in 12-volt transformer for loads up to 60 watts. Supplied with 10' of two-wire cord and on/off line cord switch.
DIMENSIONS: 3⅛"H x 1½"W x 1⅜"D
FINISHES: WHITE(WH), BLACK(BL)

TL544N 60-Watt Surface Mount Transformer
Surface mount electronic 12-volt transformer for loads up to 60 watts. Includes 6', 3-wire cord and plug, 4½" leads with mating connector for TL43 Monopoint and on/off switch.
DIMENSIONS: 1⅜"H x 2"W x 4⅞"L
FINISHES: WHITE(WH), BLACK(BL)

Trac 12™ Remote Mount Magnetic Transformers

Trac 12 remote mount magnetic transformers are designed to be installed in remote locations such as basements, attics, plenums and electrical closets. The location must be accessible and well ventilated with ambient temperatures below 140-degrees Fahrenheit. 12-volt transformers are typically used for spotlighting applications due to the ready availability of 12-volt MR11 and MR16 lamps. 24-volt transformers double the wattage capacity vs. a 12-volt system and are more commonly selected for linear lighting due to their capacity for longer runs per circuit. These transformers are designed for either 120-volt or 277-volt input, have premium resettable magnetic circuit breakers, dual-tap standard/ boost tap primary input leads to adjust for voltage drop and may be dimmed using dimmers qualified by Juno. See specification sheets for a list of qualified dimmers. Suitable for use with Trac 12 or Trac 12/25. Compatible with all Trac 12 low voltage luminaires including halogen and LED (12V transformers only).

12V Transformers

CATALOG #	OUTPUT VOLTAGE/ INPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/ WATTAGE PER CIRCUITS	DIMENSIONS
TL554N-BL	12V/120V	150 watts	1/50-150 watts halogen, 75-150 watts LED	8"H x 3-5/8"W x 3 -1/2"D
TL554N-277-BL	12V/277V	150 watts	1/50-150 watts halogen, 75-150 watts LED	8"H x 3-5/8"W x 3-1/2"D
TL549N-BL	12V/120V	240 watts	1/120-240 watts	7-7/8"H x 4-3/8"W x 4"D
TL549N-277-BL	12V/277V	240 watts	1/120-240 watts	7-7/8"H x 4-3/8"W x 4"D
TL550N-BL	12V/120V	480 watts	2/120-240 watts	11-3/8"H x 5"W x 5"D
TL550N-277-BL	12V/277V	480 watts	2/120-240 watts	11-3/8"H x 5"W x 5"D

24V Transformers

CATALOG #	OUTPUT VOLTAGE/ INPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/ WATTAGE PER CIRCUIT	DIMENSIONS
TL553N-BL-24V	24V/120V	240 watts	1/120-240 watts	8"H x 4-1/4"W x 4"D
TL553N-277-BL-24V	24V/277V	240 watts	1/120-240 watts	8"H x 4-1/4"W x 4"D
TL551N-BL-24V	24V/120V	480 watts	1/240-480 watts	11-3/8"H x 5"W x 4-7/8"D
TL551N-277-BL-24V	24V/277V	480 watts	1/240-480 watts	11-3/8"H x 5"W x 4-7/8"D
TL552N-BL-24V	24V/120V	960 watts	2/240-480 watts	12-1/2"H x 6-1/8"W x 5-7/8"D
TL552N-277-BL-24V	24V/277V	960 watts	2/240-480 watts	12-1/2"H x 6-1/8"W x 5-7/8"D

NOTE: 120V magnetic transformers are available with a 6-foot cord and plug option.
For cord and plug installation, add -CP6 as suffix to catalog number. Examples: TL554N-BL-CP6, TL551N-BL-24V-CP6.

LED-Optimized Transformers & Drivers

LED Magnetic Transformers

Trac 12 remote mount magnetic transformers are designed to be installed in remote locations such as basements, attics, plenums and electrical closets. The location must be accessible and well ventilated with ambient temperatures below 140-degrees Fahrenheit. These transformers are designed for either 120-volt or 277-volt input, and have premium resettable magnetic circuit breakers, dual-tap standard/boost tap primary input leads to adjust for voltage drop and may be dimmed using dimmers qualified by Juno for use with non-resistive LED load. See specification sheets for a list of qualified dimmers. While specifically designed for use with low power Trac 12 LED luminaires, these magnetic transformers are compatible with all Trac 12 low voltage luminaires including halogen. For higher wattage applications, standard Trac 12 Remote Mount Transformers may be specified–see specification sheets for details.

Catalog #	Output Voltage/ Input Voltage	Total Wattage	Number of circuits/ Wattage per Circuits	Dimensions
TL575-20-BL	12V/120V	20 watts	1/0.5-20 watts	10-3/4"H x 4-3/8"W x 4-1/8"D
NEW **TL575-20-277-BL**	12V/120V	20 watts	1/0.5-20 watts	(includes mounting tabs)
TL575-40-BL	12V/120V	40 watts	1/0.5-40 watts	10-3/4"H x 4-3/8"W x 4-1/8"D
NEW **TL575-40-277-BL**	12V/120V	40 watts	1/0.5-40 watts	(includes mounting tabs)
TL575-75-BL	12V/120V	75 watts	1/0.5-75 watts	10-3/4"H x 4-3/8"W x 4-1/8"D
NEW **TL575-75-277-BL**	12V/120V	75 watts	1/0.5-75 watts	(includes mounting tabs)

LED Electronic/Driver Transformers

Trac 12 electronic driver/transformers are compact and lightweight and thus ideal for mounting in close proximity to the trac. They are designed for 120-volt input and may be dimmed using a variety of dimmers qualified by Juno for use with a non-resistive LED load. See specification sheet for a list of qualified dimmers. These driver/transformers are recommended for trac run lengths not exceeding 21 feet. Supplied with 18" jacketed secondary wire. Consult factory for other available wattages. While specifically designed for use with Trac 12 LED luminaires, these electronic transformers are compatible with all Trac 12 low voltage luminaires including halogen.

Catalog #	Output Voltage/ Input Voltage	Total Wattage	Number of circuits/ Wattage per Circuits	Dimensions
TL601E-10-WH **TL601E-10-BL**	12V/120V	10 watts	1/0.5-10 watts	5-1/2"L x 1-1/2"W x 1"D
TL601E-25-WH **TL601E-25-BL**	12V/120V	25 watts	1/0.5-25 watts	5-1/2"L x 1-1/2"W x 1"D
TL601E-60-WH **TL601E-60-BL**	12V/120V	60 watts	1/0.5-60 watts	5-1/2"L x 1-1/2"W x 1"D
TL601E-75-WH **TL601E-75-BL**	12V/120V	75 watts	1/0.5-75 watts	5-1/2"L x 1-1/2"W x 1"D

NOTE: 120V magnetic and electronic transformers are available with a 6-foot cord and plug option.
For cord and plug installation, add -CP6 as suffix to catalog number. Examples: TL575-75-BL-CP6 or TL601E-60-WH-CP6.

Trac 12™ Extension Wands and Monopoints

Extension Wands

Extension wands allow any Trac 12 fixture to be suspended without having to lower the trac section itself. For use with either rigid aluminum Trac 12/25 or Trac 12 Trac or Monopoints.

CATALOG #	OVERALL LENGTH	FINISHES
TLRW12	14"	White(WH), Black(BL), Silver(SL)
TLRW18	20"	White(WH), Black(BL), Silver(SL)
TLRW24	26"	White(WH), Black(BL), Silver(SL)
TLRW36	38"	White(WH), Black(BL), Silver(SL)
TLRW48	50"	White(WH), Black(BL), Silver(SL)

Surface Monopoints

TL541 Conical Surface Monopoint w/ Integral Transformer
Mounts over standard ceiling outlet boxes. Includes 50VA electronic transformer. Accepts Juno Trac 12 halogen spotlights and decorative pendants.
DIMENSIONS: 5⅜"DIA. X 2⅜"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TL540 Cylindrical Surface Monopoint w/ Integral Transformer
Mounts over standard ceiling outlet boxes. Includes 50VA electronic transformer. Accepts Juno Trac 12 halogen spotlights and decorative pendants.
DIMENSIONS: 6½"DIA. X 1⅜"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

NEW **TL540U LED-Compatible Cylindrical Surface Monopoint w/ Integral Transformer**
Same as above but compatible with both LED and halogen fixtures.

TL43 Mini-Monopoint for Remote Transformer
Mounts directly into ceiling, wall or cabinet surfaces with no visible mounting screws. Includes mounting retaining spring and 50" of wire with mating connector to TL544N transformer (ordered separately). Accepts all Juno Trac 12 spotlights and decorative pendants.
DIMENSIONS: 2½"DIA. X ⅛"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

TL40 Monopoint for Remote Transformer
Mounts over standard ceiling outlet boxes supplied with 12 or 24 volts from a remote transformer. Accepts Juno Trac 12 spotlights and decorative pendants.
DIMENSIONS: 5"DIA. X ¼"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Monopoint Adapters for Recessed Housings

TL543 IC Recessed Monopoint, New Construction
Includes 50VA 12-volt electronic transformer, pre-wired IC rated recessed housing with adjustable real-nail bar hangers and canopy. Accepts Juno Trac 12 halogen spotlights and decorative pendants.
HOUSING DEPTH: 6"
CANOPY DIMENSIONS: 5"DIA. X ¼"H
FINISHES: WHITE(WH)

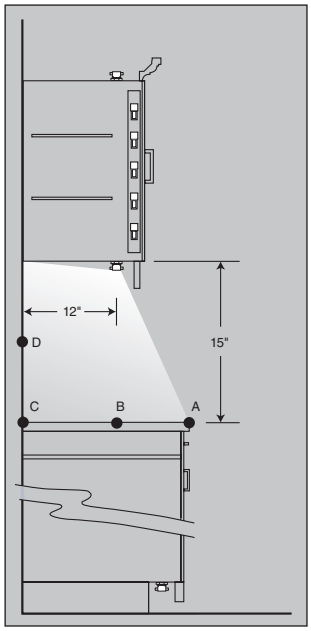
TL542 IC Recessed Monopoint, Remodel Construction
Includes 50VA 12-volt electronic transformer, pre-wired IC rated recessed housing for remodel construction. Accepts Juno Trac 12 halogen spotlights and decorative pendants.
HOUSING DEPTH: 6"
CANOPY DIMENSIONS: 5"DIA. X ¼"H
FINISHES: WHITE(WH)

TL539 6" Recessed Housing Monopoint Adapter Trim
Includes 50VA 12-volt electronic transformer and screw in socket adapter. Mounts directly to all Juno 6" universal recessed incandescent housings. Accepts Juno Trac 12 halogen spotlights and pendants.
DIMENSIONS: 7⅝"DIA. X 3/16"H
FINISHES: WHITE(WH)

TLQJA Trac 12 Quick Jack Adapter
Quick Jack Adapter for Quick Jack directionals or decorative pendants. For use on Juno's Trac 12 and Trac 12/25 miniature Low Voltage Trac Systems. Rated for fixtures using maximum 50W 12V or 24V lamps.
DIMENSIONS: ¾"DIA. X 1⅝"H
FINISHES: WHITE(WH), BLACK(BL), SILVER(SL)

Linear Lighting Application Data LED

Cabinetry Lighting Guidelines (LED)



Over Cabinets Trac 12™, using TL201LEDX2s spaced 6" on-center or TL130LEDs spaced 12" on-center, generally provides excellent indirect lighting. For lower-level mood lighting, use TL201LEDX1s with closer lamp spacing. Placing the fixture at the front edge of the cabinet top will project light into the space and illuminate any displayed objects. Locate top of lamp even with top edge of cove molding to prevent a harsh shadow line.

Inside Cabinets Running Trac 12 vertically on the front inside of cabinets avoids the need to put trac on each shelf. TL201LEDX1s placed 4"- 6" on-center generally provide adequate lighting inside a cabinet.

Under Cabinets Placing Juno Trac 12 at the front lip of the cabinet conceals the fixture from view, minimizes veiling reflections, and provides maximum light on the working area of the countertop.

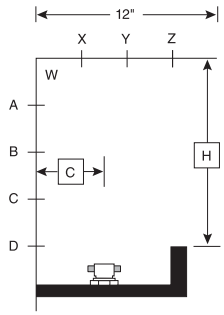
Footcandles on Horizontal Work Surface

-Catalog Number	Color Temp.	On-Center Spacing	Footcandles*			
			A	B	C	D
TL201LEDX1-3K	3000K	3"	18	42	26	20
TL201LEDX1-4K	4100K	3"	21	48	29	23
TL201LEDX2-3K	3000K	3"	32	75	46	37
TL201LEDX2-4K	4100K	3"	37	87	53	42
TL201LEDX3-3K	3000K	3"	41	97	60	48
TL201LEDX3-4K	4100K	3"	48	112	69	56
TL103LED-3K	3000K	12"	31	78	48	38
TL103LED-4K	4100K	12"	36	89	55	44

Kick Spaces TL201LEDX1s spaced on 4" centers provide adequate kick space lighting. Wider spacings can be used when the distance from trac to floor is greater than 4" or when even illumination is not required.

NOTE: Shiny flooring may cause lamp image reflections.

Cove Lighting (LED)



Placement Guidelines
1. For uniform illumination, o.c. lamp spacing must be equal to or less than lamp spacing from wall "C"

Footcandles on Vertical and Horizontal Planes 3000K/4100K*

	Lamp Spacing from Wall C	O.C. Lamp Spacing	Cove Height H	Footcandles on Vert. Plane (Wall) A	B	C	D	Footcandles on Horiz. Plane (Ceiling) W	X	Y	Z
TL201LEDX1	3"	3"	6"	93/106	106/121	85/97	37/42	122/139	141/161	104/119	59/67
	3"	3"	9"	52/59	71/81	86/98	21/24	89/102	93/106	78/89	56/64
	3"	3"	12"	33/38	46/53	79/90	16/18	65/74	67/77	60/69	47/54
	4"	4"	6"	68/78	66/75	46/53	25/29	79/90	104/119	91/104	54/62
	4"	4"	9"	43/49	52/59	47/54	15/17	62/71	69/79	64/73	48/55
	4"	4"	12"	28/32	38/43	47/54	11/13	48/55	51/58	48/55	39/45
TL201LEDX2	3"	3"	6"	152/175	177/204	150/173	57/66	207/238	241/277	117/135	103/118
	3"	3"	9"	89/102	118/136	143/164	35/40	153/176	160/184	137/158	96/110
	3"	3"	12"	56/64	78/90	135/155	27/31	113/130	117/135	105/121	82/94
	4"	4"	6"	116/133	112/129	76/87	44/51	133/153	178/205	154/177	93/107
	4"	4"	9"	73/84	87/100	77/89	26/30	106/122	119/137	109/125	82/94
	4"	4"	12"	49/56	65/75	81/93	18/21	83/95	88/101	82/94	68/78
TL201LEDX3	3"	3"	6"	206/237	240/276	185/213	81/93	278/320	322/371	236/272	136/157
	3"	3"	9"	118/136	161/185	190/219	47/54	201/231	211/243	179/206	127/146
	3"	3"	12"	75/86	104/120	181/208	35/40	148/170	153/176	137/158	107/123
	4"	4"	6"	151/174	148/170	104/120	57/66	176/203	234/269	208/239	122/140
	4"	4"	9"	96/110	115/132	103/119	32/37	140/161	156/180	143/165	107/123
	4"	4"	12"	63/73	72/83	104/120	22/25	108/124	115/132	107/123	88/101

Lumens per Foot*

Catalog Number	Lamp Spacing 2 1/4"	3"	4"	6"	12"
TL201LEDX1 (3000K)	105	84	63	42	-
TL201LEDX1 (4100K)	120	96	72	48	-
TL201LEDX2 (3000K)	200	160	120	80	-
TL201LEDX2 (4100K)	230	184	138	92	-
TL201LEDX3 (3000K)	265	212	159	106	-
TL201LEDX3 (4100K)	305	244	183	122	-
TL103LED-3K (3000K)	-	-	576	384	192
TL103LED-4K (4100K)	-	-	651	424	217

Maximum Trac Run Length per 20 Amp Circuit**

Catalog Number		Lamp Spacing 2 1/4"	3"	4"	6"	12"
TL201LEDX1	Electronic	14	17	19	24	-
TL201LEDX1	Magnetic	38	47	54	65	-
TL201LEDX2	Electronic	10	11	13	15	-
TL201LEDX2	Magnetic	30	36	44	52	-
TL201LEDX3	Electronic	9	12	13	16	-
TL201LEDX3	Magnetic	24	30	32	42	-
TL103LED	Electronic	-	-	5	8	8
TL103LED	Magnetic	-	-	18	27	35

* Data shown is for operation at 12-volts. For operation at 11.5-volts multiply by 0.94.
** Based on 20% maximum light output decrease between first and last fixture on trac due to voltage drop; to utilize full capacity of trac and transformers, individual transformer circuits may have to feed multiple runs using separate feed points.

Linear Lighting Application Data

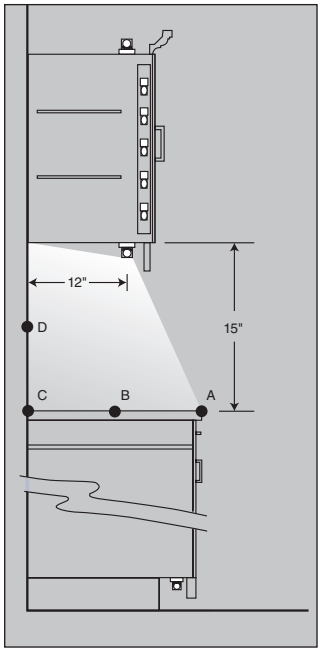
Xenon & Halogen

Cabinetry Lighting Guidelines (Xenon & Halogen)

Over Cabinets The Trac 12™ system, using 10-watt lamps spaced 6" on center, generally provides excellent indirect lighting. For lower-level mood lighting, use 3-watt or 5-watt lamps with slightly closer spacing. Placing the fixture at the front edge of the cabinet top will project light into the space and illuminate any displayed objects. Locate top of lamp even with top edge of cove molding to prevent a harsh shadow line.

Inside Cabinets Running the Trac 12 system vertical on the front inside of cabinets avoids the need to put trac on each shelf. 3-watt Xenon lamps 3" on center will generally provide adequate lighting inside a cabinet.

Under Cabinets Placing the Juno Trac 12 system at the front lip of the cabinet conceals the fixture from view, minimizes veiling reflections, and provides maximum light on the working area of the countertop.



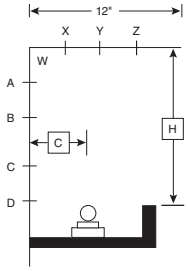
Footcandles on Horizontal Work Surface

Lamp Type	Catalog Number	Number of Lamps	Volts/ Watts	On-Center Spacing	Footcandles A	B	C	D
Xenon Wedge Base	TL201	1	12V/5W	3"	10	31	20	22
		1	12V/10W	6"	12	36	23	25
	TL202	2	12V/5W	6"	10	29	18	20
		2	12V/10W	12"	12	36	23	25
Xenon Rigid Loop	TL211	1	12V/5W	3"	14	42	27	30
		1	12V/10W	6"	14	43	28	30
Halogen Bi-Pin	TL103	1	12V/20W	12"	16	66	56	60

Kick Spaces 3-watt Xenon lamps spaced on 4" centers provide adequate kick space lighting. Wider spacings can be used when the distance from trac to floor is greater than 4" or when even illumination is not required.

NOTE: Shiny flooring may cause lamp image reflections.

Cove Lighting (Xenon & Halogen)



Placement Guidelines

1. For uniform illumination, o.c. lamp spacing must be equal to or less than lamp spacing from wall "C"

Footcandles on Horizontal and Vertical Planes

Lamp Type	Lamp Spacing from Wall C	O.C. Lamp Spacing	Cove Height H	Footcandles on Vert. Plane (Wall) A	B	C	D	Footcandles on Horiz. Plane (Ceiling) W	X	Y	Z
24V, 10W Rigid Loop or Wedge Base Xenon Lamp (Test conducted with 70% reflectances at 23.5 volts)	3"	3"	6"	111	155	162	31	176	164	93	44
	3"	3"	9"	62	89	155	21	118	121	93	54
	3"	3"	12"	42	56	120	15	83	87	78	56
	4"	4"	6"	88	111	105	23	124	123	85	38
	4"	4"	9"	53	74	99	16	88	89	76	46
	4"	4"	12"	36	49	96	11	63	66	61	46
	5"	5"	6"	68	71	67	19	85	96	81	35
	5"	5"	9"	44	57	61	13	66	69	63	43
	5"	5"	12"	31	42	58	8	48	51	48	40

Conversion factors for other lamps

LAMP	MULTIPLIER
12V, 10W Rigid Loop	1.11
12V, 10W Wedge Base	0.92
24V, 5W Rigid Loop	0.44
24V, 5W Wedge Base	0.32
12V, 5W Rigid Loop	0.50
12V, 5W Wedge Base	0.37

NOTE: Frosted lamps provide slightly less lumen output, but more uniformity with wider spacings.

Maximum Run Length per 20 Amp Circuit**

Lamp Type		Lamp Spacing 2"	3"	4"	5"	6"
10 Watt Xenon Lamps	Lumens/Foot (24V Lamp)	-	340	255	204	170
	Maximum Run Length-24V	-	12'	16'	20'	24'
	Maximum Run Length-12V	-	6'	8'	10'	12'
5 Watt Xenon Lamps	Lumens/Foot (24V Lamp)	162	108	81	65	54
	Maximum Run Length-24V	16'	24'	32'	40'	48'
	Maximum Run Length-12V	8'	12'	16'	20'	24'
3 Watt Xenon Lamps	Lumens/Foot	93	62	42	37	31
	Maximum Run Length-12V	13'	20'	27'	33'	40'

Maximum Run Length per 25 Amp Circuit**

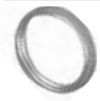
Lamp Type		Lamp Spacing 2"	3"	4"	5"	6"
10 Watt Xenon Lamps	Lumens/Foot (24V Lamp)	-	340	255	204	170
	Maximum Run Length-24V	10'	15'	20'	25'	30'
	Maximum Run Length-12V	5'	7.5'	10'	12.5'	15'
5 Watt Xenon Lamps	Lumens/Foot (24V Lamp)	162	108	81	65	54
	Maximum Run Length-24V	20'	30'	40'	50'	60'
	Maximum Run Length-12V	10'	15'	20'	25'	30'
3 Watt Xenon Lamps	Lumens/Foot	93	62	42	37	31
	Maximum Run Length-12V	17'	25'	34'	42'	50'

** Based on 20% maximum light output decrease between first and last fixture on trac due to voltage drop; to utilize full capacity of trac and transformers, individual transformer circuits may have to feed multiple runs using separate feed points.

Trac 12™ Light Control Accessories

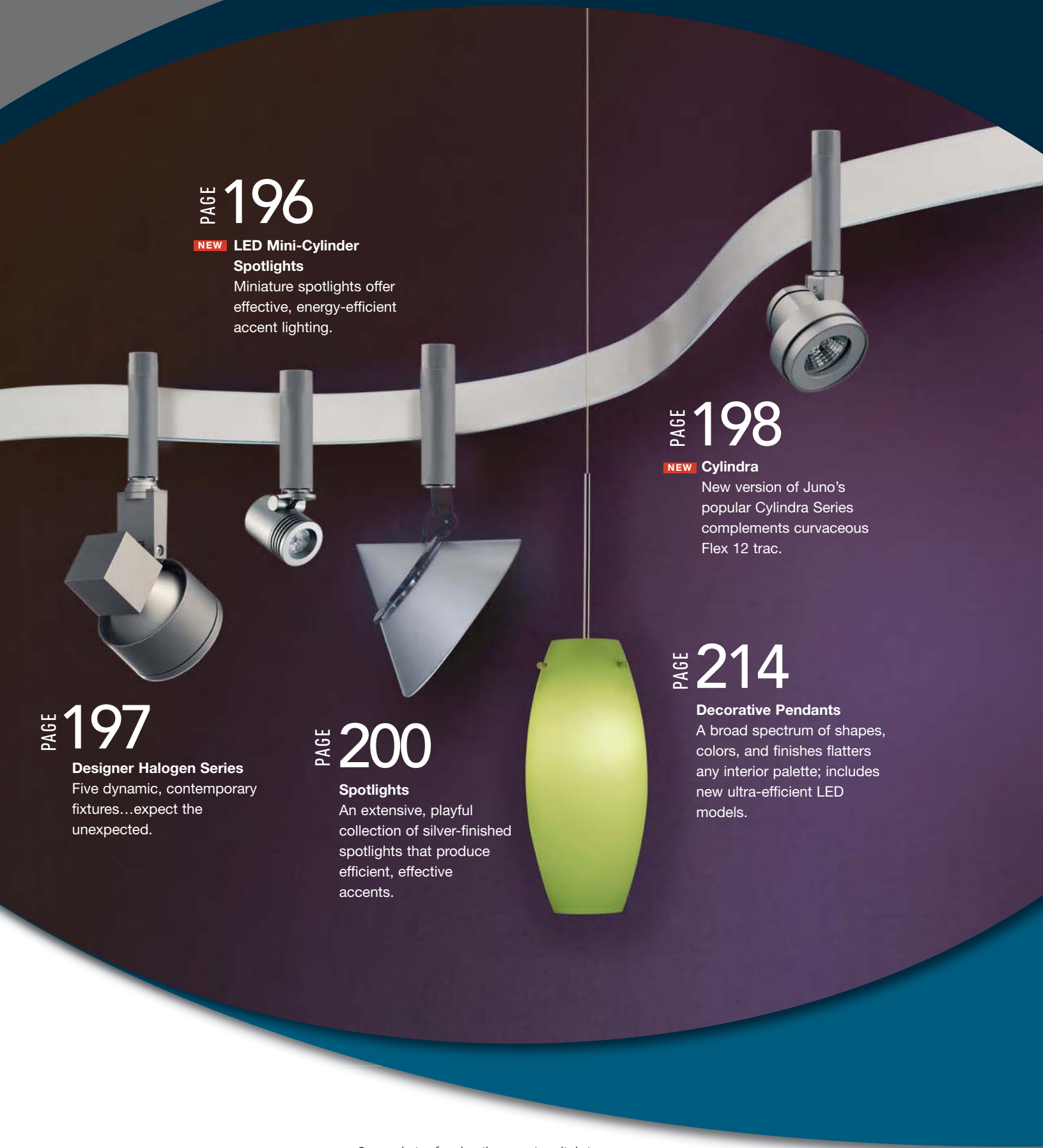
Light Control Accessories

Juno offers a complete selection of light control accessories to enable the customization of lighting effects.

		1 3/4" DIA.	COMPATIBLE WITH	2" DIA.	COMPATIBLE WITH
Accessory Holders					
 Required for listed fixtures. Accepts two filters, lenses, or louvers except where noted.				**T7400BL** **T7400SA** Accepts up to 2 accessories	TL117, TL130, TL301
Light Control Lenses					
Light Control Lenses alter the light distribution of a given lamp, enlarging or elongating it, softening the beam edge or removing striations.	Uniformity Lens	**T5521**	TL106*, TL109, TL116, TL143, TL160, TL165, TL191, TL196, TL296, TLP116	**T7421**	TL140*, TL141*, TL150*, TL170*, TL180*, TL190*, and fixtures with T7400 Accessory Holder
	Diffusion Lens	**T5520**		**T7420**	
	Prismatic Spread Lens	**T557**		**T7477**	
	Linear Spread Lens	**T559**		**T7478**	
UV Filters					
These museum quality lenses filter out ultraviolet radiation below 400 nanometers to protect fade sensitive art and objects.		**T5522**	TL106*, TL109, TL116, TL143, TL160, TL161, TL165, TL191, TL196, TL296, TLP116	**T7422**	
Dichroic Color Correction Filters					
Color Correction Filters correct the light, either to warm it up to approximate incandescent, or cool it down to approximate daylight.	Halogen-to-Incandescent, 2700K	**T5518**		**T7418**	
	Halogen-to-Daylight, 4250K	**T5516**		**T7416**	
Color Filters	**Colored Glass Filters**				
Color Filters change white light into colored light and are available in colored glass and more efficient/saturated dichroic filters.	Medium Pink	**T551**		**T741**	
	Warm Red			**T742**	
	Daylight Blue			**T743**	
	Medium Blue	**T553**		**T744**	
	Medium Amber	**T555**		**T745**	
	Medium Green			**T746**	
	Dichroic Glass Filters				
	Red	**T5501**		**T7401**	
	Medium Green	**T5503**		**T7403**	
	Medium Blue	**T5504**		**T7404**	
	Yellow	**T5505**		**T7405**	
	Magenta	**T5506**		**T7406**	
	Blue-Green (Cyan)	**T5511**		**T7411**	
Louvers					
Hexcell Louvers reduce perceived fixture brightness.	Hexcell Louvers	**T5559BL**	TL106*, TL109, TL116, TL143, TL160, TL165, TL191, TL196, TL296, TLP116	**T7459BL**	
Snoots and Eyebrows					
Snoots and Eyebrows extend lamp shielding and can reduce spill light in the edge of a beam pattern.	Snoots	**T558BL**	TL109, TL116, TLP116		
	Eyebrows	**T556BL**	TL109		
Barn Doors					
Barn Doors create a theatrical look and allow control of the spill light coming off of a lamp.	Barn Doors	**T74BL**	TL109, TL116, TLP116	**T7470BL**	Fixtures with T7400 Accessory Holder

*Simultaneously accepts any combination of up to two filters, lenses or louver.

See website for details, www.junolightinggroup.com



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NEW **LED Mini-Cylinder Spotlights**
Miniature spotlights offer effective, energy-efficient accent lighting.

PAGE 198

NEW **Cylindra**
New version of Juno's popular Cylindra Series complements curvaceous Flex 12 trac.

PAGE 214

Decorative Pendants
A broad spectrum of shapes, colors, and finishes flatters any interior palette; includes new ultra-efficient LED models.

PAGE 197

Designer Halogen Series
Five dynamic, contemporary fixtures…expect the unexpected.

PAGE 200

Spotlights
An extensive, playful collection of silver-finished spotlights that produce efficient, effective accents.

Flex 12™

Unlimited Possibilities

Flex 12's satin aluminum ribbon-like trac and pure geometrical forms make it unique among monorail systems. Use it in straight runs or field-curve it to echo the natural rhythms of curved walls or introduce pleasing visual contrast into an angular space. Whether mounted close to the ceiling, suspended from stainless steel cable or extended from a wall, Flex 12 offers unlimited creative possibilities with a system renowned for simple installation using a minimum number of components. The Flex 12 family includes fixture designs that match the artistry of the trac system and offer a range of light sources, including incredibly efficient LEDs that save energy and are virtually maintenance free. Flex 12…inspiring inventive solutions that integrate art with architecture and efficiency with cost effectiveness.

Lampholders		**196**
NEW	LED Mini-Cylinder Spotlights	196
NEW	Mamba®	196
NEW	Facet®	196
NEW	Glacis®	197
NEW	Xanadu®	197
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See website for details, www.junolightinggroup.com

TF114LED

TF155SL

TF150SL

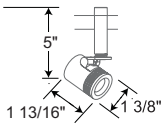
EcoLEDgy Driven

NEW LED Mini-Cylinder Spotlights

The Flex 12 LED Mini-Cylinder Spotlights offer effective accent lighting in a miniature, energy-efficient package. They approximate the light output and distribution of 20W MR11 halogen lamps, utilizing approximately 1/3 of the energy and providing more than 10 times the rated life. Unlike conventional incandescent light sources, LEDs have no heat and no UV in their beam – this makes them an ideal choice when illuminating heat-sensitive or UV-sensitive objects. Available in 2700K, 3000K and 4100K color temperatures, the white-light LED Mini-Cylinder Spotlights are compatible with standard Flex 12 systems operating with 12V AC transformers approved for use with Juno LED products. These spotlights can be placed anywhere along the trac, which can be cut-to-length during installation, making the LED Mini-Spots an economical and flexible accent lighting choice.

FINISH: SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
16° Spot		
TF114LED-XX-SP	**6W LED**	
22° Narrow Flood		
TF114LED-XX-NFL	**6W LED**	
38° Flood		
TF114LED-XX-FL	**6W LED**	



Color Temperatures: 2K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example:
TF114LED-**2K**-NFL-**WH** (replace **XX** in catalog # with color temperature code)

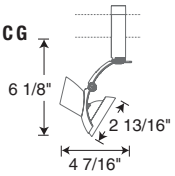
NEW Mamba®

The strikingly original, daring aesthetic of Mamba naturally extends the imagination of the distinctive Flex 12 system. The Mamba combines gracefully curved and tapered elements to produce a unique and totally unexpected result. Its front-loading gimbal ring design makes lamp maintenance simple and convenient.

Mamba for Flex 12 is compatible with 50W MR16CG low voltage halogen lamps with integral cover glass. The Mamba features high quality, die cast aluminum construction in an attractive silver finish.

FINISH: SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF155SL	**12V OR 24V, 20-50W MR16CG COVER GLASS**	



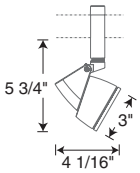
NEW Facet®

The sweeping arcs and arresting angles of the Facet deliver a unique asymmetrical aesthetic that is the perfect complement for the inspirational Flex 12 system. With a socket housing that morphs into a stem completely horizontal in nature, its bold simplicity gives Facet an ultra-clean appearance.

Facet for Flex 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts two light control accessories. The Facet features high quality, die cast aluminum construction in an attractive silver finish.

FINISH: SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF150SL	**12V OR 24V, 20-50W MR16**	
FINISH: **SL**		



ACCESSORIES FOR TF150:

Uniformity Lens	T7421
Color Filters	T741-6
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

TF180SL

TF170SL

TF190SL

NEW Glacis®

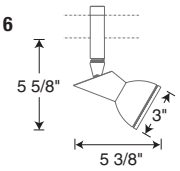
The flower-like Glacis reflects the beauty of the natural world. Its truncated conical element at the top cloaks the stem pivot when viewed from the conventional viewing angles. Its natural form has been perfectly proportioned for the graceful Flex 12 system.

Glacis for Flex 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Glacis features high quality, die cast aluminum construction in an attractive silver finish.

FINISH: SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF180SL	**12V OR 24V, 20-50W MR16**	

FINISH: **SL**



ACCESSORIES FOR TF180:

Uniformity Lens	T7421
Color Filters	T741-6
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

NEW Xanadu®

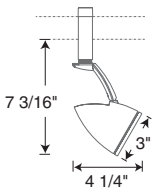
The stunning simplicity of this design, a pure shape devoid of any extraneous detail, makes Xanadu a classic beauty. Its yoke appears to have been carved directly from its conical form which is in perfect harmony with the elegant Flex 12 system.

Xanadu for Flex 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Xanadu features high quality, die cast aluminum construction in an attractive silver finish.

FINISH: SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF170SL	**12V OR 24V, 20-50W MR16**	

FINISH: **SL**



ACCESSORIES FOR TF170:

Uniformity Lens	T7421
Color Filters	T741-6
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

NEW Cubix®

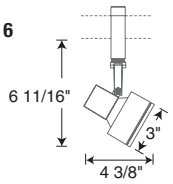
Cubix is a study of the visual relationship between two different geometric forms, the ring and the cube. In this most playful design, the stem becomes the central element, forming a pleasing visual extension of the cube form. The interplay of each of the elements is the perfect complement for the imaginative Flex 12 system.

Cubix for Flex 12 is compatible with 50W MR16 low voltage halogen lamps. An integral, bayonet-mount media cartridge is standard and simultaneously accepts up to two light control accessories. The Cubix features high quality, die cast aluminum construction in an attractive silver finish.

FINISH: SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF190SL	**12V OR 24V, 20-50W MR16**	

FINISH: **SL**



ACCESSORIES FOR TF190:

Uniformity Lens	T7421
Color Filters	T741-6
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

See website for details, www.junolightinggroup.com

See page 212 for complete accessory descriptions.

TF141SL

TF106SL

NEW

Cylindra™

The Flex 12 version of the Cylindra Series perfectly complements the flowing curves achievable with Flex 12 trac. This fully-enclosed fixture is ideal where shielding from lamp backlighting is desired. The Cylindra fixture is designed with an integral bayonet-mount media cartridge that is capable of simultaneously accepting up to two 2" diameter light control accessories. The Flex 12 Cylindra fixture includes a clear glass lens.

FINISH: SILVER (SL)

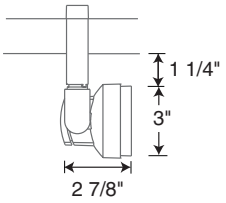
CATALOG #	LAMP
TF141SL	**12V OR 24V, 20-50W MR16**

FINISH: SL

ACCESSORIES FOR TF141:

Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

DIMENSIONS



NEW

Conix®

The stylish Conix featuring Juno's proprietary wishbone yoke design, possesses a fully enclosed lamp housing and can rotate more than 360° to eliminate aiming dead spots. The Conix Flex 12 low voltage is designed to use 50W MR16 halogen lamps. Each fixture includes an integral snoot that is designed to simultaneously accept up to two light control accessories.

FINISH: SILVER (SL)

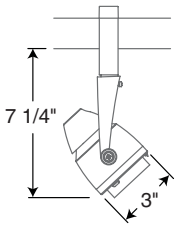
CATALOG #	LAMP
TF106SL	**12V OR 24V, 20-50W MR16**

FINISH: SL

ACCESSORIES FOR TF106:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

DIMENSIONS



Geometrics

The timeless simplicity of cones and spheres. Choose the petite MR11 Dart for a playful accent, the MR16 Cone for a more sophisticated design statement or the MR16 Orb for balanced, consistent appearance regardless of aiming angle.

FINISH:

SILVER (SL)

Dart

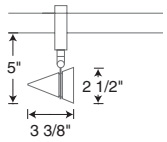
CATALOG #	LAMP
TF161	**12V OR 24V 20–35W MR11**

FINISH: SL

ACCESSORIES FOR TF161:

Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522

DIMENSIONS



Cone

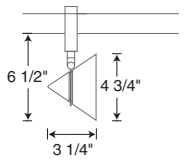
CATALOG #	LAMP
TF160	**12V OR 24V 20–50W MR16**

FINISH: SL

ACCESSORIES FOR TF160:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

DIMENSIONS



Orb

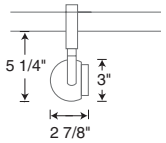
CATALOG #	LAMP
TF165	**12V OR 24V 20–50W MR16**

FINISH: SL

ACCESSORIES FOR TF165:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL

DIMENSIONS



Delta 200 Series®

An angular, die cast fixture body and rod-supported lamp bezel create a semi-exposed, technical appearance. Choose the Pendant model for ceiling applications or the Gallery model to throw light back onto vertical surfaces, signage or displays.

FINISH:

SILVER (SL)

Gallery

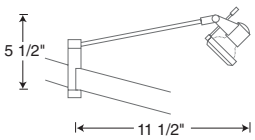
CATALOG #	LAMP
TFG116	**12V OR 24V 20–50W MR16**

FINISH: SL

ACCESSORIES FOR TFG116:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL

DIMENSIONS



Pendant

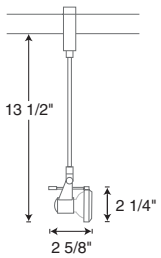
CATALOG #	LAMP
TFP116	**12V OR 24V 20–50W MR16**

FINISH: SL

ACCESSORIES FOR TFP116:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcell Louver	T5559BL
Black Snoot	T558BL
Black Barn Doors	T74BL

DIMENSIONS



Artistically and Physically Pliable

Flex 12™ is easily field curved to express a limitless variety of designs. Radii as small as 15" electrically accept fixtures and feeds. Radii as small as 4" are possible where fixtures or feeds are not required. Flex 12 can be hand bent free-form by someone with an artisan's touch or precision formed using Juno's proprietary bending machine.

Creative Potential

Flex 12's array of decorative fixtures and pendants provide a colorful palette for the contemporary interior. In combination with the satin aluminum ribbon-like trac and pure geometrical fittings, Flex 12 inspires unbounded possibilities for creative expression.

TF140

TF130-9

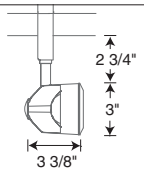
TF130-16

Gyrus™

A new spin on a traditional design, the Gyrus™ combines dramatic aerodynamic styling with an integral accessory holder that accepts up to two standard 2" diameter lenses and louvers. The snap-on design makes this an easy to accessorize fixture for more demanding display lighting applications.

FINISH:

SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF140	**12V OR 24V 20–50W MR16**	

FINISH: SL

ACCESSORIES FOR TF140:

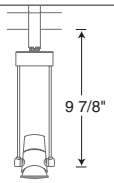
Uniformity Lens	T7421
Diffusion Lens	T7420
Prismatic Spread Lens	T7477
Linear Spread Lens	T7478
Color Filters	T741-6
Dichroic Filters	T7401-18
UV Filter	T7422
Hexcell Louver	T7459BL

Trapezia™

Trapezia™ suspends the MR16 lamp down from the trac with the grace of a trapeze artist. Slender 9-inch or 16-inch long tubes conceal supply wires feeding into an elegantly sculpted die cast lamp housing. The light, airy appearance is great for display, exhibition and gallery lighting and the downward reach can make pendant mounting of trac unnecessary.

FINISH:

SILVER (SL)

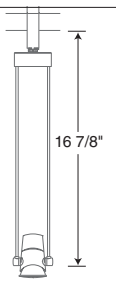
CATALOG #	LAMP	DIMENSIONS
TF130-9	**12V OR 24V 20–50W MR16CG COVER GLASS**	

FINISH: SL

ACCESSORIES FOR TF130-9:

Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Black Barn Doors*	T7470BL

TF130-16 **12V OR 24V 20–50W MR16CG COVER GLASS**



FINISH: SL

ACCESSORIES FOR TF130-16:

Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Black Barn Doors*	T7470BL

*Filters, lenses, louvers and barn doors require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

See website for details, www.junolightinggroup.com

Gimbal Ring

This sculpted dual yoke design is an elegant interpretation of the classic gimbal ring.

FINISH:

SILVER (SL)

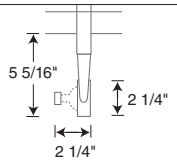
CATALOG #	LAMP
TF196	**12V OR 24V 20–50W MR16**

FINISH: SL

ACCESSORIES FOR TF196:

Uniformity Lens	T5521
Diffusion Lens	T5520
Prismatic Spread Lens	T557
Linear Spread Lens	T559
Color Filters	T551-5
Dichroic Filters	T5501-18
UV Filter	T5522
Hexcel Louver	T5559BL

DIMENSIONS

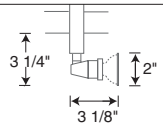


Universal

Use the minimalist universal by itself for a do everything basic lampholder, or in combination with one of the scoop accessories for playful metallic or colorful accents (designed for use with integral cover glass MR16 lamps).

FINISH:

SILVER (SL)

CATALOG #	LAMP	DIMENSIONS
TF301	**12V OR 24V 20–50W MR16CG COVER GLASS**	

FINISH: SL

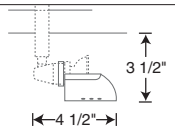
ACCESSORIES FOR TF301:

Accessory Holder (Required)	T7400BL, SA
Uniformity Lens*	T7421
Diffusion Lens*	T7420
Prismatic Spread Lens*	T7477
Linear Spread Lens*	T7478
Color Filters*	T741-6
Dichroic Filters*	T7401-18
UV Filter*	T7422
Hexcell Louver*	T7459BL
Black Barn Doors*	T7470BL

*Filters, lenses, louvers and barn doors require dual accessory holder for installation. Use of light control accessories negates the need for MR16 cover glass lamp (except barn doors).

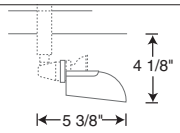
Accessory Scoops

Universal halogen spotlights take on a whole new appearance when you dress them up in one of these metal or luminous scoops.

CATALOG #	DESCRIPTION	DIMENSIONS
TF308	**PERFORATED METAL SCOOP**	

FINISH:

SILVER (SL)

CATALOG #	DESCRIPTION	DIMENSIONS
TF309	**LUMINOUS SCOOP**	

SCOOP FINISHES:

- WHITE (W)
- BLUE FROST (BU)
- YELLOW FROST (YL)

RETAINING COLLAR FINISH:

SILVER (SL)

ORDERING EXAMPLE:

TF309BU-SL

See website for details, www.junolightinggroup.com

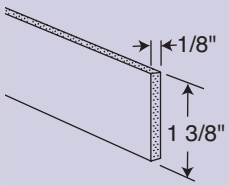
Flex 12™
Trac System

Flex 12's unique trac construction combines a flexible insulating core that separates two flat aluminum conductors.

Key Features:

- Attractive satin aluminum finish
- Can be used in straight sections or field curved
- 25-amp capacity (12V or 24V) for long, economical runs up to 600 watts per circuit
- Available in 4' and 8' lengths
- Connectors that electrically and/or mechanically join trac sections into longer runs
- Can be cut to length by installer

Flex 12 Trac Sections Low voltage trac sections consisting of flexible, insulating center and conductive aluminum skin. Can be field cut and curved (see page 211). 25-amp capacity.
DIMENSIONS: 1⅜"W X ⅛"D



CATALOG #		FINISH
TF4SL	**4' Trac** (actual length 48")	Silver(SL)
TF8SL	**8' Trac** (actual length 96")	Silver(SL)
TFW4SL	**4' Wave Trac** (actual length 46⅛")	Silver(SL)

Portable Bending Machine

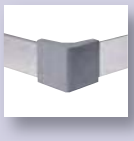
JLG-B100 Portable Bending Machine
For flexible track and rail. Bends Juno Flex 12, Alfa MonoLine and Alfa MonoTrack. Clamps to a work surface. Easily makes smooth, repeatable bends. Comes with durable carrying case.

End Cover

TF30SL End Cover
Optional vinyl-dipped sleeve protects end of trac. One End Cover per package.

Connectors

TF23SL Straight Connector
Electrically and/or mechanically joins two sections of trac. 25-amp capacity.



TF24SL Right Angle (90°) Connector
Electrically and/or mechanically joins two sections of trac at a right angle (90°). 25 amp capacity.

Close-to-Ceiling Feed and Mini-Support Cylinders
Low profile electrical feed cylinder and mechanical mini-support cylinder. Spaces trac 2¼" from mounting surface. One electrical feed per circuit is required. Best suited for use in rigid ceiling applications.

TF31SL Low Profile Electrical Feed Cylinder
With integral outlet box cover. 25-amp capacity.
5" DIAMETER

TF32SL Low Profile Mechanical Mini-Support Cylinder
With integral micro-canopy. Secures to mounting surface with toggle bolt (supplied) or 10-24 headless hanger screw (not supplied). 1¼" DIAMETER

Monopoints
For mounting over standard ceiling outlet boxes. Accepts all Flex 12 spotlights and decorative pendants.

TF540SL Monopoint with Transformer
With integral 12-volt, 50VA electronic transformer. For use with halogen lamps only. 5" DIAMETER

TF540U-SL LED-Compatible Monopoint
Same as above except compatible with both LED and halogen fixtures.

TF40SL Monopoint for Remote Transformer
For use with remote mounted transformer.
5" DIAMETER

Flex 12™ fixtures simply push up onto the trac and lock into position with a screw-on cap. Fixtures can be repositioned or added as needed.

Designed for simple, trouble-free installation, the electrical feed cylinder features a self-locating wiring channel and integral screw terminal connections suitable for up to 10 gauge solid wire. The heavy gauge contacts ensure a permanent, positive electrical connection to the trac. Feed and support cylinders can be installed prior to inserting the trac, further simplifying installation.

Ceiling Suspended & Wall Mounts

Pendant Stem Electrical Feed
Canopy and stem assembly mounts over a standard ceiling outlet box that is wired to the transformer secondary.

Specify:
(1) **TF90SL**
or
(1) **TF91SL**
and
(1) **TF903SL-TF948SL**
(1) **TF21SL**

Flexible Electrical Feed
Canopy with flexible 10 gauge wire mounts over a standard ceiling outlet box that is wired to the transformer secondary.

Specify:
(1) **TF950SL (-144)**
(1) **TF21SL**

Pendant Stem Mechanical Support
Flex 12™ can be mechanically suspended from the ceiling at non-feed points from a mini-canopy using pendant stems.

Specify:
(1) **TF92SL***
(1) **TF903SL-TF948SL**
(1) **TF22SL**

*If mounting on grid, order appropriate R37 T-bar attachment clip.
See page 209.

Wire Cable Mechanical Support
Steel wire cable mounting offers the most elegant means of supporting Flex 12™ trac. Ideal for trac patterns, it can be easily adjusted to a precise mounting height and has the least prominent mounting hardware. Recommended for patterns only.

Specify:
(1) **TF34SL (-144)**

Threaded Rod Mechanical Support
Flex 12™ can also be mechanically suspended from the ceiling at non-feed points using commonly available 10-24 threaded rod (not supplied). This method offers the most economical installation and less conspicuous mounting hardware.

Specify:
(1) **TF93SL**
(1) **TF33SL**
10-24 threaded rod (by others)

Suspended Mount Electrical Feeds

Electrical Feed Cylinder
Used to mechanically support and electrically feed power to the trac. One electrical feed circuit is required. For use with pendant stems.

TF21SL Electrical Feed Cylinder with 25-amp capacity.

Flexible Feed Kit
Canopy supplied with 60" or 144" of 10 gauge stranded tandem wire. Allows electrical feed location to be placed independently of mechanical supports. Can be mounted over 4" ceiling outlet boxes or used in conjunction with Flex 12™ surface transformers. Requires TF21SL Electrical Feed Cylinder (order separately). 25-amp capacity.
4¾" DIAMETER

TF950SL	60" Feed wire
TF950SL-144	144" Feed wire

Mechanical Support Cylinders

TF22SL Mechanical Support Cylinder
Mechanical Support Cylinder less electrical contacts.

TF33SL Threaded Rod Mini-Support Cylinder
Mini-support cylinder with threaded insert for supporting Flex 12™ trac using 10-24 threaded rod (not supplied). Provides mechanical support only. Designed to be used in conjunction with TF93SL Mini-Canopy.

TF34SL Wire Cable Mini-Support Cylinder and Mini-Canopy
Steel wire cable mounting system for mechanical support of Flex 12™ trac. Supplied with all mounting hardware, including mini-support cylinder, 48" or 144" steel cable, cable glider and mini-canopy for ceiling attachment. Secures to ceiling with toggle bolt (supplied) or wood screw. Other cable lengths available – consult factory.

TF34SL	48" Cable
TF34SL-144	144" Cable

Canopies & Pendant Stems

Large Canopies
Used in conjunction with pendant stems for electrical feed and mechanical support of trac.
4¾" DIAMETER

TF90SL Canopy for T-Bar Ceilings
Mounts onto T-bar runner and can be fed via flexible metal conduit or non-metallic cable entering into the top of the ceiling mounting plate.

TF91SL Canopy for Rigid Ceilings
Mounts over standard ceiling outlet boxes.

Mini-Canopies
Used in conjunction with pendant stems or 10-24 threaded rod (not supplied) for mechanical support of trac. Secures to ceiling with toggle bolt (supplied), wood screw or optional T-bar attachment clip.
2¼" DIAMETER

TF92SL	Mini-Canopy for Pendant Stems
TF93SL	Mini-Canopy for 10-24 Threaded Rod
R37F*	15/16" T-Bar Attachment Clip for flush tile ceilings
R37D*	15/16" T-Bar Attachment Clip with spacer for ceilings using dropped tiles
R37-9-16*	9/16" T-Bar Attachment Clip for flush or drop tile ceilings.

*T-Bar clips must be ordered separately

T94SL Sloped Ceiling Adapter
Permits pendant stems to be hung vertically from sloped ceilings. Used in conjunction with TF91 or TF92 Ceiling Canopies (not included). Allows feeding of wires to trac at up to a 60 degree angle. Accommodates a maximum of two 12 gauge solid THHN copper wires. 20-amp capacity.

Pendant Stems
Threaded top and bottom permit attachment at the top to canopy assemblies, and at the bottom to electrical feed/support cylinders. Inside diameter accommodates two 10 gauge solid THHN copper wires.

TF903SL	3½"
TF912SL	12"
TF918SL	18"
TF924SL	24"
TF936SL	36"
TF948SL	48"
T96SL	Pendant Stem Coupling

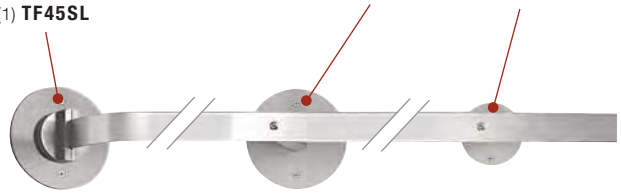
Wall Mount Electrical Feeds & Mechanical Supports

Wall Feed/Mechanical Support
Flex 12™ may be mechanically supported perpendicular to the wall and electrically fed through a wall-mounted outlet box that is wired to the transformer secondary.

Specify:
(1) **TF45SL**

Outrigger Feed/Mechanical Support
Flex 12™ may be mounted parallel to the wall and electrically fed when installed over a wall-mounted outlet box that is wired to the transformer secondary.

Specify:
(1) **TF529SL** or (1) **TF530SL**



TF45SL Wall Feed/Support Canopy
Electrically feeds and/or mechanically supports the trac perpendicular to wall. Mounts directly to wall or over standard 4" outlet boxes. 25-amp capacity.
5" DIAMETER

Outrigger Electrical Feed and Mechanical Support
Used to mechanically support and electrically feed power to the trac in a parallel to wall installation. Extends 5½" from wall. One electrical feed outrigger per circuit is required.

TF529SL Electrical Feed Outrigger
25-amp capacity. Mounts over standard 4" wall outlet boxes.
5" DIAMETER

TF530SL Mechanical Support Outrigger
Canopy fastens to wall with toggle bolts (supplied) or wood screws.
3" DIAMETER

TFQJASL Quick Jack Adapter
Quick Jack Adapter for Quick Jack directionals or pendants. For use on Juno Flex 12 flexible Low Voltage Trac System. Rated for fixtures using maximum 50W 12V or 24V lamps.
7/8" W x 3-1/4" H

Flex 12™ Transformers

Specify:
(1) **TF6150E-SL**
or
(1) **TF6300SL**
and
(1) **TF903SL-TF948SL**
(1) **TF21SL**

Specify:
(1) **TF6150E-SL**
or
(1) **TF6300SL**
and
(2) **TF903SL-TF948SL**
(1) **TF21SL**
(1) **TF22SL**

Specify:
(1) **TF6150E-SL**
or
(1) **TF6300SL**
and
(1) **TF950SL (-144)**
(1) **TF21SL**

Universal Surface Mount Transformers

Designed to mount over standard 4" ceiling outlet boxes, surface mount transformers can be used with a single pendant stem to support/feed one end of a trac run. May also be used with a Flexible Feed Kit (TF950) to create a non-rigid floating feed, independent of mechanical support of the trac. The TF6150E Electronic Surface Mount Transformer has automatic resetting overload and short-circuit protection. Should be mounted within 5' of trac. The TF6300 Magnetic Torodial Surface Mount Transformer has a manually resettable circuit breaker. 120VAC input. Not compatible with LED luminaires.

CATALOG #	OUTPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS/ WATTAGE PER CIRCUIT	RECOMMENDED WATTAGE RANGE PER CIRCUIT	DIMENSIONS
TF6150E-SL*	12V	150 watts	1 / 150 watts	50-150 watts	3"H x 12"Dia.
TF6300SL**	12V	300 watts	1 / 300 watts	150-300 watts	3"H x 12"Dia.

* Dimmable–for best results use dimmer designed for use with electronic transformers.
** Dimmable–for best results use dimmer specifically designed for use with magnetic transformers.

Remote Magnetic Transformers

Remote mount magnetic transformers are designed to be installed in remote locations such as basements, attics, plenums and electrical closets. The location must be accessible and well ventilated with ambient temperatures below 140° F. 12-volt transformers are the most popular due to the wide selection and availability of 12-volt MR11 & MR16 lamps. 24-volt transformers double the wattage capacity vs. a 12-volt system, allowing twice as many fixtures to be installed per 25-amp circuit. These transformers are designed for either 120-volt or 277-volt input, and have premium resettable magnetic circuit breakers, dual-tap standard/boost tap primary input leads to adjust for voltage drop and may be dimmed using dimmers qualified by Juno. See specification sheets for a list of qualified dimmers. Primary and secondary circuits are physically and electrically isolated and grounded. Compatible with all Flex 12 low voltage luminaires including halogen and LED (12V transformers only). Flex 12 may also be operated with any Trac 12 Remote Mount Magnetic Transformers .

12V Transformers

CATALOG #	OUTPUT VOLTAGE/ INPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS WATTAGE PER CIRCUIT	DIMENSIONS
TF5150BL	12V/120V	150 watts	1/50-150 watts halogen, 75-100 watts LED	10 1/2"H x 3 5/8"W x 3 7/8"D
TF5150BL-277	12V/277V	150 watts	1/50-150 watts halogen, 75-100 watts LED	10 1/2"H x 3 5/8"W x 3 7/8"D
TF5300BL	12V/120V	300 watts	1/150-300 watts	10 3/4"H x 4 3/8"W x 4 1/8"D
TF5300BL-277	12V/277V	300 watts	1/150-300 watts	10 3/4"H x 4 3/8"W x 4 1/8"D
TF5600BL	12V/120V	600 watts	2/150-300 watts	11 3/8"H x 5 3/8"W x 5 1/8"D
TF5600BL-277	12V/277V	600 watts	2/150-300 watts	11 3/8"H x 5 3/8"W x 5 1/8"D

24V Transformers

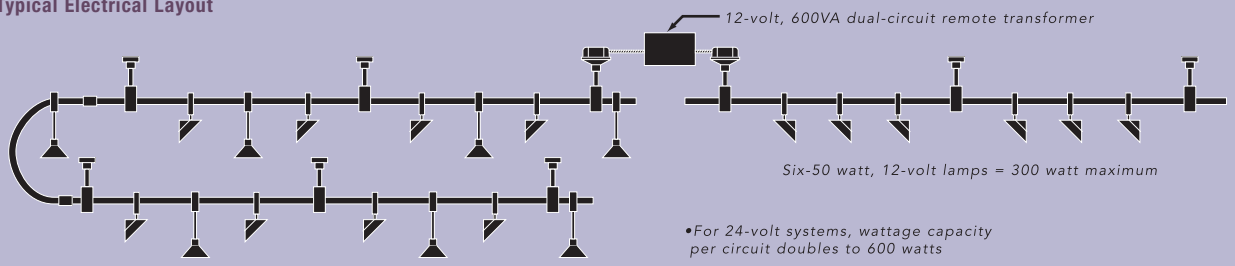
CATALOG #	OUTPUT VOLTAGE/ INPUT VOLTAGE	TOTAL WATTAGE	NUMBER OF CIRCUITS WATTAGE PER CIRCUIT	DIMENSIONS
TF5600BL-24V	24V/120V	600 watts	1/300-600 watts	11 1/2"H x 5 3/8"W x 5 1/8"D
TF5600BL277-24V	24V/277V	600 watts	1/300-600 watts	11 1/2"H x 5 3/8"W x 5 1/8"D
TF51200BL-24V	24V/120V	1200 watts	2/300-600 watts	12 1/2"H x 6 1/8"W x 5 7/8"D
TF51200BL277-24V	24V/277V	1200 watts	2/300-600 watts	12 1/2"H x 6 1/8"W x 5 7/8"D

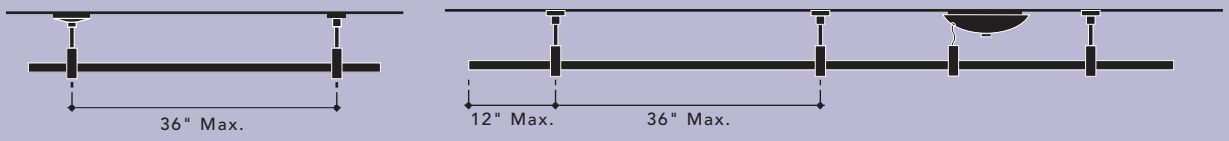
Note: 120V magnetic transformers are available with a 6-foot cord and plug option. For cord and plug installation, add -CP6 as suffix to catalog number. **Example:** TF5600BL-CP6

Typical Layouts

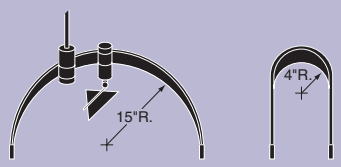
Flex 12™ provides a vast amount of design flexibility, limited primarily by one's imagination. The following examples provide some basic ideas for layouts as well as guidelines that should be applied to any installation.

Typical Electrical Layout





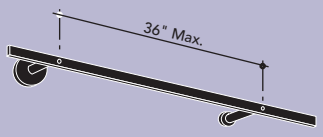
Minimum Bending Radii



The trac can be bent to a minimum radius of 15" and still successfully receive Feed Cylinders, Support Cylinders and trac lampholders.

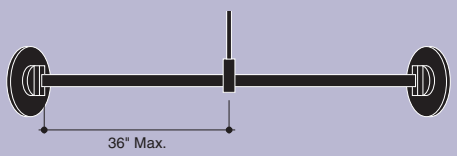
The trac can be bent as tightly as a 4" radius for design purposes but loses the ability to be safely fed with power or receive lampholders. If uncertain about a desired layout, please contact the factory.

Outriggers



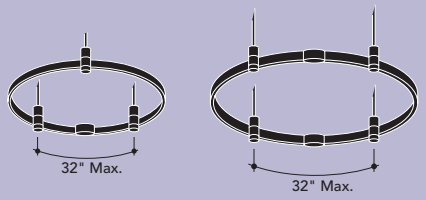
Outriggers should be spaced no greater than 36" apart. (In applications where a large number of trac lampholders are to be employed, more tightly spaced outriggers may be required.)

Wall Feed



When using a wall feed, the maximum free span of trac before a Feed Cylinder or Support Cylinder is employed is 36".

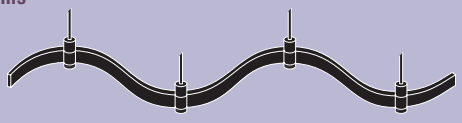
Circles



A perfect circle can be made using an 8' section of trac supported at three points 32" apart. This results in a 30.5" diameter circle.

Larger circles can be made by joining multiple trac sections, as long as supports are no greater than 32" apart.

Waveforms



For sinusoidal wave forms, it is recommended that the supports be located at the "peaks" of the wave form for greater trac stability.

Trac is field-bendable by hand, plywood form or by proprietary Juno bending machine (Catalog No. JLG-B100). Use of a full-size paper template is recommended.

Portable Bending Machine - JLG-B100

Portable Bending Machine for flexible track and rail. Bends Juno Flex 12, Alfa MonoLine and Alfa MonoTrack. Clamps to a work surface. Easily makes smooth, repeatable bends. Comes with durable carrying case.

Flex 12™ Light Control Accessories

Light Control Accessories

Juno offers a complete selection of light control accessories to enable the customization of lighting effects.

		1 3/4" DIA.	COMPATIBLE WITH	2" DIA.	COMPATIBLE WITH
Accessory Holders					
Required for listed fixtures. Accepts two filters, lenses or louvers except where noted.				**T7400BL** **T7400SA** Accepts up to 2 accessories	TF130, TF301
Light Control Lenses					
Light Control Lenses alter the light distribution of a given lamp, enlarging or elongating it, softening the beam edge or removing striations.	Uniformity Lens	**T5521**	TF106*, TF160, TF165, TF196, TFG116, TFP116	**T7421**	TF140*, TF141*, TF150*, TF170*, TF180*, TF190* and fixtures with T7400 Accessory Holder
	Diffusion Lens	**T5520**		**T7420**	
	Prismatic Spread Lens	**T557**		**T7477**	
	Linear Spread Lens	**T559**		**T7478**	
UV Filters					
These museum quality lenses filter out ultraviolet radiation below 400 nanometers to protect fade sensitive art and objects.		**T5522**	TF106*, TF160, TF161, TF165, TF196, TFG116, TFP116	**T7422**	
Dichroic Color Correction Filters					
Color Correction Filters correct the light, either to warm it up to approximate incandescent, or cool it down to approximate daylight.	Halogen-to-Incandescent, 2700K	**T5518**		**T7418**	
	Halogen-to-Daylight, 4250K	**T5516**		**T7416**	
Color Filters	**Colored Glass Filters**				
Color Filters change white light into colored light and are available in colored glass and more efficient/saturated dichroic filters.	Medium Pink	**T551**		**T741**	
	Warm Red			**T742**	
	Daylight Blue			**T743**	
	Medium Blue	**T553**		**T744**	
	Medium Amber	**T555**		**T745**	
	Medium Green			**T746**	
	Dichroic Glass Filters				
	Red	**T5501**		**T7401**	
	Medium Green	**T5503**		**T7403**	
	Medium Blue	**T5504**		**T7404**	
	Yellow	**T5505**		**T7405**	
	Magenta	**T5506**		**T7406**	
	Blue-Green (Cyan)	**T5511**		**T7411**	
Louvers					
Hexcell Louvers reduce perceived fixture brightness.	Hexcell Louvers	**T5559BL**	TF106*, TF160, TF165, TF196, TFG116, TFP116	**T7459BL**	
Snoot					
Snoots extend lamp shielding and can reduce spill light in the edge of a beam pattern.	Snoot	**T5558BL**	TFG116, TFP116		
Barn Doors					
Barn Doors create a theatrical look and allow control of the spill light coming off of a lamp.	Barn Doors	**T74BL**	TFG116, TFP116	**T7470BL**	Fixtures with T7400 Accessory Holder

*Simultaneously accepts any combination of up to two filters, lenses or louver.

See website for details, www.junolightinggroup.com

DASANI

See website for details, www.junolightinggroup.com

Decorative Pendants

For all Juno Trac Systems

Juno Decorative Pendants feature a brilliant collection of styles, shapes and materials ranging from luminous artisan-crafted glass to the fashionable look of lustrous metal. They integrate beautifully with today's upscale commercial and residential decors and are fully compatible with Trac-Master®, Trac 12™, Flex 12™, Quick Jack and Monopoints. A variety of light sources, cordset options and adapters provides virtually unlimited possibilities.

Juno pendants are now available with ultra-efficient LEDs that require up to only 6 watts per fixture to produce a minimum of 170 lumens. They replicate the output and aesthetics of 20 watt halogen but consume as little as 25% of the energy. And with an expected service life of 50,000 hours, they provide virtually maintenance-free operation. Beauty, versatility and efficiency…it's the best of all possible worlds.

See website for details, www.junolightinggroup.com

The environmentally responsible choice

Saving money is always important and no other light sources can match halogen for value or LEDs for operating economy. But in this day and age, there is an even more critical issue… saving the planet. And, this is where LEDs offer undisputed leadership.

Eco-friendly LEDs not only help conserve our energy resources, they are also free of toxic mercury, lead, and PCBs; no UV or IR emissions; and are RoHS compliant. So whether your application is retail, commercial or residential, Juno LED pendants are more than just economical to operate…they are the environmentally responsible choice.

Bold, beautiful and cost-efficient

EcoLEDgy Driven

Juno decorative pendants have always been acclaimed for their striking beauty. Now, they are available with state-of-the-art LEDs offering remarkable savings due to reduced energy consumption and operating costs.

LED Pendant savings begin with a 75% reduction in energy consumption compared to similar halogen lighting. More savings accrue from their 50,000 hour service life that virtually eliminates relamping and maintenance costs. And thanks to their cool operating temperatures, air conditioning loads are reduced, saving even more.

Juno decorative pendants are celebrated for their stunning good looks. But with the cost efficiencies of LED operation, clearly their beauty is more than skin deep.

Juno LED Decorative Pendants	*Fixture/Lamp Data*	20W Halogen Decorative Pendants
5	Watts	20
170	Lumens	300
34	Efficacy (Lumens/Watt)	15
3000	Color Temperature	2900
50,000	Rated Life (Hours)*	2000
Full Range No Color Shift	Dimmability	Full Range With Color Shift
	Operating Cost Summary	
$2.63	Annual Energy Cost per Fixture**	$10.51
$9.64	Annual Relamping Cost per Fixture***	$29.57
$12.26	Annual Operating Costs	$40.08
$83.44	Annual Savings for 3 Pendants	

** Halogen rated life is based on 50% lamp failure; LED rated life is based on 0% failure with 70% lumen maintenance.*

*** Based on 12 hours per day @ $0.12 per kilowatt hour.*

**** Replacement cost per lamp + replacement labor cost x annual hours of operation / rated life.*

See website for details, www.junolightinggroup.com

TLP310AMBERDRIFT

TLP311SILVER

TLP312COBALT

Short Cone-GLASS

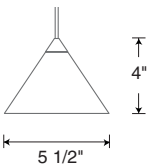
Hand blown cased glass with opal interior and satin nickel plated finial.

CATALOG #	LAMP/CORDSET
TLP310	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISHES:

OPAL | NIGHT BLUE | AMBER DRIFT | COBALT | SUNSET GOLD

DIMENSIONS



Pendant cordset required. Must be ordered separately.

Short Cone-METAL

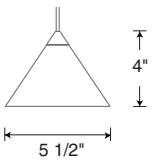
The silver finish is a textured metallic silver painted finish. High-reflectance white interior finish and satin nickel-plated finial.

CATALOG #	LAMP/CORDSET
TLP311	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISH:

SILVER

DIMENSIONS



Pendant cordset required. Must be ordered separately.

Tall Cone

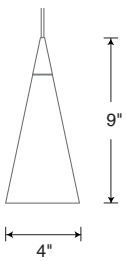
Hand blown cased glass with opal interior and satin nickel plated finial.

CATALOG #	LAMP/CORDSET
TLP312	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISHES:

OPAL | COBALT | SUNSET GOLD | PISTACHIO | ROUGE

DIMENSIONS



Pendant cordset required. Must be ordered separately.

For Cordset and Mounting Options – see pages 224-225

When ordering add finish name after catalog number. **Example: TLP310AMBERDRIFT**

TLP314GLACIER

TLP315SILVER

TLP322PISTACHIO

Flute-GLASS

Hand blown cased glass with opal interior and satin nickel plated finial.

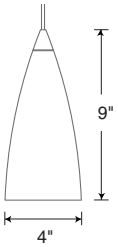
CATALOG #	LAMP/CORDSET
TLP314	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISHES:

OPAL GLACIER COBALT GLOSS

ICE INFERNO

DIMENSIONS



Pendant cordset required. Must be ordered separately.

Flute-METAL

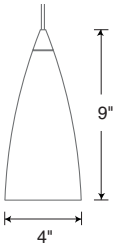
The silver finish is a textured metallic silver painted finish and the midnight finish is similar to a black chrome finish. High-reflectance white interior finish and satin nickel-plated finial.

CATALOG #	LAMP/CORDSET
TLP315	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 37W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISHES:

SILVER MIDNIGHT

DIMENSIONS



Pendant cordset required. Must be ordered separately.

Ellipse

Hand blown cased glass with opal interior and satin nickel plated support spider.

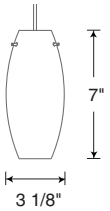
CATALOG #	LAMP/CORDSET
TLP322	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE

FINISHES:

OPAL COBALT SUNSET GOLD

PISTACHIO ROUGE

DIMENSIONS



Pendant cordset required. Must be ordered separately.

For Cordset and Mounting Options – see pages 224-225

When ordering add finish name after catalog number. **Example: TLP314GLACIER**

See website for details, www.junolightinggroup.com

Luminous or Opaque

Translucent glass shades provide a degree of downlighting, but are more often selected for their emotive luminous effect. One's eye is drawn to their artful display of form and color. Metal shades with their opaque character and high-reflectance white interiors deliver higher levels of downlighting while drawing less attention to themselves. Like Yin and Yang, there is no right or wrong in the selection of a shade style…it is simply a matter of picking what best harmonizes with the design intent of a given interior.

TLP320INFERNO

Flame

Hand blown cased glass with opal interior and satin nickel plated support spider.

CATALOG #	LAMP/CORDSET
TLP320	**LED** NEW **12V, 5W LED** **HALOGEN** **12V OR 24V, 50W MAX** **T4 HALOGEN GY6.35 BI-PIN CAPSULE**

FINISHES:

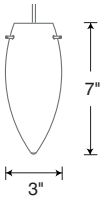
OPAL

PISTACHIO

MAIZE

INFERNO

DIMENSIONS



Pendant cordset required. Must be ordered separately.

For Cordset and Mounting Options – see pages 224-225

When ordering add finish name after catalog number.
Example: TLP320INFERNO

See website for details, www.junolightinggroup.com

TLP318ICE

TLP326MAIZE

TLP327NATURAL

Teardrop

Hand blown cased glass with opal interior and satin nickel plated finial.

CATALOG #	LAMP/CORDSET
TLP318	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISHES:

OPAL GLACIER SUNSET GOLD

ICE INFERNO

DIMENSIONS

Pendant cordset required. Must be ordered separately.

RLM-GLASS

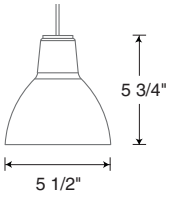
Hand blown cased glass with opal interior and chrome plated top cap.

CATALOG #	LAMP/CORDSET
TLP326	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS

FINISHES:

OPAL MAIZE

DIMENSIONS



Pendant cordset required. Must be ordered separately.

RLM-METAL

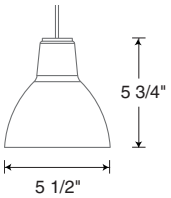
The silver finish is a textured metallic silver painted finish, the midnight finish is similar to a black chrome finish and the copper patina emulates a weathered copper finish. High-reflectance white interior finish. Top cap finished to match body.

CATALOG #	LAMP/CORDSET
TLP327	LED 12V, 5W LED NEW HALOGEN 12V OR 24V, 50W MAX T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS (EXCEPT 35W MAX. FOR MIDNIGHT FINISH)

FINISHES:

NATURAL MIDNIGHT COPPER PATINA

DIMENSIONS



Pendant cordset required. Must be ordered separately.

For Cordset and Mounting Options – see pages 224-225

When ordering add finish name after catalog number. **Example: TLP318ICE**

See website for details, www.junolightinggroup.com

TLP324OPAL

TLP316ORANGEPEEL

TLP328COBALT

Cylinder

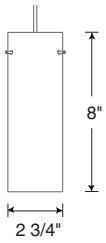
Hand blown cased glass with opal interior and satin nickel plated support spider.

CATALOG #	LAMP/CORDSET
TLP324	**LED** NEW **12V, 5W LED** **HALOGEN** **12V OR 24V, 50W MAX** **T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS**

FINISHES:

OPAL MAIZE

DIMENSIONS



Pendant cordset required. Must be ordered separately.

Wrap

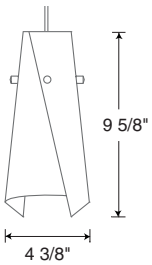
Precision cut, interleaved layers of suede polycarbonate or parchment sheet captured by nickel plated support spider and cap nuts.

CATALOG #	LAMP/CORDSET
TLP316	**LED** NEW **12V, 5W LED** **HALOGEN** **12V OR 24V, 50W MAX** **T4 HALOGEN GY6.35 BI-PIN CAPSULE OR MR16CG COVER GLASS**

FINISHES:

FROST ORANGE PEEL PARCHMENT

DIMENSIONS



Pendant cordset required. Must be ordered separately.

Disc

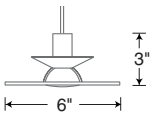
Precision aluminum casting with integrated aperture ring securely supports tempered glass disc. Use of dichroic lamps washes inverted cone with a decorative aura.

CATALOG #	LAMP
TLP328	**HALOGEN** **12V OR 24V, 50W MAX** **MR16CG COVER GLASS**

FINISHES:

FROST COBALT AMBER

DIMENSIONS



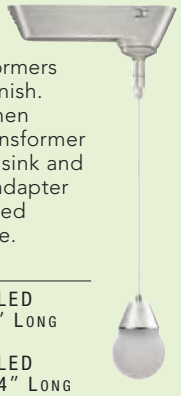
Pendant cordset required. Must be ordered separately.

For Cordset and Mounting Options – see pages 224-225

When ordering add finish name after catalog number. **Example: TLP324OPAL**

See website for details, www.junolightinggroup.com

Trac-Master®/Trac-Lites Line Voltage Trac



To operate LED Decorative Pendants with either Trac-Master or Trac-Lites Trac, select one of the Quick Jack Pendant Cordsets shown below plus one of the T537QJU Transformers (order separately) to match the chosen trac finish. May also be used with Alfa MonoLine Trac when combined with the MLTQJL75 Quick Jack Transformer Adapter. Includes LED light engine with heat sink and proprietary silicone diffuser ball, Quick Jack adapter for field-shortening cable, 78" or 144" of plated coaxial cable and 7" cord straightening sleeve.

CATALOG #	DESCRIPTION
TLQJPLED78-XX	12V, 5W Quick Jack LED Pendant Cordset, 78" Long
TLQJPLED144-XX	12V, 5W Quick Jack LED Pendant Cordset, 144" Long

FINISH: NICKEL (NI)

Color Temperatures: 27K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example: TLQJPLED78-**27K-NI** (replace **XX** in catalog # with color temperature code)

CATALOG #	DESCRIPTION
T537QJU	12V, 5W LED-Compatible Quick Jack Transformer for use with 120V Trac-Master or Trac-Lites Trac or T58 Monopoint

FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

Quick Jack Pendant Cordsets

To operate LED Decorative Pendants with either Alfa Trac or Monopoints, select one of the Quick Jack Pendant Cordsets shown below. Trac or monopoints must be operated using 12V LED-compatible transformer – see Alfa transformer specification sheets for details. For integral transformer monopoint, see compatibility list below. May also be used with 12V Juno Trac 12 or Flex 12 trac or LED-compatible monopoints, along with appropriate Trac 12 or Flex 12 Quick Jack Adapter (order separately - see pages 189 and 209). Includes LED light engine with heat sink and proprietary silicone diffuser ball, Quick Jack adapter for field-shortening cable, 78" or 144" of plated coaxial cable and 7" cord straightening sleeve.

CATALOG #	DESCRIPTION
TLQJPLED78-XX	12V, 5W Quick Jack LED Pendant Cordset, 78" Long
TLQJPLED144-XX	12V, 5W Quick Jack LED Pendant Cordset, 144" Long

Color Temperatures: 27K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example: TLQJPLED78-**27K-NI** (replace **XX** in catalog # with color temperature code)

FINISH: NICKEL (NI)

Compatible with the following Alfa starter kits or integral transformer Quick Jack monopoints: 55010, 905QJL, 99003QJL, 99014QJL, 99015QJL.

Trac 12™

To operate LED Decorative Pendants with either Trac 12 or Trac 12/25 Trac or Trac 12 Monopoints, select one of the Trac 12 Pendant Cordsets shown below. Trac or monopoints must be operated using a 12V LED-compatible transformer – see Trac 12 or Trac 12/25 transformer specification sheets for details. For integral transformer monopoint application, operate with LED-compatible TL540U monopoint only. Includes LED light engine with heat sink and proprietary silicone diffuser ball, Trac 12 adapter, splice compartment with terminal block for field-shortening cable, 78" or 144" of plated coaxial cable and 7" cord straightening sleeve.

CATALOG #	DESCRIPTION
TLPLED78-XX	12V, 5W Trac 12 LED Pendant Cordset, 78" Long
TLPLED144-XX	12V, 5W Trac 12 LED Pendant Cordset, 144" Long

FINISHES:
WHITE (WH) BLACK (BL) SILVER (SL)

Color Temperatures: 27K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example: TLPLED78-**27K-WH** (replace **XX** in catalog # with color temperature code)

Flex 12™

To operate LED Decorative Pendants with either Flex 12 Trac or Monopoints, select one of the Flex 12 Pendant Cordsets shown below. Trac or monopoints must be operated using a 12V LED-compatible transformer – see Flex 12 transformer specification sheets for details. For integral transformer monopoint application, operate with TF540U monopoint only. Includes LED light engine with heat sink and proprietary silicone diffuser ball, Flex 12 adapter, splice compartment with terminal block for field-shortening cable, 78" or 144" of plated coaxial cable and 7" cord straightening sleeve.

CATALOG #	DESCRIPTION
TFPLED78-XX	12V, 5W Flex 12 LED Pendant Cordset, 78" Long
TFPLED144-XX	12V, 5W Flex 12 LED Pendant Cordset, 144" Long

FINISH: SILVER (SL)

Color Temperatures: 27K=2700K, 3K=3000K, 4K=4100K

For complete catalog number, specify finish when ordering fixture - ordering example: TFPLED78-**27K-SL** (replace **XX** in catalog # with color temperature code)

Trac-Master®/Trac-Lites Line Voltage Trac

Pendant cordset for use with 120-volt Trac-Master or Trac-Lites Trac and monopoint accessories. Requires the use of T537 or T538 transformers or Juno low voltage monopoints (order separately - see pages 153 and 155). Includes splice compartment with terminal block for field-shortening cable, 78" or 144" of plated coaxial cable, 7" cord straightening sleeve, socket assembly and frosted glass diffuser capsule.

CATALOG #	DESCRIPTION
TP78	TRAC-MASTER HALOGEN PENDANT CORDSET , 78" LONG
	TRAC-MASTER HALOGEN PENDANT CORDSET , 144" LONG

FINISHES:
WHITE (WH) (BL)

Quick Jack Pendant Cordsets

Pendant cordset for use with Quick Jack Series Transformers, Adapters or Alfa QJ Monopoints. Includes Quick Jack adapter for field shortening cable, 78"or 144" of plated coaxial cable, 7" cord straightening sleeve, socket assembly and frosted glass diffuser capsule.

CATALOG #	DESCRIPTION
TLQJP78NI	QUICKJACK HALOGEN PENDANT CORDSET , 78" LONG
TLQJP144NI	QUICKJACK HALOGEN PENDANT CORDSET , 144" LONG

FINISH: NICKEL (NI)

Compatible with all Alfa Quick Jack systems including the following monopoints:

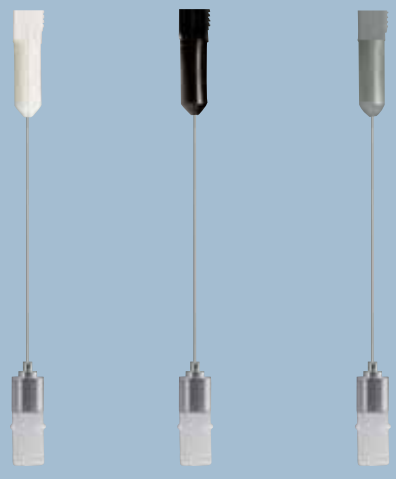
902QJ
903QJ
907QJ
908QJ
909QJ
99003QJ
99014QJ
99015QJ

Trac 12™

Pendant cordset for use with Trac 12 trac systems and monopoints. Includes Trac 12 adapter, splice compartment with terminal block for field-shortening cable, 78" or 144" of plated coaxial cable, 7" cord straightening sleeve, socket assembly and frosted glass diffuser capsule.

CATALOG #	DESCRIPTION
TLP78	TRAC 12 HALOGEN PENDANT CORDSET , 78" LONG
TLP144	TRAC 12 HALOGEN PENDANT CORDSET , 144" LONG

FINISHES:
WHITE (WH) (BL) SILVER



Flex 12™

Pendant cordset for use with Flex 12 trac systems and monopoints. Includes Flex 12 adapter, splice compartment with terminal block for field-shortening cable, 78" or 144" of plated coaxial cable, 7" cord straightening sleeve, socket assembly and frosted glass diffuser capsule.

CATALOG #	DESCRIPTION
TFP78	FLEX 12 HALOGEN PENDANT CORDSET , 78" LONG
TFP144	FLEX 12 HALOGEN PENDANT CORDSET , 144" LONG

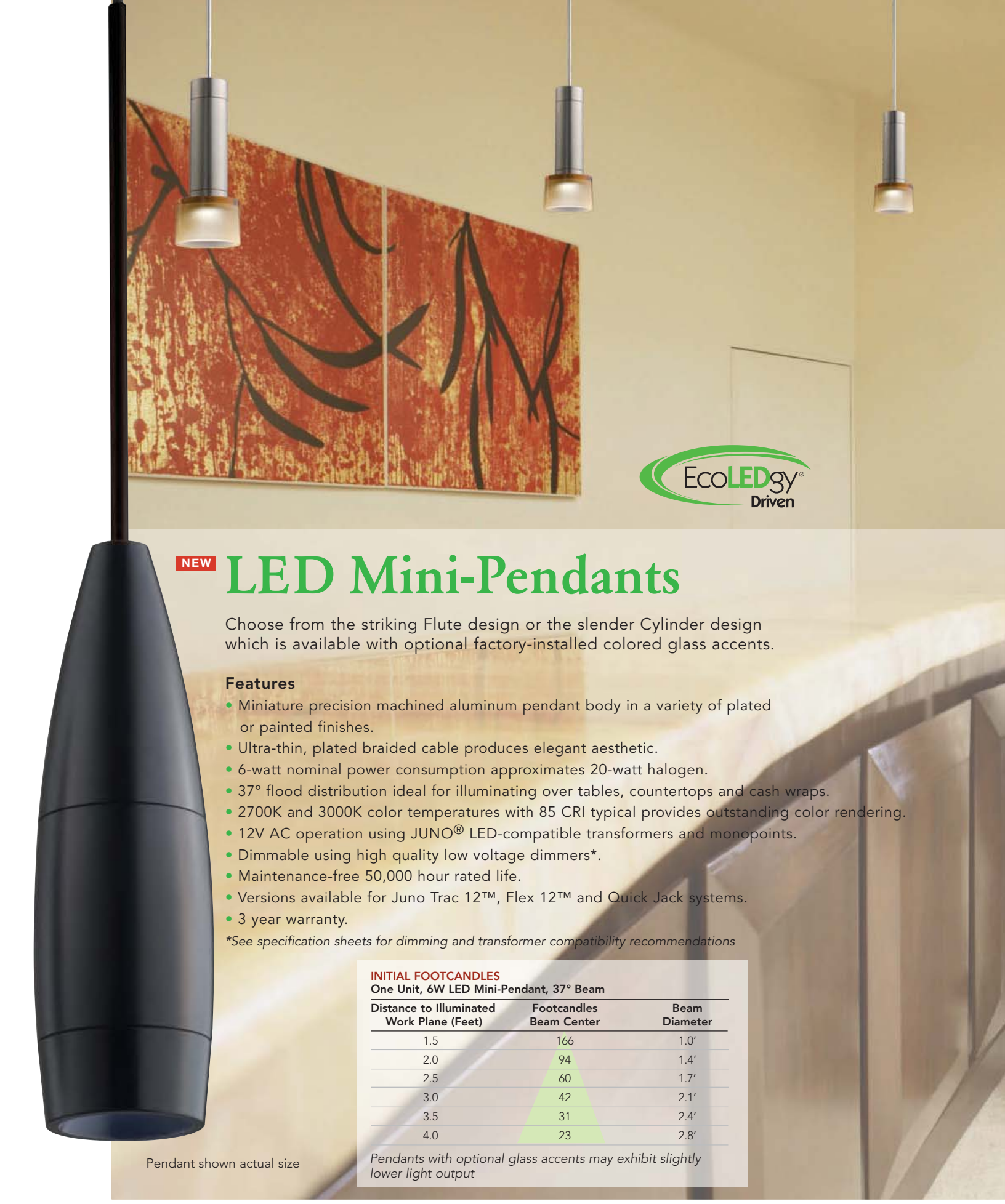
FINISH: SILVER (SL)

Halogen Bi-Pin Lamp Data
T4 Bi-Pin Base Lamps

CATALOG #	WATTS	VOLTS	LAMP TYPE	CLEAR/ FROSTED	LUMENS	RATED LAMP LIFE*
TL925	35	12	Halogen	Clear	600	4,000
TL926	50	12	Halogen	Clear	930	4,000
TL928-24V	50	24	Halogen	Clear	850	2,000

*Rated lumens and lamp life provided by lamp manufacturer.

See website for details, www.junolightinggroup.com



NEW

LED Mini-Pendants

Choose from the striking Flute design or the slender Cylinder design which is available with optional factory-installed colored glass accents.

Features

- Miniature precision machined aluminum pendant body in a variety of plated or painted finishes.
- Ultra-thin, plated braided cable produces elegant aesthetic.
- 6-watt nominal power consumption approximates 20-watt halogen.
- 37° flood distribution ideal for illuminating over tables, countertops and cash wraps.
- 2700K and 3000K color temperatures with 85 CRI typical provides outstanding color rendering.
- 12V AC operation using JUNO® LED-compatible transformers and monopoints.
- Dimmable using high quality low voltage dimmers*.
- Maintenance-free 50,000 hour rated life.
- Versions available for Juno Trac 12™, Flex 12™ and Quick Jack systems.
- 3 year warranty.

**See specification sheets for dimming and transformer compatibility recommendations*

Pendant shown actual size

INITIAL FOOTCANDLES
One Unit, 6W LED Mini-Pendant, 37° Beam

Distance to Illuminated Work Plane (Feet)	Footcandles Beam Center	Beam Diameter
1.5	166	1.0′
2.0	94	1.4′
2.5	60	1.7′
3.0	42	2.1′
3.5	31	2.4′
4.0	23	2.8′

Pendants with optional glass accents may exhibit slightly lower light output

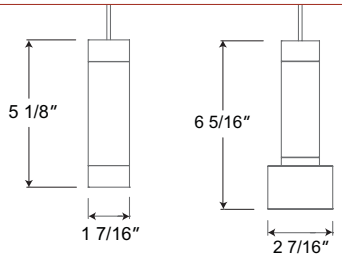
NEW

Cylinder

AMBER BLUE FROST

Optional: Colored glass accent

DIMENSIONS



Ordering Information Examples: TLPL1782WHWH, TQJPL11443BZAMBRZ

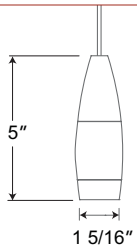
System Type	Lamp	Pendant Style	Cord Length	Color Temperature	Pendant Body Finish	Glass Color	Adapter Finish*
TLP	L	1	78	2	WH		WH
TLP Trac 12 Pendant **TFP** Flex 12 Pendant **TQJP** Quick Jack Pendant	**L** 6W LED	**1** Cylinder	**78** 78" **144** 144"	**2** 2700K **3** 3000K	**WH** White **BL** Black **SN** Satin Nickel **BZ** Bronze	**BLANK** No Glass **AMB** Amber **BLU** Blue **FRT** Frost	**WH** White (Trac 12 & QJ only) **BL** Black (Trac 12 & QJ only) **SL** Silver (Trac 12 & Flex 12 only) **STN** Satin Nickel (QJ only) **BRZ** Bronze (QJ only)

*Select pendant adapter finish to match trac system, monopoint finish

NEW

Flute

DIMENSIONS



Ordering Information Examples: TLPL2782WHWH

System Type	Lamp	Pendant Style	Cord Length	Color Temperature	Pendant Body Finish	Adapter Finish*
TLP	L	2	78	2	WH	WH
TLP Trac 12 Pendant **TFP** Flex 12 Pendant **TQJP** Quick Jack Pendant	**L** 6W LED	**2** Flute	**78** 78" **144** 144"	**2** 2700K **3** 3000K	**WH** White **BL** Black **SN** Satin Nickel **BZ** Bronze	**WH** White (Trac 12 & QJ only) **BL** Black (Trac 12 & QJ only) **SL** Silver (Trac 12 & Flex 12 only) **STN** Satin Nickel (QJ only) **BRZ** Bronze (QJ only)

*Select pendant adapter finish to match trac system, monopoint finish

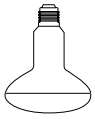
Planning & Application Tips

Lamp Types

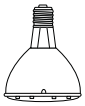
Lamps for trac lighting can be categorized into directional and omni-directional light. Directional lamps contain integral reflectors to direct and control the light. Omni-directional lamps are used in combination with fixtures that have built-in reflectors to control their light distribution.

In this section you will find complete information about lamps, application techniques and photometric data. This information is structured to assist in helping you compare and select the best fixture/lamp combinations and to create a desired effect.

Directional Lamps

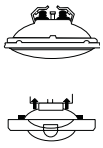


Incandescent R (Reflector) and BR (Bulge Reflector)
These lamps are available in limited sizes and wattages in two basic spot and flood patterns. They offer soft, even beams of warm incandescent light. Though the least expensive to purchase, their cost of ownership is the highest because they are the least energy efficient. Typical life is 2000 hours.



Halogen PAR (Parabolic Aluminized Reflector)
Parabolic Aluminized Reflector (PAR) lamps are the most popular directional lamps, offering a wide variety of sizes, wattages and beam spreads. A more sophisticated lens/reflector system and halogen technology make PAR lamps 2-3 times more efficient than incandescent R/BR lamps. A staple of the retail environment, they are well suited for high level ambient and accent applications, because their good beam definition and white halogen light enhance visibility and contrast. PAR lamps are also available in energy-saving "IR" models whereby the infrared heat produced by the lamp is reflected back onto the filament, enabling it to burn hotter and brighter, improving energy efficiency up to 30%. Typical life of PAR lamps is 2000 to 3000 hours.

12-Volt and 24-Volt MR11/MR16 (Mirrored Reflector)
These Mirrored Reflector (MR) lamps have smaller "point-source" filaments that are precisely aligned in a miniature multi-faceted reflector to produce exacting beam distributions of white, halogen light. For spot distributions they produce more usable light per watt of energy than comparable wattage halogen PAR lamps. Available in a wide range of beam spreads and wattages, the miniature 2" MR16 lamps allow for very compact fixture designs and, in combination with light control lenses, a high degree of specificity in lighting design. They are the best accent source for highlighting artwork, sculpture, or creating dramatic effects. Smaller, lower wattage 1-3/8" diameter MR11 lamps are also available for special situations where ultra-miniature fixture size is required. Like halogen PAR lamps, MR16 lamps are now available in "IR" models whereby the infrared heat produced by the lamp is reflected back onto the filament, enabling it to burn hotter and brighter, improving energy efficiency up to 30%. Life ranges from 2000 to 6000 hours. MR lamps require a step-down transformer to supply their required 12 or 24 volts.

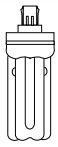


12-Volt PAR36, AR111
Like MR16 lamps, AR111 and PAR36 utilize a smaller "point source" filament aligned in an optically efficient reflector. The difference is that these lamps use a larger parabolic reflector and a capped filament to produce a tightly collimated beam of light resulting in center beam intensities up to five times that of MR16s. They are best suited for dramatic, high-contrast accents and hold their beam over longer throw distances. Because the filament is shielded with a metal cap, PAR36 and AR111 lamps have very low brightness, much like one experiences with a dental examination light. Their typical life is 2000 to 3000 hours. These lamps require a step-down transformer to supply their required 12 volts.

Omni-Directional Lamps

250-Watt T4 Quartz Halogen

This omni-directional 120-volt halogen source is used in a compact rectangular trac flood/wall wash fixture with a diffuse reflector. It is most suitable for low to medium ceiling applications with shorter/ limited burning hours where initial cost is the primary concern and energy and operating costs are not considerations. Typical life is 2000 hours.



Compact Fluorescent (CFL)

A broad family of fluorescent lamps, characterized by multiple small-diameter fluorescent tubes integrated into a single-ended plug in base, CFLs are available in a wide variety of sizes, wattages and color temperatures with efficiencies approximately three times greater than halogen sources. Their distribution is characteristically diffuse, making them ideally suited for perimeter wall wash applications. CFL lamps require a ballast to start and regulate the current to the lamp. Typical life is 12,000 hours.

T5HO Fluorescent

This 5/8" diameter linear fluorescent lamp is the latest generation of fluorescent lamp technology. Owing to its small diameter, it has been referred to as a "linear point source," offering very good optical control from a single tube vs. the multiple tubes of CFLs. T5HOs produce very high light levels and excellent uniformity from fixtures that have a more compact profile than those using CFLs. T5HO lamps require a ballast to start and regulate the current to the lamp. Typical life is 16-20,000 hours.

Available CMH Lamp Types

Ceramic Metal Halide

A variety of CMH lamps have been integrated into spot, narrow flood and flood reflector optics. Compared to fluorescent sources, CMH lamps can be designed into smaller fixture housings and produce a more specular quality of light, resulting in more sparkle and highlights. Many have comparable efficiencies and lamp life versus T5HO and CFL sources when operated with recommended electronic ballasts. In combination with electronic ballasts that precisely regulate the current to the lamp, they offer consistent lamp-to-lamp color and excellent color stability over life. Typically available in 3000K and 4000K colors, CMH lamps are often preferred in side-by-side comparisons vs. halogen for their color rendering qualities that can reach CRIs near 90. CMH lamps require a couple of minutes to reach their full brightness and several minutes to restrike in the event of a power disruption, making them poor candidates for dimming and sensor controlled applications.

CMH MR16

The CMH MR16 replicates the size and performance of Halogen MR16 lamps, utilizing half the energy with a 12,000 hour rated life. Available in 20W and 39W versions, it results in the smallest CMH trac fixture available. Supplied with an integral cover glass, the CMH MR16 does not require a separate lens for lamp containment.

CMH T4 GU6.5

The CMH T4 GU6.5 is a miniature lamp which offers the advantage of custom optics using computer contoured faceted reflectors. Designed into a fixture slightly larger than the CMH MR16, it offers approximately 33% greater efficacy and a 12,000 hour rated life. CMH T4 GU6.5 lamps are available in both 20W and 39W versions.

CMH T4 & T6

T4 & T6 lamps offer the highest efficacy and attainable light levels in the widest range of wattage from 20 through 150 watts. Custom optics using computer contoured faceted reflectors maximize fixture efficiency and consistency. T4 & T6 lamps offer up to 15,000 hours rated life.

CMH ED17

A popular lamp choice ranging from 50 through 150 watts, ED17 fixtures offer the ability to standardize lamp compatibility with other ED17 luminaires used on a project. They also offer the familiarity of a screw-base lamp for simplified fixture maintenance. Lamps are available from 20 through 150 watts and offer up to 13,000 rated life.

CMH PARs

CMH PAR lamps are available in PAR20, PAR30L and PAR38 sizes with a range of lumen packages and beam spreads. Since these lamps are provided with an integral lens, CMH PAR lamps are the lamp of choice when simplicity and ease of maintenance is the primary design concern. Typical ED17 lamp life ranges from 15-20,000 hours.

CMH BT-5/T3.5

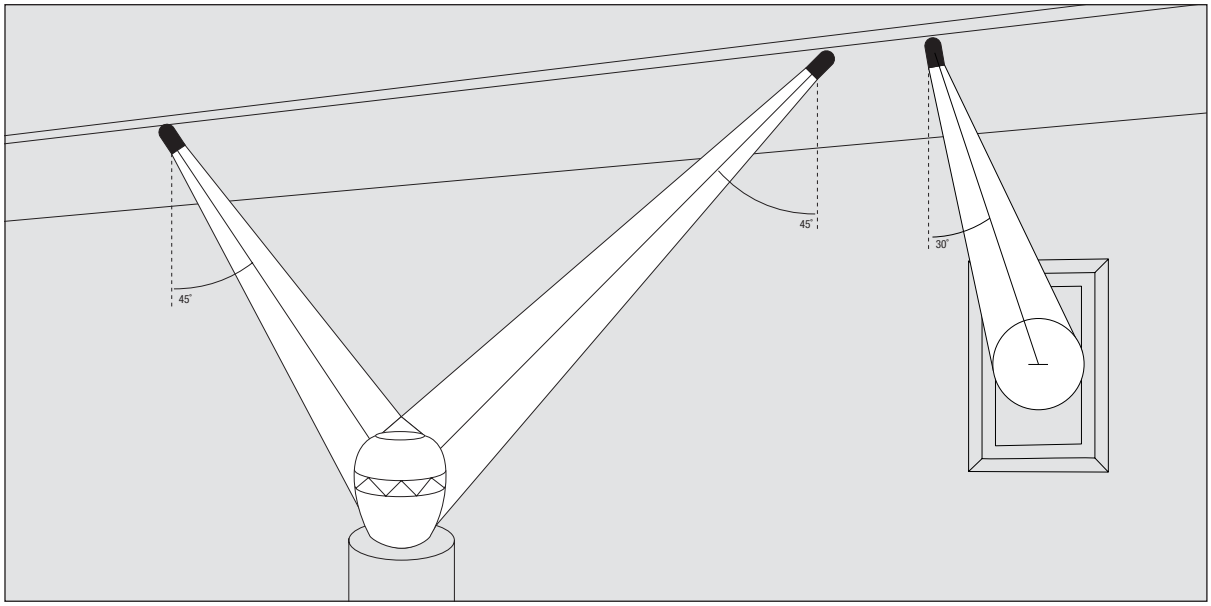
The BT-5/T3.5 PGJ5-base lamp is a miniature lamp similar to the T4 GU6.5 but with a different base. Custom optics, based on computer contoured faceted reflectors, maximize fixture efficiency and consistency. They are available in 22W and 39W and they require special ballasts to operate. They are designed for a 12,000 hour rated life.

CMH R-111

Similar to the halogen AR111, the CMH R-111 lamp provides a tightly collimated beam of light, producing high center beam intensities in a much more efficient source. This lamp also has a capped filament to reduce lamp aperture brightness. The CMH R-111 offers tight beam control and is effective over longer throw distances. It is available in 20W, 39W and 70W and it has a rating of up to 12,000 hours.

Accent Lighting

Effective accent lighting involves the proper selection and placement of lamps, optional use of control media and establishing appropriate contrast ratios between the illuminated object and its background.



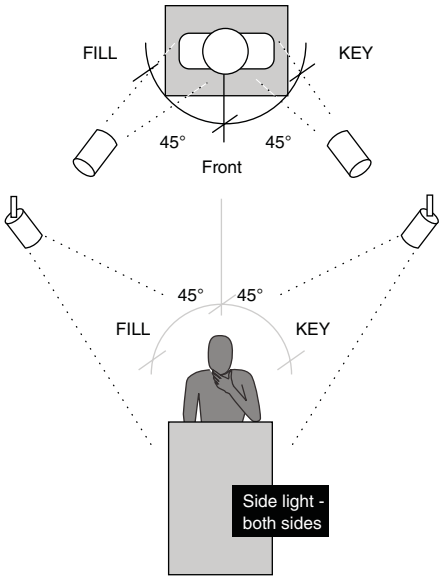
Accent Lighting of Three Dimensional Objects

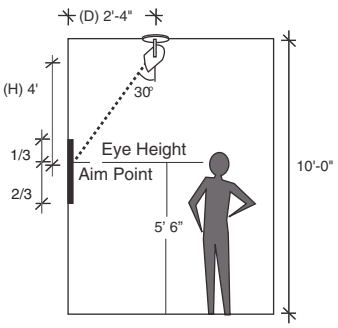
"Key and fill" is an effective technique for accentuating the three-dimensional character of an object. This technique entails the use of key and fill lighting from two sides of the object. Key lighting is a hard (more direct and intense beam) accent light used to create shadows and to highlight an object's form and texture. Fill light is a softer (wider beam) light thrown from the opposite side of the object to soften the shadows, making the object appear more natural. Other techniques can also be applied to further accentuate the unique character of an object, such as silhouetting an object from behind.

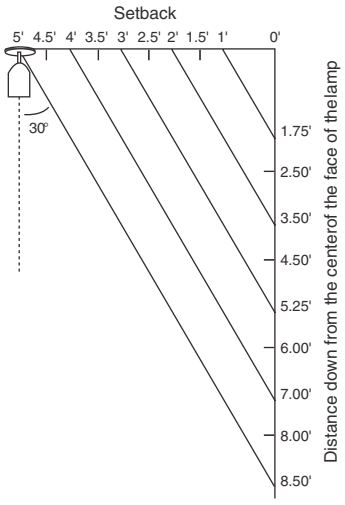
Accent Lighting of Flat Artwork

Flat art is ideally illuminated by a source striking its surface at a 30° angle. This eliminates veiling reflection (glare) from bouncing into a viewer's eye, and prevents casting a shadow of the viewer onto the artwork. To determine the correct distance from the wall you can use the formula below or quick reference chart.

The formula below is used to calculate luminaire distance from the wall for a 30° aiming angle where H = Distance from the center of the face of the lamp to the aiming point and D = Distance from the wall to the center of the face of the lamp. (The aiming point should be 1/3 down from the top of the picture or object.) D = H x .5774
Example: D = 4.0' x .5774 = 2.31' or approximately 2'-4"







Applying and Controlling Light

Contrast Ratios

Light on an object must be a minimum of three times brighter than its surrounding area for the object to be perceived as being illuminated. Five to one is generally preferred and contrasts of twenty to one or greater can be desirable for more dramatic lighting effects.

3:1 Contrast Ratio

5:1 Contrast Ratio

20:1 Contrast Ratio

Light Control Lenses

While in many applications the distribution of bare lamps is perfectly acceptable, most Juno Trac fixtures accept control lenses that can be used to create more sophisticated, dramatic effects and greater visual impact.

Bare Lamp
Many bare lamps produce irregular round beam shapes and have light/dark striations.

Uniformity Lens
This fine-prism lens eliminates striations without noticeably altering the size of the beam or light output.

Diffusion Lens
Frosted lens softens the beam and lightly diffuses the pattern.

Prismatic Spread Lens
This course prismatic lens eliminates striations and enlarges the size of the beam. It is especially useful with narrow flood distribution lamps.

Linear Spread Lens
The linear prisms on this lens elongate the beam pattern into a wide oval pattern. It can be rotated so the beam is elongated either horizontally or vertically.

UV Filter
This dichroic filter blocks virtually all transmission below 400 nanometers, the range most responsible for UV degradation.

Color Filters
These change white light into colored using colored glass. This is the lowest cost method of creating colored light effects.

Dichroic Filters
Dichroic filters are multi-layer thin-film coatings deposited on a glass substrate. Their light transmission levels are substantially higher than simple glass color filters, providing considerable savings in energy and money. Dichroic filters are highly color selective producing brighter, cleaner appearing, saturated color.

Daylight Color Correction Filter
Dichroic filter corrects color temperature to approximately 4250K.

Incandescent Color Correction Filter
Dichroic filter corrects color temperature to approximately 2700K.

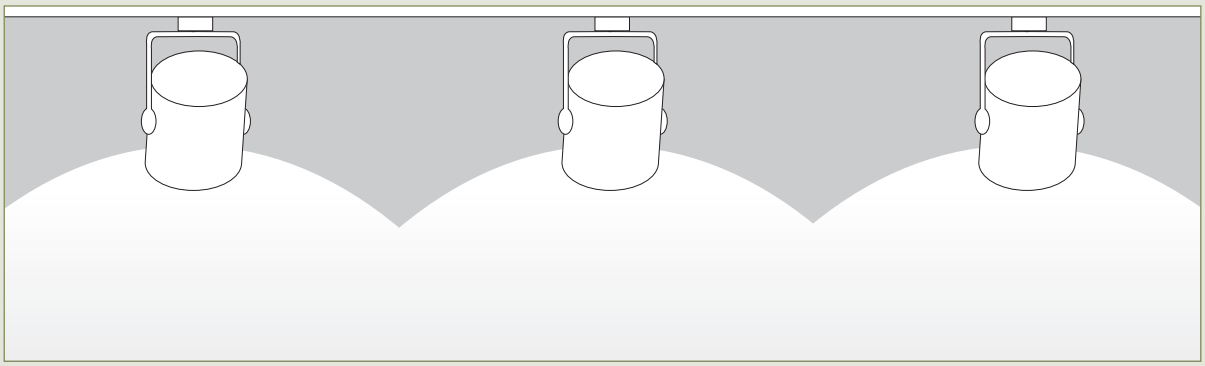
Note: Preservation and light degradation are of major concern when lighting any type of art. Light levels and heat associated with light sources are critical issues with respect to art media—paper, wood, glues, watercolor pigments, lacquers, textiles and organic materials. If preservation is a concern, you should consult a professional in this field.

Wall Lighting

Effective wall lighting can be accomplished using either directional lamps with wider distributions or special wall wash luminaires using omni-directional lamps positioned in special fixture reflector optics.

Wall Washing

Wall washing provides even, diffuse illumination of vertical surfaces such as walls, perimeter merchandise displays, signage and large artwork. To achieve uniform wall washing, trac fixtures using lamps with flood distribution patterns are generally spaced apart equal to the distance the trac is mounted away from the wall. The trac should be positioned to preserve an approximate 30° aiming angle. Refer to the setback chart in the Accent Lighting section for placement guidelines. Trac fixtures can also be spaced further apart to create a more distinct pattern of "light scallops" to create visual interest or a sense of scale.



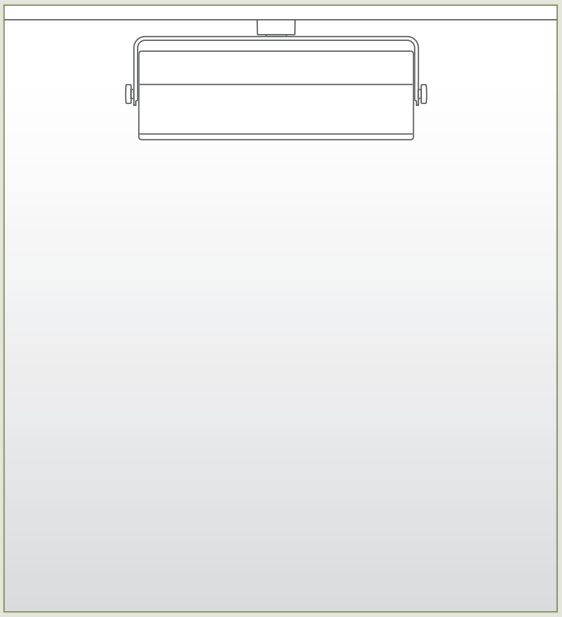
Directional Flood Lamps

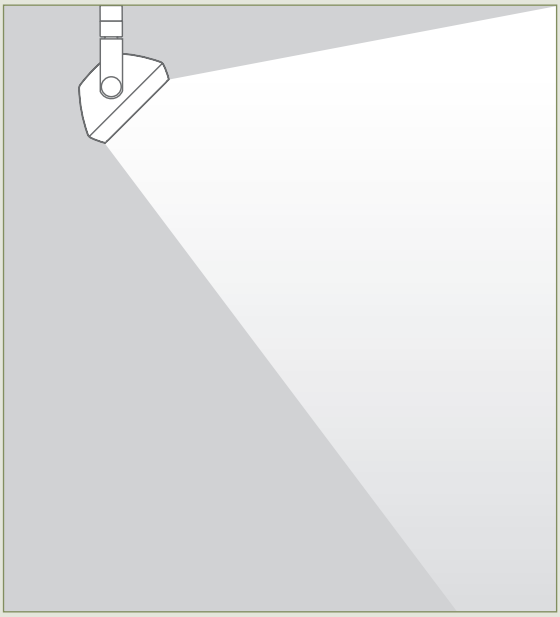
Incandescent R/R, PAR, and MR16 lamps can be effectively used to illuminate vertical surfaces creating different effects.

Grazing

By placing trac 6"-12" from a wall, a more dramatic grazing effect can be achieved on textured surfaces such as brick, stone or stucco. PAR and MR lamps are good sources for grazing.

(Note: Grazing is not recommended on smooth surfaces, as it will magnify any surface imperfections.)





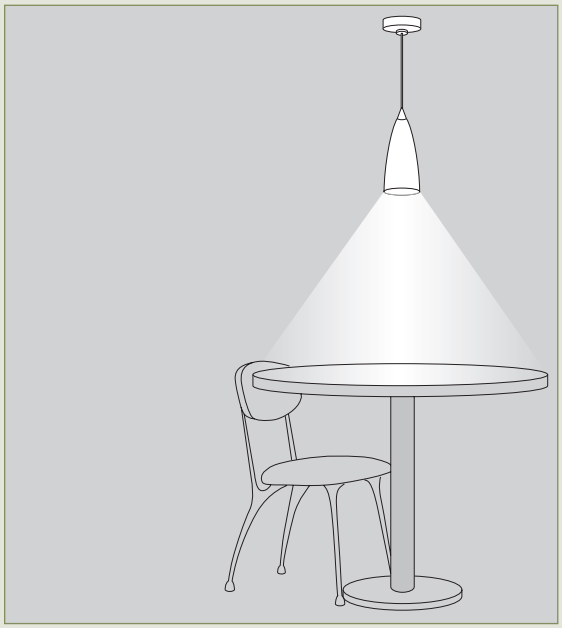
Rectangular Flood Fixtures

Rectangular flood fixtures using fluorescent or ceramic arc metal halide lamps create the most energy efficient, uniform wall illumination possible. Rectangular floods are the most appropriate solution for retail and commercial spaces and are often used in combination with spotlights to highlight merchandise or objects for the best blend of efficiency and visual impact. Refer to the photometric section in this catalog for charts showing recommended fixture spacings, trac setback from the wall and illumination levels.

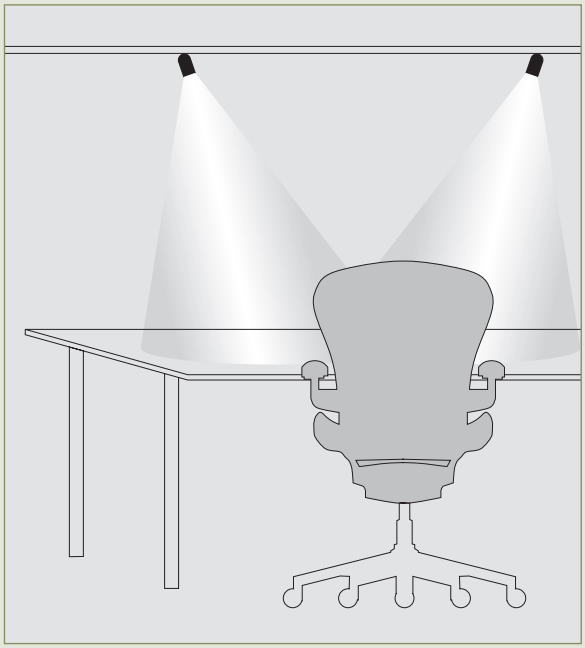
Task Lighting

Task lighting can be accomplished using either spotlights or decorative pendants.

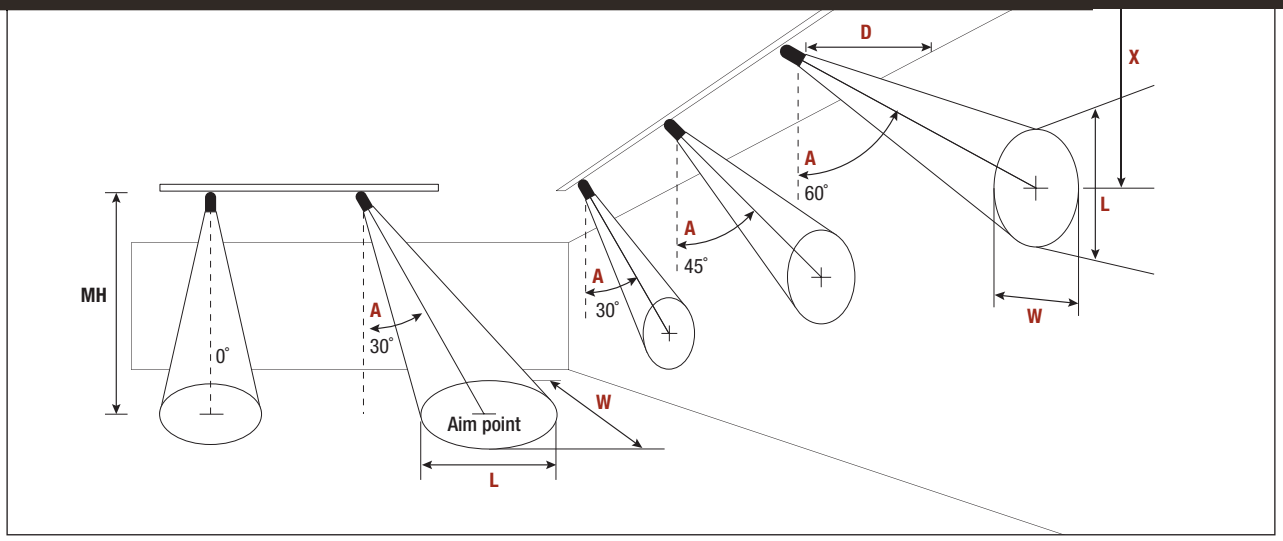
Task Lighting and Decorative Pendants
Decorative pendants provide both functional task lighting and add a visual interest and aesthetic character into a space. Pendants can be used singularly to light over small tables such as in an intimate restaurant or in multiples to light elongated surfaces such as kitchen island counters or retail cash wraps or feature displays. For tables, the bottom edge of the pendants should be mounted 28" to 34" above the table. For work counters, the bottom edge of the pendants should be mounted 30" to 36" above the counter top.



Task Lighting with Spotlights
When lighting tasks with trac spotlights, the fixtures should be placed on each side of the task to minimize veiling reflections and glare. Avoid placing fixtures directly over a person's head so as not to create unnatural or unpleasant facial shadows. Complimentary fill lighting from another diffuse source is recommended. For illuminating countertops, place the trac between the cabinet face and the front edge of the counter to avoid having the viewer standing in their own shadow. Since trac hangs below the ceiling, be mindful to allow enough clearance for cabinet doors to open.



Photometric Data



A	Aiming angle of fixture/lamp, measured from 0°
CBCP	Centerbeam candlepower
D	Distance from fixture/lamp to wall
FC	Footsteps at beam center (aim point)
L	Length of beam*
MH	Vertical distance from the fixture/lamp to the horizontal surface
W	Width of beam*
X	Vertical distance to the center of the beam measured from ceiling**

*The beam spread in degrees and the beam "L" and "W" in the following tables are computed at 50% of center-beam candlepower and represent areas of "effective illumination."

**In vertical aiming applications, aim point (UC) is determined by dividing distance from the wall (D) by the tangent of the desired aim angle (A) (0.577 for 30˚, 1.0 for 45˚, 1.732 for 60˚)

The photometric charts on the following pages provide illumination levels (FC) and beam size (in feet) for lamps of various wattages and beam patterns. Data is given for lamps aimed at both horizontal and vertical surfaces.

Maximum candlepower and rated life is also indicated for each lamp. Lamp performance is based on bare lamp photometrics provided by lamp manufacturers. Additional information may be obtained from Juno. The above illustration defines the table headings used on the following pages.

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Line Voltage Incandescent & Halogen Lamps 250
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LED Cylindra™ and Mini-Cylinder Spotlight

Cylindra™ 22W LED (T253LED)

Fixture	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
Cylindra 22W LED, 3000K Spot	SP	10°	50000	20688	8	323	1.4	1.4	210	1.9	1.6	4	162	6.9	2.9	1.4	457	4.0	1.4	1.0	6	373	3.5	1.4	1.2
					10	207	1.7	1.7	134	2.3	2.0	6	72	10.4	4.3	2.1	203	6.0	2.1	1.5	9	166	5.2	2.1	1.8
					12	144	2.1	2.1	93	2.8	2.4	8	40	13.9	5.7	2.8	114	8.0	2.8	2.0	12	93	6.9	2.8	2.4
					14	106	2.4	2.4	69	3.3	2.8	10	26	17.3	7.2	3.5	73	10.0	3.5	2.5	15	60	8.7	3.5	3.0
					16	81	2.8	2.8	52	3.7	3.2	12	18	20.8	8.6	4.2	51	12.0	4.2	3.0	18	41	10.4	4.2	3.6
Cylindra 22W LED, 3000K Narrow Flood	NFL	23°	50000	5119	4	320	1.6	1.6	208	2.2	1.9	2	160	3.5	3.7	1.6	452	2.0	1.7	1.2	4	208	2.3	2.2	1.9
					6	142	2.4	2.4	92	3.3	2.8	3	71	5.2	5.6	2.4	201	4.0	2.5	1.7	6	92	3.5	3.3	2.8
					8	80	3.3	3.3	52	4.4	3.8	4	40	6.9	7.4	3.3	113	6.0	3.4	2.3	8	52	4.6	4.4	3.8
					10	51	4.1	4.1	33	5.5	4.7	5	26	8.7	9.3	4.1	72	8.0	4.2	2.9	10	33	5.8	5.5	4.7
					12	36	4.9	4.9	23	6.6	5.6	6	18	10.4	11.2	4.9	50	10.0	5.1	3.5	12	23	6.9	6.6	5.6
Cylindra 22W LED, 3000K Wide Flood	WFL	53°	50000	1139	3	127	3.0	3.0	82	4.3	3.5	2	36	3.5	**	4.0	101	2.0	5.3	2.8	2	185	1.2	2.9	2.3
					4	71	4.0	4.0	46	5.8	4.6	3	16	5.2	**	6.0	45	3.0	8.0	4.2	3	82	1.7	4.3	3.5
					5	46	5.0	5.0	30	7.2	5.8	4	9	6.9	**	8.0	25	4.0	10.6	5.6	4	46	2.3	5.8	4.6
					6	32	6.0	6.0	21	8.7	6.9	5	6	8.7	**	10.0	16	5.0	13.3	7.1	5	30	2.9	7.2	5.8
					7	23	7.0	7.0	15	10.1	8.1	6	4	10.4	**	12.0	11	6.0	15.9	8.5	6	21	3.5	8.7	6.9

For 2700K use 0.95 multiplier; for 4100K use 1.11 multiplier.

Cylindra™ 15W LED (T251LED)

Fixture	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
Cylindra 15W LED, 3000K Spot	SP	16°	50000	5381	4	336	1.1	1.1	218	1.5	1.3	3	75	5.2	3.6	1.7	211	3.0	1.7	1.2	4	218	2.3	1.5	1.3
					6	149	1.7	1.7	97	2.3	1.9	4	42	6.9	4.8	2.2	119	4.0	2.3	1.6	6	97	3.5	2.3	1.9
					8	84	2.2	2.2	55	3.0	2.6	5	27	8.7	6.0	2.8	76	5.0	2.9	2.0	8	55	4.6	3.0	2.6
					10	54	2.8	2.8	35	3.8	3.2	6	19	10.4	7.2	3.4	53	6.0	3.4	2.4	10	35	5.8	3.8	3.2
					12	37	3.4	3.4	24	4.5	3.9	12	14	12.1	8.4	3.9	39	7.0	4.0	2.8	12	24	6.9	4.5	3.9
Cylindra 15W LED, 3000K Narrow Flood	NFL	19°	50000	3896	4	244	1.3	1.3	158	1.8	1.5	2	122	3.5	2.9	1.3	344	2.0	14	0.9	4	158	2.3	1.8	1.5
					6	108	2.0	2.0	70	2.7	2.3	3	54	5.2	4.4	2.0	143	3.0	2.1	1.4	6	70	3.5	2.7	2.3
					7	61	2.7	2.7	40	3.6	3.1	4	30	6.9	5.8	2.7	86	4.0	2.8	1.9	8	40	4.6	3.6	3.1
					10	39	3.3	3.3	25	4.5	3.9	5	19	8.7	7.3	3.3	55	5.0	3.4	2.4	10	25	5.8	4.5	3.9
					12	27	4.0	4.0	18	5.4	4.6	6	14	10.4	8.8	4.0	38	6.0	4.1	2.8	12	18	6.9	5.4	4.6
Cylindra 15W LED, 3000K Flood	FL	38°	50000	1020	3	113	2.1	2.1	74	2.9	2.4	1	128	1.7	4.3	1.4	361	1.0	1.6	1.0	2	166	1.2	1.9	1.6
					4	64	2.8	2.8	41	3.8	3.2	2	32	3.5	8.6	2.8	90	2.0	3.1	1.9	3	74	1.7	2.9	2.4
					5	41	3.4	3.4	27	4.8	4.0	3	14	5.2	12.8	4.1	40	3.0	4.7	2.9	4	41	2.3	3.8	3.2
					6	28	4.1	4.1	18	5.7	4.8	4	8	6.9	17.1	5.5	23	4.0	6.3	3.9	5	27	2.9	4.8	4.0
					7	21	4.8	4.8	14	6.7	5.6	5	5	8.7	21.4	6.9	14	5.0	7.8	4.9	6	18	3.5	5.7	4.8

For 2700K use 0.95 multiplier; for 4100K use 1.11 multiplier.

Mini-Cylinder Spotlights 6W LED (TF114LED, TL114LED, TQJ114)

Fixture	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
TF114 TL114 TQJ114 3000K Spot	SP	16°	50000	1292	2	323	0.6	0.6	210	0.8	0.6	1	162	1.7	1.2	0.6	457	1.0	0.6	0.4	2	210	1.2	0.8	0.6
					4	81	1.1	1.1	52	1.5	1.3	2	40	3.5	2.4	1.1	114	2.0	1.1	0.8	3	93	1.7	1.1	1.0
					6	36	1.7	1.7	23	2.3	1.9	3	18	5.2	3.6	1.7	51	3.0	1.7	1.2	4	52	2.3	1.5	1.3
					8	20	2.2	2.2	13	3.0	2.6	4	10	6.9	4.8	2.2	29	4.0	2.3	1.6	5	34	2.9	1.9	1.6
					10	13	2.8	2.8	8	3.8	3.2	5	6	8.7	6.0	2.8	18	5.0	2.9	2.0	6	23	3.5	2.3	1.9
TF114 TL114 TQJ114 3000K Narrow Flood	NFL	22°	50000	764	2	191	0.8	0.8	124	1.0	0.9	1	96	1.7	1.8	0.8	270	1.0	0.8	0.5	1	496	0.6	0.5	0.4
					4	48	1.6	1.6	31	2.1	1.8	1.5	42	2.6	2.6	1.2	120	1.5	1.2	0.8	2	124	1.2	1.0	0.9
					6	21	2.3	2.3	14	3.1	2.7	2	24	3.5	3.5	1.6	68	2.0	1.6	1.1	3	55	1.7	1.6	1.3
					8	12	3.1	3.1	8	4.2	3.6	2.5	15	4.3	4.4	1.9	43	2.5	2.0	1.4	4	31	2.3	2.1	1.8
					10	8	3.9	3.9	5	5.2	4.5	3	11	5.2	5.3	2.3	30	3.0	2.4	1.6	5	20	2.9	2.6	2.2
TF114 TL114 TQJ114 3000K Flood	FL	38°	50000	340	2	85	1.4	1.4	55	1.9	1.6	0.5	170	0.9	2.1	0.7	481	0.5	0.8	0.5	1	221	0.6	1.0	0.8
					3	38	2.1	2.1	25	2.9	2.4	1	43	1.7	4.3	1.4	120	1.0	1.6	1.0	2	55	1.2	1.9	1.6
					4	21	2.8	2.8	14	3.8	3.2	1.5	19	2.6	6.4	2.1	53	1.5	2.3	1.5	3	25	1.7	2.9	2.4
					5	14	3.4	3.4	9	4.8	4.0	2	11	3.5	8.6	2.8	30	2.0	3.0	1.9	4	14	2.3	3.8	3.2
					6	9	4.1	4.1	6	5.7	4.8	2.5	7	4.3	10.7	3.4	19	2.5	3.9	2.4	5	9	2.9	4.8	4.0

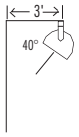
For 2700K use 0.95 multiplier; for 4100K use 1.11 multiplier.

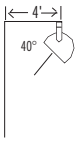
** Due to steep aiming angle, length of beam extends beyond 25'. Each angle listed is measured from 0° vertical.

See website for details, www.junolightinggroup.com

LED Wall Wash/Flood Footcandles on Wall from Multiple Units

Trac-Master® 35W LED Wall Wash/Flood (TM256LED)

	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
		0	1'	2'	3'	4'	5'	4'			5'		
Trac 3' from Wall	1'	32	26	18	12	6	3	44	39	44	37	33	37
	2'	32	30	21	13	7	3	46	45	46	39	35	39
	3'	39	35	24	14	8	4	57	53	57	48	39	48
	4'	28	24	18	12	7	4	44	42	44	37	32	37
	5'	16	15	12	7	6	4	29	30	29	24	23	24
	6'	9	9	8	6	5	3	20	21	20	16	17	16
	7'	5	5	5	4	3	2	14	14	14	11	12	11
35W LED 3000K CCT	8'	3	3	3	3	2	2	10	10	10	8	8	8
	9'	2	2	2	2	1	1	7	7	7	6	6	6

	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
		0	1'	2'	3'	4'	5'	5'			6'		
Trac 4' from Wall	1'	24	21	14	11	7	4	33	26	33	29	23	29
	2'	15	13	10	10	7	4	24	23	24	21	21	21
	3'	20	20	16	11	8	5	30	30	30	26	24	26
	4'	22	20	17	12	8	5	34	32	34	29	25	29
	5'	18	16	14	10	7	5	29	28	29	25	22	25
	6'	12	11	10	8	6	4	21	21	21	19	18	19
	7'	8	8	7	6	5	4	16	17	16	14	14	14
35W LED 3000K CCT	8'	5	5	5	4	4	3	12	13	12	10	11	10
	9'	3	4	3	3	3	2	9	10	9	8	8	8

For 2700K use 0.94 multiplier; for 3500K use 1.07 multiplier; for 4100K use 1.13 multiplier.

Ceramic Metal Halide MR16, PAR Lamps

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
20W MR16 Ceramic Metal Halide	SP	12°	12000	9000	10	90	2.1	2.1	58	2.8	2.4	4	70	6.9	3.5	1.7	199	4.0	1.7	1.2	6	162	3.5	1.1	1.0
					12	63	2.5	2.5	41	3.4	2.9	6	31	10.4	5.2	2.5	88	6.0	2.6	1.8	9	72	5.2	1.7	1.5
					14	46	2.9	2.9	30	3.9	3.4	8	18	13.9	7.0	3.4	50	8.0	3.4	2.4	12	41	6.9	2.3	1.9
					16	35	3.4	3.4	23	4.5	3.9	10	11	17.3	8.7	4.2	32	10.0	4.3	3.0	15	26	8.7	2.8	2.4
					18	28	3.8	3.8	18	5.1	4.4	12	8	20.8	10.4	5.0	22	12.0	5.1	3.6	18	18	10.4	3.4	2.9
	NFL	25°	12000	2900	8	45	3.5	3.5	29	4.8	4.1	2	91	3.5	4.2	1.8	256	2.0	1.9	1.3	3	209	1.7	1.2	1.0
					10	29	4.4	4.4	19	6.0	5.1	4	23	6.9	8.3	3.5	64	4.0	3.7	2.5	4	118	2.3	2.4	2.0
					12	20	5.3	5.3	13	7.2	6.1	6	10	10.4	12.5	5.3	28	6.0	5.6	3.8	6	52	3.5	3.6	3.1
					14	15	6.2	6.2	10	8.4	7.2	8	6	13.9	16.6	7.1	16	8.0	7.5	5.0	8	29	4.6	4.8	4.1
					16	11	7.1	7.1	7	9.6	8.2	10	4	17.3	20.8	8.9	10	10.0	9.3	6.3	10	19	5.8	6.0	5.1
	FL	40°	12000	1500	8	23	5.8	5.8	15	8.1	6.7	2	47	3.5	9.7	2.9	133	2.0	3.4	2.1	2	244	1.2	2.0	1.7
					10	15	7.3	7.3	10	10.2	8.4	3	21	5.2	14.5	4.4	59	3.0	5.0	3.1	3	108	1.7	3.0	2.5
					12	10	8.7	8.7	7	12.2	10.1	4	12	6.9	19.3	5.8	33	4.0	6.7	4.1	4	61	2.3	4.1	3.4
					14	8	10.2	10.2	5	14.2	11.8	5	8	8.7	24.2	7.3	21	5.0	8.4	5.1	5	39	2.9	5.1	4.2
					16	6	11.6	11.6	4	16.2	13.4	6	5	10.4	**	8.7	15	6.0	10.1	6.2	6	27	3.5	6.1	5.0
39W MR16 Ceramic Metal Halide	SP	12°	12000	16000	10	160	2.1	2.1	104	2.8	2.4	4	125	6.9	3.5	1.7	354	4.0	1.7	1.2	6	289	3.5	1.1	1.0
					12	111	2.5	2.5	72	3.4	2.9	6	56	10.4	5.2	2.5	157	6.0	2.6	1.8	9	128	5.2	1.7	1.5
					14	82	2.9	2.9	53	3.9	3.4	8	31	13.9	7.0	3.4	88	8.0	3.4	2.4	12	72	6.9	2.3	1.9
					16	63	3.4	3.4	41	4.5	3.9	10	20	17.3	8.7	4.2	57	10.0	4.3	3.0	15	46	8.7	2.8	2.4
					18	49	3.8	3.8	32	5.1	4.4	12	14	20.8	10.4	5.0	39	12.0	5.1	3.6	18	32	10.4	3.4	2.9
	NFL	25°	12000	5500	8	86	3.5	3.5	56	4.8	4.1	2	172	3.5	4.2	1.8	486	2.0	1.9	1.3	4	223	2.3	1.2	1.0
					10	55	4.4	4.4	36	6.0	5.1	4	43	6.9	8.3	3.5	122	4.0	3.7	2.5	6	99	3.5	2.4	2.0
					12	38	5.3	5.3	25	7.2	6.1	6	19	10.4	12.5	5.3	54	6.0	5.6	3.8	8	56	4.6	3.6	3.1
					14	28	6.2	6.2	18	8.4	7.2	8	11	13.9	16.6	7.1	30	8.0	7.5	5.0	10	36	5.8	4.8	4.1
					16	21	7.1	7.1	14	9.6	8.2	10	7	17.3	20.8	8.9	19	10.0	9.3	6.3	12	25	6.9	6.0	5.1
	FL	40°	12000	3000	8	47	5.8	5.8	30	8.1	6.7	2	94	3.5	9.7	2.9	265	2.0	3.4	2.1	3	217	1.7	2.0	1.7
					10	30	7.3	7.3	19	10.2	8.4	3	42	5.2	14.5	4.4	118	3.0	5.0	3.1	4	122	2.3	3.0	2.5
					12	21	8.7	8.7	14	12.2	10.1	4	23	6.9	19.3	5.8	66	4.0	6.7	4.1	5	78	2.9	4.1	3.4
					14	15	10.2	10.2	10	14.2	11.8	5	15	8.7	24.2	7.3	42	5.0	8.4	5.1	6	54	3.5	5.1	4.2
					16	12	11.6	11.6	8	16.2	13.4	6	10	10.4	**	8.7	29	6.0	10.1	6.2	7	40	4.0	6.1	5.0
20W PAR20 Ceramic Metal Halide	SP	8°	9000	18000	10	180	1.4	1.4	117	1.9	1.6	4	141	6.9	2.3	1.1	398	4.0	1.1	0.8	6	325	3.5	0.7	0.6
					12	125	1.7	1.7	81	2.2	1.9	6	63	10.4	3.4	1.7	177	6.0	1.7	1.2	9	144	5.2	1.1	1.0
					14	92	2.0	2.0	60	2.6	2.3	8	35	13.9	4.5	2.2	99	8.0	2.2	1.6	12	81	6.9	1.5	1.3
					16	70	2.2	2.2	46	3.0	2.6	10	23	17.3	5.7	2.8	64	10.0	2.8	2.0	15	52	8.7	1.9	1.8
					18	56	2.5	2.5	36	3.4	2.9	12	16	20.8	6.8	3.4	44	12.0	3.4	2.4	18	36	10.4	2.2	1.9
	FL	30°	9000	2800	4	175	2.1	2.1	114	2.9	2.5	2	88	3.5	5.5	2.1	247	2.0	2.3	1.5	4	114	2.3	1.5	1.2
					6	78	3.2	3.2	51	4.4	3.7	4	22	6.9	10.9	4.3	62	4.0	4.6	3.0	6	51	3.5	2.9	2.5
					8	44	4.3	4.3	28	5.9	5.0	6	10	10.4	16.4	6.4	27	6.0	6.9	4.5	8	28	4.6	4.4	3.7
					10	28	5.4	5.4	18	7.3	6.2	8	5	13.9	21.9	8.6	15	8.0	9.2	6.1	10	18	5.8	5.9	5.0
					12	19	6.4	6.4	13	8.8	7.4	10	4	17.3	**	10.7	10	10.0	11.5	7.6	12	13	6.9	7.3	6.2
39W PAR20 Ceramic Metal Halide	SP	10°	9000	23000	10	230	1.7	1.7	149	2.3	2.0	4	180	6.9	2.9	1.4	508	4.0	1.4	1.0	6	415	3.5	0.9	0.8
					12	160	2.1	2.1	104	2.8	2.4	6	80	10.4	1.3	2.1	226	6.0	2.1	1.5	9	184	5.2	1.4	1.2
					14	117	2.4	2.4	76	3.3	2.8	8	45	13.9	5.7	2.8	127	8.0	2.8	2.0	12	104	6.9	1.9	1.6
					16	90	2.8	2.8	58	3.7	3.2	10	29	17.3	7.2	3.5	81	10.0	3.5	2.5	15	66	8.7	2.3	2.0
					18	71	3.1	3.1	46	4.2	3.6	12	20	20.8	8.6	4.2	56	12.0	4.2	3.0	18	46	10.4	2.8	2.4
	FL	30°	9000	5000	6	139	3.2	3.2	90	4.4	3.7	2	156	3.5	5.5	2.1	442	2.0	2.3	1.5	4	203	2.3	1.5	1.2
					7	102	3.8	3.8	66	5.1	4.3	4	39	6.9	10.9	4.3	110	4.0	4.6	3.0	6	90	3.5	2.9	2.5
					8	78	4.3	4.3	51	5.9	5.0	6	17	10.4	16.4	6.4	49	6.0	6.9	4.5	8	51	4.6	4.4	3.7
					9	62	4.8	4.8	40	6.6	5.6	8	10	13.9	21.9	8.6	28	8.0	9.2	6.1	10	32	5.8	5.9	5.0
					10	50	5.4	5.4	32	7.3	6.2	10	6	17.3	**	10.7	18	10.0	11.5	7.6	12	23	6.9	7.3	6.2

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

Ceramic Metal Halide PAR Lamps

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
20W PAR30L Ceramic Metal Halide	SP	10°	9000	19800	8	309	1.4	1.4	201	1.9	1.6	3	275	5.2	2.1	1.0	778	3.0	1.1	0.7	6	357	3.5	0.7	0.6
					10	198	1.7	1.7	129	2.3	2.0	4	155	6.9	2.9	1.4	438	4.0	1.4	1.0	8	201	4.6	0.9	0.8
					12	138	2.1	2.1	89	2.8	2.4	6	69	10.4	4.3	2.1	194	6.0	2.1	1.5	10	129	5.8	1.4	1.2
					14	101	2.4	2.4	66	3.3	2.8	8	39	13.9	5.7	2.8	109	8.0	2.8	2.0	12	89	6.9	1.9	1.6
					16	77	2.8	2.8	50	3.7	3.2	10	25	17.3	7.2	3.5	70	10.0	3.5	2.5	14	66	8.1	2.3	2.0
	SP	15°	9000	14500	8	227	2.1	2.1	147	2.8	2.4	3	201	5.2	3.3	1.6	570	3.0	1.6	1.1	6	262	3.5	1.1	0.9
					10	145	2.6	2.6	94	3.5	3.0	4	113	6.9	4.4	2.1	320	4.0	2.1	1.5	8	147	4.6	1.4	1.2
					12	101	3.2	3.2	65	4.2	3.6	6	50	10.4	6.7	3.2	142	6.0	3.2	2.2	10	94	5.8	2.1	1.8
					14	74	3.7	3.7	48	4.9	4.3	8	28	13.9	8.9	4.2	80	8.0	4.3	3.0	12	65	6.9	2.8	2.4
					16	57	4.2	4.2	37	5.6	4.9	10	18	17.3	11.1	5.3	51	10.0	5.4	3.7	14	48	8.1	3.5	3.0
	FL	25°	9000	4900	4	306	1.8	1.8	199	2.4	2.0	2	153	3.5	4.2	1.8	433	2.0	1.9	1.3	3	354	1.7	1.2	1.0
					6	136	2.7	2.7	88	3.6	3.1	3	68	5.2	6.2	2.7	192	3.0	2.8	1.9	4	199	2.3	1.8	1.5
					8	77	3.5	3.5	50	4.8	4.1	4	38	6.9	8.3	3.5	108	4.0	3.7	2.5	5	127	2.9	2.4	2.0
					10	49	4.4	4.4	32	6.0	5.1	5	25	8.7	10.4	4.4	69	5.0	4.7	3.1	6	88	3.5	3.0	2.6
					12	34	5.3	5.3	22	7.2	6.1	6	17	10.4	12.5	5.3	48	6.0	5.6	3.8	7	65	4.0	3.6	3.1
39W PAR30L Ceramic Metal Halide	SP	10°	9000	44000	10	440	1.7	1.7	286	2.3	2.0	4	344	6.9	2.9	1.4	972	4.0	1.4	1.0	6	794	3.5	0.9	0.8
					12	306	2.1	2.1	198	2.8	2.4	6	153	10.4	4.3	2.1	432	6.0	2.1	1.5	9	353	5.2	1.4	1.2
					14	224	2.4	2.4	146	3.3	2.8	8	86	13.9	5.7	2.8	243	8.0	2.8	2.0	12	198	6.9	1.9	1.6
					16	172	2.8	2.8	112	3.7	3.2	10	55	17.3	7.2	3.5	156	10.0	3.5	2.5	15	127	8.7	2.3	2.0
					18	136	3.1	3.1	88	4.2	3.6	12	38	20.8	8.6	4.2	108	12.0	4.2	3.0	18	88	10.4	2.8	2.4
	FL	30°	9000	7400	6	206	3.2	3.2	134	4.4	3.7	2	231	3.5	5.5	2.1	654	2.0	2.3	1.5	4	300	2.3	1.5	1.2
					8	116	4.3	4.3	75	5.9	5.0	4	58	6.9	10.9	4.3	164	4.0	4.6	3.0	6	134	3.5	2.9	2.5
					10	74	5.4	5.4	48	7.3	6.2	6	26	10.4	16.4	6.4	73	6.0	6.9	4.5	8	75	4.6	4.4	3.7
					12	51	6.4	6.4	33	8.8	7.4	8	14	13.9	21.9	8.6	41	8.0	9.2	6.1	10	48	5.8	5.9	5.0
					14	38	7.5	7.5	25	10.2	8.7	10	9	17.3	**	10.7	26	10.0	11.5	7.6	12	33	6.9	7.3	6.2
70W PAR30L Ceramic Metal Halide	SP	10°	11000	68000	10	680	1.7	1.7	442	2.3	2.0	6	236	10.4	4.3	2.1	668	6.0	2.1	1.5	9	545	5.2	1.4	1.2
					14	347	2.4	2.4	225	3.3	2.8	8	133	13.9	5.7	2.8	376	8.0	2.8	2.0	12	307	6.9	1.9	1.6
					18	210	3.1	3.1	136	4.2	3.6	10	85	17.3	7.2	3.5	240	10.0	3.5	2.5	15	196	8.7	2.3	2.0
					22	140	3.8	3.8	91	5.1	4.4	12	59	20.8	8.6	4.2	167	12.0	4.2	3.0	18	136	10.4	2.8	2.4
					24	118	4.2	4.2	77	5.6	4.8	14	43	24.2	10.0	1.9	123	14.0	4.9	3.5	21	100	12.1	3.3	2.8
	FL	40°	11000	10000	6	278	4.4	4.4	180	6.1	5.0	2	313	3.5	9.7	2.9	884	2.0	3.4	2.1	3	722	1.7	2.0	1.7
					8	156	5.8	5.8	101	8.1	6.7	3	139	5.2	14.5	4.4	393	3.0	5.0	3.1	4	406	2.3	3.0	2.5
					10	100	7.3	7.3	65	10.2	8.4	4	78	6.9	19.3	5.8	221	4.0	6.7	4.1	5	260	2.9	4.1	3.4
					12	69	8.7	8.7	45	12.2	10.1	5	50	8.7	24.2	7.3	141	5.0	8.4	5.1	6	180	3.5	5.1	4.2
					14	51	10.2	10.2	33	14.2	11.8	6	35	10.4	**	8.7	98	6.0	10.1	6.2	7	133	4.0	6.1	5.0
70W PAR38 Ceramic Metal Halide	SP	15°	12000	40000	10	400	2.6	2.6	260	3.5	3.0	4	313	6.9	4.4	2.1	884	4.0	2.1	1.5	6	722	3.5	1.4	1.2
					12	278	3.2	3.2	180	4.2	3.6	6	139	10.4	6.7	3.2	393	6.0	3.2	2.2	9	321	5.2	2.1	1.8
					14	204	3.7	3.7	133	4.9	4.3	8	78	13.9	8.9	4.2	221	8.0	4.3	3.0	12	180	6.9	2.8	2.4
					16	156	4.2	4.2	101	5.6	4.9	10	50	17.3	11.1	5.3	141	10.0	5.4	3.7	15	115	8.7	3.5	3.0
					18	123	4.7	4.7	80	6.4	5.5	12	35	20.8	13.3	6.3	98	12.0	6.4	4.5	18	80	10.4	4.2	3.6
	FL	25°	12000	16000	8	250	3.5	3.5	162	4.8	4.1	2	500	3.5	4.2	1.8	1414	2.0	1.9	1.3	4	650	2.3	1.2	1.0
					10	160	4.4	4.4	104	6.0	5.1	4	125	6.9	8.3	3.5	354	4.0	3.7	2.5	6	289	3.5	2.4	2.0
					12	111	5.3	5.3	72	7.2	6.1	6	56	10.4	12.5	5.3	157	6.0	5.6	3.8	8	162	4.6	3.6	3.1
					14	82	6.2	6.2	53	8.4	7.2	8	31	13.9	16.6	7.1	88	8.0	7.5	5.0	10	104	5.8	4.8	4.1
					16	63	7.1	7.1	41	9.6	8.2	10	20	17.3	20.8	8.9	57	10.0	9.3	6.3	12	72	6.9	6.0	5.1
	WFL	65°	12000	3500	4	219	5.1	5.1	142	7.9	5.9	1	438	1.7	**	2.5	1237	1.0	4.3	1.8	2	568	1.2	2.0	1.5
					6	97	7.6	7.6	63	11.8	8.8	2	109	3.5	**	5.1	309	2.0	8.6	3.6	3	253	1.7	3.9	2.9
					8	55	10.2	10.2	36	15.7	11.8	3	49	5.2	**	7.6	137	3.0	12.9	5.4	4	142	2.3	5.9	4.4
					10	35	12.7	12.7	23	19.6	14.7	4	27	6.9	**	10.2	77	4.0	17.2	7.2	5	91	2.9	7.9	5.9
					12	24	15.3	15.3	16	**	17.7	5	18	8.7	**	12.7	49	5.0	**	9.0	6	63	3.5	9.8	7.4
100W PAR38 Ceramic Metal Halide	SP	15°	12000	58000	10	580	2.6	2.6	377	3.5	3.0	4	453	6.9	4.4	2.1	1282	4.0	2.1	1.5	6	1046	3.5	1.4	1.2
					12	296	3.7	3.7	192	4.9	4.3	6	113	13.9	8.9	4.2	320	8.0	4.3	3.0	8	589	4.6	2.8	2.4
					14	179	4.7	4.7	116	6.4	5.5	8	73	17.3	11.1	5.3	205	10.0	5.4	3.7	12	262	6.9	3.5	3.0
					16	120	5.8	5.8	78	7.8	6.7	10	50	20.8	13.3	6.3	142	12.0	6.4	4.5	16	147	9.2	4.2	3.6
					18	86	6.8	6.8	56	9.2	7.9	12	28	**	17.8	8.4	80	16.0	8.6	6.0	20	94	11.5	5.6	4.9
	FL	25°	12000	25000	8	391	3.5	3.5	254	4.8	4.1	3	347	5.2	6.2	2.7	982	3.0	2.8	1.9	4	1015	2.3	1.8	1.5
					10	250	4.4	4.4	162	6.0	5.1	4	195	6.9	8.3	3.5	552	4.0	3.7	2.5	5	650	2.9	2.4	2.0
					12	174	5.3	5.3	113	7.2	6.1	6	87	10.4	12.5	5.3	246	6.0	5.6	3.8	6	451	3.5	3.6	3.1
					14	128	6.2	6.2	83	8.4	7.2	8	49	13.9	16.6	7.1	138	8.0	7.5	5.0	8	254	4.6	4.8	4.1
					16	98	7.1	7.1	63	9.6	8.2	10	31	17.3	20.8	8.9	88	10.0	9.3	6.3	10	162	5.8	6.0	5.1
	WFL	60°	12000	6000	6	167	6.9	6.9	108	10.4	8.0	2	188	3.5	**	4.6	530	2.0	6.9	3.3	2	974	1.2	3.5	2.7
					8	94	9.2	9.2	61	13.9	10.7	3	83	5.2	**	6.9	236	3.0	10.4	4.9	3	433	1.7	5.2	4.0
					10	60	11.5	11.5	39	17.3	13.3	4	47	6.9	**	9.2	133	4.0	13.9	6.5	4	244	2.3	6.9	5.3
					12	42	13.9	13.9	27	20.8	16.0	5	30	8.7	**	11.5	85	5.0	17.3	8.2	5	156	2.9	8.7	6.7
					14	31	16.2	16.2	20	24.2	18.7	6	21	10.4	**	13.9	59	6.0	20.8	9.8	6	108	3.5	10.4	8.0

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

See website for details, www.junolightinggroup.com

Ceramic Metal Halide PAR and R-111 Lamps

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
150W PAR38	SP	15°	12000	50000	10	500	2.6	2.6	325	3.5	3.0	4	391	6.9	4.4	2.1	1105	4.0	2.1	1.5	8	507	4.6	1.4	1.2
Ceramic					14	255	3.7	3.7	166	4.9	4.3	8	98	13.9	8.9	4.2	276	8.0	4.3	3.0	12	226	6.9	2.8	2.4
Metal Halide					18	154	4.7	4.7	100	6.4	5.5	10	63	17.3	11.1	5.3	177	10.0	5.4	3.7	16	127	9.2	3.5	3.0
					22	103	5.8	5.8	67	7.8	6.7	12	43	20.8	13.3	6.3	123	12.0	6.4	4.5	20	81	11.5	4.2	3.6
					26	74	6.8	6.8	48	9.2	7.9	16	24	**	17.8	8.4	69	16.0	8.6	6.0	24	56	13.9	5.6	4.9
	FL	25°	12000	28000	8	438	3.5	3.5	284	4.8	4.1	3	389	5.2	6.2	2.7	1100	3.0	2.8	1.9	6	505	3.5	1.2	1.0
					10	280	4.4	4.4	182	6.0	5.1	4	219	6.9	8.3	3.5	619	4.0	3.7	2.5	8	284	4.6	2.4	2.0
					12	194	5.3	5.3	126	7.2	6.1	6	97	10.4	12.5	5.3	275	6.0	5.6	3.8	10	182	5.8	3.6	3.1
					14	143	6.2	6.2	93	8.4	7.2	8	55	13.9	16.6	7.1	155	8.0	7.5	5.0	12	126	6.9	4.8	4.1
					16	109	7.1	7.1	71	9.6	8.2	10	35	17.3	20.8	8.9	99	10.0	9.3	6.3	14	93	8.1	6.0	5.1
	WFL	65°	12000	6500	6	181	7.6	7.6	117	11.8	8.8	2	203	3.5	**	5.1	575	2.0	8.6	3.6	3	469	1.7	3.9	2.9
					8	102	10.2	10.2	66	15.7	11.8	3	90	5.2	**	7.6	255	3.0	12.9	5.4	4	264	2.3	5.9	4.4
					10	65	12.7	12.7	42	19.6	14.7	4	51	6.9	**	10.2	144	4.0	17.2	7.2	5	169	2.9	7.9	5.9
					12	45	15.3	15.3	29	23.6	17.7	5	33	8.7	**	12.7	92	5.0	21.4	9.0	6	117	3.5	9.8	7.4
					14	33	17.8	17.8	22	**	20.6	6	23	10.4	**	15.3	64	6.0	**	10.8	7	86	4.0	11.8	8.8
20W R-111	SP	10°	9000	20000	10	200	1.7	1.7	130	2.3	2.0	4	156	6.9	2.9	1.4	442	4.0	1.4	1.0	6	361	3.5	0.9	0.8
Ceramic					12	139	2.1	2.1	90	2.8	2.4	6	69	10.4	4.3	2.1	196	6.0	2.1	1.5	9	160	5.2	1.4	1.2
Metal Halide					14	102	2.4	2.4	66	3.3	2.8	8	39	13.9	5.7	2.8	110	8.0	2.8	2.0	12	90	6.9	1.9	1.6
					16	78	2.8	2.8	51	3.7	3.2	10	25	17.3	7.2	3.5	71	10.0	3.5	2.5	15	58	8.7	2.3	2.0
					18	62	3.1	3.1	40	4.2	3.6	12	17	20.8	8.6	4.2	49	12.0	4.2	3.0	18	40	10.4	2.8	2.4
	NFL	24°	9000	4500	8	70	3.4	3.4	46	4.6	3.9	2	141	3.5	3.9	1.7	398	2.0	1.8	1.2	4	183	2.3	1.2	1.0
					10	45	4.3	4.3	29	5.8	4.9	4	35	6.9	7.9	3.4	99	4.0	3.6	2.4	6	81	3.5	2.3	2.0
					12	31	5.1	5.1	20	6.9	5.9	6	16	10.4	11.8	5.1	44	6.0	5.3	3.6	8	46	4.6	3.5	2.9
					14	23	6.0	6.0	15	8.1	6.9	8	9	13.9	15.7	6.8	25	8.0	7.1	4.8	10	29	5.8	4.6	3.9
					16	18	6.8	6.8	11	9.2	7.9	10	6	17.3	19.7	8.5	16	10.0	8.9	6.0	12	20	6.9	5.8	4.9
39W R-111	SP	10°	9000	35000	10	350	1.7	1.7	227	2.3	2.0	4	273	6.9	2.9	1.4	773	4.0	1.4	1.0	6	631	3.5	0.9	0.8
Ceramic					12	243	2.1	2.1	158	2.8	2.4	6	122	10.4	4.3	2.1	344	6.0	2.1	1.5	9	281	5.2	1.4	1.2
Metal Halide					14	179	2.4	2.4	116	3.3	2.8	8	68	13.9	5.7	2.8	193	8.0	2.8	2.0	12	158	6.9	1.9	1.6
					16	137	2.8	2.8	89	3.7	3.2	10	44	17.3	7.2	3.5	124	10.0	3.5	2.5	15	101	8.7	2.3	2.0
					18	108	3.1	3.1	70	4.2	3.6	12	30	20.8	8.6	4.2	86	12.0	4.2	3.0	18	70	10.4	2.8	2.4
	NFL	24°	9000	8500	8	133	3.4	3.4	86	4.6	3.9	2	266	3.5	3.9	1.7	751	2.0	1.8	1.2	4	345	2.3	1.2	1.0
					10	85	4.3	4.3	55	5.8	4.9	4	66	6.9	7.9	3.4	188	4.0	3.6	2.4	6	153	3.5	2.3	2.0
					12	59	5.1	5.1	38	6.9	5.9	6	30	10.4	11.8	5.1	83	6.0	5.3	3.6	8	86	4.6	3.5	2.9
					14	43	6.0	6.0	28	8.1	6.9	8	17	13.9	15.7	6.8	47	8.0	7.1	4.8	10	55	5.8	4.6	3.9
					16	33	6.8	6.8	22	9.2	7.9	10	11	17.3	19.7	8.5	30	10.0	8.9	6.0	12	38	6.9	5.8	4.9
	FL	40°	9000	4000	8	63	5.8	5.8	41	8.1	6.7	2	125	3.5	9.7	2.9	354	2.0	3.4	2.1	3	289	1.7	2.0	1.7
					10	40	7.3	7.3	26	10.2	8.4	3	56	5.2	14.5	4.4	157	3.0	5.0	3.1	4	162	2.3	3.0	2.5
					12	28	8.7	8.7	18	12.2	10.1	4	31	6.9	19.3	5.8	88	4.0	6.7	4.1	5	104	2.9	4.1	3.4
					14	20	10.2	10.2	13	14.2	11.8	5	20	8.7	24.2	7.3	57	5.0	8.4	5.1	6	72	3.5	5.1	4.2
					16	16	11.6	11.6	10	16.2	13.4	6	14	10.4	**	8.7	39	6.0	10.1	6.1	7	53	4.0	6.1	5.0
70W R-111	SP	10°	9000	50000	10	500	1.7	1.7	325	2.3	2.0	4	391	6.9	2.9	1.4	1105	4.0	1.4	1.0	6	902	3.5	0.9	0.8
Ceramic					12	347	2.1	2.1	226	2.8	2.4	6	174	10.4	4.3	2.1	491	6.0	2.1	1.5	9	401	5.2	1.4	1.2
Metal Halide					14	255	2.4	2.4	166	3.3	2.8	8	98	13.9	5.7	2.8	276	8.0	2.8	2.0	12	226	6.9	1.9	1.6
					16	195	2.8	2.8	127	3.7	3.2	10	63	17.3	7.2	3.5	177	10.0	3.5	2.5	15	144	8.7	2.3	2.0
					18	154	3.1	3.1	100	4.2	3.6	12	43	20.8	8.6	4.2	123	12.0	4.2	3.0	18	100	10.4	2.8	2.4
	NFL	24°	9000	15000	8	234	3.4	3.4	152	4.6	3.9	2	469	3.5	3.9	1.7	1326	2.0	1.8	1.2	4	609	2.3	1.2	1.0
					10	150	4.3	4.3	97	5.8	4.9	4	117	6.9	7.9	3.4	331	4.0	3.6	2.4	6	271	3.5	2.3	2.0
					12	104	5.1	5.1	68	6.9	5.9	6	52	10.4	11.8	5.1	147	6.0	5.3	3.6	8	152	4.6	3.5	2.9
					14	77	6.0	6.0	50	8.1	6.9	8	29	13.9	15.7	6.8	83	8.0	7.1	4.8	10	97	5.8	4.6	3.9
					16	59	6.8	6.8	38	9.2	7.9	10	19	17.3	19.7	8.5	53	10.0	8.9	6.0	12	68	6.9	5.8	4.9
	FL	40°	9000	9000	8	141	5.8	5.8	91	8.1	6.7	2	281	3.5	9.7	2.9	795	2.0	3.4	2.1	3	650	1.7	2.0	1.7
					10	90	7.3	7.3	58	10.2	8.4	3	125	5.2	14.5	4.4	354	3.0	5.0	3.1	4	365	2.3	3.0	2.5
					12	63	8.7	8.7	41	12.2	10.1	4	70	6.9	19.3	5.8	199	4.0	6.7	4.1	5	234	2.9	4.1	3.4
					14	46	10.2	10.2	30	14.2	11.8	5	45	8.7	24.2	7.3	127	5.0	8.4	5.1	6	162	3.5	5.1	4.2
					16	35	11.6	11.6	23	16.2	13.4	6	31	10.4	**	8.7	88	6.0	10.1	6.2	7	119	4.0	6.1	5.0

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

CMH Cylindra™ Spotlights T4 Lamps (TM152 & TM252)

Cylindra T4 G8.5

					Horizontal Surface							Vertical Surface														
					0 degrees				30 degrees			30 degrees					45 degrees				60 degrees				
Lamp	Beam Type	Beam Spread	Rated Life	CBCP	MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
39W T4 G8.5 Ceramic Metal Halide	SP	13°	12000	32625	10	326	2.3	2.3	212	3.1	2.6	4	255	6.9	3.8	1.8	721	4.0	1.8	1.3	6	589	3.5	1.2	1.1
					12	227	2.7	2.7	147	3.7	3.2	6	113	10.4	5.7	2.7	320	6.0	2.8	1.9	9	262	5.2	1.8	1.6
					14	166	3.2	3.2	108	4.3	3.7	8	64	13.9	7.6	3.6	180	8.0	3.7	2.6	12	147	6.9	2.4	2.1
					16	127	3.6	3.6	83	4.9	4.2	10	41	17.3	9.5	4.6	115	10.0	4.6	3.2	15	94	8.7	3.1	2.6
					18	101	4.1	4.1	65	5.5	4.7	12	28	20.8	11.4	5.5	80	12.0	5.5	3.9	18	65	10.4	3.7	3.2
	NFL	24°	12000	10866	8	170	3.4	3.4	110	4.6	3.9	2	340	3.5	3.9	1.7	960	2.0	1.8	1.2	4	441	2.3	1.2	1.0
					10	109	4.3	4.3	71	5.8	4.9	4	85	6.9	7.9	3.4	240	4.0	3.6	2.4	6	196	3.5	2.3	2.0
					12	75	5.1	5.1	49	6.9	5.9	6	38	10.4	11.8	5.1	107	6.0	5.3	3.6	8	110	4.6	3.5	2.9
					14	55	6.0	6.0	36	8.1	6.9	8	21	13.9	15.7	6.8	60	8.0	7.1	4.8	10	71	5.8	4.6	3.9
					16	42	6.8	6.8	28	9.2	7.9	10	14	17.3	19.7	8.5	38	10.0	8.9	6.0	12	49	6.9	5.8	4.9
	FL	36°	12000	6598	8	103	5.2	5.2	67	7.2	6.0	2	206	3.5	7.6	2.6	583	2.0	2.9	1.8	2	1071	1.2	1.8	1.5
					10	66	6.5	6.5	43	9.0	7.5	3	92	5.2	11.4	3.9	259	3.0	4.4	2.8	3	476	1.7	2.7	2.3
					12	46	7.8	7.8	30	10.8	9.0	4	52	6.9	15.2	5.2	146	4.0	5.8	3.7	4	268	2.3	3.6	3.0
					14	34	9.1	9.1	22	12.6	10.5	5	33	8.7	19.0	6.5	93	5.0	7.3	4.6	5	171	2.9	4.5	3.8
					16	26	10.4	10.4	17	14.4	12.0	6	23	10.4	22.8	7.8	65	6.0	8.7	5.5	6	119	3.5	5.4	4.5

For 20W lamps use 0.47 multiplier; for 70W lamps use 1.82 multiplier.

CMH Cylindra™ Spotlights T6 Lamps (TM151 & TM251)

Cylindra T6 G12

					Horizontal Surface							Vertical Surface														
					0 degrees				30 degrees			30 degrees					45 degrees				60 degrees				
Lamp	Beam Type	Beam Spread	Rated Life	CBCP	MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
70W T6 G12 Ceramic Metal Halide	SP	13°	15000	58333	10	583	2.3	2.3	379	3.1	2.6	4	456	6.9	3.8	1.8	1289	4.0	1.8	1.3	6	1052	3.5	1.2	1.1
					12	405	2.7	2.7	263	3.7	3.2	6	203	10.4	5.7	2.7	573	6.0	2.8	1.9	9	468	5.2	1.8	1.6
					14	298	3.2	3.2	193	4.3	3.7	8	114	13.9	7.6	3.6	322	8.0	3.7	2.6	12	263	6.9	2.4	2.1
					16	228	3.6	3.6	148	4.9	4.2	10	73	17.3	9.5	4.6	206	10.0	4.6	3.2	15	168	8.7	3.1	2.6
					18	180	4.1	4.1	117	5.5	4.7	12	51	20.8	11.4	5.5	143	12.0	5.5	3.9	18	117	10.4	3.7	3.2
	NFL	24°	15000	20434	8	319	3.4	3.4	207	4.6	3.9	2	639	3.5	3.9	1.7	1806	2.0	1.8	1.2	4	830	2.3	1.2	1.0
					10	204	4.3	4.3	133	5.8	4.9	4	160	6.9	7.9	3.4	452	4.0	3.6	2.4	6	369	3.5	2.3	2.0
					12	142	5.1	5.1	92	6.9	5.9	6	71	10.4	11.8	5.1	201	6.0	5.3	3.6	8	207	4.6	3.5	2.9
					14	104	6.0	6.0	68	8.1	6.9	8	40	13.9	15.7	6.8	113	8.0	7.1	4.8	10	133	5.8	4.6	3.9
					16	80	6.8	6.8	52	9.2	7.9	10	26	17.3	19.7	8.5	72	10.0	8.9	6.0	12	92	6.9	5.8	4.9
	FL	36°	15000	11964	8	187	5.2	5.2	121	7.2	6.0	2	374	3.5	7.6	2.6	1057	2.0	2.9	1.8	2	1943	1.2	1.8	1.5
					10	120	6.5	6.5	78	9.0	7.5	3	166	5.2	11.4	3.9	470	3.0	4.4	2.8	3	863	1.7	2.7	2.3
					12	83	7.8	7.8	54	10.8	9.0	4	93	6.9	15.2	5.2	264	4.0	5.8	3.7	4	486	2.3	3.6	3.0
					14	61	9.1	9.1	40	12.6	10.5	5	60	8.7	19.0	6.5	169	5.0	7.3	4.6	5	311	2.9	4.5	3.8
					16	47	10.4	10.4	30	14.4	12.0	6	42	10.4	22.8	7.8	117	6.0	8.7	5.5	6	216	3.5	5.4	4.5

For 20W lamps use 0.26 multiplier; for 39W lamps use 0.55 multiplier; for 100W lamps use 1.44 multiplier; for 150W lamps use 2.26 multiplier.

CMH Cylindra™ Spotlights T4 GU6.5 Lamps (TM154 & TM254)

Cylindra T4 GU6.5

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
20W T4 GU6.5 Ceramic Metal Halide	SP	13°	12000	8301	10	83	2.3	2.3	54	3.1	2.6	4	65	6.9	3.8	1.8	183	4.0	1.8	1.3	6	150	3.5	1.2	1.1
					12	58	2.7	2.7	37	3.7	3.2	6	29	10.4	5.7	2.7	82	6.0	2.8	1.9	9	67	5.2	1.8	1.6
					14	42	3.2	3.2	28	4.3	3.7	8	16	13.9	7.6	3.6	46	8.0	3.7	2.6	12	37	6.9	2.4	2.1
					16	32	3.6	3.6	21	4.9	4.2	10	10	17.3	9.5	4.6	29	10.0	4.6	3.2	15	24	8.7	3.1	2.6
					18	26	4.1	4.1	17	5.5	4.7	12	7	20.8	11.4	5.5	20	12.0	5.5	3.9	18	17	10.4	3.7	3.2
	NFL	25°	12000	3447	8	54	3.5	3.5	35	4.8	4.1	2	108	3.5	4.2	1.8	305	2.0	1.9	1.3	4	140	2.3	1.2	1.0
					10	34	4.4	4.4	22	6.0	5.1	4	27	6.9	8.3	3.5	76	4.0	3.7	2.5	6	62	3.5	2.4	2.0
					12	24	5.3	5.3	16	7.2	6.1	6	12	10.4	12.5	5.3	34	6.0	5.6	3.8	8	35	4.6	3.6	3.1
					14	18	6.2	6.2	11	8.4	7.2	8	7	13.9	16.6	7.1	19	8.0	7.5	5.0	10	22	5.8	4.8	4.1
					16	13	7.1	7.1	9	9.6	8.2	10	4	17.3	20.8	8.9	12	10.0	9.3	6.3	12	16	6.9	6.0	5.1
	FL	38°	12000	1910	8	30	5.5	5.5	19	7.6	6.4	2	60	3.5	8.6	2.8	169	2.0	3.1	1.9	2	310	1.2	1.9	1.6
					10	19	6.9	6.9	12	9.6	8.0	3	27	5.2	12.8	4.1	75	3.0	4.7	2.9	3	138	1.7	2.9	2.4
					12	13	8.3	8.3	9	11.5	9.5	4	15	6.9	17.1	5.5	42	4.0	6.3	3.9	4	78	2.3	3.8	3.2
					14	10	9.6	9.6	6	13.4	11.1	5	10	8.7	21.4	6.9	27	5.0	7.8	4.9	5	50	2.9	4.8	4.0
					16	7	11.0	11.0	5	15.3	12.7	6	7	10.4	**	8.3	19	6.0	9.4	5.8	6	34	3.5	5.7	4.8

For 39W lamps use 0.47 multiplier; for 70W lamps use 1.76 multiplier.

CMH Cylindra™ Spotlights BT-5/T3.5 Lamps (TM155 & TM255)

Cylindra BT-5/T3.5 PGJ5

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
39W Mini MasterColor BT-5/T3.5 Ceramic Metal Halide	SP	10°	12000	26302	10	263	1.7	1.7	171	2.3	2.0	4	205	6.9	2.9	1.4	581	4.0	1.4	1.0	6	475	3.5	0.9	0.8
					12	184	2.1	2.1	119	2.8	2.4	6	91	10.4	4.3	2.1	258	6.0	2.1	1.5	9	211	5.2	1.4	1.2
					14	134	2.4	2.4	87	3.3	2.8	8	51	13.9	5.7	2.8	145	8.0	2.8	2.0	12	119	6.9	1.9	1.6
					16	103	2.8	2.8	67	3.7	3.2	10	33	17.3	7.2	3.5	93	10.0	3.5	2.5	15	76	8.7	2.3	2.0
					18	81	3.1	3.1	53	4.2	3.6	12	23	20.8	8.6	4.2	65	12.0	4.2	3.0	18	53	10.4	2.8	2.4
	NFL	20°	12000	10295	8	161	2.8	2.8	104	3.8	3.3	2	322	3.5	3.1	1.4	910	2.0	1.5	1.0	4	418	2.3	1.0	0.8
					10	103	3.5	3.5	67	4.8	4.1	4	80	6.9	6.2	2.8	227	4.0	2.9	2.0	6	186	3.5	1.9	1.6
					12	71	4.2	4.2	46	5.7	4.9	6	36	10.4	9.3	4.2	101	6.0	4.4	3.0	8	104	4.6	2.9	2.4
					14	53	4.9	4.9	34	6.7	5.7	8	20	13.9	12.4	5.6	57	8.0	5.8	4.0	10	67	5.8	3.8	3.3
					16	40	5.6	5.6	26	7.6	6.5	10	13	17.3	15.6	7.1	36	10.0	7.3	5.0	12	46	6.9	4.8	4.1
	FL	28°	12000	5827	8	91	4.0	4.0	59	5.4	4.6	2	182	3.5	4.9	2.0	515	2.0	2.1	1.4	2	946	1.2	1.4	1.2
					10	58	5.0	5.0	38	6.8	5.8	3	81	5.2	7.4	3.0	229	3.0	3.2	2.1	3	421	1.7	2.0	1.7
					12	40	6.0	6.0	26	8.1	6.9	4	46	6.9	9.8	4.0	129	4.0	4.3	2.8	4	237	2.3	2.7	2.3
					14	30	7.0	7.0	19	9.5	8.1	5	29	8.7	12.3	5.0	82	5.0	5.3	3.5	5	151	2.9	3.4	2.9
					16	23	8.0	8.0	15	10.9	9.2	6	20	10.4	14.7	6.0	57	6.0	6.4	4.2	6	105	3.5	4.1	3.5

For 20W lamps use 0.55 multiplier.

CMH Cylindra™ Spotlights ED17 Lamps (TM150 & TM250)

Cylindra ED17

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
70W ED17 Ceramic Metal Halide	SP	10°	16000	54294	10	543	1.7	1.7	353	2.3	2.0	4	424	6.9	2.9	1.4	1200	4.0	1.4	1.0	6	980	3.5	0.9	0.8
					12	377	2.1	2.1	245	2.8	2.4	6	189	10.4	4.3	2.1	533	6.0	2.1	1.5	9	435	5.2	1.4	1.2
					14	277	2.4	2.4	180	3.3	2.8	8	106	13.9	5.7	2.8	300	8.0	2.8	2.0	12	245	6.9	1.9	1.6
					16	212	2.8	2.8	138	3.7	3.2	10	68	17.3	7.2	3.5	192	10.0	3.5	2.5	15	157	8.7	2.3	2.0
					18	168	3.1	3.1	109	4.2	3.6	12	47	20.8	8.6	4.2	133	12.0	4.2	3.0	18	109	10.4	2.8	2.4
	NFL	26°	16000	11839	8	185	3.7	3.7	120	5.0	4.3	2	370	3.5	4.4	1.8	1046	2.0	2.0	1.3	4	481	2.3	1.3	1.1
					10	118	4.6	4.6	77	6.3	5.3	4	92	6.9	8.8	3.7	262	4.0	3.9	2.6	6	214	3.5	2.5	2.1
					12	82	5.5	5.5	53	7.5	6.4	6	41	10.4	13.2	5.5	116	6.0	5.9	3.9	8	120	4.6	3.8	3.2
					14	60	6.5	6.5	39	8.8	7.5	8	23	13.9	17.6	7.4	65	8.0	7.8	5.2	10	77	5.8	5.0	4.3
					16	46	7.4	7.4	30	10.0	8.5	10	15	17.3	22.0	9.2	42	10.0	9.8	6.5	12	53	6.9	6.3	5.3
	FL	55°	16000	3969	8	62	8.3	8.3	40	12.2	9.6	2	124	3.5	**	4.2	351	2.0	5.7	2.9	2	644	1.2	3.1	2.4
					10	40	10.4	10.4	26	15.3	12.0	3	55	5.2	**	6.2	156	3.0	8.6	4.4	3	286	1.7	4.6	3.6
					12	28	12.5	12.5	18	18.3	14.4	4	31	6.9	**	8.3	88	4.0	11.4	5.9	4	161	2.3	6.1	4.8
					14	20	14.6	14.6	13	21.4	16.8	5	20	8.7	**	10.4	56	5.0	14.3	7.4	5	103	2.9	7.6	6.0
					16	16	16.7	16.7	10	24.4	19.2	6	14	10.4	**	12.5	39	6.0	17.1	8.8	6	72	3.5	9.2	7.2

For 50W lamps use 0.66 multiplier; for 100W lamps use 1.53 multiplier; for 150W lamps use 2.26 multiplier.

**Due to steep aiming angle, length of beam extends beyond 25'. Each angle listed is measured from 0° vertical.

See website for details, www.junolightinggroup.com

CMH Conix® Spotlights T4 Lamps (TM116-TM118 & TM216-TM218)

Conix T4 G8.5

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
39W T4 G8.5 Ceramic Metal Halide	SP	10°	12000	27520	10	275	1.7	1.7	179	2.3	2.0	4	215	6.9	2.9	1.4	608	4.0	1.4	1.0	6	497	3.5	0.9	0.8
					12	191	2.1	2.1	124	2.8	2.4	6	96	10.4	4.3	2.1	270	6.0	2.1	1.5	9	221	5.2	1.4	1.2
					14	140	2.4	2.4	91	3.3	2.8	8	54	13.9	5.7	2.8	152	8.0	2.8	2.0	12	124	6.9	1.9	1.6
					16	108	2.8	2.8	70	3.7	3.2	10	34	17.3	7.2	3.5	97	10.0	3.5	2.5	15	79	8.7	2.3	2.0
					18	85	3.1	3.1	55	4.2	3.6	12	24	20.8	8.6	4.2	68	12.0	4.2	3.0	18	55	10.4	2.8	2.4
	NFL	27°	12000	7924	8	124	3.8	3.8	80	5.2	4.4	2	248	3.5	4.6	1.9	700	2.0	2.0	1.4	4	322	2.3	1.3	1.1
					10	79	4.8	4.8	51	6.5	5.5	4	62	6.9	9.3	3.8	175	4.0	4.1	2.7	6	143	3.5	2.6	2.2
					12	55	5.8	5.8	36	7.8	6.7	6	28	10.4	13.9	5.8	78	6.0	6.1	4.1	8	80	4.6	3.9	3.3
					14	40	6.7	6.7	26	9.1	7.8	8	15	13.9	18.6	7.7	44	8.0	8.2	5.4	10	51	5.8	5.2	4.4
					16	31	7.7	7.7	20	10.4	8.9	10	10	17.3	23.2	9.6	28	10.0	10.2	6.8	12	36	6.9	6.5	5.5
	FL	40°	12000	4741	8	74	5.8	5.8	48	8.1	6.7	2	148	3.5	9.7	2.9	419	2.0	3.4	2.1	2	770	1.2	2.0	1.7
					10	47	7.3	7.3	31	10.2	8.4	3	66	5.2	14.5	4.4	186	3.0	5.0	3.1	3	342	1.7	3.0	2.5
					12	33	8.7	8.7	21	12.2	10.1	4	37	6.9	19.3	5.8	105	4.0	6.7	4.1	4	192	2.3	4.1	3.4
					14	24	10.2	10.2	16	14.2	11.8	5	24	8.7	24.2	7.3	67	5.0	8.4	5.1	5	123	2.9	5.1	4.2
					16	19	11.6	11.6	12	16.2	13.4	6	16	10.4	**	8.7	47	6.0	10.1	6.2	6	86	3.5	6.1	5.0

For 20W lamps use 0.47 multiplier; for 70W lamps use 1.82 multiplier.

CMH Conix® Spotlights T6 Lamps (TM113-TM115 & TM213-TM215)

Conix T6 G12

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
70W T6 G12 Ceramic Metal Halide	SP	8°	15000	53513	10	535	1.5	1.5	348	2.0	1.7	4	418	6.9	2.4	1.2	1182	4.0	1.2	0.8	6	965	3.5	1.2	1.0
					12	372	1.8	1.8	241	2.4	2.0	6	186	10.4	3.6	1.8	526	6.0	1.8	1.2	9	429	5.2	1.8	1.5
					14	273	2.1	2.1	177	2.7	2.4	8	105	13.9	4.8	2.3	296	8.0	2.4	1.7	12	241	6.9	2.4	2.0
					16	209	2.3	2.3	136	3.1	2.7	10	67	17.3	6.0	2.9	189	10.0	3.0	2.1	15	154	8.7	2.9	2.5
					18	165	2.6	2.6	107	3.5	3.1	12	46	20.8	7.2	3.5	131	12.0	3.5	2.5	18	107	10.4	3.5	3.1
	NFL	25°	15000	16270	8	254	3.5	3.5	165	4.7	4.0	2	508	3.5	4.1	1.7	1438	2.0	1.8	1.2	4	660	2.3	2.4	2.0
					10	163	4.4	4.4	106	5.9	5.0	4	127	6.9	8.1	3.5	360	4.0	3.8	2.5	6	294	3.5	3.5	3.0
					12	113	5.2	5.2	73	7.1	6.0	6	56	10.4	12.2	5.2	160	6.0	5.5	3.7	8	165	4.6	4.7	4.0
					14	83	6.1	6.1	54	8.3	7.0	8	32	13.9	16.3	7.0	90	8.0	7.3	4.9	10	106	5.8	5.9	5.0
					16	64	7.0	7.0	41	9.5	8.1	10	20	17.3	20.3	8.7	58	10.0	9.2	6.2	12	73	6.9	7.1	6.0
	FL	42°	15000	7765	8	121	6.1	6.1	79	8.5	7.0	2	243	3.5	10.8	3.0	686	2.0	3.6	2.2	2	1261	1.2	2.1	1.8
					10	78	7.6	7.6	50	10.7	8.8	3	108	5.2	16.2	4.6	305	3.0	5.3	3.2	3	560	1.7	3.2	2.6
					12	54	9.1	9.1	35	12.8	10.6	4	61	6.9	21.6	6.1	172	4.0	7.1	4.3	4	315	2.3	4.3	3.5
					14	40	10.7	10.7	26	14.9	12.3	5	39	8.7	**	7.6	110	5.0	8.9	5.4	5	202	2.9	5.3	4.4
					16	30	12.2	12.2	20	17.1	14.1	6	27	10.4	**	9.1	76	6.0	10.7	6.5	6	140	3.5	6.4	5.3

For 20W lamps use 0.26 multiplier; for 39W lamps use 0.55 multiplier; for 100W lamps use 1.44 multiplier; for 150W lamps use 2.26 multiplier.

CMH Conix® Spotlights ED17 Lamps (TM110-TM112 &TM210-TM212)

Conix ED17

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
70W ED17 Ceramic Metal Halide	SP	10°	16000	50948	10	509	1.3	1.3	331	1.7	1.5	4	389	6.9	2.0	1.0	1126	4.0	1.0	0.7	6	919	3.5	0.7	0.6
					12	354	1.5	1.5	230	2.0	1.7	6	177	10.4	3.1	1.5	500	6.0	1.5	1.1	9	409	5.2	1.0	0.9
					14	260	1.8	1.8	169	2.4	2.0	8	100	13.9	4.1	2.0	281	8.0	2.0	1.4	12	230	6.9	1.3	1.2
					16	199	2.0	2.0	129	2.7	2.3	10	64	17.3	5.1	2.5	180	10.0	2.5	1.8	15	147	8.7	1.7	1.5
					18	157	2.3	2.3	102	3.0	2.6	12	44	20.8	6.1	3.0	125	12.0	3.0	2.1	18	102	10.4	2.0	1.7
	NFL	23°	16000	11916	8	186	3.3	3.3	121	4.4	3.8	2	372	3.5	3.7	1.6	1053	2.0	1.7	1.2	4	484	2.3	1.1	0.9
					10	119	4.1	4.1	77	5.5	4.7	4	93	6.9	7.5	3.3	263	4.0	3.4	2.3	6	215	3.5	2.2	1.9
					12	83	4.9	4.9	54	6.6	5.6	6	41	10.4	11.2	4.9	117	6.0	5.1	3.5	8	121	4.6	3.3	2.8
					14	61	5.7	5.7	39	7.7	6.6	8	23	13.9	14.9	6.5	66	8.0	6.8	4.6	10	77	5.8	4.4	3.8
					16	47	6.5	6.5	30	8.8	7.5	10	15	17.3	18.6	8.1	42	10.0	8.5	5.8	12	54	6.9	5.5	4.7
	FL	50°	16000	4580	8	72	7.5	7.5	46	10.7	8.6	2	143	3.5	21.5	3.7	405	2.0	4.8	2.6	3	331	1.7	4.0	3.2
					10	46	9.3	9.3	30	13.4	10.8	3	64	5.2	**	5.6	180	3.0	7.2	4.0	4	186	2.3	5.4	4.3
					12	32	11.2	11.2	21	16.1	12.9	4	36	6.9	**	7.5	101	4.0	9.5	5.3	5	119	2.9	6.7	5.4
					14	23	13.1	13.1	15	18.8	15.1	5	23	8.7	**	9.3	65	5.0	11.9	6.6	6	83	3.5	8.0	6.5
					16	18	14.9	14.9	12	21.5	17.2	6	16	10.4	**	11.2	45	6.0	14.3	7.9	7	61	4.0	9.4	7.5

For 50W lamps use 0.66 multiplier; for 100W lamps use 1.53 multiplier; for 150W lamps use 2.26 multiplier.

**Due to steep aiming angle, length of beam extends beyond 25'. Each angle listed is measured from 0° vertical.

See website for details, www.junolightinggroup.com

CMH Concentric Cylinder Spotlights T4 Lamps (TM132, TM232 & TMP132)

Concentric Cylinder T4 G8.5

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface							Vertical Surface															
					0 degrees				30 degrees			30 degrees					45 degrees				60 degrees						
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
39W T4 G8.5 Ceramic Metal Halide	SP	10°	12000	28630	10	286	1.7	1.7	186	2.3	2.0	4	244	6.9	2.9	1.4	633	4.0	1.4	1.0	6	517	3.5	0.9	1.0
					12	199	2.1	2.1	129	2.8	2.4	6	99	10.4	4.3	2.1	281	6.0	2.1	1.5	9	230	5.2	1.4	0.8
					14	146	2.4	2.4	95	3.3	2.8	8	56	13.9	5.7	2.8	158	8.0	2.8	2.0	12	129	6.9	1.9	1.6
					16	112	2.8	2.8	73	3.7	3.2	10	36	17.3	7.2	3.5	101	10.0	3.5	2.5	15	83	8.7	2.3	2.0
					18	88	3.1	3.1	57	4.2	3.6	12	25	20.8	8.6	4.2	70	12.0	4.2	3.0	18	57	10.4	2.8	2.4
	NFL	23°	12000	10174	8	159	3.3	3.3	103	4.4	3.8	2	318	3.5	3.7	1.6	899	2.0	1.7	1.2	4	413	2.3	1.1	0.9
					10	102	4.1	4.1	66	5.5	4.7	4	79	6.9	7.4	3.3	225	4.0	3.4	2.3	6	184	3.5	2.2	1.9
					12	71	4.9	4.9	46	6.6	5.6	6	35	10.4	11.2	4.9	100	6.0	5.1	3.5	8	103	4.6	3.2	2.8
					14	52	5.7	5.7	34	7.7	6.6	8	20	13.9	14.9	6.5	56	8.0	6.8	4.6	10	66	5.8	4.4	3.8
					16	40	6.5	6.5	26	8.8	7.5	10	13	17.3	18.6	8.1	36	10.0	8.5	5.8	12	46	6.9	5.5	4.7
	FL	32°	12000	5799	8	91	4.6	4.6	59	6.3	5.3	2	181	3.5	6.1	2.3	513	2.0	2.5	1.6	2	942	1.2	1.6	1.3
					10	58	5.7	5.7	38	7.9	6.6	3	81	5.2	9.1	3.4	228	3.0	3.7	2.4	3	419	1.7	2.4	2.0
					12	40	6.9	6.9	26	9.4	7.9	4	45	6.9	12.2	4.6	128	4.0	5.0	3.2	4	235	2.3	3.1	2.6
					14	30	8.0	8.0	19	11.0	9.3	5	29	8.7	15.2	5.7	82	5.0	6.2	4.1	5	151	2.9	3.9	3.3
					16	23	9.2	9.2	15	12.6	10.6	6	20	10.4	18.3	6.9	57	6.0	7.5	4.9	6	105	3.5	4.7	4.0

For 20W lamps use 0.47 multiplier; for 70W lamps use 1.82 multiplier.

CMH Concentric Cylinder Spotlights BT-5/T3.5 Lamps (TM133, TM233 & TMP133)

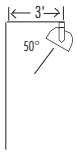
Concentric Cylinder BT-5/T3.5 PGJ5

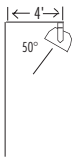
Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface							Vertical Surface															
					0 degrees				30 degrees			30 degrees					45 degrees				60 degrees						
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
39W Mini MasterColor BT-5/T3.5 Ceramic Metal Halide	SP	10°	12000	30016	10	300	1.7	1.7	195	2.3	2.0	4	235	6.9	2.9	1.4	663	4.0	1.4	1.0	6	542	3.5	0.9	0.8
					12	208	2.1	2.1	135	2.8	2.4	6	104	10.4	4.3	2.1	295	6.0	2.1	1.5	9	241	5.2	1.4	1.2
					14	153	2.4	2.4	99	3.3	2.8	8	59	13.9	5.7	2.8	166	8.0	2.8	2.0	12	135	6.9	1.9	1.6
					16	117	2.8	2.8	76	3.7	3.2	10	38	17.3	7.2	3.5	106	10.0	3.5	2.5	15	87	8.7	2.3	2.0
					18	93	3.1	3.1	60	4.2	3.6	12	26	20.8	8.6	4.2	74	12.0	4.2	3.0	18	60	10.4	2.8	2.4
	NFL	20°	12000	10745	8	168	2.8	2.8	109	3.8	3.3	2	336	3.5	3.1	1.4	950	2.0	1.5	1.0	4	436	2.3	1.0	0.8
					10	107	3.5	3.5	70	4.8	4.1	4	84	6.9	6.2	2.8	237	4.0	2.9	2.0	6	194	3.5	1.9	1.6
					12	75	4.2	4.2	48	5.7	4.9	6	37	10.4	9.3	4.2	106	6.0	4.4	3.0	8	109	4.6	2.9	2.4
					14	55	4.9	4.9	36	6.7	5.7	8	21	13.9	12.4	5.6	59	8.0	5.8	4.0	10	70	5.8	3.8	3.3
					16	42	5.6	5.6	27	7.6	6.5	10	13	17.3	15.6	7.1	38	10.0	7.3	5.0	12	48	6.9	4.8	4.1
	FL	28°	12000	6147	8	96	4.0	4.0	62	5.4	4.6	2	192	3.5	4.9	2.0	543	2.0	2.1	1.4	2	998	1.2	1.4	1.2
					10	61	5.0	5.0	40	6.8	5.8	3	85	5.2	7.4	3.0	241	3.0	3.2	2.1	3	444	1.7	2.0	1.7
					12	43	6.0	6.0	28	8.1	6.9	4	48	6.9	9.8	4.0	136	4.0	4.3	2.8	4	250	2.3	2.7	2.3
					14	31	7.0	7.0	20	9.5	8.1	5	31	8.7	12.3	5.0	87	5.0	5.3	3.5	5	160	2.9	3.4	2.9
					16	24	8.0	8.0	16	10.9	9.2	6	21	10.4	14.7	6.0	60	6.0	6.4	4.2	6	111	3.5	4.1	3.5

For 20W lamps use 0.55 multiplier.

CMH Mini Wall Wash/Floods T4 Lamps (TM157 & TM257)

T4 G8.5 Rectangular Flood/Wall Wash

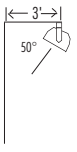
	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
		0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 3' from Wall	1'	79	69	37	13	5	2	90	80	90	80	40	80	77	24	77
	2'	95	78	48	18	7	3	110	108	110	109	64	109	101	36	101
	3'	70	61	41	21	9	4	92	92	92	92	70	92	81	48	81
	4'	44	39	30	18	10	5	67	68	67	60	55	60	54	42	54
	5'	25	24	20	14	8	5	46	47	46	43	42	43	34	33	34
	6'	15	14	13	10	7	4	33	33	33	27	29	27	23	25	23
	7'	10	9	8	7	5	4	24	23	24	19	20	19	16	17	16
One 39W T4 Lamp at 3,400 Total Lumens	8'	7	6	6	5	4	3	17	17	17	15	14	15	12	12	12
	9'	5	4	4	3	3	2	13	13	13	12	11	12	9	9	9

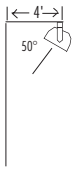
	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
		0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 4' from Wall	1'	43	39	29	14	7	3	57	63	57	44	39	44	41	26	41
	2'	55	46	33	19	8	5	75	76	75	58	57	58	53	39	53
	3'	48	46	36	22	11	5	76	83	76	64	67	64	58	51	58
	4'	34	36	30	20	12	7	63	70	63	58	59	58	51	47	51
	5'	24	25	22	16	11	7	53	55	53	47	48	47	40	39	40
	6'	19	18	16	13	9	6	42	42	42	36	37	36	30	31	30
	7'	14	12	11	9	7	5	33	32	33	27	28	27	22	23	22
One 39W T4 Lamp at 3,400 Total Lumens	8'	8	8	8	7	6	4	24	25	24	21	21	21	17	18	17
	9'	6	6	6	5	4	4	18	19	18	16	16	16	14	13	14

For 20W lamps use 0.47 multiplier; for 70W lamps use 1.82 multiplier.

CMH Wall Wash/Floods T4 Lamps (TM124 & TM125)

T4 G8.5 Rectangular Flood/Wall Wash

	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
		0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 3' from Wall	1'	63	59	29	8	3	1	69	59	69	55	23	55	52	13	52
	2'	125	108	60	16	5	1	134	125	134	130	51	130	122	25	122
	3'	113	101	66	27	9	2	129	138	129	131	87	131	120	48	120
	4'	70	65	49	27	11	4	92	103	92	54	82	54	84	54	84
	5'	37	37	30	20	10	4	58	67	58	57	60	57	47	45	47
	6'	21	21	18	14	9	4	39	42	39	31	39	31	27	33	27
	7'	13	12	11	9	7	4	28	27	28	21	25	21	18	22	18
One 39W T4 Lamp at 3,400 Total Lumens	8'	8	8	7	6	5	3	19	18	19	17	16	17	13	14	13
	9'	5	5	5	4	3	3	13	13	13	12	11	12	10	10	10

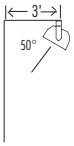
	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
		0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 4' from Wall	1'	30	25	22	9	4	2	38	46	38	26	23	26	24	14	24
	2'	61	54	36	18	7	3	75	77	75	53	49	53	50	30	50
	3'	66	67	51	29	11	4	89	111	89	77	83	77	73	54	73
	4'	54	59	48	31	16	7	85	104	85	78	87	78	71	65	71
	5'	39	42	36	26	16	8	68	81	68	66	74	66	58	59	58
	6'	30	28	25	20	14	8	59	60	59	48	54	48	41	46	41
	7'	20	18	17	14	11	7	44	43	44	35	39	35	28	33	28
One 39W T4 Lamp at 3,400 Total Lumens	8'	11	12	11	10	8	6	30	31	30	26	27	26	20	24	20
	9'	7	8	8	7	6	5	22	23	22	20	20	20	16	17	16

For 20W lamps use 0.47 multiplier; for 70W lamps use 1.82 multiplier.

CMH Mini Wall Wash/Floods T6 Lamps (TM156 & TM256)

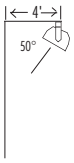
T6 G12 Rectangular Flood/Wall Wash

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
	0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 3' from Wall															
1'	145	126	68	23	9	3	164	146	164	146	74	146	140	44	140
2'	173	142	87	32	13	5	202	197	202	199	116	199	185	65	185
3'	129	112	75	38	17	7	168	168	168	168	128	168	148	88	148
4'	79	72	54	32	18	9	121	124	121	110	101	110	99	77	99
5'	46	44	36	25	15	8	83	86	83	79	76	79	63	60	63
6'	28	26	23	18	13	8	60	59	60	49	53	49	42	45	42
7'	18	16	15	12	10	7	43	42	43	36	36	36	30	31	30
8'	12	11	10	8	7	5	31	31	31	28	26	28	22	22	22
9'	8	8	7	6	5	4	23	23	23	21	20	21	17	16	17



One 70W T6 Lamp at 6,600 Total Lumens

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
	0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 4' from Wall															
1'	79	71	53	26	12	6	105	115	105	80	70	80	74	47	74
2'	101	84	60	35	15	8	136	139	136	106	103	106	97	72	97
3'	88	85	65	41	21	10	138	151	138	117	122	117	106	92	106
4'	62	66	54	36	22	12	115	127	115	106	108	106	91	85	91
5'	47	45	39	29	20	12	91	100	91	86	87	86	72	71	72
6'	35	33	29	23	16	11	77	77	77	65	67	65	55	56	55
7'	25	22	20	17	13	10	60	59	60	49	50	49	41	43	41
8'	14	15	14	12	10	8	43	45	43	38	38	38	32	32	32
9'	10	10	10	8	8	6	33	35	33	30	29	30	25	24	25



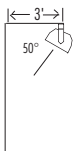
One 70W T6 Lamp at 6,600 Total Lumens

For 20W lamps use 0.26 multiplier; for 39W lamps use 0.55 mulitiplier; for 100W lamps use 1.44 multiplier; for 150W lamps use 2.26 multiplier.

CMH Wall Wash/Floods T6 Lamps (TM122 & TM123)

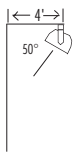
T6 G12 Rectangular Flood/Wall Wash

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
	0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 3' from Wall															
1'	116	107	53	15	4	2	125	108	125	101	41	101	95	23	95
2'	228	197	109	29	9	3	245	227	245	236	94	236	223	46	223
3'	205	184	120	49	16	4	236	251	236	239	159	239	220	88	220
4'	129	119	88	49	20	8	168	188	168	158	150	158	153	98	153
5'	67	67	55	37	19	8	105	121	105	104	110	104	86	83	86
6'	38	38	33	25	16	8	72	76	72	57	71	57	50	60	50
7'	23	23	20	16	12	7	50	49	50	39	45	39	33	39	33
8'	15	14	13	10	8	6	35	34	35	30	30	30	24	25	24
9'	9	9	9	7	6	5	24	24	24	23	21	23	17	17	17



One 70W T6 Lamp at 6,600 Total Lumens

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
	0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 4' from Wall															
1'	55	45	41	16	7	3	69	84	69	47	41	47	44	25	44
2'	112	99	66	33	12	5	136	140	136	97	89	97	91	55	91
3'	121	122	93	53	21	8	161	203	161	141	151	141	133	99	133
4'	99	108	87	57	29	12	156	190	156	142	159	142	129	118	129
5'	81	76	65	48	30	14	101	149	101	121	134	121	105	108	105
6'	55	52	46	36	25	14	108	109	108	88	99	88	74	84	74
7'	36	33	31	26	19	13	81	78	81	63	70	63	50	61	50
8'	19	22	21	18	14	11	54	57	54	48	50	48	37	43	37
9'	13	15	14	12	10	8	39	42	39	36	36	36	29	30	29

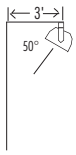


One 70W T6 Lamp at 6,600 Total Lumens

For 20W lamps use 0.26 multiplier; for 39W lamps use 0.55 mulitiplier; for 100W lamps use 1.44 multiplier; for 150W lamps use 2.26 multiplier.

CMH Wall Wash/Floods ED17 Lamps (TM120 & TM121)

ED17 Rectangular Flood/Wall Wash

	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
		0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 3' from Wall	1'	169	141	67	21	8	3	188	151	188	170	76	170	166	44	166
	2'	129	112	69	24	10	4	153	160	153	160	96	160	155	55	155
	3'	77	67	50	23	11	5	104	117	104	101	90	101	94	58	94
	4'	47	43	34	20	10	5	73	82	73	67	71	67	60	50	60
	5'	30	27	24	18	10	5	56	58	56	47	54	47	41	44	41
	6'	20	19	17	14	9	5	45	44	45	36	40	36	29	34	29
	7'	14	13	12	10	8	5	35	34	35	28	30	28	23	26	23
One 70W ED17 Lamp at 6,200 Total Lumens	8'	10	10	9	8	6	5	27	27	27	23	23	23	18	20	18
	9'	7	7	7	6	5	4	22	22	22	19	18	19	15	16	15

	DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE								
		0	1'	2'	3'	4'	5'	4'			5'			6'		
Trac 4' from Wall	1'	91	81	56	26	11	5	118	126	118	94	74	94	88	49	88
	2'	94	85	62	31	13	7	127	144	127	111	104	111	103	69	103
	3'	64	59	48	31	15	7	100	114	100	87	99	87	79	74	79
	4'	44	40	33	24	13	8	78	83	78	67	76	67	59	61	59
	5'	30	29	24	19	12	7	63	62	63	51	57	51	44	49	44
	6'	21	20	18	15	11	7	51	48	51	41	44	41	34	38	34
	7'	15	15	13	12	10	7	41	39	41	34	34	34	27	30	27
One 70W ED17 Lamp at 6,200 Total Lumens	8'	11	11	10	9	8	6	33	32	33	29	27	29	23	24	23
	9'	9	8	8	7	6	5	27	27	27	23	22	23	19	19	19

For 50W lamps use 0.66 multiplier; for 100W lamps use 1.53 multiplier; for 150W lamps use 2.26 multiplier.

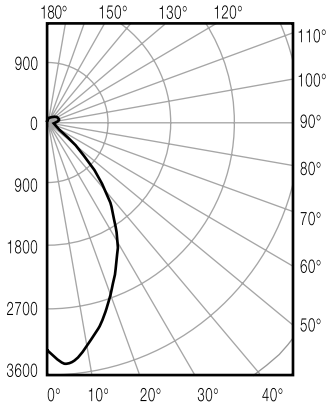
MH_2® CMH Clear Acrylic Pendants ED17 Lamps (TMP1120, TMP1120PL & TMP1232UL)

Modular HID Pendant Cord with Clear Acrylic Refractor Shade and Uniformity Lens

70W ED17 Clear CMH Lamp Rated @ 6200 Lumens Luminaire Spacing Criterion: 0.93 Total Luminaire Efficiency: 79.7%

Candlepower Distribution (candelas)

DEGREES VERTICAL	AVERAGE	DEGREES VERTICAL	AVERAGE
0	3377	95	139
5	3466	100	149
10	3351	105	155
15	2983	110	152
20	2596	115	123
25	2263	120	79
30	1838	125	69
35	1383	130	66
40	949	135	64
45	592	140	62
50	392	145	62
55	285	150	60
60	216	155	59
65	185	160	57
70	174	165	50
75	166	170	45
80	156	175	45
85	140	180	45
90	130		



Zonal Lumen Summary

ZONE	LUMENS	% LAMP	% FIXTURE
0 – 30°	2202	35.5	44.6
0 – 40°	3064	49.4	62.0
0 – 60°	3794	61.2	76.8
0 – 90°	4309	69.5	87.3
90 – 180°	630	10.2	12.7
0 – 180°	4939	79.7	100.0

For photometric data using other shade or lens types, consult appropriate IES photometric files.

Initial Footcandles (Beam Edge defined as 50% of Maximum Nadir Candlepower)

ONE UNIT, **70W**, **62.3°** BEAM

FOOTCANDLES BEAM EDGE	FOOTCANDLES BEAM CENTER	BEAM DIAMETER	DISTANCE TO ILLUMINATED PLANE (FEET)
30.2	93.8	7.2'	6
17.0	52.8	9.7'	8
10.9	33.8	12.1'	10
7.5	23.4	14.5'	12
5.5	17.2	16.9'	14
4.2	13.2	19.3'	16
3.4	10.4	21.7'	18
2.7	8.4	24.2'	20

For 50W lamps use 0.66 multiplier; for 100W lamps use 1.53 multiplier.

Average Initial Footcandles

MULTIPLE UNITS
(SQUARE ARRAY; **60'** X **60'** ROOM)
CEILING **80%**, WALL **50%**, FLOOR **20%**

SPACING	RCR1	RCR3	RCR5
5.0'	203	166	139
6.0'	141	115	96
7.0'	114	93	78
8.0'	90	74	62
9.0'	69	57	47
10.0'	51	42	35
12.0'	35	29	24

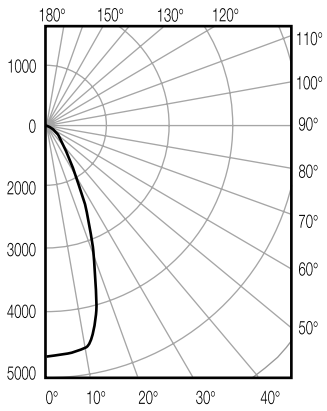
MH_2® CMH Metal Pendants ED17 Lamps (TMP1120, TMP1222SL, & TMP1232UL))

Modular HID Pendant Cord with Metal Reflector Shade and Uniformity Lens

70W ED17 Clear CMH Lamp Rated @ 6200 Lumens Luminaire Spacing Criterion: 0.81 Total Luminaire Efficiency: 71.9%

Candlepower Distribution (candelas)

DEGREES VERTICAL	AVERAGE
0	4749
5	4728
10	4600
15	4154
20	3334
25	2464
30	1788
35	1328
40	962
45	664
50	401
55	244
60	154
65	103
70	68
75	43
80	27
85	10
90	0



Zonal Lumen Summary

ZONE	LUMENS	% LAMP	% FIXTURE
0 – 30°	2731	44.0	61.3
0 – 40°	3561	57.4	79.9
0 – 60°	4296	69.3	96.4
0 – 90°	4457	71.9	100.0
90 – 180°	0	0	0
0 – 180°	4457	71.9	100.0

For photometric data using other shade or lens types, consult appropriate IES photometric files.

Initial Footcandles (Beam Edge defined as 50% of Maximum Nadir Candlepower)

ONE UNIT, **70W**, **50.2°** BEAM

FOOTCANDLES BEAM EDGE	FOOTCANDLES BEAM CENTER	BEAM DIAMETER	DISTANCE TO ILLUMINATED PLANE (FEET)
48.8	131.9	5.7'	6
27.4	74.2	7.6'	8
17.6	47.5	9.5'	10
12.2	33.0	11.5'	12
9.0	24.2	13.4'	14
6.9	18.5	15.3'	16
5.4	14.7	17.2'	18
4.4	11.9	19.1'	20

For 50W lamps use 0.66 multiplier; for 100W lamps use 1.53 multiplier.

Average Initial Footcandles

MULTIPLE UNITS
(SQUARE ARRAY; **60'** X **60'** ROOM)
CEILING **80%**, WALL **50%**, FLOOR **20%**

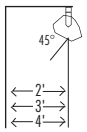
SPACING	RCR1	RCR3	RCR5
5.0'	196	166	141
6.0'	136	115	98
7.0'	110	93	80
8.0'	87	74	63
9.0'	67	57	48
10.0'	49	42	35
12.0'	34	29	25

Biax® Flood/Wall Washers Footcandles on Wall from Multiple Units

TMBX26

Fixture Distance from Wall — 2' | 3' | 4'

FIXTURE CENTERS (SPACING)	2'			3'			4'			3'			4'			5'			4'			5'			6'		
1'	108	106	108	80	63	80	70	37	70	56	55	56	45	38	45	40	26	40	32	31	32	27	24	27	25	18	25
2'	59	59	59	41	38	41	34	25	34	41	41	41	32	29	32	28	21	28	28	27	28	23	21	23	21	17	21
3'	35	35	35	24	23	24	18	17	18	27	27	27	20	20	20	17	15	17	21	21	21	17	16	17	15	13	15
4'	22	22	22	15	15	15	11	11	18	19	19	19	14	14	14	12	11	12	15	16	15	13	12	13	11	10	11
5'	15	15	15	10	10	10	8	8	8	14	14	14	10	10	10	9	8	9	12	12	12	10	10	10	8	8	8
6'	10	10	10	7	7	7	6	6	6	10	10	10	8	8	8	6	6	6	9	9	9	8	8	8	7	6	7
7'	8	8	8	6	5	6	4	4	4	8	8	8	6	6	6	5	5	5	7	8	7	6	6	6	5	5	5
8'	6	6	6	4	4	4	3	3	3	6	6	6	5	5	5	4	4	4	6	6	6	5	5	5	4	4	4
9'	5	5	5	4	4	4	3	3	3	5	5	5	4	4	4	3	3	3	5	5	5	4	4	4	4	4	4
10'	4	4	4	3	3	3	2	2	2	4	4	4	3	3	3	3	3	3	4	4	4	4	4	4	3	3	3

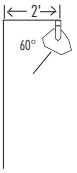


One 26W Quad CFL 1850 Total Lumens

TBX18

Trac 2' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE 0	1'	2'	3'	4'	5'	MULTIPLE FIXTURE PERFORMANCE 2'			3'		
1'	88	47	11	1	0	0	110	96	110	90	52	90
2'	59	40	17	6	2	0	97	92	97	71	56	71
3'	33	26	15	7	3	1	69	68	69	47	44	47
4'	17	15	10	6	3	2	45	46	45	31	28	31
5'	10	10	7	5	3	2	32	34	32	22	20	22
6'	5	5	4	3	2	2	19	20	19	13	14	13
7'	3	3	3	2	2	1	15	12	15	9	10	9
8'	2	2	2	2	2	1	12	10	12	8	6	8
9'	2	2	1	1	1	1	8	8	8	6	6	6



Two 18W Biax Lamps 2500 Total Lumens

TBX18

Trac 3' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE 0	1'	2'	3'	4'	5'	MULTIPLE FIXTURE PERFORMANCE 3'			4'		
1'	49	40	22	10	3	1	69	66	69	55	44	55
2'	39	33	20	11	5	2	63	62	63	49	42	49
3'	27	24	17	10	6	3	49	50	49	39	36	39
4'	18	16	12	8	5	3	38	38	38	28	28	28
5'	11	10	8	6	4	3	27	26	27	19	20	19
6'	6	6	5	4	3	2	18	18	18	12	14	12
7'	4	4	4	3	3	2	12	12	12	2	2	2
8'	3	3	3	2	2	1	9	10	9	7	8	7
9'	2	2	2	2	1	1	8	6	8	4	6	4

Two 18W Biax Lamps 2500 Total Lumens

TBX39

Trac 2' from Wall

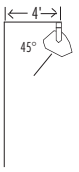
DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE 0	1'	2'	3'	4'	5'	MULTIPLE FIXTURE PERFORMANCE 4'			6'		
1'	108	89	49	22	9	3	126	100	126	103	55	103
2'	81	70	44	23	12	5	105	92	105	90	56	90
3'	62	55	38	23	13	7	88	84	88	67	49	67
4'	40	36	28	19	12	7	64	64	64	46	38	46
5'	25	24	20	15	10	7	45	48	45	31	28	31
6'	14	13	12	10	8	6	30	32	30	23	22	23
7'	9	9	8	7	6	4	21	22	21	19	18	19
8'	7	7	6	5	5	4	17	18	17	16	15	16
9'	4	4	4	3	3	2	10	12	10	10	9	10

Two 39W Biax Lamps 5800 Total Lumens

TBX39

Trac 4' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE 0	1'	2'	3'	4'	5'	MULTIPLE FIXTURE PERFORMANCE 4'			6'		
1'	67	59	40	23	12	6	91	86	91	70	53	70
2'	52	47	34	22	13	8	78	76	78	65	53	65
3'	48	44	33	23	14	9	76	76	76	59	50	59
4'	35	33	26	19	13	9	61	64	61	47	43	47
5'	25	24	20	16	12	8	49	50	49	37	35	37
6'	16	16	13	11	9	7	34	36	34	28	27	28
7'	10	10	9	8	7	5	24	26	24	23	22	23
8'	7	7	7	6	5	5	17	22	17	17	16	17
9'	6	5	5	5	4	3	14	16	14	14	12	14

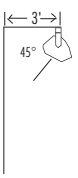


Two 39W Biax Lamps 5800 Total Lumens

TBX40

Trac 3' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE 0	1'	2'	3'	4'	5'	MULTIPLE FIXTURE PERFORMANCE 4'			6'		
1'	130	105	56	24	9	2	148	114	148	131	44	131
2'	101	85	51	27	13	6	127	106	127	109	49	109
3'	72	64	44	27	15	8	102	96	102	74	44	74
4'	46	41	31	21	13	8	72	72	72	48	35	48
5'	27	26	21	16	11	7	49	52	49	33	27	33
6'	15	15	12	10	7	5	29	32	29	23	21	23
7'	10	10	8	7	5	4	20	22	20	18	17	18
8'	7	6	6	5	4	3	15	16	15	14	14	14
9'	5	5	5	4	4	3	12	14	12	12	12	12

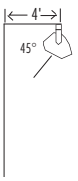


Two 40W Biax Lamps 6300 Total Lumens

TBX40

Trac 4' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE 0	1'	2'	3'	4'	5'	MULTIPLE FIXTURE PERFORMANCE 4'			8'		
1'	73	66	45	27	14	6	101	94	101	80	49	80
2'	63	57	41	26	16	9	95	90	95	76	51	76
3'	54	49	38	25	16	10	86	88	86	65	49	65
4'	41	38	31	23	16	10	73	76	73	51	43	51
5'	29	28	23	18	13	9	55	58	55	38	35	38
6'	18	18	16	13	11	8	40	44	40	29	28	29
7'	12	12	11	9	8	6	28	30	28	23	22	23
8'	8	8	8	7	6	5	20	24	20	18	18	18
9'	6	6	6	5	4	3	14	18	14	15	15	15



Two 40W Biax Lamps 6300 Total Lumens

All data shown is for fixtures with specular or white louvers. For fixtures with black louver use 0.85 multiplier. Without louver use 1.15 multiplier.
Note: For fixtures without louver, levels at edge of pattern will be higher and the width of pattern will increase.

Biax is a registered trademark of General Electric Corporation.

T5HO Flood/Wall Washer Footcandles on Wall from Multiple Units

T5T22

Trac 2' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
	0	1'	2'	3'	4'	5'	4'			6'		
1'	167	116	43	13	4	1	176	88	176	169	34	169
2'	108	83	42	17	6	3	121	86	121	111	26	111
3'	54	45	28	15	7	3	69	59	69	57	30	57
4'	29	25	18	11	6	3	42	39	42	33	22	33
5'	17	15	11	8	5	3	28	27	28	21	17	21
6'	10	9	8	6	4	3	20	19	20	14	12	14
7'	7	6	5	4	3	2	14	14	14	10	9	10
8'	5	4	4	3	2	2	11	10	11	7	7	7
9'	3	3	3	2	2	2	8	8	8	6	5	6

Two 24W T5HO Lamps 3520 Total Lumens

T5T22

Trac 3' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
	0	1'	2'	3'	4'	5'	4'			6'		
1'	77	60	32	14	6	3	89	67	89	77	39	77
2'	72	60	37	19	9	4	92	78	92	79	29	79
3'	51	44	30	18	10	5	73	67	73	57	37	57
4'	33	30	22	15	9	5	53	50	53	39	30	39
5'	20	18	15	11	7	5	37	36	37	26	23	26
6'	13	12	10	8	6	4	27	27	27	20	18	20
7'	9	9	7	6	5	3	21	20	21	15	14	14
8'	6	6	5	5	4	3	16	16	16	11	11	11
9'	5	4	4	3	3	2	12	12	12	9	9	9

Two 24W T5HO Lamps 3520 Total Lumens

T5T32

Trac 3' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
	0	1'	2'	3'	4'	5'	6'			8'		
1'	117	99	59	27	12	5	122	55	122	118	35	118
2'	117	102	67	36	17	8	125	73	125	119	23	119
3'	81	72	52	32	18	10	91	66	91	84	36	84
4'	54	49	38	26	16	10	66	54	66	57	33	57
5'	34	31	26	19	13	9	45	41	45	38	27	38
6'	22	21	18	14	10	7	33	31	33	27	22	27
7'	15	15	13	11	8	6	25	25	25	20	18	20
8'	11	11	10	8	7	5	20	19	20	16	14	16
9'	8	8	7	6	5	4	16	16	16	13	12	13

Two 39W T5HO Lamps 6160 Total Lumens

T5T32

Trac 4' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
	0	1'	2'	3'	4'	5'	6'			8'		
1'	104	92	65	38	21	11	115	79	115	107	42	107
2'	91	82	61	39	23	13	105	81	105	96	46	96
3'	72	66	51	35	22	13	88	73	88	77	45	77
4'	49	45	37	27	18	12	65	58	65	55	38	55
5'	34	32	27	21	15	10	50	46	50	41	31	41
6'	24	23	20	16	12	9	38	36	38	30	25	30
7'	17	16	14	12	9	7	29	28	29	23	20	23
8'	12	12	11	9	7	6	23	22	23	18	16	18
9'	9	9	8	7	6	5	18	18	18	14	13	14

Two 39W T5HO Lamps 6160 Total Lumens

T5T42

Trac 3' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
	0	1'	2'	3'	4'	5'	6'			8'		
1'	148	132	90	46	20	8	156	93	156	150	40	150
2'	152	137	99	57	29	14	165	116	165	155	58	155
3'	107	98	75	49	28	15	124	100	124	112	57	112
4'	72	67	54	38	25	15	91	80	91	78	50	78
5'	46	43	36	27	19	13	64	60	64	53	40	53
6'	31	29	25	20	15	11	47	45	47	38	32	38
7'	21	21	18	15	12	9	36	35	36	29	25	29
8'	15	15	13	11	9	7	28	28	28	22	21	22
9'	11	11	10	9	7	6	23	23	23	18	17	18

Two 54W T5HO Lamps 8800 Total Lumens

T5T42

Trac 4' from Wall

DISTANCE FROM CEILING	SINGLE FIXTURE PERFORMANCE						MULTIPLE FIXTURE PERFORMANCE					
	0	1'	2'	3'	4'	5'	6'			8'		
1'	137	125	94	59	33	17	155	121	155	142	66	142
2'	122	112	87	58	35	20	144	121	144	129	71	129
3'	97	90	73	51	33	20	122	108	122	106	68	106
4'	66	62	52	39	27	18	91	84	91	76	56	76
5'	47	45	38	30	22	15	70	67	70	57	46	57
6'	33	32	28	23	17	13	54	52	54	43	37	43
7'	23	23	20	17	14	10	42	41	42	32	30	32
8'	17	17	15	13	11	8	33	32	33	25	24	25
9'	13	12	11	10	8	7	26	26	26	20	19	20

Two 54W T5HO Lamps 8800 Total Lumens

Line Voltage Incandescent & Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
50W R20	FL	45°	2000	550	2	138	1.7	1.7	89	2.3	1.9	2	17	3.5	13.7	3.3	49	2.0	4.0	2.3	2	89	1.2	2.3	1.9
Incandescent					4	34	3.3	3.3	22	4.7	3.8	3	8	5.2	20.5	5.0	22	3.0	6.0	3.5	3	40	1.7	3.5	2.9
					6	15	5.0	5.0	10	7.0	5.7	4	4	6.9	**	6.6	12	4.0	8.0	4.7	4	22	2.3	4.7	3.8
					8	9	6.6	6.6	6	9.4	7.7	5	3	8.7	**	8.3	8	5.0	10.0	5.9	5	14	2.9	5.9	4.8
					10	5	8.3	8.3	4	11.7	9.6	6	2	10.4	**	9.9	5	6.0	12.0	7.0	6	10	3.5	7.0	5.7
65W BR30	SP	27°	2000	1680	2	420	1.0	1.0	273	1.3	1.1	2	53	3.5	4.6	1.9	148	2.0	2.0	1.4	3	121	1.7	2.0	1.7
Incandescent					4	105	1.9	1.9	68	2.6	2.2	3	23	5.2	7.0	2.9	66	3.0	3.1	2.0	4	68	2.3	2.6	2.2
					6	47	2.9	2.9	30	3.9	3.3	4	13	6.9	9.3	3.8	37	4.0	4.1	2.7	5	44	2.9	3.3	2.8
					8	26	3.8	3.8	17	5.2	4.4	5	8	8.7	11.6	4.8	24	5.0	5.1	3.4	6	30	3.5	3.9	3.3
					10	17	4.8	4.8	11	6.5	5.5	6	6	10.4	13.9	5.8	16	6.0	6.1	4.1	7	22	4.0	4.6	3.9
	FL	60°	2000	510	2	128	2.3	2.3	83	3.5	2.7	1	64	1.7	**	2.3	180	1.0	3.5	1.6	1	331	0.6	1.7	1.3
					3	57	3.5	3.5	37	5.2	4.0	2	16	3.5	**	4.6	45	2.0	6.9	3.3	2	83	1.2	3.5	2.7
					4	32	4.6	4.6	21	6.9	5.3	3	7	5.2	**	6.9	20	3.0	10.4	4.9	3	37	1.7	5.2	4.0
					5	20	5.8	5.8	13	8.7	6.7	4	4	6.9	**	9.2	11	4.0	13.9	6.5	4	21	2.3	6.9	5.3
					6	14	6.9	6.9	9	10.4	8.0	5	3	8.7	**	11.5	7	5.0	17.3	8.2	5	13	2.9	8.7	6.7
120W BR40	SP	20°	2000	6690	6	186	2.1	2.1	121	2.9	2.4	3	93	5.2	4.7	2.1	263	3.0	2.2	1.5	5	174	2.9	2.4	2.0
Incandescent					8	105	2.8	2.8	68	3.8	3.3	4	52	6.9	6.2	2.8	148	4.0	2.9	2.0	6	121	3.5	2.9	2.4
					10	67	3.5	3.5	43	4.8	4.1	5	33	8.7	7.8	3.5	95	5.0	3.6	2.5	7	89	4.0	3.3	2.9
					12	46	4.2	4.2	30	5.7	4.9	6	23	10.4	9.3	4.2	66	6.0	4.4	3.0	8	68	4.6	3.8	3.3
					14	34	4.9	4.9	22	6.7	5.7	7	17	12.1	10.9	4.9	48	7.0	5.1	3.5	9	54	5.2	4.3	3.7
	FL	53°	2000	1430	4	89	4.0	4.0	58	5.8	4.6	2	45	3.5	**	4.0	126	2.0	5.3	2.8	3	103	1.7	4.3	3.5
					6	40	6.0	6.0	26	8.7	6.9	3	20	5.2	**	6.0	56	3.0	8.0	4.2	4	58	2.3	5.8	4.6
					8	22	8.0	8.0	15	11.6	9.2	4	11	6.9	**	8.0	32	4.0	10.6	5.6	5	37	2.9	7.2	5.8
					10	14	10.0	10.0	9	14.5	11.5	5	7	8.7	**	10.0	20	5.0	13.3	7.1	6	26	3.5	8.7	6.9
					12	10	12.0	12.0	6	17.4	13.8	6	5	10.4	**	12.0	14	6.0	15.9	8.5	7	19	4.0	10.1	8.1
45W PAR16	NSP	10°	2000	5000	6	139	1.0	1.0	90	1.4	1.2	2	156	3.5	1.4	0.7	442	2.0	0.7	0.5	6	90	3.5	0.9	0.8
Halogen					8	78	1.4	1.4	51	1.9	1.6	3	69	5.2	2.1	1.0	196	3.0	1.1	0.7	9	40	5.2	1.4	1.2
					10	50	1.7	1.7	32	2.3	2.0	4	39	6.9	2.9	1.4	110	4.0	1.4	1.0	12	23	6.9	1.9	1.6
					12	35	2.1	2.1	23	2.8	2.4	5	25	8.7	3.6	1.7	71	5.0	1.8	1.2	15	14	8.7	2.3	2.0
					14	26	2.4	2.4	17	3.3	2.8	6	17	10.4	4.3	2.1	49	6.0	2.1	1.5	18	10	10.4	2.8	2.4
	NFL	27°	2000	1400	3	156	1.4	1.4	101	2.0	1.7	1	175	1.7	2.3	1.0	495	1.0	1.0	0.7	4	57	2.3	1.3	1.1
					5	56	2.4	2.4	36	3.3	2.8	2	44	3.5	4.6	1.9	124	2.0	2.0	1.4	6	25	3.5	2.6	2.2
					7	29	3.4	3.4	19	4.6	3.9	3	19	5.2	7.0	2.9	55	3.0	3.1	2.0	8	14	4.6	3.9	3.3
					9	17	4.3	4.3	11	5.9	5.0	4	11	6.9	9.3	3.8	31	4.0	4.1	2.7	10	9	5.8	5.2	4.4
					11	12	5.3	5.3	8	7.2	6.1	5	7	8.7	11.6	4.8	20	5.0	5.1	3.4	12	6	6.9	6.5	5.5
60W PAR16	NSP	10°	2000	5400	6	150	1.0	1.0	97	1.4	1.2	2	169	3.5	1.4	0.7	477	2.0	0.7	0.5	6	97	3.5	0.5	0.4
Halogen					8	84	1.4	1.4	55	1.9	1.6	3	75	5.2	2.1	1.0	212	3.0	1.1	0.7	7	72	4.0	0.7	0.6
					10	54	1.7	1.7	35	2.3	2.0	4	42	6.9	2.9	1.4	119	4.0	1.4	1.0	8	55	4.6	0.9	0.8
					12	38	2.1	2.1	24	2.8	2.4	5	27	8.7	3.6	1.7	76	5.0	1.8	1.2	9	43	5.2	1.2	1.0
					14	28	2.4	2.4	18	3.3	2.8	6	19	10.4	4.3	2.1	53	6.0	2.1	1.5	10	35	5.8	1.4	1.2
	NFL	30°	2000	1550	4	97	2.1	2.1	63	2.9	2.5	2	48	3.5	5.5	2.1	137	2.0	2.3	1.5	2	252	1.2	1.5	1.2
					6	43	3.2	3.2	28	4.4	3.7	3	22	5.2	8.2	3.2	61	3.0	3.5	2.3	3	112	1.7	2.2	1.9
					8	24	4.3	4.3	16	5.9	5.0	4	12	6.9	10.9	4.3	34	4.0	4.6	3.0	4	63	2.3	2.9	2.5
					10	16	5.4	5.4	10	7.3	6.2	5	8	8.7	13.7	5.4	22	5.0	5.8	3.8	5	40	2.9	3.7	3.1
					12	11	6.4	6.4	7	8.8	7.4	6	5	10.4	16.4	6.4	15	6.0	6.9	4.5	6	28	3.5	4.4	3.7
75W PAR16	NSP	10°	2000	7500	6	208	1.0	1.0	135	1.4	1.2	2	234	3.5	1.4	0.7	663	2.0	0.7	0.5	6	135	3.5	1.4	1.2
Halogen					8	117	1.4	1.4	76	1.9	1.6	3	104	5.2	2.1	1.0	295	3.0	1.1	0.7	7	99	4.0	1.6	1.4
					10	75	1.7	1.7	49	2.3	2.0	4	59	6.9	2.9	1.4	166	4.0	1.4	1.0	8	76	4.6	1.9	1.6
					12	52	2.1	2.1	34	2.8	2.4	5	38	8.7	3.6	1.7	106	5.0	1.8	1.2	9	60	5.2	2.1	1.8
					14	38	2.4	2.4	25	3.3	2.8	6	26	10.4	4.3	2.1	74	6.0	2.1	1.5	10	49	5.8	2.3	2.0
	NFL	30°	2000	1900	4	119	2.1	2.1	77	2.9	2.5	2	59	3.5	5.5	2.1	168	2.0	2.3	1.5	2	309	1.2	1.5	1.2
					6	53	3.2	3.2	34	4.4	3.7	3	26	5.2	8.2	3.2	75	3.0	3.5	2.3	3	137	1.7	2.2	1.9
					8	30	4.3	4.3	19	5.9	5.0	4	15	6.9	10.9	4.3	42	4.0	4.6	3.0	4	77	2.3	2.9	2.5
					10	19	5.4	5.4	12	7.3	6.2	5	10	8.7	13.7	5.4	27	5.0	5.8	3.8	5	49	2.9	3.7	3.1
					12	13	6.4	6.4	9	8.8	7.4	6	7	10.4	16.4	6.4	19	6.0	6.9	4.5	6	34	3.5	4.4	3.7
50W PAR20	SP	10°	2500	4600	6	128	1.0	1.0	83	1.4	1.2	2	144	3.5	1.4	0.7	407	2.0	0.7	0.5	3	332	1.7	1.7	0.6
Halogen					8	72	1.4	1.4	47	1.9	1.6	3	64	5.0	2.1	1.0	181	3.0	1.1	0.7	4	187	2.3	0.9	0.8
					10	46	1.7	1.7	30	2.3	2.0	4	36	6.9	2.9	1.4	102	4.0	1.4	1.0	5	120	2.9	1.2	1.0
					12	32	2.1	2.1	21	2.8	2.4	5	23	8.7	3.6	1.7	65	5.0	1.8	1.2	6	83	3.5	1.4	1.2
					14	24	2.4	2.4	15	3.3	2.8	6	16	10.4	4.3	2.1	45	6.0	2.1	1.5	7	61	4.0	1.6	1.4
	FL	30°	2500	1200	4	75	2.1	2.1	49	2.9	2.5	2	38	3.5	5.5	2.1	106	2.0	2.3	1.5	3	87	1.7	2.2	1.9
					5	48	2.7	2.7	31	3.7	3.1	3	17	5.2	8.2	3.2	47	3.0	3.5	2.3	4	49	2.3	2.9	2.5
					6	33	3.2	3.2	22	4.4	3.7	4	9	6.9	10.9	4.3	27	4.0	4.6	3.0	5	31	2.9	3.7	3.1
					7	25	3.8	3.8	16	5.1	4.3	5	6	8.7	13.7	5.4	17	5.0	5.8	3.8	6	22	3.5	4.4	3.7
					8	19	4.3	4.3	12	5.9	5.0	6	4	10.4	16.4	6.4	12	6.0	3.9	4.5	7	16	4.0	5.1	4.3

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

Line Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
50W PAR30 Halogen	SP	10°	3000	6900	6	192	1.0	1.0	124	1.4	1.2	3	96	5.2	2.1	1.0	271	3.0	1.1	0.7	6	124	3.5	1.4	1.2
					8	108	1.4	1.4	70	1.9	1.6	4	54	6.9	2.9	1.4	152	4.0	1.4	1.0	7	91	4.0	1.6	1.4
					10	69	1.7	1.7	45	2.3	2.0	5	35	8.7	3.6	1.7	98	5.0	1.8	1.2	8	70	4.6	1.9	1.6
					12	48	2.1	2.1	31	2.8	2.4	6	24	10.4	4.3	2.1	68	6.0	2.1	1.5	9	55	5.2	2.1	1.8
					14	35	2.4	2.4	23	3.3	2.8	7	18	12.1	5.0	2.4	50	7.0	2.5	1.7	10	45	5.8	2.3	2.0
	NFL	25°	3000	2000	4	125	1.8	1.8	81	2.4	2.0	2	63	3.5	4.2	1.8	177	2.0	1.9	1.3	4	81	2.3	2.4	2.0
					6	56	2.7	2.7	36	3.6	3.1	3	28	5.2	6.2	2.7	79	3.0	2.8	1.9	5	52	2.9	3.0	2.6
					8	31	3.5	3.5	20	4.8	4.1	4	16	6.9	8.3	3.5	44	4.0	3.7	2.5	6	36	3.5	3.6	3.1
					10	20	4.4	4.4	13	6.0	5.1	5	10	8.7	10.4	4.4	28	5.0	4.7	3.1	7	27	4.0	4.2	3.6
					12	14	5.3	5.3	9	7.2	6.1	6	7	10.4	12.5	5.3	20	6.0	5.6	3.8	8	20	4.6	4.8	4.1
	FL	35°	3000	1400	3	156	1.9	1.9	101	2.6	2.2	1	175	1.7	3.6	1.3	495	1.0	1.4	0.9	2	227	1.2	1.7	1.5
					5	56	3.2	3.2	36	4.3	3.6	2	44	3.5	7.2	2.5	124	2.0	2.8	1.8	3	101	1.7	2.6	2.2
					7	29	4.4	4.4	19	6.1	5.1	3	19	5.2	10.8	3.8	55	3.0	4.2	2.7	4	57	2.3	3.5	2.9
					9	17	5.7	5.7	11	7.8	6.6	4	11	6.9	14.4	5.0	31	4.0	5.6	3.6	5	36	2.9	4.3	3.6
					11	12	6.9	6.9	8	9.6	8.0	5	7	8.7	18.0	6.3	20	5.0	7.0	4.5	6	25	3.5	5.2	4.4
50W PAR30 Halogen IR	SP	9°	3000	13000	6	361	0.9	0.9	235	1.3	1.1	4	102	6.9	2.6	1.3	287	4.0	1.3	0.9	7	172	4.0	1.5	1.3
					8	203	1.3	1.3	132	1.7	1.5	5	65	8.7	3.2	1.6	184	5.0	1.6	1.1	8	132	4.6	1.7	1.5
					10	130	1.6	1.6	84	2.1	1.8	6	45	10.4	3.8	1.9	128	6.0	1.9	1.3	9	104	5.2	1.9	1.6
					12	90	1.9	1.9	59	2.5	2.2	7	33	12.1	4.5	2.2	94	7.0	2.2	1.6	10	84	5.8	2.1	1.8
					14	66	2.2	2.2	43	2.9	2.5	8	25	13.9	5.1	2.5	72	8.0	2.5	1.8	11	70	6.4	2.3	2.0
	NFL	25°	3000	2700	4	169	1.8	1.8	110	2.4	2.0	2	84	3.5	4.2	1.8	239	2.0	1.9	1.3	4	110	2.3	2.4	2.0
					6	75	2.7	2.7	49	3.6	3.1	3	38	5.2	6.2	2.7	106	3.0	2.8	1.9	5	70	2.9	3.0	2.6
					8	42	3.5	3.5	27	4.8	4.1	4	21	6.9	8.3	3.5	60	4.0	3.7	2.5	6	49	3.5	3.6	3.1
					10	27	4.4	4.4	19	6.0	5.1	5	14	8.7	10.4	4.4	38	5.0	4.7	3.1	7	36	4.0	4.2	3.6
					12	19	5.3	5.3	12	7.2	6.1	6	9	10.4	12.5	5.3	27	6.0	5.6	3.8	8	27	4.6	4.8	4.1
	FL	35°	3000	1500	3	167	1.9	1.9	108	2.6	2.2	1	188	1.7	3.6	1.3	530	1.0	1.4	0.9	3	108	1.7	2.6	2.2
					5	60	3.2	3.2	39	4.3	3.6	2	47	3.5	7.2	2.5	133	2.0	2.8	1.8	4	61	2.3	3.5	2.9
					7	31	4.4	4.4	20	6.1	5.1	3	21	5.2	10.8	3.8	59	3.0	4.2	2.7	5	39	2.9	4.3	3.6
					9	19	5.7	5.7	12	7.8	6.6	4	12	6.9	14.4	5.0	33	4.0	5.6	3.6	6	27	3.5	5.2	4.4
					11	12	6.9	6.9	8	9.6	8.0	5	8	8.7	18.0	6.3	21	5.0	7.0	4.5	7	20	4.0	6.1	5.1
75W PAR30 Halogen	SP	10°	3000	13000	6	361	1.0	1.0	235	1.4	1.2	3	181	5.2	2.1	1.0	511	3.0	1.1	0.7	7	172	4.0	1.6	1.4
					8	203	1.4	1.4	132	1.9	1.6	4	102	6.9	2.9	1.4	287	4.0	1.4	1.0	8	132	4.6	1.9	1.6
					10	130	1.7	1.7	84	2.3	2.0	5	65	8.7	3.6	1.7	184	5.0	1.8	1.2	9	104	5.2	2.1	1.8
					12	90	2.1	2.1	59	2.8	2.4	6	45	10.4	4.3	2.1	128	6.0	2.1	1.5	10	84	5.8	2.3	2.0
					14	66	2.4	2.4	43	3.3	2.8	7	33	12.1	5.0	2.4	94	7.0	2.5	1.7	11	70	6.4	2.6	2.2
	NFL	25°	3000	3100	4	194	1.8	1.8	126	2.4	2.0	2	97	3.5	4.2	1.8	274	2.0	1.9	1.3	3	224	1.7	1.8	1.5
					6	86	2.7	2.7	56	3.6	3.1	3	43	5.2	6.2	2.7	122	3.0	2.8	1.9	4	126	2.3	2.4	2.0
					8	48	3.5	3.5	31	4.8	4.1	4	24	6.9	8.3	3.5	69	4.0	3.7	2.5	5	81	2.9	3.0	2.6
					10	31	4.4	4.4	20	6.0	5.1	5	16	8.7	10.4	4.4	44	5.0	4.7	3.1	6	56	3.5	3.6	3.1
					14	66	2.4	2.4	43	3.3	2.8	6	11	10.4	12.5	5.3	30	6.0	5.6	3.8	7	41	4.0	4.2	3.6
	FL	35°	3000	2000	4	125	2.5	2.5	81	3.5	2.9	2	63	3.5	7.2	2.5	177	2.0	2.8	1.8	3	144	1.7	2.6	2.2
					6	56	3.8	3.8	36	5.2	4.4	3	28	5.2	10.8	3.8	79	3.0	4.2	2.7	4	81	2.3	3.5	2.9
					8	31	5.0	5.0	20	7.0	5.8	4	16	6.9	14.4	5.0	44	4.0	5.6	3.6	5	52	2.9	4.3	3.6
					10	20	6.3	6.3	13	8.7	7.3	5	10	8.7	18.0	6.3	28	5.0	7.0	4.5	6	36	3.5	5.2	4.4
					12	14	7.6	7.6	9	10.4	8.7	6	7	10.4	21.6	7.6	20	6.0	8.4	5.4	7	27	4.0	6.1	5.1

Line Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
60W PAR38 Halogen IR	SP	10°	3000	17000	10	170	1.7	1.7	110	2.3	2.0	4	133	6.9	2.9	1.4	376	4.0	1.4	1.0	6	307	3.5	0.9	0.8
					12	118	2.1	2.1	77	2.8	2.4	6	59	10.4	4.3	2.1	167	6.0	2.1	1.5	9	136	5.2	1.4	1.2
					14	87	2.4	2.4	56	3.3	2.8	8	33	13.9	5.7	2.8	94	8.0	2.8	2.0	12	77	6.9	1.9	1.6
					16	66	2.8	2.8	43	3.7	3.2	10	21	17.3	7.2	3.5	60	10.0	3.5	2.5	15	49	8.7	2.3	2.0
					18	52	3.1	3.1	34	4.2	3.6	12	15	20.8	8.6	4.2	42	12.0	4.2	3.0	18	34	10.4	2.8	2.4
	FL	30°	3000	2800	6	112	2.7	2.7	73	3.7	3.1	2	88	3.5	5.5	2.1	247	2.0	2.3	1.5	3	202	1.7	1.5	1.2
					7	78	3.2	3.2	51	4.4	3.7	4	22	6.9	10.9	4.3	62	4.0	4.6	3.0	4	114	2.3	2.9	2.5
					8	57	3.8	3.8	37	5.1	4.3	6	10	10.4	16.4	6.4	27	6.0	6.9	4.5	6	51	3.5	4.4	3.7
					10	44	4.3	4.3	28	5.9	5.0	8	5	13.9	21.9	8.6	15	8.0	9.2	6.1	8	28	4.6	5.9	5.0
					12	28	5.4	5.4	18	7.3	6.2	10	4	17.3	**	10.7	10	10.0	11.5	7.6	10	18	5.8	7.3	6.2
	WFL	40°	3000	1700	3	189	2.2	2.2	123	3.0	2.5	2	53	3.5	9.7	2.9	150	2.0	3.4	2.1	2	276	1.2	2.0	1.7
					4	106	2.9	2.9	69	4.1	3.4	3	24	5.2	14.5	4.4	67	3.0	5.0	3.1	3	123	1.7	3.0	2.5
					5	68	3.6	3.6	44	5.1	4.2	4	13	6.9	19.3	5.8	38	4.0	6.7	4.1	4	69	2.3	4.1	3.4
					7	35	5.1	5.1	23	7.1	5.9	5	9	8.7	24.2	7.3	24	5.0	8.4	5.1	5	44	2.9	5.1	4.2
					9	21	6.6	6.6	14	9.1	7.6	6	6	10.4	**	8.7	17	6.0	10.1	6.2	6	31	3.5	6.1	5.0
80W PAR38 Halogen IR	SP	12°	3000	17500	10	175	2.1	2.1	114	2.8	2.4	4	137	6.9	3.5	1.7	387	4.0	1.7	1.2	6	316	3.5	1.1	1.0
					12	122	2.5	2.5	79	3.4	2.9	6	61	10.4	5.2	2.5	172	6.0	2.6	1.8	9	140	5.2	1.7	1.5
					14	89	2.9	2.9	58	3.9	3.4	8	34	13.9	7.0	3.4	97	8.0	3.4	2.4	12	79	6.9	2.3	1.9
					16	68	3.4	3.4	44	4.5	3.9	10	22	17.3	8.7	4.2	62	10.0	4.3	3.0	15	51	8.7	2.8	2.4
					18	54	3.8	3.8	35	5.1	4.4	12	15	20.8	10.4	5.0	43	12.0	5.1	3.6	18	35	10.4	3.4	2.9
	NFL	25°	3000	5000	8	78	3.5	3.5	51	4.8	4.1	2	156	3.5	4.2	1.8	442	2.0	1.9	1.3	4	203	2.3	1.2	1.0
					10	50	4.4	4.4	32	6.0	5.1	4	39	6.9	8.3	3.5	110	4.0	3.7	2.5	6	90	3.5	2.4	2.0
					12	35	5.3	5.3	23	7.2	6.1	6	17	10.4	12.5	5.3	49	6.0	5.6	3.8	8	51	4.6	3.6	3.1
					14	26	6.2	6.2	17	8.4	7.2	8	10	13.9	16.6	7.1	28	8.0	7.5	5.0	10	32	5.8	4.8	4.1
					16	20	7.1	7.1	13	9.6	8.2	10	6	17.3	20.8	8.9	18	10.0	9.3	6.3	12	23	6.9	6.0	5.1
90W PAR38 Halogen	SP	10°	3000	20000	10	200	1.7	1.7	130	2.3	2.0	4	156	6.9	2.9	1.4	442	4.0	1.4	1.0	6	361	3.5	0.9	0.8
					12	139	2.1	2.1	90	2.8	2.4	6	69	10.4	4.3	2.1	196	6.0	2.1	1.5	9	160	5.2	1.4	1.2
					14	102	2.4	2.4	66	3.3	2.8	8	39	13.9	5.7	2.8	110	8.0	2.8	2.0	12	90	6.9	1.9	1.6
					16	78	2.8	2.8	51	3.7	3.2	10	25	17.3	7.2	3.5	71	10.0	3.5	2.5	15	58	8.7	2.3	2.0
					18	62	3.1	3.1	40	4.2	3.6	12	17	20.8	8.6	4.2	49	12.0	4.2	3.0	18	40	10.4	2.8	2.4
	NFL	25°	3000	4700	8	73	3.5	3.5	48	4.8	4.1	2	147	3.5	4.2	1.8	415	2.0	1.9	1.3	4	191	2.3	1.2	1.0
					10	47	4.4	4.4	31	6.0	5.1	4	37	6.9	8.3	3.5	104	4.0	3.7	2.5	6	85	3.5	2.4	2.0
					12	33	5.3	5.3	21	7.2	6.1	6	16	10.4	12.5	5.3	46	6.0	5.6	3.8	8	48	4.6	3.6	3.1
					14	24	6.2	6.2	16	8.4	7.2	8	9	13.9	16.6	7.1	26	8.0	7.5	5.0	10	31	5.8	4.8	4.1
					16	18	7.1	7.1	12	9.6	8.2	10	6	17.3	20.8	8.9	17	10.0	9.3	6.3	12	21	6.9	6.0	5.1
	WFL	50°	3000	1600	6	44	5.6	5.6	29	8.0	6.5	2	50	3.5	21.5	3.7	141	2.0	4.8	2.6	2	260	1.2	2.7	2.2
					8	25	7.5	7.5	16	10.7	8.6	3	22	5.2	**	5.6	63	3.0	7.2	4.0	3	115	1.7	4.0	3.2
					10	16	9.3	9.3	10	13.4	10.8	4	13	6.9	**	7.5	35	4.0	9.5	5.3	4	65	2.3	5.4	4.3
					12	11	11.2	11.2	7	16.1	12.9	5	8	8.7	**	9.3	23	5.0	11.9	6.6	5	42	2.9	6.7	5.4
					14	8	13.1	13.1	5	18.8	15.1	6	6	10.4	**	11.2	16	6.0	14.3	7.9	6	29	3.5	8.0	6.5
90W PAR38 Halogen IR Long Life	SP	12°	6000	12000	8	188	1.7	1.7	122	2.3	1.9	3	167	5.2	2.6	1.3	471	3.0	1.3	0.9	6	217	3.5	1.7	1.5
					10	120	2.1	2.1	78	2.8	2.4	4	94	6.9	3.5	1.7	265	4.0	1.7	1.2	7	159	4.0	2.0	1.7
					12	84	2.5	2.5	54	3.4	2.9	5	60	8.7	4.3	2.1	170	5.0	2.1	1.5	8	122	4.6	2.3	1.9
					14	61	2.9	2.9	40	3.9	3.4	6	42	10.4	5.2	2.5	118	6.0	2.6	1.8	9	96	5.2	2.5	2.2
					16	47	3.4	3.4	30	4.5	3.9	7	31	12.1	6.1	2.9	87	7.0	3.0	2.1	10	78	5.8	2.8	2.4
	FL	40°	6000	2800	5	112	3.6	3.6	73	5.1	4.2	2	88	3.5	9.7	2.9	247	2.0	3.4	2.1	4	114	2.3	4.1	3.4
					7	57	5.1	5.1	37	7.1	5.9	3	39	5.2	14.5	4.4	110	3.0	5.0	3.1	5	73	2.9	5.1	4.2
					9	35	6.6	6.6	22	9.1	7.6	4	22	6.9	19.3	5.8	62	4.0	6.7	4.1	6	51	3.5	6.1	5.0
					11	23	8.0	8.0	15	11.2	9.2	5	14	8.7	24.2	7.3	40	5.0	8.4	5.1	7	37	4.0	7.1	5.9
					13	17	9.5	9.5	11	13.2	10.9	6	10	10.4	**	8.7	27	6.0	10.1	6.2	8	28	4.6	8.1	6.7
100W PAR38 Halogen IR	SP	10°	3000	30000	10	300	1.7	1.7	195	2.3	2.0	4	234	6.9	2.9	1.4	663	4.0	1.4	1.0	6	541	3.5	0.9	0.8
					12	208	2.1	2.1	135	2.8	2.4	6	104	10.4	4.3	2.1	295	6.0	2.1	1.5	9	241	5.2	1.4	1.2
					14	153	2.4	2.4	99	3.3	2.8	8	59	13.9	5.7	2.8	166	8.0	2.8	2.0	12	135	6.9	1.9	1.6
					16	117	2.8	2.8	76	3.7	3.2	10	38	17.3	7.2	3.5	106	10.0	3.5	2.5	15	87	8.7	2.3	2.0
					18	93	3.1	3.1	60	4.2	3.6	12	26	20.8	8.6	4.2	74	12.0	4.2	3.0	18	60	10.4	2.8	2.4
	NFL	25°	3000	7000	8	109	3.5	3.5	71	4.8	4.1	2	219	3.5	4.2	1.8	619	2.0	1.9	1.3	3	505	1.7	1.2	1.0
					10	70	4.4	4.4	45	6.0	5.1	4	55	6.9	8.3	3.5	155	4.0	3.7	2.5	4	284	2.3	2.4	2.0
					12	49	5.3	5.3	32	7.2	6.1	6	24	10.4	12.5	5.3	69	6.0	5.6	3.8	6	126	3.5	3.6	3.1
					14	36	6.2	6.2	23	8.4	7.2	8	14	13.9	16.6	7.1	39	8.0	7.5	5.0	8	71	4.6	4.8	4.1
					16	27	7.1	7.1	18	9.6	8.2	10	9	17.3	20.8	8.9	25	10.0	9.3	6.3	10	45	5.8	6.0	5.1
	FL	40°	3000	3400	6	94	4.4	4.4	61	6.1	5.0	2	106	3.5	9.7	2.9	301	2.0	3.4	2.1	2	552	1.2	2.0	1.7
					8	53	5.8	5.8	35	8.1	6.7	3	47	5.2	14.5	4.4	134	3.0	5.0	3.1	3	245	1.7	3.0	2.5
					10	34	7.3	7.3	22	10.2	8.4	4	27	6.9	19.3	5.8	75	4.0	6.7	4.1	4	138	2.3	4.1	3.4
					12	24	8.7	8.7	15	12.2	10.1	5	17	8.7	24.2	7.3	48	5.0	8.4	5.1	5	88	2.9	5.1	4.2
					14	17	10.2	10.2	11	14.2	11.8	6	12	10.4	**	8.7	33	6.0	10.1	6.2	6	61	3.5	6.1	5.0

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

Line Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface							Vertical Surface													
					0 degrees				30 degrees			30 degrees					45 degrees				60 degrees				
					MH	FC	L	W	FC	L	W	D	FC	X	L	W	FC	X	L	W	D	FC	X	L	W
120W PAR38 Halogen	SP	10°	3000	22500	10	225	1.7	1.7	146	2.3	2.0	4	176	6.9	2.9	1.4	497	4.0	1.4	1.0	6	406	3.5	0.9	0.8
					12	156	2.1	2.1	101	2.8	2.4	6	78	10.4	4.3	2.1	221	6.0	2.1	1.5	9	180	5.2	1.4	1.2
					14	115	2.4	2.4	75	3.3	2.8	8	44	13.9	5.7	2.8	124	8.0	2.8	2.0	12	101	6.9	1.9	1.6
					16	88	2.8	2.8	57	3.7	3.2	10	28	17.3	7.2	3.5	80	10.0	3.5	2.5	15	65	8.7	2.3	2.0
					18	69	3.1	3.1	45	4.2	3.6	12	20	20.8	8.6	4.2	55	12.0	4.2	3.0	18	45	10.4	2.8	2.4
	FL	30°	3000	4600	8	72	4.3	4.3	47	5.9	5.0	2	144	3.5	5.5	2.1	407	2.0	2.3	1.5	3	332	1.7	1.5	1.2
					10	46	5.4	5.4	30	7.3	6.2	4	36	6.9	10.9	4.3	102	4.0	4.6	3.0	4	187	2.3	2.9	2.5
					12	32	6.4	6.4	21	8.8	7.4	6	16	10.4	16.4	6.4	45	6.0	6.9	4.5	6	83	3.5	4.4	3.7
					14	23	7.5	7.5	15	10.2	8.7	8	9	13.9	21.9	8.6	25	8.0	9.2	6.1	8	47	4.6	5.9	5.0
					16	18	8.6	8.6	12	11.7	9.9	10	6	17.3	**	10.7	16	10.0	11.5	7.6	10	30	5.8	7.3	6.2
	WFL	50°	3000	2000	6	56	5.6	5.6	36	8.0	6.5	2	63	3.5	21.5	3.7	177	2.0	4.8	2.6	2	325	1.2	2.7	2.2
					8	31	7.5	7.5	20	10.7	8.6	3	28	5.2	**	5.6	79	3.0	7.2	4.0	3	144	1.7	4.0	3.2
					10	20	9.3	9.3	13	13.4	10.8	4	16	6.9	**	7.5	44	4.0	9.5	5.3	4	81	2.3	5.4	4.3
					12	14	11.2	11.2	9	16.1	12.9	5	10	8.7	**	9.3	28	5.0	11.9	6.6	5	52	2.9	6.7	5.4
					14	10	13.1	13.1	7	18.8	15.1	6	7	10.4	**	11.2	20	6.0	14.3	7.9	6	36	3.5	8.0	6.5
250W PAR38 Halogen	SP	10°	4200	40000	12	278	2.1	2.1	180	2.8	2.4	6	139	10.4	4.3	2.1	393	6.0	2.1	1.5	8	406	4.6	1.9	1.6
					14	204	2.4	2.4	133	3.3	2.8	9	62	15.6	6.4	3.1	175	9.0	3.2	2.2	9	321	5.2	2.1	1.8
					16	156	2.8	2.8	101	3.7	3.2	12	35	20.8	8.6	4.2	98	12.0	4.2	3.0	10	260	5.8	2.3	2.0
					22	83	3.8	3.8	54	5.1	4.4	15	22	**	10.7	5.2	63	15.0	5.3	3.7	11	215	6.4	2.6	2.2
					30	44	5.2	5.2	29	7.0	6.1	18	15	**	12.9	6.3	44	18.0	6.3	4.5	12	180	6.9	2.8	2.4
	FL	30°	4200	9000	6	250	3.2	3.2	162	4.4	3.7	3	125	5.2	8.2	3.2	354	3.0	3.5	2.3	6	162	3.5	4.4	3.7
					8	141	4.3	4.3	91	5.9	5.0	4	70	6.9	10.9	4.3	199	4.0	4.6	3.0	7	119	4.0	5.1	4.3
					10	90	5.4	5.4	58	7.3	6.2	5	45	8.7	13.7	5.4	127	5.0	5.8	3.8	8	91	4.6	5.9	5.0
					12	63	6.4	6.4	41	8.8	7.4	6	31	10.4	16.4	6.4	88	6.0	6.9	4.5	9	72	5.2	6.6	5.6
					14	46	7.5	7.5	30	10.2	8.7	7	23	12.1	19.1	7.5	65	7.0	8.1	5.3	10	58	5.8	7.3	6.2

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

Low Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
20W MR11 Halogen	SP	15°	3500	1760	4	110	1.1	1.1	71	1.4	1.2	2	55	3.5	2.2	1.1	156	2.0	1.1	0.7	4	71	2.3	0.7	0.6
					6	49	1.6	1.6	32	2.1	1.8	3	24	5.2	3.3	1.6	69	3.0	1.6	1.1	5	46	2.9	1.1	0.9
					8	28	2.1	2.1	18	2.8	2.4	4	14	6.9	4.4	2.1	39	4.0	2.1	1.5	6	32	3.5	1.4	1.2
					10	18	2.6	2.6	11	3.5	3.0	5	9	8.7	5.6	2.6	25	5.0	2.7	1.9	7	23	4.0	1.8	1.5
					12	12	3.2	3.2	8	4.2	3.6	6	6	10.4	6.7	3.2	17	6.0	3.2	2.2	8	18	4.6	2.1	1.8
	FL	30°	3500	600	2	150	1.1	1.1	97	1.5	1.2	1	75	1.7	2.7	1.1	212	1.0	1.2	0.8	2	97	1.2	0.7	0.6
					4	38	2.1	2.1	24	2.9	2.5	2	19	3.5	5.5	2.1	53	2.0	2.3	1.5	3	43	1.7	1.5	1.2
					6	17	3.2	3.2	11	4.4	3.7	3	8	5.2	8.2	3.2	24	3.0	3.5	2.3	4	24	2.3	2.2	1.9
					8	9	4.3	4.3	6	5.9	5.0	4	5	6.9	10.9	4.3	13	4.0	4.6	3.0	5	16	2.9	2.9	2.5
					10	6	5.4	5.4	4	7.3	6.2	5	3	8.7	13.7	5.4	8	5.0	5.8	3.8	6	11	3.5	3.7	3.1
35W MR11 Halogen	SP	20°	3500	3000	4	188	1.4	1.4	122	1.9	1.6	2	94	3.5	3.1	1.4	265	2.0	1.5	1.0	4	122	2.3	1.0	0.8
					6	83	2.1	2.1	54	2.9	2.4	3	42	5.2	4.7	2.1	118	3.0	2.2	1.5	5	78	2.9	1.4	1.2
					8	47	2.8	2.8	30	3.8	3.3	4	23	6.9	6.2	2.8	66	4.0	2.9	2.0	6	54	3.5	1.9	1.6
					10	30	3.5	3.5	19	4.8	4.1	5	15	8.7	7.8	3.5	42	5.0	3.6	2.5	7	40	4.0	2.4	2.0
					12	21	4.2	4.2	14	5.7	4.9	6	10	10.4	9.3	4.2	29	6.0	4.4	3.0	8	30	4.6	2.9	2.4
	FL	30°	3500	1300	2	325	1.1	1.1	211	1.5	1.2	1	163	1.7	2.7	1.1	460	1.0	1.2	0.8	2	211	1.2	0.7	0.6
					4	81	2.1	2.1	53	2.9	2.5	2	41	3.5	5.5	2.1	115	2.0	2.3	1.5	3	94	1.7	1.5	1.2
					6	36	3.2	3.2	23	4.4	3.7	3	18	5.2	8.2	3.2	51	3.0	3.5	2.3	4	53	2.3	2.2	1.9
					8	20	4.3	4.3	13	5.9	5.0	4	10	6.9	10.9	4.3	29	4.0	4.6	3.0	5	34	2.9	2.9	2.5
					10	13	5.4	5.4	8	7.3	6.2	5	7	8.7	13.7	5.4	18	5.0	5.8	3.8	6	23	3.5	3.7	3.1
20W MR16 Halogen	VNSP	7°	3000	7400	6	206	0.7	0.7	134	1.0	0.8	3	103	5.2	1.5	0.7	291	3.0	0.7	0.5	6	134	3.5	1.0	0.8
					9	91	1.1	1.1	59	1.5	1.3	4	58	6.9	2.0	1.0	164	4.0	1.0	0.7	7	98	4.0	1.1	1.0
					12	51	1.5	1.5	33	2.0	1.7	5	37	8.7	2.5	1.2	105	5.0	1.2	0.9	8	75	4.6	1.3	1.1
					15	33	1.8	1.8	21	2.4	2.1	6	26	10.4	3.0	1.5	73	6.0	1.5	1.0	9	59	5.2	1.5	1.3
					18	23	2.2	2.2	15	2.9	2.5	7	19	12.1	3.5	1.7	53	7.0	1.7	1.2	10	48	5.8	1.6	1.4
	NSP	15°	5000	3750	4	234	1.1	1.1	152	1.4	1.2	2	117	3.5	2.2	1.1	331	2.0	1.1	0.7	4	152	2.3	1.4	1.2
					6	104	1.6	1.6	68	2.1	1.8	3	52	5.2	3.3	1.6	147	3.0	1.6	1.1	5	97	2.9	1.8	1.5
					8	59	2.1	2.1	38	2.8	2.4	4	29	6.9	4.4	2.1	83	4.0	2.1	1.5	6	68	3.5	2.1	1.8
					10	38	2.6	2.6	24	3.5	3.0	5	19	8.7	5.6	2.6	53	5.0	2.7	1.9	7	50	4.0	2.5	2.1
					12	26	3.2	3.2	17	4.2	3.6	6	13	10.4	6.7	3.2	37	6.0	3.2	2.2	8	38	4.6	2.8	2.4
20W MR16 Halogen IR Lensed	NSP	10°	5000	6000	4	375	0.7	0.7	244	0.9	0.8	2	188	3.5	1.4	0.7	530	2.0	0.7	0.5	4	244	2.3	0.5	0.4
					6	167	1.0	1.0	108	1.4	1.2	3	83	5.2	2.1	1.0	236	3.0	1.1	0.7	5	156	2.9	0.7	0.6
					8	94	1.4	1.4	61	1.9	1.6	4	47	6.9	2.9	1.4	133	4.0	1.4	1.0	6	108	3.5	0.9	0.8
					10	60	1.7	1.7	39	2.3	2.0	5	30	8.7	3.6	1.7	85	5.0	1.8	1.2	7	80	4.0	1.2	1.0
					12	42	2.1	2.1	27	2.8	2.4	6	21	10.4	4.3	2.1	59	6.0	2.1	1.5	8	61	4.6	1.4	1.2
	FL	35°	5000	1000	2	250	1.3	1.3	162	1.7	1.5	1	125	1.7	3.6	1.3	354	1.0	1.4	0.9	2	162	1.2	0.9	0.7
					4	63	2.5	2.5	41	3.5	2.9	2	31	3.5	7.2	2.5	88	2.0	2.8	1.8	3	72	1.7	1.7	1.5
					6	28	3.8	3.8	18	5.2	4.4	3	14	5.2	10.8	3.8	39	3.0	4.2	2.7	4	41	2.3	2.6	2.2
					8	16	5.0	5.0	10	7.0	5.8	4	8	6.9	14.4	5.0	22	4.0	5.6	3.6	5	26	2.9	3.5	2.9
					10	10	6.3	6.3	6	8.7	7.3	5	5	8.7	18.0	6.3	14	5.0	7.0	4.5	6	18	3.5	4.3	3.6
35W MR16 Halogen	NSP	10°	4000	9100	6	253	1.0	1.0	164	1.4	1.2	3	126	5.2	2.1	1.0	357	3.0	1.1	0.7	6	164	3.5	0.7	0.6
					8	142	1.4	1.4	92	1.9	1.6	4	71	6.9	2.9	1.4	201	4.0	1.4	1.0	7	121	4.0	0.9	0.8
					10	91	1.7	1.7	59	2.3	2.0	5	46	8.7	3.6	1.7	129	5.0	1.8	1.2	8	92	4.6	1.2	1.0
					12	63	2.1	2.1	41	2.8	2.4	6	32	10.4	4.3	2.1	89	6.0	2.1	1.5	9	73	5.2	1.4	1.2
					14	46	2.4	2.4	30	3.3	2.8	7	23	12.1	5.0	2.4	66	7.0	2.5	1.7	10	59	5.8	1.6	1.4
	NFL	25°	4000	2000	4	125	1.8	1.8	81	2.4	2.0	2	63	3.5	4.2	1.8	177	2.0	1.9	1.3	4	81	2.3	1.2	1.0
					6	56	2.7	2.7	36	3.6	3.1	3	28	5.2	6.2	2.7	79	3.0	2.8	1.9	5	52	2.9	1.8	1.5
					8	31	3.5	3.5	20	4.8	4.1	4	16	6.9	8.3	3.5	44	4.0	3.7	2.5	6	36	3.5	2.4	2.0
					10	20	4.4	4.4	13	6.0	5.1	5	10	8.7	10.4	4.4	28	5.0	4.7	3.1	7	27	4.0	3.0	2.6
					12	14	5.3	5.3	9	7.2	6.1	6	7	10.4	12.5	5.3	20	6.0	5.6	3.8	8	20	4.6	3.6	3.1
	FL	35°	4000	1500	4	94	2.5	2.5	61	3.5	2.9	2	47	3.5	7.2	2.5	133	2.0	2.8	1.8	4	61	2.3	1.7	1.5
					6	42	3.8	3.8	27	5.2	4.4	3	21	5.2	10.8	3.8	59	3.0	4.2	2.7	5	39	2.9	2.6	2.2
					8	23	5.0	5.0	15	7.0	5.8	4	12	6.9	14.4	5.0	33	4.0	5.6	3.6	6	27	3.5	3.5	2.9
					10	15	6.3	6.3	10	8.7	7.3	5	8	8.7	18.0	6.3	21	5.0	7.0	4.5	7	20	4.0	4.3	3.6
					12	10	7.6	7.6	7	10.4	8.7	6	5	10.4	21.6	7.6	15	6.0	8.4	5.4	8	15	4.6	5.2	4.4
	WFL	60°	4000	650	2	163	2.3	2.3	106	3.5	2.7	1	81	1.7	**	2.3	230	1.0	3.5	1.6	2	106	1.2	1.7	1.3
					4	41	4.6	4.6	26	6.9	5.3	2	20	3.5	**	4.6	57	2.0	6.9	3.3	3	47	1.7	3.5	2.7
					6	18	6.9	6.9	12	10.4	8.0	3	9	5.2	**	6.9	26	3.0	10.4	4.9	4	26	2.3	5.2	4.0
					8	10	9.2	9.2	7	13.9	10.7	4	5	6.9	**	9.2	14	4.0	13.9	6.5	5	17	2.9	6.9	5.3
					10	7	11.5	11.5	4	17.3	13.3	5	3	8.7	**	11.5	9	5.0	17.3	8.2	6	12	3.5	8.7	6.7

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

Low Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
35W MR16 Halogen 24 Volt Lensed	SP	12°	4000	4950	4	309	0.8	0.8	2.1	1.1	1.0	2	155	3.5	1.7	0.8	438	2.0	0.9	0.6	4	201	2.3	1.1	1.0
					6	138	1.3	1.3	89	1.7	1.5	3	69	5.2	2.6	1.3	194	3.0	1.3	0.9	5	129	2.9	1.4	1.2
					8	77	1.7	1.7	50	2.3	1.9	4	39	6.9	3.5	1.7	109	4.0	1.7	1.2	6	89	3.5	1.7	1.5
					10	50	2.1	2.1	32	2.8	2.4	5	25	8.7	4.3	2.1	70	5.0	2.1	1.5	7	66	4.0	2.0	1.7
					12	34	2.5	2.5	2.2	3.4	2.9	6	17	10.4	5.2	2.5	49	6.0	2.6	1.8	8	50	4.6	2.3	1.9
	FL	40°	4000	920	4	58	2.9	2.9	37	4.1	3.4	2	29	3.5	9.7	2.9	81	2.0	3.4	2.1	3	66	1.7	3.0	2.5
					5	37	3.6	3.6	24	5.1	4.2	3	13	5.2	14.5	4.4	36	3.0	5.0	3.1	4	37	2.3	4.1	3.4
					8	26	4.4	4.4	17	6.1	5.0	4	7	6.9	19.3	5.8	20	4.0	6.7	4.1	5	24	2.9	5.1	4.2
					7	19	5.1	5.1	12	7.1	5.9	5	5	8.7	24.2	7.3	13	5.0	8.4	5.1	6	17	3.5	6.1	5.0
					8	14	5.8	5.8	9	8.1	6.7	6	3	10.4	**	8.7	9	6.0	10.1	6.2	7	12	4.0	7.1	5.9
37W MR16 Halogen IR Lensed	NSP	10°	5000	12500	6	347	1.0	1.0	226	1.4	1.2	3	174	5.2	2.1	1.0	491	3.0	1.1	0.7	6	226	3.5	0.7	0.6
					8	195	1.4	1.4	127	1.9	1.6	4	98	6.9	2.9	1.4	276	4.0	1.4	1.0	7	166	4.0	0.9	0.8
					10	125	1.7	1.7	81	2.3	2.0	5	63	8.7	3.6	1.7	177	5.0	1.8	1.2	8	127	4.6	1.2	1.0
					12	87	2.1	2.1	56	2.8	2.4	6	43	10.4	4.3	2.1	123	6.0	2.1	1.5	9	100	5.2	1.4	1.2
					14	64	2.4	2.4	41	3.3	2.8	7	32	12.1	5.0	2.4	90	7.0	2.5	1.7	10	81	5.8	1.6	1.4
	NFL	25°	5000	4400	4	275	1.8	1.8	179	2.4	2.0	2	138	3.5	4.2	1.8	389	2.0	1.9	1.3	4	179	2.3	1.2	1.0
					6	122	2.7	2.7	79	3.6	3.1	3	61	5.2	6.2	2.7	173	3.0	2.8	1.9	5	114	2.9	1.8	1.5
					8	69	3.5	3.5	45	4.8	4.1	4	34	6.9	8.3	3.5	97	4.0	3.7	2.5	6	79	3.5	2.4	2.0
					10	44	4.4	4.4	29	6.0	5.1	5	22	8.7	10.4	4.4	62	5.0	4.7	3.1	7	58	4.0	3.0	2.6
					12	31	5.3	5.3	20	7.2	6.1	6	15	10.4	12.5	5.3	43	6.0	5.6	3.8	8	45	4.6	3.6	3.1
	FL	35°	5000	2200	3	244	1.9	1.9	159	2.6	2.2	2	69	3.5	7.2	2.5	194	2.0	2.8	1.8	3	159	1.7	1.7	1.5
					4	138	2.5	2.5	89	3.5	2.9	3	31	5.2	10.8	3.8	86	3.0	4.2	2.7	4	89	2.3	2.6	2.2
					6	61	3.8	3.8	40	5.2	4.4	4	17	6.9	14.4	5.0	49	4.0	5.6	3.6	5	57	2.9	3.5	2.9
					8	34	5.0	5.0	22	7.0	5.8	5	11	8.7	18.0	6.3	31	5.0	7.0	4.5	6	40	3.5	4.3	3.6
					10	22	6.3	6.3	14	8.7	7.3	6	8	10.4	21.6	7.6	22	6.0	8.4	5.4	7	29	4.0	5.2	4.4
	WFL	60°	5000	1100	2	275	2.3	2.3	179	3.5	2.7	1	138	1.7	**	2.3	389	1.0	3.5	1.6	2	179	1.2	1.7	1.3
					4	69	4.6	4.6	45	6.9	5.3	2	34	3.5	**	4.6	97	2.0	6.9	3.3	3	79	1.7	3.5	2.7
					6	31	6.9	6.9	20	10.4	8.0	3	15	5.2	**	6.9	43	3.0	10.4	4.9	4	45	2.3	5.2	4.0
					8	17	9.2	9.2	11	13.9	10.7	4	9	6.9	**	9.2	24	4.0	13.9	6.5	5	29	2.9	6.9	5.3
					10	11	11.5	11.5	7	17.3	13.3	5	6	8.7	**	11.5	16	5.0	17.3	8.2	6	20	3.5	8.7	6.7
42W MR16 Halogen	VNSP	9°	3500	12300	8	192	1.3	1.3	125	1.7	1.5	4	96	6.9	2.6	1.3	272	4.0	1.3	0.9	7	163	4.0	1.5	1.3
					10	123	1.6	1.6	80	2.1	1.8	5	62	8.7	3.2	1.6	174	5.0	1.6	1.1	8	125	4.6	1.7	1.5
					12	85	1.9	1.9	55	2.5	2.2	6	43	10.4	3.8	1.9	121	6.0	1.9	1.3	9	99	5.2	1.9	1.6
					14	63	2.2	2.2	41	2.9	2.5	7	31	12.1	4.5	2.2	89	7.0	2.2	1.6	10	80	5.8	2.1	1.8
					16	48	2.5	2.5	31	3.4	2.9	8	24	13.9	5.1	2.5	68	8.0	2.5	1.8	11	66	6.4	2.3	2.0
50W MR16 Halogen	NSP	15°	6000	9100	6	253	1.6	1.6	164	2.1	1.8	3	126	5.2	3.3	1.6	357	3.0	1.6	1.1	6	164	3.5	1.1	0.9
					8	142	2.1	2.1	92	2.8	2.4	4	71	6.9	4.4	2.1	201	4.0	2.1	1.5	7	121	4.0	1.4	1.2
					10	91	2.6	2.6	59	3.5	3.0	5	46	8.7	5.6	2.6	129	5.0	2.7	1.9	8	92	4.6	1.8	1.5
					12	63	3.2	3.2	41	4.2	3.6	6	32	10.4	6.7	3.2	89	6.0	3.2	2.2	9	73	5.2	2.1	1.8
					14	46	3.7	3.7	30	4.9	4.3	7	23	12.1	7.8	3.7	66	7.0	3.8	2.6	10	59	5.8	2.5	2.1
	NFL	25°	6000	3200	4	200	1.8	1.8	130	2.4	2.0	2	100	3.5	4.2	1.8	283	2.0	1.9	1.3	4	130	2.3	1.2	1.0
					6	89	2.7	2.7	58	3.6	3.1	3	44	5.2	6.2	2.7	126	3.0	2.8	1.9	5	83	2.9	1.8	1.5
					8	50	3.5	3.5	32	4.8	4.1	4	25	6.9	8.3	3.5	71	4.0	3.7	2.5	6	58	3.5	2.4	2.0
					10	32	4.4	4.4	21	6.0	5.1	5	16	8.7	10.4	4.4	45	5.0	4.7	3.1	7	42	4.0	3.0	2.6
					12	22	5.3	5.3	14	7.2	6.1	6	11	10.4	12.5	5.3	31	6.0	5.6	3.8	8	32	4.6	3.6	3.1
	FL	40°	6000	1700	3	189	2.2	2.2	123	3.0	2.5	2	53	3.5	9.7	2.9	150	2.0	3.4	2.1	3	123	1.7	2.0	1.7
					4	106	2.9	2.9	69	4.1	3.4	3	24	5.2	14.5	4.4	67	3.0	5.0	3.1	4	69	2.3	3.0	2.5
					6	47	4.4	4.4	31	6.1	5.0	4	13	6.9	19.3	5.8	38	4.0	6.7	4.1	5	44	2.9	4.1	3.4
					8	27	5.8	5.8	17	8.1	6.7	5	9	8.7	24.2	7.3	24	5.0	8.4	5.1	6	31	3.5	5.1	4.2
					10	17	7.3	7.3	11	10.2	8.4	6	6	10.4	**	8.7	17	6.0	10.1	6.2	7	23	4.0	6.1	5.0
	WFL	55°	6000	900	2	225	2.1	2.1	146	3.1	2.4	1	113	1.7	22.3	2.1	318	1.0	2.9	1.5	2	146	1.2	1.5	1.2
					3	100	3.1	3.1	65	4.6	3.6	2	28	3.5	**	4.2	80	2.0	5.7	2.9	3	65	1.7	3.1	2.4
					4	56	4.2	4.2	37	6.1	4.8	3	13	5.2	**	6.2	35	3.0	8.6	4.4	4	37	2.3	4.6	3.6
					6	25	6.2	6.2	16	9.2	7.2	4	7	6.9	**	8.3	20	4.0	11.4	5.9	5	23	2.9	6.1	4.8
					8	14	8.3	8.3	9	12.2	9.6	5	5	8.7	**	10.4	13	5.0	14.3	7.4	6	16	3.5	7.6	6.0

** Due to steep aiming angle, length of beam extends beyond 25'.
Each angle listed is measured from 0° vertical.

Low Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
50W MR16 Halogen IR Lensed	SP	10°	5000	15000	6	417	1.0	1.0	271	1.9	1.6	3	208	5.2	2.1	1.0	589	3.0	1.1	0.7	6	271	3.5	0.7	0.6
					8	234	1.4	1.4	152	1.9	1.6	4	117	6.9	2.9	1.4	331	4.0	1.4	1.0	7	199	4.0	0.9	0.8
					10	150	1.7	1.7	97	2.3	2.0	5	75	8.7	3.6	1.7	212	5.0	1.8	1.2	8	152	4.6	1.2	1.0
					12	104	2.1	2.1	68	2.8	2.4	6	52	10.4	4.3	2.1	147	6.0	2.1	1.5	9	120	5.2	1.4	1.2
					14	77	2.4	2.4	50	3.3	2.8	7	38	12.1	5.0	2.4	108	7.0	2.5	1.7	10	97	5.8	1.6	1.4
	NFL	25°	5000	5700	4	356	1.8	1.8	231	2.4	2.0	2	178	3.5	4.2	1.8	504	2.0	1.9	1.3	4	231	2.3	1.2	1.0
					6	158	2.7	2.7	103	3.6	3.1	3	79	5.2	6.2	2.7	224	3.0	2.8	1.9	5	148	2.9	1.8	1.5
					8	89	3.5	3.5	58	4.8	4.1	4	45	6.9	8.3	3.5	126	4.0	3.7	2.5	6	103	3.5	2.4	2.0
					10	57	4.4	4.4	37	6.0	5.1	5	29	8.7	10.4	4.4	81	5.0	4.7	3.1	7	76	4.0	3.0	2.6
					12	40	5.3	5.3	26	7.2	6.1	6	20	10.4	12.5	5.3	56	6.0	5.6	3.8	8	58	4.6	3.6	3.1
	FL	35°	5000	2850	3	317	1.9	1.9	206	2.6	2.2	2	89	3.5	7.2	2.5	252	2.0	2.8	1.8	3	206	1.7	1.7	1.5
					4	178	2.5	2.5	116	3.5	2.9	3	40	5.2	10.8	3.8	112	3.0	4.2	2.7	4	116	2.3	2.6	2.2
					6	79	3.8	3.8	51	5.2	4.4	4	22	6.9	14.4	5.0	63	4.0	5.6	3.6	5	74	2.9	3.5	2.9
					8	45	5.0	5.0	29	7.0	5.8	5	14	8.7	18.0	6.3	40	5.0	7.0	4.5	6	51	3.5	4.3	3.6
					10	29	6.3	6.3	19	8.7	7.3	6	10	10.4	21.6	7.6	28	6.0	8.4	5.4	7	38	4.0	5.2	4.4
	WFL	60°	5000	1430	2	358	2.3	2.3	232	3.5	2.7	1	179	1.7	**	2.3	506	1.0	3.5	1.6	2	232	1.2	1.7	1.3
					3	159	3.5	3.5	103	5.2	4.0	2	45	3.5	**	4.6	126	2.0	6.9	3.3	3	103	1.7	3.5	2.7
					4	89	4.6	4.6	58	6.9	5.3	3	20	5.2	**	6.9	56	3.0	10.4	4.9	4	58	2.3	5.2	4.0
					6	40	6.9	6.9	26	10.4	8.0	4	11	6.9	**	9.2	32	4.0	13.9	6.5	5	37	2.9	6.9	5.3
					8	22	9.2	9.2	15	13.9	10.7	5	7	8.7	**	11.5	20	5.0	17.3	8.2	6	26	3.5	8.7	6.7
50W MR16 Halogen 24 Volt Lensed	SP	15°	4000	8400	8	131	2.1	2.1	85	2.8	2.4	3	117	5.2	3.3	1.6	330	3.0	1.6	1.1	4	341	2.3	1.4	1.2
					9	104	2.4	2.4	67	3.2	2.7	4	66	6.9	4.4	2.1	186	4.0	2.1	1.5	5	218	2.9	1.8	1.5
					10	84	2.6	2.6	55	3.5	3.0	5	42	8.7	5.6	2.6	119	5.0	2.7	1.9	6	152	3.5	2.1	1.8
					11	69	2.9	2.9	45	3.9	3.3	6	29	10.4	6.7	3.2	82	6.0	3.2	2.2	7	111	4.0	2.5	2.1
					12	58	3.2	3.2	38	4.2	3.7	7	21	12.1	7.8	3.7	61	7.0	3.8	2.6	8	85	4.6	2.8	2.4
	FL	40°	4000	1570	4	98	2.9	2.9	64	4.1	3.4	2	49	3.5	9.7	2.9	139	2.0	3.4	2.1	2	255	1.2	2.0	1.7
					5	63	3.6	3.6	41	5.1	4.2	3	22	5.2	14.5	4.4	62	3.0	5.0	3.1	3	113	1.7	3.0	2.5
					6	44	4.4	4.4	28	6.1	5.0	4	12	6.9	19.3	5.8	35	4.0	6.7	4.1	4	64	2.3	4.1	3.4
					7	32	5.1	5.1	21	7.1	5.9	5	8	8.7	24.2	7.3	22	5.0	8.4	5.1	5	41	2.9	5.1	4.1
					8	25	5.8	5.8	16	8.1	6.7	6	5	10.4	**	8.7	15	6.0	10.1	6.2	6	28	3.5	6.1	5.0
71W MR16 Halogen	SP	15°	4000	11500	6	319	1.6	1.6	207	2.1	1.8	3	160	5.2	3.3	1.6	452	3.0	1.6	1.1	6	207	3.5	1.1	0.9
					8	180	2.1	2.1	117	2.8	2.4	4	90	6.9	4.4	2.1	254	4.0	2.1	1.5	7	152	4.0	1.4	1.2
					10	115	2.6	2.6	75	3.5	3.0	5	58	8.7	5.6	2.6	163	5.0	2.7	1.9	8	117	4.6	1.8	1.5
					12	80	3.2	3.2	52	4.2	3.6	6	40	10.4	6.7	3.2	113	6.0	3.2	2.2	9	92	5.2	2.1	1.8
					14	59	3.7	3.7	38	4.9	4.3	7	29	12.1	7.8	3.7	83	7.0	3.8	2.6	10	75	5.8	2.5	2.1
	NFL	25°	4000	5500	4	344	1.8	1.8	223	2.4	2.0	2	172	3.5	4.2	1.8	486	2.0	1.9	1.3	4	223	2.3	1.2	1.0
					6	153	2.7	2.7	99	3.6	3.1	3	76	5.2	6.2	2.7	216	3.0	2.8	1.9	5	143	2.9	1.8	1.5
					8	86	3.5	3.5	56	4.8	4.1	4	43	6.9	8.3	3.5	122	4.0	3.7	2.5	6	99	3.5	2.4	2.0
					10	55	4.4	4.4	36	6.0	5.1	5	28	8.7	10.4	4.4	78	5.0	4.7	3.1	7	73	4.0	3.0	2.6
					12	38	5.3	5.3	25	7.2	6.1	6	19	10.4	12.5	5.3	54	6.0	5.6	3.8	8	56	4.6	3.6	3.1
	FL	40°	4000	2200	3	244	2.2	2.2	159	3.0	2.5	2	69	3.5	9.7	2.9	194	2.0	3.4	2.1	3	159	1.7	2.0	1.7
					4	138	2.9	2.9	89	4.1	3.4	3	31	5.2	14.5	4.4	86	3.0	5.0	3.1	4	89	2.3	3.0	2.5
					6	61	4.4	4.4	40	6.1	5.0	4	17	6.9	19.3	5.8	49	4.0	6.7	4.1	5	57	2.9	4.1	3.4
					8	34	5.8	5.8	22	8.1	6.7	5	11	8.7	24.2	7.3	31	5.0	8.4	5.1	6	40	3.5	5.1	4.2
					10	22	7.3	7.3	14	10.2	8.4	6	8	10.4	**	8.7	22	6.0	10.1	6.2	7	29	4.0	6.1	5.0

** Due to steep aiming angle, length of beam extends beyond
Each angle listed is measured from 0° vertical.

Low Voltage Halogen

Lamp	Beam Type	Beam Spread	Rated Life	CBCP	Horizontal Surface: 0 degrees MH	FC	L	W	30 degrees FC	L	W	Vertical Surface: 30 degrees D	FC	X	L	W	45 degrees FC	X	L	W	60 degrees D	FC	X	L	W
35W PAR36 Halogen	VNSP	5°	4000	25000	8	391	0.7	0.7	254	0.9	0.8	4	195	6.9	1.4	0.7	552	4.0	0.7	0.5	6	451	3.5	0.5	0.4
					10	250	0.9	0.9	162	1.2	1.0	5	125	8.7	1.8	0.9	354	5.0	0.9	0.6	8	254	4.6	0.6	0.5
					12	174	1.0	1.0	113	1.4	1.2	6	87	10.4	2.1	1.0	246	6.0	1.0	0.7	10	162	5.8	0.7	0.6
					14	128	1.2	1.2	83	1.6	1.4	7	64	12.1	2.5	1.2	180	7.0	1.2	0.9	12	113	6.9	0.8	0.7
					16	98	1.4	1.4	63	1.9	1.6	8	49	13.9	2.8	1.4	138	8.0	1.4	1.0	14	83	8.1	0.9	0.8
	NSP	8°	4000	8000	6	222	0.8	0.8	144	1.1	1.0	2	250	3.5	1.1	0.6	707	2.0	0.6	0.4	4	325	2.3	0.4	0.3
					8	125	1.1	1.1	81	1.5	1.3	3	111	5.2	1.7	0.8	314	3.0	0.8	0.6	5	208	2.9	0.6	0.5
					10	80	1.4	1.4	52	1.9	1.6	4	63	6.9	2.3	1.1	177	4.0	1.1	0.8	6	144	3.5	0.7	0.6
					12	56	1.7	1.7	36	2.2	1.9	5	40	8.7	2.8	1.4	113	5.0	1.4	1.0	7	106	4.0	0.9	0.8
					14	41	2.0	2.0	27	2.6	2.3	6	28	10.4	3.4	1.7	79	6.0	1.7	1.2	8	81	4.6	1.1	1.0
	FL	30°	4000	900	4	56	2.1	2.1	37	2.9	2.5	1	113	1.7	2.7	1.1	318	1.0	1.2	0.8	2	146	1.2	0.7	0.6
					6	25	3.2	3.2	16	4.4	3.7	2	28	3.5	5.5	2.1	80	2.0	2.3	1.5	3	65	1.7	1.5	1.2
					8	14	4.3	4.3	9	5.9	5.0	3	13	5.2	8.2	3.2	35	3.0	3.5	2.3	4	37	2.3	2.2	1.9
					10	9	5.4	5.4	6	7.3	6.2	4	7	6.9	10.9	4.3	20	4.0	4.6	3.0	5	23	2.9	2.9	2.5
					12	6	6.4	6.4	4	8.8	7.4	5	5	8.7	13.7	5.4	13	5.0	5.8	3.8	6	16	3.5	3.7	3.1
50W PAR36 Halogen	VNSP	5°	4000	39000	8	609	0.7	0.7	396	0.9	0.8	4	305	6.9	1.4	0.7	862	4.0	0.7	0.5	6	704	3.5	0.5	0.4
					10	390	0.9	0.9	253	1.2	1.0	5	195	8.7	1.8	0.9	552	5.0	0.9	0.6	8	396	4.6	0.6	0.5
					12	271	1.0	1.0	176	1.4	1.2	6	135	10.4	2.1	1.0	383	6.0	1.0	0.7	10	253	5.8	0.7	0.6
					14	199	1.2	1.2	129	1.6	1.4	7	99	12.1	2.5	1.2	281	7.0	1.2	0.9	12	176	6.9	0.8	0.7
					16	152	1.4	1.4	99	1.9	1.6	8	76	13.9	2.8	1.4	215	8.0	1.4	1.0	14	129	8.1	0.9	0.8
	NSP	8°	4000	10000	6	278	0.8	0.8	180	1.1	1.0	2	313	3.5	1.1	0.6	884	2.0	0.6	0.4	4	406	2.3	0.4	0.3
					8	156	1.1	1.1	101	1.5	1.3	3	139	5.2	1.7	0.8	393	3.0	0.8	0.6	5	260	2.9	0.6	0.5
					10	100	1.4	1.4	65	1.9	1.6	4	78	6.9	2.3	1.1	221	4.0	1.1	0.8	6	180	3.5	0.7	0.6
					12	69	1.7	1.7	45	2.2	1.9	5	50	8.7	2.8	1.4	141	5.0	1.4	1.0	7	133	4.0	0.9	0.8
					14	51	2.0	2.0	33	2.6	2.3	6	35	10.4	3.4	1.7	98	6.0	1.7	1.2	8	101	4.6	1.1	1.0
	FL	30°	4000	1300	4	81	2.1	2.1	53	2.9	2.5	1	163	1.7	2.7	1.1	460	1.0	1.2	0.8	2	211	1.2	0.7	0.6
					6	36	3.2	3.2	23	4.4	3.7	2	41	3.5	5.5	2.1	115	2.0	2.3	1.5	3	94	1.7	1.5	1.2
					8	20	4.3	4.3	13	5.9	5.0	3	18	5.2	8.2	3.2	51	3.0	3.5	2.3	4	53	2.3	2.2	1.9
					10	13	5.4	5.4	8	7.3	6.2	4	10	6.9	10.9	4.3	29	4.0	4.6	3.0	5	34	2.9	2.9	2.5
					12	9	6.4	6.4	6	8.8	7.4	5	7	8.7	13.7	5.4	18	5.0	5.8	3.8	6	23	3.5	3.7	3.1
35W AR111 Halogen	VNSP	4°	3000	40000	10	400	0.7	0.7	260	0.9	0.8	5	200	8.7	1.4	0.7	566	5.0	0.7	0.5	8	406	4.6	0.5	0.4
					12	278	0.8	0.8	180	1.1	1.0	6	139	10.4	1.7	0.8	393	6.0	0.8	0.6	10	260	5.8	0.6	0.5
					14	204	1.0	1.0	133	1.3	1.1	7	102	12.1	2.0	1.0	289	7.0	1.0	0.7	12	180	6.9	0.7	0.6
					16	156	1.1	1.1	101	1.5	1.3	8	78	13.9	2.2	1.1	221	8.0	1.1	0.8	14	133	8.1	0.7	0.6
					18	123	1.3	1.3	80	1.7	1.5	9	62	15.6	2.5	1.3	175	9.0	1.3	0.9	16	101	9.2	0.8	0.7
	NSP	8°	3000	14000	8	219	1.1	1.1	142	1.5	1.3	3	194	5.2	1.7	0.8	550	3.0	0.8	0.6	6	253	3.5	0.6	0.5
					10	140	1.4	1.4	91	1.9	1.6	4	109	6.9	2.3	1.1	309	4.0	1.1	0.8	7	186	4.0	0.7	0.6
					12	97	1.7	1.7	63	2.2	1.9	5	70	8.7	2.8	1.4	198	5.0	1.4	1.0	8	142	4.6	0.9	0.8
					14	71	2.0	2.0	46	2.6	2.3	6	49	10.4	3.4	1.7	137	6.0	1.7	1.2	9	112	5.2	1.1	1.0
					16	55	2.2	2.2	36	3.0	2.6	7	36	12.1	4.0	2.0	101	7.0	2.0	1.4	10	91	5.8	1.3	1.1
	FL	25°	3000	2500	4	156	1.8	1.8	101	2.4	2.0	2	78	3.5	4.2	1.8	221	2.0	1.9	1.3	4	101	2.3	1.2	1.0
					6	69	2.7	2.7	45	3.6	3.1	3	35	5.2	6.2	2.7	98	3.0	2.8	1.9	5	65	2.9	1.8	1.5
					8	39	3.5	3.5	25	4.8	4.1	4	20	6.9	8.3	3.5	55	4.0	3.7	2.5	6	45	3.5	2.4	2.0
					10	25	4.4	4.4	16	6.0	5.1	5	13	8.7	10.4	4.4	35	5.0	4.7	3.1	7	33	4.0	3.0	2.6
					12	17	5.3	5.3	11	7.2	6.1	6	9	10.4	12.5	5.3	25	6.0	5.6	3.8	8	25	4.6	3.6	3.1
50W AR111 Halogen	VNSP	4°	3000	45000	10	450	0.7	0.7	292	0.9	0.8	5	225	8.7	1.4	0.7	636	5.0	0.7	0.5	8	457	4.6	0.5	0.4
					12	313	0.8	0.8	203	1.1	1.0	6	156	10.4	1.7	0.8	442	6.0	0.8	0.6	10	292	5.8	0.6	0.5
					14	230	1.0	1.0	149	1.3	1.1	7	115	12.1	2.0	1.0	325	7.0	1.0	0.7	12	203	6.9	0.7	0.6
					16	176	1.1	1.1	114	1.5	1.3	8	88	13.9	2.2	1.1	249	8.0	1.1	0.8	14	149	8.1	0.7	0.6
					18	139	1.3	1.3	90	1.7	1.5	9	69	15.6	2.5	1.3	196	9.0	1.3	0.9	16	114	9.2	0.8	0.7
	SP	8°	3000	20000	8	313	1.1	1.1	203	1.5	1.3	4	156	6.9	2.3	1.1	442	4.0	1.1	0.8	6	361	3.5	0.7	0.6
					10	200	1.4	1.4	130	1.9	1.6	5	100	8.7	2.8	1.4	283	5.0	1.4	1.0	7	265	4.0	0.9	0.8
					12	139	1.7	1.7	90	2.2	1.9	6	69	10.4	3.4	1.7	196	6.0	1.7	1.2	8	203	4.6	1.1	1.0
					14	102	2.0	2.0	66	2.6	2.3	7	51	12.1	4.0	2.0	144	7.0	2.0	1.4	9	160	5.2	1.3	1.1
					16	78	2.2	2.2	51	3.0	2.6	8	39	13.9	4.5	2.2	110	8.0	2.2	1.6	10	130	5.8	1.5	1.3
	FL	25°	3000	4000	4	250	1.8	1.8	162	2.4	2.0	2	125	3.5	4.2	1.8	354	2.0	1.9	1.3	4	162	2.3	1.2	1.0
					6	111	2.7	2.7	72	3.6	3.1	3	56	5.2	6.2	2.7	157	3.0	2.8	1.9	5	104	2.9	1.8	1.5
					8	63	3.5	3.5	41	4.8	4.1	4	31	6.9	8.3	3.5	88	4.0	3.7	2.5	6	72	3.5	2.4	2.0
					10	40	4.4	4.4	26	6.0	5.1	5	20	8.7	10.4	4.4	57	5.0	4.7	3.1	7	53	4.0	3.0	2.6
					12	28	5.3	5.3	18	7.2	6.1	6	14	10.4	12.5	5.3	39	6.0	5.6	3.8	8	41	4.6	3.6	3.1

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Juno® Trac Product Patents

Products and systems shown within this catalog may be covered by the following U.S. and International patens and patents pending.

U.S. D323,719	
U.S. D326,928	
U.S. D328,154	
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U.S. D330,944	
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APPLICATION PHOTOGRAPHY **COVER:** PRADA - MARK STEELE PHOTOGRAPHY; LAMBORGHINI - PERILLO PHOTOGRAPHY; **IBC:** PRADA - MARK STEELE PHOTOGRAPHY; **PAGE 2:** DOMINICK'S - PERILLO PHOTOGRAPHY; **PAGE 3:** WESTIN HOTEL - PICTURE BOY; **PAGE 4:** LAMBORGHINI - PERILLO PHOTOGRAPHY; **PAGE 5:** HORIZON DISPLAY - CARR CIALDELLA PHOTOGRAPHY; **PAGE 6:** PIANO/HALLWAY - PERILLO PHOTOGRAPHY; **PAGE 7:** ART EXHIBIT - CARR CIALDELLA PHOTOGRAPHY; **PAGE 12-13:** PRADA - MARK STEELE PHOTOGRAPHY; **PAGE 16-17:** DOMINICK'S PRODUCE - PERILLO PHOTOGRAPHY; **PAGE 18:** DOMINICK'S PRODUCE - PERILLO PHOTOGRAPHY; **PAGE 22:** DOMINICK'S FLORAL - PERILLO PHOTOGRAPHY; **PAGE 27:** DOMINICK'S FLORAL - PERILLO PHOTOGRAPHY; **PAGE 42:** LAMBORGHINI - PERILLO PHOTOGRAPHY; **PAGE 65:** KIDS' PLAYAWAY/MACY'S EASTON - MARK STEELE PHOTOGRAPHY; **PAGE 70:** HELZBERG DIAMONDS - MARK STEELE PHOTOGRAPHY; **PAGE 73:** AQUARIUM - DOUG SALIN PHOTOGRAPHY; **PAGE 112:** RETAIL IMAGE - MARK STEELE PHOTOGRAPHY; **PAGE 118:** LOOK FAB - MARK STEELE PHOTOGRAPHY; **PAGE 123:** CRATE AND BARREL - PETER BOSY PHOTOGRAPHY; **PAGE 130:** USG - BARBARA KARANT PHOTOGRAPHY; **PAGE 133:** FOSSIL UNIVERSAL - MARK STEELE PHOTOGRAPHY; **PAGE 139:** SONY EASTON - MARK STEELE PHOTOGRAPHY; **PAGE 151:** CAMELOT MUSIC STORES - TOM CRANE PHOTOGRAPHY; **PAGE 160:** DOMINICK'S - PERILLO PHOTOGRAPHY; **PAGE 162:** CRATE AND BARREL - PETER BOSY PHOTOGRAPHY; **PAGE 166:** WESTIN HOTEL - PICTURE BOY; **PAGE 168:** WESTIN HOTEL - PICTURE BOY; **PAGE 170:** WESTIN HOTEL - PICTURE BOY; **PAGE 170:** LIVING ROOM - PERILLO PHOTOGRAPHY; **PAGE 171:** BAKERY - PICTURE BOY; **PAGE 171:** JUNO LOBBY - PICTURE BOY; **PAGE 172:** FLOWER SHOP - PICTURE BOY; **PAGE 174:** BANG & OLUFSEN - CARR CIALDELLA PHOTOGRAPHY; **PAGE 178:** SONY EASTON - MARK STEELE PHOTOGRAPHY; **PAGE 179:** ZIBA SALON - DOUG SALIN PHOTOGRAPHY; **PAGE 199:** SONY EASTON - MARK STEELE PHOTOGRAPHY; **PAGE 204:** USG - BARBARA KARANT PHOTOGRAPHY; **PAGE 213:** AQUARIUM - DOUG SALIN PHOTOGRAPHY; **PAGE 215:** MACY'S - MARK STEELE PHOTOGRAPHY; **PAGE 216:** MACY'S - MARK STEELE PHOTOGRAPHY.

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