

create**change**

COLUMBIA LIGHTING ENERGY SOLUTIONS INITIATIVE

createchange is our commitment to meeting the challenges and opportunities posed by rising energy costs, environmental concerns, energy legislation, LEED certification, utility rebates, and EPAct tax deductions. It is a product philosophy dedicated to development of innovative, high performance luminaires.

To receive the createchange® trademark, a product must meet three criteria.

When compared to fixtures traditionally used in lighting applications, createchange luminaires must:

- 1. Save at least 20% in energy
- 2. Maintain lighting quality
- 3. Maintain light levels

We achieve these goals through innovative design that optimizes performance through our choice of lamp, ballast, reflector, refractor, and control technologies, to create ultra-high efficiency luminaires that deliver proper light levels and distribution at the lowest possible wattage.

ENERGY BENEFITS

Energy efficient lighting solutions can help cut lighting costs by up to 52% without sacrificing light levels; even higher savings can be realized when combined with lighting controls.

- createchange® lighting solutions typically pay for themselves in under two years when installed in new buildings.
- createchange® solutions costs are often recouped in one to three years following installation in a remodel project.
- createchange® solutions, if used wherever possible, would lower the nation's electrical demand by over 10%, saving ratepayers nearly \$17 billion annually.

COLLATERAL BENEFITS

EPAct

createchange® energy solutions can help leverage federal tax deductions by up to \$0.60 per square foot when meeting guidelines established by the Energy Policy Act of 2005.

LEED

Reducing power demand is the largest single consideration when applying for LEED certification. createchange $^{\circ}$ energy solutions help achieve that goal.

Utility Rebates

Many electrical utilities offer substantial rebates for energy-efficient lighting. createchange® energy solutions typically qualify, in many cases completely defraying most or all of the cost of the fixture.

ENVIRONMENTAL BENEFITS

The use of createchange® energy solutions contributes significantly to the reduction of greenhouse gases. If just the estimated 50 million 400W metal halide high bays and 100 million 3-lamp parabolics in use today were converted to their createchange equivalents, we could save 43 million metric tons of $\rm CO_2$ emissions annually—an amount equal to 1.7% of all $\rm CO_2$ caused by the generation of electricity in the U.S. This equates to taking 7.8 million cars of the road. Replacing troffers and other fixtures that use outdated technology could save far greater amounts.

A rapid transition to energy efficiency and renewable energy sources will combat global climate change, protect human health, create new jobs, protect wildlife habitats, and ensure a secure, affordable energy future.

NEMA PREMIUM BALLAST STANDARD

Columbia Lighting is making it even easier for customers to choose energy-efficient, rebate-qualified T8 luminaires. NEMA Premium ballasts are now standard in all F32T8 fixtures. All factory choice ballast options for F32 full wattage or reduced wattage lamp types use ballasts meeting NEMA Premium and CEE (Consortium for Energy Efficiency) standards.

For more createchange® information, visit www.columbialighting.com























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56	KL	Premium Industrial	Industrials
57	CSR	Industrial	Industrials
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68	SLA	outdoor orginana radade zammane	
68 69-85	TECHNICAL	Accessories; Recessed Options; Ballast Options; Electrical Options	Technical

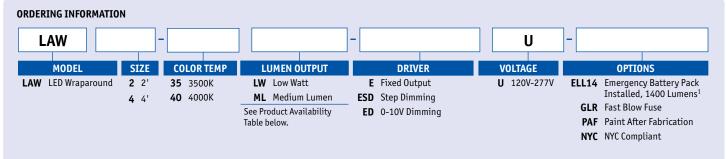


FEATURES

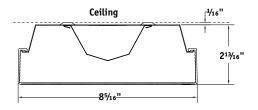
- · LED Wraparound
- Long-life 50,000 hour LEDs at L70 for reduced maintenance
- Choice of two LED color temperatures
- · Choice of two lumen packages
- Available in 2' or 4' lengths
- Optional integral emergency battery pack
- Heavy gauge steel housing, die embossed for maximum rigidity
- · White steel end plates
- Diffuser features flat bottom and vertical sides

- Hinges from either side
- LED boards and driver accessible for future maintenance or upgrades; modular, replaceable
- DesignLights Consortium® (DLC) qualification pending; see www.designlights.org
- · Surface Mount or Suspended
- For narrow corridor wrap with matching appearance use LRO*
- 5 year warranty (Terms and Conditions Apply)

*Coming winter 2014



¹ For compatibility with Dual-Lite LiteGear® inverters in lieu of installed Battery Pack, contact Hubbell Lighting Representative.



ACCESSORIES (ORDER SEPARATELY)

\$18 18" Stem, Canopy

SS18 18" Swivel Stem-45° Swivel

PRODU	CT AVAILAI	BILITY	
SIZE	LUMEN PACKAGE	NOMINAL LUMENS (3500K)	NOMINAL WATTS
2'	LW	2400	25
	ML	4400	51
4'	LW	2400	25
	ML	4400	51

Actual lumens will vary according to color temperatures and other factors. For exact lumens and watts see specific photometric test(s).



LCS

LED Open Striplight

FEATURES

- · LED Open Striplight
- Long-life 50,000 hour LEDs at L70 for reduced maintenance
- Choice of two LED color temperatures
- Choice of four lumen packages per size
- Available in 4' or 8' lengths
- Optional integral emergency battery pack
- · Heavy die-formed steel channel
- Fully assembled fixture for easy installation
- LED boards and driver accessible for future maintenance or upgrades
- Modular replaceable LED components
- · Surface Mount or Suspended
- For narrow lens LED striplight use LRO or LPT*
- 5 year warranty (Terms and Conditions apply)





ORDERING INFORMATION **LCS** MODEL **COLOR TEMP LUMEN OUTPUT** VOLTAGE OPTIONS SIZE **DRIVER U** 120V-277V LCS LED 4 4' **35** 3500K LW Low Watt E Fixed Output ELL14 **Emergency Battery Pack** Striplight Installed, 8 8' **40** 4000K ML Medium Lumen **ESD** Step Dimming 1400 Lumens¹ **HL** High Lumen ED 0-10V Dimming **GLR** Fast Blow Fuse VL Very High Lumen PAF Paint After Fabrication See Product Availability NYC NYC Compliant Table below.

ACCESSORIES (ORDER SEPARATELY)

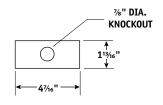
CSWG4 4' Wire Guard S18 18" Stem, Canopy

SS18 18" Swivel Stem—45° Swivel CSHC Chain Hanger Assembly

¹ For compatibility with Dual-Lite LiteGear® inverters in lieu of installed Battery Pack, contact Hubbell Lighting Representative.

PRODUCT AVAILABILITY						
SIZE	LUMEN PACKAGE	NOMINAL LUMENS (3500K)	NOMINAL WATTS			
4'	LW	2,800	27			
	ML	5,600	53			
	HL	6,800	61			
	VL	11,200	106			
8'	LW	5,600	53			
	ML	11,200	106			
	HL	13,600	122			
	VL	22,400	212			

Actual lumens will vary according to color temperature and other factors. For exact lumens and watts see specific photometric test(s).





LED

LSER

Serrano[®] LED Architectural Luminaire with Advanced Solid State Technology



FEATURES

- Up to 101 lumens per watt
- Long-life, 50,000 hour LEDs at L80 reduce life cycle maintenance costs
- Two lumen package choices
- Low Watt offers maximized energy savings
 High Lumen offers maximized lumen output
- Superior color consistency within a 3-step MacAdam ellipse and greater than 80 CRI
- Rigorous testing and QR code record
- Lens design and materials provide uniform appearance without pixilation
- Hinged optical system allows easy access to replaceable/upgradeable LED modules and electrical from below the ceiling

- · Architecturally enhanced triple lens design
- · Lenses interlock for structural integrity
- Two optional lens aesthetics
- Most configurations produce low W/ft2 to meet the most restrictive lighting power density codes
- Available with exclusive wiHUBB technology preinstalled
 - Peer to peer, self-healing wireless mesh network
 - Integrated control system for 0-10VDC or step dimming, or 0n/Off

ORDERING INFORMATION **LSER** U **COLOR TEMP CEILING TYPE SHIELDING** MODEL **DRIVER VOLTAGE OPTIONS U** 120V-277V LSER Serrano® LED **35** 3500K ${\bf G}$ Grid Contour 4 E Fixed Output C388 3-Wire Flex Architectural **40** 4000K R Rail ED 0-10V Dimming GLR Fast Blow Fuse SM Surface Luminaire Mount 1 NYC NYC Compliant For hard WIH wiHUBB Enabled 2 ceilings use flange kit accessory. **LUMEN OUTPUT SIZE** 14 1' x 4' HL High Lumen 22 2' x 2' LW Low Watt 24 2' x 4'

¹1' x 4' Surface Mount available Q1 2013.

NOMINAL LUMENS

6400

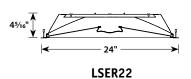
Damp Label - standard

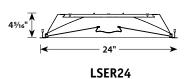
PRODUCT AVAILABILITY

OUTPUT

SIZE

53/6"
12"->
I SFR14



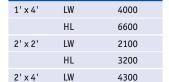


ACCESSORIES
(ORDER SEPARATELY)

FK14 1' x 4' Single Flange Kit

FK22 2' × 2' Single Flange Kit

FK24 2' x 4' Single Flange Kit FKCR Flange Kit Row Adaptor





HL

² Not available with Surface Mount ceiling types.



e•poc® LED Full Distribution Luminaire with Advanced Solid State Technology

FEATURES

- High-performance LED luminaire jointly developed by Columbia Lighting and Universal Lighting Technologies/Panasonic
- Long-life, 50,000 hour LEDs at L80 reduce life cycle maintenance costs
- Superior color consistency to a 3-step MacAdam ellipse and 82 CRI
- Full distribution provides controlled high angle light for visual comfort
- Lens design and materials provide uniform appearance without pixilation
- Unique frameless optical system and modular electrical system allow for easy LED module or driver replacement from below the ceiling
- Most configurations produce low W/ft² to meet the most restrictive lighting power density codes
- Available with exclusive wiHUBB technology preinstalled
- Peer to peer, self-healing wireless mesh network
 Integrated control system for 0-10VDC or step
- dimming, or On/Off

 Five year warranty. (Terms and Conditions Apply)
- · U.S. Transformed



ORDERING INFORMATION LEPC LL U **COLOR TEMP AIR FUNCTION** MODEL **CEILING TYPE SHIELDING** DRIVER **OPTIONS** Blank Static **35** 3500K LEPC e·poc® **G** Grid LL Low Lamp Image **ESD** Fixed Output/ C388 3-Wire Flex LED Full Step Dimming¹ **40** 4000K A Air Return C488 4-Wire Flex SM Surface Distribution ED 0-10V Dimming Mount Side Slots C588 5-Wire Flex Luminaire (N/A1x4)For hard EL Emergency Battery Pack² ceilings use (only available for 60 hz) flange kit GLR Fast Blow Fuse accessory. **VOLTAGE** NYC NYC Compliant **LUMEN OUTPUT** SIZE **U** 120V-277V NYCU NYC Compliant, Union Label 14 1' x 4' 1 x 4, 2 x 2 WIH wiHUBB Enabled 3 22 2' x 2' 22 2200 Lumens (nominal) RM Row Mount 24 2' x 4' 33 3300 Lumens (nominal) 44 4400 Lumens (nominal) 66 6600 Lumens (nominal)

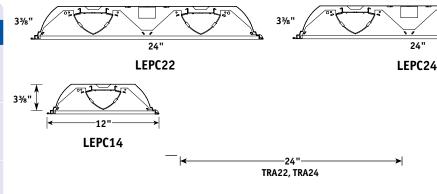
¹Can be converted to fixed output by tying the hot leads together

ACCESSORIES (ORDER SEPARATELY)

FK14 1' x 4' Single Flange Kit FK22 2' x 2' Single Flange Kit FK24 2' x 4' Single Flange Kit FKCR Flange Kit Row Adaptor

PRODUCT AVAILABILITY

SIZE	COLOR TEMP	LUMEN OUTPUT		
14	3500	2200 3300		
	4000	2200 3300		
22	3500	2200 3300		
	4000	2200 3300		
24	3500	4400 6600		
	4000	4400 6600		





²Contact factory for specific model compatibility

³ Not available with Surface Mount ceiling types. Damp Label - standard

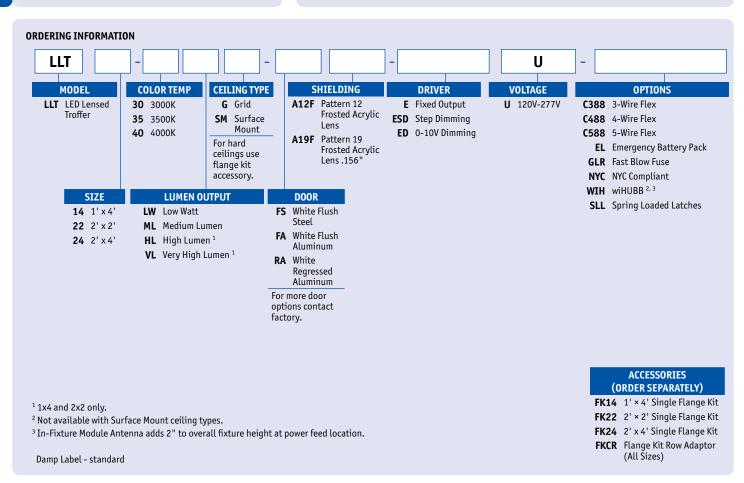


LED Lensed Troffer with Advanced Solid State Technology

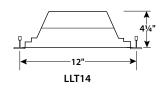


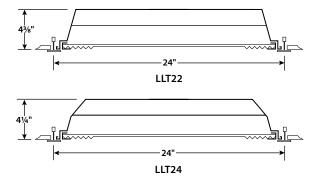
- Full distribution provides controlled high angle light for visual comfort
- Long-life, 50,000 hour LEDs at L80 reduce life cycle maintenance costs
- Lens design and materials provide uniform appearance without pixilation
- Choice of two lens options
- · Choice of three door frame options
- Three color choices with excellent color consistency
- Fixed output, step dimming, or 0-10V dimming drivers

- Hinged optical system allows easy access to LED modules and electrical from below the ceiling
- Low W/ft² ratio typically meets the most restrictive lighting power density codes
- Typically qualifies for EPACT tax deductions
- DesignLights™ Consortium (DLC) qualification pending
- · Available with exclusive wiHUBB technology
 - Peer to peer, self-healing wireless mesh network
 Integrated control system for 0-10VDC or step
 - dimming, or On/Off
- Five year warranty (Terms and Conditions Apply)



Product Availability — Nominal Lumens						
Size	LW	ML	HL	VL		
1 x 4	1950	2400	3100	3800		
2 x 2	2100	2500	3300	4000		
2 x 4	3900	4700				









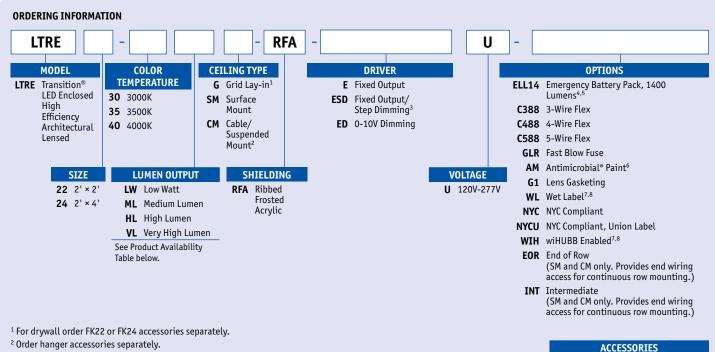
Transition® Enclosed LED High Efficiency Architectural Lensed

FEATURES

- Enclosed high efficiency lens features linear prism acrylic for high performance without pixelation
- Appropriate for schools, medical, dining areas, locker rooms, and public spaces
- Enclosed lens resists intrusion of contaminants
- · High performance matte white paint standard
- Optional Antimicrobial® paint (AM option) resists bacterial growth on exposed painted surfaces
- · Optional lens gasket surrounds lamp cavity
- · Wet Location listing available

- · Long Life, 50,000 hour LEDs at L80 reduce life cycle maintenance costs
- Three color choices with excellent color consistency and 82 CRI
- · LED modules and electrical accessible from below
- · Quality assurance with QR code
- DesignLights Consortium® (DLC) qualified; see www.designlights.org
- · Available with exclusive wiHUBB technology preinstalled
- · Five year warranty (Terms and Conditions Apply)





- ³ Can be converted to fixed output by tying hot leads together.
- ⁴ For compatibility with Dual-Lite LiteGear® inverters, contact Hubbell Lighting Representative.
- ⁵ Not available on 2x2 SM or CM ceiling types.
- ⁶ Optional Antimicrobial® paint (AM option) resists bacterial growth on exposed painted surfaces.
- ⁷ In-Fixture Module Antenna adds 2" to overall fixture height at power feed location.

NOMINAL

WATTS

25

⁸ Not available on Surface Mount Ceiling Types.

NOMINAL LUMENS

(3500K)

2300

PRODUCT AVAILABILITY

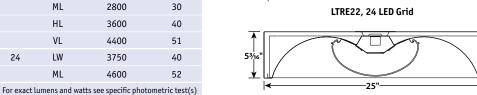
PACKAGE

LW

22

For questions about configuration options, contact Hubbell Representative.

LTRE22, 24 LED Grid



LTRE22, 24 LED Surface Mount



(ORDER SEPARATELY)

CM48Y2SC3F-KIT 48" Cable Mount

FK22 2' × 2' Flange Kit

FK24 2' × 4' Flange Kit

Kit for 2' wide

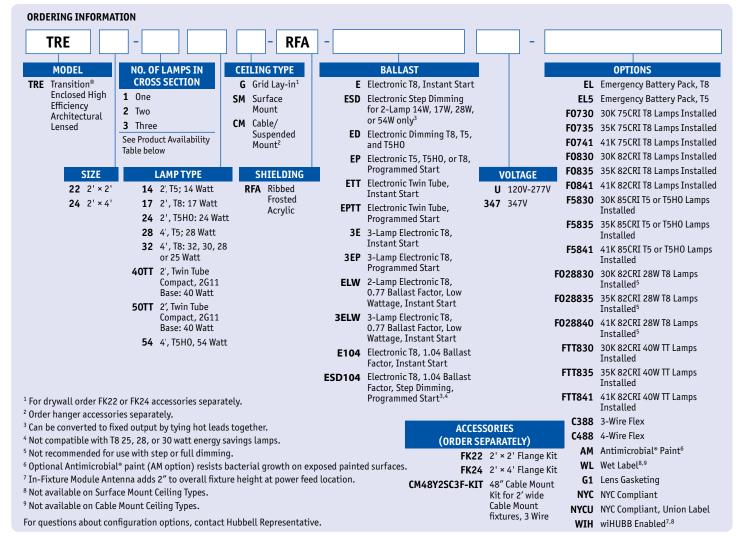
Cable Mount fixtures, 3 Wire

TRE

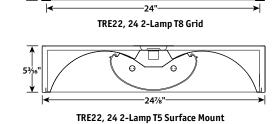
Transition® Enclosed High Efficiency Architectural Lensed



- Enclosed high transmission acrylic lens features linear prisms with lamp-obscuring frost to provide visual comfort with high performance
- Appropriate for schools, medical, dining areas, locker rooms, and public spaces
- Enclosed lens protects against intrusion of contaminants
- High performance matte white paint standard, Optional Antimicrobial® paint (AM option) resists bacterial growth on exposed painted surfaces
- T8, T5, T5H0 or Twin Tube; for LED see LTRE
- · Wet Location listing available
- · Optional lens gasket surrounds lamp cavity
- · Grid, Surface, or Cable Mount
- Controls compatible for code compliance and energy savings
- UL listed 1598, cUL or CSA, Damp Location Listed
- Available with exclusive wiHUBB technology preinstalled







PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	HEIGHT (GRID)		
2' × 2'	1	1	14, 17, 24, 40TT, 50TT	43/4"		
	2	2	14, 17, 24, 40TT, 50TT	43/4"		
	3	3	14, 17, 24	43/4"		
2' × 4'	1	1	28, 32, 54	43/4"		
	2	2	28, 32, 54	43/4"		
	2	4	40TT, 50TT	43/4"		
	3	3	28, 32, 54	43/4"		
	3	6	40TT, 50TT	43/4"		



Serrano® Recessed Architectural Luminaire

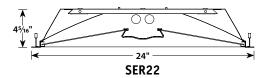
FEATURES

- · Architecturally enhanced triple lens design
- Full distribution provides controlled high angle light for visual comfort and more inviting spaces
- Advanced optics produce high efficiencies
- Hinged optical system allows easy access to lamps and electrical from below the ceiling
- · Lenses interlock for structural integrity
- Two optional lens aesthetics

- Exclusive optional T8 EnergyMax® tuned 1.04 ballast factor ballast
- Step and full dimming options for both T5 and T8 expand energy savings opportunities
- Most configurations produce low W/ft² to meet the most restrictive lighting power density codes
- Available with exclusive wiHUBB technology preinstalled



ORDERING INFORMATION SER **MODEL** NO. OF LAMPS **CEILING TYPE** REFLECTOR **AIR FUNCTION** VOLTAGE **OPTIONS G** Grid C388 3-Wire Flex Performance **U** 120V-277V SER Serrano® **1** One Blank Static Recessed (N/A1x4)2 Two SM Surface 347 347V² C488 4-Wire Flex Architectural F Full Mount 3 Three 5 C588 5-Wire Flex Luminaire For hard ceilings **EL** Emergency Battery Pack **BALLAST** use flange kit. GLR Fast Blow Fuse E Electronic T8, 0.88 Ballast Factor, Instant Start **GMF** Slow Blow Fuse ED Electronic T8, T5, T5HO Dimming, NYC NYC Compliant Programmed Start 1, WIH wiHUBB Enabled 4 Electronic T8, 0.88 Ballast Factor, Step TB4 Four Bulk T-Bar Clips Dimming, Programmed Start 1 SHIELDING SIZE **LAMP TYPE LAMPS** Electronic T8, 0.77 Ballast Factor, Low 14 1' x 4' 14 2', T5: 14 Watt C Contour / Wattage, Instant Start F0830 30K 82CRIT8 Lamps Installed 22 2' × 2' 17 2', T8: 17 Watt R Rail Electronic T8, 1.18 Ballast Factor, High F0835 35K 82CRIT8 Lamps Installed Wattage, Instant Start 24 2'x4' 24 2', T5H0: 24 Watt FO841 41K 82CRIT8 Lamps Installed E104 Electronic T8, 1.04 Ballast Factor, **40TT** Twin Tube F028830 30K 82CRI 28W T8 Lamps Installed3 Instant Start (N/A 1-Lamp) Compact, 2G11 F028835 35K 82CRI 28W T8 Lamps Installed3 ESD104 Electronic T8, 1.04 Ballast Factor, Step Base: 40 Watt F028841 41K 82CRI 28W T8 Lamps Installed3 Dimming, Programmed Start¹ 28 4', T5: 28 Watt F5830 30K 85CRIT5 or T5HO Lamps Installed EP104 Electronic T8, 1.04 Ballast Factor, 32 4', T8: 32, 30, **Programmed Start** F5835 35K 85CRIT5 or T5HO Lamps Installed 28, or 25 Watt EP Electronic T5, T5H0, 1.0 Ballast Factor F5841 41K 85CRIT5 or T5HO Lamps Installed 54 4', T5H0: 54 or or T8, 0.88 Ballast Factor, 51 Watt **Programmed Start** EP95 Electronic T5, 0.95 Ballast Factor, PRODUCT AVAILABILITY **ACCESSORIES** Programmed Start (N/A T5HO, 1-Lamp) NO. OF LAMPS IN SIZE **LAMP TYPE** (ORDER SEPARATELY) Electronic T5, 0.95 Ballast Factor, CROSS SECTION Step Dimming, Programmed Start FK14 1' x 4' Single Flange Kit 1' x 4' 28, 32, 54 (N/A T5HO, 1-Lamp) FK22 2' × 2' Single Flange Kit EP115 Electronic T5, 1.15 Ballast Factor, 28, 32, 54 FK24 2' x 4' Single Flange Kit Programmed Start (N/A T5HO, 1-Lamp) 28, 32 FKCR Flange Kit Row Adaptor ESD115 Electronic T5, 1.15 Ballast Factor, 2' x 2' 40TT Step Dimming, Programmed Start



³ Not recommended for use with step or full dimming.

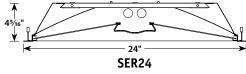
¹ Not compatible with T8 25, 28, or 30 watt energy savings lamps.

Damp Label - standard

⁴ Not available with surface mount.

⁵ Not available with 1' x 4' T5HO.

² Where available.



(2-Lamp, 54W only)

(N/A T5H0)

Start

ESD80 Electronic T5HO, 0.80 Ballast Factor,

ETT Electronic Twin Tube, Instant Start

EPTT Electronic Twin Tube, Programmed

Step Dimming, Programmed Start



2' x 4'



14, 17, 24, 40TT

14, 17, 24

28, 32, 54

28, 32, 54

28, 32, 54

EPC

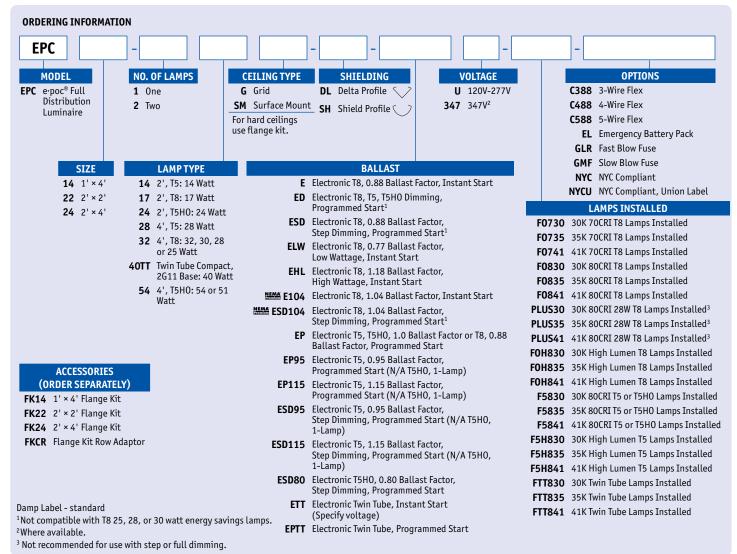
e • poc® Full Distribution Luminaire

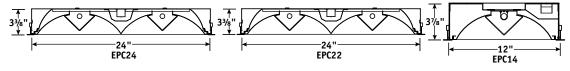


FEATURES

- Both T5 and T8 optical systems available
- Full distribution provides controlled high angle light for visual comfort
- Advanced optical design produces high efficiencies
- Step dimming options available for both T5 and T8 expand energy savings opportunities
- Low W/ft² ratio meets the most restrictive lighting power density codes
- Typically qualifies for EPAct tax deductions

- Exclusive T8 EnergyMax® tuned 1.04 ballast factor ballast
- Unique frameless optics system allows easy access to lamps and electrical from below the ceiling
- · Lens styles provide aesthetic alternatives
- Low profile housing fits in tight plenum spaces
- · Patent pending







PRODUCT AVAILABILITY SIZE NO. OF LAMPTYPE 1' × 4' 1 28, 32, 54 1' × 4' 2 28,54 2' × 2' 2 14, 17, 24, 40TT 2' × 4' 2 28, 32, 54



Transition® High Efficiency Architectural Lensed

FEATURES

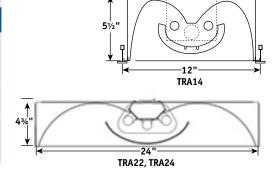
- Precision optical design produces high efficiency in a high visual comfort, architecturally styled lensed fixture
- Balanced reflector and lens curves provide architectural interest with low brightness and low contrast
- Optimized coating process and unique paint formulation provide exceptional reflectivity in a matte finish for a soft visual image
- Completely recessed, provides a clean ceiling with uniform illumination at mounting heights as low as 8 feet
- Available for use with T8, T5, or T5H0 linear fluorescent and twin tube lamps
- Optional acrylic dust guard pivots to seal lamp compartment against contaminants especially for schools, medical facilities and public spaces



ORDERING INFORMATION **CLO** TRA MODEL CEILING TYPE BALLAST NO. OF LAMPS IN **OPTIONS** Transition® **CROSS SECTION G** Grid Lay-in EL Emergency Battery Pack, T8 TRA E Electronic T8, Instant Start High Efficiency **1** One EL5 Emergency Battery Pack, T5 SM Surface Mount ED Electronic Dimming T8 Architectural and T5 2 Two F0730 30K 75CRI T8 Lamps Installed Lensed Electronic T5, T5H0, or T8, 3 Three F0735 35K 75CRI T8 Lamps Installed **Programmed Start** F0741 41K 75CRI T8 Lamps Installed ETT Electronic Twin Tube, F0830 30K 82CRI T8 Lamps Installed **Instant Start** F0835 35K 82CRI T8 Lamps Installed **SHIELDING** Electronic Twin Tube, SIZE **LAMP TYPE VOLTAGE** Programmed Start F0841 41K 82CRI T8 Lamps Installed 14 1' × 4' CLO Clear Linear 14 2'T5: 14 Watt **U** 120V-277V 3-Lamp Electronic T8, **347** 347V Prism F5830 30K 85CRI T5 or T5HO Lamps Installed 22 2' × 2' 17 2', T8: 17 Watt Instant Start Acrylic with F5835 35K 85CRI T5 or T5HO Lamps Installed 24 2' × 4' 24 2', T5H0: 24 Watt 3-Lamp Electronic T8, Overlay 0 F5841 41K 85CRI T5 or T5HO Lamps Installed 40TT 2', Twin Tube **Programmed Start** Compact, 2G11 Base: PLUS30 30K 82CRI 28W T8 Lamps Installed² ELW 2-Lamp Electronic T8, 40 Watt 0.77 Ballast Factor, Low PLUS35 35K 82CRI 28W T8 Lamps Installed² 28 4', T5; 28 Watt Wattage, Instant Start PLUS41 41K 82CRI 28W T8 Lamps Installed² 32 4', T8: 32, 30, 28 or 3ELW 3-Lamp Electronic T8, FTT830 30K 82CRI 40W TT Lamps Installed 25 Watt 0.77 Ballast Factor, Low FTT835 35K 82CRI 40W TT Lamps Installed Wattage, Instant Start 54 4', T5H0, 54 Watt FTT841 41K 82CRI 40W TT Lamps Installed E104 Electronic T8, 1.04 Ballast Factor, Instant Start C388 3-Wire Flex ACCESSORIES ESD104 Electronic T8, 1.04 Ballast C488 4-Wire Flex (ORDER SEPARATELY) Factor, Step Dimming, **DG** Dust Guard FK14 1' × 4' Flange Kit Programmed Start¹ NYC NYC Compliant FK22 2' × 2' Flange Kit NYCU NYC Compliant, Union Label FK24 2' × 4' Flange Kit ¹Not compatible with T8 25, 28, or 30 watt energy savings lamps.

PRODU	PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	HEIGHT			
1' × 4'	1 1 2 3	1 2 2 3	28, 32, 54 40TT 28, 32, 54 28, 32, 54	5 ³ / ₄ " 5 ³ / ₄ " 5 ³ / ₄ "			
2' × 2'	2 3	2	14, 17, 24, 40TT 14, 17, 24	4³/4" 4³/4"			
2' × 4'	2 2 3 3	2 4 3 6	28, 32, 54 40TT 28, 32, 54 40TT	43/4" 43/4" 43/4" 43/4"			

¹Not recommended for use with step or full dimming.



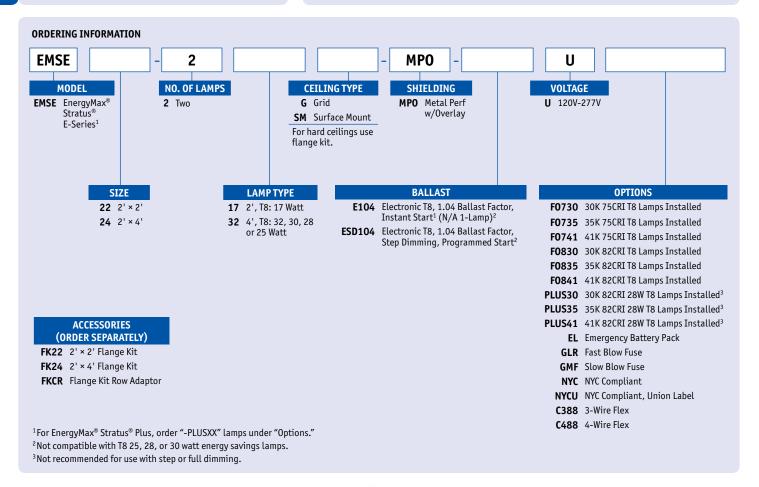


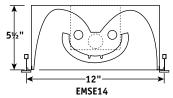
EMSE

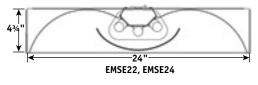
EnergyMax® Stratus® Energy Saving Architectural Recessed Indirect Luminaire



- Tuned system delivers more lumens than conventional 2-lamp recessed indirect fixtures
- Uses tuned 1.04 ballast factor NEMA Premium fixed and step dim ballasts
- Precision optical system produces an efficient luminaire without sacrificing high visual comfort
- Plastic end caps support the light basket and act as a light seal
- Completely recessed, provides a clean ceiling while providing soft, uniform indirect illumination in rooms with ceilings as low as 8 feet
- Light basket and reflector are powder coated white and painted after fabrication
- · Ease of installation and maintenance
- UL listed 1598, cUL or CSA. Damp Location standard







PRODU	PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE				
2' × 2'	2	2	17				
2' × 4'	2	2	32				

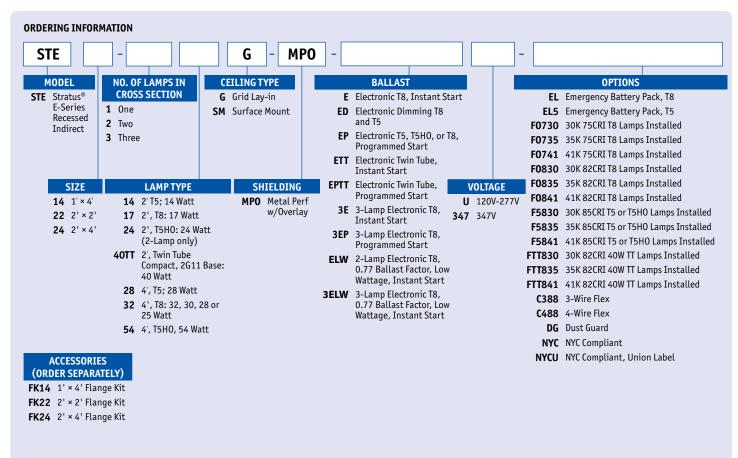




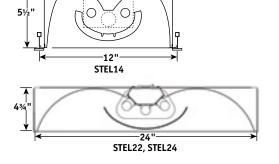
Stratus® E-Series Recessed Indirect

- Precision optical design produces high efficiency in a high visual comfort architecturally direct/indirect distribution
- Custom perforated metal basket is backed by a high transmission lamp obscuring overlay
- Optimized coating process and unique paint formulation provide exceptional reflectivity in a matte finish for a soft visual image and balanced basket and reflector illumination
- Completely recessed, provides a clean ceiling with uniform illumination at mounting heights as low as 8 feet
- Available for use with T8, T5, or T5H0 linear fluorescent lamps and twin tube
- Optional acrylic dust guard pivots to seal lamp compartment against contaminants especially for schools, medical facilities and public spaces
- Companion center basket (STE), side basket (STS) and pendant (STP) models available





PRODU	PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	HEIGHT			
1' × 4'	1 1 2 3	1 1 2 3	28, 32, 54 40TT 28, 32, 54 28, 32, 54	53/4" 53/4" 53/4" 53/4"			
2' × 2'	2 3	2	14, 17, 24, 40TT 14, 17, 24, 40TT	4³/4" 4³/4"			
2' × 4'	2 2 3 3	2 4 3 6	28, 32, 54 40TT 28, 32, 54 40TT	43/4" 43/4" 43/4" 43/4"			



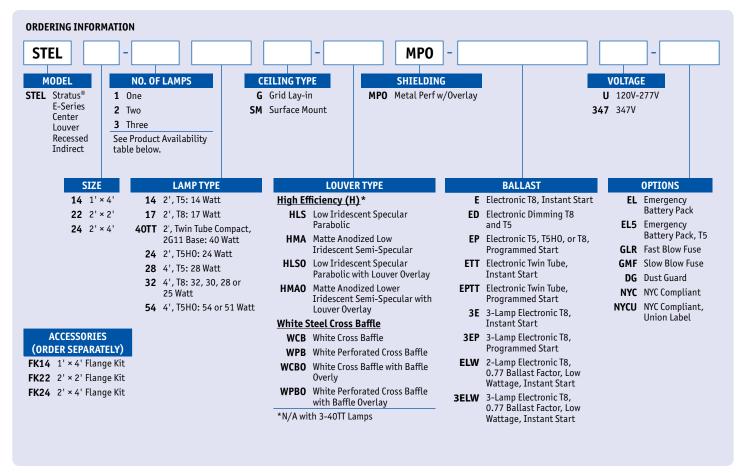


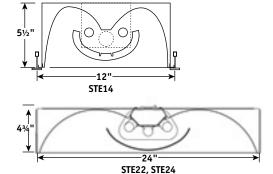
STEL

Stratus® E-Series Center Louver Recessed Indirect



- Precision optical design produces high efficiency in a high visual comfort architecturally direct/indirect distribution
- Custom perforated metal basket is backed by a high transmission lamp obscuring overlay and features choice of steel cross baffle or high efficiency parabolic louvers
- Optimized coating process and unique paint formulation provide exceptional reflectivity in a matte finish for a soft visual image and balanced basket and reflector illumination
- Completely recessed, provides a clean ceiling with uniform illumination at mounting heights as low as 8 feet
- Available for use with T8, T5, or T5H0 linear fluorescent lamps and twin tube
- Optional acrylic debris shield pivots to seal lamp compartment against contaminants especially for schools, medical facilities and public spaces
- Companion center basket (STE), side basket (STS) and pendant (STP) models available





PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	HEIGHT		
1' × 4'	1	1	28, 32, 54	5³/4"		
	1	2	40TT	5³/4"		
	2	2	28, 32, 54	5³/4"		
2' × 2'	2	2	14, 17, 24, 40TT	4³/4"		
	3	3	14, 17, 24, 40TT*	4³/4"		
2' × 4'	2	2	28, 32, 54	4 ³ / ₄ "		
	2	4	40TT	4 ³ / ₄ "		
	3	3	28, 32, 54	4 ³ / ₄ "		
*3-lami	40TT available	in white steel cr	oss haffle only			





Stratus® Recessed Indirect Side Basket

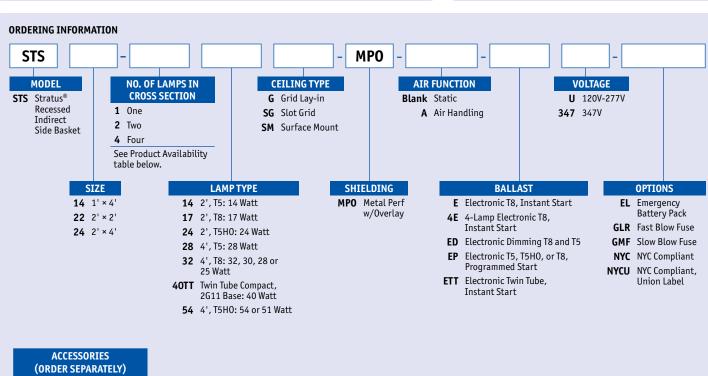
FEATURES

- Softly glowing side baskets create an elegant aesthetic statement
- Available for T8, Twin Tube, Linear T5, or T5H0 lamps
- Baskets and reflector are powder coated after fabrication
- 1' × 4', 2' × 2', and 2' × 4'
- Surface mount available

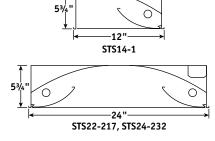
FK14 1' × 4' Flange Kit FK22 2' × 2' Flange Kit FK24 2' × 4' Flange Kit FKCR Flange Kit Row Adaptor

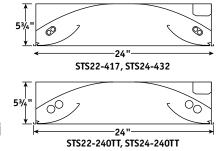
- Simple to install, easy to maintain
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMPTYPE	HEIGHT		
1' × 4'	1	1	28, 32, 54	5¾"		
	1	2	40TT	5¾"		
	2	2	28, 32, 54	5¾"		
2' × 2'	2	2	14, 17, 24	5³¼"		
	2	2	40TT	5³¼"		
	4	4	14, 17, 24	5³¼"		
2' × 4'	2	2	28, 32, 54	5³¼"		
	2	4	40TT	5³¼"		
	4	4	28, 32, 54	5³¼"		





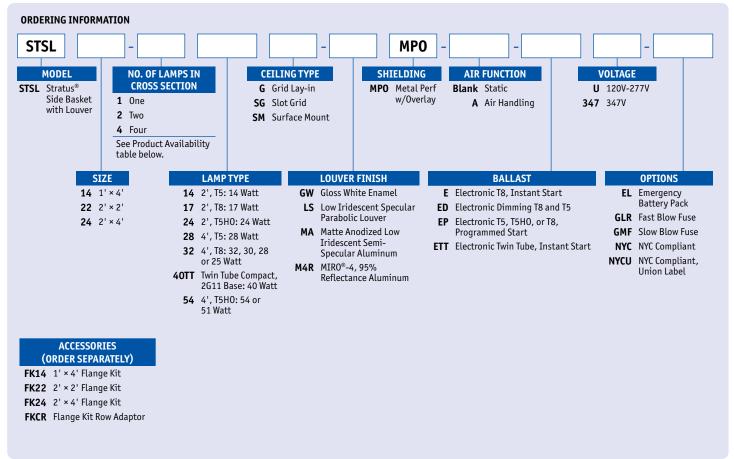


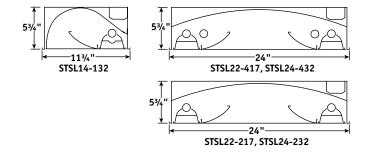
STSL

Stratus® Side Basket with Louver



- High performance louver, accentuated by softly glowing perforated side baskets
- True parabolic louver directs light with pinpoint precision and reduces glare
- Direct component dramatically increases efficiency when compared to other side basket recessed indirects
- Contractor friendly; easy to install and maintain
- Light reflector and baskets are powder coated after fabrication
- UL listed 1598, cUL or CSA. Damp Location standard





PRODU	PRODUCT AVAILABILITY							
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	HEIGHT				
1' × 4'	1	1	28, 32, 54	5¾"				
	1	2	40TT	5¾"				
	2	2	28, 32, 54	5¾"				
2' × 2'	2	2	14, 17, 24	5¾"				
	2	2	40TT	5¾"				
	4	4	14, 17, 24	5¾"				
2' × 4'	2	2	28, 32, 54	5³¼"				
	2	4	40TT	5³¼"				
	4	4	28, 32, 54	5³¼"				

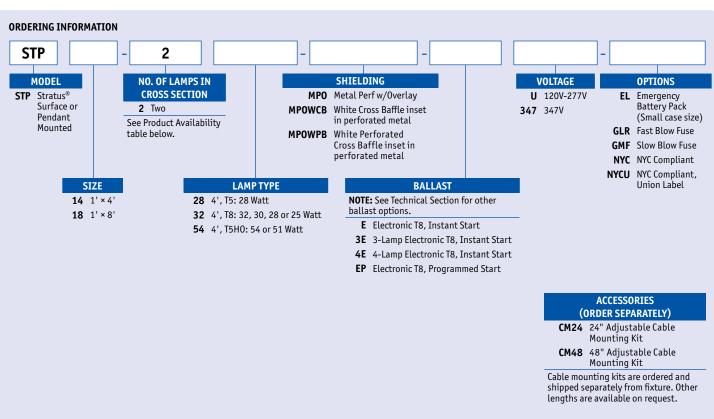




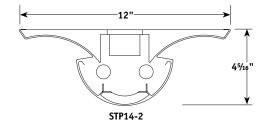
Stratus® Surface or Pendant Mounted

- Contemporary aesthetics create visual interest
- Low profile nominal 1' × 4'
- Choice of perforated baskets or baffles inset in perforated baskets provide radiant illumination in a choice of aesthetic options
- Indirect components reflect light for a soft and even illumination on vertical and horizontal surfaces
- Direct lighting component enhances facial delineation
- Surface mounting standard. Cable mounting available
- 4' and 8' lengths facilitate single or in-row mounting
- Full product family includes Stratus™ fully recessed units for applications where a complementary appearance is desired





PRODUCT AVAILABILITY							
	SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT
	1' × 4'	2	2	28, 32, 54	12"	48¾16"	45/16"
	1' × 8'	2	4	28, 32, 54	12"	96¾16"	45/16"





EMI

EnergyMax® Intersect™ Full Distribution Luminaire

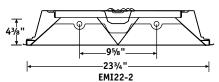


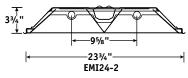
FEATURES

- Full distribution optics from a louvered fixture
- Euro style ribbed louver with architectural styling
- Typically qualifies for EPAct tax deduction
- Integral hinges and latches on louver provide a clean finish
- · Mechanical light seal

- Rolled fixture edges for safe handling during fixture installation
- Corner hinging for easy insertion and removal of louver from either side
- Housing ends secured by unique corner interlock and screws
- UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION EMI G **CEILING TYPE** MODEL SI7F **NO. OF LAMPS VOLTAGE** 22 2' × 2' EnergyMax® 2 Two **G** Grid **U** 120V-277V Intersect 24 2' × 4' For hard ceilings **347** 347V use flange kit. **LAMP TYPE BALLAST OPTIONS** 14 2', T5: 14 Watt E Electronic T8, 0.88 Ballast Factor, F0730 30K 75CRI T8 Lamps Installed 17 2', T8: 17 Watt F0735 35K 75CRI T8 Lamps Installed Electronic T8, 0.88 Ballast Factor, 24 2', T5H0: 24 Watt F0741 41K 75CRI T8 Lamps Installed Step Dimming, Programmed Start 28 4', T5: 28 Watt F0830 30K 82CRI T8 Lamps Installed ELW Electronic T8, 0.77 Ballast Factor, 31U1 U-Bent, 15/8" Leq F0835 35K 82CRI T8 Lamps Installed Low Wattage, Instant Start Spacing T8: 31 Watt Electronic T8, 1.18 Ballast Factor, F0841 41K 82CRIT8 Lamps Installed 32 4', T8: 32 Watt High Wattage, Instant Start PLUS830 30K 82CRI 28W T8 Lamps Installed 4 40TT Twin Tube Compact, Electronic T8, 1.04 Ballast Factor, PLUS835 35K 82CRI 28W T8 Lamps Installed 4 2G11 Base: 40 Watt E104 Instant Start¹ PLUS841 41K 82CRI 28W T8 Lamps Installed 4 54 4', T5H0: 54 Watt Electronic T8, 1.04 Ballast Factor, FOH830 30K High Lumen T8 Lamps Installed ESD104 Step Dimming, Programmed Start¹ FOH835 35K High Lumen T8 Lamps Installed Electronic T5, T5H0, or T8, FOH841 41K High Lumen T8 Lamps Installed **Programmed Start** F5830 30K 85CRI T5 or T5HO Lamps Installed EP95 Electronic T5, 0.95 Ballast Factor, F5835 35K 85CRI T5 or T5HO Lamps Installed Programmed Start (28 Watt Only) ESD95 Electronic T5, 0.95 Ballast Factor, F5841 41K 85CRI T5 or T5HO Lamps Installed Step Dimming, Programmed Start **ACCESSORIES** F5H830 30K High Lumen T5 Lamps Installed (28 Watt Only) (ORDER SEPARATELY) F5H835 35K High Lumen T5 Lamps Installed EP115 Electronic T5, 1.15 Ballast Factor, FK22 2' × 2' Flange Kit F5H841 41K High Lumen T5 Lamps Installed Programmed Start (28 Watt Only) FK24 2' × 4' Flange Kit C388 3-Wire Flex ESD115 Electronic T5, 1.15 Ballast Factor, FKCR Flange Kit Row Adaptor Step Dimming, Programmed Start C488 4-Wire Flex (28 Watt Only) EL Emergency Battery Pack³ Electronic Twin Tube, Instant Start GLR Fast Blow Fuse (Specify voltage) ¹For EnergyMax[®] Intersect™ Plus, order "-PLUSXX" lamps under "Options." **GMF** Slow Blow Fuse Electronic Twin Tube, ²Where available. NYC NYC Compliant **Programmed Start** ³DL not available for all EL ballast combinations, contact factory. NYCU NYC Compliant, Union Label ⁴Not recommended for use with step or full dimming.





PRODU	CT AVAIL		
SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS
2' × 2'	2	14, 17, 24, 31U1, 40TT	2 × 3 (6)
2' × 4'	2	28, 32, 54	2 × 6 (12)

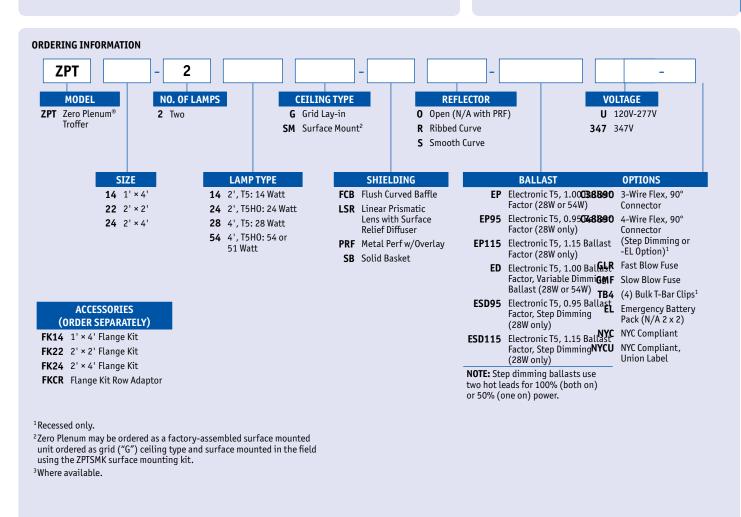


Zero Plenum® Troffer High Efficiency Architectural Luminaire

FEATURES

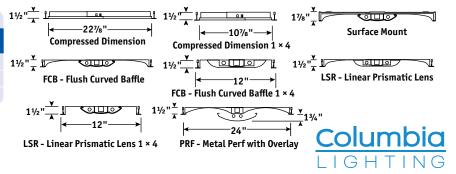
- · Soft, uniform light distribution provides excellent vertical illumination free from harsh contrast
- Employs T5 or T5H0 technology for high efficiency and high performance
- Housing depth of only 1½" for a luminaire no taller than standard T-Bar rails
- Unique telescoping housing minimizes installation depth and simplifies installation
- Does not intrude into usable plenum space
- · Multiple shielding options include linear prismatic lens, injection molded, high impact acrylic baffle, or descending perforated metal diffuser
- Three reflector options provide customized aesthetics
- · UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY

SIZE	NO. OF LAMPS	LAMP TYPE	COMPRESSED WIDTH	INSTALLED WIDTH	LENGTH	HEIGHT
1' × 4'	2	28, 54	101/8"	11¾"	473/4"	1½"
2' × 2'	2	14, 24	221/8"	23¾"	23¾"	11/2"
2' × 4'	2	28,54	227/8"	23¾"	473/4"	11/2"



Covelight



FEATURES

- · Unique design provides wide distribution, far superior to standard or staggered strip lights
- Notched reflector eliminates socket shadows
- Maximum efficiency
- Shallow 31/16" (T8) or 11/8" (T5) housing
- T8, T5 or T5H0

- · Modular lengths simplify installation
- · Quick disconnect plugs make row wiring
- · Hinged reflector allows quick access to wireway
- Built-in aligner tabs align fixture housings, simplify continuous row installation
- UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION

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MODEL

COV Covelight

2 2 **3** 3'

SIZE

4 4' **6** 6'

8 8'

2 Two (N/A with TT lamps)

1 One

See Product Availability table below.

NO. OF LAMPS IN CROSS SECTION

LAMP TYPE

- 14 2', T5: 14 Watt
- 17 2', T8: 17 Watt
- 21 3', T5: 21 Watt
- 24 2', T5H0: 24 Watt 25 3', 25 Watt, T8
- 28 4', T5: 28 Watt
- **32** 4', T8: 32, 30, 28
- or 25 Watt **39** 3', T5H0: 39 Watt
- 40TT Twin Tube Compact,
- 2G11 Base: 40 Watt
- **54** 4', T5H0: 54 Watt

BALLAST

VOLTAGE

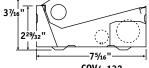
347 347V

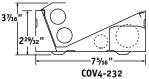
U 120V-277V

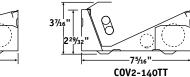
- E Electronic T8, **Instant Start**
- **3E** 3-Lamp Electronic T8,
- Instant Start* 4E 4-Lamp Electronic T8,
- Instant Start*3 **ED** Electronic Dimming T8 and T5
- EP Electronic T5, T5H0, or T8, Programmed Start
- ETT Electronic Twin Tube, Instant Start
- *For use with SMS option on 1-Lamp units
- **For use with SMSS option on 1-Lamp units or MS option on 2-Lamp units.

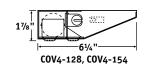
OPTIONS

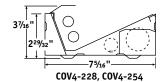
- **EL** Emergency Battery Pack
- **GLR** Fast Blow Fuse
- GMF Slow Blow Fuse
- MS Master/Satellite (2 fixtures, 1 ballast)
- Satellite/Master/ Satellite² (3 fixtures, 1 ballast)
- SMSS Satellite/Master Satellite/Satellite (4 fixtures, 1 ballast)
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label



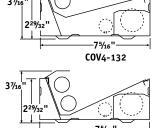








PRODU	PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT	
2'	1	1	17, 40TT	75/16"	24"	31/16"	
	1	1	14, 24	61/4"	22 ¹¹ / ₁₆ "	11/8"	
	2	2	14, 17, 24	75/16"	24"	31/16"	
3'	1	1	25	75/16"	36"	31/16"	
	1	1	21, 39	61/4"	34½"	11/8"	
	2	2	21, 25, 39	75/16"	36"	31/16"	
4'	1	1	32	75/16"	48"	31/16"	
	1	1	28, 54	61/4"	45½"	11/8"	
	2	2	28, 32, 54	75/16"	48"	31/16"	
6'	1	2	25	75/16"	72"	31/16"	
	1	2	21, 39	61/4"	69³¼"	11/8"	
	2	4	21, 25, 30	75/16"	72"	31/16"	
8'	1	2	32	75/16"	96"	31/16"	
	1	2	28, 54	61/4"	92‰"	11/8"	
	2	4	28, 32, 54	75/16"	96"	31/16"	



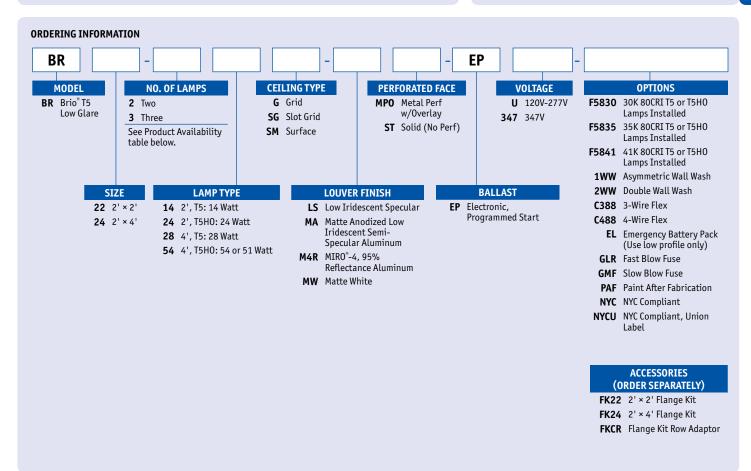


Brio® T5 Low Glare

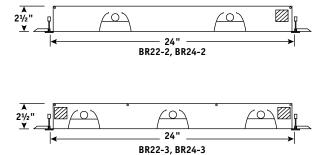
- Unique aesthetic combines dedicated louvers with perforated face
- Excellent glare control for spaces where computers are in use; RP-1 compliant options
- 2½" deep ultra-shallow housing frees up plenum space, fits into tight areas, and is easy to handle and install
- Precise batwing distribution is ideal for 8' x 8' and 8' x 10' spacings
- Wall wash (1WW) option lights walls to eliminate "cave effect"

- Double wall wash (2WW) option for corridors, small offices, or conference rooms
- T5 or T5H0 technology offers an exceptional lumen package
- Dedicated louvers create an optical envelope to provide maximum contribution from each lamn
- UL listed 1598, cUL or CSA. Damp Location standard





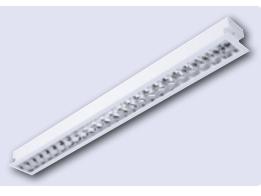
PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS IN CROSS SECTION	LAMP TYPE	DEDICATED LOUVERS	PERFORATED PANELS	FIXTURE HEIGHT	CEILING TYPE
2' × 2'	2 3	14, 24 14, 24	2 3	3 2	2½" 2½"	G , SG G , SG
2' × 4'	2 3	28, 54 28, 54	2 3	3 2	2½" 2½"	G , SG G , SG
Standar	d ceiling type sh	own in bold.				





BR STRETTO

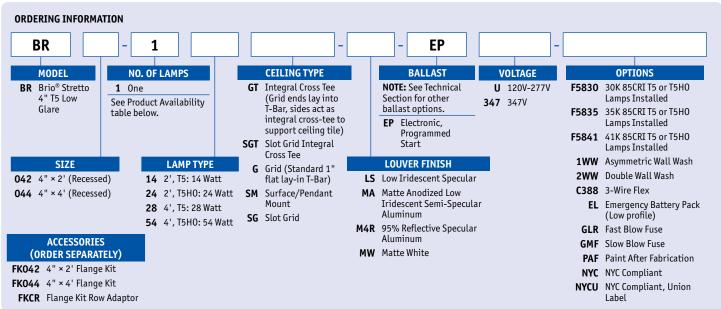
Brio® Stretto 4" T5 Low Glare

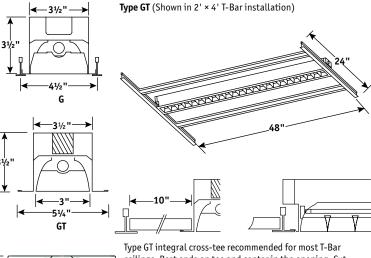


FEATURES

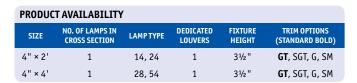
- Narrow aperture dedicated louver for single or row mounting
- 3½" deep low profile housing maximizes available plenum space
- Precise batwing distribution is ideal for 8' x 8' and 8' x 10' spacings
- GT (integral cross-tee) trim supports ceiling tile for easy installation
- · Continuous row mounting

- Wall wash (1WW) option lights walls to eliminate "cave effect"
- Double wall wash (2WW) option for corridors, small offices, or conference rooms
- T5 or T5H0 technology offers an exceptional lumen package
- UL listed 1598, cUL or CSA. Damp Location standard





		<u> </u>
Type GT integral cross-tee receilings. Rest ends on tee an the ceiling tile into two 10" into place. Maximum tee wid heights of 1½" allowed.	d center in the open strips. Drop the ceili	ing. Cut ng tile



-6"

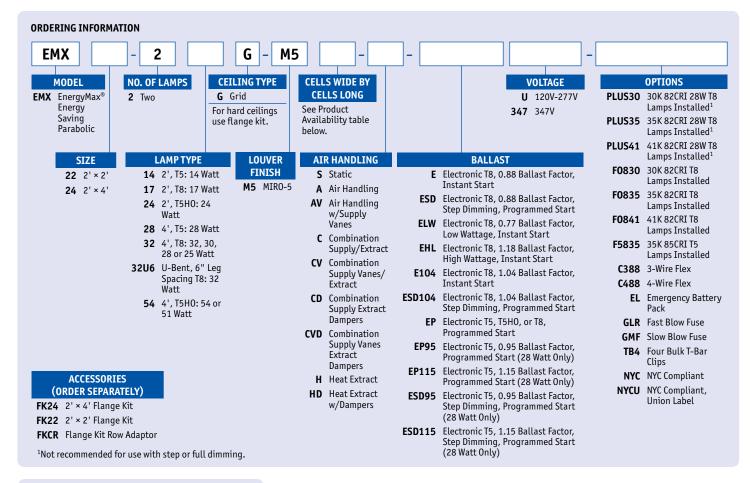
EMX

EnergyMax® Energy Saving Parabolic

FEATURES

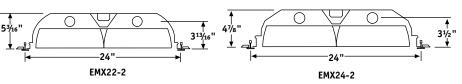
- Enhanced optics deliver 89% efficiency (2' x 4')
- Nominal 3" deep louver provides excellent glare control for today's architectural interiors with maintenance-free operation
- Optimized for standard T8 lamp technology, tuned ballast reduces power usage to 67 watts (2' x 4')
- EnergyMax® Plus parabolic uses 28W T8 lamps to reduce power usage to 56 watts
- Typically qualifies for EPAct tax deduction (2' × 4')
- Shallow housing allows installation in restricted ceiling plenums
- Full black reveal provides floating door appearance and full air handling capabilities
- Custom MIRO® formulation louver developed by Alanod for Columbia Lighting
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY

SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS
2' × 2'	2	14, 17, 24, 32U6	2 × 3 (6), 3 × 3 (9)
2' × 4'	2	28, 32, 54	2 × 6 (12)



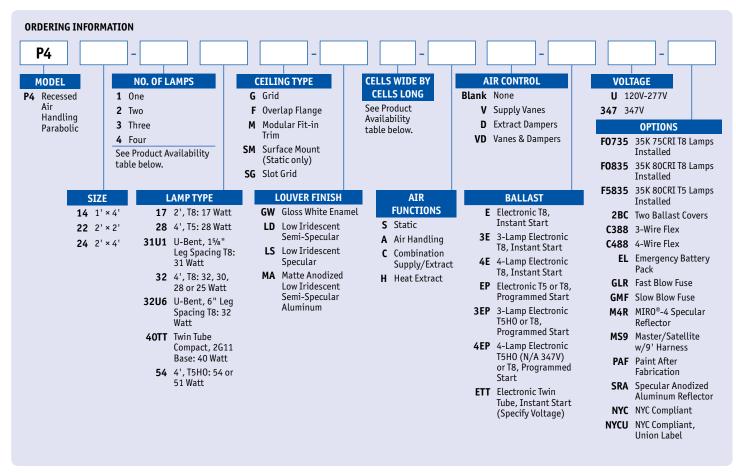


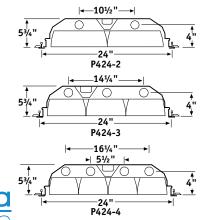
Recessed Air Handling Parabolic



FEATURES

- 3" deep cell parabolic louver for optimum control
- IES standard RP-1 glare control models available
- Wide light distribution provides uniform illumination
- Black reveal with full air handling capabilities
- Anodized low iridescent aluminum louver
- Treated with a five stage phosphate bonding process and finished with a baked white enamel
- Mechanical light trap prevents light leaks
- · Surface mount available
- UL listed 1598, cUL or CSA. Damp Location standard





PRODU	PRODUCT AVAILABILITY					
SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS			
1' × 4'	1 2	28, 32, 54 28, 32, 54	1 × 6 (6), 1 × 8 (8), 1 × 9 (9), 2 × 6 (12), 2 × 8 (16) 1 × 6 (6), 1 × 8 (8), 1 × 9 (9), 2 × 6 (12), 2 × 8 (16)			
2' × 2'	2	17, 31U1, 32U6, 40TT 17, 31U1, 40TT	3 × 3 (9), 4 × 4 (16) 3 × 3 (9), 4 × 4 (16)			
2' × 4'	2 3 4	28, 32, 54 28, 32, 54 28, 32, 54	2 × 6 (12), 2 × 8 (16), 4 × 6 (24), 4 × 8 (32) 3 × 6 (18), 3 × 8 (24) 2 × 6 (12), 2 × 8 (16), 4 × 6 (24), 4 × 8 (32)			

Standard louver configurations shown in bold. For other lamp or louver configurations, contact your local Columbia Lighting representative. Various options may increase fixture height on 2' × 2' units. Contact your Columbia Lighting representative if plenum depth is a concern.

P4 Small Cell

Recessed Air Handling Small Cell Parabolic

FEATURES

- 1½" deep small cell louver reduces glare
- Proper lamp position ensures uniform illumination
- Black reveal with full air handling capabilities
- Anodized low iridescent aluminum louver
- Treated with a five stage phosphate bonding process and finished with a baked white enamel
- Mechanical light trap prevents light leaks
- Surface mount available
- UL listed 1598, cUL or CSA. Damp Location standard

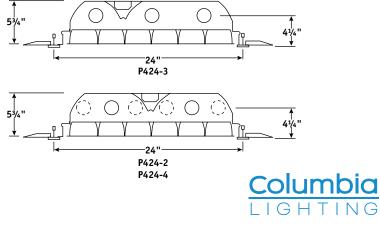


ORDERING INFORMATION **P4** AIR CONTROL MODEL NO. OF LAMPS **CEILING TYPE CELLS WIDE BY** VOLTAGE **CELLS LONG U** 120V-277V **G** Grid Recessed Air 2 Two Blank None Handling See Product **347** 347V 3 Three F Overlap Flange V Supply Vanes Small Cell Availability table Modular Fit-in **D** Extract Dampers 4 Four Parabolic helow. Trim VD Vanes & Dampers See Product SG Slot Grid Availability table below. SM Surface Mount (Static only) **LOUVER FINISH OPTIONS LAMP TYPE AIR BALLAST** SIZE 22 2' × 2' LD Low Iridescent **FUNCTIONS** 35K 75CRI T8 17 2', T8: 17 Watt NOTE: See Technical Section F0735 Semi-Specular for other ballast options. Lamps Installed 24 2' × 4' 28 4', T5: 28 Watt **S** Static LS Low Iridescent F0835 35K 82CRI T8 **E** Electronic T8, Instant A Air Handling 31U1 U-Bent, 1%" Specular Start Lamps Installed Leg Spacing T8: Combination **F5835** 35K 85CRI T5 MA Matte Anodized 3-Lamp Electronic T8, 31 Watt Supply/Extract Low Iridescent Instant Start Lamps Installed **32** 4', T8: 32, 30, H Heat Extract Semi-Specular 4E 4-Lamp Electronic T8, C388 3-Wire Flex 28 or 25 Watt Aluminum **Instant Start** 32U6 U-Bent, 6" Leg C488 4-Wire Flex Spacing T8: 32 Electronic T5 or T8, **EL** Emergency Battery Programmed Start Watt 40TT Twin Tube 3EP 3-Lamp Electronic GLR Fast Blow Fuse T5H0 or T8, Compact, 2G11 GMF Slow Blow Fuse Base: 40 Watt **Programmed Start** Master/Satellite MS9 54 4', T5H0: 54 or **4EP** 4-Lamp Electronic w/9' Harness T5H0 (N/A 347V) or 51 Watt T8, Programmed Start PAF Paint After Fabrication ETT Electronic Twin Tube, Instant Start (Specify NYC NYC Compliant voltage) NYCU NYC Compliant, Union Label

PRODUCT AVAILABILITY

SIZE	LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS
2' × 2'	2 3	17, 31U1, 32U6, 40TT 17, 31U1, 40TT	6 × 6 (36), 7 × 7 (49) 6 × 6 (36), 7 × 7 (49)
2' × 4'	2 3 4	28, 32, 54 28, 32, 54 28, 32, 54	6 × 13 (78), 7 × 15 (105) 6 × 13 (78), 7 × 15 (105) 6 × 13 (78), 7 × 15 (105)

For other lamp or louver configurations, contact your local Columbia Lighting representative. Various options may increase fixture height on 2' × 2' units. Contact your Columbia Lighting representative if plenum depth is a concern.



161/4"

High Performance Parabolic

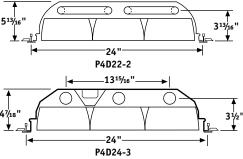


FEATURES

- · Nominal 3" deep louver
- · Black reveal with full air handling capabilities
- · Matte anodized low iridescent, semispecular (MA) louver finish virtually eliminates visibility of fingerprints and construction dust
- Shallow housing
- · Lightweight
- Recessed, surface, or cable mount
- · UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION P4D **CEILING TYPE VOLTAGE CELLS WIDE BY** MODEL NO. OF LAMPS **BALLAST CELLS LONG U** 120V-277V P4D High 2 Two **G** Grid NOTE: See Technical Section for Performance other ballast options. See Product 3 Three SM Surface Mount 347 347V Parabolic Availability table E Electronic T8, Instant (static only) 4 Four (N/A in **OPTIONS** below. CM Cable Mount 2×2) **3E** 3-Lamp Electronic T8, F0735 35K 75CRI T8 Lamps Installed (static only)4 See Product Instant Start For hard ceilings, use F0741 41K 75CRI T8 Lamps Installed **Availability AIR HANDLING** flange kit. See options 4E 4-Lamp Electronic T8, table below. FO835 35K 82CRI T8 Lamps Installed in Technical section. Instant Start Static¹ F0841 41K 82CRI T8 Lamps Installed EP Electronic T5 or T8, **LAMP TYPE LOUVER FINISH** A Air Handling¹ F5835 35K 85CRI T5 Lamps Installed SIZE Programmed Start Air Handling with 2BC Two Ballast Covers 22 2' × 2'3 14 2', T5: 14 Watt Low Iridescent 3EP 3-Lamp Electronic T5H0 Supply Vanes¹ Specular C388 3-Wire Flex 17 2'. T8: 17 Watt 24 2' × 4' or T8, Programmed Start Combination Matte Anodized C488 4-Wire Flex 24 2', T5H0: 24 Watt 4-Lamp Electronic Supply/Extract² Low Iridescent **EL** Emergency Battery Pack T5H0 (N/A 347V) or T8, 28 4', T5: 28 Watt Combination Semi-Specular Programmed Start GLR Fast Blow Fuse 31U1 U-Bent, 1%" Leg Aluminum (Std.) Supply Vanes/ Spacing T8: 31 Watt 24E 2 or 4-Lamp Electronic GMF Slow Blow Fuse Extract² T8, Instant Start (For Master/Satellite w/9 Combination 3-Lamp Master/Satellite 32 4', T8: 32, 30, 28 Harness Supply Extract or 25 Watt only) MS11 Master/Satellite w/ 11' Dampers² 32U6 U-Bent, 6" Leg ELW 2-Lamp Electronic T8, Harness Combination Spacing T8: 32 Watt 0.77 Ballast Factor, Low PAF Paint After Fabrication Supply Vanes Wattage, Instant Start Extract Dampers² TB4 (4) Bulk T-Bar Clips 40TT Twin Tube 3ELW 3-Lamp Electronic T8, Compact, 2G11 **EOR** End of Row (SM/CM only. Provides end wiring access for H Heat Extract² 0.77 Ballast Factor, Low Base: 40 Watt Heat Extract with Wattage, Instant Start continuous row mounting)5 **54** 4', T5H0: 54 or 51 Watt Dampers² 4ELW 4-Lamp Electronic T8, Intermediate (SM/CM only. Provides ends with wiring 0.77 Ballast Factor, Low access for continuous row Wattage, Instant Start mounting)5 ETT Electronic Twin Tube, ¹All fixtures supplied with integral T-Bar clips. NYC NYC Compliant Instant Start (Specify ²2' × 2' fixtures supplied with integral T-Bar clips, 2' × 4' fixtures supplied with two non-integral T-Bar clips. NYCU NYC Compliant, Union Label voltage) ³Various options may increase fixture height on 2' × 2'. For other options see Technical section. ⁴Order hanger accessories separately. Options and configurations may change fixture dimensions.

⁵Contact factory for continuous row, 3-lamp fixtures.



	24"————————————————————————————————————	
Colu	mbia	
LIGH	TING	

PRODUCT AVAILABILITY

SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS			
2' × 2'	2 3 4	14, 17, 24, 31U1, 32U6, 40TT 14, 17, 24, 31U1, 40TT 17	2 × 3 (6), 2 × 4 (8), 3 × 3 (9), 4 × 4 (16) 3 × 3 (9), 4 × 4 (16) 3 × 3 (9), 4 × 4 (16)			
2' × 4'	2 3 4	28, 32, 54 28, 32, 54 28, 32, 54	2 × 6 (12), 2 × 8 (16), 4 × 6 (24), 4 × 8 (32) 3 × 6 (18), 3 × 8 (24) 2 × 6 (12), 2 × 8 (16), 4 × 6 (24), 4 × 8 (32)			

Standard louver configurations shown in bold. Ballast quantities or emergency pack options may be restricted in some models.

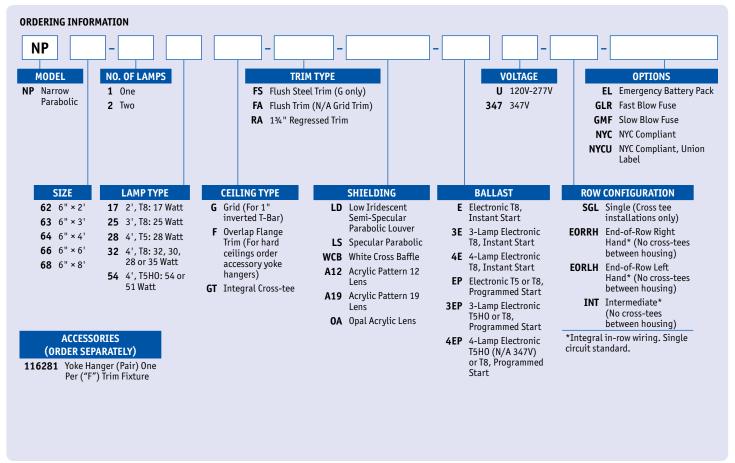


Narrow Parabolic

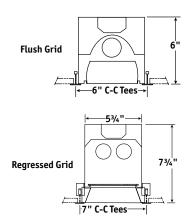
FEATURES

- 6" aperture suits a variety of applications
- Continuous louver provides a sleek unbroken appearance in continuous row applications
- · Available with flush or regressed trim
- · One or two-lamp cross sections
- Shielding options include parabolic louver, cross baffle or lens
- UL listed 1598, cUL or CSA. Damp Location standard

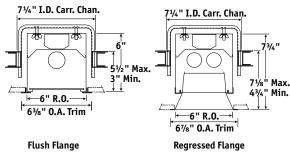




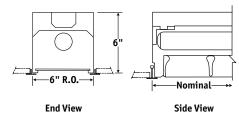
Type G Lay-in exposed grid. Fit standards 1" wide, 1½" tall tee.



Type F For hard ceiling applications. Yoke hangers are shipped separately. Carrier channel by others.



Type GT Integral cross-tee. Grid end lay into standard T-Bar. Sides act as integral cross-tee to support tile. Fits standard 1" wide, 1½" tall tee. Cut ceiling tile into two 8%" strips.





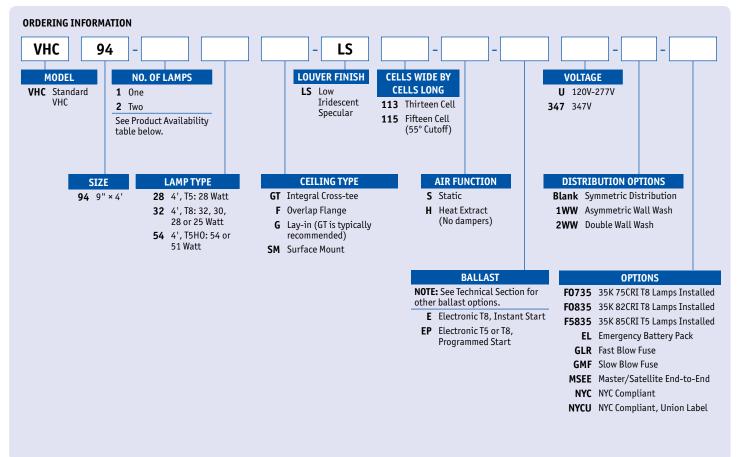
VHC

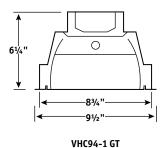
Low Glare 9" Parabolic

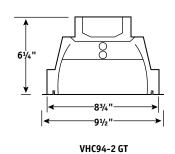


FEATURES

- Meets IES standard RP-1 glare control recommendations
- Ideal for today's computer intensive offices
- Wide light distribution provides uniform illumination
- · Unique optical system eliminates glare
- Low iridescent anodized aluminum louver and reflector
- White powder coat finished painted after fabrication
- Surface and pendant mount available
- · Symmetric and asymmetric distribution
- UL listed 1598, cUL or CSA. Damp Location standard







LUDUCI AVAILADILII I						
MODEL	SIZE	NO. OF LAMPS	LAMP TYPI			

DDODLICT AVAILABILITY

MODEL	SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS
VHC	9" × 4'	1 2	28, 32, 54 28, 32, 54	1 × 13 (13), 1 × 15 (15) 1 × 13 (13), 1 × 15 (15)

Type GT Integral cross-tee. Grid ends lay into standard T-Bar. Sides act as integral cross tees to support tile. Fits standard 1" wide, $1\frac{1}{2}$ " tall tee. Cut ceiling tiles into two $7\frac{1}{2}$ " strips.



Low Glare Parabolic

FEATURES

- Meets IES standard RP-1 glare control recommendations
- Ideal for today's computer intensive offices
- · Wide light distribution provides uniform illumination
- · Unique optical system eliminates glare
- · Treated with a five-stage phosphate bonding process and finished with a baked white enamel
- · Low iridescent anodized aluminum louver and reflector
- · Surface and pendant mount available
- Mechanical light trap prevents light
- Black reveal with full air handling capabilities
- UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION

HC

MODEL

HC Low Glare Parabolic

3 Three See Product Availability table below.

1 One

2 Two

NO. OF LAMPS

SIZE

14 1' × 4' 22 2' × 2'

24 2' × 4'

31U1 U-Bent, 1%" Leg Spacing T8: 31 Watt

LAMP TYPE

28 4', T5: 28 Watt

32 4', T8: 32, 30, 28 or 25 Watt 32U6 U-Bent, 6" Leg

Spacing T8: 32 Watt **40TT** Twin Tube

Compact, 2G11 Base: 40 Watt

54 4', T5H0: 54 or 51 Watt

CEILING TYPE

- **G** Grid
- Overlap Flange
- Modular Fit-in Trim
- SG Slot Grid
- SM Surface Mount*

*See limitations under Product Availability in the Product Selection Guide.

LOUVER FINISH

Low Iridescent Semi-Specular (Std.)

LS Low Iridescent Specular See Product Availability table below.

CELLS WIDE BY AIR CONTROL CELLS LONG Blank None

V Supply Vanes

Extract

VD Vanes &

Dampers

Dampers

See Product Availability table below.

AIR FUNCTION

- **S** Static
- A Air Handling
- Combination Supply/Extract
- H Heat Extract

VOLTAGE

U 120V-277V

347 347V

OPTIONS

35K 75CRI T8 F0735 Lamps Installed

F0835 35K 82CRI T8 Lamps Installed

F5835 35K 85CRI T5

Lamps Installed

C388 3-Wire Flex

C488 4-Wire Flex

EL Emergency

Battery Pack GLR Fast Blow Fuse

GMF Slow Blow Fuse

MS9 Master/Satellite w/9' Harness

Paint After

Fabrication NYC NYC Compliant

NYCU NYC Compliant,

Union Label

ETT Electronic Twin Tube, Instant Start (Specify

BALLAST

NOTE: See Technical Section for other ballast options.

(1) 2-Lamp and (1) 4-Lamp Electronic T8,

3-Lamp Electronic T5HO or T8, Programmed

4-Lamp Electronic T5HO (N/A 347V) or T8,

E Electronic T8, Instant Start

İnstant Start

Programmed Start

Start

3E 3-Lamp Electronic T8, Instant Start

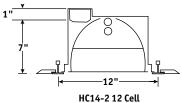
4E 4-Lamp Electronic T8, Instant Start

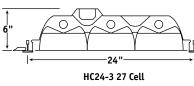
EP Electronic T5 or T8, Programmed Start

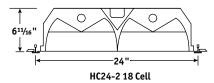
PRODUCT AVAILABILITY

SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS	LOUVER FINISH
1' × 4'	1 2	28, 32, 54 28, 32, 54	1 × 12 (12) 1 × 12 (12)	LD, LS LD, LS
2' × 2'	2 2* 2* 3	31U1, 40TT 40TT 32U6 31U1, 40TT	2 × 4 (8) 3 × 4 (12) 3 × 4 (12) 3 × 4 (12)	LD, LS LD, LS LD, LS LD, LS
2' × 4'	2	28, 32, 54 28, 32, 54	2 × 9 (18) 3 × 9 (27)	LD, LS LD, LS

If desired lamp or louver configuration is not shown above, contact your local Columbia Lighting representative. PVHC meets RP-1 preferred standards. Various options may increase fixture height on 2' × 2' units. Contact your Columbia Lighting representative if plenum depth is a concern. Standard louver finish shown in bold. *Not available in surface mount.









45

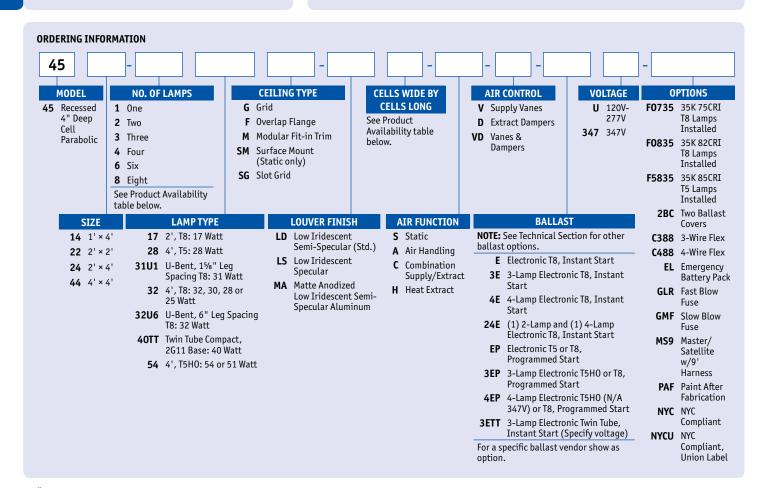
Recessed 4" Deep Cell Parabolic

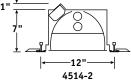


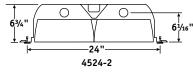
FEATURES

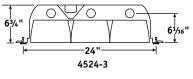
- Meets IES standard RP-1 glare control recommendations on most models
- Ideal for today's computer intensive offices
- Wide light distribution provides uniform illumination
- 4" deep low iridescent anodized aluminum louver
- Surface mount available

- Mechanical light trap prevents light leaks
- Black reveal with full air handling capabilities
- UL listed 1598, cUL or CSA. Damp Location standard









61/16



PRODUCT AVAILABILITY

SIZE	NO. OF LAMPS	LAMP TYPE	LOUVER CONFIGURATIONS
1' × 4'	1	28, 32, 54	1 × 6 (6), 1 × 9 (9)
	2	28, 32, 54	1 × 6 (6), 1 × 9 (9)
2' × 2'	2	17, 31U1, 32U6, 40∏ 17, 31U1, 40∏	3 × 3 (9), 4 × 4 (16) 3 × 3 (9), 4 × 4 (16)
2' × 4'	2	28, 32, 54	2 × 6 (12), 2 × 8 (16), 4 × 6 (24), 4 × 8 (32)
	3	28, 32, 54	3 × 6 (18), 3 × 8 (24)
	4	28, 32, 54	2 × 6 (12), 2 × 8 (16), 4 × 6 (24), 4 × 8 (32)
4' × 4'	6	28, 32, 54	6 × 6 (36) , 8 × 8 (64)
	8	28, 32, 54	6 × 6 (36), 8 × 8 (64)

Standard louver configurations shown in bold. For other lamp or louver configurations, contact your local Columbia Lighting representative. Various options may increase fixture height on 2' × 2' units. Contact your Columbia Lighting representative if plenum depth is a concern.

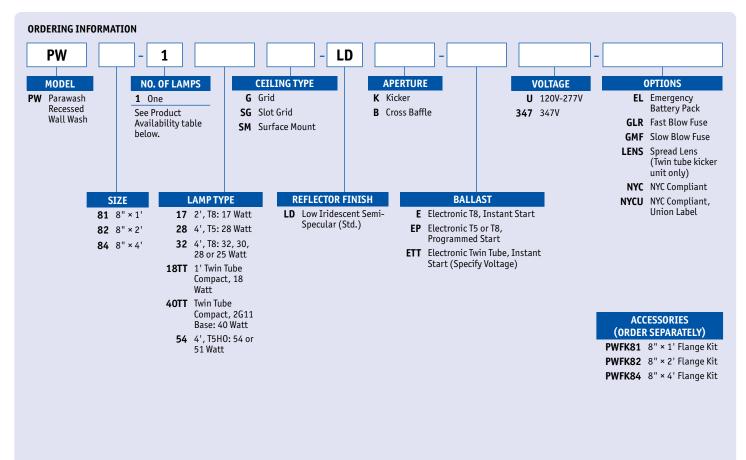


Parawash Recessed Wall Wash

FEATURES

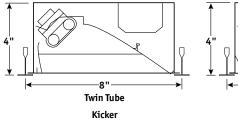
- Wall washing makes an environment appear larger and brighter
- Wide light distribution provides uniform illumination at up to 8' spacings
- Models with unique kicker reflector directs majority of light on wall up to the ceiling line
- · Used at ends and sides of parabolic rows
- Choice of linear kicker reflector or cross
 haffle
- Anodized low iridescent aluminum reflector
- Ideal for office, retail, or video conferencing
- White powder coat finish painted after fabrication
- UL listed 1598, cUL or CSA. Damp Location standard

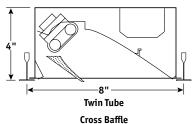




PRODUCT AVAILABILITY					
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN UNIT	LAMP TYPE	CROSS BAFFLE CONFIGURATIONS	
8"× 1'	1	1	18TT	1 × 4 (4)	
8" × 2'	1	1	17,40TT	1 × 9 (9)	
8" × 4'	1 1	1 2	28, 32, 54 40TT	1 × 18 (18) 1 × 18 (18)	
The desired lamp or cross haffle configuration is not shown above, contact					

If desired lamp or cross baffle configuration is not shown above, contact your local Columbia Lighting representative.







FW

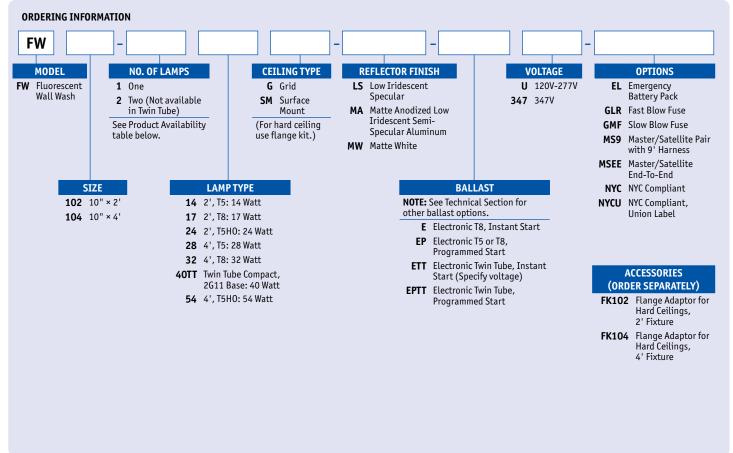
Fluorescent Wall Wash

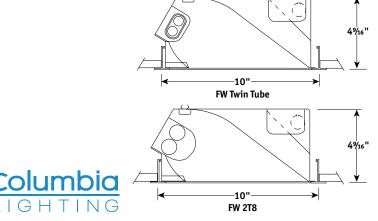


FEATURES

- · Wall wash luminaire
- Directs majority of light to vertical surface
- Brighter walls open up spaces, minimize contrast ratios
- Versatile and economical
- Presents a clean, uninterrupted reflecting surface
- · Contractor friendly

- Wireway completely accessible from below
- Suitable for individual or continuous row mounting
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT	PRODUCT AVAILABILITY							
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN UNIT	LAMP TYPE	HEIGHT	LENGTH			
10" × 2'	1	1	14, 17, 24, 40TT	4%16"	24"			
	2	2	14, 17, 24	4%16"	24"			
10" × 4'	1	1	28, 32, 54, 40TT	4%16"	48"			
	1	2	40TT	4%16"	48"			
	2	2	28, 32, 54	4%16"	48"			

APPLICATION PHOTOS









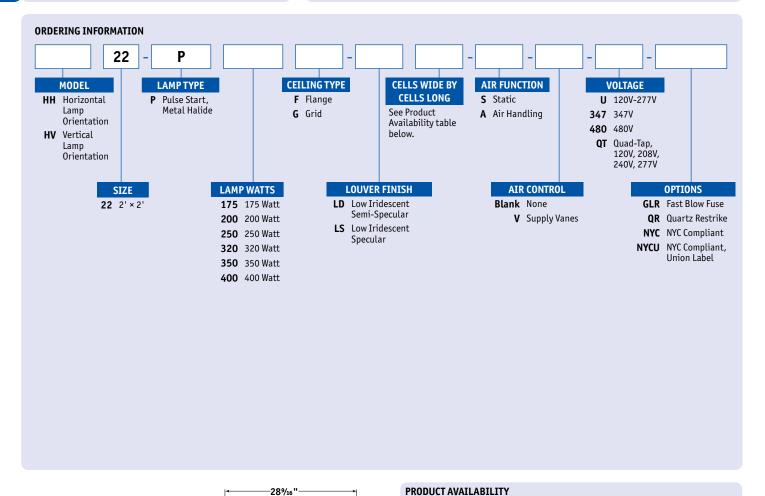
HH/HV

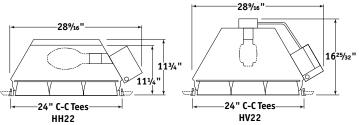
Recessed HID Parabolic



FEATURES

- Ideal for manufacturing areas, retail stores, and gymnasiums
- · Metal halide lamp
- · Horizontal or vertical lamp position
- · Tempered glass overlay
- · Ballast accessible from below
- Ballast housing is Label of aluminum for maximum heat dissipation
- Black reveal with air handling capabilities
- White powder coat finish, painted after fabrication
- Uses EISA compliant pulse start metal halide technology
- UL listed 1598, cUL or CSA. Damp Location standard





SIZE	NO. OF LAMPS	LAMP TYPE	LAMP WATTAGE	LOUVER CONFIGURATIONS
2' × 2'	1	Р	175, 250, 320, 400	3 × 3 (9), 4 × 4 (16)

If desired lamp or louver configuration is not shown above, contact your local Columbia Lighting representative.



LENSED TROFFERS

Specification Grade Static Troffer

FEATURES

- · Fluorescent, energy efficient light source
- · Excellent lamp-to-lens spacing
- Flush door is formed steel with mitered
- · Hemmed or rolled edge housing
- Steel corner hinges ensure a snug door fit eliminating light leaks
- Doors are retained by cam latches and hinge from either side
- Spring loaded latches optional
- · Recessed, surface or cable mount

- Row mounting available. Must specify at time
- Painted parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA. Damp Location
- Available with exclusive wiHUBB technology preinstalled



ORDERING INFORMATION

4PS

MODEL

4PS Specification Grade Static Troffer

NO. OF LAMPS

- **1** One
- 2 Two 3 Three
- 4 Four
- 6 Six (2x4 only)

See Product Availability table below.

LAMP TYPE

14 2', T5: 14 Watt

17 2', T8: 17 Watt

28 4' T5: 28 Watt

T8: 31 Watt

T8: 32 Watt

24 2', T5H0: 24 Watt

31U1 U-Bent, 1%" Leg Spacing

32U6 U-Bent, 6" Leg Spacing

40TT Twin Tube Compact, 2G11

54 4', T5H0: 54 or 51 Watt

Base: 40 Watt

32 4', T8: 32, 30, 28 or 25 Watt

CEILING TYPE

- **G** Inverted T-Bar
- Overlap Flange
- Modular
- SM Surface Mount
- CM Cable Mount¹

DOOR

- FS White Flush Steel
- FA White Flush Aluminum
- RA White Regressed Aluminum
- SFA Silver Flush Aluminum
- SRA Silver Regressed Aluminum

SHIELDING

- A12 Pattern 12 Acrylic Lens Pattern 12 Acrylic Lense, A12125 0.125" Nominal
 - A15 Pattern 15 Acrylic Lens
 - Pattern 19 Acrylic Lens, 0.156" Nominal
 - 1/2" × 1/2" × 1/2" Specular Silver Polystyrene Louver
 - 11/2" × 11/2" × 1" Specular Silver Polystyrene Louver

For more shielding options see Door Frame and Diffuser Options page.

BALLAST

NOTE: See Technical Section for other ballast options.

- E Electronic T8, Instant Start
- 3E 3-Lamp Electronic T8, Instant Start
- 4E 4-Lamp Electronic T8, Instant Start
- EP Electronic T5 or T8, Programmed Start
- 3-Lamp Electronic T5HO or T8, Programmed Start
- 4EP 4-Lamp Electronic T5HO (N/A 347V) or T8, Programmed Start
- ETT Electronic Twin Tube, Instant Start
- 2-Lamp Electronic T8, 0.77 Ballast Factor, Low Wattage, Instant Start
- 3-Lamp Electronic T8, 0.77 Ballast Factor, Low Wattage, Instant Start
- 4-Lamp Electronic T8, 0.77 Ballast Factor, Low Wattage, Instant Start
- EPTT Electronic Twin Tube, Programmed Start

VOLTAGE

U 120V-277V

347 347V

OPTIONS

- 35K 75CRI T8 Lamps Installed
- F0741 41K 75 CRI T8 Lamps Installed
- F0835 35K 82CRI T8 Lamps Installed
- F0841 41K 82CRI T8 Lamps Installed
- F5835 35K 85CRI T5 Lamps Installed
 - **EL** Emergency Battery Pack Installed
 - **EL5** Emergency Battery Pack, T5 or T5HO
- C388 3-Wire Flex
- C488 4-Wire Flex
 - Heat Extract (No Dampers)
- **GLR** Fast Blow Fuse
- MS9 Master/Satellite Pair w/9' Harness
- **SLL** Spring Loaded Latches
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label
- WIH wiHUBB Enabled^{2,3}

For more options and accessories see Technical section.

¹ Order hanger accessories separately.

SIZE

14 1' × 4'

22 2' × 2'

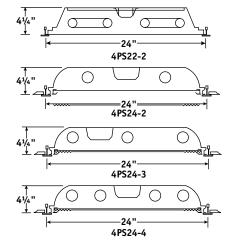
24 2' × 4'

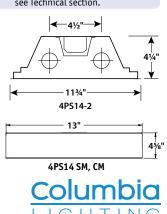
- ² Not available with Surface Mount Ceiling Types.
- ³ In-Fixture Module Antenna adds 2" to overall fixture height at power feed location.

PRODUCT AVAILABILITY

SIZE	NO. OF LAMPS	LAMPTYPE	G TRIM HEIGHT*	F TRIM HEIGHT*	SM Trim height
1' × 4'	1 2 3	28, 32, 54 28, 32, 54 28, 32, 54	4½" 4½" 4½"	4½" 4½" 4½"	45/8" 45/8" 45/8"
2' × 2'	2 3 4	14, 17, 24, 31U1, 32U6, 40TT 14, 17, 24, 31U1, 40TT 14, 17, 24	4½" 4½" 4½"	* *	45/8" 45/8" 45/8"
2' × 4'	2 3 4 6	28, 32, 54 28, 32, 54 28, 32, 54 28, 32, 54	4½" 4½" 4½" 4½" 4½"	4½" 4½" 4½" 4½"	5 ³ / ₁₆ " 5 ³ / ₁₆ " 5 ³ / ₁₆ " 5 ³ / ₁₆ "

*Some ceiling types and options may increase height of 2' × 2' units. Typically 41/4" high, some options may increase this to 61/8". Please contact your Columbia Lighting representative for details.





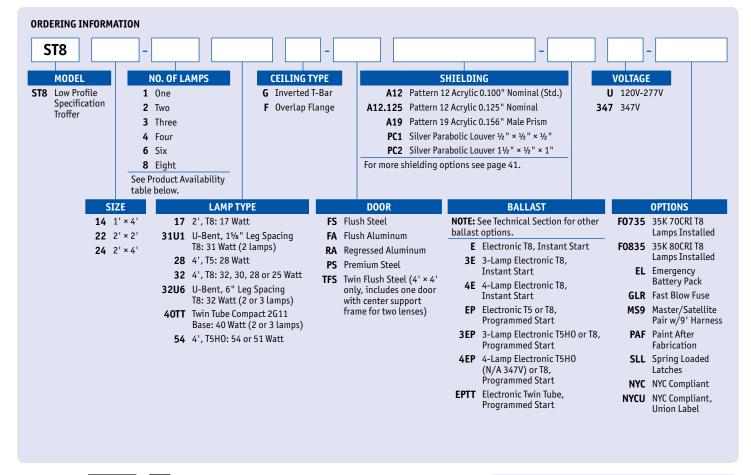
ST8

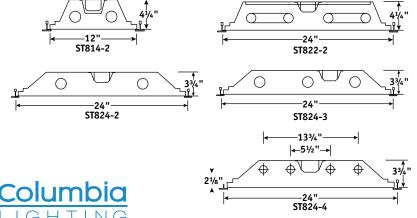
Low Profile Specification Troffer



- Optical performance designed for T8 lamp technology
- 21/8" minimum spacing from bottom of lamp to bottom of lens
- Mechanical light seal
- Rolled fixture edges for comfortable handling
- · Spring loaded latches optional
- Integral T-Bar clips (2' × 4' only)

- Snap-in ballast covers can be removed when lamps are installed
- Optional flush or regressed aluminum door frames available
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY					
SIZE	NO. OF LAMPS	LAMP TYPE	GRID TRIM HEIGHT		
1' × 4'	1	28, 32, 54	47/8"		
	2	28, 32, 54	41/4"		
	3	28, 32, 54	47/8"		
2' × 2'	2	17, 31U1, 32U6, 40∏	4½"		
	3	17, 31U1, 40∏	4½"		
	4	17	4½"		
2' × 4'	2	28, 32, 54	3³/4"		
	3	28, 32, 54	3³/4"		
	4	28, 32, 54	3³/4"		
	6	28, 32, 54	3³/4"		

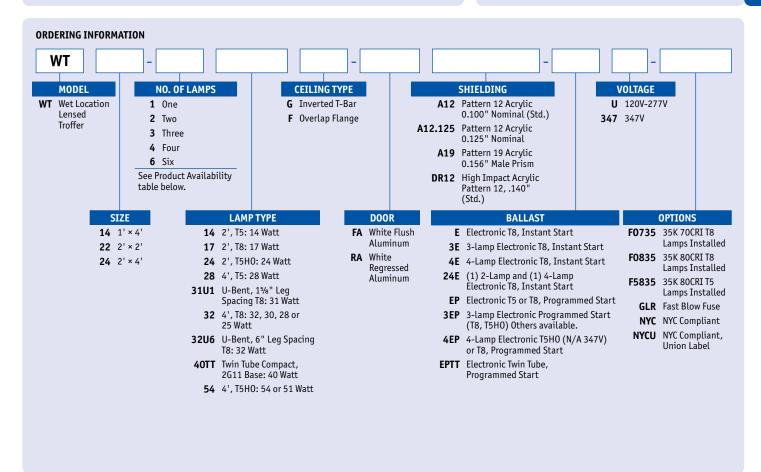


Wet Location Lensed Troffer

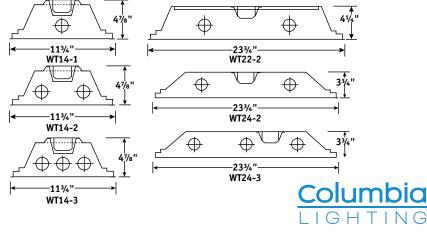
- · Wet label shallow housing troffer
- Gasketed to provide additional seal between door, lens, and housing
- · Mitered corners standard on door frame
- · Rolled or hemmed housing edges
- · Mechanical light trap

- All metal parts are white powder coat, painted after fabrication
- UL listed 1598, cUL or CSA. Wet Location standard



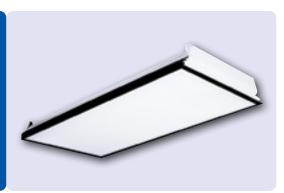


PRODUCT AVAILABILITY					
SIZE	NO. OF LAMPS	LAMP TYPE	GRID TRIM HEIGHT		
1' × 4'	1 2 3	28, 32, 54 28, 32, 54 28, 32, 54	4 ⁷ /8" 4 ¹ /4" 4 ⁷ /8"		
2' × 2'	2 3 4	14, 17, 24, 31U1, 32U6, 40TT 14, 17, 24, 31U1, 40TT 14, 17, 24	4½" 4½" 4½"		
2' × 4'	2 3 4 6	28, 32, 54 28, 32, 54 28, 32, 54 28, 32, 54	3 ³ / ₄ " 3 ³ / ₄ " 3 ³ / ₄ "		

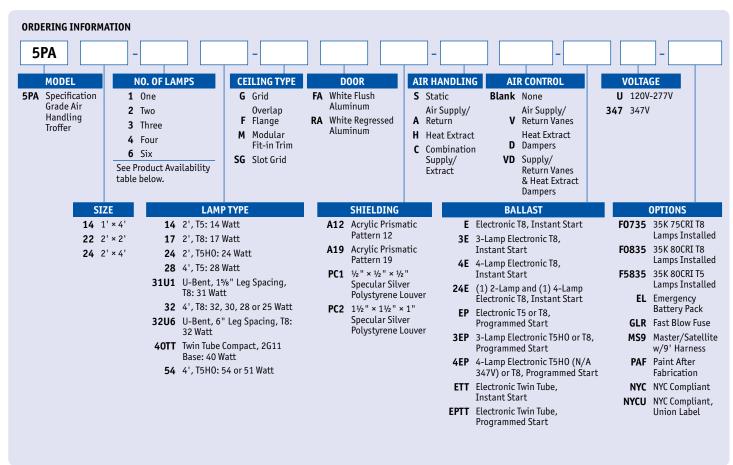


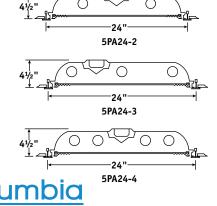
5PA

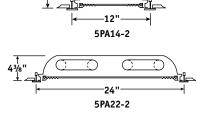
Specification Grade Air Handling Troffer



- Contoured housing maximizes uniform photometric performance
- Mitered corners on door presents a clean appearance
- Painted parts are treated with a five stage phosphate bonding process and finished with a baked white enamel; door is painted after fabrication
- Mechanical light trap prevents light
- Unique stepped ballast cover prevents shadowing
- Black reveal with full air handling capabilities
- Doors are retained by spring steel latches and hinge from either side
- UL listed 1598, cUL or CSA. Damp Location standard







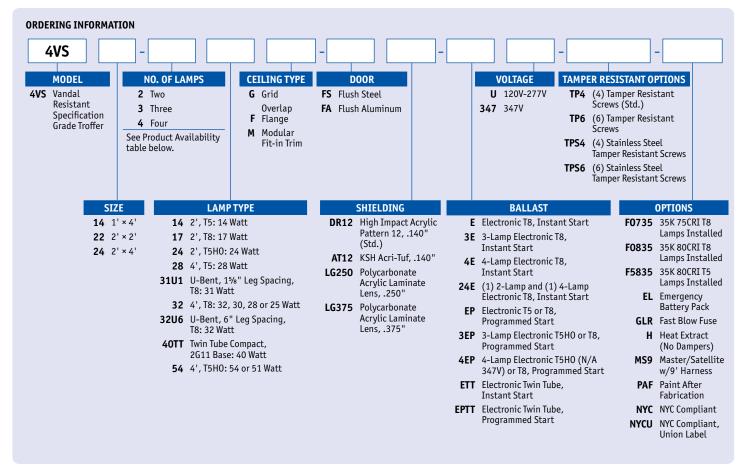
PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS	LAMPTYPE	GRID TRIM HEIGHT			
1' × 4'	1	28, 32, 54	5¾"			
	2	28, 32, 54	5¾"			
	3	28, 32, 54	5¾"			
2' × 2'	2	14, 17, 24, 31U1, 32U6, 40∏	43/8"			
	3	14, 17, 24, 31U1, 40∏	43/8"			
	4	14, 17, 24	43/8"			
2' × 4'	2	28, 32, 54	4½"			
	3	28, 32, 54	4½"			
	4	28, 32, 54	4½"			
	6	28, 32, 54	4½"			

Vandal Resistant Specification Grade Troffer

FEATURES

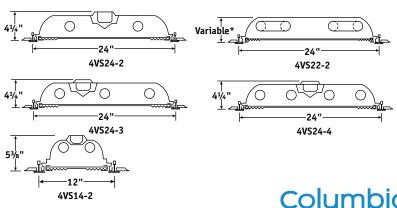
- Flush steel or aluminum door frame secured by four or six tamper resistant screws
- Stainless steel tamper resistant screws optional
- High impact lens for maximum durability
- Grid, flange, or modular trims available
- Painted parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY **FLANGE GRID TRIM** SIZE LAMP TYPE TRIM LAMPS **HEIGHT*** HEIGHT^s 1 28, 32, 54 53/81 53/81 1' × 4 28, 32, 54 53/8" 53/8" 28, 32, 54 53/8" 53/8" 3 2' × 2' 14, 17, 24, 31U1, 32U6, 40TT 114, 17, 24, 31U1, 40TT 14, 17, 24 41/2" 2' × 4 28, 32, 54 41/41 3 28, 32, 54 41/4" 41/2" 41/4" 41/2" 28, 32, 54 28, 32, 54 41/41 41/2"

*Some ceiling types and options may increase height of 2' \times 2' units. Typically 4%" high, some options may increase this to 6\%". Please contact your Columbia Lighting representative for details.

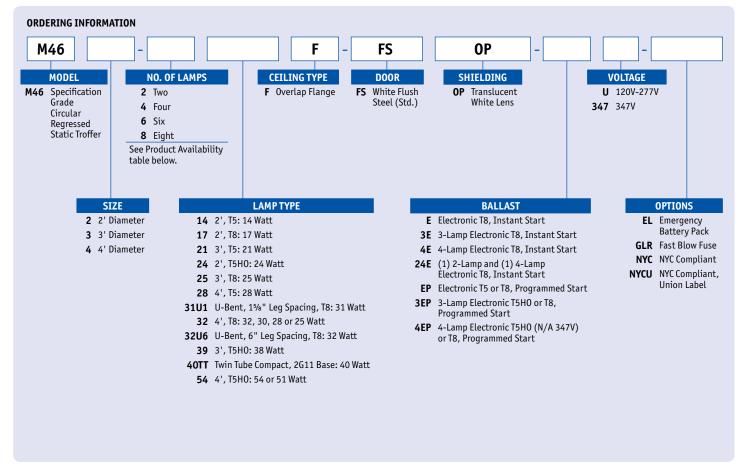


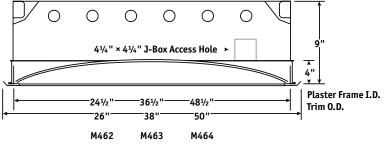
M46

Specification Grade Circular Regressed Static Troffer



- Meets demanding architectural and aesthetic requirements
- 9" deep housing ensures no lamp imaging in lens
- Deep plaster flange accommodates various ceiling thicknesses
- 18-gauge steel plaster ring eliminates light leaks
- Steel lens clips hold lens firmly in place
- Thick, arched acrylic diffuser conceals light source yet permits high transmission of light
- White powder coat finish, painted after fabrication
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY				
SIZE	NO. OF LAMPS	LAMP TYPE	HEIGHT	
2' Diameter	2	31U1, 32U6, 40∏	9"	
	4	14, 17, 24	9"	
	6	14, 17, 24	9"	
3' Diameter	4	21, 25, 39	9"	
	6	21, 25, 39	9"	
4' Diameter	4	28, 32, 54	9"	
	6	28, 32, 54	9"	
	8	28, 32, 54	9"	
Note: M46 must be installed prior to ceiling.				

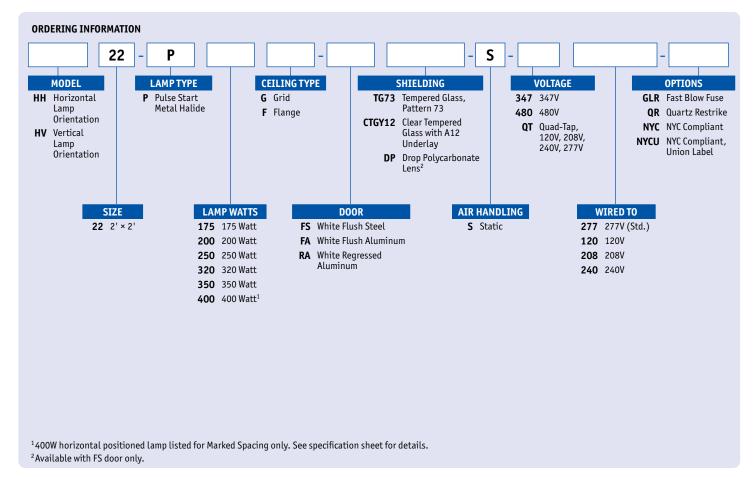


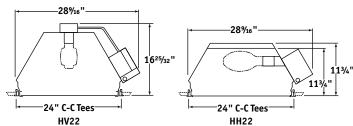
HH/HV Lensed

Recessed HID Lensed Troffer

- Ideal for manufacturing areas, retail stores, and gymnasiums
- · Horizontal or vertical lamp position
- Choice of tempered glass or acrylic lens with tempered glass overlay
- · Ballast accessible from below
- Ballast housing is Label of aluminum for maximum heat dissipation
- White powder coat finish, painted after fabrication
- Uses EISA compliant pulse start metal halide technology
- Louvered version also available, see Parabolics section
- UL listed 1598, cUL or CSA. Damp Location standard

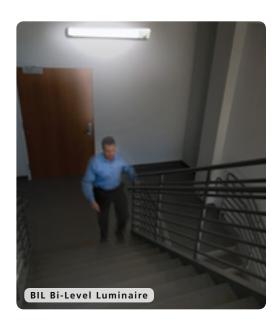








APPLICATION PHOTOS











Low Profile Wall Mount

FEATURES

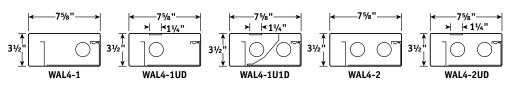
- Low profile
- Downlight only or up/downlight, with or without uplight reflector
- One piece clear prismatic acrylic diffuser with 25% DR
- Diffuser easily removable for lamp access and cleaning
- Heavy gauge steel housing with embossments
- Injection molded thermoplastic, textured end caps
- All metal parts are powder coated white after fabrication
- Choice of T5, T8, or Twin Tube lamps
- UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION WAL MODEL SI7F **LAMP TYPE VOLTAGE OPTIONS** WAL Low 2 2' 17 2' T8: 17 Watt U 120V-277V **EL** Emergency Battery Pack Profile **3** 3' 25 3' T8: 25 Watt **347** 347V GCO Grounded Convenience Outlet (120V only) Wall 4 4' 28 4' T5: 28 Watt GLR Fast Blow Fuse Mount 32 4' T8: 32, 30, 28 or 25 Watt PSW Pull Switch, One Circuit (120V only) **RSWD** Rotary Switch, Wired to the Downlight Circuit 40TT Twin Tube Compact, 2G11 Base: 40 Watt (2' and 4' on a Two Circuit Unit (120V only) units only, see table below) PSWD Pull Switch, Wired to the Downlight Circuit 54 4' T5H0: 54 or 51 Watt on a Two Circuit Unit (120V only) Four-way Pull Switch, for Two Circuit, 2-Lamp Units (120V only) LUB Less Uplight Baffle **NO. OF LAMPS BALLAST** NSW Night Light With Rotary Switch (120V only) 1 1-Lamp, Downlight E Electronic T8, Instant Start NL Incandescent Night Light Socket (120V only) 2 2-Lamps, Downlight 11E Two 1-Lamp Ballasts, PL7 Fluorescent Night Light for 7W T-4 G23 lamp. Instant Start 1UD 1-Lamp, Uplight & (Lamp not included). PL ballast will default Downlight Electronic T5 or T8, to fixture voltage unless specified. Not Programmed Start available in 2' unit with battery pack. 1U1D 1-Lamp Uplight, 1-Lamp Downlight EPTT Electronic Twin Tube, **PL9** Fluorescent Night Light for 9W T-4 G23 lamp. (Lamp not included). PL ballast will default to fixture voltage unless specified. Not Programmed Start 2UD 2-Lamps, Uplight & Downlight available in 2' unit with battery pack. See Product Availability PL13 Fluorescent Night Light for 13W T-4 GX23 table below. lamp. (Lamp not included). PL ballast will default to fixture voltage unless specified. Not available in 2' unit with battery pack. NYC NYC Compliant NYCU NYC Compliant, Union Label

PRODUCT AVAILABILITY

SERIES	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE
WAL2	1	1	17,40TT
	2	2	17,40TT
WAL3	1	1	25
	2	2	25
WAL4	1	1	28, 32, 54
	2	2	28, 32, 54
	1	2	40TT
	2	4	40TT



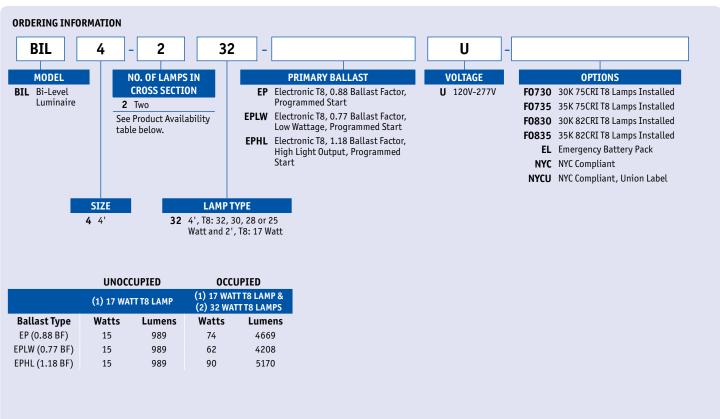


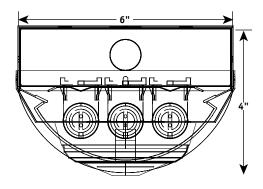
BIL

Bi-Level Luminaire



- Energy saving luminaire with integrated occupancy controls
- · Bi-level light control offers safety and security
- Ideal for stairwells, parking structures, restrooms and areas where maximum light levels are not needed when area is unoccupied
- Contains a single low wattage 2' T8 lamp for constant light output while the 4' T8 lamps are controlled by an integral occupancy sensor
- Hubbell Building Automation-Internally mounted Passive Infrared Occupancy sensor with 360° coverage lens and a 2:1 radius to height ratio coverage pattern.
- Sensor includes adjustable time delay and motion sensitivity
- White aluminum body allows for greater heat dissipation
- · Tool-less access to ballast for ease of maintenance
- Can be surface mounted or suspended
- Multiple ballast options available for needed energy savings and light output
- Fail-safe operation switches light level to 100% if sensor is damaged
- UL Listed 1598, cUL or CSA. Damp Location standard





PRODU	ICT AVAILABII	LITY					
SIZE	NO. OF CONTROLLED LAMPS	CONTROLLED LAMP TYPE	NO. OF CONSTANT LAMPS	CONSTANT LAMP TYPE	WIDTH	LENGTH	HEIGHT
4'	2	32	1	17	6"	54"	4"



MW/EW

Injection Molded/Extruded Wraparound

FEATURES

- Clear injection molded acrylic prismatic diffuser, flat bottom with vertical sides (MWN/MWW)
- Clear extruded acrylic prismatic diffuser, flat bottom, vertical sides, and injection molded luminous ends (EWN/EWW)
- Lens positively secured by torsion springs and can be easily removed
- · Heavy gauge steel housing with embossments
- Sturdy metal end pieces provide overall strength to the fixture

- End cap has a clean appearance (knockout provided for continuous row only)
- Optional spacers allow direct mounting on combustible low density cellulose fiberboard ceilings
- White powder coat finish is applied after fabrication on all metal parts, less ballast cover (baked white enamel)
- Surface or stem mount
- UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION

	MODEL						
Injection Molded Wrap							
MWN	101/8"	Narrow					
MWW	151/8"	Wide					
Extruded Wrap							
EWN	107/8"	Narrow					

EWW 151/8" Wide

NO. OF LAMPS IN CROSS SECTION 2 Two

3 Three 4 Four

SIZE

4 4'

8 8'

See Product Availability table below.

LAMP TYPE

- 28 4', T5: 28 Watt 32 4', T8: 32, 30, 28 or 25 Watt
- **54** 4', T5H0: 54 or 51 Watt

BALLAST

NOTE: See Technical Section for other ballast options.

- **E** Electronic Instant Start (Std.)
- **3E** 3-Lamp Electronic T8, Instant Start
- **4E** 4-Lamp Electronic T8, Instant Start
- **EP** Electronic T5 or T8, Programmed Start
- **3EP** 3-Lamp Electronic T5H0 or T8, Programmed Start
- **4EP** 4-Lamp Electronic T5H0 (N/A 347V) or T8, Programmed Start

VOLTAGE OPTIONS

- U
 120V-277V
 CS2
 Ceiling Spacer

 120
 120V
 EL
 Emergency Battery Pack

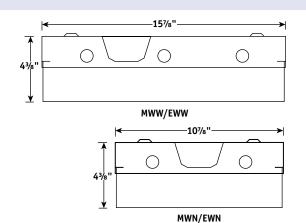
 347
 347V
 Pack
 - GLR Fast Blow Fuse
 - NL Compact Twin Tube Fluorescent Night Light in G23 Base for 5W, 7W, 9W or GX23 Base for 13W. (120V or 277V; Lamp not included)
 - SB3 Stem Mounting Bracket (Required for 3-Lamp units only)
 - NYC NYC Compliant
 - NYCU NYC Compliant, Union Label

ACCESSORIES (ORDER SEPARATELY)

\$18 18" Stem w/Canopy

SS18 18" 45° Swivel Stem w/Canopy

PRODUCT AVAI	ILABILITY						
SERIES	No. of lamps in cross section	No. Of lamps in fixture	Lamp Type	Lamp length	WIDTH	LENGTH	HEIGHT
MWN4/EWN4	2	2	28, 32, 54	4'	101/8"	4'	4³/8"
MWN8/EWN8	2	4	28, 32, 54	4'	101/8"	8'	4³/8"
MWW4/EWW4	2	2	28, 32, 54	4'	157/8"	4'	4 ³ / ₈ "
	3	3	28, 32, 54	4'	157/8"	4'	4 ³ / ₈ "
	4	4	28, 32, 54	4'	157/8"	4'	4 ³ / ₈ "
MWW8/EWW8	2	4	28, 32, 54	4'	157/8"	8'	4 ³ / ₈ "
	3	6	28, 32, 54	4'	157/8"	8'	4 ³ / ₈ "
	4	8	28, 32, 54	4'	157/8"	8'	4 ³ / ₈ "



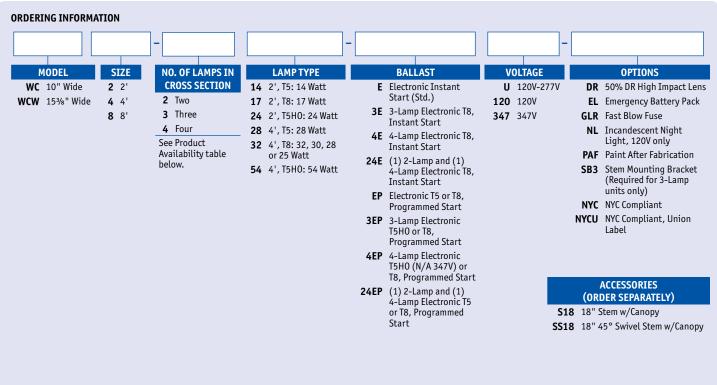


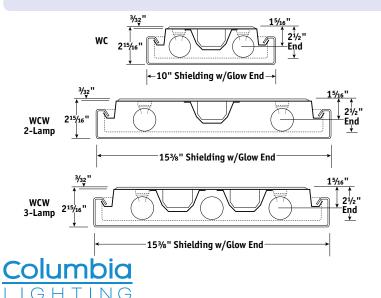
WC

Specification Grade Wraparound



- Clear acrylic prismatic diffuser, flat bottom with vertical sides, and injection molded glow ends
- Two, three, or four-lamp cross sections
- Heavy gauge steel housing die embossed for maximum rigidity
- Heat sink embossments and levelling projections allow direct mounting of HPF fixtures on combustible low density cellulose fiberboard ceilings
- All metal parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- · Hinges from either side
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY							
SERIES	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	LAMP LENGTH	WIDTH	LENGTH	HEIGHT
WC2	2	2	14, 17, 24	2'	10"	2'	2 ¹⁵ / ₁₆ "
WC4	2	2	28, 32, 54	4'	10"	4'	2 ¹⁵ / ₁₆ "
WC8	2	4	28, 32, 54	4'	10"	8'	2 ¹⁵ / ₁₆ "
WCW2	2	2	14, 17, 24	2'	153/8"	2'	2 ¹⁵ / ₁₆ "
	4	4	14, 17, 24	2'	153/8"	2'	2 ¹⁵ / ₁₆ "
WCW4	2	2	28, 32, 54	4'	153/8"	4'	2 ¹⁵ / ₁₆ "
	3	3	28, 32, 54	4'	153/8"	4'	2 ¹⁵ / ₁₆ "
	4	4	28, 32, 54	4'	153/8"	4'	2 ¹⁵ / ₁₆ "
WCW8	2	4	28, 32, 54	4'	153/8"	8'	2 ¹⁵ / ₁₆ "
	3	6	28, 32, 54	4'	153/8"	8'	2 ¹⁵ / ₁₆ "
	4	8	28, 32, 54	4'	153/8"	8'	2 ¹⁵ / ₁₆ "



Low Profile Wraparound

FEATURES

- · Clear acrylic prismatic diffuser with flat bottom and vertical sides
- · Two, three, or four-lamp cross sections
- · Hinges from either side
- White steel end plates with flush knockouts for continuous row mounting
- · Heavy gauge steel housing die embossed for maximum rigidity

ZE

- · Heat sink embossments and levelling projections allow direct mounting of HPF fixtures on combustible low density cellulose fiberboard ceilings
- · All metal parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION

M	Ι	S	ΙZΕ	
AWN	85/16" Wide		2	2'
٩WW	141/8" Wide		4	4'
			8	8'

NO. OF LAMPS IN **CROSS SECTION**

2 Two 3 Three 4 Four

See Product Availability table below.

LAMP TYPE

- 14 2', T5: 14 Watt 17 2', T8: 17 Watt
- 24 2', T5H0: 24 Watt
- 28 4', T5: 28 Watt
- **32** 4', T8: 32, 30, 28 or 25 Watt

54 4', T5H0: 54 Watt

BALLAST

- E Electronic Instant Start (Std.)
- 3E 3-Lamp Electronic T8, Instant Start
- 4E 4-Lamp Electronic T8, **Instant Start**
- 24E (1) 2-Lamp and (1) 4-Lamp Electronic T8, Instant Start
- EP Electronic T5 or T8, **Programmed Start**
- 3EP 3-Lamp Electronic T5H0 or T8, **Programmed Start**
- 4EP 4-Lamp Electronic T5H0 (N/A 347V) or T8, Programmed Start

VOLTAGE

U 120V-277V

347 347V

- **EL** Emergency Battery Pack
 - GLR Fast Blow Fuse
 - NL Incandescent Night Light

OPTIONS

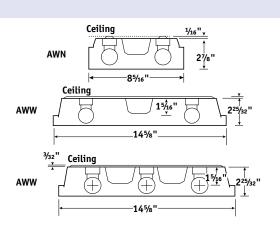
- PAF Paint After Fabrication
- **SB3** Stem Mounting Bracket (Required for 3-Lamp units only)
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label

ACCESSORIES (ORDER SEPARATELY)

\$18 18" Stem w/Canopy

SS18 18" 45° Swivel Stem w/Canopy

PRODU	CT AVAILABILIT	Υ					
SERIES	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	LAMP LENGTH	WIDTH	LENGTH	HEIGHT
AWN2 AWN4 AWN8	2 2 2	2 2 4	14, 17, 24 28, 32, 54 28, 32, 54	2' 4' 4'	85/16" 85/16" 85/16"	2' 4' 8'	2 ⁷ / ₈ " 2 ⁷ / ₈ " 2 ⁷ / ₈ "
AWW4	2 3 4	2 3 4	28, 32, 54 28, 32, 54 28, 32, 54	4' 4' 4'	145/8" 145/8" 145/8"	4' 4' 4'	2 ²⁵ / ₃₂ " 2 ²⁵ / ₃₂ " 2 ²⁵ / ₃₂ "
AWW8	2 3 4	4 6 8	28, 32, 54 28, 32, 54 28, 32, 54	4' 4' 4'	145/8" 145/8" 145/8"	8' 8' 8'	2 ²⁵ / ₃₂ " 2 ²⁵ / ₃₂ " 2 ²⁵ / ₃₂ "



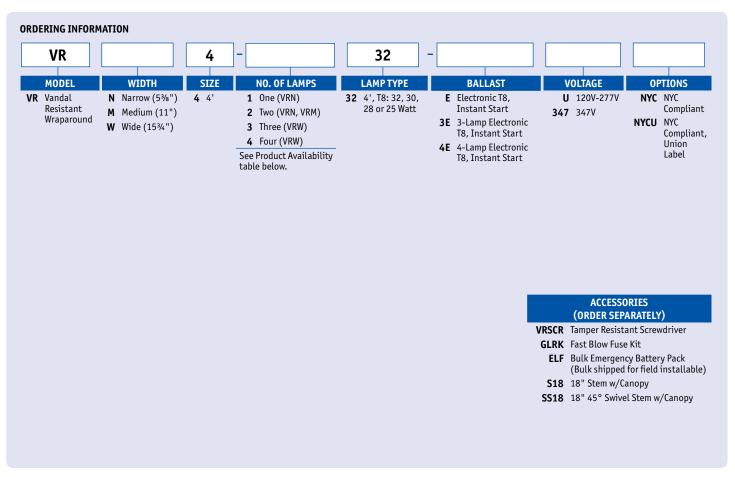


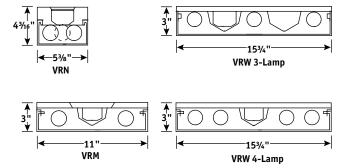
Vandal Resistant Wraparound



- Ideal for vandal-prone areas, such as schools, hallways, dormitories, restrooms, bus stops, and locker rooms
- Effective, secure illumination mounts to ceilings or walls
- · Rugged, 16 gauge heavy duty steel housing
- Diffuser is UV stabilized .130" thick, one-piece, prismatic polycarbonate for high-impact protection
- Formed end cap welded to housing for additional strength

- Wireway extends below lamp to protect lamp for impact breakage
- White powder coat finish painted after fabrication
- For ceiling, wall, or pendant individual or continuous row
- Six tamper-resistant screws protect against unauthorized entry
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY						
SIZE	NO. OF LAMPS	LAMP TYPE	WIDTH	LENGTH	HEIGHT	
4' VRN	1 2	32 32	5¾" 5¾"	48½" 48¼"	4¾16" 4¾16"	
4' VRM	2	32	11"	481/4"	3"	
4' VRW	3 4	32 32	15¾" 15¾"	48½" 48¼"	3" 3"	



LHR NARROW

Narrow Fluorescent High Bay

FEATURES

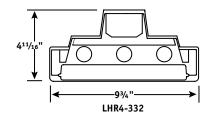
- Extremely efficient fluorescent luminaire replaces HID in retail and industrial applications
- Open optics or optional white cross baffle softly diffuses light
- Excellent vertical footcandles
- · Solid top or optional 15% uplight
- Rounded edges and corners for safe handling and installation

 UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION LHR **MODEL** NO. OF LAMPS **REFLECTOR UPLIGHT VOLTAGE** LHR Narrow MIRO@-4 Specular, U 15% Uplight **U** 120V-277V 2 Two M4R Fluorescent 95% Reflectance ST Solid Top **347** 347V (HO only) 3 Three High Bay Specular Anodized See Product Availability 480 480V (HO only) Aluminum table below. **GW** Gloss White **Powder Coat LAMP TYPE BALLAST OPTIONS SIZE 4** 48" E Electronic T8, Instant Start FO841 41K 82CRI 32W T8 Lamps Installed 28 4', T5: 28 Watt 8 96" 32 4', T8: 32, 30, 28 or **3E** 3-Lamp Electronic T8, Instant Start F5841 41K 82CRI T5 or T5H0 Lamps 25 Watt Installed 24E (1) 2-Lamp and (1) 4-Lamp Electronic T8, **54** 4', T5H0: 54 or 51 Watt F3C5 3-Conductor 5' Feed Cord Wired Instant Start to Fixture 3EHL 3-Lamp Electronic T8, 1.2 Ballast Factor, F3C10 3-Conductor 10' Feed Cord Wired High Light Output, Instant Start to Fixture EP Electronic T5 or T8, Programmed Start F3C15 3-Conductor 15' Feed Cord Wired 3-Lamp Electronic T5HO (N/A 347V) or T8, to Fixture Programmed Start GLHS 5' Adjustable Cable Kit (1) 2-Lamp and (1) 4-Lamp Electronic T5HO GLH10 10' Adjustable Cable Kit (N/A 347V or 480V) or T8, Programmed Start GLH15 15' Adjustable Cable Kit GLR Fast Blow Fuse **LHRNWG** Wire Guard for Narrow Body LHR OS1K Occupancy Sensor Kit, 120V-347V, One Relay1 WCB White Cross Baffle NYC NYC Compliant* NYCU NYC Compliant, Union Label* *Note: 2-Lamp option only. ¹Use programmed start ballast. Not recommended for use with instant start.

PRODU	PRODUCT AVAILABILITY						
MODEL	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT	
LHR4	2 3	2 3	28, 32, 54 28, 32, 54	9³/4" 9³/4"	48½16" 48½16"	4 ¹¹ / ₁₆ " 4 ¹¹ / ₁₆ "	
LHR8	2	2	28, 32, 54 28, 32, 54	9³/4" 9³/4"	96½16" 96½16"	4 ¹¹ / ₁₆ " 4 ¹¹ / ₁₆ "	





LHE

Efficient High Bay



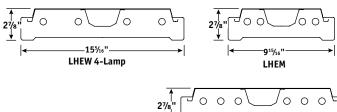
FEATURES

- T5H0 high bay performance at an affordable price
- White cross baffle or prismatic acrylic lens options provide lamp shielding and enhanced aesthetics
- Wire guards or cages available for impact protection
- Rotary locking lampholders keep lamps secure
- Can be row mounted

- KOs standard on end caps
- Efficiency up to 95%
- Optional uplight, feed cords and plugs, or occupancy sensors to fit most applications
- Fast and flexible GLH adjustable cable option provides simplifies mounting in virtually any application, whether new construction or retrofit
- UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION LHE MODEL SIZE NO. OF LAMPS SHIELDING **UPLIGHT VOLTAGE** LHE Efficient 4 48" 2 Two (LHEM only) Blank None Solid Top **U** 120V-277V High Bay (No uplight) 8 96" 4 Four White Steel Cross 347 (HO only) (LHEM only) **U** Uplight Baffle* 6 Six (LHEW only) 480 480V (HO only) Prismatic Acrylic See Product Wraparound Availability table Lens* below. **OPTIONS** *N/A with wire guard. May F5830 30K 82CRI T5 or T5H0 Lamps Installed be used with cage guard. F5835 35K 82CRI T5 or T5H0 Lamps Installed F5841 41K 82CRI T5 or T5HO Lamps Installed **LAMP TYPE BALLAST BODY** F5850 50K 82CRI T5HO Lamps Installed M Medium Body, 915/16" 28 4', T5: 28 Watt E Electronic T8, Instant Start C6TL15_ 6' Cord and Twist-Lock™ Plug 15A 32 4', T8: 32, 30, 28 or 25 Watt W Wide Body, 151/16" **3E** 3-Lamp Electronic T8, Instant Start (Add Voltage: 1=120, 2=277) **54** 4', T5H0: 54 or 51 Watt **4E** 4-Lamp Electronic T8, Instant Start C6TL20_ 6' Cord and Twist-Lock™ Plug 20A 24E (1) 2-Lamp and (1) 4-Lamp Electronic (Add Voltage 1=120, 2=277) T8, Instant Start C6P15_ 6' Cord and Straight Blade Plug 15A **ACCESSORIES** 3EHL 3-Lamp Electronic T8, 1.2 Ballast Factor, (Add Voltage: 1=120, 2=277) High Light Output, Instant Start (ORDER SEPARATELY) EL Emergency Battery Pack **EP** Electronic T5 or T8, Programmed Start GLH5 5' Adjustable Cable Kit* F3C* 3-Conductor Feed Cord Wired to Fixture 3-Lamp Electronic T5HO (N/A 347V) GLH10 10' Adjustable Cable Kit* F4C* 4-Conductor Feed Cord Wired to Fixture (6-Lamp only) or T8, Programmed Start GLH15 15' Adjustable Cable Kit* **GLR** Fast Blow Fuse 4-Lamp Electronic T5HO (N/A 347V) or **LHTF** Fixture Safety Tether LHHB Universal Hanger Bracket T8, Programmed Start **LHTWCB** White Cross Baffle Safety Tether LSR Specular Anodized Aluminum Insert (1) 2-Lamp and (1) 4-Lamp Electronic **LHEMWG** Wire Guard for LHEM (Order Two for LHEM8) T5H0 (N/A 347V or 480V) or T8, (solid top only) Programmed Start M4R MIRO®-4 Specular 95% Reflectance LHEWWG Wire Guard for LHEW Insert (solid top only) LHEMCG Cage Guard for LHEM (Order Two for LHEM8) OS1K Occupancy Sensor Kit, 120V-347V, LHEWCG Cage Guard for LHEW One Relay *Use with LHHB. PAF Paint After Fabrication NYC NYC Compliant

¹Use programmed start ballast. Not recommended for use with instant start.



155/16"—— LHEW 6-Lamp



PRODUC	PRODUCT AVAILABILITY						
MODEL	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT	
LHEM4	2	2	28,32,54	97/8"	48"	27/8"	
	4	4	28,54	97/8"	48"	27/8"	
LHEM8	2	4	28,32,54	91/8"	96"	21/8"	
	4	8	28,54	91/8"	96"	21/8"	
LHEW4	4	4	28, 32, 54	151/8"	48"	27/8"	
	6	6	28, 32, 54	151/8"	48"	27/8"	

or 15'.

NYCU NYC Compliant, Union Label
*Replace asterisk above with length in feet – 5', 10',

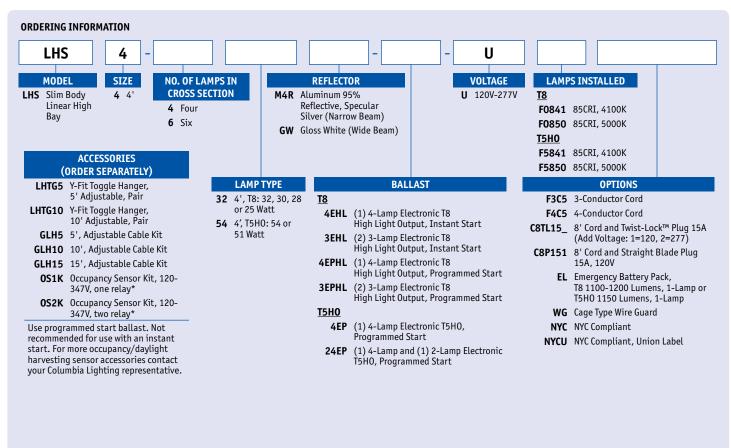


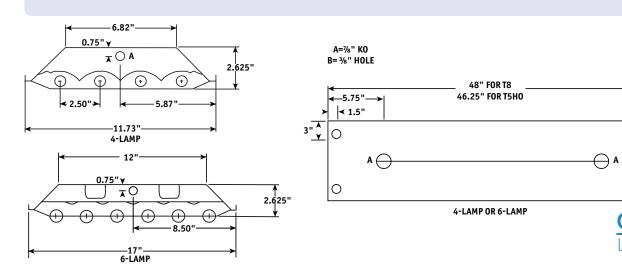
Slim Body Linear High Bay

FEATURES

- Used in high and low bay, aisle and task lighting applications
- Ideal for mounting heights ranging 8 ft. to 40 ft.
- Rugged 20 gauge riveted full body steel housing
- 95% specular aluminum reflectors to precise control or finished white reflectors available for wide light distribution
- · Tool-less ballast access for easy service
- · V-hangers included for chain hanging







 C

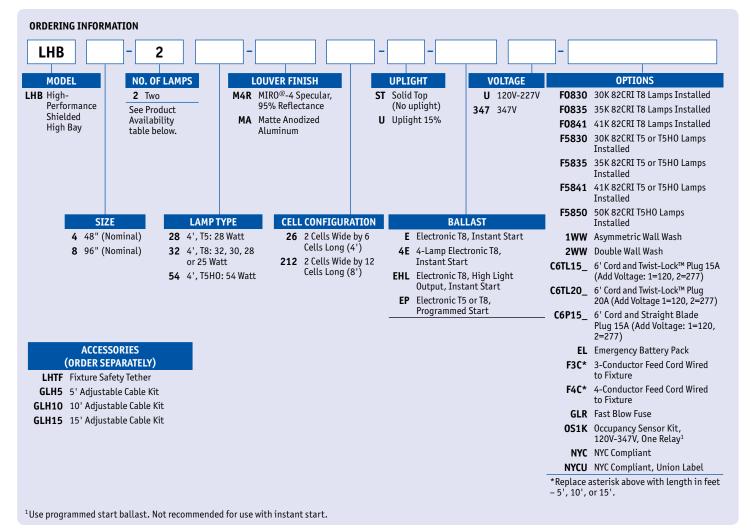
LHB

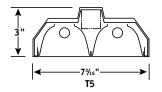
High-Performance Shielded High Bay

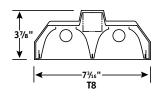


- Optimized to improve upon HID high and low bay fixtures in a wide variety of applications
- Employs and enhances T5 technology to its fullest advantage
- · Ultra-high efficiency up to 98.7%
- Precision "Brio" T5-dedicated louvers employ accurate contours to drive light downward
- Enhanced aesthetics ideal for retail, offices, or lobbies
- · Optional uplight

- Rotary locking lampholders keep lamps secure
- Asymmetric and double wall wash available for higher vertical footcandles
- Fast and flexible GLH adjustable cable system adapts to virtually any requirement, whether new construction or retrofit
- UL listed 1598, cUL or CSA. Damp Location standard







PRODUC	T AVAILABILITY					
MODEL	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT
LHB4	2 2	2 2	28, 54 32	7³/16" 7³/16"	465/8" 483/4"	3" 3%"
LHB8	2 2	4 4	28, 54 32	7³/16" 7³/16"	93¾16" 96¾"	3" 3%"
Note: Not intended for surface mounting. Provide a minimum of 3" clearance.						



IC

Premium Turret Industrial

FEATURES

- Specification grade, heavy duty, one-piece steel housing
- Easy installation. Fully assembled. Ships in one carton
- Optional deep "V" reflector provides 35° crosswise shielding with T8 lamps and 39° shielding with T12 lamps
- Available with 10% uplight or solid top for 100% downlight

SIZE

4 4'

8 8'

· Optional full end plates

- Textile mill option eliminates upturned edges on the reflector to inhibit the accumulation of lint and dust
- White powder coat finish painted after fabrication
- Embossed ribs and aperture edges provide superior rigidity
- Heavy gauge metal spring loaded turret style sockets provide excellent lamp retention
- UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION

IC

MODEL

IC Premium Turret Industrial

NO. OF LAMPS IN CROSS SECTION

- 2 Two
- 3 Three
- **4** Four

See Product Availability table below.

REFLECTOR TYPE

- U Apertured 10% Uplight Reflector
- ST Solid Top 0% Uplight Reflector¹
- VR Deep V Apertured Uplight Reflector (2-Lamp only)
- TU 10% Uplight Textile Reflector
- TST Solid Top Textile Reflector¹
- ¹ Not recommended with H0 units.

VOLTAGE

347 347V

U 120V-277V

LAMP TYPE 32 4', T8: 32, 30,

28 or 25 Watt 48H0 4', T12: 60 Watt

96 8', T12: 75 or 60 Watt

96T8 8', T8: 59 Watt

96H0 8', T12: 110 or 95 Watt

96T8H0 8', T8: 86 Watt

DALLACT

NOTE: See Technical Section for other ballast options.

- **E** Electronic, Instant Start
- **3E** 3-Lamp Electronic T8 (32W), Instant Start
- 4E 4-Lamp Electronic T8 (32W), Instant Start
- **EP** Electronic, Programmed Start
- LE Energy Saving Magnetic T12 (1-Lamp 48H0 only)

OPTIONS

- BC1 Branch Circuit Wiring Single Circuit (For more branch circuit wiring options see page 113)
- ICFC Full End Caps
- ICNC No End Caps (Row mounting)
- **EL** Emergency Battery Pack
- GLR Fast Blow Fuse
- **GMF** Slow Blow Fuse
- RIF Radio Interference Filter
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label

ACCESSORIES (ORDER SEPARATELY)

ICWG4 4' Wire Guard

ICFSA12 Steel Door with A12 Lens

ICWCB White Cross Baffle for Std. Reflector

ICVWCB White Cross Baffle for "V" Reflector

ICRC Rod Clamp Hanger

ICBC Box/Conduit Clamp Hanger

ICCN Channel Connector

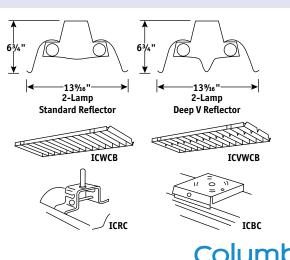
ICHC Chain Hanger Assembly

ICAC Reflector Aligner

OS1K Occupancy Sensor Kit, 120/277/347V, One Relay¹

¹Use programmed start ballast. Not recommended for use with instant start. For more occupancy/daylight harvesting sensor accessories see page 101.

PRODUCT A	VAILABILITY					
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMPTYPE	WIDTH	LENGTH	HEIGHT
4' (Standard Reflector)	2 2 3 4	2 2 3 4	32 48H0 32 32	13%6" 13%6" 13%6" 13%6"	491/8" 491/8" 491/8" 491/8"	63/4" 63/4" 63/4" 63/4"
4' (Deep V Reflector)	2 2	2 2	32 48H0	13%16" 13%16"	491/8" 491/8"	6¾" 6¾"
8' (Standard Reflector)	2 2 3 3 4	4 2 6 3 4	32 96, 96T8, 96H0, 96T8H0 32 96, 96T8, 96H0, 96T8H0 59	13%6" 13%6" 13%6" 13%6" 13%6"	98½" 98½" 98½" 98½" 98¼"	6 ³ / ₄ " 6 ³ / ₄ " 6 ³ / ₄ " 6 ³ / ₄ "
8' (Deep V Reflector)	4 2 2	4 4 2	96, 96T8, 96H0, 96T8H0 32 96, 96T8, 96H0, 96T8H0	13%6" 13%6" 13%6"	98½" 49½" 49½"	6 ³ / ₄ " 6 ³ / ₄ " 6 ³ / ₄ "



Premium Industrial



FEATURES

- · Heavy gauge steel housing with longitudinal
- · Die embossed reflector with ribs
- · Wide variety of reflectors available including specular, deep V, and solid top
- · Standard reflector has smooth extruded apertures with 15% uplight
- · Spring loaded turret lampholders
- · Individual or continuous row mounting
- All parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- · UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION

KL

MODEL

Premium

Industrial

NO. OF LAMPS

- 2 Two 3 Three
- 4 Four

See Product Availability table below.

REFLECTOR TYPE

- **U** Apertured Uplight Reflector (Std.)
- **SLR** Apertured Specular (95% Reflector) Finish
- SRST¹ Specular Reflector, Solid Top
 - **ST**¹ Solid Top
 - VR Deep V Apertured Uplight Reflector (2 lamps only)*
- ¹ Not recommended with H0 units.
- * Solid top not available.

OPTIONS

- **BC1** Branch Circuit Wiring Single
- **EL** Emergency Battery Pack
- GLR Fast Blow Fuse
- **GMF** Slow Blow Fuse

VOLTAGE

347 347V

U 120V-277V

- PAF Paint After Fabrication
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label

SIZE

4 4'

8 8'

16 16' (Two housing)

LAMP TYPE 28 4', T5: 28 Watt

- 32 4', T8: 32, 30, 28 or 25 Watt
- 48H0 4', T12: 60 Watt **54** 4', T5H0: 54 or
 - 51 Watt 96 8', T12: 75 or 60 Watt
- **96T8** 8', T8: 59 Watt
- 96H0 8', T12: 110 or 95 Watt
- 96T8H0 8', T8: 86 Watt

BALLAST

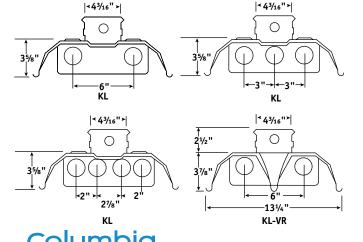
- E Electronic, Instant Start
- 3E 3-Lamp Electronic T8 (32W), Instant Start
- 4E 4-Lamp Electronic T8 (32W), Instant Start
- EP Electronic, Programmed Start
- 24E (1) 2-Lamp and (1) 4-Lamp Electronic T8 (32W), Instant Start
- 3EP 3-Lamp Electronic T5HO or T8, Programmed Start
- 4EP 4-Lamp Electronic T5HO (N/A 347V) or T8, Programmed Start

Instant Start ballasts available for 32, 96, and 96T8. Programmed Start ballasts available for all except 96 and 96T8.

ACCESSORIES (ORDER SEPARATELY)

- \$18 18" Stem, 8° Swivel Stem and Canopy
- SS18 18", 45° Swivel Stem and Canopy
- KHC 24" Chain Hanger Assembly
- KLEC Full Depth Endcap (pair)
- OS1K Occupancy Sensor Kit, 120V-347V, One Relay1

¹Use programmed start ballast. Not recommended for use with instant start.



PRODUCT	AVAILABILITY					
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMPTYPE	WIDTH	LENGTH	HEIGHT
4'	2 2 3 4	2 2 3 4	28, 32, 54 48H0 28, 32, 54 28, 32, 54	133/8" 133/8" 133/8" 133/8"	49½6" 48" 49½6" 49½6"	6½"* 6½"* 6½" 6½"
8'	2 2 3 3 4	4 2 6 3 4	28, 32, 54 96T8, 96H0, 96T8H0 28, 32, 54 59, 96H0, 96T8H0 96T8	13 ³ / ₈ " 13 ³ / ₈ " 13 ³ / ₈ " 13 ³ / ₈ "	98 ¹³ / ₁₆ " 96" 98 ¹³ / ₁₆ " 96"	6½"* 6½"* 6½" 6½" 6½"
16' (Two housings)	2 2 3 3 4 4	8 4 12 6 8 16	28, 32, 54 96T8, 96H0, 96T8H0 28, 32, 54 96T8, 96H0, 96T8H0 28, 32, 96T8 28, 32, 54	13 ³ / ₈ " 13 ³ / ₈ " 13 ³ / ₈ " 13 ³ / ₈ " 13 ³ / ₈ "	1975/8" 192" 1975/8" 192" 192" 1975/8"	6½"* 6½"* 6½" 6½" 6½" 6½"

*VR reflector option increases fixture depth to 63/8".

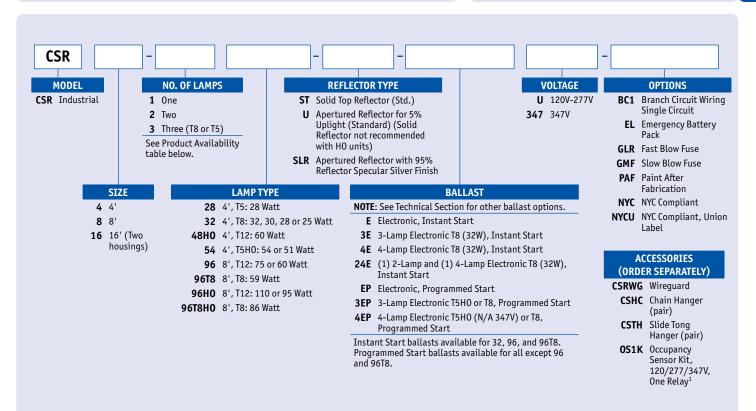
CSR

Industrial

FEATURES

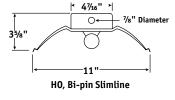
- Die formed steel housing with knockouts for stems or chain hangers
- · Die embossed reflector with ribs
- · Most models available with 5% uplight
- · Individual or continuous row mounting
- · Channel ends double as joiners
- All parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA. Damp Location standard

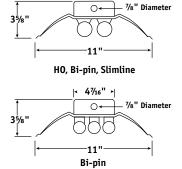




10se programmed start ballast. Not recommended for use with instant start. For more occupancy/daylight harvesting sensor accessories see page 101.

PRODUCT A	VAILABILITY					
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT
4'	2	2	28, 32	11"	48"	35/8"
	2	2	48H0, 54	11"	48"	4½"
	3	3	28, 32, 54	11"	48"	35/8"
8'	2	4	28, 32, 54	11"	96"	35/8"
	2	2	96T8	11"	96"	35/8"
	2	2	96H0, 96T8H0	11"	96"	41/2"
	3	6	28, 32	11"	96"	35/8"
16'	2	8	28, 32, 54	11"	192"	35/8"
(Two	2	4	28, 54, 96T8	11"	192"	35/8"
housings)	2	4	54, 96H0, 96T8H0	11"	192"	41/2"





47/16" >





Heavy Duty Channel



FEATURES

- Steel housing with longitudinal ribs for extra strength
- Ballast cover retained by ¼ turn fasteners
- Individual or row mounting, surface, or suspended
- All metal parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION

MODEL
K Heavy Duty
Channel

SIZE

- **4** 4' **8** 8'
- **16** 16' (Two housings)

CROSS SECTION 1 One 2 Two

NO. OF LAMPS IN

See Product Availability table below.

LAMP TYPE

- 28 4', T5: 28 Watt
- 32 4', T8: 32, 30, 28 or 25 Watt
- **48H0** 4', T12: 60 Watt
 - **54** 4', T5H0: 54 or 51 Watt
- **96T8** 8', T8: 59 Watt
- **96H0** 8', T12: 110 or 95 Watt
- **96T8H0** 8', T8: 86 Watt

BALLAST

- E Electronic T8, Instant Start
- **4E** 4-Lamp Electronic T8, Instant Start
- EP Electronic T5, T8, or T12 (96HO only), Programmed Start
- 4EP 4-Lamp Electronic T5HO (N/A 347V) or T8, Programmed Start

VOLTAGE

U 120V-277V

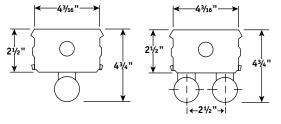
347 347V

OPTIONS

- BC1 Branch Circuit Wiring, Single Circuit (For more branch circuit wiring options see page 113)
- UN Full Height End Channels
- GLR Fast Blow Fuse
- **EL** Emergency Battery Pack
- **PAF** Paint After Fabrication
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label

ACCESSORIES (ORDER SEPARATELY)

- CSWG4 4' Wire Guard (w/o reflector)
- CSR4 4' Symmetric Reflector
- CSRA4 4' Asymmetric Reflector
 - \$18 18" Stem, 8° Swivel Stem and
- **SS18** 18", 45° Swivel Stem and Canopy
- KHC 24" Chain Hanger Assembly
- KTH Tong Hanger (Pair)



PRODUCT AVAIL	.ABILITY					
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. of LAMPS IN FIXTURE	LAMPTYPE	WIDTH	LENGTH	HEIGHT
4'	1 2	1 2	28, 32, 48H0, 54 28, 32, 48H0, 54	4³/16" 4³/16"	48" 48"	2½" 2½"
8'	1 2	1 2	28, 54, 96T8, 96H0, 96T8H0 28, 54, 96T8, 96H0, 96T8H0	4³/16" 4³/16"	96" 96"	2½" 2½"
16' (Two housings)	1 2	2 4	28, 54, 96T8, 96H0, 96T8H0 28, 54, 96T8, 96H0, 96T8H0	4³/ ₁₆ " 4³/ ₁₆ "	192" 192"	2½" 2½"



CS

Straight-Sided Utility Channel

FEATURES

- Die formed steel housing with heat sink embossments for cooler running ballasts
- Ballast cover retained by ¼ turn fasteners
- Individual or row mounting, surface or suspended
- · Channel ends double as joiners
- All metal parts are treated with a five stage phosphate bonding process and finished with baked white enamel
- UL listed 1598, cUL or CSA. Damp Location standard



ORDERING INFORMATION

MODEL S Straight-Sided Utility

Channel

CS

SIZE 2 2' 3 3'

4 4' **6** 6'

8 8' 16 16' (Two housings)

NO. OF LAMPS IN CROSS SECTION

One
 Two
 Three

See Product Availability table below.

LAMP TYPE

14 2', T5: 14 Watt **17** 2', T8: 17 Watt

21 3', T5: 21 Watt 24 2', T5H0: 24 Watt

25 3', T8: 25 Watt

28 4', T5: 28 Watt **32** 4', T8: 32, 30, 28

or 25 Watt **39** 3', T5H0: 39 Watt

54 4', T5H0: 54 or 51 Watt

96 8', T12: 75 or 60 Watt

96T8 8', T8: 59 Watt

BALLAST

NOTE: See Technical Section for other ballast options.

E Electronic T8, Instant Start

3E 3-Lamp Electronic T8,

Instant Start **4E** 4-Lamp Electronic T8,

Instant Start

24E (1) 2-Lamp and (1)
4-Lamp Electronic T8,
Instant Start

EP Electronic T5 or T8, Programmed Start

3EP 3-Lamp Electronic T5 or T8, Programmed Start

4EP 4-Lamp Electronic T5H0 (N/A 347V) or T8, Programmed Start

VOLTAGE

U 120V-277V

347 347V

branch circuit wiring options see page 113)

GLR Fast Blow Fuse
EL Emergency Battery Pack

OPTIONS

BC1 Branch Circuit Wiring,

Single Circuit (For more

PAF Paint After Fabrication
NYC NYC Compliant

NYCU NYC Compliant, Union Label

Label

ACCESSORIES (ORDER SEPARATELY)

CSWG3 3' Wire Guard

CSWG4 4' Wire Guard

CSR4 4' Symmetric Reflector

CSRA4 4' Asymmetric Reflector

CSRU4 4' Symmetric Reflector 5% Uplight S18 18" Stem, 8° Swivel Stem and

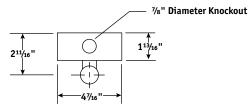
18" Stem, 8° Swivel Stem and Canopy

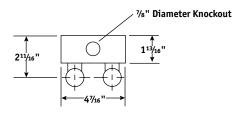
SS18 18", 45° Swivel Stem, and Canopy

CSHC Chain Hanger Assembly

PRODUCT AVAILABILITY

		· =				
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT
2'	1	1	14, 17, 24	4¾6"	24"	1 ¹³ / ₁₆ "
	2	2	14, 17, 24	4¾6"	24"	1 ¹³ / ₁₆ "
	3	3	17	4¾6"	24"	1 ¹³ / ₁₆ "
3'	1	1	21, 25, 39	4½6"	36"	1 ¹³ / ₁₆ "
	2	2	21, 25, 39	4½6"	36"	1 ¹³ / ₁₆ "
	3	3	25	4½6"	36"	1 ¹³ / ₁₆ "
4'	1	1	28, 32, 54	4¾6"	48"	1 ¹³ / ₁₆ "
	2	2	28, 32, 54	4¾6"	48"	1 ¹³ / ₁₆ "
	3	3	28, 32, 54	4¾6"	48"	1 ¹³ / ₁₆ "
6'	1	1	21, 25, 39	4¾6"	72"	1 ¹³ / ₁₆ "
	2	2	21, 25, 39	4¾6"	72"	1 ¹³ / ₁₆ "
	3	6	21, 25, 39	4¾6"	72"	1 ¹³ / ₁₆ "
8'	1	2	28, 32, 54	4½6"	96"	1 ¹³ / ₁₆ "
	1	1	54, 96T8	4½6"	96"	1 ¹³ / ₁₆ "
	2	4	28, 32, 54	4½6"	96"	1 ¹³ / ₁₆ "
	2	2	54, 96T8	4½6"	96"	1 ¹³ / ₁₆ "
	3	6	28, 32	4½6"	96"	1 ¹³ / ₁₆ "
16'	1	4	28, 32, 54	47/16"	192"	1 ¹³ / ₁₆ "
	1	2	54, 96T8	47/16"	192"	1 ¹³ / ₁₆ "
	2	8	28, 32, 54	47/16"	192"	1 ¹³ / ₁₆ "
	2	4	54, 96T8	47/16"	192"	1 ¹³ / ₁₆ "







SS

Staggered Strip



FEATURES

- · Die formed steel channel
- Flexible field adjustment for easy installation
- · Offset channel accepts adjoining fixtures
- Three inch overlap provides uniform illumination
- · Available with one or two lamps
- Symmetric and asymmetric reflectors available
- UL listed 1598, cUL or CSA. Damp Location standard

ORDERING INFORMATION

MODEL
SS Staggered
Strip
(Individual

units)

SS

NO. OF LAMPS IN CROSS SECTION

One
 Two

2-Lamp

Length

2 27"

3 39"

4 51"

6 75"

8 99"

SIZE

1-Lamp

Length

2 24"

3 36"

4 48"

6 69"

8 93"

representative.

For rows, contact your

local Columbia Lighting

See Product Availability table below.

LAMP TYPE

- **17** 2', T8: 17 Watt
- **25** 3', T8: 25 Watt
- **32** 4', T8: 32, 30, 28 or 25 Watt

REFLECTOR TYPE

Blank No Reflector

SYM Symmetric Reflector **ASYM** Asymmetric Reflector

Specify reflector on fixture and order desired reflector as accessory.

BALLAST

NOTE: See Technical Section for other ballast options.

- E Electronic T8, Instant Start
- **3E** 3-Lamp Electronic T8, Instant Start
- 4E 4-Lamp Electronic T8, Instant Start
- **EP** Electronic T5 or T8, Programmed Start
- **3EP** 3-Lamp Electronic T5 or T8, Programmed Start
- **4EP** 4-Lamp Electronic T5HO (N/A 247V) or T8, Programmed Start

VOLTAGE

U 120V-277V **347** 347V

V ADJ Adjustable 1-Lamp 4' or 2-Lamp 2' Only

BC1 Branch Circuit Wiring, Single Circuit (For more branch circuit wiring options see page 113)

OPTIONS

- **EL** Emergency Battery Pack
- **GLR** Fast Blow Fuse
- LR Left/Right Switching
- PAF Paint After Fabrication
- NYC NYC Compliant
- NYCU NYC Compliant, Union Label

REFLECTOR ACCESSORIES (ORDER SEPARATELY)

- SSR Symmetric Reflector (2 pieces)
- SSRA Asymmetric Reflector (1 piece)
- SSRAK Asymmetric Kicker Reflector (1 piece)
- SSRD Symmetric Deep Reflector (2 pieces)
- SSRDA Asymmetric Deep Reflector (1 piece)

Wireway Cover (cut to length) 4" 2" VSS4-2 SS2-2 Adjustable Unit

PRODUCT AVAILABILITY NO. OF NO. OF LAMPS IN LAMPS IN Lamp Type Width **CROSS SECTION** FIXTURE 2' 1 14, 17, 24 43/4" 2" 1 24' 43/4" 2 2 14, 17, 24 27" 2" 3' 1 1 21, 25, 39 43/4" 36" 2" 2 21, 25, 39 43/4" 39" 2" 28, 32, 54 43/4" 48" 2" 4' 1 2 28, 32, 54 2" 43/4" 51" 43/4" 69" 21, 25, 39 2" 6' 2 21, 25, 39 43/4" 75" 2" 8' 2 28, 32, 54 43/4" 93" 2" 28, 32, 54 43/4" 99" 2" 2 4

4' adjustable unit is 24" telescoping housing wit 48" lamp. 2' adjustable unit is 27" telescoping housing wit 24" lamp.





Enclosed and Gasketed Fiberglass Industrial

FEATURES

- Non-metallic fiberglass housing with waterproof ½ "threaded hubs
- Fully gasketed
- · Wet location standard
- Molded ABS thermoplastic latches
- One piece, impact resistant acrylic diffuser with smooth surface
- All metal parts are treated with a five stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA, Wet Location Standard



ORDERING INFORMATION

LUN

MODEL	SIZE	NO. OF LAMPS IN	
LUN Enclosed and Gasketed Fiberglass Industrial	2 2' 4 4' 8 8'	CROSS SECTION 1 One 2 Two 3 Three	
ustriat		See Product Availability table below.	48 48T8

	LAMP TYPE
17	2', T8: 17 Watt
28	4', T5: 28 Watt
32	4', T8: 32, 30, 28 or 25 Watt
48H0	4', T12H0: 60 Watt1
48T8H0	4', T8H0: 44 Watt
54	4', T5H0: 54 Watt
96	8', T12: 75 or 60 Watt
96T8	8', T8: 59 Watt
96H0	8', T12H0: 110 or 95 Watt ¹
96T8H0	8', T8H0: 86 Watt
¹ High Out	put units should

BALLAST
NOTE: See Technical Section
for other ballast options.

- E Electronic T8, Instant Start
- **3E** 3-Lamp Electronic T8, Instant Start
- **4E** 4-Lamp Electronic T8, Instant Start
- 24E (1) 2-Lamp and (1) 4-Lamp Electronic T8, Instant Start
- **EP** Electronic, Programmed Start
- **3EP** 3-Lamp Electronic, Programmed Start
- **4EP** 4-Lamp Electronic, Programmed Start
- 24EP (1) 2-Lamp and (1) 4-Lamp Electronic, Programmed Start

VOLTAGE U 120V-277V

- U
 120V-277V
 DR
 50% DR Acrylic Lens

 347
 347V
 GLR
 Fast Blow Fuse
 - PP Clear Prismatic Polycarbonate Lens SSL Stainless Steel

OPTIONS

- Latches

 SSLTP Stainless Steel
- Tamper Resistant Latches

 TP Tamper Resistant
- Latches
 NYC NYC Compliant
- NYCU NYC Compliant, Union Label

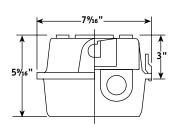
Note: Contact your local Columbia Lighting representative for a list of available battery packs.

ACCESSORIES (ORDER SEPARATELY)

HUBK Stem Hanging Kit
LUNHK Hanging Kit

PEBU End Bracket Universal Surface

PROD	PRODUCT AVAILABILITY								
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMPTYPE	WIDTH	LENGTH	HEIGHT			
2'	1 2	1 2	17 17	7%16" 7%16"	25 ¹³ / ₁₆ " 25 ¹³ / ₁₆ "	61/8" 61/8"			
4'	1 2 3*	1 2 3	28, 32, 54 28, 32, 48H0, 48T8H0, 54 32	7%6" 7%6" 7%6"	49 ¹³ / ₁₆ " 49 ¹³ / ₁₆ " 49 ¹³ / ₁₆ "	5%16" 5%16" 5%16"			
8'	1 1 2 2 2 3*	2 1 4 2 6	28, 32, 54 96H0 28, 32, 54 96, 96T8, 96H0, 96T8H0 32	7%16" 7%16" 7%16" 7%16" 7%16"	97 ¹³ / ₁₆ " 97 ¹³ / ₁₆ " 97 ¹³ / ₁₆ " 97 ¹³ / ₁₆ "	5%6" 5%6" 5%6" 5%6" 5%6"			
*3-Lar	mp ballast requir	ed.							



Wet location in traditional (lens down) mounting position only.

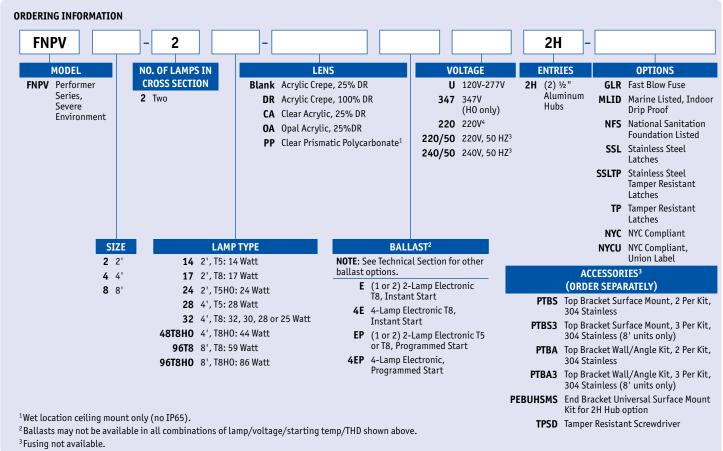


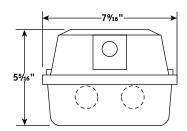
FNPV

Performer Series, Severe Environment



- Wet location certified for ceiling and wall mount
- Nylon or stainless steel latches available with tamper resistant screws
- For use in wet locations where moisture and washdown are prevalent
- · 25°C ambient listed
- For use in outdoor, hosedown, corrosive location, and high ambient conditions
- NSF listed
- · Accessible drop-down ballast tray
- UL 1598 wet location listed
- Listed as electrical enclosure for thrubranch wiring
- Conduit hubs available in die-cast aluminum or 316 stainless steel
- Mounting accessories in stainless or galvanized steel





PROD	PRODUCT AVAILABILITY								
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMP TYPE	WIDTH	LENGTH	HEIGHT			
2'	2	2	14, 17, 24	65/8"	2515/16"	5"			
4'	2	2	28, 32, 48T8H0	7%16"	4913/16"	55/16"			
8'	2 2	2 4	96T8, 96T8H0 28, 32, 48T8H0	7%16" 7%16"	97 ¹³ / ₁₆ " 97 ¹³ / ₁₆ "	53/8" 53/8"			





Enclosed and Gasketed Aluminum Industrial

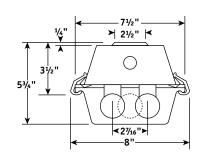
FEATURES

- Aluminum housing for superior heat dissipation
- · Fully gasketed
- · Injection molded PVC ends
- Polypropylene latches
- One piece, impact resistant acrylic diffuser with smooth surface
- All parts are treated with a five-stage phosphate bonding process and finished with a baked white enamel
- UL listed 1598, cUL or CSA. Damp Location Standard. Wet Location option



ORDERING INFORMATION LU MODEL VOLTAGE SIZE NO. OF LAMPS IN **LAMP TYPE BALLAST OPTIONS CROSS SECTION** DR 100% DR Acrylic Lens LU Enclosed and 4 4' 32 4', T8: 32, 30, NOTE: See Technical Section 120V-Gasketed 28 or 25 Watt for other ballast options. 277V 8 8' **1** One **EL** Emergency Battery Pack Aluminum **48H0** 4', T12: 60 E Electronic T8, Instant 120 120V (N/A with Wet Location) 2 Two Industrial Watt1 **277** 277V See Product GLR Fast Blow Fuse 48T8H0 4', T8: 44 Watts1 EP Electronic T8 and T12, Availability table 347 347V WL Wet Location* Programmed Start below. 96 8', T12: 75 or NYC NYC Compliant 60 Watt **LE** Energy Saving NYCU NYC Compliant, Union Label Magnetic T12 96T8 8', T8: 59 Watt (1-Lamp 48HO only, *Wet location in traditional (lens 96HO 8', T12: 110 or specify voltage) down) mounting position only. 95 Watt¹ 96T8H0 8', T8: 86 Watt1 ¹ High Output units should not be surface mounted. **ACCESSORIES (ORDER SEPARATELY) HUBK** Stem Hanging Kit SSHK Stainless Steel Hanging Kit (Chain not included) PEBU End Bracket Universal Surface

PROD	PRODUCT AVAILABILITY								
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMPTYPE	WIDTH	LENGTH	HEIGHT			
4'	1 2	1 2	32, 48H0, 48T8H0 32, 48H0, 48T8H0	8" 8"	50¼" 50¼"	5³/4" 5³/4"			
8'	1 1 2 2	2 1 4 2	32, 48H0, 48T8H0 96, 96T8, 96H0, 96T8H0 32, 48H0, 48T8H0 96, 96T8, 96H0, 96T8H0	8" 8" 8"	98½" 98¼" 98¼" 98¼"	5 ³ / ₄ " 5 ³ / ₄ " 5 ³ / ₄ "			

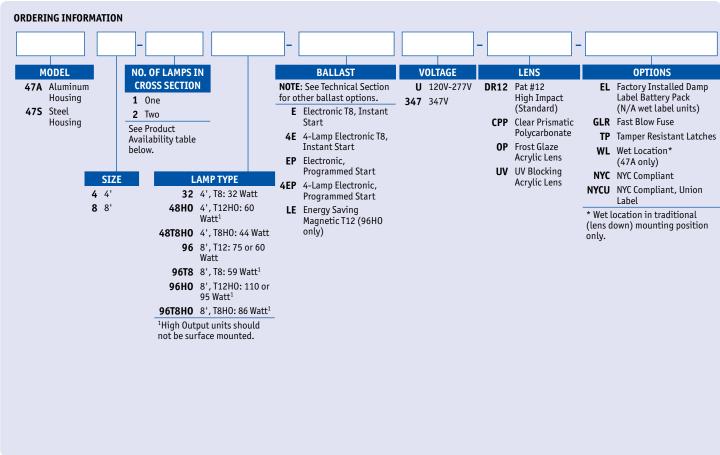


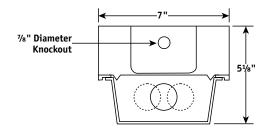


Steel or Aluminum All Weather Industrial



- Choice of 20 gauge steel or .040" thick aluminum housing
- Steel is damp location, aluminum is damp or wet location
- Lens is enclosed in extruded aluminum frame
- One piece extruded prismatic high impact lens, smooth exterior
- Thick PVC gasket is recessed into fixture body
- Shielding secured with steel latches and full length hinge
- All metal parts have a high reflectance outdoor baked white enamel finish
- · Ceiling mount only
- UL listed 1598, cUL or CSA Damp Location standard, Wet Location option for 47A





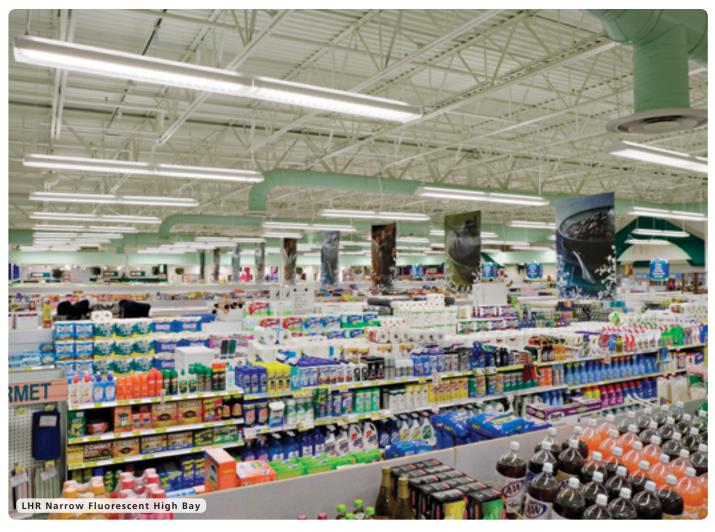
PROD	PRODUCT AVAILABILITY							
SIZE	NO. OF LAMPS IN CROSS SECTION	NO. OF LAMPS IN FIXTURE	LAMPTYPE	WIDTH	LENGTH	HEIGHT		
4'	1	1	32, 48H0, 48T8H0	7"	51"	51/8"		
	2	2	32, 48H0, 48T8H0	7"	51"	51/8"		
8'	1	2	32, 48H0, 48T8H0	7"	99"	5½"		
	1	1	96T8, 96H0, 96T8H0	7"	99"	5½"		
	2	4	32, 48H0, 48T8H0	7"	99"	5½"		
	2	2	96T8, 96H0, 96T8H0	7"	99"	5½"		



APPLICATION PHOTOS









CRS

Cleanroom, Class 1

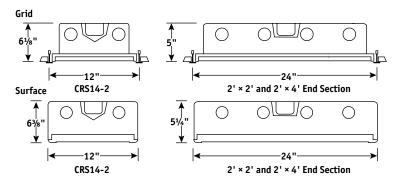


FEATURES

- Class 1 Cleanroom certified for any application
- 1½" T- Bar standard, 1" or 2" optional
- · Recessed, flange trim, or surface
- Anodized extruded aluminum door frame
- One-piece, 18 gauge stainless or carbon steel doors available
- UL listed 1598, cUL or CSA. Damp Location standard, Wet Location option
- Meets Federal Standard No. 209E for Class 1 cleanrooms and ISO 14644-1 Class 6 cleanrooms

ORDERING INFORMATION **CRS** MODEL NO. OF LAMPS IN **CEILING TYPE** DOOR **RALLAST² VOLTAGE CROSS SECTION** CRS Cleanroom, Lay-in Inverted FA Flush Aluminum NOTE: See Technical Section U 120V-277V Class 1 11/2" Grid for other ballast options. **347** 347V 2 Two FCS Flush One-Piece Flange with Carbon Steel Door1 E Electronic T8, Instant 3 Three Wing Hangers Start 4 Four FSS Flush One-Piece S Surface Mount Stainless Steel Door¹ 3-Lamp Electronic T8, 3E 6 Six **Instant Start** See Product Availability 4E 4-Lamp Electronic T8, table below. Instant Start Electronic T5 or T8, **LAMP TYPE** LENS **OPTIONS** SIZE **Programmed Start** 14 1' × 4' 14 2', T5: 14 Watt A12 Pattern 12 Acrylic Lens 1T 1" T-Bar 3EP 3-Lamp Electronic T5H0 22 2' × 2' 17 2', T8: 17 Watt Pattern 12 Acrylic Lens, 2" T-Bar (1' × 4' A12125 or T8, Programmed 0.125" Nominal and 2' × 4' only) 24 2' × 4' 24 2', T5H0: 24 Watt Start A12125M Pattern 12 Acrylic Lens, GLR Fast Blow Fuse⁴ 4-Lamp Electronic 28 4', T5: 28 Watt 0.125" Minimum T5H0 (N/A 347V) or T8, RIF Radio Interference 31U1 U-Bent, 15/8" Leg Spacing T8: A19 Pattern 19 Acrylic Lens, **Programmed Start** Filter3,4 31 Watt 0.156" Nominal Electronic Twin Tube, WL Wet Location (N/A 32 4', T8: 32, 30, 28 or 25 Watt RF12125 Pattern 12 Acrylic **Programmed Start** with Emergency 32U6 U-Bent, 6" Leg Spacing T8: Lens, Radio Frequency Battery Pack) 32 Watt Suppressed, 0.125" NYC NYC Compliant 40TT Twin Tube Compact, 2G11 Nominal³ NYC Compliant, Base: 40 Watt SASRF Surgical Symmetric/ Union Label 54 4', T5H0: 54 Watt Asymmetric Configuration with RFI Grounding Overlay ¹Not Available for 1½" or 2" grid, RF12125 or SASRF lens.

³When using electronic ballasts, Radio Frequency Interference (RFI) cannot be blocked by an RFI filtering lens to the levels specified by MIL std 461. RFI reflected back onto the primary line by the ballast can be blocked by this RFI filter. ⁴One per ballast.



PRODUCT AVAILABILITY								
SIZE	NO. OF LAMPS	LAMP TYPE	HEIGHT					
1' × 4'	2	28, 32, 54 28, 32	5¼" 5¼"					
2' × 2'	2 3 4	14, 17, 24, 32U6, 40TT 14, 17, 24, 40TT 14, 17, 24	5" 5" 5"					
2' × 4'	2 3 4 6	28, 32, 54 28, 32, 54 28, 32, 54 28, 32, 54	5" 5" 5" 5"					



²Ballasts may not be available in all combinations of lamp/voltage/starting temp/THD shown above. Contact your local Columbia Lighting Representative for more details.

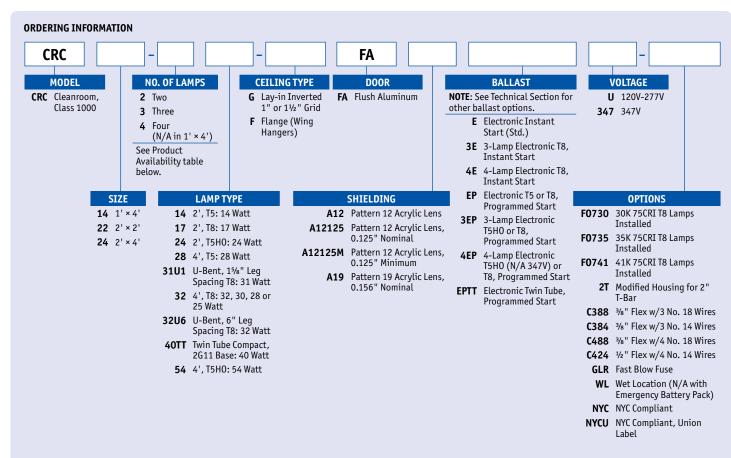


Cleanroom, Class 1000

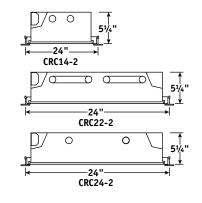
- · Class 1000 Cleanroom certified
- Low profile, 3½" depth
- Choice of doors from steel to extruded aluminum, open from either side
- Diffuser easily removable for lamp access and cleaning
- Heavy gauge steel housing with embossments for added strength
- Mitered corners

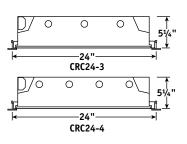
- All parts are powder coated white and painted after fabrication
- Spring loaded steel latches
- Available in pendant mount and row mounting arrangements
- UL listed 1598, cUL or CSA. Damp Location standard





PRODUCT AVAILABILITY							
SIZE	NO. OF LAMPS	LAMP TYPE	HEIGHT				
1' × 4'	2	28, 32, 34, 54 28, 32, 34	5¼" 5¼"				
2' × 2'	2 3 4	14, 17, 24, 31U1, 32U6, 40TT 14, 17, 24 14, 17	5½" 5½" 5½"				
2' × 4'	2 3 4	28, 32, 34, 54 28, 32, 34, 54 28, 32, 34	5½" 5½" 5½"				







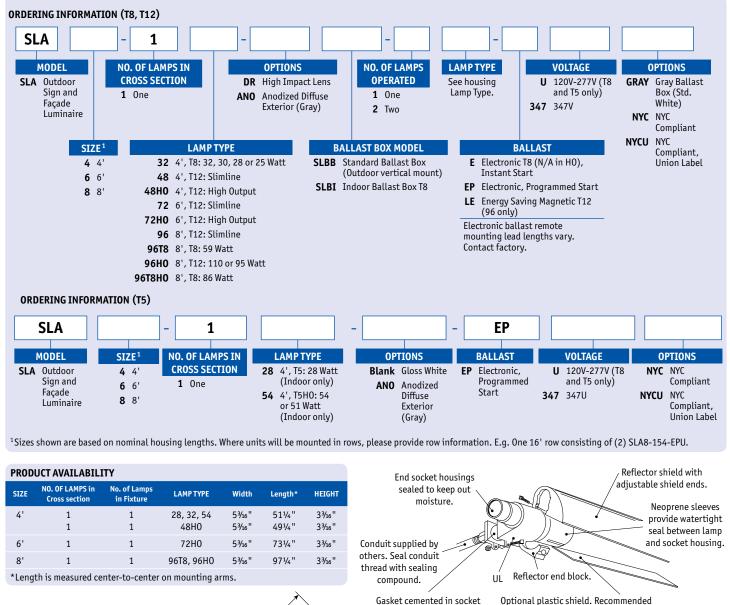
Outdoor Sign and Façade Luminaire



FEATURES

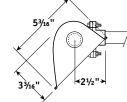
- · Wet location sign light can be mounted in any direction and still operate properly and retain its wet location approval
- Asymmetric reflector provides outstanding distribution for a crisp clean appearance
- Choice of lamps allows maximum flexibility for any application
- Outdoor ballast box is standard, indoor box available for lamps
- Integrated ballast used for T5 lamping (damp location only)
- 360° aiming provides illumination for signage, eye-catching highlights to facilitate flow of foot traffic or grazing angles for added definition to architectural features
- · Extruded aluminum reflector available in white or anodized gray finish
- Easy to aim with adjustable nut, stays in place with die cast ends, that interlock with cast socket housing

for severe cold weather condition.



housing cover.





Accessories Mounting Accessories

SURFACE MOUNT HANGERS

	Cat. No.	Description	For Use With
S. S	ITB-4	Hanger for mounting close to ceiling on T-Bar grid system	All surface mounted fixtures
000	CS-2	Ceiling spacer for mounting directly to outlet box. Used for mounting fixtures below combustible low density cellulose fiberboard ceilings. Maintains 1½" spacing.	All surface mounted fixtures
000	CS-4	All purpose spacer (1½" \times 2¼" \times 4"), maintains 1" spacing on any type of installation	All surface mounted fixtures
	CS-5	All purpose spacer with special T-Bar clip and stud for mounting to an inverted T-Bar ceiling. Maintains 1½" spacing.	All surface mounted fixtures
	CSZT	Zip tee hanger 1½" spacer. Designed for 15/16" wide T-Bars.	CS and CSR series except HO and VHO models
	KZT	Zip tee hanger 1½" spacer. Designed for ½6" wide T-Bars.	CSR-HO and VHO, K, KL, KL-V, and KT
	CSTH	Slide tong hanger for ungrooved channel. Maintains 1½" spacing.	CS and CSR series (RS and SL) (Use KTH and HO and VHO series)
	KTH	Slide tong hanger with %" hole. Maintains 1½" spacing.	K, KL, KL-V, and KT
	LHVTH	Slide tong hanger with %" hole.	LHV
	LHSH6	Slide tong hanger with 1/16" holes	LHR 6-Lamp fixtures
	LHSH4	Slide tong hanger with 1/16" holes	LHR 4-Lamp fixtures
	PEBU	End surface mounting bracket for 2H3S hub options	LUN, LU, FNPS
	PEBUHSMS	End surface mounting bracket for 2H and 2HS hub options	FNPV, FNPS
	PEBA	End surface mounting bracket with 90° adjustment for 2H3S hub options	LUN, LU, FNPS
	PEBAHSMS	End surface mounting bracket with 90° adjustment for 2H and 2HS hub options	FNPV, FNPS
	PTBS	Surface mounting bracket, 304 Stainless steel, 2 brackets	FNPV, FNPS, FDPS, FNPH, FDPH
	PTBS3	Surface mounting bracket, 304 Stainless steel, 3 brackets	FNPV, FNPS, FDPS, FNPH, FDPH
***	PTBA	Surface mounting bracket, 304 Stainless steel, wall mount with 90° adjustment in 15° increments, 2 brackets	FNPV, FNPS, FDPS, FNPH, FDPH
	PTBA3	Surface mounting bracket, 304 Stainless steel, wall mount with 90° adjustment in 15° increments, 3 brackets	FNPV, FNPS, FDPS, FNPH, FDPH
1 ,	FSPHB	Top bracket suspension kit, 304 Stainless Steel	FSPH
	FSPHWA	Top bracket wall/angle kit, 304 Stainless Steel	FSPH



Accessories

Mounting Accessories

CHAIN AND CABLE HANGERS

Chain and Cable Hangers	Cat. No.	Description	For Use With
	LUNHK	Chain hanging (chain not included)	LUN, LU
	SSHK	Stainless Steel hanging kit (chain not included)	LU, restricted use on LUN series (Contact your local Columbia Lighting representative)
\\\^\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	CSHC	Chain hanging assembly includes two 24" lengths of chain and two hanger hooks.	CS and CSR (Bi-pin and Slimline)
	KHC	Chain hanging assembly includes two 14" lengths of chain and two hanger hooks.	K, KL, KL-V, KT, and CSR (HO)
	ICHC	Chain hanger assembly, #3 size cable, 12'.	IC
	GLH5 GLH10 GLH20	Cable hangers, #2 size cable with loop-end, 5', 10', and 20' lengths, adjustable	All industrials
	LHVQM5 LHVQM10 LHVQM20	Y-Fit Hook Cable Hangers, #2 size cable, 5', 10', and 20' lengths, adjustable	LHV
	CM24 CM48	Single point mount cable with canopy kit, pair. (Feed and non-feed ends) 24" or 48" with barrell adjuster.	STP. Others may require field drilling of mounting holes.

PENDANT/STEM MOUNTING ACCESSORIES

Pendant/Stem Mounting	Cat. No.	Description	For Use With
	HUBK	Stem hanging kit consists of two die cast hubs, two "0" rings and locknuts. Hubs are threaded for ½" pipe. Housings must be drilled to install hubs.	LUN, FNPV, LU, FNPS, FDPS, FNPH, FDPH
	S18D	Double canopy (2) 18" stems	All 4' RO and PT
	SB3	Stem hanger adaptor bracket for 3-lamp surface mounted units. Reduces total number of mounting points required.	MWW 3-lamp EWW 3-lamp AWW 3-lamp WCW 3-lamp
	S18	Swivel canopy, one 18" stem - all white finish, 8° swivel	Individual or continuous row
	SS18	Swivel canopy, one 18" stem - all white finish, 45° swivel	mounting of most surface and
	C18	Swivel canopy only - all white finish, 8° swivel	industrial fixtures
	S018	One 18" stem only - all white finish	



<u>Accessories</u>

Industrial and Striplight Accessories

REFLECTOR ACCESSORIES AND WIREGUARDS

Chain Hangers	Cat. No.	Description	For Use With
	CSRAC	Full range aligners (set of two) for aligning reflector flanges and	CSR
To the second se	KLRAC	closing gaps between two reflectors. White	KL
	KLVRAC		KL-V
	KLEC	Reflector end closure (per end). Baked white enamel	KL and KL-V
0 80 0	KC2	Heavy duty 10" sleeve coupler	K, KL, KL-V, KT and CSR (HO)
	LHVWG-4	Wireguard, white, 4-lamp LHV	LHV 4-lamp
	LHVWG-6	Wireguard, white, 6-lamp LHV	LHV 6-lamp
	LHRWG4K	Wireguard, white, 4-lamp LHR	LHR 4-lamp
	LHRWG4K	Wireguard, white, 6-lamp LHR	LHR 6-lamp
LHVWG-6 shown	LHRNWG	Wireguard, white, LHR Narrow Body	LHR Narrow
	LHEMWG	Wireguard, chrome, LHEM fixtures	LHEM
	LHEWWG	Wireguard, chrome, LHEW fixtures	LHEW
	ICWG4	4 ft. Wireguard, white	IC
	KLWG4		KL
	CSRWG4-4PK		CSR
	CSRWG2-4PK	2 ft. Wireguard, white	CSR
	CSRWG3-4PK	3 ft. Wireguard, white	CSR
	CSWG2-24PK	2 ft. Wireguard, white	CS
	CSWG3-12PK	3 ft. Wireguard, white	CS
	CSWG4	4 ft. Wireguard, white	K, CS
	CHWG2-12PK	2 ft. Wireguard, white	СН
	CHWG3-12PK	3 ft. Wireguard, white	СН
	CHWG4-12PK	4 ft. Wireguard, white	СН
	KLEGG	Metal egg crate louver, 4 ft., White Two required for 8 ft. fixtures	KL (not available with KL-V)
The state of the s	KLFSA12	Framed acrylic shielding. Two required for 8 ft. units. Cannot be combined with the KLWG4	KL (not available with KL-V)

SENSOR ACCESSORIES FOR INDUSTRIAL AND STRIP FIXTURES¹



- Digital passive infrared (PIR) sensor
- Unique Smart Cycling™ for improved lamp life, dual output version only
- Single and dual timer operation
- Supports mounting heights up to 45 ft.
- Photosensor version available for daylight harvesting
- Kit includes "plug and play" wiring that enables use with standard fixtures

LHV SENSOR ACCESSORY OFFERING* (INCLUDES EASY TO INSTALL LHV SNAP ON BRACKET)

LHV Occupancy sensor kit, 120/277/347V, one relay LHV Occupancy sensor kit, 120/277/347V, two relay

LHV0S480 LHV Occupancy sensor kit, 480V, one relay

LHV Occupancy sensor kit with daylight harvesting photosensor,

120/277/347V, one relay

LHVODS2 LHV Occupancy sensor kit with daylight harvesting photosensor,

120/277/347V, two relay

LHV Occupancy sensor kit with daylight harvesting photosensor,

480V, one relay

HIGH BAY, INDUSTRIAL AND STRIP FIXTURE ACCESSORY OFFERING (INCLUDES SNAP ON EXTENSION ADAPTOR*)

OS1K Occupancy sensor kit, 120/277/347V, one relay OS2K Occupancy sensor kit, 120/277/347V, two relay

OS480K Occupancy sensor kit, 480V, one relay

 ${\tt ODS1K} \quad {\tt Occupancy \, sensor \, kit \, with \, daylight \, harvesting \, photosensor,}$

120/277/347V, one relay

ODS2K Occupancy sensor kit with daylight harvesting photosensor,

120/277/347V, two relay

ODS480 Occupancy sensor kit with daylight harvesting photosensor, 480V, one relay

*Extension adaptor needed when the height of the edge of the ballast cavity knockout is greater than or equal to 1.5" from bottom side of housing or reflector

*Extension adaptor should be used to position the sensor below the bottom of the reflector for full field of view coverage

¹ Programmed start ballasts recommended for use with sensor accessories.

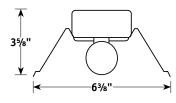


^{*}Factory installed sensor options available with LHV fixture, see page 60.

Accessories

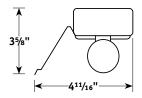
Reflector Accessories

REFLECTORS FOR CH 1-LAMP CHANNELS



Symmetric

CHR2 Symmetric reflector for 2' fixtures. CHR3 Symmetric reflector for 3' fixtures. CHR4 Symmetric reflector for 4' fixtures

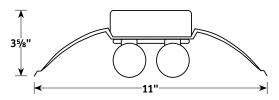


Asymmetric

CHRA2 Asymmetric reflector for 2' fixtures. **CHRA4** Asymmetric reflector for 4' fixtures.

CHR and CHRA reflectors are secured to channel with sheet metal screws provided.
CHR and CHRA reflectors are pre-finished with baked enamel, 86% minimum reflectance.
Polyester powder coat paint after fabrication (PAF) available as option.

REFLECTORS FOR CS AND K 1- OR 2-LAMP CHANNELS



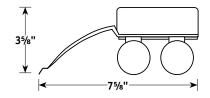
Symmetric - CSR4

Symmetric reflector for 4' fixtures (order two for 8' units).

Center saddles are required for 8' channels.

For CS channel order center saddle CSSAD.

For K channel order center saddle KSAD.



Asymmetric - CSRA4

Asymmetric reflector for 4' fixtures (order two for 8' units).

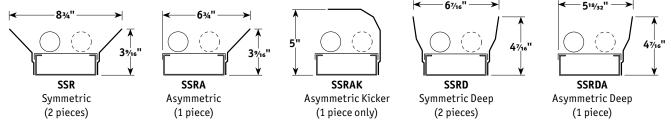
Center saddles are required for 8' channels.

For CS channel order center saddle CSSAD.

For K channel order center saddle KSAD.

CSR and CSRA reflectors are attached with captive quarter turn fasteners included.
CSR and CSRA reflectors are pre-finished with baked enamel, 86% minimum reflectance.
Polyester powder coat paint after fabrication (PAF) available as option.

REFLECTORS FOR SS 1 OR 2-LAMP STAGGERED STRIPS



Ordering Guide: Show reflector as option on strip catalog number. (Example: SS4-132SYM-EU-SSR)

Notes

- 1. Symmetric reflectors consist of two pieces.
- 2. Asymmetric reflectors consist of one piece.
- 3. Adjustable housings require 4' reflectors for field adjustment.
- 4. Use of reflector(s) on staggered strip requires modification to strip housing. Bulk reflectors should not be ordered except as replacements.
- 5. Reflectors attach with sheet metal screws, provided.

Reflectors are pre-finished with baked white enamel, 86% minimum reflectance. Polyester powder coat paint after fabrication (PAF) available as option.

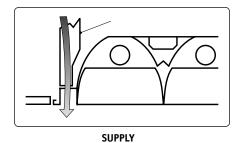


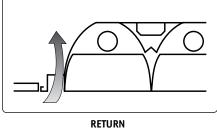
Recessed Options

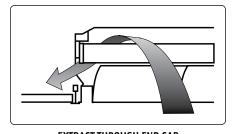
Air Handling

BASIC AIR FUNCTIONS

Designation	Description	Air Function
-S	Static	No air flows through fixture.
-A	Air Supply/Return	Air flows into room from plenum or back into plenum from room. We provide slots in housing. For optional vanes, see below.
-H	Heat Extract	Slots are provided in end cap or back of housing (instead of through black reveal). Units without a black reveal feature slots in door for air passage to lamp compartment. For optional dampers, see below.
-C	Combined	Both the -A and -H functions above are combined in one unit.







EXTRACT THROUGH END CAP

Note: Some units extract air through
back of fixture housing.

AIR FUNCTION CONTROL OPTIONS

Vanes (V) Also referred to as air pattern blades or directional air vanes.

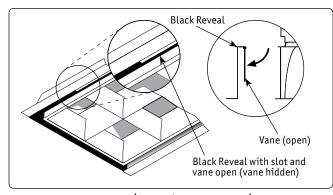
Vanes work with supply/return air (-A or -C). Vanes open outward, from 0 to 90 degrees, like a door swinging open. To control air flow, adjust opening as desired or close completely. When used on a -C fixture, vanes operate independently of dampers.

Dampers (D) Also referred to as heat removal dampers or control dampers.

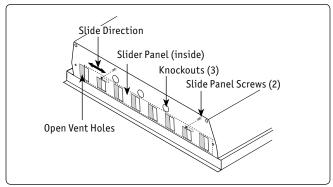
Dampers work with extract air (-H, -C). Dampers slide open, like a window. To control air flow, adjust opening as desired or close entirely. When used on a -C fixture, dampers are controlled independently of vanes.

Designation	Description
-AV	Air Supply/Return with Vanes
-CV	Combined with Vanes Only
-CVD	Combined with Vanes and Dampers

Designation	Description
-HD	Heat Extract with Dampers
-CD	Combined with Dampers Only







DAMPERS (EXTRACT OPTION)



Recessed Options

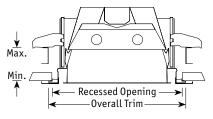
Ceiling Trims

Ceiling Type	Recommended Trim	Cross Section	Availability
1" T-Bar	G (Grid)	For lay-in installation in exposed grid ceilings. Maximum tee widths of 1" and maximum tee	45, 4PS, 4VS, 5PA, 6PA, AC, BR, CRC, CRF, CRS, EMI, EMS, EMX, EPC, FW, HC, HH, HV, JT8, STR, STRL, STS, STSL, VC, VHC, WT, ZPT
%6" Slot Grid	SG (Slot Grid)	heights of 1½" allowed.	45, 5PA, 6PA, BR, HC, P4, PW, STR, STRL, STS, STSL
		For slot grid type ceilings with nominal %6" face and %8" tall shoulder, louver will be level with the ceiling plane.	
Hard Ceiling	F (Flange)		45, 4PS, 4VS, 5PA, 6PA, AC, CRC, CRS, FLSB, HC, HH, HV, HZ, LHG, LSL, M46, P2, P4, ST8, VHC, WT NP and CRC series flange use yoke hanging system (not illustrated).
		For tile, plaster, or plasterboard type ceilings. Overlapping extruded aluminum trim conceals edges of ceiling opening. Wing hanger suspension system included. Designate INT (intermediate) or EOR (end of row) for fixtures in row applications.	For fixtures not available with integral (F) flanges, order (G) trim with corresponding Flange Kit (see pg. 106)
1" Tee across fixture ends. Supplied side trim support ceiling tile along length	GT (Integral Cross -tee)		4594, BRO4, LSL84, NP, PVHC94, VHC94
		For lay-in installation in grid ceilings. Fixture mounts on exposed tees at ends of fixture. Sides act as integral cross-tee to support tile, eliminating need for intermediary tees. Designed for nominal 1" tees.	
Metal Pan	M (Modular)		45, 4PS, 4VS, 5PA, 6PA, HC, LHG, P2, P4
		For metal pan ceilings "Fit-in" style extruded trim aligns with modular tile joints. Fixture is supported from concealed suspension and includes all adjustable wing hangers.	
45, BR, CRS,		available for Surface Mount (SM) applications: , P4, PW, STR, STRL, STS, STSL, VHC, ZPT. Refer to on	dering guide to build.



Recessed Options

Flange Trims



DIMENSIONAL EXAMPLE

PARABOLICS						Rough-In Dimensions					
								Specify	option INT (i	ntermed	iate) or EOR (end of row).
			al Wing Adjust		ll Trim 1sions	g g			ngth		
Series	Size	Min.	Max.	Width	Length	Width	Length	Nom. Length	Multiply by	Plus	Example
P4, HC	1' × 4'	1¼"	41/4"	1213/16"	4813/16"	121/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
	2' × 2'	1"	37/8"	2413/16"	2413/16"	241/8"	241/8"	24"	# in row	1/8"	(24" × 2) + 1/8" = 481/8"
	2' × 4'	1"	37/8"	2413/16"	4813/16"	241/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
45	1' × 4'	1"	3¼"	1213/16"	4813/16"	121/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
	2' × 2'	1"	37/8"	2413/16"	2413/16"	241/8"	241/8"	24"	# in row	1/8"	(24" × 2) + 1/8" = 481/8"
	2' × 4'	1"	37/8"	2413/16"	4813/16"	241/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
VHC, PVHC	9" × 4'	2"	4"	10½"	48¾"	9%"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"

LENSED TROFFERS						Rough-In Dimensions					
							Specify option INT (i			ntermediate) or EOR (end of row).	
Vertical Wing Overall Trim Hanger Adjust Dimensions				Single or Row	Single Unit	Row Length			ngth		
Series	Size	Min.	Max.	Width	Length	Width	Length	Nom. Length	Multiply by	Plus	Example
4PS, 4VS	1' × 4'	7/8"	3"	12¾"	48¾"	121/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
	2' × 2'	1"	21/8"	24¾"	24¼"	241/8"	241/8"	24"	# in row	1/8"	(24" × 2) + 1/8" = 481/8"
	2' × 4'	1"	21/8"	24¾"	48¾"	241/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
5PA	1' × 4'	7/8"	3"	12¾"	48¾"	121/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
	2' × 2'	1¼"	21/8"	24¾"	241/4"	241/8"	241/8"	24"	# in row	1/8"	(24" × 2) + 1/8" = 481/8"
	2' × 4'	1"	21/8"	24¾"	48¾"	241/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
6PA	1' × 4'	1¼"	41/4"	1213/16"	4813/16"	121/8"	481/8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
	2' × 2'	1"	37⁄8"	2413/16"	2413/16"	241/8"	241/8"	24"	# in row	1/8"	(24" × 2) + 1/8" = 481/8"
	2' × 4'	1"	37⁄8"	2413/16"	4813/16"	241/8"	481⁄8"	48"	# in row	1/8"	(48" × 2) + 1/8" = 961/8"
ST8, WT	1' × 4'	1"	33/16"	12¾"	495/8"	121/8"	481/8"	48"	# in row	7/8"	(48" × 2) + 1/8" = 961/8"
	2' × 2'	1"	33/16"	24¾"	245/8"	241/8"	241/8"	24"	# in row	7/8"	(24" × 2) + 1/8" = 481/8"
	2' × 4'	1"	33/16"	24¾"	495%"	241/8"	481/8"	48"	# in row	7/8"	(48" × 2) + 1/8" = 961/8"



Recessed Accessories

Flange Kit and Plaster Frame Information

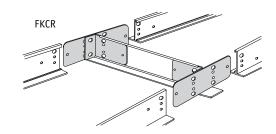
FLANGE KITS

Flange kits are extruded aluminum frames that act as individual fixture T-Bar frames to support the weight of any G (grid) trim recessed fixture in drywall or plaster ceilings. Kits snap together without the use of tools (18 gauge galvanized corner clips provided) and are hung by tie wire (by others) from the ceiling support structure.

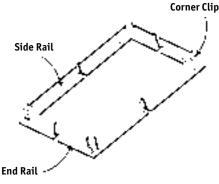
From the room side flange kits mimic the appearance of T-Bars in a baked white enamel finish. Consult chart for ceiling cut out dimension.

For continuous row applications order flange kits plus one FKCR, continuous row flange connector kit, for each joint between fixtures. (One less than the number of fixtures in the row.)

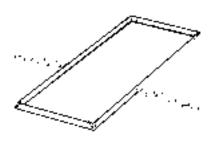
FLAN	GE KIT	CEILING OPENING		
Catalog No.	Size	Width	Length	
FK14	1' × 4'	12¾"	483/8"	
FK22	2' × 2'	243/8"	243/8"	
FK24	2' × 4'	243/8"	483/8"	
FK44	4' × 4'	483/8"	483/8"	
FK81	8" × 1'	83/8"	123/8"	
FK82	8" × 2'	83/8"	243/8"	
FK84	8" × 4'	83/8"	483/8"	



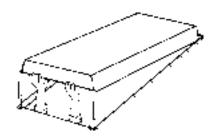
FLANGE KIT INSTALLATION INSTRUCTIONS



 Cut ceiling opening to proper dimensions. Slip fit corner clips into side and end rails. No tools are required.



 Place Flange Kit in ceiling opening and wire each corner to ceiling structure.
 Pull up tight against ceiling.



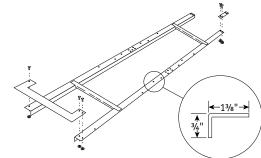
3. Place grid trim troffer in Flange Kit.

PLASTER FRAMES

Plaster frames are galvanized steel rails used to trim ceiling openings primarily in wet plaster applications. They are installed during ceiling construction and help maintain the correct opening dimensions for installation of flange trimmed recessed fixtures. See fixture specification sheet for dimensions required for framing to support the weight of the fixture.

Use plaster inside dimensions for framing opening in dry ceilings. Framing (by others) required to support the weight of the fixture.

Catalog No.	Description	Nominal Size	Inside Dimension
PL14	Individual	1' × 4'	12" × 48%"
PL14R	For Rows	1' × 4'	-
PL22	Individual	2' × 2'	24" × 24%"
PL24	Individual	2' × 4'	24" × 48%"
PL24R	For Rows	2' × 4'	-
PL44	Individual	4' × 4'	48" × 48% "



Plaster Frames:

- For mounting any Columbia Lighting flanged troffer in a plaster ceiling
- Provides a clean, finished appearance



Standards Compliance

HOW TO ACHIEVE A FIRE RATING

UL publishes a book called The Fire Resistance Directory each February. A supplement is issued each August. The Fire Resistance Directory contains instructions for fire rated ceiling systems. Each approved ceiling system has a design number. The fire rated ceiling system is achieved by selecting a design number and following instructions, which include spacing criteria, enclosure requirements, and so on. When complete, the system carries a rating (for example: one hour). FR option provides a label indicating the fixture is suitable for use in such ceiling systems. Many ceiling designs required an enclosure or "tent" of fire resistant material over the back of the fixtures. These enclosures are either built on-site, sometimes of ceiling tile material, or purchased as one-piece molded covers.

Fire Rated Troffers: Debunking the Myth

WHAT IS A FIRE RATED LABEL?

Columbia Lighting can provide a fire rated label (FR option) which states that our recessed light fixtures are manufactured in accordance with UL1598 and, therefore, can be installed in a fire rated ceiling system. There are no additional requirements of a recessed fixture in order for it to be used in a fire rated design.

I NEED A FIRE RATED TROFFER.

A true fire rated troffer does not exist because UL does not list troffers as "fire rated". Instead, they list ceiling systems which may include UL listed troffers as part of that system.

Fire Rated Label

This fixture is equipped with premium low heat ballasts to prevent ballast cycling when installed in a fire rated ceiling system. This fixture is compatible with UL Fire Rated Ceiling designs when installed in accordance with the UL Fire Resistance Directory.

BUT MY INSPECTOR SAYS I NEED ONE.

Your inspector has authority and jurisdiction over your project. However, a better understanding of the fire rated ceiling system process can help in your discussions. Order the FR option where required by local authorities.

I REMEMBER FIRE RATED TROFFERS FROM JOBS PAST.

UL listed three ceiling designs using a special fire rated troffer many years ago. Columbia Lighting (and a few others) offered this troffer, which consisted of a recessed unit with a sheet of fire resistant material attached to the back of it. Since all three ceilings have been obsolete for decades (some exceptions in Canada), Columbia Lighting no longer manufactures this troffer. Instead, we manufacture in accordance with UL 1598, which allows our recessed fixtures to be installed in a fire rated ceiling system.

FIRE RATED ENCLOSURES

An FR label does not indicate whether or not "tenting" of the fixtures is required; all installation must be in accordance with the UL Fire Rated Ceiling design.

T-BAR LOCK CLIPS

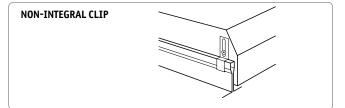
Four integral T-Bar lock clips are standard on many Columbia Lighting recessed fixtures. Integral clips are built according to the rigorous demands of UL 1598. Where integral clips are not available, a parts bag is provided containing two clips for attachment to the housing structure. Four clips are available upon request.

INTEGRAL CLIP

Fixture is equipped with integral T-Bar Clips at each end. To engage T-Bar, bend clip outward and lock under T-Bar.

For installation in the following NEMA ceiling types: -G -GR -NFG -NFSG -SS





DAMP AND WET LOCATION LABELS

Columbia fixtures will be labeled suitable for installation in damp locations (most fixtures) or wet locations (select extreme environment and outdoor fixtures) as called out on the specification sheets. Installation of a dry-location listed customer specified component such as an emergency inverter requires the fixture to be labeled for dry location use only.

BALLAST DISCONNECT

All Columbia fixtures are in compliance with NEC and CEC requirements for ballast disconnects by including integral ballast disconnects in required fixtures.

The following fixtures are excluded from the ballast disconnect requirement:

- Hazardous location fixtures—HZ, FLSB, FNPH, FDPH, FSPH, CRS (with D2 option)
- Fixtures with emergency battery pack options



Ballast Options

Ballast Types

BALLAST TYPES

Columbia Lighting supplies ballasts from a variety of reputable vendors whose products conform to Columbia Lighting's standard specifications (pg. 107). See Ballast Specified Vendor Options to order a particular manufacturer's product or ballast series. All ballast information is based on manufacturer's published literature and is subject to change without notice.

ELECTRONIC BALLAST TYPES

Start Method	Definition	Designation	Characteristics
Electronic Instant Start	Strikes lamp without filament preheating. Lowest	E	Standard (.87-1.0 BF)
	wattage draw option for applications without control systems. Used for T8 bi-pin and slimline	E104	EnergyMax 1.04 BF
	lamp types. Ballasts for F32T8 full or reduced wattage lamps are NEMA Premium qualified.	EHL	High light output (1.18-1.2 BF)
		ELW	Low wattage (.7778 BF)
		ETT	Twin Tube lamp types
Electronic Programmed Start	Recommended for frequently switched	EP	Standard, 0.88 BF
	applications including occupancy sensor controlled lighting because programmed filament	EPTT	Twin Tube lamp types
	preheating can help extend lamp life. Remote mounting distance more restricted than with instant start. Sometimes called programmed rapid	EP_	Alternate ballast factors. Eg. EP95, EP115 for T5 lamp types, EP104 for T8 lamp types
	start. Available for all 2-pin lamp types. Ballasts for F32T8 full or reduced wattage lamps are NEMA	EPHL	High light output (1.15 - 1.20 ballast factor)
	Premium qualified and parallel wired.	EPSP5	Parallel Wired for T5 lamps
Electronic Step Dimming	Electronic programmed start ballast with two hot leads to allow both lamps to switching	ESD	Standard BF (T5 or T8 bi-pin)
	between 100% and 50% light levels for energy management. Requires two switched leads from	ESD104	EnergyMax 1.04 BF (T8 Bi-pin)
	same panel. Not suitable for remote mounting. 2-lamp ballasts.	ESD80	Alternate ballast factor for 54T5H0
Electronic Full Dimming	Responds to either line voltage or low voltage signals to dim lamps from 100% to 10% or lower, depending on model. Many ED ballast types require voltage specified. Not suitable for remote mounting.	ED_	Add vendor and ballast series compatible with control system. Eg. ED120 LUTEC10

MAGNETIC BALLAST TYPES

Start Method	Definition	Designation	Characteristics
Low Power Factor	Also called normal power factor (NPF). Labeled for residential use only.	L	For residential fixtures using 2', 3', or 4' Bi-pin T12 lamp types.



Ballast Options

Ballast Quantities and Specified Vendors

BALLAST QUANTITIES

Fixtures with 3, 4, 6, and 8 lamps will be supplied with two ballasts standard. Optional ballast quantities are available.

See also Master-Satellite option for ballast quantity options on tandem-wired pairs. In tandem-length fixtures with more than one ballast, lamps are wired side by side unless left and right (LR option) is specified.

Number of Lamps in Fixture	Standard Designation	Optional Ballast Designation
1 or 2	Provides one ballast	Adding 11, such as 11E or 11EP, provides two (2) ballasts in 2-lamp fixtures
3	Provides two ballasts, one on inboard lamp, one on outboard	Adding 3, such as 3E or 3EP, provides one (1) 3-lamp ballast
4	Provides two ballasts, one on inboard lamps, one on outboard	Adding 4, such as 4E or 4EP, provides one (1) 4-lamp ballast
6	Mustspecify	Adding 24 (eg.), such as 24E or 24EP, provides a 2-lamp and 4-lamp ballast (recommended). 3E or 3EP provides (2) 3-lamp ballasts
8	4E provides two (2) 4 -lamp ballasts wired on lamps 1, 4, 5, 8 and 2, 3, 6, 7	Consult factory

SPECIFIED VENDORS*

Specify ballast type, optional ballast quantity and vendor option. Eg. 3ED120LUTFDB

Vendor	Vendor Specified Designation	Vendor and Series Specified Designation	Vendor's Series Name (normal ballast factor unless noted)
		LUTHIL	Hi-Lume Dimming
dimming by	LUT	LUTES	EcoSystem incl. E1/E2 only (Dimming)
CLUTRON .	LUI	LUTESSW	EcoSystem incl. sensor wires (Dimming)
		LUTEHD	EcoSystem H
••		ULTHE	Ultim8
Universal' Lighting Technologies	ULT	ULTHP	High Performance
		GEMAXH	Ultramax High BF
imagination at work	GE	GEMAXL	Ultramax Low BF
		GEMAXN	Ultramax
		SYLQHE	High Efficiency
CHALLERUA O	SYL	SYLPSX	Extreme
AT THE SECURITION OF THE STATE OF THE SECURITION OF THE SECURITIES OF THE SECURITION OF THE SECURITIES OF THE SECURITION OF THE SECURITIES OF THE SECURITION		SYLPH0	Helios Dimming
		SYLDIM	Powersense Dimming
PHILIPS		ADVCEN	Centium
	ADV	ADVIOP	Optanium
ADVANCE	ADV	ADVMK10	Mark X Dimming
		ADVMK7	Mark VII Dimming

^{*}Others available, call out ballast catalog number in fixture description. Dimming ballasts use ED plus voltage and vendor designation.



Ballast Options

Ballast Characteristics and Total System Watts

BALLAST CHARACTERISTICS

General Definitions

POWER FACTOR

Measure of how effectively ballast converts power source into usable watts. Ideal power factor would measure 1.0.

CREST FACTOR

Measure specifying the ratio of peak current to R.M.S. current in the waveform used to drive programmed start lamps. High crest factors shorten lamp life.

TOTAL HARMONIC DISTORTION

Measure of magnitude of input current harmonics compared with amplitude of fundamental frequency current.

Lamp manufacturers publish lumen data based upon a "reference ballast" built to meet ANSI standards. Ballast factor is a measure of how well a ballast performs in comparison to the "reference ballast" as a percentage of rated lumen output.

COLUMBIA LIGHTING BALLAST SPECIFICATIONS

All factory-choice normal ballast factor electronic ballasts meet the following specifications. Optional ballast factors and customer specified vendor available as options.

Ballast must be high power factor, (min. 95), Class P, UL listed, meet IEEE and ANSI requirements C62 .41 Category A for transient protection and FCC Regulations, Class A for electromagnetic interference. Operates at voltage variance of +/- 10%, crest factor of <1.7, total harmonic distortion (THC) <10% for primary lamp type, minimum ballast factor (BF) of .87 (.95 for T5/T5HO lamp types). Ballast must start lamps at 0°F ambient temperature.



NEMA All ballasts for F32T8 full and reduced wattage lamps must be NEMA premium qualified.

TOTAL SYSTEM WATTS

The Total System Watts refer to the ballast and lamp watts consumed per luminaire. Input watts are based upon ANSI watts as published by ballast manufacturer's literature which is subject to change without notice. Ballast information shown is generic and serves as an approximation only; actual input watts vary according to specific ballast manufacturer and ballast number. For exact input wattage contact either the ballast manufacturer or Columbia Lighting Technical Support. Wattage published in Columbia IES photometric tests represents actual measured watts.

Total System Watts (Watts/Volts = Amps)

Ballast Type	Catalog Designation	Lamp Type	No. of Lamps	Input Watts*
Electronic	EP	F14/T5	1	19
Programmed	EP	F14/T5	2	34
Start	EP	F24/T5H0	1	28
T5	EP	F24/T5H0	2	53
	EP	F28/T5	1	34
	EP	F28/T5	2	66
	EP	F54/T5H0	1	63
	EP	F54/T5H0	2	121
	3EP	F54/T5H0	3	182
	4EP	F54/T5H0	4	240
	EP80	F54/T5H0	2	96
	EP95	F28/T5	2	60
	EP115	F28/T5	2	69
	ESD80	F54/T5H0	2	96/52
	ESD95	F28/T5	2	60/28
	ESD104	F32/T8	2	65/32.5
	ESD115	F28/T5	1, 2	71/34
Electronic	EP	F32/T8	1	31
Programmed	EP	F32/T8	2	62
Start	EP104	F32/T8	2	65
T8	3EP	F32/T8	3	92
	4EP	F32/T8	4	119

Ballast Type	Catalog Designation	Lamp Type	No. of Lamps	Input Watts*
Electronic	E	F32/T8	1	30
Instant Start	Е	F32/T8	2	56
T8	3E	F32/T8	3	85
	4E	F32/T8	4	112
	E	F96/T8	1	70
	E	F96/T8	2	108
	E	F96/H0/T8	1	100
	E	F96/H0/T8	2	185
	E104	F32/T8	2	67/66
	E104	F32/T8 (28 watt)	2	60/59
	E105	F32/T8 (25 watt)	2	51/51
Electronic	E	F96/T12/ES	1	64
T12	E	F96/T12/ES	2	105
112	EP	F96/T12/H0	1	119
	EP	F96/T12/H0	2	208
Electronic	ETT	F40/TT	1	39
TT	ETT	F40/TT	2	68
• •	3ETT	F40/TT	3	99
	EPTT	F40TT	1	38
	EPTT	F40TT	2	76
	3EPTT	F40TT	3	110

^{*}Where published input watts differ between 120/277V the higher (120V) wattage is given. For 2 level step dim ballasts (ESD types) both high and low output wattages are given.



Electrical Options

EMERGENCY BATTERY PACKS INSTALLED

Luminaires with factory installed battery packs will bear the UL Emergency equipment label. Dry location labeling standard. Standard inverter options below are not suitable for cold temperature starting, damp or wet location labeling. Optional inverters available for these applications. Consult factory or specify vendor's catalog number.

EL	350-450 lumens for one 2'-4' lamp (T8, T12, U-Bent, TT)
EL61	500-600 lumens for one 2'-4' lamp (T8, T12, U-Bent, TT)
EL71	600-700 lumens for one 2'-8' lamp (T8, T12, U-Bent, TT)
EL72	600-700 total lumens for two 2'-8' lamps (T8, T12, U-Bent)

EL141	1100-1400 lumens for one 2'-8' lamp (T8, T12, U-Bent, TT)
EL142	1100-1400 total lumens for two 2'-4' lamps
EL5*	390-700 lumens for one 2'-4' T5/T5H0
EL5H*	725-1250 lumens for one 2'-4' T5/T5H0

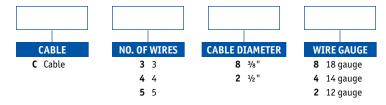
^{*}These inverters not available in some 2' fixtures due to space constraints. Remote mounting using accessory enclosure (by others) recommended.

FUSING

Fusing is available on all fixtures to prevent over current from being transmitted upstream through the fixture as may be possible due to a dead short fault in a ballast. Specify GLR (fast blow) or GMF (slow blow) fusing options. Fuses are not UL listed to break under load and therefore are not a substitute for the in-fixture ballast disconnects supplied standard where required by the National Electric Code.

FIXTURE FLEX AND LEADS

Fixture flex (also called pre-wire or whip) is a UL listed lighting component for recessed fixtures to provide the electrical wiring between the junction box and recessed fixture. Flex may be no longer than 6'. Typical cables use 3/8" flexible conduit and three or four 18 gauge leads. Flex cables are shipped pre-wired to the recessed fixture. Add option designation to catalog number after ballast options. Eg. C388



MISCELLANEOUS FIXTURES AND ELECTRICAL OPTIONS (ADD AS SUFFIX ON END OF CATALOG STRING)

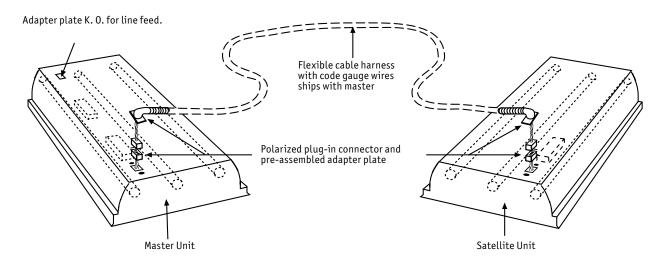
Fixture/Option	Cat. No.	Description	For Use With	
	PSW	Pull switch, one circuit, 120V only	Selected strips, surface units	
	PSWD	Pull switch, wired to the downlight circuit on a two circuit unit, 120V only	and industrials. Contact factory	
8	4PSW	Four-way pull switch for two circuit, two lamp unit, 120V only	for applications	
	NL	Medium base lampholder for 15W, 25W, 40W, or 60W T10 lamp. Lamp not included. 120V only	AWN, SM units	
	PL7	Fluorescent Night Light for 7W, T-4, G23 lamp	4PS, SM, and WAL series	
	PL9	Fluorescent Night Light for 9W, T-4, G23 lamp		
	PL13	Fluorescent Night Light for 13W, T-4, GX23 lamp		
		Lamp not included. PL ballast will default to fixture voltage unless specified		
	GCO	Grounded convenience outlet (120V only)	WPM, WM, WAL, UCS and UC Standard on SA, W	
	C6P15_	6' Cord and Straight Blade Plug NEMA 5-15P, 15A (Add Voltage: 1 = 120, 2 = 277)	All industrial fixtures	
	C6TL15_	6' Cord and Twist-Lock™ Plug NEMA L5-15P, 15A (Add Voltage: 1 = 120, 2 = 277)		
32,0	C6TL20_	6' Cord and Twist-Lock™ Plug NEMA L5-20P, 20A (Add Voltage: 1 = 120, 2 = 277)		
	F3C_	3-Conductor feed cord, 18ga stranded wire (Add length needed: 5 = 5', 10 = 10', or 15 = 15')	All industrial fixtures	
	F4C_	4-Conductor feed cord, 18ga stranded wire (Add length needed: 5 = 5', 10 = 10', or 15 = 15')		
	GLR	Fast blow fuse, fuse amps based on fixture ordered	All fixtures	



Wiring Options

Master/Satellite Wiring Harness

DETAIL FOR 2' × 4' 3-LAMP LUMINAIRES

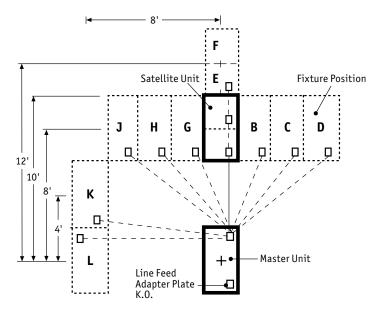


Ballast	Master	Satellite
E, EP	(2) 2-Lamp	(1) 2-Lamp
24E, 24EP	(1) 2-Lamp + (1) 4-Lamp	None

All wired for inboard-outboard

- Master/satellite units bear appropriate UL labels.
- Single units must be ordered to fill odd number layouts.
- Harness may be ordered with any Columbia Lighting 3-Lamp recessed luminaires.
- In master/satellite pairs requiring emergency inverters, UL requires that the inverter be located in the master and power lamps in the master.
- Many programmed start ballasts including all dimming and step dimming ballasts are not suitable for master/satellite applications due to lamp lead length restrictions. See ballast vendor technical data for more information.
- Available on most recessed fixtures. Not available on M46, WT, or AC series.

LAYOUT OPTIONS



Position	Minimum Length Harness Required	
A	6'	
В	7'	
С	8'	
D	9'	
E	8'	
F	10'	
G	7'	
Н	7'	
J	8'	
K	9'	
L	9'	
Harness length must be specified on order.		

Caution: Some electronic ballasts can only be wired with harnesses less than 11' or are not suitable for remote mounting. Consult with ballast manufacturer before specifying.



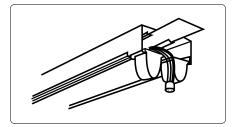
Wiring Options

Branch Circuits

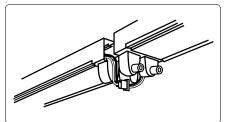
FEATURES

Plug-On Branch Circuit Wiring System features complete branch circuit wiring. You supply the feeder; Plug-On does the rest. The system will handle all popular voltage/phase combinations – 2 or 3 wire, 120V, 277V, or 240V, and 3-phase, 4 wire 120/208V or 277/480V-20 amp rating. It is UL listed and combines the following features:

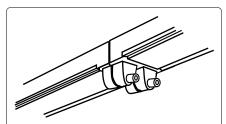
- Available on all continuous row surface mounted fixtures for up to 20 amp circuit runs. Supplied as single or multiple circuit with these
 fixtures: Surface (PT, AW), Strips (CS, CN, K, LB, KT, CHW, SS), Industrials (KL, CSR).
- Can be arranged in any circuit control for single circuit (BC1) or alternating 2 (BC2A, BC2B) or 3 circuit (BC3A, BC3B, BC3C) configurations.
- May be used with any conventional hanging method chain, Zip-Tee, slide clamp, stem, or stud.
- Eliminates critical fit or lineup of adjacent fixtures.
- Complete, ready for connection as shipped no separate parts to misplace. Connectors snap-lock for positive mechanical connection and are color coded for instant identification.
- Carton and channel marked for ballast circuit identity aids installation, distribution, and maintenance.
- Free factory consulting on coordination of order is recommended to assure proper application.



Mount fixture in any economical, familiar manner.



Make electrical connection at same time as mounting next fixture. No need to come back. Power must be off when making connection.



Add lamps and move on to next fixture.

Catalog Number	-Suffix	Description
1 Circuit: 120V-277V (2 Wire)	-BC1	Ballasts connected to black/white wires
2 Circuit: 120V/240V or 120-277V (3 Wire)	-BC2A	Ballasts connected to black/white wires
	-BC2B	Ballasts connected to red/white wires
3 Circuit: 3 Phase 120V/208V or 277V/480V (4 Wire)	-BC3A	Ballasts connected to black/white wires
	-BC3B	Ballasts connected to red/white wires
	-BC3C	Ballasts connected to blue/white wires
3 Circuit with Ground (4 Wire)	-BC3AG	Ballasts connected to black/white wires
	-BC3BG	Ballasts connected to red/white wires
	-BC3CG	Ballasts connected to blue/white wires
4 Circuit with Ground (5 Wire)	-BC4AG	Ballasts connected to black/white wires
	-BC4BG	Ballasts connected to red/white wires
	-BC4CG	Ballasts connected to blue/white wires
	-BC4DG	Ballasts connected to yellow/white wires

Example: For 3-phase 277/480 volt supermarket lighting job, using CS8-232-EU fixtures, with fixtures to be connected alternately to A-B-C phases through the store, order: CS8-232-EU-BC3A – ½ of fixtures

CS8-232-EU-BC3B – ⅓ of fixtures CS8-232-EU-BC3C – ⅓ of fixtures



Lamp and Packaging Options

LAMP OPTIONS

Many fixtures can be ordered with lamps pre-installed. Some fixture designs are not available pre-lamped because there is no installation or shipping advantage. Lamp options listed below provide the factory's choice of reputable vendors. Insert lamp option after ballast voltage designation in fixture catalog number. NFO and reduced wattage designations provide lamps meeting applicable NEMA Premium and CEE listing criteria.

Color Rendering Index (CRI) refers to how accurately the lamps phosphor blend reproduces colors compared with a natural source (sunlight). Color temperature refers to how warm (3000°K) or cool (4100°K) the light appears. Candlelight represents an extreme warm (reddish) temperature while sunlight represents an extreme cool (blue-white) temperature.

Please specify vendor's catalog number if a specific vendor, series or lamp feature is required. Reduced wattage lamps may not be suitable for dimming or cold temperature applications. Consult vendor's specification.

LAMP PROFILE COLOR RENDERING COLOR **LAMP SHAPE** (F = FLUORESCENT) **INDEX** TEMPERATURE Blank Straight or Twin Tube FO T8 (full wattage) Minimum 75 30 3000°K U6 U-Lamp 6" Leg Spacing F030 4' T8 reduced wattage (30W)1 8 Minimum 82 (T8) or 35 3500°K U1 U-Lamp 1%" Leg Spacing 85 (T5) (Required for **41** 4100°K F028 4' T8 reduced wattage (28W)1 NEMA Premium/CEE) F025 4' T8 reduced wattage (25W)¹ NFO 4' T8, NEMA Premium Full wattage (32W) F5 T5 or T5H0

PACKAGING OPTIONS

FTT Twin Tube

Products are shipped in individual cartons standard. In fixtures ordered in pallet quantities or greater specify choice of job packaging to ease fixture handling and reduce job site waste disposal. Option available on lensed and parabolic troffers.

- JP Job pack. Fixtures less cartons, with protective outer packaging and stretch-wrapped to standard 4-way pallet.
- PN Job pack narrow, less cartons, with protected outer packaging and stretch-wrapped to 4-way pallet no greater than 24" inches wide.
- **PWCS** Cartoned, stretch-wrapped to standard pallet.
- **PNCS** Cartoned, stretch-wrapped to narrow pallet.
- **PW** Less cartons, stretch-wrapped to wide pallet.



 $^{^{\}rm 1}{\rm Not}$ recommended for use with step or full dimming.

Troubleshooting

FLICKERING LAMPS

1. New lamps need to be seasoned.

In the case of dimming ballasts, most manufacturers recommend 100 burning hours before dimming.

2. Line voltage varies.

Check to see that line voltage current is constant.

3. Air movement across lamp.

Check to make sure that HVAC is not directed across lamps, lowering temperature of lamps.

CYCLING OF BALLAST

1. Line voltage varies.

Check line voltage to make sure constant power is supplied.

2. Replace lamps to verify ballast problem.

3. Insulation covering fixtures.

Check to make sure that fixtures are not covered. Excess heat will cause thermal protector to cycle.

4. Fixtures are mounted on ceiling directly.

Verify that fixtures are designed to be mounted directly to ceiling. If not, an air space must be provided between ceiling and fixtures.

SLOW STARTING

1. Programmed Start ballast versus Instant Start ballast.

Programmed Start ballasts pre-heat the cathode and then ignite lamps. Instant Start ballasts use a high voltage surge to start lamps instantly. Programmed Start ballasts are slower starting but easier on lamps due to pre-heating of cathodes.

2. Line voltage too low.

Check line for correct voltage as required by ballast. (See "Fixtures Do Not Light")

3. Incorrect lamp.

Make sure lamps are compatible with ballast.

4. Low ambient temperatures.

Is temperature above 50°? Some ballasts require higher starting temperatures to start properly.

FIXTURES DO NOT LIGHT

1. Is the power on?

2. Lamp compatibility.

Cross check lamps against ballast designation listed on ballast case. Some energy saving lamps and ballasts are not compatible.

3. Incorrect or loose wiring.

Disconnect power and check all wiring connections.

4. Check fuses if supplied.

Disconnect power before removing. Check with ohmmeter or test equipment. Reinstall and energize.

5. Line voltage low.

Voltage range for 120 volts is 112 minimum and 125 maximum. Voltage range for 277 volts is 255 minimum and 289 maximum.

6. Low ambient temperature.

Fluorescent lamps are hard to start at temperatures below 50°F.

7. Are lamps properly engaged in the lampholders?

Check to make sure that pins are properly engaged.

NOISE

1. Are all components secure?

Check ballast mounting and look for loose fixture components.

2. Is there furniture in the space?

Empty rooms magnify sound, emphasizing the normal operating hum. The sound which seemed so loud in an empty space will normally disappear once the room has been filled with furniture, partitions, and equipment.

3. Is the ballast functioning correctly?

Replace ballast if necessary.

4. What is the sound rating of the ballast?

Verify the ballast's proper sound rating for the environment. If the sound rating is inappropriate, remote mount the ballast or replace it with a ballast with the appropriate sound rating.







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