

# ProLED®



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## Where There's Light, There's Halco®

Established in 1974, Halco Lighting Technologies is a leader in lamp and ballast solutions. We are dedicated to providing you with the latest in energy efficient technologies; illustrated by our new ProLED fixtures and full offering of ProLED lamps. Halco's new ProLED Panel, Volumetric Panel and Downlight Retrofit Series fixtures are the latest additions to our product line. Our broad selection of long life, energy efficient ProLED lamps is available in popular shapes with an array of color temperatures and beam spreads. Halco is your single source for LED lamps for replacement and retrofit applications.

## Service

We measure our success by one standard - your satisfaction. Halco carries deep inventory of a broad SKU offering to assure we have what you need when you need it. With strategically located warehouses in Atlanta, Carlstadt, Cleveland, Houston, Los Angeles and Phoenix, orders placed by 2:00 PM local warehouse time ship the same day.



## Quality

Our NVLAP-accredited lighting laboratory, Halco Lighting Laboratories, operates under a quality management system that meets the requirements of ISO 17025. Our in-house facility allows us to perform a variety of testing services including photometrics, light output, color metrics and electrical measurements, including IES LM-79 testing. This product testing facility ensures continuous quality control and outstanding product performance.

## Quality Assurance

Halco's Quality Assurance policy ensures we deliver on our commitment to your satisfaction. If our product does not perform according to specifications, rest assured we'll provide a replacement or credit.

## Performance



ProLED fixtures and lamps are backed by a warranty you can rely on. Fixtures, Reflector, PAR, A-Shape, G25, S14 Sign Lamps, T8 Linear, Decorative, MR, PAR36 and IP65 Rated JC lamps are backed by a 5-Year Limited Warranty. ProLED 912, C7/C9 and standard JC lamps are backed by a 2-Year Limited Warranty.



# U.S. Department of Energy energy use nearly in half by

## Legislative Trends

Today's legislative efficiency hurdles stem from a need to decrease our dependence on a stressed electrical grid. As a result, many Incandescent and Halogen PAR lamps are no longer available. Below is a summary of the traditional lamp technologies and lamp types that are phased out by legislation.

Lamp Source	Lamp Types	Effective Date
Incandescent	Globe, Chandelier, PS, A-Shape	100W lamps in 2012; 75W lamps in 2013; 60W & 40W lamps in 2014
PAR Halogen	All traditional Halogen PAR	July 2012
General Service Fluorescent	T10 & T12 lamps; Exemptions include high CRI and specialty lamps	July 2012

Other lamp types and exemptions apply to the above requirements; for a full overview of lamps that fall under efficiency legislation visit [halcolighting.com](http://halcolighting.com).

With waning availability of commonly used Incandescent and Halogen lamps, the demand for efficient ProLED solutions is increasing. ProLED lamp solutions are up-to 7 times more efficient, last up-to 13 times longer and provide up-to 88% energy savings ALL while producing light output equivalent to Incandescent and Halogen lamps. ProLED lamps' increased energy savings and long life requires less maintenance and reduces overall environmental footprint of the lighting installation.

## Think Green

ProLED lamps are environmentally responsible lighting solutions containing no mercury and no lead. The energy savings and potential reduction in greenhouse gas emissions resulting from replacing (3) 60W Incandescent A-Shape lamps with (3) 10W ProLED is impressive. Based on EPA emission factor assumptions over the life of the ProLED lamp, replacing 3 lamps is the equivalent of removing (1) car from the road, planting (1) acre of trees or eliminating (1) household's annual electricity usage. The low energy consumption coupled with the fact that ProLED lamps are mercury-free make them ideal for U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) projects.



# estimates LEDs offer the potential for cutting general lighting 2030.

## ENERGY STAR®

Halco is a proud ENERGY STAR® partner. ENERGY STAR® is a voluntary program by the U.S. Environmental Protection Agency that aims to educate and increase awareness of energy saving and environmentally friendly products. Halco boasts a portfolio of ENERGY STAR® qualified products, specifically in our ProLED and ProLume Compact Fluorescent product offerings.



## The Design Lights Consortium®

The Design Lights Consortium (DLC) is a project of Northeast Energy Partnerships (NEEP) to accelerate energy efficiency in the building sector through public policy, program strategies and education. The DLC promotes quality, performance and energy commercial sector lighting solutions. Halco ProLED fixtures and T8 Linear lamps are on the DLC Qualified Product List.



## LED Lighting Facts®

Halco is a participating partner of the U.S. Department of Energy (DOE) LED Lighting Facts® program, which assures that the performance of LED lighting products is accurately represented. The program helps manage the adoption of the new technology by mandating the use of a label that verifies the product has been tested according to industry standard procedures and that those results are accurately presented. The DOE LED Lighting Facts® label identifies light output, wattage, efficacy, correlated color temperature (CCT) and color rendering index (CRI).



Halco also complies with Federal Trade Commission (FTC) Lighting Facts labeling regulations of medium base screw lamps. Similar to the DOE program, the FTC program establishes consistency among manufacturers so that consumers can easily identify LED product specifications. The FTC label requires lumen output, estimated annual energy cost, life expectancy, color temperature, wattage and mercury content, if applicable.

Lighting Facts/Datos de Iluminación	
Per Bulb/Per Bombilla	
Brightness/Brillo	830 lumens/lúmenes
Estimated Yearly Energy Cost/ Costo Estimado Anual de Energía	\$1.20
Based on 3 hrs/day, 11¢/kWh. Cost depends on rates and use. / Basado en 3 hrs/día, 11¢/kWh. Costo depende de la tarifa y el uso.	
Life/Duración	22.8 years/años
Based on 3 hrs/day / Basado en 3 hrs/día	
Light Appearance/Apariencia de Iluminación	Warm/Cálida Cool/Frío
3000K	
Energy Used/Usó de Energía	10 watts/vatios



# Halco's ProLED lamps feature an unrivaled combination the best overall performance in LED technology.

## ProLED Advantage

ProLED products utilize the highest quality components, including USA and Japanese chips, precision manufactured optics, optimally engineered drivers and special heat sinks for superior thermal management.



Optics designed for precise beam control providing smooth illumination virtually identical to traditional sources



Achieve consistent lamp-to-lamp color through rigorous adherence to design and manufacturing specifications



Utilize a phosphor that creates a rich R-9 value to enhance reds and skin tones and produce high CRI values up-to 82

Dimmable down to 5% of rated light output for flicker-free, reliable performance\*

Optimal thermal management through the use of an engineered heat sink housing and quality componentry

\*Visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for a comprehensive Dimmer Compatibility List.

# of efficiency, long life and light quality, providing

## Why Choose ProLED

Using LED retrofit or replacement lamps reduces total cost of ownership of the lighting system without sacrificing performance. ProLED lamps have a longer rated life than traditional sources while consuming less energy. ProLED lamps also produce the same quality of illumination as traditional light sources making them a popular choice for an easy lighting upgrade.

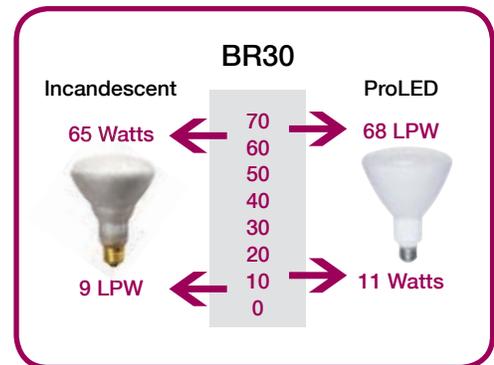
## ProLED Payback

Advances in technology have allowed LED lamps to provide equivalent light output while consuming a fraction of the energy. To calculate energy savings of a lighting upgrade compare the wattage, the measure of energy consumed in order to power the lamp. The lower the wattage the greater the energy savings. For example, an 11W ProLED BR30 lamp will provide light output equivalent to a 65W Halogen reflector lamp and save as much as 83% in energy.

Operating Details		
	Electricity Cost	\$0.11 kWh
	Annual Operating Hours	3650
Energy Analysis	Existing	Retrofit
Wattage Per Lamp	65W	11W
Annual Energy Costs	\$26	\$4
Annual Energy Savings		83%

## Think Lumens

When evaluating energy efficient lamp options refer to the lamp's light output, which is measured in lumens. Lamps with relatively equivalent lumens and center beam candle power (CBCP) will provide similar illumination in the application. ProLED lamps are extremely efficient light sources. Efficiency is measured in lumens per watt (LPW). ProLED lamps feature high LPW versus Halogen and Incandescent lamps.



## Maintenance Free Operation

The life of a lamp impacts maintenance and relamping costs. The longer the life the fewer times the lamps need to be replaced, the fewer lamps that need to be purchased and the less time spent replacing lamps. Over the 40,000 hour useful life of (1) ProLED BR30 lamp, an Incandescent lamp (3,000 hr life) would need to be replaced 14 times!





## Transformer and Dimmer Compatibility in Commercial and Residential Installations

While LED lamps allow for greater energy savings and longer life, they can be challenging when used in existing applications and luminaires. Compatibility with transformers and dimmers are the most common issues faced in replacement and retrofit applications. There are 3 main transformer types, each with their own advantages and disadvantages when considering an LED retrofit.

Although ProLED lamps are designed to perform well with most available transformers in these categories, ensuring transformer compatibility is crucial to the proper performance and lifetime of ProLED lamps.

Positive	Negative
<b>Magnetic Transformers and LED Lighting</b>	
<ul style="list-style-type: none"> <li>– Provide a known 60Hz AC power to the LED, which is often accommodated in the design of many LED products</li> <li>– Robust, reliable and available in many different wattages</li> <li>– Relatively inexpensive, comparatively for higher wattages</li> </ul>	<ul style="list-style-type: none"> <li>– Provide AC rather than DC current</li> <li>– Minimum load rating to provide the expected voltage, which can be difficult due to the efficient nature of LEDs</li> <li>– Translate voltage instability from incoming power to output power</li> <li>– Less efficient at power conversion in comparison to electronic transformers</li> <li>– Larger and heavier than the electronic equivalent</li> </ul>
<b>Electronic AC Transformers and LED Lighting</b>	
<ul style="list-style-type: none"> <li>– Can be designed in a very small package and are often integrated into a fixture</li> <li>– More efficient than a magnetic transformer</li> <li>– At low wattages, they can have a cost advantage due to less material</li> <li>– Less likely to translate voltage instability from incoming power to output power</li> </ul>	<ul style="list-style-type: none"> <li>– Operates at high frequencies which can interfere with or damage LED products</li> <li>– Minimum load rating that can be triggered by the low draw of LED lamps, causing the transformer to think there is a failed lamp and either not working or causing flickering</li> <li>– Less tolerant of heat than magnetic transformers. Must be designed to be dimmed</li> </ul>
<b>Electronic DC Transformers and LED Lighting</b>	
<ul style="list-style-type: none"> <li>– Ideal power supply for most LED products, as almost all LED chips are designed as DC only</li> <li>– Provides a very stable power source, often allowing LED products to perform better</li> <li>– Smaller and lighter than magnetic transformers</li> <li>– Provides less voltage drop on long wiring runs</li> <li>– Do not translate voltage instability from incoming power to output power</li> </ul>	<ul style="list-style-type: none"> <li>– DC transformers are less common in existing applications</li> <li>– Often more expensive than the equivalent electronic AC transformer</li> <li>– Usually larger than electronic AC transformer</li> <li>– Must be designed to be dimmed for dimming applications</li> </ul>

For a list of transformers compatible with the ProLED MR16 Series, visit the ProLED Compatibility section at <http://www.halcolighting.com/download>.

The ProLED offering features a wide variety of dimmable lamps and when used with compatible dimmers common challenges can be avoided. For a comprehensive list of line voltage ProLED and compatible dimmers, visit <http://www.halcolighting.com/pdf/ProLEDdim.pdf>.

Common Issue	Dimmable ProLED Lamps on Compatible Dimmers
Reduced dimming range	Operate down to 5% of rated lumen output
Lights dropping out	Smooth flicker-free dimming through the lamps dimming range
Lights not turning on	Illuminate at a dimmed light output
Lights turning off unexpectedly	Withstand voltage fluctuations for consistent performance



## Selecting a Transformer for Low Voltage LED Landscape Lighting

True power consumed is measured in watts. It is what customers are charged for on their utility bill. A lamp's true power (wattage) is listed on the lamp's packaging. When an LED is powered, the lamp's driver converts alternating current (AC) to direct current (DC), which consumes reactive and harmonic power on top of the true power that is required to produce light. The utility must generate additional energy above and beyond the lamp's true power in order to operate the lamp.

The total amount of power that must be generated by the utility is measured in volt amperes (VA) and is referred to as apparent power. Power factor - the ratio of true power to apparent power - is the measure of how efficiently electrical power is consumed. Dividing a lamp's wattage by the lamp's power factor results in the VA drawn on the line - Wattage/Power Factor = Volt-Amperes.

Halogen and Incandescent lamps have a power factor of one, which means that the lamp uses 100% of the input power to produce light and heat. Consequently, filament lamps' wattage and VA are equivalent. For example, a 20W MR16 BAB draws 20VA from the line. For LED installations, apparent power (VA) must be taken into consideration, because transformer size is actually based on apparent power (VA), not true power (W). To specify the correct transformer size, the system's total load must be calculated to ensure that the total volt-ampere draw does not exceed the transformer's rating.

The ProLED installation example below shows system load (total VA), true power consumed (W) and annual energy cost calculations. Refer to the ProLED Volt-Ampere chart on page 48 for project calculations.

<b>1. Calculate Load of LED System</b>		Lamp VA	x	# Lamps	=	Total Fixture Load
Well Light with 10W ProLED PAR36		12		8	=	96
Modern Bullet with 4.5W ProLED MR16		5.5		4	=	22
<b>Total System Load</b>						<b>118</b>
<b>2. Select Transformer for the LED System Load</b>						
<b>3. Calculate LED Energy Consumption</b>		Lamp Wattage	x	# Lamps	=	Power Consumption
Well Light with 10W ProLED PAR36		10		8	=	80
Modern Bullet with 4.5W ProLED MR16		4.5		4	=	18
<b>Total System Power Consumption</b>						<b>98</b>
<b>4. Calculate the LED System's Annual Energy Cost</b>						
Consumption	x	Utility Cost <sup>1</sup>	x	Annual Operating Hours <sup>2</sup> /1000	=	Annual Energy Cost
98W		\$0.115 kWh		2190 hrs		= \$24.68

<sup>1</sup> Utility cost based on national average per U.S. Energy Information Administration - <http://www.eia.gov/electricity/data.cfm#summary> at the time of printing.

<sup>2</sup> Annual operating hours based on 6 hours/day and 365 days/year.



## Application Solutions

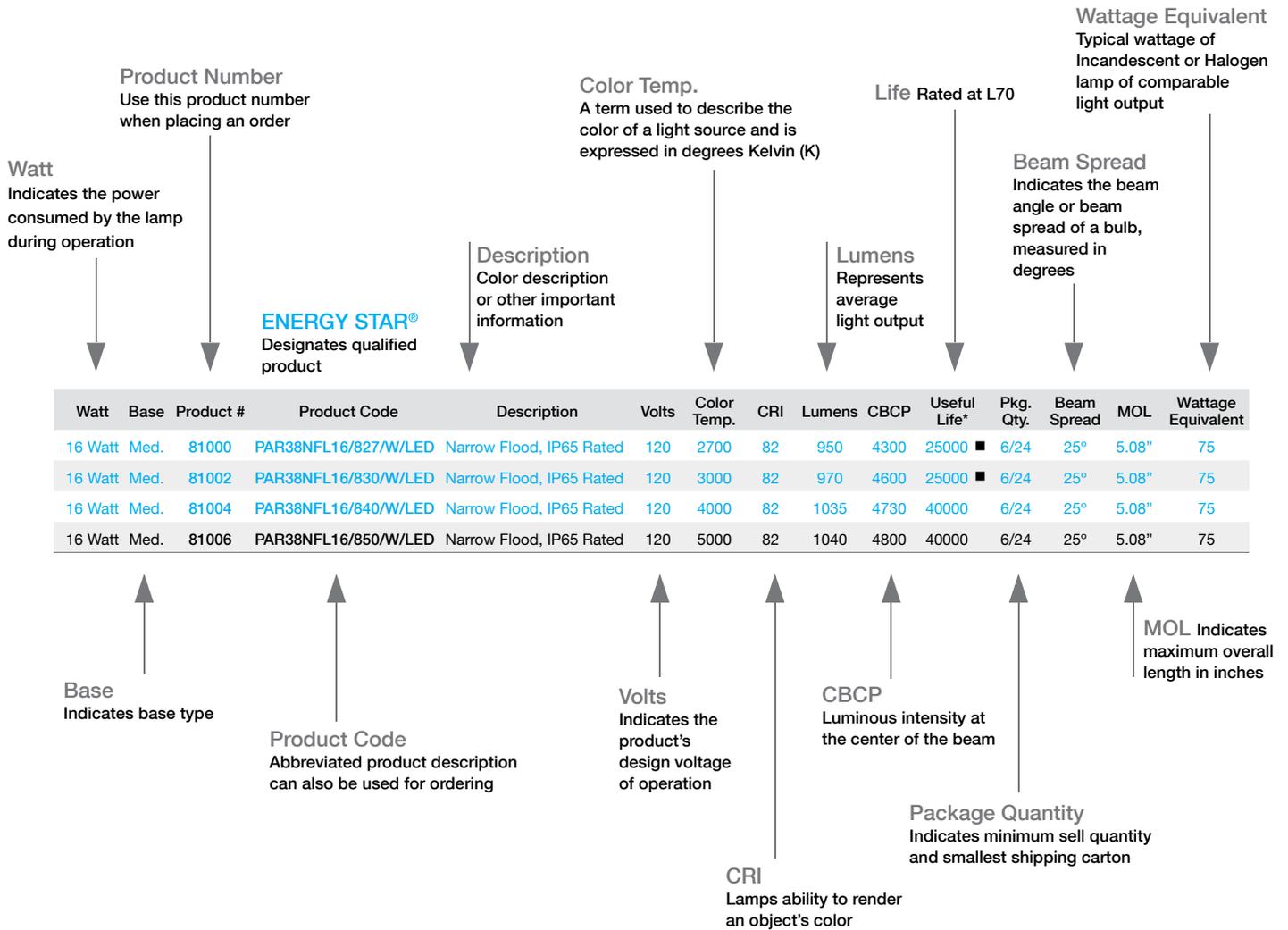
Halco's ProLED lamps are designed for optimal performance in a variety of applications. We have identified the most commonly used applications specific to each lamp type, designated by the strength of shading in the chart.



	Commercial	Conference Room	Hospitality	Education	Healthcare	Retail	Residential	Landscape
Panel Light	✓	✓	✓	✓	✓	✓	✓	
Volumetric Panel Light	✓	✓	✓	✓	✓	✓	✓	
Linear	✓	✓	✓	✓	✓	✓	✓	
Downlight Retrofit	✓	✓	✓	✓	✓	✓	✓	
PAR38	✓	✓	✓	✓	✓	✓	✓	✓
PAR30L	✓	✓	✓	✓	✓	✓	✓	✓
PAR30S	✓	✓	✓	✓	✓	✓	✓	✓
PAR20	✓	✓	✓	✓	✓	✓	✓	✓
PAR16	✓	✓	✓	✓	✓	✓	✓	✓
Commercial MR16	✓	✓	✓	✓	✓	✓	✓	
BR40	✓	✓	✓	✓	✓	✓	✓	
BR30	✓	✓	✓	✓	✓	✓	✓	
R20	✓		✓	✓	✓	✓	✓	
A-Shape	✓		✓	✓	✓	✓	✓	
Globe	✓		✓		✓	✓	✓	
Chandelier	✓		✓		✓	✓	✓	
S14 Sign	✓					✓		
Decorative Chandelier			✓				✓	
Indoor PAR36	✓		✓	✓	✓	✓		
MR11	✓		✓	✓	✓	✓	✓	✓
MR16	✓	✓	✓	✓	✓	✓	✓	✓
Outdoor PAR36								✓
JC	✓		✓					✓
R12 GBF & 1383	✓		✓	✓	✓	✓		
3155								✓



## How to Read Ordering Information



# ProLED Panel Light Series

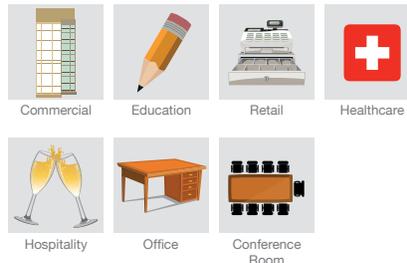
**NEW!**



## Specifications

- Available in 1' x 4', 2' x 2' and 2' x 4' for recessed installations
- Direct backlit design provides a smooth and more uniform light distribution than edge-lit panels
- Rated for dry locations and non-IC applications
- Premium milk white lens
- Remote driver enclosure with multiple knockouts for easy access
- Fast access terminal block for easy thru-wire
- White powder coated steel housing
- Lightweight
- 0-10V dimming standard
- 50,000 hour life, up-to 2 times longer than standard T8 Fluorescent
- 3500K, 4000K and 5000K CCT
- 82 CRI for quality and consistent color rendering
- Quiet & flicker-free LED technology
- 5-Year Limited Warranty

## Markets & Applications



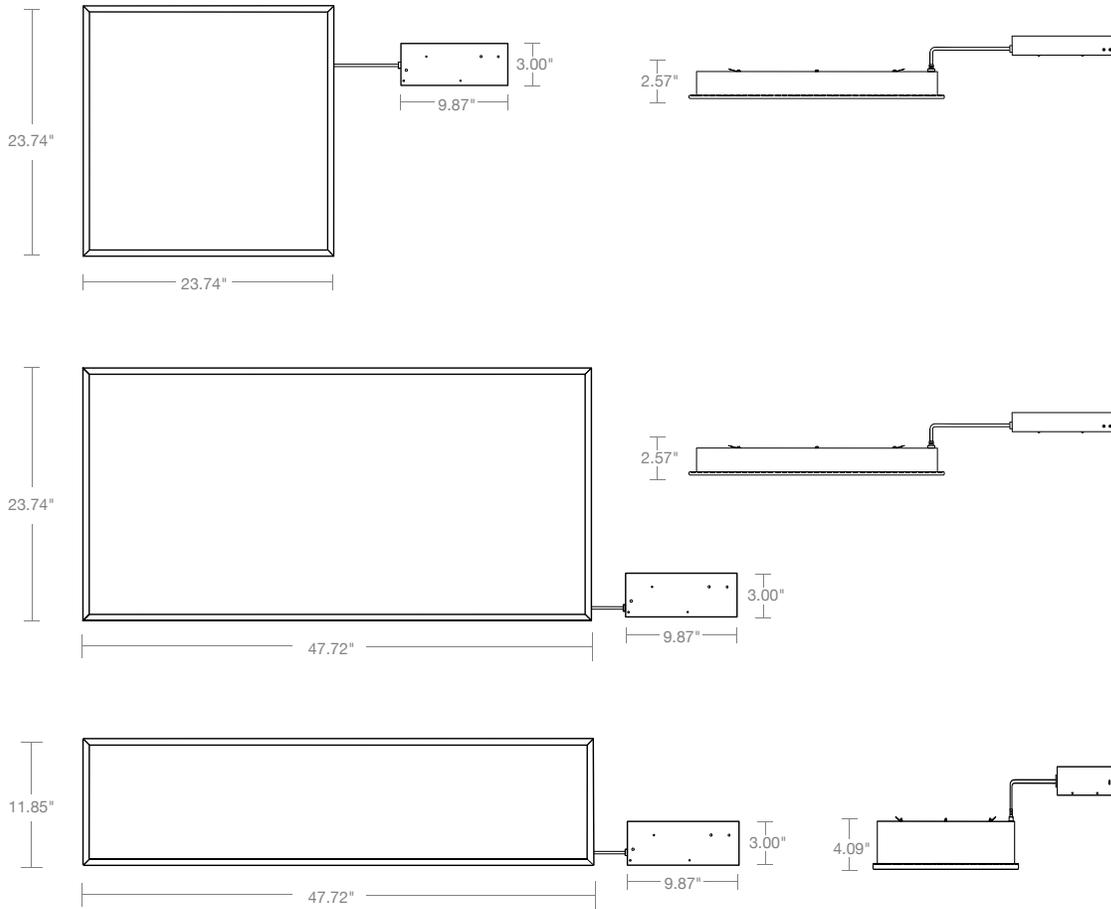
## Ordering Information



Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	Weight
<b>2' x 2'</b>										
35 Watt	80918	22PNL35/835/LED	120~277V	3500K	82	2975	50000	1	120°	9.5 lbs.
35 Watt	80900	22PNL35/840/LED	120~277V	4000K	82	3000	50000	1	120°	9.5 lbs.
35 Watt	80901	22PNL35/850/LED	120~277V	5000K	82	3100	50000	1	120°	9.5 lbs.
<b>2' x 4'</b>										
52 Watt	80919	24PNL52/835/LED	120~277V	3500K	82	4500	50000	1	120°	17.6 lbs
52 Watt	80902	24PNL52/840/LED	120~277V	4000K	82	4700	50000	1	120°	17.6 lbs
52 Watt	80903	24PNL52/850/LED	120~277V	5000K	82	4800	50000	1	120°	17.6 lbs
<b>1' x 4'</b>										
35 Watt	80917	14PNL35/835/LED	120~277V	3500K	82	2975	50000	1	120°	9.5 lbs.
35 Watt	80908	14PNL35/840/LED	120~277V	4000K	82	3050	50000	1	120°	9.5 lbs.
35 Watt	80909	14PNL35/850/LED	120~277V	5000K	82	3150	50000	1	120°	9.5 lbs.

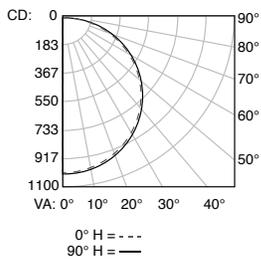
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system.

## Dimensions

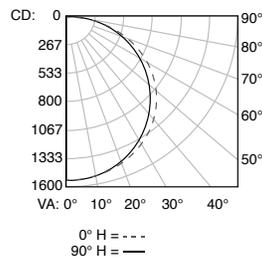


## Photometrics

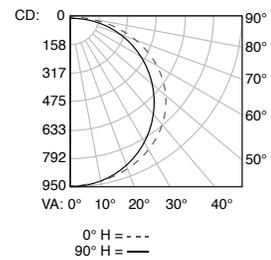
80900, 22PNL35/840/LED



80902, 24PNL52/840/LED



80908, 14PNL35/840/LED



# ProLED Volumetric Panel Light Series

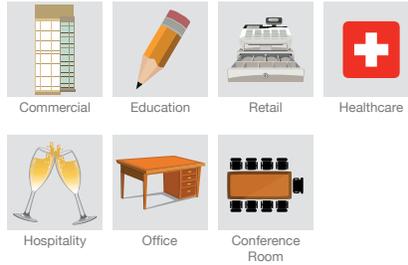
**NEW!**



## Specifications

- Available in 1' x 4', 2' x 2' and 2' x 4' for recessed installations
- Specification grade architectural high-end appearance
- Rated for dry locations and non-IC applications
- Premium milk white lens
- Integrated driver multiple knockouts for easy access
- Fast access terminal block for easy thru-wire
- White powder coated steel housing
- Lightweight
- 0-10V dimming standard
- 50,000 hour life, up-to 2 times longer than standard T8 Fluorescent
- 3500K, 4000K and 5000K CCT
- 82 CRI for quality and consistent color rendering
- Quiet & flicker-free LED technology
- 5-Year Limited Warranty

## Markets & Applications



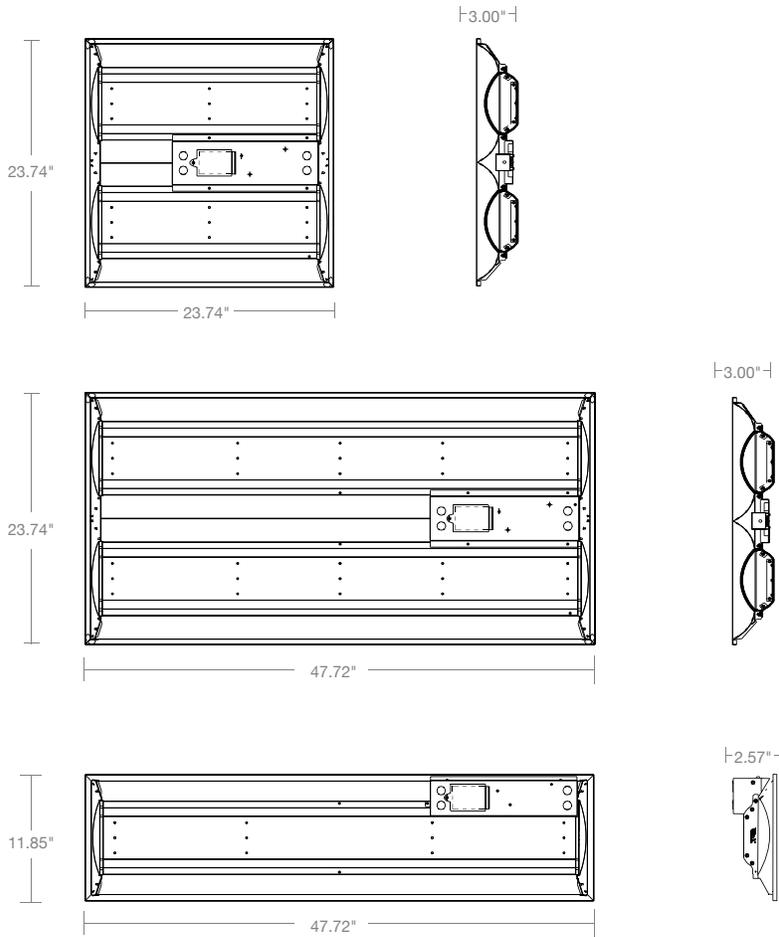
## Ordering Information



Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	Weight
<b>2' x 2'</b>										
42 Watt	80921	22TFR42/835/LED	120~277V	3500K	82	3570	50000	1	120°	9 lbs.
42 Watt	80904	22TFR42/840/LED	120~277V	4000K	82	3600	50000	1	120°	9 lbs.
42 Watt	80905	22TRF42/850/LED	120~277V	5000K	82	3650	50000	1	120°	9 lbs.
<b>2' x 4'</b>										
55 Watt	80923	24TFR55/835/LED	120~277V	3500K	82	4675	50000	1	120°	16.5 lbs
55 Watt	80906	24TFR55/840/LED	120~277V	4000K	82	4750	50000	1	120°	16.5 lbs
55 Watt	80907	24TFR55/850/LED	120~277V	5000K	82	4800	50000	1	120°	16.5 lbs
<b>1' x 4'</b>										
42 Watt	80922	14TFR42/835/LED	120~277V	3500K	82	3570	50000	1	120°	9.5 lbs
42 Watt	80913	14TFR42/840/LED	120~277V	4000K	82	3640	50000	1	120°	9.5 lbs
42 Watt	80914	14TFR42/850/LED	120~277V	5000K	82	3750	50000	1	120°	9.5 lbs

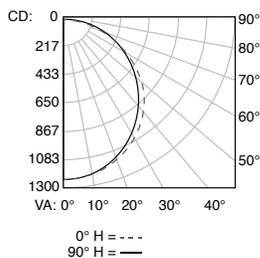
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system.

## Dimensions

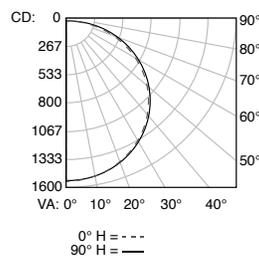


## Photometrics

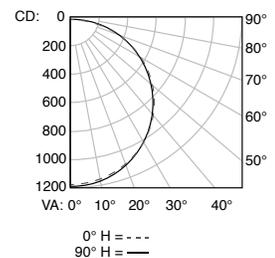
80904, 22TFR42/840/LED



80906, 24TFR55/840/LED



80913, 14TFR42/840/LED



# ProLED Linear



## Specifications

- Single-end powered, operates on 120V-277V
- No external ballast or driver required
- 50,000 hour life
- Frosted finish
- DLC Qualified
- 3500, 4000K and 5000K CCT
- 80 CRI
- Instant-on, no flicker
- Installs in existing linear fluorescent fixtures with simple re-wiring
- Mercury-free and glass-free for safer operation
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	MOL	DLC® Qualified
18 Watt	G13	80176	T8FR18/835/LED	120-277	3500	80	2000	50000	1/12	240°	48"	No
18 Watt	G13	80170	T8FR18/840/LED	120-277	4000	80	2100	50000	1/12	240°	48"	Yes
18 Watt	G13	80171	T8FR18/850/LED	120-277	5000	80	2200	50000	1/12	240°	48"	Yes

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. Must be operated with an ambient fixture temperature between -4°F(-20°C) and 122°F(50°C).

## Warning

Halco ProLED Linear T8 will not operate on a linear fluorescent ballast or with shunted lampholders. Please re-wire the luminaire as shown in the installation instructions included with the product and ensure non-shunted lampholders are installed in the luminaire before installing this product.

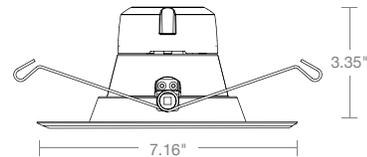
**NEW!**

## Specifications

- Low profile compatible with 5" and 6" recessed downlights
- Trim with integrated white baffle
- Frosted polycarbonate lens
- Title 24 compliant quick connector
- Umbilical E26 socket assembly included
- 12W replaces 65W BR30
- Dimmable to 5% for design flexibility
- 40,000 hour life
- Available in 2700K, 3000K and 4000K CCT
- 90 CRI for quality and consistent color rendering
- ENERGY STAR listed
- UL Classified for damp locations
- Meets California Quality Lamp specifications
- Approved for use in ICAT fixtures
- 5-Year Limited Warranty



## Markets & Applications



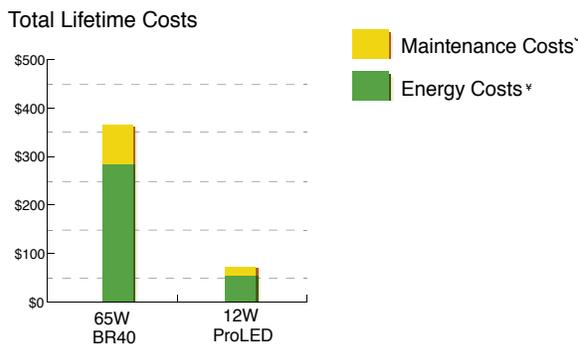
## Ordering Information



Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Fixture Size	Wattage Equivalent
12 Watt	80858	DL6FR12/927/LED	120	2700	90	800	40000	1	5" - 6"	65
12 Watt	80855	DL6FR12/930/LED	120	3000	90	800	40000	1	5" - 6"	65
12 Watt	80871	DL6FR12/940/LED	120	4000	90	800	40000	1	5"-6"	65
-	91003	ADP/DL/GU4/LED	-	-	-	-	-	1	-	-

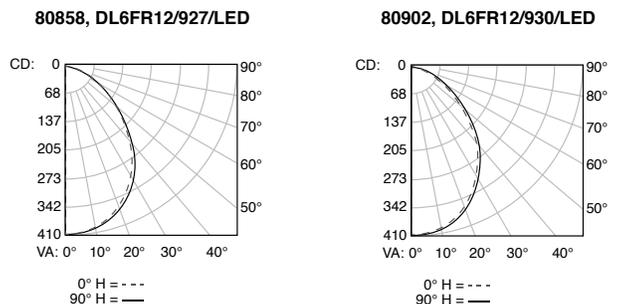
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.  
 Represents lamps that are ENERGY STAR approved.

## Energy Savings Comparison



<sup>†</sup> Maintenance costs based on 15 minutes to replace the lamp at \$40 per hr over the life of the ProLED lamp.  
<sup>‡</sup> Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics

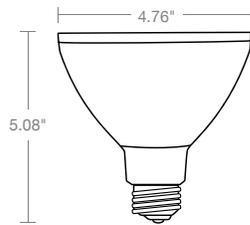


# ProLED PAR38



## Specifications

- High power chip-on-board LED for maximum efficiency
- Up-to 79% energy savings - 16W PAR38 versus 75W Halogen
- Acceptable for ICAT rated luminaires
- Wet location rated
- Dimmable to 5% for design flexibility
- Available in Architectural Black Housing
- Up-to 40,000 hour life, 14 times longer than traditional lamps
- 2700K, 3000K, 4000K or 5000K CCT
- 82 CRI for quality and consistent color rendering
- Flood or Narrow Flood beam spreads
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
16 Watt	Med.	81000	PAR38NFL16/827/W/LED	Narrow Flood, IP65 Rated	120	2700	82	950	4300	25000	6/24	25°	5.08"	75
16 Watt	Med.	81002	PAR38NFL16/830/W/LED	Narrow Flood, IP65 Rated	120	3000	82	970	4600	25000	6/24	25°	5.08"	75
16 Watt	Med.	81004	PAR38NFL16/840/W/LED	Narrow Flood, IP65 Rated	120	4000	82	1035	4730	40000	6/24	25°	5.08"	75
16 Watt	Med.	81006	PAR38NFL16/850/W/LED	Narrow Flood, IP65 Rated	120	5000	82	1040	4800	40000	6/24	25°	5.08"	75
16 Watt	Med.	81001	PAR38FL16/827/W/LED	Flood, IP65 Rated	120	2700	82	950	1700	25000	6/24	40°	5.08"	75
16 Watt	Med.	81003	PAR38FL16/830/W/LED	Flood, IP65 Rated	120	3000	82	970	1750	25000	6/24	40°	5.08"	75
16 Watt	Med.	81005	PAR38FL16/840/W/LED	Flood, IP65 Rated	120	4000	82	1035	1960	40000	6/24	40°	5.08"	75
16 Watt	Med.	81007	PAR38FL16/850/W/LED	Flood, IP65 Rated	120	5000	82	1040	2000	40000	6/24	40°	5.08"	75
19 Watt	Med.	81008	PAR38NFL19/827/W/LED	Narrow Flood, IP65 Rated	120	2700	82	1200	4350	25000	6/24	25°	5.08"	90
19 Watt	Med.	81010	PAR38NFL19/830/W/LED	Narrow Flood, IP65 Rated	120	3000	82	1250	4650	25000	6/24	25°	5.08"	90
19 Watt	Med.	81012	PAR38NFL19/840/W/LED	Narrow Flood, IP65 Rated	120	4000	82	1260	4750	40000	6/24	25°	5.08"	90
19 Watt	Med.	81014	PAR38NFL19/850/W/LED	Narrow Flood, IP65 Rated	120	5000	82	1265	4800	40000	6/24	25°	5.08"	90
19 Watt	Med.	81009	PAR38FL19/827/W/LED	Flood, IP65 Rated	120	2700	82	1200	2550	25000	6/24	40°	5.08"	90
19 Watt	Med.	81011	PAR38FL19/830/W/LED	Flood, IP65 Rated	120	3000	82	1250	2650	25000	6/24	40°	5.08"	90
19 Watt	Med.	81013	PAR38FL19/840/W/LED	Flood, IP65 Rated	120	4000	82	1260	2700	40000	6/24	40°	5.08"	90
19 Watt	Med.	81015	PAR38FL19/850/W/LED	Flood, IP65 Rated	120	5000	82	1265	2760	40000	6/24	40°	5.08"	90

## Ordering Information Continued

Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
19 Watt	Med.	81045	PAR38FL19/827/B/LED	Flood, IP65 Rated	120	2700	82	1200	2550	40000	6/24	40°	5.08"	90
19 Watt	Med.	81050	PAR38FL19/830/B/LED	Flood, IP65 Rated	120	3000	82	1250	2650	40000	6/24	40°	5.08"	90
19 Watt	Med.	81049	PAR38FL19/840/W/277V/LED	Flood, IP65 Rated ✕	120-277	4000	82	1260	2700	40000	6/24	40°	5.08"	90
19 Watt	Med.	81048	PAR38FL19/850/W/277V/LED	Flood, IP65 Rated ✕	120-277	5000	82	1265	2760	40000	6/24	40°	5.08"	90

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDDim](http://www.halcolighting.com/ProLEDDim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

Acceptable for use in sealed metal landscape fixtures when protected from the elements.

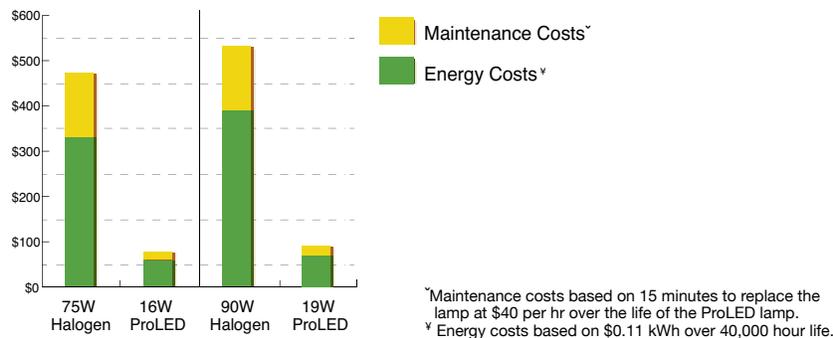
Represents lamps that are ENERGY STAR approved.

■ ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

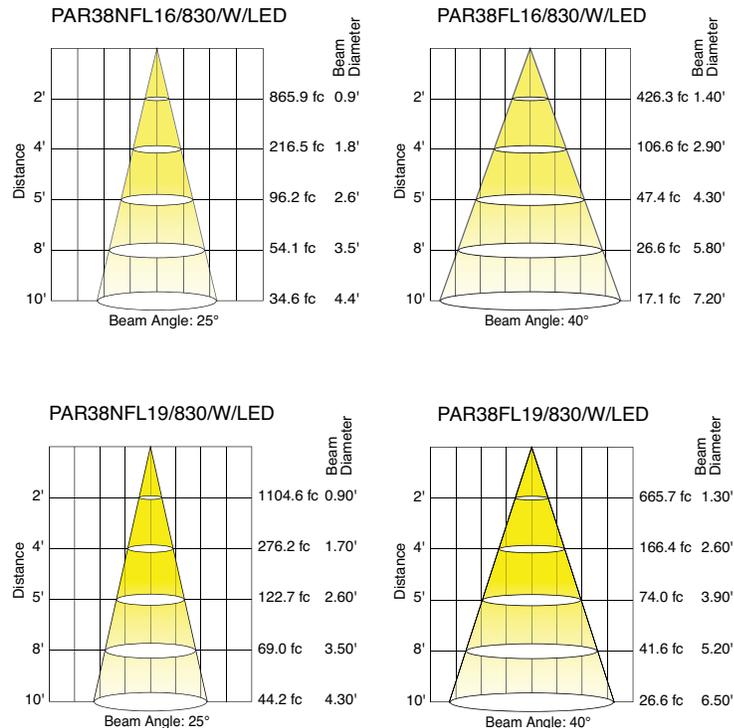
✕ Non-dimmable

## Energy Savings Comparison

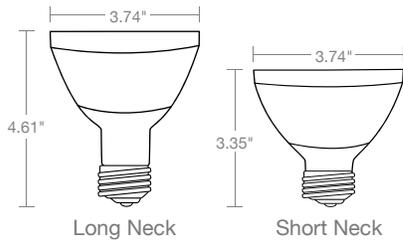
Total Lifetime Costs



## Photometrics



# ProLED PAR30

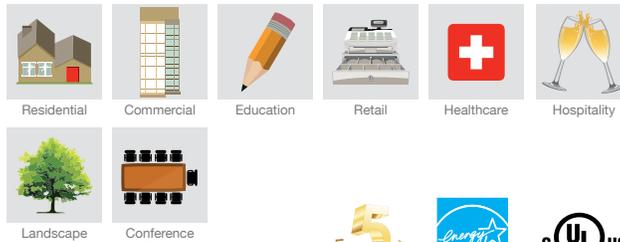


## Specifications

- High power LED for maximum efficiency
- Up-to 81% energy savings - 14W PAR30 versus 75W Halogen
- PAR30S Damp location rated
- PAR30L Wet location rated
- Acceptable for ICAT rated luminaires
- Dimmable to 5% for design flexibility
- Available in Architectural Black Housing
- Up-to 40,000 hour life, 14 times longer than traditional lamps
- 2700K, 3000K, 4000K or 5000K CCT
- 82 CRI for quality and consistent color rendering
- Flood or Narrow Flood beam spreads
- ENERGY STAR listed options
- No Mercury or UV/IR emission.
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information

Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
14 Watt	Med.	81016	PAR30NFL14L/827/W/LED	Narrow Flood, IP65 Rated	120	2700	82	800	3300	25000	6/24	25°	4.61"	75
14 Watt	Med.	81018	PAR30NFL14L/830/W/LED	Narrow Flood, IP65 Rated	120	3000	82	835	3360	25000	6/24	25°	4.61"	75
14 Watt	Med.	81020	PAR30NFL14L/840/W/LED	Narrow Flood, IP65 Rated	120	4000	82	860	3510	40000	6/24	25°	4.61"	75
14 Watt	Med.	81022	PAR30NFL14L/850/W/LED	Narrow Flood, IP65 Rated	120	5000	82	870	3680	40000	6/24	25°	4.61"	75
14 Watt	Med.	81017	PAR30FL14L/827/W/LED	Flood, IP65 Rated	120	2700	82	800	1440	25000	6/24	40°	4.61"	75
14 Watt	Med.	81019	PAR30FL14L/830/W/LED	Flood, IP65 Rated	120	3000	82	835	1640	25000	6/24	40°	4.61"	75
14 Watt	Med.	81021	PAR30FL14L/840/W/LED	Flood, IP65 Rated	120	4000	82	860	1710	40000	6/24	40°	4.61"	75
14 Watt	Med.	81023	PAR30FL14L/850/W/LED	Flood, IP65 Rated	120	5000	82	870	1760	40000	6/24	40°	4.61"	75
14 Watt	Med.	81046	PAR30FL14L/827/B/LED	Flood, IP65 Rated	120	2700	82	800	1440	40000	6/24	40°	4.61"	75
14 Watt	Med.	81051	PAR30FL14L/830/B/LED	Flood, IP65 Rated	120	3000	82	835	1640	40000	6/24	40°	4.61"	75
14.5 Watt	Med.	81025	PAR30NFL14S/827/W/LED	Narrow Flood	120	2700	82	800	3020	25000	6/24	25°	3.35"	75
14.5 Watt	Med.	81027	PAR30NFL14S/830/W/LED	Narrow Flood	120	3000	82	850	3250	25000	6/24	25°	3.35"	75
14.5 Watt	Med.	81028	PAR30NFL14S/840/W/LED	Narrow Flood	120	4000	82	860	3370	25000	6/24	25°	3.35"	75
14.5 Watt	Med.	81030	PAR30NFL14S/850/W/LED	Narrow Flood	120	5000	82	870	3590	40000	6/24	25°	3.35"	75
14.5 Watt	Med.	81024	PAR30FL14S/827/W/LED	Flood	120	2700	82	800	1320	25000	6/24	40°	3.35"	75
14.5 Watt	Med.	81026	PAR30FL14S/830/W/LED	Flood	120	3000	82	850	1380	25000	6/24	40°	3.35"	75
14.5 Watt	Med.	81029	PAR30FL14S/840/W/LED	Flood	120	4000	82	860	1460	40000	6/24	40°	3.35"	75
14.5 Watt	Med.	81031	PAR30FL14S/850/W/LED	Flood	120	5000	82	870	1570	40000	6/24	40°	3.35"	75
14.5 Watt	Med.	81047	PAR30FL14S/827/B/LED	Flood	120	2700	82	800	1320	40000	6/24	40°	3.35"	75
14.5 Watt	Med.	81052	PAR30FL14S/830/B/LED	Flood	120	3000	82	850	1380	40000	6/24	40°	3.35"	75

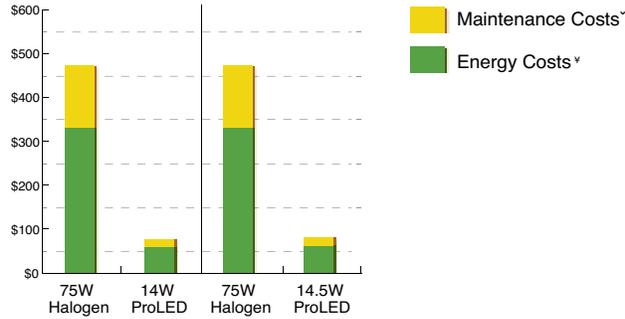
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDDim](http://www.halcolighting.com/ProLEDDim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

Represents lamps that are ENERGY STAR approved.

ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

## Energy Savings Comparison

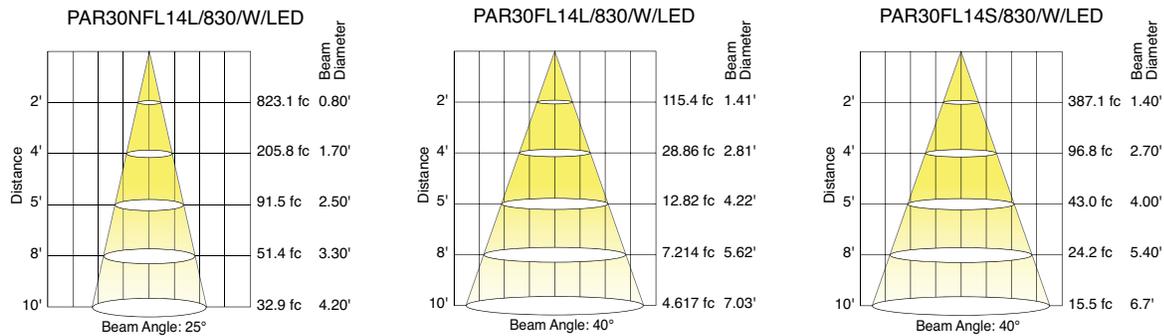
Total Lifetime Costs



~ Maintenance costs based on 15 minutes to replace the lamp at \$40 per hr over the life of the ProLED lamp.

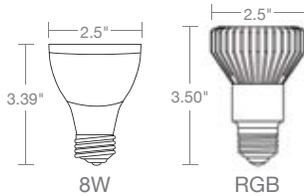
^ Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics



ProLED PAR30 Series IP65 rated long and short neck lamps are ideal for retail applications. Compared to Incandescent and Halogen, ProLED lamps generate less heat and emit no ultraviolet or infrared rays eliminating fading concerns. ProLED PAR30 lamps' labor saving long life - up-to 40,000 hours - reduces maintenance costs *keeping the store open for business.*

# ProLED PAR20



## Specifications

- High power LED for maximum efficiency
- Up-to 77% energy savings - 8W PAR20 versus 50W Halogen
- Damp location rated
- Acceptable for ICAT rated luminaires
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life, 12 times longer than traditional lamps
- 2700K, 3000K, 4000K or 5000K CCT and color changing with remote
- 82 CRI for quality and consistent color rendering
- Flood or Narrow Flood beam spreads
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications



## Ordering Information

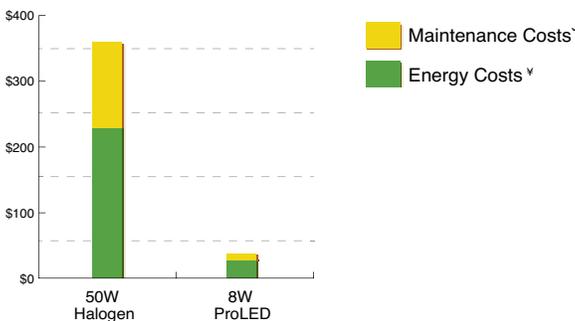


Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
8 Watt	Med.	81032	PAR20NFL8/827/W/LED	Narrow Flood	120	2700	82	460	1520	25000	6/24	25°	3.39"	50
8 Watt	Med.	81034	PAR20NFL8/830/W/LED	Narrow Flood	120	3000	82	470	1580	25000	6/24	25°	3.39"	50
8 Watt	Med.	81036	PAR20NFL8/840/W/LED	Narrow Flood	120	4000	82	500	1620	40000	6/24	25°	3.39"	50
8 Watt	Med.	81037	PAR20NFL8/850/W/LED	Narrow Flood	120	5000	82	500	1710	40000	6/24	25°	3.39"	50
8 Watt	Med.	81033	PAR20FL8/827/W/LED	Flood	120	2700	82	460	780	25000	6/24	40°	3.39"	50
8 Watt	Med.	81035	PAR20FL8/830/W/LED	Flood	120	3000	82	470	820	25000	6/24	40°	3.39"	50
8 Watt	Med.	80638	PAR20/8RGB/NFL/LED	Narrow Flood Color Changing Red, Green, Blue ✕	120	-	-	-	-	40000	1/6	25°	3.50"	-
		80649	RGB/REMOTE	Remote Control for Color Changing Lamp										

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.  
 • May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.  
 Represents lamps that are ENERGY STAR approved.  
 ■ ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.  
 ✕ Non-dimmable

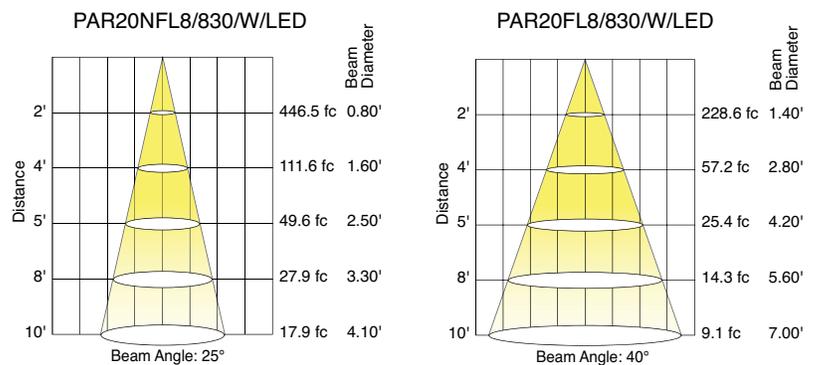
## Energy Savings Comparison

Total Lifetime Costs



z Maintenance costs based on 15 minutes to replace the lamp at \$40 per hr over the life of the ProLED lamp.  
 y Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics

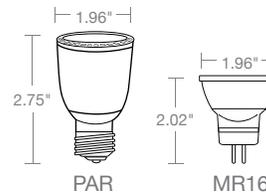


## Specifications

- High power LED for maximum efficiency
- Up-to 83% energy savings - 6W PAR16 versus 35W Halogen
- Damp location rated options
- Dimmable to 5% for design flexibility
- 40,000 hour life, 16 times longer than traditional lamps
- 2700K, 3000K, 4000K or 5000K CCT
- Up-to 82 CRI for quality and consistent color rendering
- Flood or Narrow Flood beam spreads
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
6 Watt	Med.	81038	PAR16FL6/827/W/LED	Flood ∞	120	2700	82	370	780	40000	6/24	40°	2.75"	35
6 Watt	Med.	81039	PAR16FL6/830/W/LED	Flood ∞	120	3000	82	380	780	25000	6/24	40°	2.75"	35
6 Watt	Med.	81040	PAR16FL6/840/W/LED	Flood ∞	120	4000	82	400	780	40000	6/24	40°	2.75"	35
6 Watt	Med.	81041	PAR16FL6/850/W/LED	Flood ∞	120	5000	82	415	780	40000	6/24	40°	2.75"	35
6 Watt	GU5.3	81044	MR16NFL6/830/LED	Narrow Flood	12	3000	82	350	940	40000	1/10	25°	2.02"	35
6 Watt	GU5.3	80825	MR16FL6/830/LED	Flood	12	3000	82	350	800	25000	1/10	38°	2.02"	35
8 Watt	GU5.3	81043	MR16NFL8/830/LED	Narrow Flood	12	3000	82	500	1360	40000	1/10	25°	2.02"	50
8 Watt	GU5.3	81042	MR16FL8/830/LED	Flood	12	3000	82	500	1140	25000	1/10	38°	2.02"	50

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

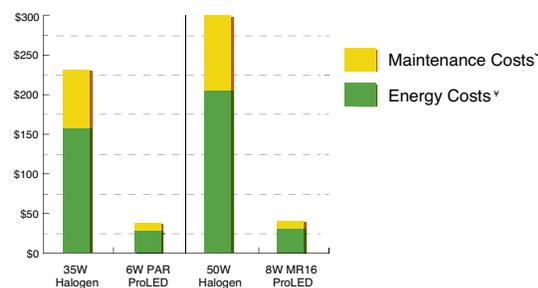
∞ Acceptable for use in sealed metal landscape fixtures when protected from the elements.

■ Represents lamps that are ENERGY STAR approved.

■ ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

## Energy Savings Comparison

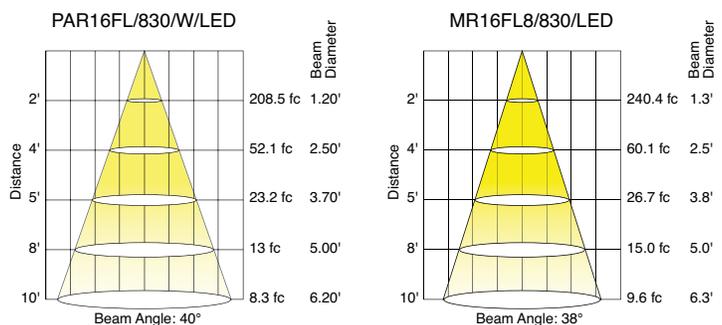
Total Lifetime Costs



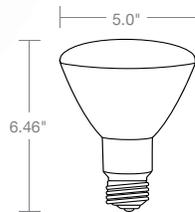
\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per hr over the life of the ProLED lamp.

† Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics



# ProLED BR40



## Specifications

- Up-to 85% energy savings - 18W BR40 versus 120W Halogen
- Acceptable for ICAT rated luminaires
- Damp location rated
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life, 14 times longer than traditional lamps
- 2700K, 3000K, 4000K or 5000K CCT
- 82 CRI for quality and consistent color rendering
- Flood beam spread
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
13 Watt	Med.	80116	BR40FL13/827/LED	120	2700	82	850	25000 ■	1/6	6.46"	85
13 Watt	Med.	80118	BR40FL13/830/LED	120	3000	82	880	25000 ■	1/6	6.46"	85
13 Watt	Med.	80120	BR40FL13/840/LED	120	4000	82	920	40000	1/6	6.46"	85
13 Watt	Med.	80122	BR40FL13/850/LED	120	5000	82	950	40000	1/6	6.46"	85
18 Watt	Med.	80124	BR40FL18/827/LED	120	2700	82	1200	40000	1/6	6.46"	120
18 Watt	Med.	80126	BR40FL18/830/LED	120	3000	82	1230	25000	1/6	6.46"	120
18 Watt	Med.	80128	BR40FL18/840/LED	120	4000	82	1280	40000	1/6	6.46"	120
18 Watt	Med.	80130	BR40FL18/850/LED	120	5000	82	1320	40000	1/6	6.46"	120
18 Watt	Med.	80134	R40FL18/POOL/LED ⚡	120	6500	82	3150	40000	6/24	6.46"	-
18 Watt	Med.	80136	R40FL18/POOL/12V/LED ⚡	12	6500	82	3150	40000	6/24	6.46"	-

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

■ Represents lamps that are ENERGY STAR approved.

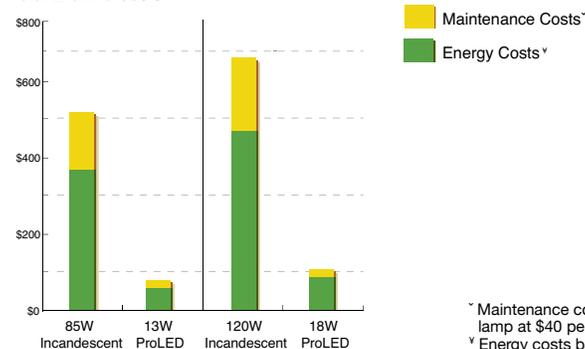
■ ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements.

Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

⚡ Pool Bright lamp lumens are represented as scotopic lumens. Not for use in spas.

## Energy Savings Comparison

Total Lifetime Costs

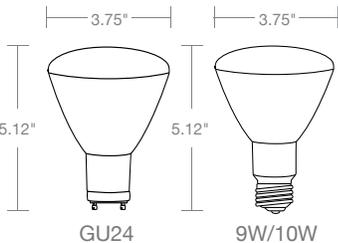


\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.

† Energy costs based on \$0.11 kWh over 40,000 hour life.

### Specifications

- Up-to 83% energy savings - 9W BR30 versus 65W Halogen
- Acceptable for ICAT rated luminaires
- Damp location rated
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life, 14 times longer than traditional lamps
- 2700K, 3000K, 4000K or 5000K CCT and pink option
- 82 CRI for quality and consistent color rendering
- 92 CRI option meets the California Quality Lighting standard
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



### Markets & Applications



### Ordering Information

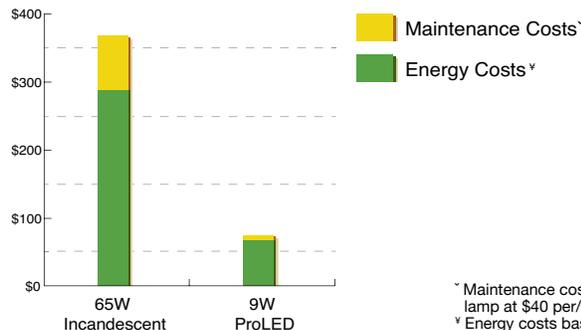


Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
9 Watt	GU24	80158	BR30FL9/827/GU24/LED	120	2700	82	650	40000	1/6	5.12"	65
9 Watt	Med.	80159	BR30FL9/827/LED	120	2700	82	650	25000 ■	1/6	5.12"	65
9 Watt	Med.	80160	BR30FL9/830/LED	120	3000	82	670	25000 ■	1/6	5.12"	65
9 Watt	Med.	80161	BR30FL9/840/LED	120	4000	82	700	40000	1/6	5.12"	65
9 Watt	Med.	80162	BR30FL9/850/LED	120	5000	82	730	40000	1/6	5.12"	65
9 Watt	Med.	80166	BR30FL9/PNK/LED	120	-	-	-	40000	1/6	5.12"	65
10 Watt	Med.	80856	BR30FL10/927/LED	120	2700	92	670	25000 ■	1/6	5.12"	65
10 Watt	Med.	80086	BR30FL11/827/LED	120	2700	82	750	25000 ■	1/6	5.12"	65
10 Watt	Med.	80088	BR30FL11/830/LED	120	3000	82	770	25000 ■	1/6	5.12"	65
10 Watt	Med.	80090	BR30FL11/840/LED	120	4000	82	800	25000 ■	1/6	5.12"	65
10 Watt	Med.	80092	BR30FL11/850/LED	120	5000	82	830	25000 ■	1/6	5.12"	65

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life. ■ Represents lamps that are ENERGY STAR approved. ■ ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

### Energy Savings Comparison

Total Lifetime Costs



† Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp. \* Energy costs based on \$0.11 kWh over 40,000 hour life.

# ProLED R20



## Specifications

- Up-to 84% energy savings - 8W R20 versus 50W Halogen
- Acceptable for ICAT rated luminaires
- Damp location rated
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life, 14 times longer than Halogen
- 2700K, 3000K, 5000K or 6500K CCT
- 82 CRI for quality and consistent color rendering
- Flood beam spread
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
5 Watt	Med.	80108	R20FL5/830/LED	120	3000	82	310	40000	1/6	3.94"	30
5 Watt	Med.	80110	R20FL5/850/LED	120	5000	82	335	40000	1/6	3.94"	30
8 Watt	Med.	80818	R20FL8/827/LED	120	2700	82	500	25000 ■	1/6	3.94"	50
8 Watt	Med.	80112	R20FL8/830/LED	120	3000	82	520	25000 ■	1/6	3.94"	50
8 Watt	Med.	80114	R20FL8/850/LED	120	5000	82	540	25000 ■	1/6	3.94"	50
8 Watt	Med.	80821	R20FL8/POOL/LED ⚡	120	6500	82	1000	40000	6/24	3.94"	-
8 Watt	Med.	80822	R20FL8/POOL/12V/LED ⚡	12	6500	82	1000	40000	6/24	3.94"	-

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

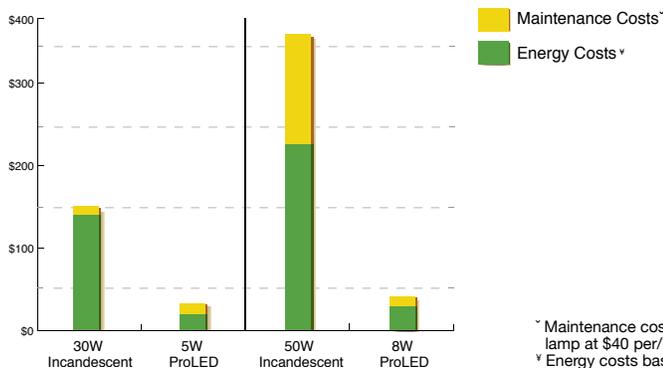
■ Represents lamps that are ENERGY STAR approved.

■ ENERGY STAR mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

⚡ Pool Bright lamp lumens are represented as scotopic lumens. R20 pool ProLED is intended for spa applications.

## Energy Savings Comparison

Total Lifetime Costs



† Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
\* Energy costs based on \$0.11 kWh over 40,000 hour life.

# ProLED Omnidirectional A-Shape

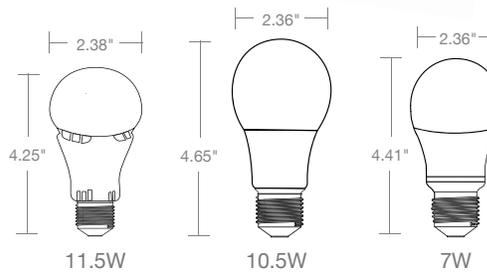
**NEW!**

## Specifications

- 300° Omnidirectional
- Damp location rated
- Dimmable to 5% for design flexibility
- 2700K, 3000K OR 4000K CCT
- 82 CRI for quality and consistent color rendering
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- Not rated for enclosed fixtures
- 5-Year Limited Warranty



## Markets & Applications



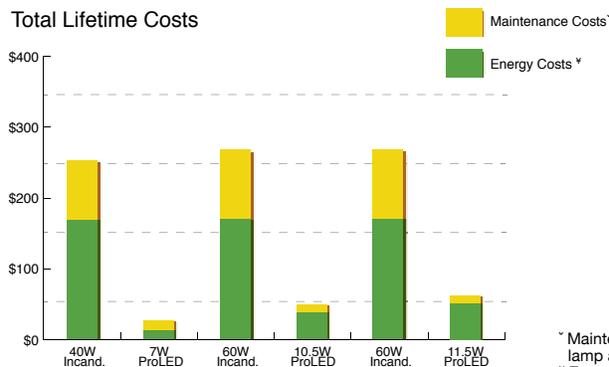
## Ordering Information



Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
7 Watt	Med.	80841	A19FR7/827/OMNI/LED	120	2700	82	470	25000	1/30	4.41"	40
7 Watt	Med.	80842	A19FR7/830/OMNI/LED	120	3000	82	500	25000	1/30	4.41"	40
10.5 Watt	Med.	80857	A19FR10/827/OMNI/LED	120	2700	82	810	25000	1/24	4.65"	60
10.5 Watt	Med.	80864	A19FR10/830/OMNI/LED Available November 2014	120	3000	82	820	25000	1/24	4.65"	60
10.5 Watt	Med.	80865	A19FR10/840/OMNI/LED Available November 2014	120	4000	82	870	25000	1/24	4.65"	60
11.5 Watt	Med.	80826	A19FR11/827/OMNI/LED	120	2700	82	800	25000	1/30	4.25"	60
11.5 Watt	Med.	80827	A19FR11/830/OMNI/LED	120	3000	82	800	25000	1/30	4.25"	60

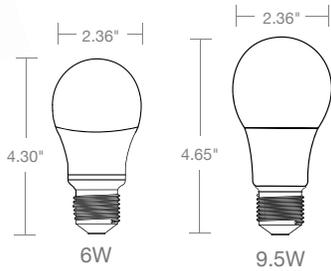
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDDim](http://www.halcolighting.com/ProLEDDim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.  
Represents lamps that are ENERGY STAR approved.

## Energy Savings Comparison



\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
\* Energy costs based on \$0.11 kWh over 25,000 hour life.

# ProLED Multidirectional A-Shape



## Specifications

- 240° beam angle
- Damp location rated
- Dimmable to 5% for design flexibility
- 25,000 hour life
- 2700K or 3000K CCT
- 82 CRI for quality and consistent color rendering
- ENERGY STAR listed
- No Mercury or UV/IR emissions
- RoHS Compliant
- Not rated for enclosed fixtures
- 5-Year Limited Warranty

## Markets & Applications



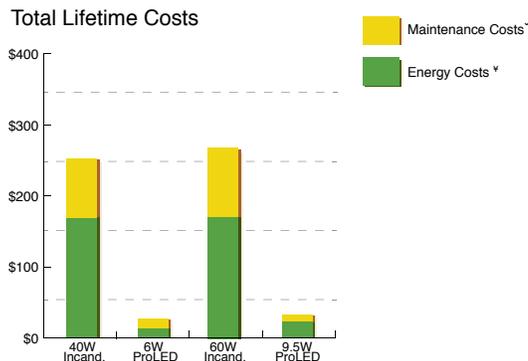
## Ordering Information



Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
6 Watt	Med.	80836	A19FR6/827/ES/LED	120	2700	82	500	25000	1/24	4.30"	40
6 Watt	Med.	80835	A19FR6/830/ES/LED	120	3000	82	500	25000	1/24	4.30"	40
9.5 Watt	Med.	80837	A19FR9/827/LED	120	2700	82	810	25000	1/30	4.65"	60
9.5 Watt	Med.	80838	A19FR9/830/LED	120	3000	82	820	25000	1/30	4.65"	60

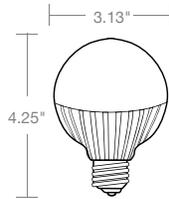
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life. Represents lamps that are ENERGY STAR approved.

## Energy Savings Comparison



^ Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 ^ Energy costs based on \$0.11 kWh over 25,000 hour life.





## Specifications

- High power LED for maximum efficiency
- Up-to 80% energy savings - 8W Globe versus 40W Incandescent
- Damp location rated
- Dimmable to 5% for design flexibility
- 25,000 hour life, 18 times longer than traditional lamps
- 3000K CCT
- 82 CRI for quality and consistent color rendering
- Omnidirectional distribution
- ENERGY STAR listed
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications



## Ordering Information

Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
8 Watt	Med.	80018	G25/8WW/LED	120	3000	82	430	25000 ■	1/6	4.25"	40

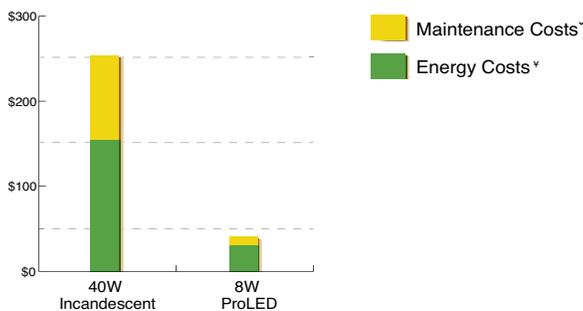


\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.. Use on incompatible systems may shorten lamp life. Represents lamps that are ENERGY STAR approved.

■ ENERGY STAR mandates that all directional lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR listed lamps will be listed at their full lifetime.

## Energy Savings Comparison

Total Lifetime Costs



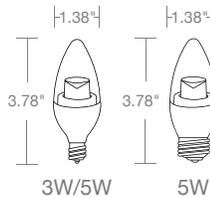
<sup>†</sup> Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
<sup>‡</sup> Energy costs based on \$0.11 kWh over 28,000 hour life.

## Specifications

- High power LED for maximum efficiency
- Up-to 87% energy savings
- Cream, Chrome & Brass base options (3W)
- Dimmable to 5% for design flexibility (3W & 5W)
- Up-to 40,000 hour life, 16 times longer than traditional lamps
- 2700K CCT
- 82 CRI for quality and consistent color rendering
- Omnidirectional distribution
- ENERGY STAR listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information

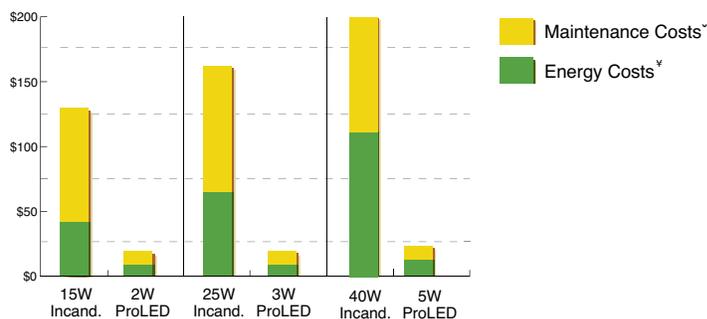


Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
3 Watt	Cand.	80094	B11CL3/827/LED	Cream Finish	120	2700	82	180	25000	1/10	3.78"	25
3 Watt	Cand.	80789	B11CL3/827/BR/LED	Brass Finish	120	2700	82	180	25000	1/10	3.78"	25
3 Watt	Cand.	80790	B11CL3/827/CHR/LED	Chrome Finish	120	2700	82	180	25000	1/10	3.78"	25
5 Watt	Cand.	80820	B11CL5/827/LED	Cream Finish	120	2700	82	300	25000	1/10	3.78"	40
5 Watt	Med.	80168	B11CL5/827/E26/LED	Cream Finish	120	2700	82	300	25000	1/10	3.78"	40

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.  
 Represents lamps that are ENERGY STAR approved.

## Energy Savings Comparison

Total Lifetime Costs



\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 \* Energy costs based on \$0.11 kWh over 40,000 hour life.

# ProLED S14 Sign Lamp



## Specifications

- Designed for rapidly flashing sign applications
- Dimmable
- Wet Location Rated
- Red, Blue, Green, Yellow, White, Orange and Clear 2700K option
- Unique "Heat-to-Base" technology
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL
1.4 Watt	Med.	80517	S14RED1C/LED	Red	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80518	S14BLU1C/LED	Blue	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80519	S14GRN1C/LED	Green	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80520	S14YEL1C/LED	Yellow	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80521	S14WH1C/LED	White	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80522	S14CL1C/827/LED	Clear	120	2700	82	35	40000	1/25	3.35"
1.4 Watt	Med.	80523	S14ORG1C/LED	Orange	120	-	-	-	40000	1/25	3.35"

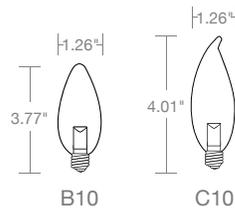
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. Not for use in enclosed fixtures.

## Specifications

- B10 Torpedo and C10 Flame tip options
- Dimmable to 5% for design flexibility
- Wet Location Rated
- 2400K or 2700K CCT
- 72 and 82 CRI options
- Unique "Heat-to-Base" technology
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL
1 Watt	Cand.	80172	B10CL1/827/LED	Clear Torpedo	120	2700	82	25	25000	1/25	3.77"
1 Watt	Cand.	80173	B10CL1/724/LED	Clear Torpedo	120	2400	72	20	25000	1/25	3.77"
1 Watt	Cand.	80174	CA10CL1/827/LED	Clear Flame Tip	120	2700	82	25	25000	1/25	4.01"
1 Watt	Cand.	80175	CA10CL1/724/LED	Clear Flame Tip	120	2400	72	20	25000	1/25	4.01"

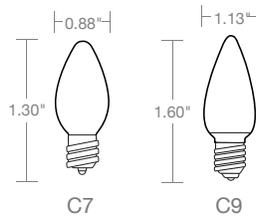
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. Not for use in enclosed fixtures.

# ProLED C7/C9



## Specifications

- Up-to 86% energy savings - 0.96W C7 or C9 lamp versus 7W Incandescent
- IP65 Rated for outdoor use
- 60,000 hour life, 20 times longer than traditional lamps
- Faceted or Smooth (C7)
- 2700K or 6000K CCT, Blue, Green, Red or Yellow color options
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 2-Year Limited Warranty



## Markets & Applications



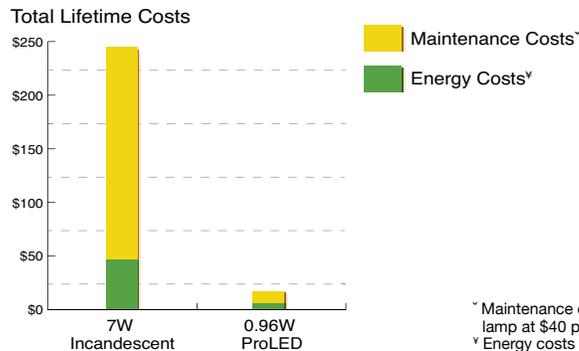
## Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Useful Life*	Pkg. Qty.	MOL
0.96	Cand.	80510	C7NW/FC/LED	6000K Faceted	120	60000	10/200	1.30"
0.96	Cand.	80516	C7WW/FC/LED	2700K Faceted	120	60000	10/200	1.30"
0.96	Cand.	80508	C7BLU/FC/LED	Blue Faceted	120	60000	10/200	1.30"
0.96	Cand.	80509	C7GRN/FC/LED	Green Faceted	120	60000	10/200	1.30"
0.96	Cand.	80506	C7RED/FC/LED	Red Faceted	120	60000	10/200	1.30"
0.96	Cand.	80507	C7YEL/FC/LED	Yellow Faceted	120	60000	10/200	1.30"
0.96	Int.	80515	C9CL/FC/LED	Clear Faceted	120	60000	10/200	1.60"
0.96	Int.	80513	C9BLU/FC/LED	Blue Faceted	120	60000	10/200	1.60"
0.96	Int.	80514	C9GRN/FC/LED	Green Faceted	120	60000	10/200	1.60"
0.96	Int.	80511	C9RED/FC/LED	Red Faceted	120	60000	10/200	1.60"
0.96	Int.	80512	C9YEL/FC/LED	Yellow Faceted	120	60000	10/200	1.60"

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.

## Energy Savings Comparison



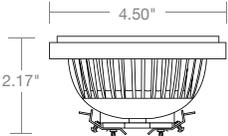
\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 † Energy costs based on \$0.11 kWh over 60,000 hour life.

### Specifications

- High power LED for maximum efficiency
- Up-to 73% energy savings - 13.5W PAR36 versus 50W Halogen
- Multi-purpose base for slip-on or screw terminal connections
- 12V input voltage
- 40,000 hour life, 14 times longer than traditional lamps
- 2700K CCT
- 82 CRI for quality and consistent color rendering
- Flood beam spread
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



### Markets & Applications



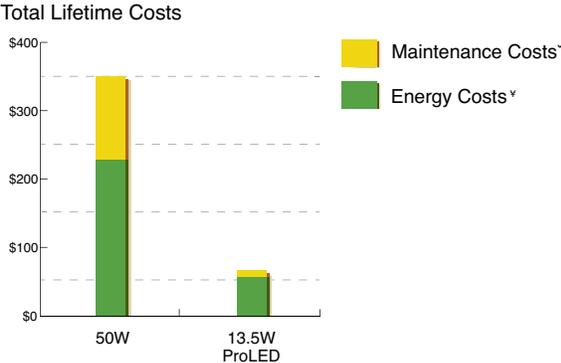
### Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
13.5 Watt	MP Term	80165	PAR36FL14/827/LED	Flood ✕	12	2700	82	870	1830	40000	1/6	32°	2.17"	50

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. Not for use in enclosed fixtures. May not be compatible with all electronic transformers. Rated for indoor use only. ✕ Non-dimmable

### Energy Savings Comparison



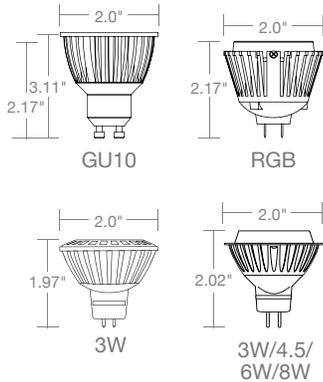
† Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp. \* Energy costs based on \$0.11 kWh over 40,000 hour life.

# ProLED MR16

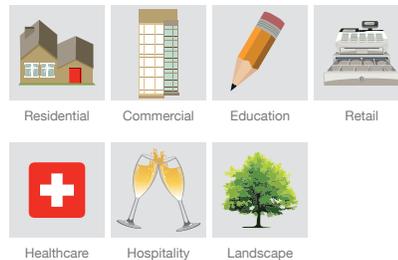


## Specifications

- High power LED for maximum efficiency
- Up-to 84% energy savings - 8W MR16 versus 50W Halogen
- Input voltage range
- Dimmable to 5% for design flexibility
- 40,000 hour life, 14 times longer than traditional lamps
- 2700K, 3000K or 5000K CCT
- Amber, Blue, Green, Red or color changing with remote options
- Up-to 82 CRI for quality and consistent color rendering
- Flood, Narrow Flood, Spot, Wide Flood or Very Wide Flood beam spreads
- UL Listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information



Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
3 Watt	GU5.3	80807	MR16SP10/827/LED	Spot ∞	10-15	2700	82	140	1180	40000	1/10	15°	2.02"	10
3 Watt	GU5.3	80843	MR16SP10/830/LED	Spot ∞	10-15	3000	82	150	1700	40000	1/10	15°	2.02"	10
3 Watt	GU5.3	80806	MR16NFL10/827/LED	Narrow Flood ∞	10-15	2700	82	150	480	40000	1/10	25°	2.02"	10
3 Watt	GU5.3	80844	MR16NFL10/830/LED	Narrow Flood ∞	10-15	3000	82	160	550	40000	1/10	25°	2.02"	10
3 Watt	GU5.3	80801	MR16FL10/827/LED	Flood ∞	10-15	2700	82	150	300	40000	1/10	40°	2.02"	10
3 Watt	GU5.3	80828	MR16FL10/830/LED	Flood ∞	10-15	3000	82	160	315	40000	1/10	40°	2.02"	10
3 Watt	GU5.3	80813	MR16FL10/750/LED	Flood ∞	10-15	5000	72	160	360	40000	1/10	40°	2.02"	10
3 Watt	GU5.3	80808	MR16WFL10/827/LED	Wide Flood ∞	10-15	2700	82	140	170	40000	1/10	50°	2.02"	10
3 Watt	GU5.3	80845	MR16WFL10/830/LED	Wide Flood ∞	10-15	3000	82	150	180	40000	1/10	50°	2.02"	10
3 Watt	GU5.3	80000	MR16/3WW/FL/LED2	Flood ∞ ✕	12	3000	82	150	360	40000	1/10	38°	1.97"	10
4 Watt	GU10	80819	MR16FL4/830/GU10/LED	Flood ∞	120	3000	82	220	480	40000	1/10	40°	2.17"	20
4 Watt	GU5.3	80728	MR16/5RGB/FL/LED	Flood Color Changing Red, Green, Blue ∞ ✕	10-18	-	-	-	-	40000	1/10	31°	2.17"	-
		80649	RGB/REMOTE	Remote Control for Color Changing Lamps										

## Ordering Information Continued

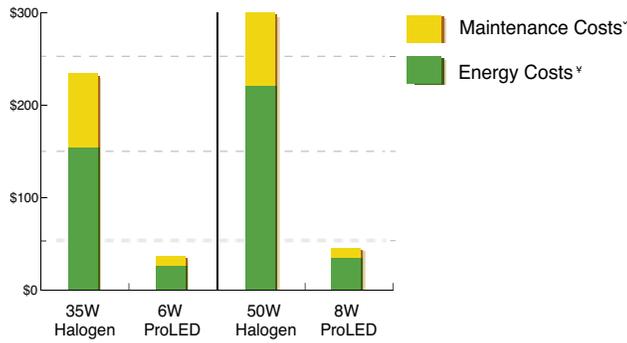
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
4.5 Watt	GU5.3	80795	MR16ESX/827/LED	Spot ♦∞	10-15	2700	82	200	1260	40000	1/10	15°	2.02"	20
4.5 Watt	GU5.3	80846	MR16ESX/830/LED	Spot ♦∞	10-15	3000	82	210	1500	40000	1/10	15°	2.02"	20
4.5 Watt	GU5.3	80793	MR16BBF/827/LED	Narrow Flood ♦∞	10-15	2700	82	220	750	40000	1/10	25°	2.02"	20
4.5 Watt	GU5.3	80847	MR16BBF/830/LED	Narrow Flood ♦∞	10-15	3000	82	230	1400	40000	1/10	25°	2.20"	20
4.5 Watt	GU5.3	80792	MR16BAB/827/LED	Flood ♦∞	10-15	2700	82	220	400	40000	1/10	40°	2.02"	20
4.5 Watt	GU5.3	80829	MR16BAB/830/LED	Flood ♦∞	10-15	3000	82	220	480	40000	1/10	40°	2.20"	20
4.5 Watt	GU5.3	80811	MR16BAB/750/LED	Flood ♦∞	10-15	5000	72	250	480	40000	1/10	40°	2.02"	20
4.5 Watt	GU5.3	80794	MR16WFL20/827/LED	Wide Flood ♦∞	10-15	2700	82	220	240	40000	1/10	60°	2.02"	20
4.5 Watt	GU5.3	80848	MR16WFL20/830/LED	Wide Flood ♦∞	10-15	3000	82	210	190	40000	1/10	60°	2.02"	20
4.5 Watt	GU5.3	80702	MR16/3M4WW/FL/LED	Flood ♦∞	10-18	2700	82	200	560	40000	1/10	34°	2.20"	20
4.5 Watt	GU5.3	80724	MR16/3M4AMB/NFL/LED	Narrow Flood Amber ∞ †	10-18	-	-	-	-	40000	1/10	22°	2.20"	-
4.5 Watt	GU5.3	80727	MR16/3M4BLU/NFL/LED	Narrow Flood Blue ∞ †	10-18	-	-	-	-	40000	1/10	22°	2.20"	-
4.5 Watt	GU5.3	80726	MR16/3M4GRN/NFL/LED	Narrow Flood Green ∞ †	10-18	-	-	-	-	40000	1/10	22°	2.20"	-
4.5 Watt	GU5.3	80725	MR16/3M4RED/NFL/LED	Narrow Flood Red ∞ †	10-18	-	-	-	-	40000	1/10	22°	2.20"	-
6 Watt	GU5.3	80805	MR16FRB/827/LED	Spot ♦∞	10-15	2700	82	320	1650	40000	1/10	18°	2.02"	35
6 Watt	GU5.3	80849	MR16FRB/830/LED	Spot ♦∞	10-15	3000	82	330	1650	40000	1/10	18°	2.02"	35
6 Watt	GU5.3	80804	MR16FRA/827/LED	Narrow Flood ♦∞	10-15	2700	82	350	1500	40000	1/10	25°	2.02"	35
6 Watt	GU5.3	80850	MR16FRA/830/LED	Narrow Flood ♦∞	10-15	3000	82	360	1550	40000	1/10	25°	2.02"	35
6 Watt	GU5.3	80802	MR16FMW/827/LED	Flood ♦∞	10-15	2700	82	350	600	40000	1/10	40°	2.02"	35
6 Watt	GU5.3	80831	MR16FMW/830/LED	Flood ♦∞	10-15	3000	82	360	615	40000	1/10	40°	2.02"	35
6 Watt	GU5.3	80814	MR16FMW/750/LED	Flood ♦∞	10-15	5000	72	410	720	40000	1/10	40°	2.02"	55
6 Watt	GU5.3	80809	MR16WFL35/827/LED	Wide Flood ♦∞	10-15	2700	82	320	250	40000	1/10	60°	2.02"	35
6 Watt	GU5.3	80851	MR16WFL35/830/LED	Wide Flood ♦∞	10-15	3000	82	330	250	40000	1/10	60°	2.02"	35
7 Watt	GU10	80167	MR16FL7/830/GU10/LED	Flood ♦∞	120	3000	82	520	1100	25000	1/10	40°	2.17"	50
8 Watt	GU5.3	80799	MR16EXT/827/LED	Spot ♦∞	10-15	2700	82	450	2000	40000	1/10	18°	2.02"	50
8 Watt	GU5.3	80852	MR16EXT/830/LED	Spot ♦∞	10-15	3000	82	460	1800	40000	1/10	18°	2.02"	50
8 Watt	GU5.3	80800	MR16EXZ/827/LED	Narrow Flood ♦∞	10-15	2700	82	500	1700	40000	1/10	25°	2.02"	50
8 Watt	GU5.3	80853	MR16EXZ/830/LED	Narrow Flood ♦∞	10-15	3000	82	500	1650	40000	1/10	25°	2.02"	50
8 Watt	GU5.3	80798	MR16EXN/827/LED	Flood ♦∞	10-15	2700	82	500	850	40000	1/10	40°	2.02"	50
8 Watt	GU5.3	80832	MR16EXN/830/LED	Flood ♦∞	10-15	3000	82	510	900	40000	1/10	40°	2.02"	50
8 Watt	GU5.3	80812	MR16EXN/750/LED	Flood ♦∞	10-15	5000	72	580	1020	40000	1/10	40°	2.02"	50
8 Watt	GU5.3	80803	MR16FNV/827/LED	Wide Flood ♦∞	10-15	2700	82	500	390	40000	1/10	60°	2.02"	50
8 Watt	GU5.3	80854	MR16FNV/830/LED	Wide Flood ♦∞	10-15	3000	82	460	290	40000	1/10	60°	2.02"	50

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.  
 ♦ May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life.  
 ∞ Acceptable for use in sealed metal landscape fixtures when protected from the elements.  
 † Non-dimmable

# ProLED MR16

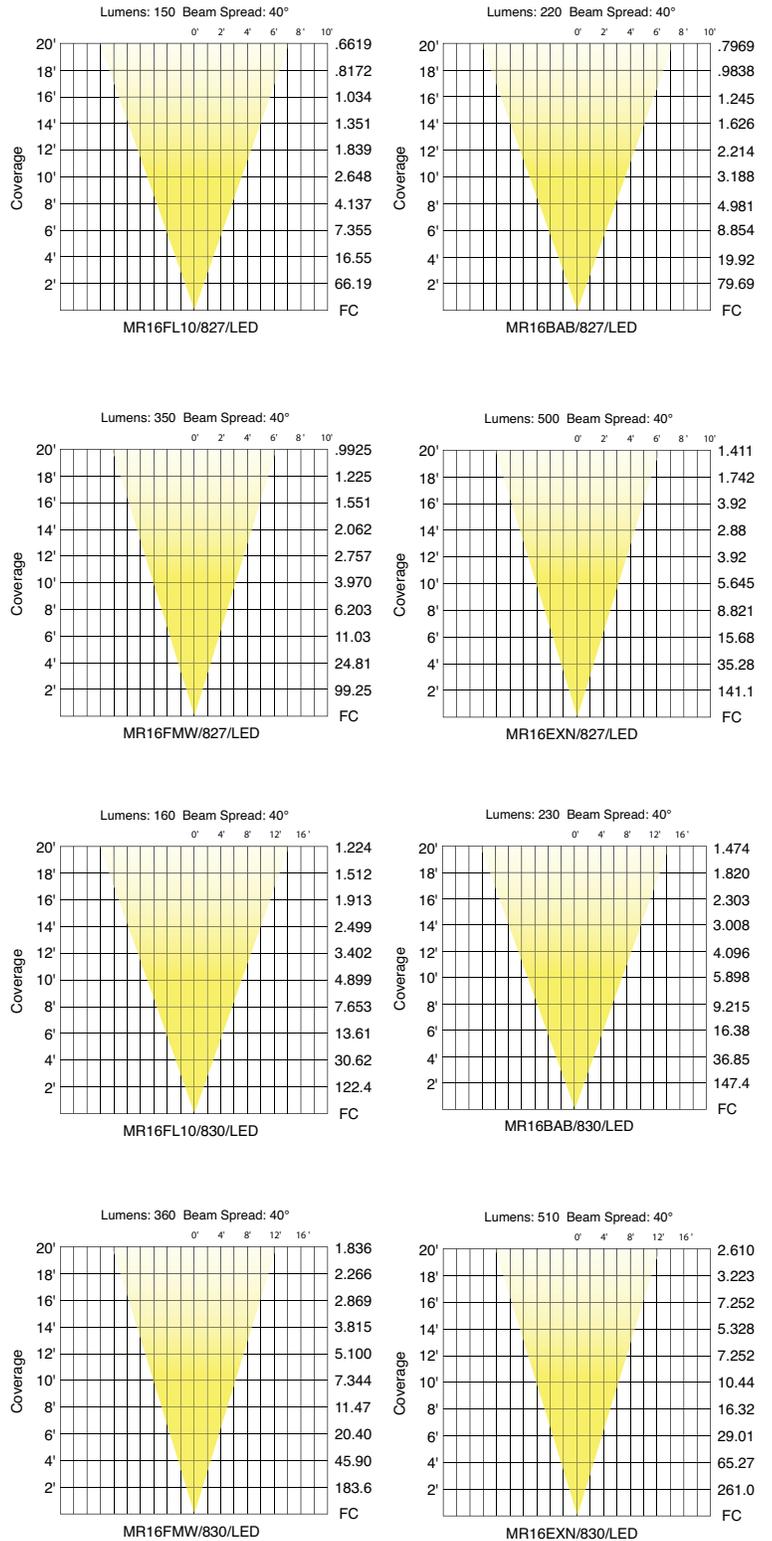
## Energy Savings Comparison

Total Lifetime Costs



\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 † Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics



Halco's ProLED Commercial MR16 offering can be found on page 23.

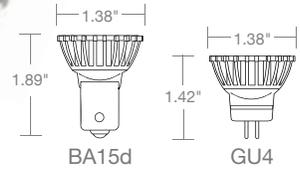
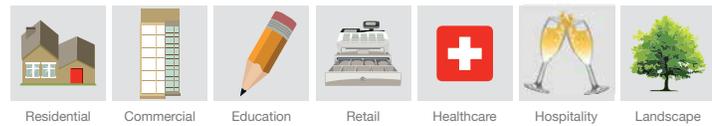


# ProLED MR11

## Specifications

- High power LED for maximum efficiency
- Up-to 85% energy savings - 2.2W MR11 versus 15W Halogen
- Damp location rated
- 10-18V input voltage range
- Dimmable to 5% for design flexibility
- 40,000 hour life, 14 times longer than traditional lamps
- 2700K or 5000K CCT
- Up-to 82 CRI for quality and consistent color rendering
- Flood or Narrow Flood beam spreads
- UL Listed options
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

## Markets & Applications

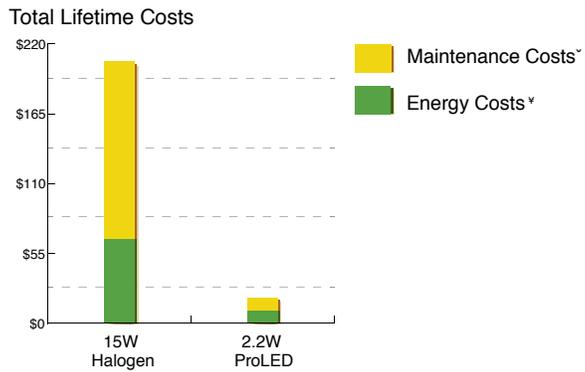


## Ordering Information

Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
2.2 Watt	GU4	80703	MR11/2NW/FL/LED	Flood	10-18	5000	72	150	420	40000	1/10	30°	1.42"	15
2.2 Watt	GU4	80705	MR11/2WW/FL/LED	Flood	10-18	2700	82	110	330	40000	1/10	30°	1.42"	15
2.2 Watt	GU4	80704	MR11/2WW/NFL/LED	Narrow Flood	10-18	2700	82	110	860	40000	1/10	18°	1.42"	15
3.5 Watt	BA15d	80169	MR11FTD/827/BA15D/LED	Flood	10-15	2700	82	230	1135	40000	1/10	30°	1.89"	20

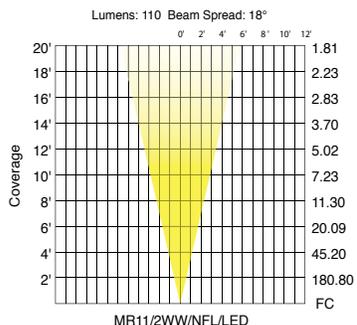
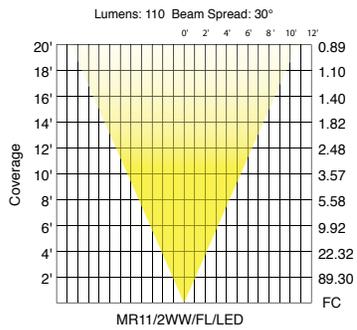
\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit [www.halcolighting.com/ProLEDdim](http://www.halcolighting.com/ProLEDdim) for dimmer compatibility information. Use on incompatible systems may shorten lamp life. Acceptable for use in sealed metal landscape fixtures when protected from the elements.

## Energy Savings Comparison



\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 \* Energy costs based on \$0.11 kWh over 60,000 hour life.

## Photometrics





## Built Strong

Halco assures our ProLED lamps are engineered to weather the challenges of use installed with features that protect the componentry against exposure to the elements.

Halco offers broad variety of damp location solutions. Damp location is defined as an exterior or interior application that is normally or periodically subject to condensation of moisture in, on or adjacent to the luminaire. Locations, such as under canopies, open porches and basements, that are often protected from weather and not subject to saturation with water or other liquids but may be subject to moderate degrees of moisture are considered damp locations.

ProLED lamps which are damp location rated and approved for use in these applications include:



PAR/Commercial MR16



Reflector



A-Shape & Globe



MR

In addition to our damp location offering, ProLED features lamps that are rated for more severe exposure to the elements. These lamps are rated with an Ingress Protection Rating (IP), an international classification designated by the International Electrotechnical Commission (IEC). The code consists of 2 digits which rates the degree of protection provided against the intrusion of solid and liquid objects in electrical products.

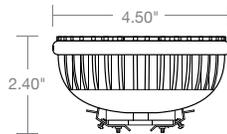
	Solid Particle	Liquid Ingress
IP	6 = Dust Tight	5 = Projected Water 7 = Temporary Immersion

ProLED PAR38, PAR30L, 3155, C7/C9 and some JC lamps are IP65 Rated for use outdoors where exposed directly to water from rain or irrigation.

ProLED Waterproof PAR36 lamps are IP67 Rated. IP67 rating classifies the lamp is protected against the effects of temporary immersion between 5.9in (15cm) and 3.28ft (1m) for up to 30 minutes and is intended for outdoor use primarily to provide a degree of protection against hose directed water, the entry of water during occasional temporary submersion at a limited depth and damage from external ice formation.

ProLED lamps are designed for reliable performance and are backed by a warranty you can rely on. Fixtures, Reflector, PAR, A-Shape, G25, S14 Sign Lamps, T8 Linear, B11 Chandelier, MR, PAR36 and IP65 Rated JC lamps are backed by a 5-Year Limited Warranty. ProLED 912 lamps, C7/C9 and standard JC lamps are backed by a 2-Year Limited Warranty.

# ProLED Outdoor PAR36



## Specifications

- Up-to 71% energy savings - 10W PAR36 versus 35W Halogen
- IP67 Rated for waterproof installations
- 10-15V input voltage range
- 40,000 hour life, 14 times longer than traditional lamps
- 2700K CCT
- Amber, Blue, Green or Red color options
- 82 CRI for quality and consistent color rendering
- 15°, 20° or 32° beam spreads for optimal light control
- No mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty
- Patented design protected under the following intellectual property laws; U.S. D664,686, Canada 142723, European Community 2018291, Mexico 38467

## Markets & Applications



Residential Commercial Landscape

## Ordering Information

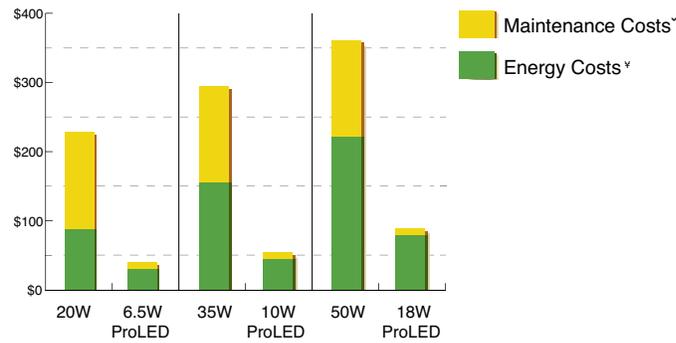


Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	CBCP	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
6.5 Watt	MP Term	80106	PAR36/6WW/SP/LED	Spot	10-15	2700	82	260	1820	40000	1/6	15°	2.40"	20
6.5 Watt	MP Term	80768	PAR36/6WW/WFL/LED2	Wide Flood	10-15	2700	82	260	680	40000	1/6	32°	2.40"	20
10 Watt	MP Term	80783	PAR36/10WW/SP/LED	Spot	10-15	2700	82	420	4200	40000	1/6	15°	2.40"	35
10 Watt	MP Term	80769	PAR36/10WW/WFL/LED2	Wide Flood	10-15	2700	82	420	920	40000	1/6	32°	2.40"	35
10 Watt	MP Term	80784	PAR36/10AMB/WFL/LED	Wide Flood Amber	10-15	-	-	-	-	40000	1/6	32°	2.40"	-
10 Watt	MP Term	80786	PAR36/10BLU/WFL/LED	Wide Flood Blue	10-15	-	-	-	-	40000	1/6	32°	2.40"	-
10 Watt	MP Term	80785	PAR36/10GRN/WFL/LED	Wide Flood Green	10-15	-	-	-	-	40000	1/6	32°	2.40"	-
10 Watt	MP Term	80787	PAR36/10RED/WFL/LED	Wide Flood Red	10-15	-	-	-	-	40000	1/6	32°	2.40"	-
18 Watt	MP Term	80788	PAR36/18WW/SP/LED	Spot	10-15	2700	82	720	3000	40000	1/6	20°	2.40"	50
18 Watt	MP Term	80770	PAR36/18WW/WFL/LED2	Wide Flood	10-15	2700	82	720	1800	40000	1/6	32°	2.40"	50

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.  
 Not for use in enclosed fixtures  
 May not be compatible with all electronic transformers.  
 Rated for outdoor use only.

## Energy Savings Comparison

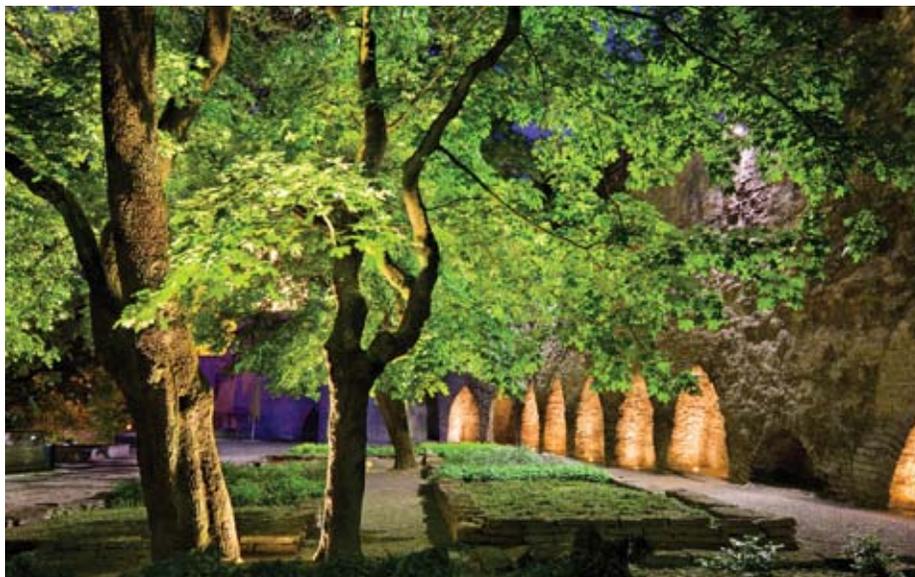
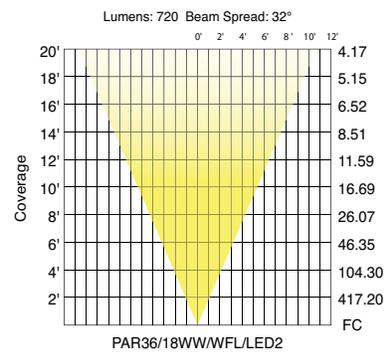
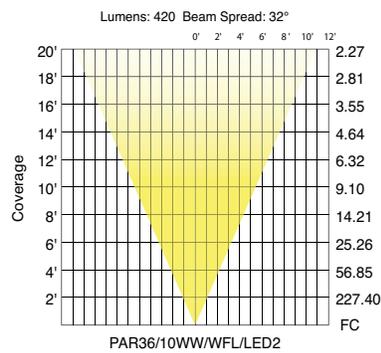
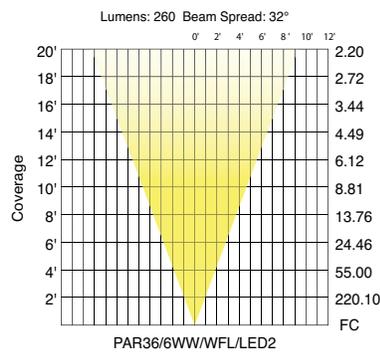
Total Lifetime Costs



\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.

† Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics



ProLED Waterproof PAR36 lamps are ideal for use in well light applications where the lamps are susceptible to the elements. The drama of the landscape is enhanced with the 2700K color, but can easily become festive by with a color option - perfect for holiday celebrations.

## Specifications

- High power and SMD LED options
- Up-to 88% energy savings - 2.5W JC versus 20W Halogen
- IP65 Rated option for outdoor use
- 10-18V input voltage range
- Up-to 40,000 hour life, 20 times longer than traditional lamps
- 3000K CCT
- 82 CRI for quality and consistent color rendering
- Amber, Blue, Green or Red color options
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty on IP65 Rated and 2-Year on standard JC lamps

## Markets & Applications



## Ordering Information

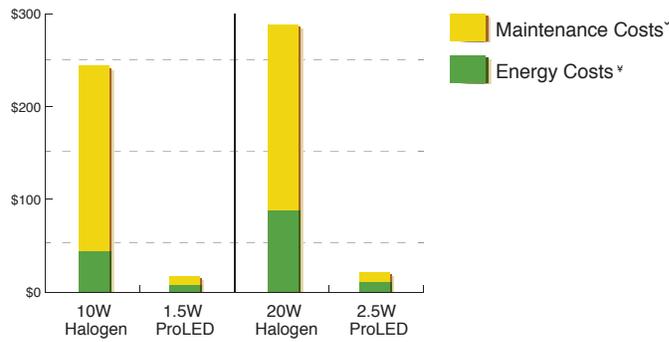


Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
1.5 Watt	G4	80693	JC10/1WW/LED	Omnidirectional	10-18	3000	82	150	20000	1/40	1.21"	10
1.5 Watt	G4	80776	JC10/1WW/LED2	Omnidirectional, IP65 Rated	10-18	3000	82	100	40000	1/10	1.43"	10
1.5 Watt	BA15s	80692	JC10/1WW/BA15S/LED	Omnidirectional	10-18	3000	82	150	20000	1/40	1.70"	10
1.5 Watt	BA15s	80810	JC10/1WW/BA15S/LED2	Omnidirectional, IP65 Rated	10-18	3000	82	100	40000	1/10	1.93"	10
1.8 Watt	G4	80782	JC20/2AMB/LED	Omnidirectional Amber	10-18	-	-	-	20000	1/40	1.81"	-
1.8 Watt	G4	80780	JC20/2BLU/LED	Omnidirectional Blue	10-18	-	-	-	20000	1/40	1.81"	-
1.8 Watt	G4	80779	JC20/2GRN/LED	Omnidirectional Green	10-18	-	-	-	20000	1/40	1.81"	-
1.8 Watt	G4	80781	JC20/2RED/LED	Omnidirectional Red	10-18	-	-	-	20000	1/40	1.81"	-
2.4 Watt	G4	80833	JC2/827/LED	Omnidirectional	10-18	2700	82	190	20000	1/40	1.81"	20
2.4 Watt	G4	80690	JC20/2WW/LED	Omnidirectional	10-18	3000	82	250	20000	1/40	1.81"	20
2.4 Watt	G4	80815	JC20/2NW/LED	Omnidirectional	10-18	5000	72	230	20000	1/40	1.81"	20
2.4 Watt	BA15s	80691	JC20/2WW/BA15S/LED	Omnidirectional	10-18	3000	82	250	20000	1/40	2.01"	20
2.5 Watt	G4	80774	JC20/2WW/LED2	Omnidirectional, IP65 Rated	10-18	3000	82	140	40000	1/10	1.75"	20
2.5 Watt	BA15s	80775	JC20/2WW/BA15S/LED2	Omnidirectional, IP65 Rated	10-18	3000	82	140	40000	1/10	2.25"	20
4.5 Watt	GY6.35	80830	JC35/4WW/LED	Omnidirectional	10-18	3000	82	450	20000	1/30	2.03"	35

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all electronic transformers. Not for use in enclosed fixtures. Suitable for use in sealed metal landscape fixtures; standard JC lamps require protection from elements.

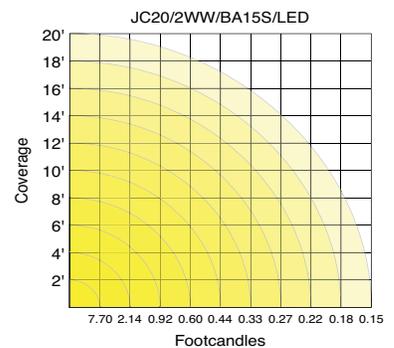
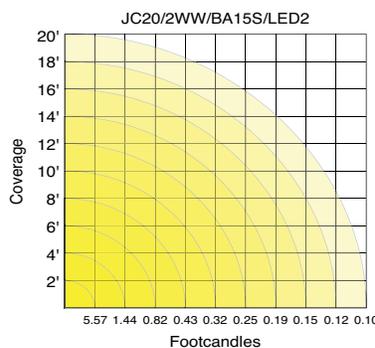
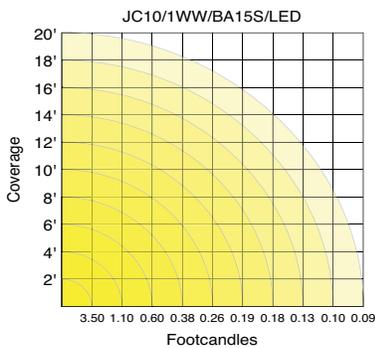
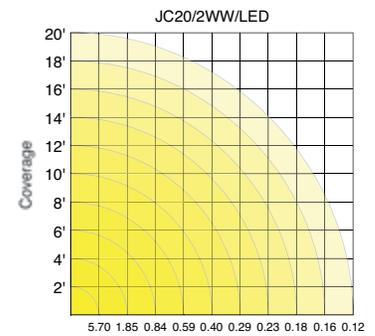
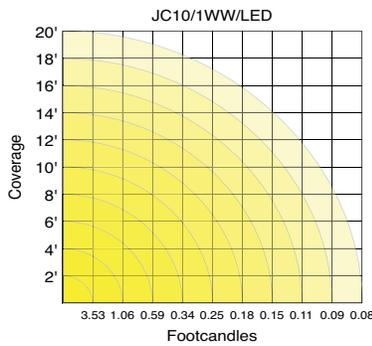
## Energy Savings Comparison

Total Lifetime Costs



† Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 \* Energy costs based on \$0.11 kWh over 40,000 hour life.

## Photometrics

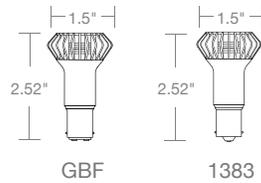


# ProLED Elevator Lamps



## Specifications

- High power LED for maximum efficiency
- Up-to 87% energy savings - 2.6W GBF versus 20W Incandescent
- 10-18V input voltage range
- 40,000 hour life, 20 times longer than traditional lamps
- 2700K CCT
- 82 CRI for quality and consistent color rendering
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



## Markets & Applications



## Ordering Information

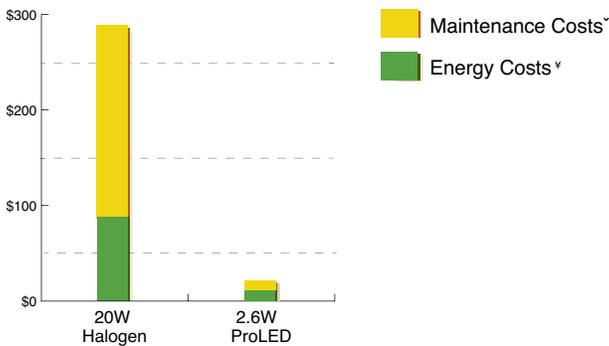


Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	CBCP	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
2.6 Watt	BA15d	80756	GBF/3WW/LED	10-18	2700	82	410	145	40000	1/10	2.52"	20
2.6 Watt	BA15s	80701	1383/3WW/LED	10-18	2700	82	410	145	40000	1/10	2.52"	20

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.

## Energy Savings Comparison

### Total Lifetime Costs



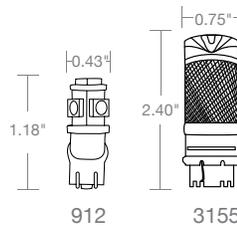
\* Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 \* Energy costs based on \$0.11 kWh over 40,000 hour life.

## Specifications

- Up-to 88% energy savings - 2.5W 3155 versus 20W Incandescent
- IP65 Rated for outdoor use (3155)
- 40,000 hour life for the 3155, 27 times longer than traditional lamps
- 20,000 hour life fogs
- 3000K CCT
- 82 CRI for quality and consistent color rendering
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty (3155) and 2-Year Limited Warranty (912)



## Markets & Applications



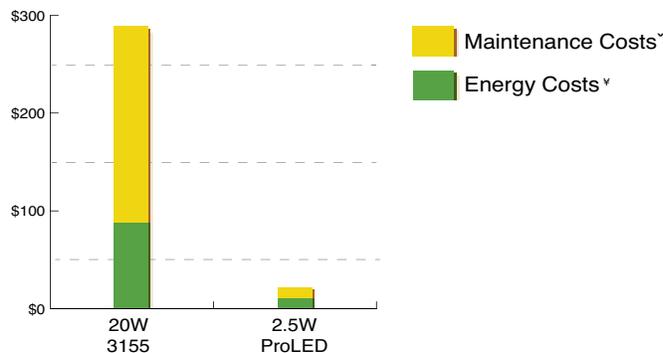
## Ordering Information

Watt	Base	Product #	Product Code	Description	Volts	CRI	Color Temp.	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
1 Watt	Mini-Wedge	80791	912/1WW/LED	Mini-Wedge	10-18	82	3000	75	20000	1/50	1.18"	-
2.5 Watt	Plastic Wedge	80777	3155/2WW/LED	IP65 Rated	10-18	82	3000	140	40000	1/10	2.40"	20

\* Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. May not be compatible with all electronic transformers.

## Energy Savings Comparison

### Total Lifetime Costs



~ Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the life of the ProLED lamp.  
 \* Energy costs based on \$0.11 kWh over 40,000 hour life.

# ProLED Volt-Amperes

For LED installations, apparent power (VA) must be taken into consideration when selecting the correct transformer size because transformer size is actually based on apparent power (VA), not true power (W). To specify the transformer, calculate the system's total load to ensure that the total volt-ampere draw does not exceed the transformer's rating.

Bulb Type	Halogen Equivalent Watts	LED Wattage	Base	VA*	Product #	Product Code	Product #	Product Code
<b>MR11</b>								
	10	2.2 Watts	GU4	3.4	80705	MR11/2WW/FL/LED		
	10			3.4	80704	MR11/2WW/NFL/LED		
	20	3.5 Watts	BA15d	4.6	80169	MR11FTD/827/LED		
<b>MR16</b>								
	10	3 Watts	GU5.3	5.2	80807	MR16SP10/827/LED	80843	MR16SP10/830/LED
				5.2	80806	MR16NFL10/827/LED	80844	MR16NFL10/830/LED
				5.2	80801	MR16FL10/827/LED	80828	MR16FL10/830/LED
				5.2	80808	MR16WFL10/827/LED	80845	MR16WFL10/830/LED
	10	3.3 Watts	GU5.3	3.9	80709	MR16/3WW/FL/LED		
	-	4 Watts	GU5.3	4.9	80728	MR16/5RGB/FL/LED		
	-	-	-	-	80649	RGB/REMOTE		
	20	4.5 Watts	GU5.3	5.5	80795	MR16ESX/827/LED	80846	MR16ESX/830/LED
				5.5	80793	MR16BBF/827/LED	80847	MR16BBF/830/LED
				5.5	80792	MR16BAB/827/LED	80829	MR16BAB/830/LED
				5.5	80794	MR16WFL20/827/LED	80848	MR16WFL20/830/LED
				6.0	80702	MR16/3M4WW/FL/LED		
	-			4.9	80724	MR16/3M4AMB/NFL/LED*		
	35	6 Watts	GU5.3	6.7	80805	MR16FRB/827/LED	80849	MR16FRB/830/LED
				6.7	80804	MR16FRA/827/LED	80850	MR16FRA/830/LED
				6.7	80802	MR16FMW/827/LED	80831	MR16FMW/830/LED
				6.7	80809	MR16WFL35/827/LED	80851	MR16WFL35/830/LED
	50	8 Watts	GU5.3	8.3	80799	MR16EXT/827/LED	80852	MR16EXT/830/LED
				8.3	80800	MR16EXZ/827/LED	80853	MR16EXZ/830/LED
				8.3	80798	MR16EXN/827/LED	80832	MR16EXN/830/LED
				8.3	80803	MR16FNV/827/LED	80854	MR16FNV/830/LED
<b>PAR36</b>								
	20	6.5 Watts	MP Term	9.0	80768	PAR36/6WW/WFL/LED2		
	35	10 Watts	MP Term	12.0	80769	PAR36/10WW/WFL/LED2		
	-			12.0	80784	PAR36/10AMB/WFL/LED*		
	50	18 Watts	MP Term	22.4	80770	PAR36/18WW/WFL/LED2		
<b>T3 &amp; T4 Bi-Pin</b>								
	10	1.5 Watts	BA15s	2.1	80692	JC10/1WW/BA15S/LED		
				2.6	80810	JC10/1WW/BA15S/LED2		
			G4	2.1	80693	JC10/1WW/LED		
				2.6	80776	JC10/1WW/LED2		
	-	1.8 Watts	G4	2.6	80782	JC20/2AMB/LED*		
	20	2.4 Watts	BA15s	3.1	80691	JC20/2WW/BA15S/LED		
			G4	3.1	80690	JC20/2WW/LED	80833	JC2/827/LED
	20	2.5 Watts	BA15s	3.1	80775	JC20/2WW/BA15S/LED2		
			G4	3.1	80774	JC20/2WW/LED2		
	35	4.5 Watts	G4	6.0	80830	JC35/4WW/LED		
<b>Wedge</b>								
	20	2.5 Watts	Wedge	3.1	80777	3155/2WW/LED		
	1A	1 Watt	Wedge	1.3	80791	912/1WW/LED		

\* For other color lamps, replace color order abbreviation with Blue (BLU), Green (GRN) or Red (RED).





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