

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 ProLED fixtures and full offering of ProLED lamps. Halco's fixture offering features indoor recessed solutions such as ProLED Panel, Volumetric Panel and Downlight Retrofit Series fixtures. 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. Will-call and courier service is also available for your convenience.



Quality

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



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, 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.

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 efficency 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/Por Bombilla									
Brightness/Brillo	830 lumens/lúmenes									
Estimated Yearly Ener Costo Estimado Anual Based on 3 hrs/day, 11¢, on rates and use. / Basad 11¢/kWh. Costo depende	l de Energía kWh. Cost depends do en 3 hrs/dia,									
Life/Duración Based on 3 hrs/day / Bas	22.8 years/años sado en 3 hrs/dia									
Light Appearance/Apa Warm/Cálida	riencia de Iluminación Cool/Fría									
3000K Energy Used/Uso de E	nergía 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.



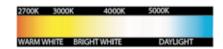
Optics designed for precise beam control providing smooth illumination virtually identical to traditional sources







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 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, a 10W ProLED BR30 lamp will provide light output equivalent to a 65W Halogen reflector lamp and save as much as 85% in energy.

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!

Operating Details									
Elec	tricity Cost	\$0.11 kWh							
Annual Opera	3650								
Energy Analysis	Existing	Retrofit							
Wattage Per Lamp	65W	10W							
Annual Energy Costs	\$26	\$4							
Annual Energy Savings	85%								







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
	Magnetic Transformers and LED Lighting	

- Provide a known 60Hz AC power to the LED, which is often
 Provide AC rather than DC current accommodated in the design of many LED products
- Robust, reliable and available in many different wattages
- Relatively inexpensive, comparatively for higher wattages
- Minimum load rating to provide the expected voltage, which can be difficult due to the efficient nature of LEDs
- Translate voltage instability from incoming power to output power
- Less efficient at power conversion in comparison to electronic transformers
- Larger and heavier than the electronic equivalent

Electronic AC Transformers and LED Lighting

- Can be designed in a very small package and are often integrated into a fixture
- More efficient than a magnetic transformer
- At low wattages, they can have a cost advantage due to
- Less likely to translate voltage instability from incoming power to output power
- Operates at high frequencies which can interfere with or damage LED products
- 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
- Less tolerant of heat than magnetic transformers. Must be designed to be dimmed

Electronic DC Transformers and LED Lighting

- Ideal power supply for most LED products, as almost all LED chips are designed as DC only
- Provides a very stable power source, often allowing LED products to perform better
- Smaller and lighter than magnetic transformers
- Provides less voltage drop on long wiring runs
- Do not translate voltage instability from incoming power to output power
- DC transformers are less common in existing applications
- Often more expensive than the equivalent electronic AC transformer
- Usually larger than electronic AC transformer
- Must be designed to be dimmed for dimming applications

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 50 for project calculations.

1. Calculate Loa	d of LI	ED System		Lamp VA	х	# Lamps	=	Total Fixture Load			
Well Light with 6.	5W Pr	oLED PAR36		10.9		8	=	87			
Modern Bullet wi	th 4.5\	V ProLED MR16		5		4	=	20			
Total System Loa	ad							107			
2. Select Transformer for the LED System Load											
3. Calculate LED Energy Consumption Lamp Wattage x # Lamps = Power Consumption											
Well Light with 6.	5W Pr	oLED PAR36		6.5		8	=	52			
Modern Bullet wi	th 4.5\	V ProLED MR16		4.5		4	=	18			
Total System Pov	wer Co	onsumption						70			
4. Calculate the	4. Calculate the LED System's Annual Energy Cost										
Consumption	x	Utility Cost ¹	x .	Annual Operating H	lou	rs²/1000	=	Annual Energy Cost			
70W		\$0.115 kWh		2190 hrs			=	\$17.63			

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.

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









Application Solutions

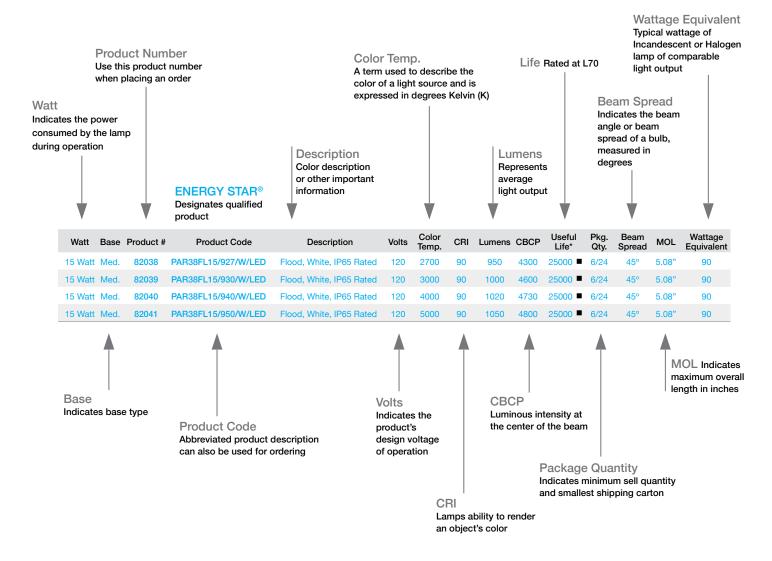
Halco's ProLED lamps are designed for optimal performance in a variety of applications. We have identified the most commonly used applications specific to each lamp type, designated by the strength of shading in the chart.







How to Read Ordering Information



ProLED Panel Light Series



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
- 100-277 VAC voltage sensing driver
- Lightweight
- 0-10V dimming standard
- ETL Listed and tested to UL1598 Luminaire Standard for safety
- 50,000 hour life, up-to 2 times longer than standard T8 Fluorescent
- Available in 3500K, 4000K and 5000K CCT
- 82 CRI for quality and consistent color rendering
- Quiet and flicker-free LED technology
- 5-Year Limited Warranty

Markets & Applications



















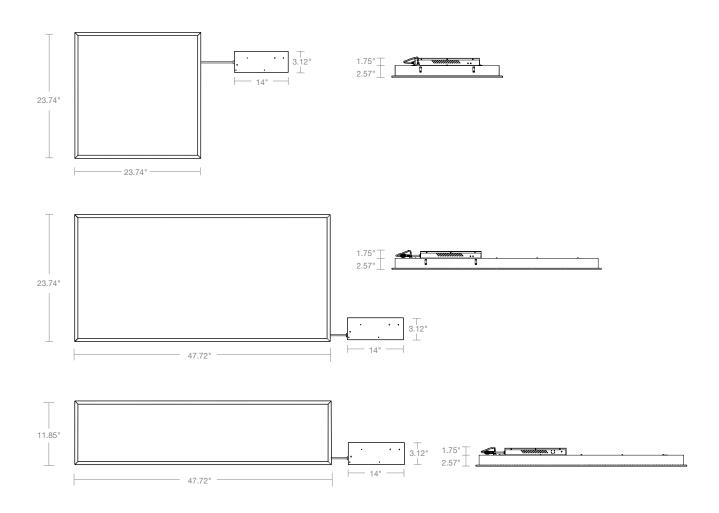
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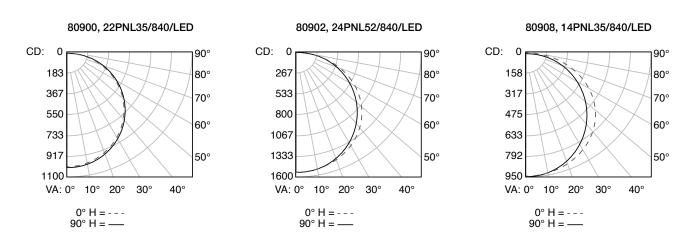
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Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	Weight
2' x 2'										
35 Watt	80918	22PNL35/835/LED	100~277V	3500K	82	2975	50000	1	120°	9.5 lbs.
35 Watt	80900	22PNL35/840/LED	100~277V	4000K	82	3000	50000	1	120°	9.5 lbs.
35 Watt	80901	22PNL35/850/LED	100~277V	5000K	82	3100	50000	1	120°	9.5 lbs.
2' x 4'										
52 Watt	80919	24PNL52/835/LED	100~277V	3500K	82	4500	50000	1	120°	17.6 lbs
52 Watt	80902	24PNL52/840/LED	100~277V	4000K	82	4700	50000	1	120°	17.6 lbs
52 Watt	80903	24PNL52/850/LED	100~277V	5000K	82	4800	50000	1	120°	17.6 lbs
1' x 4'										
35 Watt	80917	14PNL35/835/LED	100~277V	3500K	82	2975	50000	1	120°	9.5 lbs.
35 Watt	80908	14PNL35/840/LED	100~277V	4000K	82	3050	50000	1	120°	9.5 lbs.
35 Watt	80909	14PNL35/850/LED	100~277V	5000K	82	3150	50000	1	120°	9.5 lbs.

^{*} Useful Life is defined as the point in time at which the LED will maintain at least 70% of its initial lumens. The LED 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.

ProLED Panel Light Series

Dimensions





ProLED Volumetric Panel Light Series





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
- 100-277 VAC voltage sensing driver
- Lightweight
- 0-10V dimming standard
- ETL Listed and tested to UL1598 Luminaire Standard for safety
- 50,000 hour life, up-to 2 times longer than standard T8 Fluorescent
- Available in 3500K, 4000K and 5000K CCT
- 82 CRI for quality and consistent color rendering
- Quiet and flicker-free LED technology
- 5-Year Limited Warranty

Markets & Applications









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Ordering Information





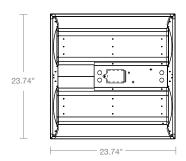


Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	Weight
2' x 2'										
42 Watt	80921	22TFR42/835/LED	100~277V	3500K	82	3570	50000	1	120°	9 lbs.
42 Watt	80904	22TFR42/840/LED	100~277V	4000K	82	3600	50000	1	120°	9 lbs.
42 Watt	80905	22TRF42/850/LED	100~277V	5000K	82	3650	50000	1	120°	9 lbs.
2' x 4'										
55 Watt	80923	24TFR55/835/LED	100~277V	3500K	82	4675	50000	1	120°	16.5 lbs
55 Watt	80906	24TFR55/840/LED	100~277V	4000K	82	4750	50000	1	120°	16.5 lbs
55 Watt	80907	24TFR55/850/LED	100~277V	5000K	82	4800	50000	1	120°	16.5 lbs
1' x 4'										
42 Watt	80922	14TFR42/835/LED	100~277V	3500K	82	3570	50000	1	120°	9.5 lbs
42 Watt	80913	14TFR42/840/LED	100~277V	4000K	82	3640	50000	1	120°	9.5 lbs
42 Watt	80914	14TFR42/850/LED	100~277V	5000K	82	3750	50000	1	120°	9.5 lbs

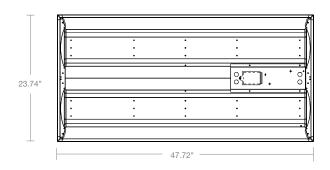
^{*} Useful Life is defined as the point in time at which the LED will maintain at least 70% of its initial lumens. The LED will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system.

ProLED Volumetric Panel Light Series

Dimensions



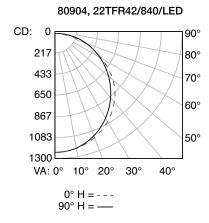


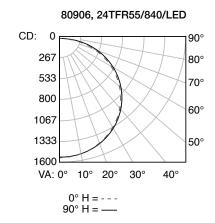


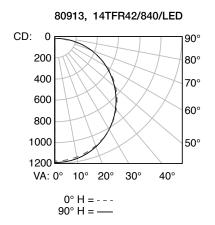












ProLED Linear Direct T8 Series







Specifications

- 48" T8 LED Tube with bi-pin base
- No rewiring of existing fixture necessary
- Operates on instant start electronic ballasts
- 100 Lumens Per Watt versus T8 Fluorescent's 90 LPW
- -4°F(-20°C) to 122°F(50°C) operating temperature range
- Instant-on, no flicker
- Frosted glass design
- UL Listed for dry locations
- 50,000 hour rated life, up-to 2 times the life of standard Fluorescent
- Available in 3500K, 4000K and 5000K CCT
- CEE Listed
- 80 CRI
- Mercury-free for safer operation
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications













Ordering Information





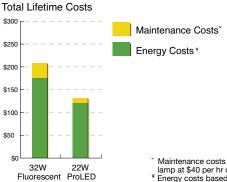


Watt§	Base	Product #	Product Code	Volts†	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	MOL	THD	DLC [®] Qualified
22 Watt	G13	80875	T8FR22/835/BC/LED	120-277	3500	82	2200	50000	1/12	240°	48"	<20%	Yes
22 Watt	G13	80872	T8FR22/840/BC/LED	120-277	4000	80	2200	50000	1/12	240°	48"	<20%	Yes
22 Watt	G13	80873	T8FR22/850/BC/LED	120-277	5000	80	2200	50000	1/12	240°	48"	<20%	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 but at decreased light levels. Must be operated with an ambient fixture temperature between -4°F(-20°C) and 122°F(50°C).

§ Specifications are based on use with normal ballast factor ballasts (0.88). For LBF and HBF ballast performance, see the ProLED® Linear Direct T8 Sell Sheet.

† Linear direct T8 series lamps operate on compatible instant start electronic ballasts regardless of input voltage.



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

- 48" T8 LED Tube with bi-pin base
- Single-end powered, operates on 120V 277V line voltage range
- Reliable and efficient way to retrofit existing Linear Fluorescent fixtures with simple rewiring
- No external ballast or driver required
- Up-to 111 lumens per watt
- -4°F(-20°C) to 122°F(50°C) operating temperature range
- Instant-on, no flicker
- Frosted glass design
- UL Classified for dry locations
- 50,000 hour rated life, up-to 2 times the life of standard Fluorescent
- Available in 3500K, 4000K and 5000K CCT
- 80 CRI
- Mercury-free for safer operation
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications













Ordering Information





Halco



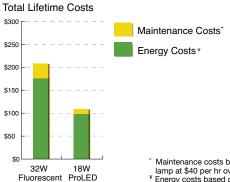
NEW!

Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Beam Spread	MOL	THD	DLC [®] Qualified
18 Watt	G13	80874	T8FR18/835/LED	120-277	3500	82	1800	50000	1/12	240°	48"	<20%	Yes
18 Watt	G13	80178	T8FR18/840/LED	120-277	4000	80	1900	50000	1/12	240°	48"	<20%	Yes
18 Watt	G13	80179	T8FR18/850/LED	120-277	5000	80	2000	50000	1/12	240°	48"	<20%	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 Bypass 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.



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

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



ProLED Downlight Retrofit Series



Specifications

- Low profile design compatible with 5" and 6" recessed downlight
- Trim with integrated white baffle
- Frosted polycarbonate lens
- Title 24 compliant quick connector
- Umbilical E26 socket assembly included, GU24 adapter available
- 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
- Acceptable for use in ICAT fixtures
- UL Classified for damp locations
- 2700K and 3000K lamps' performance meets California Quality Lamp Specifications
- 5-Year Limited Warranty

Markets & Applications















Ordering Information



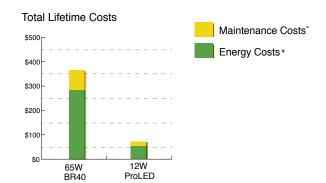




Watt	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	Fixture Size	Wattage Equivalent
12 Watt	80858	DL6FR12/927/LED	120	2700	90	800	40000	1	5" - 6"	65
12 Watt	80855	DL6FR12/930/LED	120	3000	90	800	40000	1	5" - 6"	65
12 Watt	80871 NEW	! DL6FR12/940/LED	120	4000	90	800	40000	1	5" - 6"	65
-	91003	ADP/DL/GU24/LED Coming Soon	-	-	-	-	-	1	-	-

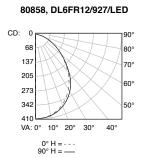
^{*} Useful Life is defined as the point in time at which the LED will maintain at least 70% of its initial lumens. The LED will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit www.halcolighting.com/ProLEDdim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

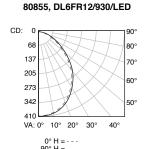
Energy Savings Comparison



lamp at \$40 per hr over the life of the ProLED lamp Finergy costs based on \$0.11 kWh over 40,000 hour life.

Photometrics





18

Maintenance costs based on 15 minutes to replace the

ProLED HID Retrofit Series

Specifications

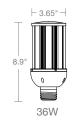
- Acceptable for enclosed luminaires
- Replacement for HID high bay or post top applications
- Can be used in base up or base down position
- -22°F (-30°C) to 140°F (60°C) operating temperature range
- E39/EX39 to E26 socket adapter available (item #91002)
- 120-277V input range
- 50,000 hour life
- Available in 5000K CCT
- 82 CRI for quality and consistent color rendering
- UL Listed for damp locations
- RoHS Compliant
- 5-Year Limited Warranty

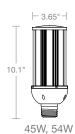
Markets & Applications

















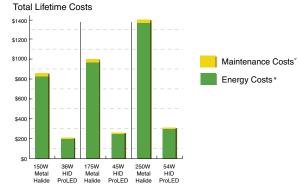
Ordering Information

Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
36 Watt	E26	80936	HID36/850/MV/LED	Omnidirectional	120-277	5000	82	4200	50000	1/12	8.90"	150
45 Watt	E26	80937	HID45/850/MV/LED	Omnidirectional	120-277	5000	82	5400	50000	1/12	10.10"	175
54 Watt	E26	80938	HID54/850/MV/LED	Omnidirectional	120-277	5000	82	6200	50000	1/12	10.10"	200

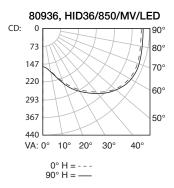
^{*} Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit www.halcolighting.com/ProLEDdim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

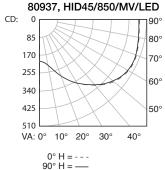
Upon completion of full lifetime testing, ProLED ENERGY STAR® listed lamps will be listed at their full lifetime.

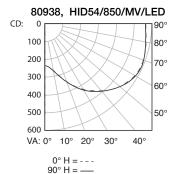
Energy Savings Comparison

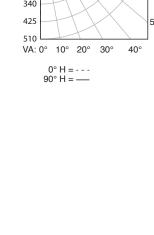


lamp at \$40 per hr over the life of the ProLED lamp.
YEnergy costs based on \$0.11 kWh over 40,000 hour life.









ProLED HIGH CRI PAR38

NEW!



5.08

Specifications

- Acceptable for use in ICAT rated luminaires
- Available in white and black finishes
- UL Listed for wet locations
- Dimmable to 5% for design flexibility
- 120-277V Rated PAR38 available
- Available in 2700K, 3000K, 4000K and 5000K CCT
- 90 CRI provides superior quality and color accuracy
- 2700K and 3000K lamps' performance meets the California Quality Lamp Specifications
- 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	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
15 Watt	Med.	82038	PAR38FL15/927/W/LED	Flood, White, IP65 Rated	120	2700	90	950	2250	25000	6/24	40°	5.08"	90
15 Watt	Med.	82039	PAR38FL15/930/W/LED	Flood, White, IP65 Rated	120	3000	90	1000	2300	25000	6/24	40°	5.08"	90
15 Watt	Med.	82040	PAR38FL15/940/W/LED	Flood, White, IP65 Rated	120	4000	90	1020	2340	25000 ■	6/24	40°	5.08"	90
15 Watt	Med.	82041	PAR38FL15/950/W/LED	Flood, White, IP65 Rated	120	5000	90	1050	2380	25000	6/24	40°	5.08"	90
15 Watt	Med.	82042	PAR38NFL15/927/W/LED	Narrow Flood, White, IP65 Rated	120	2700	90	950	4560	25000	6/24	25°	5.08"	90
15 Watt	Med.	82043	PAR38NFL15/930/W/LED	Narrow Flood, White, IP65 Rated	120	3000	90	1000	4620	25000	6/24	25°	5.08"	90
17 Watt	Med.	82046	PAR38FL17/927/W/LED	Flood, White, IP65 Rated	120	2700	90	1150	2500	25000 ■	6/24	40°	5.08"	120
17 Watt	Med.	82047	PAR38FL17/927/B/LED	Flood, Black, IP65 Rated	120	2700	90	1150	2500	25000	6/24	40°	5.08"	120
17 Watt	Med.	82048	PAR38FL17/930/W/LED	Flood, White, IP65 Rated	120	3000	90	1200	2550	25000	6/24	40°	5.08"	120
17 Watt	Med.	82049	PAR38FL17/930/B/LED	Flood, Black, IP65 Rated	120	3000	90	1200	2550	25000	6/24	40°	5.08"	120
17 Watt	Med.	82050	PAR38FL17/940/W/LED	Flood, White, IP65 Rated	120	4000	90	1220	2590	25000	6/24	40°	5.08"	120
17 Watt	Med.	82051	PAR38FL17/940/B/LED	Flood, Black, IP65 Rated	120	4000	90	1220	2590	25000	6/24	40°	5.08"	120
17 Watt	Med.	82052	PAR38FL17/950/W/LED	Flood, White, IP65 Rated	120	5000	90	1250	2630	25000	6/24	40°	5.08"	120
17 Watt	Med.	82053	PAR38NFL17/927/W/LED	Narrow Flood, White, IP65 Rated	120	2700	90	1150	5900	25000	6/24	25°	5.08"	120
17 Watt	Med.	82054	PAR38NFL17/927/B/LED	Narrow Flood, Black, IP65 Rated	120	2700	90	1150	5900	25000	6/24	25°	5.08"	120
17 Watt	Med.	82055	PAR38NFL17/930/W/LED	Narrow Flood, White, IP65 Rated	120	3000	90	1200	5960	25000	6/24	25°	5.08"	120
17 Watt	Med.	82056	PAR38NFL17/930/B/LED	Narrow Flood, Black, IP65 Rated	120	3000	90	1200	5960	25000	6/24	25°	5.08"	120
17 Watt	Med.	82057	PAR38NFL17/940/W/LED	Narrow Flood, White, IP65 Rated	120	4000	90	1220	6010	25000 -	6/24	25°	5.08"	120
17 Watt	Med.	82059	PAR38NFL17/950/W/LED	Narrow Flood, White, IP65 Rated	120	5000	90	1250	6050	25000	6/24	25°	5.08"	120
17 Watt	Med.	82061	PAR38FL17/940/W/MV/LED	Flood, White, IP65 Rated	120-277	4000	90	1200	2590	40000	6/24	40°	5.08"	120
17 Watt	Med.	82062	PAR38FL17/950/W/MV/LED	Flood, White, IP65 Rated	120-277	5000	90	1200	2630	40000	6/24	40°	5.08"	120

^{*} 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 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.

The 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.



ProLED Universal Voltage PAR38

Energy Savings Comparison

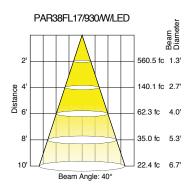
Total Lifetime Costs Maintenance Costs \$500 Energy Costs* \$400 \$300 \$200 \$100 90W 15W 120W 17W

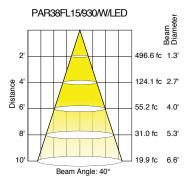
ProLED

Halogen

lamp at \$40 per hr over the life of the ProLED lamp. Finergy costs based on \$0.11 kWh over 40,000 hour life.

Photometrics





Specifications

- 120-277V range

Halogen

- IP65 Rated for wet locations

ProLED

- Available in 4000K and 5000K 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 Continued

Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
19 Watt	Med.	81049	PAR38FL19/840/W/277V/LED	Flood, IP65 Rated ${\it H}$	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 ${\it H}$	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. Acceptable for use in sealed metal landscape fixtures when protected from the elements $\,\,\mathbb{H}\,$ Non-dimmable

Energy Savings Comparison

Total Lifetime Costs \$600 Maintenance Costs` \$500 Energy Costs* \$400 \$300 \$100 90W Halogen 19W ProLED

Maintenance costs based on 15 minutes to replace the

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

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

ProLED High CRI PAR30

NEW!



4.61" 3.74" 3.35" 3.74" Long Neck Short Neck

Specifications

- PAR30S and PAR30L with smooth sided, lightweight construction
- Acceptable for use in ICAT rated luminaires
- Available in white and black finishes
- UL Listed for wet locations
- Dimmable to 5% for design flexibility
- Available in 2700K, 3000K, 4000K and 5000K
- 90 CRI provides superior quality and color accuracy
- Narrow Flood and Flood beam angles available
- 2700K and 3000K lamps' performance meets the California Quality Lamp Specifications
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications













Ordering Information











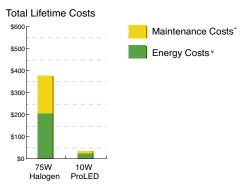
	•								9 990	-	HUI STAIL			LED Product Part
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalen
10 Watt	Med.	82012	PAR30FL10L/927/W/LED	Flood, White, IP65 Rated	120	2700	90	750	1560	25000	6/24	40°	4.61"	75
10 Watt	Med.	82013	PAR30FL10L/927/B/LED	Flood, Black, IP65 Rated	120	2700	90	750	1560	25000	6/24	40°	4.61"	75
10 Watt	Med.	82014	PAR30FL10L/930/W/LED	Flood, White, IP65 Rated	120	3000	90	800	1600	25000	6/24	40°	4.61"	75
10 Watt	Med.	82015	PAR30FL10L/930/B/LED	Flood, Black, IP65 Rated	120	3000	90	800	1600	25000	6/24	40°	4.61"	75
10 Watt	Med.	82016	PAR30FL10L/940/W/LED	Flood, White, IP65 Rated	120	4000	90	820	1630	25000	6/24	40°	4.61"	75
10 Watt	Med.	82017	PAR30FL10L/940/B/LED	Flood, Black, IP65 Rated	120	4000	90	820	1630	25000	6/24	40°	4.61"	75
10 Watt	Med.	82018	PAR30FL10L/950/W/LED	Flood, White, IP65 Rated	120	5000	90	850	1670	25000	6/24	40°	4.61"	75
10 Watt	Med.	82019	PAR30NFL10L/927/W/LED	Narrow Flood, White, IP65 Rated	120	2700	90	750	3540	25000	6/24	25°	4.61"	75
10 Watt	Med.	82020	PAR30NFL10L/927/B/LED	Narrow Flood, Black, IP65 Rated	120	2700	90	750	3540	25000	6/24	25°	4.61"	75
10 Watt	Med.	82021	PAR30NFL10L/930/W/LED	Narrow Flood, White, IP65 Rated	120	3000	90	800	3600	25000	6/24	25°	4.61"	75
10 Watt	Med.	82024	PAR30NFL10L/950/W/LED	Narrow Flood, White, IP65 Rated	120	5000	90	850	3670	25000	6/24	25°	4.61	75
10 Watt	Med.	82025	PAR30FL10S/927/W/LED	Flood, White, IP65 Rated	120	2700	90	750	1590	25000	6/24	40°	3.35"	75
10 Watt	Med.	82026	PAR30FL10S/927/B/LED	Flood, Black, IP65 Rated	120	2700	90	750	1590	25000	6/24	40°	3.35"	75
10 Watt	Med.	82027	PAR30FL10S/930/W/LED	Flood, White, IP65 Rated	120	3000	90	800	1640	25000	6/24	40°	3.35"	75
10 Watt	Med.	82028	PAR30FL10S/930/B/LED	Flood, Black, IP65 Rated	120	3000	90	800	1640	25000	6/24	40°	3.35"	75
10 Watt	Med.	82029	PAR30FL10S/940/W/LED	Flood, White, IP65 Rated	120	4000	90	820	1680	25000	6/24	40°	3.35"	75
10 Watt	Med.	82030	PAR30FL10S/940/B/LED	Flood, Black, IP65 Rated	120	4000	90	820	1680	25000	6/24	40°	3.35"	75
10 Watt	Med.	82031	PAR30FL10S/950/W/LED	Flood, White, IP65 Rated	120	5000	90	850	1720	25000	6/24	40°	3.35"	75
10 Watt	Med.	82032	PAR30NFL10S/927/W/LED	Narrow Flood, White, IP65 Rated	120	2700	90	750	3700	25000	6/24	25°	3.35"	75
10 Watt	Med.	82033	PAR30NFL10S/927/B/LED	Narrow Flood, Black, IP65 Rated	120	2700	90	750	3700	25000	6/24	25°	3.35"	75
10 Watt	Med.	82034	PAR30NFL10S/930/W/LED	Narrow Flood, White, IP65 Rated	120	3000	90	800	3760	25000	6/24	25°	3.35"	75
10 Watt	Med.	82035	PAR30NFL10S/930/B/LED	Narrow Flood, Black, IP65 Rated	120	3000	90	800	3760	25000	6/24	25°	3.35"	75
10 Watt	Med.	82036	PAR30NFL10S/940/W/LED	Narrow Flood, White, IP65 Rated	120	4000	90	900	3820	25000	6/24	25°	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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

[■] 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.

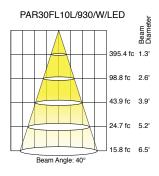
ProLED High CRI PAR30

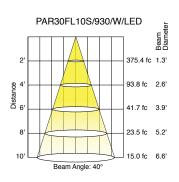
Energy Savings Comparison

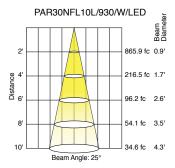


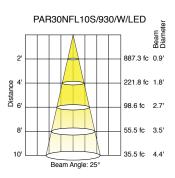
- Maintenance costs based on 15 minutes to replace the
- lamp at \$40 per hr over the life of the ProLED lamp.

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









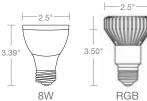


ProLED PAR30 Series IP65 rated long and short neck lamps are ideal for retail applications. Compared to Incandescent and Halogen, ProLED lamps generate less heat and emit no ultraviolet or infrared rays eliminating fading concerns. ProLED PAR30 lamps' labor saving long life - up-to 40,000 hours - reduces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

ProLED High CRI PAR20

NEW!





Specifications

- PAR20 with smooth sided, lightweight construction
- Acceptable for use in ICAT rated luminaires
- Available in white and black finishes
- UL Listed for wet locations
- Dimmable to 5% for design flexibility
- Available in 2700K, 3000K, 4000K and 5000K
- 90 CRI provides superior quality and color accuracy
- Narrow Flood and Flood beam angles available
- 2700K and 3000K lamps' performance meets the California Quality Lamp Specifications
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications















Ordering Information









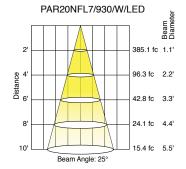
		_								o Was	LIVERGI	O IPGI		LED Product Par
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*		Beam Spread	MOL	Wattage Equivalent
7 Watt	Med.	82000	PAR20NFL7/927/W/LED	Narrow Flood, White, IP65 Rated	120	2700	90	460	1500	25000	6/24	25°	3.39"	50
7 Watt	Med.	82001	PAR20NFL7/930/W/LED	Narrow Flood, White, IP65 Rated	120	3000	90	470	1540	25000	6/24	25°	3.39"	50
7 Watt	Med.	82003	PAR20NFL7/930/B/LED	Narrow Flood, Black, IP65 Rated	120	3000	90	470	1540	25000	6/24	25°	3.39"	50
7 Watt	Med.	82004	PAR20NFL7/940/W/LED	Narrow Flood, White, IP65 Rated	120	4000	90	500	1590	25000	6/24	25°	3.39"	50
7 Watt	Med.	82005	PAR20NFL7/950/W/LED	Narrow Flood, White, IP65 Rated	120	5000	90	525	1630	25000	6/24	25°	3.39"	50
7 Watt	Med.	82006	PAR20FL7/927/W/LED	Flood, White, IP65 Rated	120	2700	90	460	920	25000	6/24	40°	3.39"	50
7 Watt	Med.	82007	PAR20FL7/927/B/LED	Flood, Black, IP65 Rated	120	2700	90	460	920	25000	6/24	40°	3.39"	50
7 Watt	Med.	82008	PAR20FL7/930/W/LED	Flood, White, IP65 Rated	120	3000	90	470	970	25000	6/24	40°	3.39"	50
7 Watt	Med.	82009	PAR20FL7/930/B/LED	Flood, Black, IP65 Rated	120	3000	90	470	970	25000	6/24	40°	3.39"	50
7 Watt	Med.	82010	PAR20FL7/940/W/LED	Flood, White, IP65 Rated	120	4000	90	500	1020	25000	6/24	40°	3.39"	50
7 Watt	Med.	82011	PAR20FL7/940/B/LED	Flood, Black, IP65 Rated	120	4000	90	500	1020	25000	6/24	40°	3.39"	50
7 Watt	Med.	82060	PAR20FL7/950/W/LED	Flood, White, IP65 Rated	120	5000	90	525	1050	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 Changin	g Lam	р								

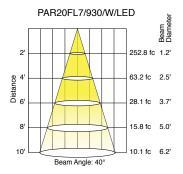
^{*} Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels.

• May not be compatible with all dimming systems, dimming performance may vary by system, please visit www.halcolighting.com/ProLEDdim for dimmer compatibility information.

Use on incompatible systems may shorten lamp life.

Energy Savings Comparison



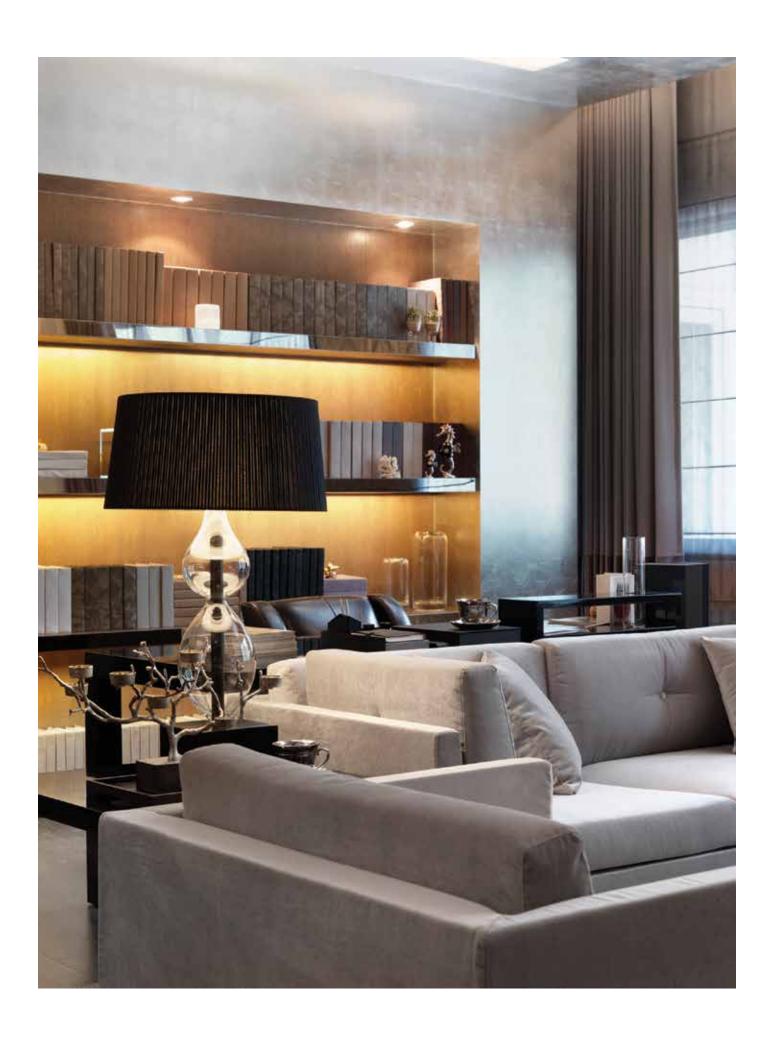


ENERGY STAR® mandates that lamps may only be listed at 25,000 hour life with 3,000 hour actual life test data, 6,000 hour LM80 data and in-situ temperature measurements. Upon completion of full lifetime testing, ProLED ENERGY STAR® listed lamps will be listed at their full lifetime.

*** Non-dimmable**

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

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



ProLED PAR16/MR16





Specifications

- Up-to 83% energy savings 6W PAR16 versus 35W Halogen
- UL Listed for damp locations
- Dimmable to 5% for design flexibility
- 40,000 hour life, 16 times longer than traditional lamps
- Available in 2700K, 3000K, 4000K and 5000K CCT
- Up-to 82 CRI for quality and consistent color rendering
- Flood or Narrow Flood beam spreads
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications













Ordering Information



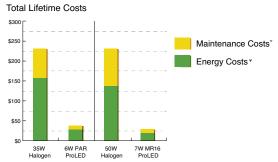




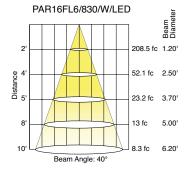
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
6 Watt	Med.	81038	PAR16FL6/827/W/LED	Flood ∞	120	2700	82	370	780	40000	6/24	40°	2.75"	35
6 Watt	Med.	81039	PAR16FL6/830/W/LED	Flood ∞	120	3000	82	380	780	25000	6/24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

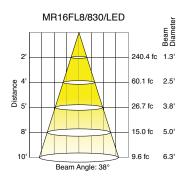
^{*} Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to operate past this point at decreased light levels. May not be compatible with all dimming systems, dimming performance may vary by system, please visit www.halcolighting.com/ProLEDdim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

Energy Savings Comparison



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





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

[■] 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



Specifications

- BR40 with Medium E26 base
- Acceptable for ICAT rated luminaires
- UL Listed for damp locations
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life
- Available in 2700K, 3000K, 4000K and 5000K 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



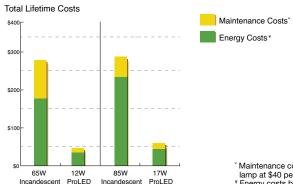






Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
12 Watt	Med.	80116	BR40FL13/827/LED	120	2700	82	900	25000 ■	1/6	6.46"	65
12 Watt	Med.	80118	BR40FL13/830/LED	120	3000	82	930	25000	1/6	6.46"	65
12 Watt	Med.	80120	BR40FL13/840/LED	120	4000	82	970	40000	1/6	6.46"	65
12 Watt	Med.	80122	BR40FL13/850/LED	120	5000	82	1000	40000	1/6	6.46"	65
17 Watt	Med.	80124	BR40FL18/827/LED	120	2700	82	1200	25000	1/6	6.46"	85
17 Watt	Med.	80182	BR40FL18/830/LED	120	3000	82	1230	25000 ■	1/6	6.46"	85
17 Watt	Med.	80128	BR40FL18/840/LED	120	4000	82	1280	25000	1/6	6.46"	85
17 Watt	Med.	80130	BR40FL18/850/LED	120	5000	82	1320	25000	1/6	6.46"	85
17 Watt	Med.	80134	R40FL18/POOL/LED ==	120	6500	82	3150	40000	6/24	6.46"	-
17 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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.



Maintenance costs based on 15 minutes to replace the

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.

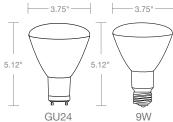
Pool Bright lamp lumens are represented as scotopic lumens. Not for use in spas.

lamp at \$40 per/hr over the life of the ProLED lamp.

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

ProLED BR30





Specifications

- BR30 with Medium E26 base
- GU24 base available for 9W BR30
- Acceptable for ICAT rated luminaires
- UL Listed for damp locations
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life
- Available in 2700K, 3000K, 4000K, 5000K CCT and Pink
- 82 CRI for quality and consistent color rendering
- 92 CRI option meets the California Quality Lamp Specifications
- Flood beam spread
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications













Hea

Hospitality

Ordering Information







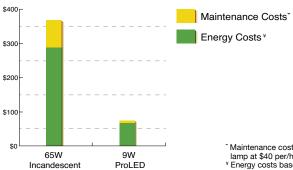


Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
9 Watt	GU24	80158	BR30FL9/827/GU24/LED	120	2700	82	650	40000	1/6	5.12"	65
9 Watt	Med.	80159	BR30FL9/827/LED	120	2700	82	650	25000 ■	1/6	5.12"	65
9 Watt	Med.	80160	BR30FL9/830/LED	120	3000	82	670	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.	80181	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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

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 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.

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



Specifications

- R20 with Medium E26 base
- Acceptable for ICAT rated luminaires
- UL Listed for damp locations
- Dimmable to 5% for design flexibility
- Up-to 40,000 hour life
- Available in 2700K, 3000K, 5000K and 6500K 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



7 Watt

Med.



Commercial





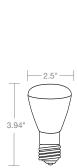


Office



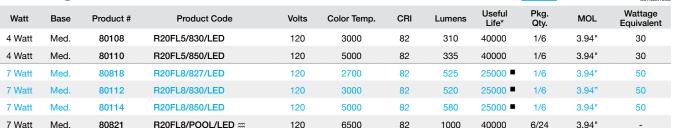








Ordering Information



6500

82

1000

40000

6/24

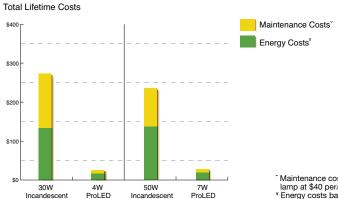
3.94"

12

R20FL8/POOL/12V/LED ==

Energy Savings Comparison

80822



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

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

lighting

factš

^{*} 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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.

[■] 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

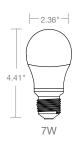
ProLED Omnidirectional A-Shape Series



Specifications

- 300° Omnidirectional
- UL Listed for damp locations and enclosed fixtures
- Dimmable to 5% for design flexibility
- Available in 2700K, 3000K, 4000K and 5000K CCT
- 82 CRI for quality and consistent color rendering
- No Mercury or UV/IR emissions
- RoHS Compliant
- Not rated for enclosed fixtures
- 5-Year Limited Warranty





Markets & Applications











Ordering Information



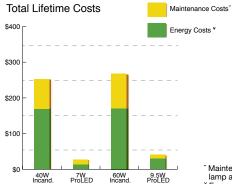






Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
7 Watt	Med.	80841	A19FR7/827/OMNI/LED	120	2700	82	470	25000	1/6	4.41"	40
7 Watt	Med.	80842	A19FR7/830/OMNI/LED	120	3000	82	470	25000	1/6	4.41"	40
9.5 Watt	Med.	80857	A19FR10/827/OMNI/LED	120	2700	82	810	25000	1/6	4.65"	60
9.5 Watt	Med.	80864	A19FR10/830/OMNI/LED	120	3000	82	820	25000	1/6	4.65"	60
9.5 Watt	Med.	80865	A19FR10/840/OMNI/LED	120	4000	82	870	25000	1/6	4.65"	60
9.5 Watt	Med.	80870	A19FR10/850/OMNI/LED	120	5000	82	880	25000	1/6	4.65"	60
12 Watt	Med.	80939	A19FR12/827/OMNI/LED ‡	120	2700	82	1100	25000	1/6	4.65"	75
12 Watt	Med.	80940	A19FR12/830/OMNI/LED ‡	120	3000	82	1140	25000	1/6	4.65"	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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.



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

^{25,000} hour useful life rating is based on a maximum ambient temperature of 45°C. Exceeding this ambient temperature rating may result in reduced life. ‡ ENERGY STAR® pending.

^{*} Energy costs based on \$0.11 kWh over 25,000 hour life.

ProLED A-Shape Non-Dimmable Series

Specifications

- A19 A-Shape with Medium base
- 25,000 hour life
- Available in 2700K and 3000K CCT
- 82 CRI for quality and consistent color rendering
- Not rated for enclosed fixtures
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



2.36" —



Markets & Applications





Commercial



Education











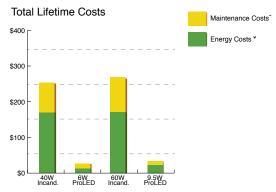
Ordering Information





Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
6 Watt	Med.	80866	A19FR6/827/ND/LED	120	2700	82	470	25000	1/24	4.29"	40
6 Watt	Med.	80867	A19FR6/830/ND/LED	120	3000	82	480	25000	1/24	4.29"	40
9.5 Watt	Med.	80868	A19FR9/827/ND/LED	120	2700	82	800	25000	1/30	4.65"	60
9.5 Watt	Med.	80869	A19FR9/830/ND/LED	120	3000	82	810	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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.



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 Globe



Specifications

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



Markets & Applications













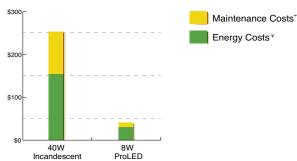
Ordering Information

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.

Energy Savings Comparison

Total Lifetime Costs



Maintenance costs based on 15 minutes to replace the

[■] 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.

lamp at \$40 per/hr over the life of the ProLED lamp.
Yenergy 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 and Brass base options (3W)
- Dimmable to 5% for design flexibility (3W and 5W)
- Up-to 40,000 hour life, 16 times longer than traditional lamps
- Available in 2700K CCT
- 82 CRI for quality and consistent color rendering
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



Markets & Applications



Residential

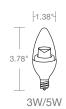












Ordering Information



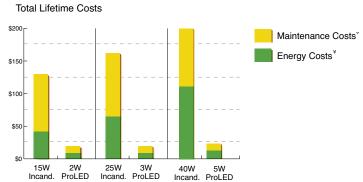






Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
3 Watt	Cand.	80094	B11CL3/827/LED	Cream Finish	120	2700	82	180	25000	1/10	3.78"	25
3 Watt	Cand.	80789	B11CL3/827/BR/LED	Brass Finish	120	2700	82	180	25000	1/10	3.78"	25
3 Watt	Cand.	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 for dimmer compatibility information. Use on incompatible systems may shorten lamp life.



Maintenance costs based on 15 minutes to replace the

lamp at \$40 per/hr over the life of the ProLED lamp. YEnergy costs based on \$0.11 kWh over 40,000 hour life.

ProLED Sign Lamp Series



Specifications

- S11 Shape with Medium E26 and E17 base
- S14 with Medium E26 base
- UL Listed for wet locations and IP65 Rated
- Dimmable
- 40,000 hour useful life
- S11 Shape available in Clear and White options
- S14 Shape available in Red, Blue, Green,
 Yellow, Orange, White and Clear 2700K options
- Designed for rapidly flashing sign applications
- Unique "Heat-to-Base" design
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty

Markets & Applications









Outdoor

Ordering Information





Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL
1.2 Watt	Int.	80525	S11CL1C/827/INT/LED	Clear, IP65 Rated	120	2700	82	35	40000	1/25	2.24"
1.2 Watt	Med.	80524	S11CL1C/827/LED	Clear, IP65 Rated	120	2700	82	35	40000	1/25	2.24"
1.2 Watt	Med.	80526	S11WH1C/LED	White, IP65 Rated	120	-	-	-	40000	1/25	2.24"
1.4 Watt	Med.	80517	S14RED1C/LED	Red, IP65 Rated	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80518	S14BLU1C/LED	Blue, IP65 Rated	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80519	S14GRN1C/LED	Green, IP65 Rated	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80520	S14YEL1C/LED	Yellow, IP65 Rated	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80521	S14WH1C/LED	White, IP65 Rated	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80523	S140RG1C/LED	Orange, IP65 Rated	120	-	-	-	40000	1/25	3.35"
1.4 Watt	Med.	80522	S14CL1C/827/LED	Clear, IP65 Rated	120	2700	82	35	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.

ProLED Decorative Chandelier

Specifications

- B10 Torpedo and C10 Flame tip options
- Dimmable to 5% for design flexibility
- UL Listed for wet locations
- Available in 2400K and 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

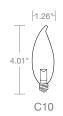












Ordering Information





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"

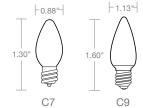
^{*} Useful Life is defined as the point in time at which the lamp will maintain at least 70% of its initial lumens. The lamp will continue to burn past this point at decreased light levels. Not for use in enclosed fixtures.

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)
- Available in 2700K and 6000K CCT, Blue, Green, Red or Yellow
- Omnidirectional distribution
- No Mercury or UV/IR emissions
- RoHS Compliant
- 2-Year Limited Warranty



Markets & Applications









Hospitality

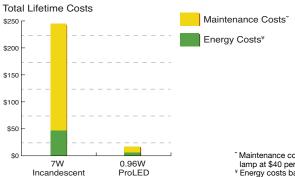


Ordering Information



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.



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

Finergy costs based on \$0.11 kWh over 60,000 hour life.

ProLED PAR36 Indoor

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
- Available in 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

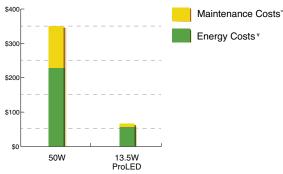
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
13.5 Watt	MP Term	80165	PAR36FL14/827/LED	Flood ∺	12	2700	82	870	1830	40000	1/6	32°	2.17"	50

^{*} 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.

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.

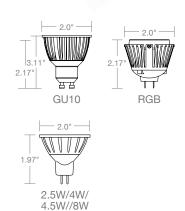
Energy costs based on \$0.11 kWh over 40,000 hour life.

ProLED MR16



Specifications

- MR16 with GU5.3 and GU10 base options
- UL Listed for damp locations
- 10-18V (10W, 20W and 50W equivalents)
- 10-15V (35W equivalent)
- Dimmable to 5% for design flexibility
- Available in 2700K, 3000K and 5000K in Flood beam angles
- Available in 2700K and 3000K in Narrow Flood and Wide Flood beam angles
- 82 CRI for quality and consistent color rendering
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



Markets & Applications



Ordering Information







														LED Product Partner
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
2.5 Watt	GU5.3	81055	MR16NFL10/827/LED	Narrow Flood ◆∞	10-18	2700	82	200	800	40000	1/10	20°	1.97"	10
2.5 Watt	GU5.3	81079	MR16NFL10/830/LED	Narrow Flood ◆∞	10-18	3000	82	210	830	40000	1/10	20°	1.97"	10
2.5 Watt	GU5.3	81056	MR16FL10/827/LED	Flood •∞	10-18	2700	82	200	300	40000	1/10	40°	1.97"	10
2.5 Watt	GU5.3	81077	MR16FL10/830/LED	Flood •∞	10-18	3000	82	210	320	40000	1/10	40°	1.97"	10
2.5 Watt	GU5.3	81058	MR16FL10/850/LED	Flood •∞	10-18	5000	82	230	350	40000	1/10	40°	1.97"	10
2.5 Watt	GU5.3	81057	MR16WFL10/827/LED	Wide Flood •∞	10-18	2700	82	200	200	40000	1/10	60°	1.97"	10
2.5 Watt	GU5.3	81080	MR16WFL10/830/LED	Wide Flood •∞	10-18	3000	82	210	220	40000	1/10	60°	1.97"	10
4 Watt	GU5.3	81059	MR16BBF/827/LED	Narrow Flood ◆∞	10-18	2700	82	270	900	40000	1/10	20°	1.97"	20
4 Watt	GU5.3	81081	MR16BBF/830/LED	Narrow Flood ◆∞	10-18	3000	82	280	1100	40000	1/10	20°	1.97"	20
4 Watt	GU5.3	81060	MR16BAB/827/LED	Flood •∞	10-18	2700	82	270	440	40000	1/10	40°	1.97"	20
4 Watt	GU5.3	81062	MR16BAB/830/LED	Flood •∞	10-18	3000	82	280	500	40000	1/10	40°	1.97"	20
4 Watt	GU5.3	81063	MR16BAB/850/LED	Flood •∞	10-18	5000	82	310	530	40000	1/10	40°	1.97"	20
4 Watt	GU5.3	81061	MR16WFL20/827/LED	Wide Flood ◆∞	10-18	2700	82	270	210	40000	1/10	60°	1.97"	20
4 Watt	GU5.3	81082	MR16WFL20/830/LED	Wide Flood ◆∞	10-18	3000	82	280	230	40000	1/10	60°	1.97"	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	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
4.5 Watt	GU5.3	81064	MR16FRA/827/LED	Narrow Flood •∞	10-15	2700	82	380	1700	40000	1/10	20°	1.97"	35
4.5 Watt	GU5.3	81083	MR16FRA/830/LED	Narrow Flood ◆∞	10-15	3000	82	390	1800	40000	1/10	20°	1.97"	35
4.5 Watt	GU5.3	81065	MR16FMW/827/LED	Flood •∞	10-15	2700	82	380	600	40000	1/10	40°	1.97"	35
4.5 Watt	GU5.3	81067	MR16FMW/830/LED	Flood •∞	10-15	3000	82	390	650	40000	1/10	40°	1.97"	35
4.5 Watt	GU5.3	81068	MR16FMW/850/LED	Flood •∞	10-15	5000	82	430	700	40000	1/10	40°	1.97"	55
4.5 Watt	GU5.3	81066	MR16WFL35/827/LED	Wide Flood ◆∞	10-15	2700	82	380	300	40000	1/10	60°	1.97"	35
4.5 Watt	GU5.3	81084	MR16WFL35/830/LED	Wide Flood ◆∞	10-15	3000	82	390	320	40000	1/10	60°	1.97"	35
5 Watt	GU10	80860	MR16FL5/830/GU10/LED	Flood •	120	3000	82	370	750	40000	1/10	40°	2.17"	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	81069	MR16EXZ/827/LED	Narrow Flood ◆∞	10-18	2700	82	590	2700	40000	1/10	20°	1.97"	50
8 Watt	GU5.3	81085	MR16EXZ/830/LED	Narrow Flood •∞	10-18	3000	82	600	2800	40000	1/10	20°	1.97"	50
8 Watt	GU5.3	81070	MR16EXN/827/LED	Flood •∞	10-18	2700	82	590	1100	40000	1/10	40°	1.97"	50
8 Watt	GU5.3	81072	MR16EXN/830/LED	Flood •∞	10-18	3000	82	600	1200	40000	1/10	40°	1.97"	50
8 Watt	GU5.3	81073	MR16EXN/850/LED	Flood •∞	10-18	5000	82	660	1400	40000	1/10	40°	1.97"	50
8 Watt	GU5.3	81071	MR16FNV/827/LED	Wide Flood •∞	10-18	2700	82	590	500	40000	1/10	60°	1.97"	50
8 Watt	GU5.3	81086	MR16FNV/830/LED	Wide Flood ◆∞	10-18	3000	82	600	520	40000	1/10	60°	1.97"	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 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.

ProLED MR16

Energy Savings Comparison

Total Lifetime Costs \$300 Since the cost of the cost

ProLED

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

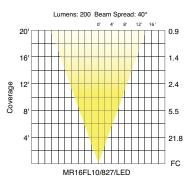
Halogen

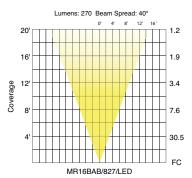
ProLED

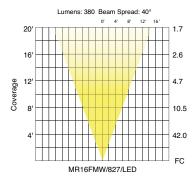
Halogen

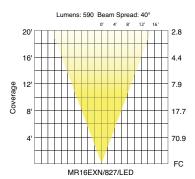
Finergy costs based on \$0.11 kWh over 40,000 hour life.

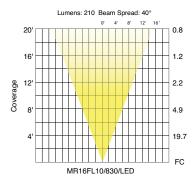
Photometrics

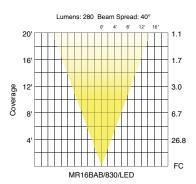


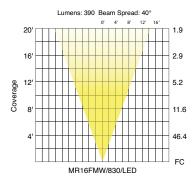


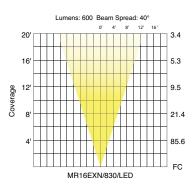








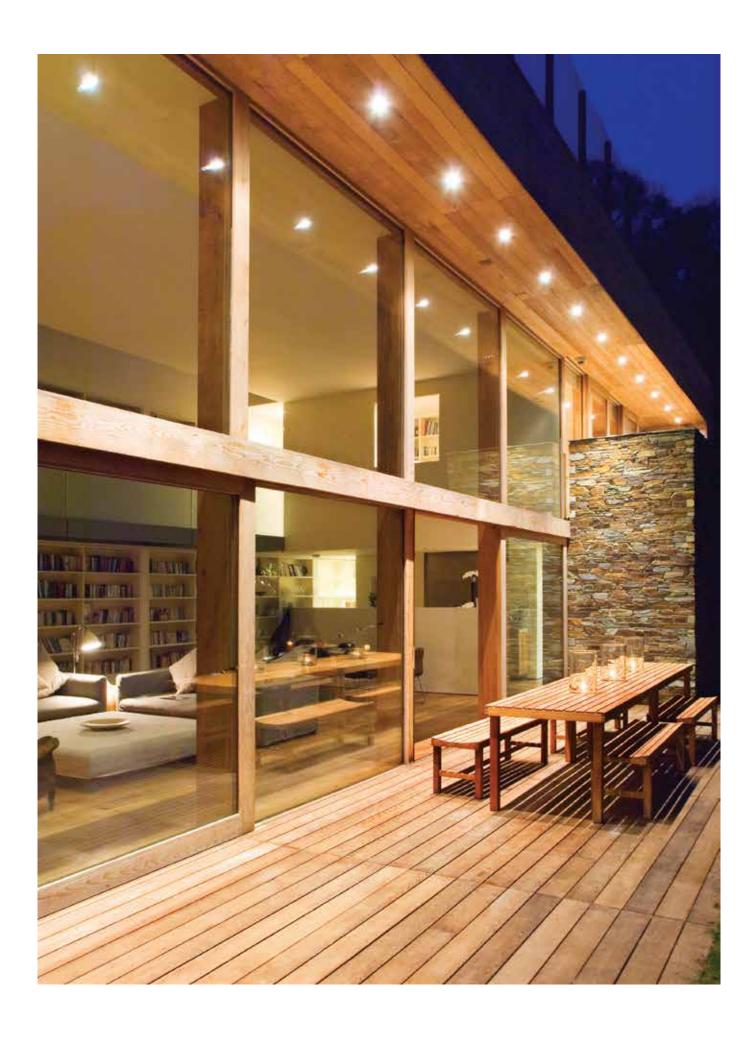








Halco's ProLED Commercial MR16 offering can be found on page 26.



ProLED MR11



Product Code

MR11/2NW/FL/LED

MR11/2WW/FL/LED

MR11/2WW/NFL/LED

MR11FTD/827/BA15D/LED

Specifications

- Single point light source option
- High power LED
- Damp location rated available
- 10-18V options
- Dimmable to 5% for design flexibility
- 40,000 hour life
- Available in 2700K and 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



Color

5000

2700

2700

2700



CRI

72

82

82

82

Lumens

150

110

110

230



CBCP

420

330

860

1135



Useful

40000

40000

40000

40000

Pkg.

Qty.

1/10

1/10

1/10

1/10







lighting

20

Ordering Information

Base

GU4

GU4

GU4

Product #

80703

80705

80704

80169

Watt

2.2 Watt

2.2 Watt

2.2 Watt

3.5 Watt BA15d





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 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.

Volts

10-18

10-18

10-18

10-15

Description

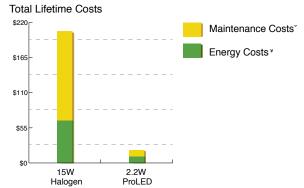
Flood

Flood

Narrow Flood

Flood

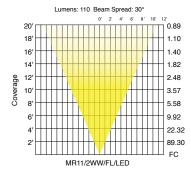
Energy Savings Comparison

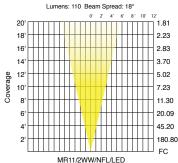


Maintenance costs based on 15 minutes to replace the lamp at \$40 per/hr over the of the ProLED lamp.

Yenergy 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:



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, PAR30S, PAR20, 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.

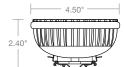
ProLED lamps are designed for reliable performance and are backed by a warranty you can rely on. Fixtures, Reflector, PAR, A-Shape, G25, MR, PAR36 and IP65 Rated JC lamps are backed by a 5-Year Limited Warranty. ProLED 912 lamps, C7/C9 and standard JC lamps are backed by a 2-Year Limited Warranty.

ProLED Outdoor PAR36



Specifications

- IP67 rated for waterproof installations
- Energy savings up-to 81% 6.5W PAR36 versus 35W Halogen¹
- Multi-purpose base for slip-on or screw terminal connections
- 10-15V input voltage range
- 40,000 hour life, up-to 12 times longer than traditional
- Available in 2700K CCT
- 82 CRI for quality and consistent color rendering
- 32° beam spread available for light control
- No Mercury or UV/IR emissions
- RoHS Compliant
- 5-Year Limited Warranty



Markets & Applications



Commercial

Ordering Information



factš

Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	СВСР	Useful Life*	Pkg. Qty.	Beam Spread	MOL	Wattage Equivalent
4.5 Watt	MP Term	81074	PAR36WFL4/827/IP67/LED	Wide Flood	10-15	2700	82	300	700	40000	1/6	32°	2.40"	20
6.5 Watt	MP Term	81075	PAR36WFL6/827/IP67/LED	Wide Flood	10-15	2700	82	450	1100	40000	1/6	32°	2.40"	35
12.5 Watt	MP Term	81076	PAR36WFL12/827/IP67/LED	Wide Flood	10-15	2700	82	800	2000	40000	1/6	32°	2.40"	50

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

May not be compatible with all electronic transformers. Rated for outdoor use only.

Energy Savings Comparison

Total Lifetime Costs Maintenance Costs* Energy Costs* \$100 20W 4.5W 35W 6.5W 50W 12.5W ProLED ProLED ProLED

^{*} 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

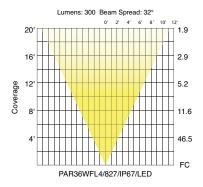
Maintenance costs based on 15 minutes to replace the

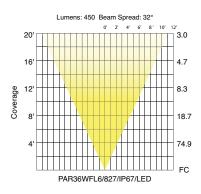
lamp at \$40 per/hr over the life of the ProLED lamp.

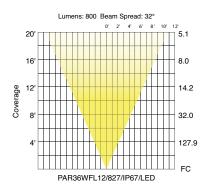
YEnergy costs based on \$0.11 kWh over 40,000 hour life.

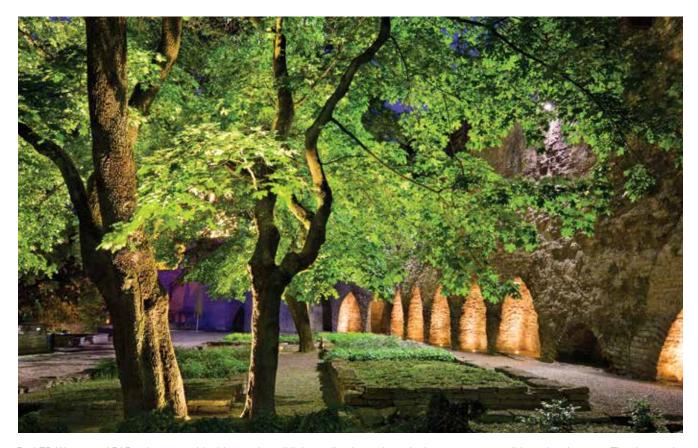
ProLED Outdoor PAR36

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.

ProLED JC



0.75 JC10 0.80" 0.60 JC20 - 0.80" 0.60" JC35 JC10/JC20 JC10 JC20 JC3 GY6.35 BA15s BA15s G4 BA15s IP65 Rated

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
- Available in 2700K, 3000K and 5000K CCT
- 82 CRI for quality and consistent color rendering
- Amber, Blue, Green or Red color options
- 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



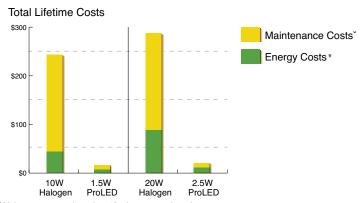
Watt	Base	Product #	Product Code	Description	Volts	Color Temp.	CRI	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
1.5 Watt	G4	80693	JC10/1WW/LED	Omnidirectional	10-18	3000	82	150	20000	1/40	1.21"	10
1.5 Watt	G4	80776	JC10/1WW/LED2	Omnidirectional, IP65 Rated	10-18	3000	82	100	40000	1/10	1.43"	10
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
3.3 Watt	G4	81078 NE	W! JC3VWFL/827/LED	100° Very Wide Flood	12	2700	82	200	25000	1/10	1.38"	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.

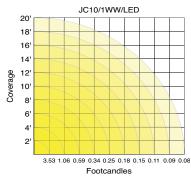


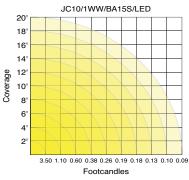
Energy Savings Comparison

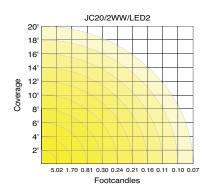


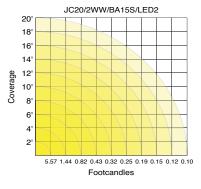
Maintenance costs based on 15 minutes to replace the

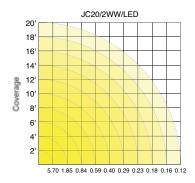
Photometrics

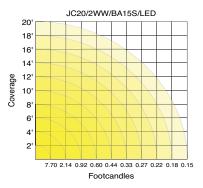












lamp at \$40 per/hr over the life of the ProLED lamp.

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

ProLED 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
- Available in 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

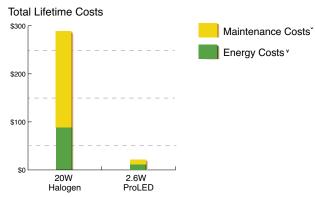




Watt	Base	Product #	Product Code	Volts	Color Temp.	CRI	СВСР	Lumens	Useful Life*	Pkg. Qty.	MOL	Wattage Equivalent
2.6 Watt	BA15d	80756	GBF/3WW/LED	10-18	2700	82	410	145	40000	1/10	2.52"	20
2.6 Watt	BA15s	80701	1383/3WW/LED	10-18	2700	82	410	145	40000	1/10	2.52"	20

^{*} 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



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

Finergy 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 fovs
- Available in 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



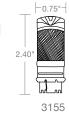












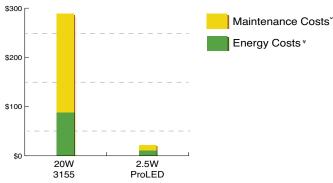
Ordering Information

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
MR11								
60	10	2.2 Watts	GU4	3.4	80705	MR11/2WW/FL/LED		
MR16				3.4	80704	MR11/2WW/NFL/LED		
	10	2.5 Watts	GU5.3	4.2	81055	MR16NFL10/827/LED	81058	MR16FL10/850/LED
				4.2	81079	MR16NFL10/830/LED	81057	MR16WFL10/827/LED
				4.2	81056	MR16FL10/827/LED	81080	MR16WFL10/830/LED
				4.2	81077	MR16FL10/830/LED		
	20	4 Watts	GU5.3	6.7	81059	MR16BBF/827/LED	81063	MR16BAB/850/LED
				6.7	81081	MR16BBF/830/LED	81061	MR16WFL20/827/LED
				6.7	81060	MR16BAB/827/LED	81082	MR16WFL20/830/LED
				6.7	81062	MR16BAB/830/LED	80728	MR16/5RGB/FL/LED
	35	4.5 Watts	GU5.3	5.0	81064	MR16FRA/827/LED	81067	MR16FMW/830/LED
				5.0	81083	MR16FRA/830/LED	81066	MR16WFL35/827/LED
				5.0	81065	MR16FMW/827/LED	81084	MR16WFL35/830/LED
				5.0	81068	MR16FMW/850/LED		
	35	5 Watts	GU10	7.1	80860	MR16FL5/830/GU10/LED		
	50	7 Watts	GU10	10.0	80167	MR16FL7/830/GU10/LED		
	50	8 Watts	GU5.3	8.9	81069	MR16EXZ/827/LED	81073	MR16EXN/850/LED
				8.9	81085	MR16EXZ/830/LED	81071	MR16FNV/827/LED
				8.9	81070	MR16EXN/827/LED	81086	MR16FNV/830/LED
PAR36				8.9	81072	MR16EXN/830/LED		
1	20	4.5 Watts	MP Term	6.7	81074	PAR36WFL4/827/IP67/LED		
(-0.30)	35	6.5 Watts	MP Term	10.9	81075	PAR36WFL6/827/IP67/LED		
41 0836	50	12.5 Watts	MP Term	20.8	81076	PAR36WFL12/827/IP67/LED		
T3 & T4 Bi-Pin								
	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		
A A	-	1.8 Watts	G4	2.6	80782	JC20/2AMB/LED*		
St A	20	2.4 Watts	BA15s	3.1	80691	JC20/2WW/BA15S/LED		
			G4	3.1	80690	JC20/2WW/LED	80833	JC2/827/LED
O. C.	20	2.5 Watts	BA15s	3.1	80775	JC20/2WW/BA15S/LED2		
1860			G4	3.1	80774	JC20/2WW/LED2		
	35	4.5 Watts	G4	6.0	80830	JC35/4WW/LED		
Wedge								
	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).

Notes





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