



Lamp and Ballast Catalog

OSRAM



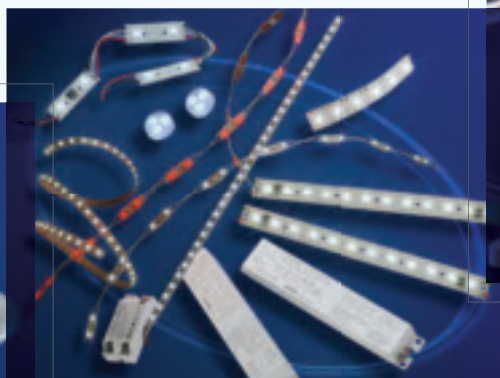
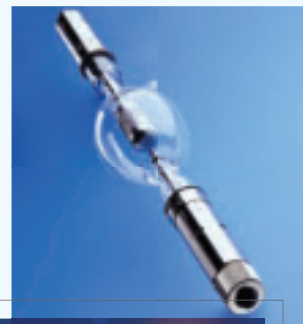
SYLVANIA



OSRAM SYLVANIA

SEE THE WORLD IN A NEW LIGHT

For more than 100 years, OSRAM SYLVANIA has been a leader in the development of innovative lighting. This catalog provides specifications on over 3000 SYLVANIA and OSRAM branded products for a variety of lighting applications, each one designed and manufactured to the highest possible standards.



A Lighting Industry Leader

With over 14,000 employees, OSRAM SYLVANIA is one of the leading lighting systems companies in North America. We are the North American business unit of OSRAM GmbH, one of the world's largest lighting manufacturers. OSRAM SYLVANIA is a member of the SIEMENS worldwide family of companies, which employs over 440,000 people in over 190 countries.

Meeting Customer Expectations

OSRAM SYLVANIA makes ongoing investments in new and aggressive business practices. With the Total Cycle Time program, we have turned time into a strategic business ally. Our SAP program unites the entire organization with a sophisticated information system that helps serve our customers faster and more efficiently. Our ISO 9000, ISO 14001 and QS 9000 certifications show our achievements in delivering the highest quality lighting products.

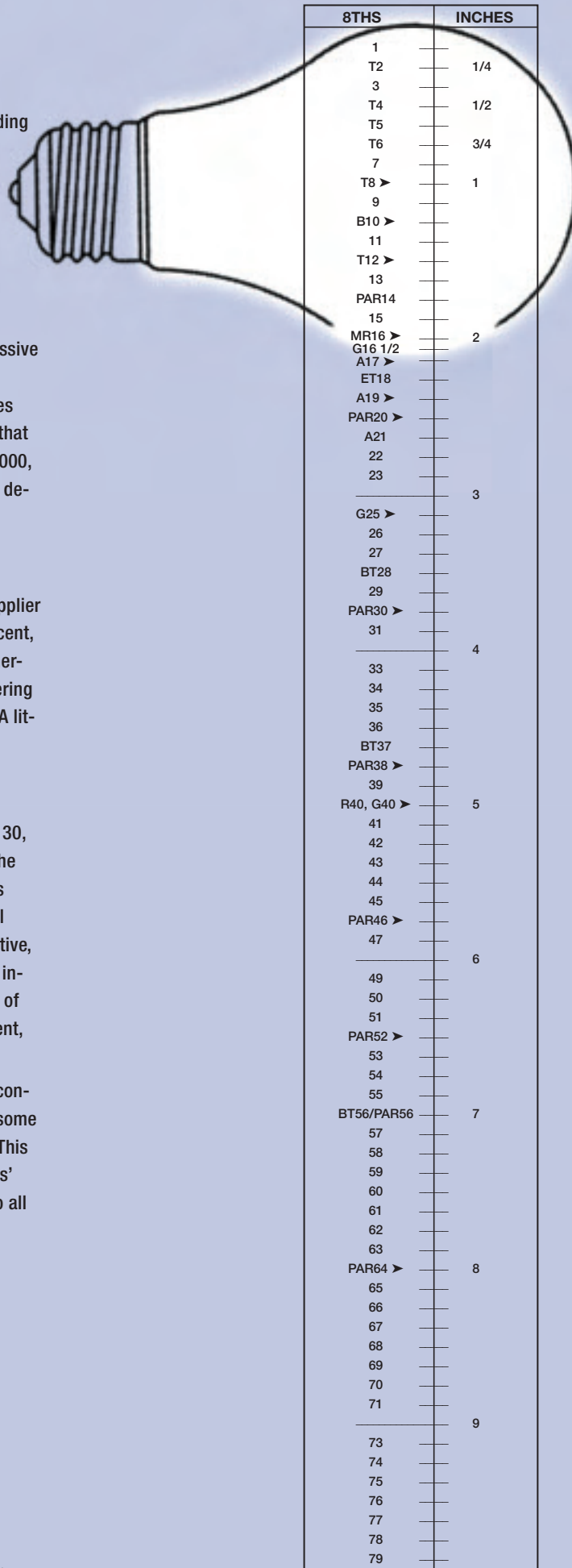
Lighting the World

OSRAM SYLVANIA, together with OSRAM GmbH, is the largest supplier of electronic lighting systems in the world. As leaders in fluorescent, halogen and metal halide technologies, the companies hold numerous international lighting patents and have an extensive engineering and manufacturing network. OSRAM GmbH and OSRAM SYLVANIA literally bring light to the world.

Lamp Disposal Labeling

For all mercury-containing lamps manufactured after November 30, 2003, OSRAM SYLVANIA has incorporated the symbol "Hg" into the lamp etch, except for products where size or thermal constraints prevent etching in this manner. This action is part of the National Electrical Manufacturers Association (NEMA) lamp labeling initiative, the purpose of which is to guide users of lighting products—via internet or telephone—to appropriate contacts regarding disposal of spent mercury-containing lamps (fluorescent, compact fluorescent, and most HID).

Disposal labels appear on the inner-most packages of mercury-containing lamps, the outer cartons, or both. For Display-Optic and some other specialized lamp types, labeling is included in the stuffer. This labeling format complies with the requirements of existing states' legislation and has been designed to be universally applicable to all US States.



8THS	INCHES
1	
T2	1/4
3	
T4	1/2
T5	
T6	3/4
7	
T8 ➤	1
9	
B10 ➤	
11	
T12 ➤	
13	
PAR14	
15	
MR16 ➤	2
G16 1/2	
A17 ➤	
ET18	
A19 ➤	
PAR20 ➤	
A21	
22	
23	
	3
G25 ➤	
26	
27	
BT28	
29	
PAR30 ➤	
31	
	4
33	
34	
35	
36	
BT37	
PAR38 ➤	
39	
R40, G40 ➤	5
41	
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43	
44	
45	
PAR46 ➤	
47	
	6
49	
50	
51	
PAR52 ➤	
53	
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55	
BT56/PAR56	7
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58	
59	
60	
61	
62	
63	
PAR64 ➤	8
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LAMP CONTAINS MERCURY

Manage in Accordance with Disposal Laws

See: www.lamprecycle.org or 1-866-666-6850

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Important Notice

The data and suggested applications contained in this catalog, as well as any additional information our representatives may be able to furnish, are for general information only and are not intended and should not be taken as representations or warranties as to the suitability of a lamp for any particular application or use in any particular equipment, nor are our representatives authorized to make any such representations or give any such warranties. Applications and conditions of use are many and varied and beyond our control. We do not have the same degree of knowledge that the purchaser has with respect to the design of his equipment and the conditions of its use. Therefore, it is up to the purchaser to make his own determination as to the suitability of a lamp for his intended application or use and to assume responsibility for that determination.

OSRAM SYLVANIA claims to supply the best possible products at all times. For this reason, OSRAM SYLVANIA reserves the right to make changes in its products when it believes such changes will improve its products.

The specifications and information shown in this catalog are believed to be accurate. Although OSRAM SYLVANIA believes this information to be correct, no warranty is made or implied as to the accuracy of this information and OSRAM SYLVANIA does not accept or assume responsibility of liability for errors, changes, omissions, or for harm resulting therefrom.

In accordance with our established policy to consistently improve our products, the specifications contained herein are subject to change without notice.

The OSRAM SYLVANIA Test and Measurement Laboratory is a participant in the Energy Efficient Lighting (EEL) Program of the National Voluntary Laboratory Accreditation Program (NVLAP-NIST) and is accredited for testing of lighting products according to the guidelines for the EEL Program. OSRAM SYLVANIA lamp and ballast measurements are conducted under laboratory conditions utilizing American National Standards Institute (ANSI), Canadian Standards Association (CSA), Commission Internationale de l'Eclairage (CIE), and Illuminating Engineering Society of North America (IESNA) standards and practices. The OSRAM SYLVANIA Electronic Component and Systems Development Group participate in the Underwriters Laboratories Inc. Client Test Data Program. Ballast designs are tested for conformance to Underwriters Laboratory (UL) safety standards using practices audited, assessed and approved by UL. Actual lamp and ballast performance may vary depending on application and environment (i.e. ambient temperature, input voltage, ballast type, etc.)

OSRAM SYLVANIA designs and manufactures lamps and ballasts to meet American National Standard Institutes (ANSI) and/or IEC (International Electrotechnical Commission) standards of construction and performance through Total Quality Manufacturing (TQM) practices where applicable. In addition, ballasts are designed and manufactured to meet Underwriters Laboratory (UL) and Canadian Standards Association (CSA) safety standards as necessary. Ratings may change as a result of changes made to remain compliant with modified or updated standards. OSRAM SYLVANIA will release new or updated technical bulletins when appropriate. All product data presented in this catalog supersedes all data published before 10/1/07.

Many OSRAM SYLVANIA products listed in this catalog qualify under the North American Free Trade Agreement (NAFTA) as manufactured in Canada, the United States of America or Mexico.

Luminance Contrast The relationship between the luminances of an object and its immediate background.

Luminance Ratio The ratio between the luminances of any two areas in the visual field.

Lux (lx) A unit of illuminance equal to 1 lumen per square meter.

Maximum Case Temperature All OSRAM SYLVANIA electronic ballasts have a maximum allowable case temperature of 70°C and 90°C for magnetic fluorescent ballasts. Applications in which the case temperature exceeds this maximum void all warranties.

Maximum Overall Length (MOL) The total length of a lamp, from top of bulb to bottom of base.

Mean Lumens Lumen output of a light source after the source has been used. Mean lumen values for fluorescent and HID lamps are typically measured at 40% of their rated lives. Most high pressure sodium and mercury lamps are measured at 50% of their rated lives. All measurements are made on ANSI reference ballasts. Mean lumens are not typically measured for incandescent and tungsten halogen lamps.

Mean Spherical Candela (MSCD) The average value of the luminous intensity of a light source in all directions. To convert MSCD to Lumens, multiply by 4π (12.57).

Mean Time Between Failures (MTBF) A calculation of ballast life based on thermal conditions, component values, and circuit characteristics used to develop relative predictions of ballast life. OSRAM SYLVANIA uses methodology that typically provides a 1:10 actual life prediction based on MTBF calculations.

NAED A five-digit number used to identify a specific OSRAM SYLVANIA lamp. This NAED number in this catalog is labeled Product Number and should be used when ordering OSRAM SYLVANIA products. NAED is the abbreviation for National Association of Electrical Distributors.

Nanometer (nm) A unit of length equal to 10^{-9} meters; commonly used as a unit of wavelength.

Nominal Watts Wattage used to describe a lamp. Also see Power and Watt.

OFR Abbreviation for “ozone free” technology. Lamps with the designation OFR do not generate ozone during operation.

Operating Position Some lamps are specified/ designed to be operated in certain positions, i.e., horizontal or base up.

Ordering Abbreviation Provides a shorthand description of the lamp, using a unique code which can be used when ordering a lamp if the Product Number is not known. An example would be: CF15EL/R30/830/MED, which translates to a 15-watt Soft White DULUX® EL reflector electronic self-ballasted compact fluorescent lamp with an R30 reflector, 82CRI, 3000K color temperature and a medium screw base.

PAR Lamps Pressed aluminized reflector lamp, with the outer bulb formed from two pressed glass parts that are fused or sealed together. PAR lamps may be incandescent, halogen, or HID types.

Parallel vs. Series Wiring configurations for ballasts. Ballasts with parallel lamp circuitry have the benefit of companion lamps remaining lit, even if one of the lamps operated by the ballast should fail. Systems with series lamp wiring (magnetic ballasts and many rapid start electronic types) result in all lamps operated on the ballast going out if one should fail.

Photo-Optic Specialty Lamps Photo-Optic specialty lamps employ a variety of technologies to meet the very precise levels of performance required by the entertainment industry, science, medical and other high-tech fields.

Power The rate at which energy is taken from an electrical system or dissipated by a load, expressed in watts (W); power that is generated by a utility is typically expressed in volt-amperes (VA).

Power Factor A measure of the effectiveness with which an electrical device converts volt-amperes to watts; devices with power factors (>0.90) are “high power factor” devices.

Preheat A class of fluorescents requiring a starter, which allows the lamp and filaments to be properly heated before allowing the ballast to supply the correct current flow.

Product Number (See NAED.)

Programmed Rapid Start (PS) A method of starting fluorescent lamps where cathode heat is applied prior to lamp ignition, then removed or reduced once the lamp has ignited. PROStart® ballasts maximize the number of lamp starting cycles while maintaining energy efficiency. This is the preferred mode of lamp starting for applications with occupancy sensors and several on/off cycles per day. Additionally, the lamps will strike reliably in cold conditions down to 0°F.

Rapid Start (RS) Rapid start ballasts apply a low filament voltage to preheat the cathodes. Simultaneously, a starting voltage (lower than that used in instant start) is also applied to strike the arc. When the cathodes are hot enough, the lamp will strike. The filament voltage continues to be applied throughout the operation of the lamp. Rapid start ballasts appear to have a slight turn on delay compared to instant start. They will typically not be able to start lamps reliably under 50°F.

Reference Ballast A ballast specially constructed to have certain prescribed characteristics for use in testing electric-discharge lamps and other ballasts. Reference ballasts are typically defined by ANSI.

Reflector A device used to redirect the light by the process of reflection. Photo-Optic reflector lamps utilize ellipsoidal (converging light rays) or parabolic (collimating light rays) reflectors. Dichroic coated reflectors are designed to reflect visible light and pass through unwanted infrared wavelengths.

Resistance (R) A measure of resistance to flow of current, expressed in ohms (Ω).

Safety Ballasts should be installed and operated in compliance with the National Electric Code (NEC), Underwriters Laboratories Inc. (UL) requirements, and all applicable codes and regulations. Since it is possible to come in contact with potentially hazardous voltages, only qualified personnel should perform ballast installation. All installation, inspection, and maintenance of lighting fixtures should be done with the power to the fixture turned off.

Shielding A general term to include all devices used to block, diffuse or redirect light rays, including baffles, louvers, shades, diffusers and lenses.

Single-Ended Lamps having a single lamp base or point of electrical connection.

Spectral Power Distribution (SPD) A curve illustrating the distribution of radiant power produced by the lamp, at each wavelength across the spectrum.

Spotlight A luminaire using halogen/incandescent or a high intensity discharge (HID) lamp that produces a narrow beam angle designed to illuminate a specifically defined area. It can also be called a reflector lamp.

TCLP Test (Toxicity Characteristic Leaching Procedure) Federal EPA regulations (RCRA of 1990) have defined a TCLP test to determine whether wastes are to be treated as hazardous or non-hazardous.

Total Harmonic Distortion (THD) A measure of the distortion of an electrical wave form. Excessive THD (defined by ANSI as greater than 32%) may cause adverse effects to the electrical system. $<20\%$ THD ballasts are fine for most applications. However, in buildings with neutral problems caused by high THD loads such as computers, printers, DC supplies, etc., the $<10\%$ THD products can help reduce the overall % of Total Harmonic Distortion.

Transient Protection OSRAM SYLVANIA ballasts meet ANSI 62.41 Category A. This helps ensure immunity to electrical disturbances such as power line transients, and temporary line voltage dropouts, surges and sags.

Trigger Start A circuit used to eliminate the starter and start the preheat lamp almost instantly. In this circuit each electrode is connected to a separate winding in the ballast so that the electrode is continuously heated.

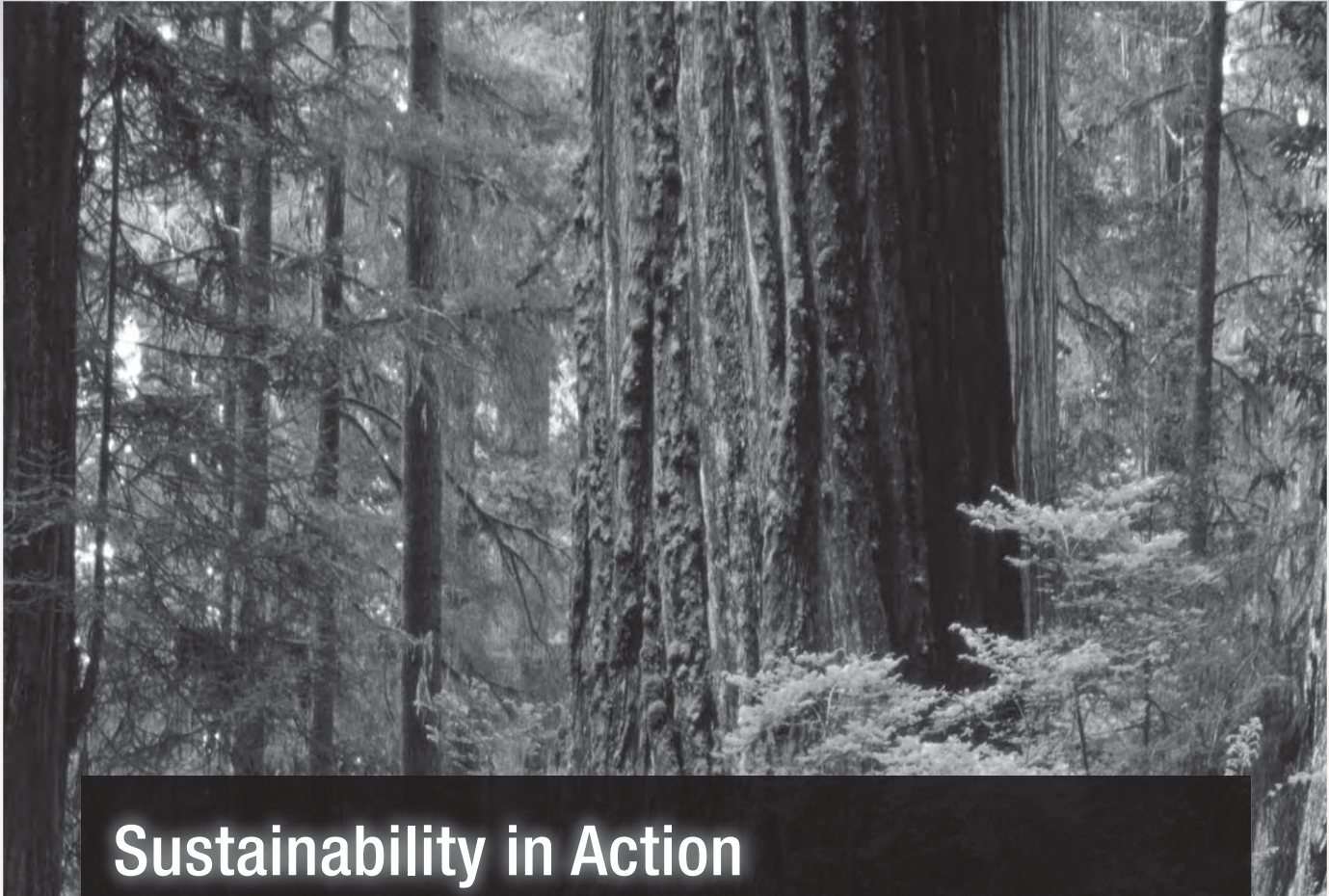
Tungsten Halogen Cycle A regenerative cycle of tungsten and halogen atoms, which, when incorporated into the design of halogen light sources, prevents blackening of the lamp envelope during life.

Voltage (V) A measure of electrical potential, expressed in volts (V). Voltage is the “force” that pushes electrical current through a conductor.

Watt (W) A unit of electrical power equal to 1 joule per second. Lamps are rated in watts to indicate power consumption. Also see Nominal watts.

Wavelength (λ) Distance between two successive points of a periodic wave; the wavelengths of light are typically expressed in nanometers (nm), or billionths of a meter.

Working Distance (See Focal Distance.)



Sustainability in Action

Meeting our needs today without compromising the resources future generations will need — touches everything we do as a company. It's all about reducing environmental impact, a commitment that goes beyond our products to include how the products are manufactured, how they are used and how they are distributed and disposed. It even extends to the design of “greener” buildings.

Sustainability is everybody's business.

When we can do more with less, everyone wins. Businesses need to find ways to grow without adding to our environmental footprint — and the good news is, we're making steady progress. Advanced technologies are helping us to be more efficient. We're using less energy and fewer resources, and generating less waste.

At a personal, corporate or national level, lighting plays an important role in any sustainability strategy. Whether you're interested in lowering your energy consumption, avoiding unnecessary maintenance, identifying options for lamp and ballast recycling,



or finding products with fewer hazardous materials, OSRAM SYLVANIA can help.

Global Care:

Global Care represents our commitment to corporate responsibility. This initiative is designed to drive positive results to the triple bottom line addressing social, economic and environmental needs. Furthermore, we are dedicated to meeting our customers' lighting needs with a sustainable approach to product design, development, manufacturing and distribution.

We integrate environmental responsibility into every area of our company. As a result, we are using fewer natural resources, saving energy for our customers, reducing power plant emissions, and recycling lamps and other materials to avoid millions of pounds of waste in landfills.





ECOLOGIC® products are the industry's most comprehensive line of environmentally preferable lighting solutions.

Our lamps designated as ECOLOGIC pass the U.S. EPA's Toxic Characteristic Leaching Procedure (TCLP) test for hazardous waste determination. Products meeting the TCLP test may be declared "universal waste" in many states, easing the administrative, storage and transportation burdens for these products. (Check your state and local governments for the most accurate regulations.)

ECOLOGIC lamps have little or no lead in their glass or bases, and little or no mercury in the HID and fluorescent lamp types. Many of these products also offer additional "green" features such as energy efficiency and long life, and are packaged using recycled and/or recyclable materials.

With more than 800 products meeting our strict ECOLOGIC guidelines and bearing the distinct "ECO®" designation, we offer more environmentally preferable lamp types than any other manufacturer.

In 2006, the ECOLOGIC program celebrated its 10-year anniversary. In those 10 years, we've avoided the use of over 580 tons of lead from our soldering production, and we've reduced the amount of mercury used in many of our lamps by up to 92%.





Lamp Recycling. It's never been more important. It's never been easier.

When it comes to creating a sustainable future, we're all in it together. No company can go it alone. That's why SYLVANIA has joined forces with VEOLIA, a leading provider of environmental services in the U.S. to create a safe, convenient and cost-effective program to keep you in compliance with federal, state and local disposal regulations. Let us show you how easy it is to make a difference in the world. Please visit www.sylvania.com/recycle for more information.



SEE THE WORLD IN A NEW LIGHT

SYLVANIA



Energy and the Cost of Lighting

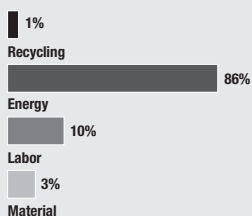
According to the U.S. Department of Energy, we consume about one-quarter of our electricity for lighting, at a cost of more than \$37 billion annually. Lighting accounts for the single largest portion of electric bills for commercial users, as much as 30% — and it can be a prime opportunity for reducing energy costs.

Where does the cost of the average lighting system come from?

- Materials — the initial investment in fixtures, lamps, wires and ballasts
- Labor — the cost to install the lighting and maintain it day-to-day
- Electricity — the energy consumed to illuminate the lamps
- Recycling — removing and disposing of spent lamps in a way that does not negatively impact the environment

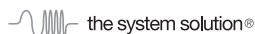
Figure 1

Cost of Maintaining the Average Lighting System



As Figure 1 shows, the material cost of a lighting system: bulbs, ballasts and wiring, is small in relation to the cost of the energy to light it.

Advances in lighting technology have improved the energy efficiency of lighting by 30-60%, improvements that reduce environmental impacts while increasing the bottom line. Energy-efficient lighting requires less energy, which lowers electricity demand. With less demand, power plants burn less fossil fuel, reducing emissions of mercury and other air pollutants. So everybody profits.



Energy-efficient systems

An important direction in lighting technology is the move toward systems. OSRAM SYLVANIA started the trend with THE SYSTEM SOLUTION®, a family of optimally balanced energy-saving lamps and electronic ballast combinations. By bringing lamp and ballast development under an integrated system concept, we have been able to design innovative SYLVANIA lighting systems that optimize energy savings without sacrificing other elements of performance.

OSRAM SYLVANIA has the competitive advantage, with years of experience in designing, developing and supporting integrated systems — both in ballasts and lamps. Our global network of design and manufacturing brings ballast and lamp knowledge together to produce innovative, cost-effective, energy saving systems.

Saving energy, saving money

Energy costs represent your biggest and best opportunity for savings. Even seemingly minor energy efficiency improvements can have a major positive impact on operating expenses — long-term savings that can quickly repay the minimal capital investment.

For example, here are some things you can do right now:

- Upgrade to SYLVANIA Energy Saving lighting products to significantly reduce total energy usage and operating costs.
- Replace traditional T12 fluorescent systems with SYLVANIA OCTRON® T8 fluorescent lamps and SYLVANIA QUICKTRONIC® electronic ballasts for up to 50% energy savings.* You'll also get the added assurance of QUICK 60+®, the industry's first and most comprehensive lighting system warranty.
- Implement a lighting maintenance and retrofit strategy to maintain safety, security, aesthetics and productivity, as well as to reduce labor costs. Our own SYLVANIA Lighting Services can help.
- Install dimmers and lighting control systems to save additional energy and add lighting design flexibility.

OCTRON T8 fluorescent lamps—savings the world can live with

In 1981, OSRAM SYLVANIA invented the OCTRON T8 fluorescent lamp, ushering in a new era of energy efficiency in lighting. Since we introduced the SYLVANIA OCTRON family, we've saved our customers more than \$27 billion in electricity costs*. We've avoided 4 tons of airborne mercury discharged from power plants**, and saved enough electricity to run the Las Vegas Strip for 156 years!

Rebates and tax benefits

As a way to reduce overall electricity demand, many utilities offer rebates to commercial customers who upgrade the efficiency of their lighting systems. Check with your local utility or ESCO to learn more about these additional savings opportunities. In addition, the Federal Energy Policy Act of 2005 (EPAct 2005) offers tax benefits for energy-efficiency upgrades in commercial buildings undertaken in 2006 and 2007. (For more information, please visit www.sylvania.com/EPACT).

* Based on \$.10/kWh

** U.S. Department of Energy emissions conversion calculations



SYLVANIA Products and the IESNA Progress Report

A Proud Legacy of Achievement

Each year, The Progress Committee of the Illuminating Engineering Society of North America (IESNA) solicits the lighting industry for product submissions which, if accepted by the committee, are featured in the committee's Progress Report, which is published in the IESNA's publication "Lighting Design & Application". The mandate of the Progress Committee is "to keep in touch with developments in the art and science of lighting throughout the world and prepare a yearly review of achievements for the Illuminating Engineering Society of North America." Submissions are organized into one of seven categories:

light source, accessory, luminaire, research, application, publication and design tool. They are evaluated for their design, engineering characteristics, installation features and overall uniqueness. The 30-member committee of industry experts votes on up to 200 product submissions annually.

Over the years many SYLVANIA and OSRAM branded products have been accepted for the Progress Report. An itemized list of these products and their significant features, are listed in the tables that follow.

2007 Progress Report

OSRAM SYLVANIA submissions accepted by the IESNA Progress Report	Significance to the Lighting Industry
OPTOTRONIC® 3W/350 mA LED Power Supply	Smallest constant current power supply – lower than 5W for max power flexibility.
OPTOTRONIC 96W/24V LED Power Supply	Only 96w power supply that contains fittings and junction boxes. IP66 rated. Universal voltage.
OPTOTRONIC 240W/24V LED Power Supply	Only 240W power supply that contains fittings and junction boxes. IP66 rated. Universal voltage. 3 independently switchable channels.
QUICKTRONIC® QHE2x59/UNV-ISL-SC Ballasts	First high efficiency, low ballast factor, universal input voltage, instant start ballast for 8 foot T8 lamps.
QUICKTRONIC QHE2x59/UNV-ISH-SC Ballasts	First high efficiency, high ballast factor, universal input voltage, instant start ballast for 8 foot T8 lamps
QUICKTRONIC QHE2x86WT8HO/UNV-PSN-HT Ballasts	First high efficiency, normal ballast factor, universal input voltage, programmed start ballast for 8 foot T8/HO lamps
QUICKTRONIC QHE 3 & 4 32T8/347V ISH HT Ballasts	First high efficiency, 347V, high ballast factor, instant start ballasts for 4 foot T8 lamps
QUICKTRONIC QHE 3 & 4 32W T8 480V Ballasts	First high efficiency, 480V, high ballast factor, instant start ballasts for 4 foot T8 lamps
QUICKTRONIC QHE 2x40DL UNV ISN SC Ballasts	First high efficiency, 2-lamp universal voltage ballasts for DULUX L SUPERSAVER 40W and 28W lamps
QUICKTRONIC QHE 2,3,4 32T8 UNV PSH – HT Ballasts	First high efficiency, programmed start, 90°C rated ballasts for T8 lamps
QUICKTRONIC QHE 1,2,3,4 x32T8 UNV Type CC and Anti-Striation Control Ballasts	First high efficiency T8 ballasts that operate more lamp types than any other type CC ballast. -20°F starting temperature
QUICKTRONIC QTP2x54T5HO UNV PS80 SC Ballasts	First high efficiency T5HO ballast with 0.80 ballast factor for 20% energy savings
QUICKTRONIC QS2X54T5HO UNVPS80SC Ballasts	First high efficiency T5HO ballast with 0.80 ballast factor for 20% energy savings with bi level switching
QUICKTRONIC POWERSENSE T5 Dimming Ballasts	First high efficiency dimming ballasts for T5 lamps – dual control (0-10V & line voltage), universal voltage
QUICKTRONIC Helios 0-10V T8 Dimming Ballasts	First high efficiency dimming ballasts for T8 lamps with up to 1.2 ballast factor, auto start & restart technology 277V
METALARC® POWERBALL® 250W Ceramic Metal Halide Lamps	Smallest 250W single-ended ceramic metal halide in the industry.
20, 39, 70W METALARC POWERBALL Ceramic lamps with secure-fit G8.5 base design	Industry's first formed press G8.5 base low wattage CMH lamp.
OCTRON® SKYWHITE T8 Fluorescent Lamps	Industry's first 8000K T8 lamp
PENTRON® PREMIER ECOLOGIC® T8 Fluorescent Lamps	Industry's highest lumen 28W lamps.

2006 Progress Report

OSRAM SYLVANIA submissions accepted by the IESNA Progress Report	Significance to the Lighting Industry
20W METALARC® POWERBALL® Ceramic Metal Halide PAR 30 Lamp	Highest lamp life for 20W PAR 30 CMH.
39W METALARC POWERBALL Ceramic Metal Halide PAR 20 or PAR 30 Lamp	Highest CRI PAR 20 or PAR30 CMH – 5% improvement.
750W SUPER METALARC® Pulse Start	First base down 750w MH Pulse Start lamp.
54W PENTRON® HO Primary Colors T5 Fluorescent Lamps	First T5 HO single phosphor lamps.
aluPAR™ – Lighter, brighter, cooler PAR 56 Stage & Entertainment Lamp	First lightweight, aluminum reflector PAR 56. Lamp can be disassembled for recycling. Up to 50% lighter and 10% brighter.
QUICKTRONIC® QHE High Efficiency Family of 347V 4 – Lamp T8 Ballasts	First high efficiency T8 Instant Start low ballast factor ballast for 347V systems.
QUICKTRONIC QHE High efficiency Family of 347V T8 Instant Start Ballasts	First high efficiency T8 Instant start normal ballast factor ballast for 347V systems.
QUICKTRONIC QHE 3X40DL UNV IS T5 Ballasts	First high efficiency universal voltage ballast that can operate 3 DL40W or 3 DL40/28W SS lamps.
OCTRON® FB029/800XP/SS/ECO 29W T8 Fluorescent Lamp	First 29W 1-5/8" leg U-bent lamp.
DRAGONstick	Expansion of DRAGON product family, includes heatsinks and available in 3300K.
DRAGONpuck Warm White	Expanded DRAGONpuck product family – 3300K version.
DRAGONtape Warm White	Expanded DRAGONtape product family – 3300K version.
HF² Linear LED module	First integrated LED strip with heat sink and optics. Increases accessibility of LED to non LED manufacturers.
HF² Eye LED module	First integrated LED point source with heat sink and optics. Increases accessibility of LED to non LED manufacturers. IP65 rated.
HF²X LED Module	Smallest 6 LED array with high luminance LEDs with optics.
OStar® Lighting LED component	Smallest 6 LED array with high luminance LEDs.

2005 Progress Report

OSRAM SYLVANIA submissions accepted by the IESNA Progress Report	Significance to the Lighting Industry
MINISTAR® Lamp	Smallest low voltage bi-pin halogen reflector lamp.
70W METALARC® POWERBALL® PLUS Ceramic Metal Halide Lamps (3000K, 95 CRI)	Highest CRI of 3000K CMH lamps.
320W METALARC POWERBALL Ceramic Metal Halide Lamp	Highest initial LPW (117LPW) for a 320W CMH lamp.
70W METALARC POWERBALL PAR30 Ceramic Metal Halide Lamp	First CMH lamp with neodymium glass.
70 and 100W LUMALUX® PLUS High Pressure Sodium Lamps	First non-cycling medium based HPS lamp.
39W METALARC POWERBALL Ceramic Metal Halide Lamp	Longest life 4000K 39W CMH lamp (12,000 hrs)
920W SUPER METALARC® Metal Halide Lamp	First 920W metal halide lamp direct retrofit for 1000W.
PENTRON® Constant HO ECOLOGIC® T5 Fluorescent Lamp	First T5 HO lamp with amalgam technology.
ICETRON® Reflector ECOLOGIC Inductively Coupled Electrodeless Fluorescent Lamp	First induction lamp with an internal reflector.
OCTRON® FB029/800XP/SS/ECO 29Watt T8 Fluorescent Lamp	First 29W 1-5/8" leg u-bent lamp.
OPTOTRONIC® Constant Current Dimmable LED Power Supply for DRAGONtape and DRAGONpuck	First LED driver for DRAGONtape and DRAGONpuck module.
OPTOTRONIC Dimmable LED power supply for DRAGONtape and DRAGONpuck	First dimmable LED driver for DRAGONtape and DRAGONpuck.
DRAGONpuck LED Module	First high brightness LED with integrated optics.
DRAGONtape LED Module	Modular, high brightness configurable LED strip.
OPTOTRONIC LED power supply, 24V, 75W	First 75W universal voltage LED power supply.
OPTOTRONIC OT050/120-277/10E LED Power Supply	First 50W universal voltage LED power supply.

Product Catalog Glossary of Terms

Ampere A unit expressing the rate of flow of electric current.

ANSI (American National Standards Institute) The organization that develops voluntary guidelines and produces performance standards for the electrical and other industries.

Audible Noise (Sound) All fluorescent lamp ballasts produce some noise. Most OSRAM SYLVANIA brand ballasts are sound rated A (up to 75% quieter than magnetic types) and are acceptable for most applications. Care should be taken when mounting the ballast to reduce vibration.

Average Rated Life An average rating, in hours, indicating when 50% of a large group of lamps have failed, when operated at nominal lamp voltage and current; manufacturers use 3 hours per start for fluorescent lamps and 10 hours per start for HID lamps when performing lamp life testing procedures; every lamp type has a unique mortality curve that depicts its average rated life. For Photo-Optic specialty lamps, average rated life refers to the operating period after which on statistical average, 50% of the lamps will perform within their specified values.

Ballast A device used with an electric discharge lamp to obtain the necessary circuit conditions (voltage, current and waveform) for starting and operating; all fluorescent and HID light sources require a ballast for proper operation. Dimming ballasts are special ballasts which, when used together with a dimmer, will vary the light output of a lamp. OSRAM Photo-Optic discharge lamps are either designed for AC operation (sine wave and/or square wave with recommended operational frequencies below 1KHz) or DC operation (current regulated or power regulated). Please see OSRAM lamp specifications for correct ballast or electronic control gear selection.

Ballast Basics Ballasts have two primary functions: 1) start the lamp and 2) control operation of the lamp once it has started. High frequency electronic ballasts operate lamps more efficiently and eliminate the hum and visible flicker normally associated with standard magnetic ballasts. Electronic ballasts also typically have better power quality than magnetic ballasts.

Ballast Efficacy Factor (BEF) Ballast factor (as a whole number) divided by input power (watts). Used to measure the level of efficiency of similar ballast models. For example, the OSRAM SYLVANIA QT2X32IS which has a ballast factor of 0.90 and input watts of 59 (BEF= 90/59 = 1.53), is more efficient than electronic ballasts with ballast factor of 0.875 and input watts of 62 (BEF=1.41).

Ballast Factor (BF) The measured ability of a particular ballast to produce light from the lamp(s) it powers; ballast factor is derived by dividing the lumen output of a particular lamp/ballast combination by the lumen output of the same lamp(s) on a reference ballast.

Ballast Fusing (See Fusing.)

Ballast Life OSRAM SYLVANIA ballasts are designed to have an average life expectancy of 60,000 hours. To maximize life, ambient temperature should be kept as low as possible. It is also important to maintain effective dissipation of heat using the lighting fixture as a heatsink for the ballast enclosure.

Ballast Losses Power consumed by a ballast that dissipates as heat instead of being converted into light. Electronic ballasts operate more efficiently than magnetic or hybrid ballasts. A typical ballast loss for a standard two lamp energy saving magnetic ballast is 12 watts, where an electronic equivalent would only be 7 watts.

Ballast Types There are three types of lighting ballasts: 1) Magnetic: an inefficient device that uses a core and coil assembly transformer to perform the minimum functions required to start and operate the lamp; 2) Hybrid or "low frequency electronic": essentially a magnetic ballast with a few electronic components that switch off voltage to the lamp coil once the lamp has started. A minimal increase in efficiency is obtained via more expensive magnetic core material and the absence of power to the lamp coils during operation; 3) High frequency electronic: a ballast that operates lamps at frequencies above 20,000 Hz. Maximum efficiency is obtained through the use of electronic circuitry and optimum lamp operating characteristics.

Base The lamp base mechanically holds the lamp in place in the application. The lamp base directly or indirectly (via a cable or lead-in wires) conducts electricity from the circuit to the lamp and can be designed to dissipate heat. Lamp bases should be operated within specified temperature ranges.

Beam Angle The angle between the two directions for which the intensity (candlepower) is 50% of the maximum intensity as measured in a plane through the nominal beam centerline (center beam candlepower).

Beam Spread In any plane, the angle between the two directions in the plane in which the candlepower is equal to a stated percent of the maximum candlepower in the beam.

Black Body (Planckian radiator) An ideal thermal radiator whose SPD curve is defined by its temperature in Kelvin and whose color coordinates lie exactly on the Planckian curve.

Brightness (See Luminance.)

Bulb Hard, soft or quartz glass enclosure, which can contain a vacuum, elemental inert gas or metal and a means of light generation (filament or electrodes).

Candela (cd) The unit of measure indicating the luminous intensity (candlepower) of a light source in a specific direction; any given light source will have many different intensities, depending upon the direction considered.

Candlepower Distribution A curve that represents the variation in luminous intensity (expressed in candelas) in a plane through the light center of a lamp or luminaire; each lamp or lamp/luminaire combination has a unique set of candlepower distributions that indicate how light will be spread.

Center Beam Candlepower (CBCP) The intensity of light produced at the center of a reflector lamp beam, expressed in candelas.

Chromaticity The aspect of color that includes consideration of its dominant wavelength and purity.

Color Rendering Index (CRI) The Color Rendering Index (CRI) measures the effect a light source has on the perceived color of objects and surfaces. High CRI light makes virtually all colors look natural and vibrant. Low CRI causes some colors to appear washed out or even to take on a completely different hue.

Color Temperature (CT) Color temperature, which is measured in Kelvin, indicates whether a lamp has a warm, midrange or cool color appearance. "Warm" light sources have a low color temperature (2000-3000K) and feature more light in the red/orange/yellow range. Light with a higher color temperature (>5000K) features more blue light and is referred to as "cool."

Compact Fluorescent Lamps Compact fluorescent lamps employ small diameter tubes that are bent so they begin and end in a single base. This allows them to be produced in a wide variety of configurations, greatly extending the applications for fluorescent lighting.

Correlated Color Temperature (CCT) A specification of the color appearance of a lamp, relating its color to that of a reference source, black body radiator, heated to a particular temperature, measured in degrees Kelvin (K); CCT generally measures the "warmth" or "coolness" of light source appearance.

Current A measure of the rate of flow of electricity, expressed in amperes (A).

Description (See Ordering Abbreviation.)

Design Amperes The approximate current which the lamp will draw at design volts.

Directional Lighting Illumination on the work-plane or on an object predominantly from a single direction.

Double-Ended Lamps that have two bases opposite one another for series electrical connection, mechanical mounting and heat dissipation.

Efficacy The rate at which a lamp is able to convert power (watts) into light (lumens), expressed in lumens per watt (LPW or lm/W). See also LPW Performance.

Electronic Control Systems (See Ballast.)

EMI/RFI Electronic Ballasts contain circuits that limit electrical noise conducted onto the power line or radiated through the air, otherwise referred to as EMI/RFI. OSRAM SYLVANIA ballasts comply with FCC 47 CFR Part 18, non-consumer limits for commercial applications. Ballasts for residential application must meet consumer limits. OSRAM SYLVANIA has a complete line of magnetic ballasts for residential use.

Energy A measure of work done by an electrical system over a given period of time, often expressed in kilowatt-hours (kWh).

Filament A tungsten wire purposely positioned inside a lamp bulb, that when heated electrically generates radiation in the visible, infrared and ultra-violet ranges. Tungsten material is most often used, as it has great tensile strength, is very durable, and can be heated very near its melting point without evaporating rapidly. Lamp filaments are offered in a variety of designs optimized for specific applications.

Fixture (See Luminaire.)

Floodlight A reflector lamp with a relatively wide beam pattern. Also a luminaire consisting of lamp and reflector at fixed distance providing a wide field of illumination.

Fluorescent Lamp A low pressure mercury vapor discharge light source. The electric discharge generates ultra-violet (UV) energy, which is absorbed by a phosphor and converted to visible light.

Focal Distance The distance between a lamp (light producing element) and the focal point of the reflector surrounding it. Lamp alignment can be adjusted to influence both illumination and color quality. Sometimes referred to as "working distance".

Footcandle (fc) A unit of illuminance equal to 1 lumen per square foot.

Frequency The number of times per second that an alternating current system reverses from positive to negative and back to positive, expressed in cycles per second or hertz (Hz).

Fusing All QUICKTRONIC® ballasts contain inherent electrical protection. Although there is no need to externally fuse the ballast, should code or regulation require one, 3 amp slow blow fuses are recommended.

Glow to Arc Transition In order to achieve full rated lamp life, a ballast should start a lamp so that the time from when the lamp begins to glow to the time the lamp arc strikes should be as short as possible. OSRAM SYLVANIA instant start ballasts typically accomplish this task within 50 msec.

Grounding The ballast case and fixture must always be grounded. The grounding helps assure safety, proper lamp starting, and acceptable EMI/RFI performance. Install ballast in accordance with national and local electric codes.

Halogen Lamps High pressure tungsten filament lamps containing halogen gases. The halogen gases allow the filaments to operate at higher efficacies than incandescent lamps. Halogen lamps also provide brighter, whiter light with better color characteristics, longer service life and improved energy efficiency.

Harmonic An electrical frequency that is an integer multiple of the fundamental frequency; for example, if 60 Hz is the fundamental frequency, then 120 Hz is the second harmonic and 180 Hz is the third harmonic. Some electronic devices, such as ballasts or power supplies, can cause harmonic distortion, directly affecting power quality.

Hertz (Hz) A unit of frequency equal to one cycle per second; see frequency.

High-Intensity Discharge (HID) Lamps

Lamps in which an arc passing between two electrodes in a pressurized tube causes various metallic additives to vaporize and release large amounts of light. All HID lamps offer outstanding energy efficiency and service life. Metal halide lamps also offer good to excellent color rendering index (CRI).

Hot Ignition The restarting of a previously operating lamp shortly after turn-off. Hot ignition is a high performance feature in many OSRAM SYLVANIA discharge lamp types.

Illuminance Light arriving at a surface, expressed in lumens per unit area; 1 lumen per square foot equals 1 footcandle, while 1 lumen per square meter equals 1 lux.

Incandescent Lamp A light source using the principle of incandescence. When an electric current passes through a filament wire (usually tungsten), the heated wire glows. Filaments of standard incandescent lamps are enclosed in a vacuum or gas-filled bulb. They provide low initial cost, good color rendition and excellent optical control.

Instant Start (IS) Instant start ballasts apply high voltage across the lamp with no preheating of the cathode. This is the most energy efficient starting method for fluorescent lamp ballasting. IS ballasts use 1.5 to 2 watts less per lamp than rapid start ballast. Other IS ballast benefits typically include parallel lamp circuitry, longer remote wiring distance, easier installation due to less complicated wiring, and capability to start lamps at 0 degrees (versus 50 degrees F for rapid start).

K-Factor A measurement that quantifies the effect of non-linear equipment, such as lighting ballasts, on an electrical system. Lighting systems should be designed so that the transformer rating is sufficient for the ballast used (typically K-factor <4). All OSRAM SYLVANIA ballasts meet this specification.

Lamp Manufactured light source, synonymous with light bulb; the three broad categories of electric lamps are incandescent, fluorescent and high-intensity discharge.

Lamp Current Crest Factor (LCCF) The ratio of peak lamp current to the RMS (average) lamp current. Lamp manufacturers require a LCCF of less than 1.70 in order to achieve full lamp life.

Lamp Disposal When disposing of spent lamps, always consult federal, state, local and/or provincial hazardous waste disposal rules and regulations to ensure proper disposal.

Lamp Flicker Cyclic variation in output of a light source. High frequency electronic ballasts provide a minimal level of lamp flicker. Lamp flicker from magnetic ballasts may cause eye fatigue for some people.

Lamp Fuse Wire or device designed to protect a lamp from over-voltage or over-current conditions. OSRAM requires that all Photo-Optic lamps be fused in their applications to prevent lamp over-powering. Certain lamps contain their own internal fuse. Please ensure lamps in your specific application are fused with respect to their power source.

Lamp Lumen Depreciation Factor (LLDF)

The multiplier to be used in illumination calculations to relate the initial rated output of light sources to the anticipated minimum rated output based on the relamping program to be used. (See Lumen Depreciation and Mean Lumens.)

Lens A glass or plastic element used in luminaires to change the direction and control the distribution of light rays.

Light Radiant energy that is capable of producing a visual sensation.

Light Center Length (LCL) The distance from a specified reference point on a lamp base to its light center.

Light Loss Factor (LLF) A factor used in calculating illuminance after a given period of time and under given conditions. It takes into account temperature and voltage variations, dirt accumulation on luminaire and room surfaces, lamp depreciation, maintenance procedures and atmosphere conditions. Formerly called maintenance factor.

Low Temperature Starting QUICKTRONIC® instant start and programmed rapid start electronic ballasts have the capability to start fluorescent lamps at temperatures down to 0°F providing the following conditions are met: 1. The ballast is operated at rated nominal line voltage; 2. Ballast cannot be tandem/remote wired for low temperature starting applications. Please note, starting time may increase at 0°F ambient temperatures. Enclosed fixtures are recommended as fluorescent lamps have reduced light output at cooler ambient temperatures. (See specifications for each model's starting temperature rating.)

LPW Performance Lumens Per Watt. The number of lumens produced by a light source for each watt of electrical power supplied to the light source. Also see Efficacy.

Lumen Depreciation The decrease in lumen output of a light source over time; every lamp type has a unique lumen depreciation curve (sometimes called a lumen maintenance curve) depicting the pattern of decreasing light output. See Lamp Lumen Depreciation Factor, LLDF and Mean Lumens.

Lumen Maintenance (See Lumen Depreciation.)

Lumens (lm) A unit of luminous flux; overall light output; quantity of light, expressed in lumens. For example, a dinner candle provides about 12 lumens and a 60-watt soft white incandescent lamp provides about 840 lumens.

Luminaire A light fixture; the complete lighting unit, including lamp, reflector, ballast, socket, wiring, diffuser and housing.

Luminaire Efficiency The ratio of luminous flux (lumens) emitted by a luminaire to that emitted by the lamp or lamps used therein.

Luminance (L) Light reflected in a particular direction; the photometric quantity most closely associated with brightness perception, measured in units of luminous intensity (candelas) per unit area (square feet or square meters).

INCANDESCENT LIGHTING

The incandescent lamp consists of a wire filament on a suitable mount enclosed in a glass bulb containing a gas or a vacuum. When the lamp is connected to an electrical circuit, the current passing through the wire must overcome the filament's resistance, and the power consumed heats the filament to incandescence (causes it to glow).

QUALITY LIGHT

Incandescent bulbs are still the standard choice when the quality of light really counts. The different shapes, coatings and features provide a variety of options for many lighting applications. With warm color temperatures and superior color rendering, nothing sets the mood like incandescent lighting.

THE BEST QUALITY OF LIGHT FOR:

Atmosphere

Romance

Warmth

Beauty

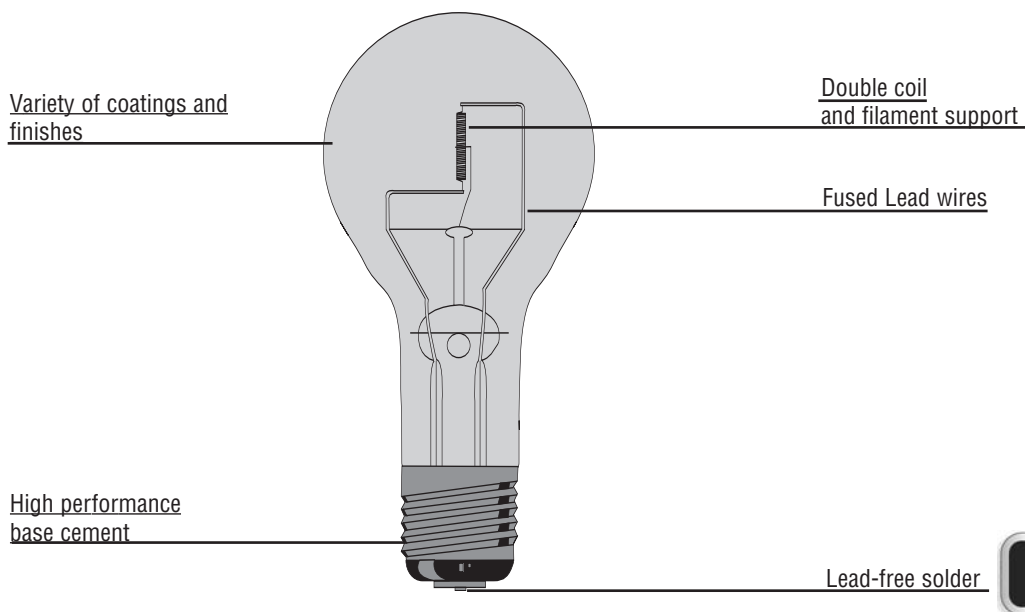
Comfort

Elegance



QUALITY CONSTRUCTION

SYLVANIA uses the highest quality components designed to offer superior performance on every lamp.



LAMP CATEGORIES

SYLVANIA offers a wide assortment of premium lighting products that add value through superior performance, long life, beautiful light and rugged durability.

Double Life

Our long-life line of premium light bulbs

Long Life without compromising brightness and light quality

- Lasts up to twice the life of a regular light bulb with almost the same light output
- Available in many different shapes and sizes



Perfect for hard to reach applications

Daylight®

Our most pleasing light

Unique coating that simulates natural light

- Delivers whiter, more natural light
- Enhances color performance, vivid colors



The best choice to bring more natural light indoors

Rough Service

Our toughest line of light bulbs

Able to withstand knocks and bumps

- Extra support
- Most durable construction



Ideal for applications where lamp may be subject to vibration

Safeline®

Our safest light bulbs

Shatter resistant, weather resistant

- Safely contains glass in case of breakage
- Provides weather protection
- Provides weather and moisture resistance making bulbs ideal for indoor and outdoor applications.



Appropriate when safety comes first

Specialty

Our complete assortment of specialized light bulbs

Diverse line of light bulbs for specific uses

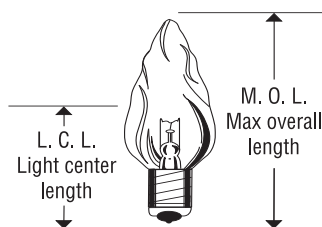
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|-------------------|-------------------|
| • SPOT-GRO® | • Heat Lamps |
| • Night Lights | • Colored Lamps |
| • Appliance Lamps | • Street lighting |



High quality lamps for multiple applications

BULB IDENTIFICATION

Light Center Length (L.C.L.) is the distance from the center of the light source to the following point for the base used: Screw bases...bottom base contact; Bayonet candelabra and medium bayonet...top of base pins.



Bulb size - Max. Diameter (Divide by 8)

A-21 - $21/8 = 2\ 5/8"$ Dia.

G-40 - $40/8 = 5"$ Dia.

T-12 - $12/8 = 1\ 1/2"$ Dia.

PS-30 - $30/8 = 3\ 3/4"$ Dia.

BASE IDENTIFICATION

Typical bases are shown. One lead-in wire is soldered to the center contact and the other soldered or welded to the upper rim of the base shell. Base shells are typically made of brass or aluminum. ANSI designations are in parentheses.



Candelabra cand. (E12)



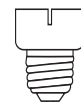
Intermediate Inter. (E17)



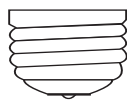
Medium (E26) & Medium Brass (E26)



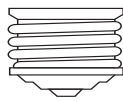
3 Contact Medium 3 C Med (E26D)



Medium Skirted Med. Skirt (E26/50x39)



Mogul Screw



3 Contact Mogul



Double Contact Bayonet D.C. Bay (BA15D)

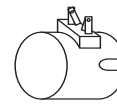


S14s



Ext. Mogul End Prong GX16d

Mogul End Prong



Med Side Pr.



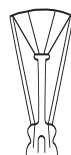
Screw Terminal G53

FILAMENT IDENTIFICATION

A FILAMENT designation consists of a prefix letter to indicate whether the wire is straight or coiled, and a number to indicate the arrangement of the filament on the supports. Prefix letters include: C (coiled) --wire is wound into a helical coil or it may be deeply fluted; CC (coiled coil) --wire is wound into a helical coil and this coiled wire again wound into a helical coil.



C-8 CC-8



C-9 CC-9



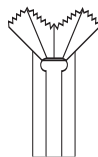
C-6 CC-6



C-2V CC-2V



C-7A CC-7A



C-11V



C-11 CC-11



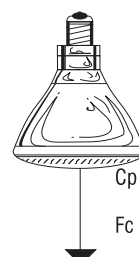
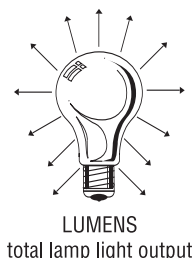
C-5



C-2R

ADDITIONAL INFORMATION

Lamps Listed 115-125 volts (design voltage 120), 120-130 volts (design voltage 125), 125-130 volts (design voltage 130) and 230-250 volts (design voltage 240) are intended for use on circuits normally varying within these voltage limits.

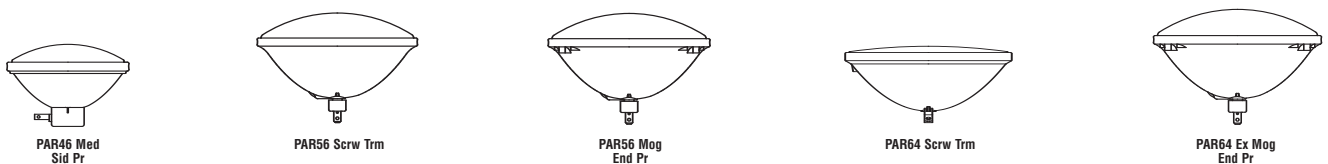
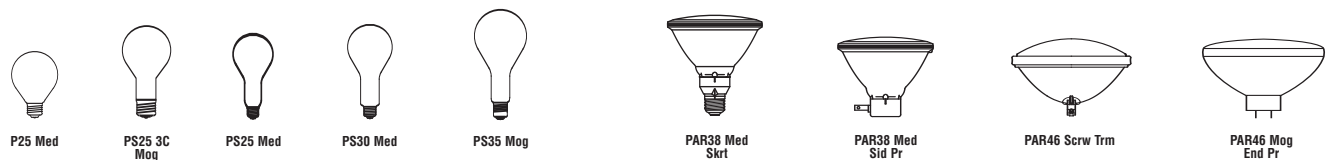
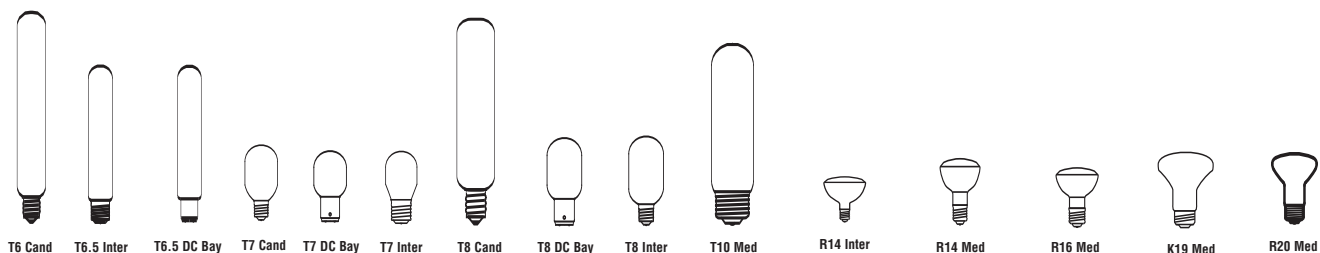
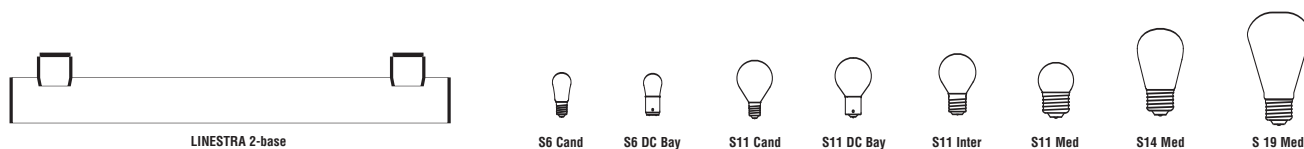
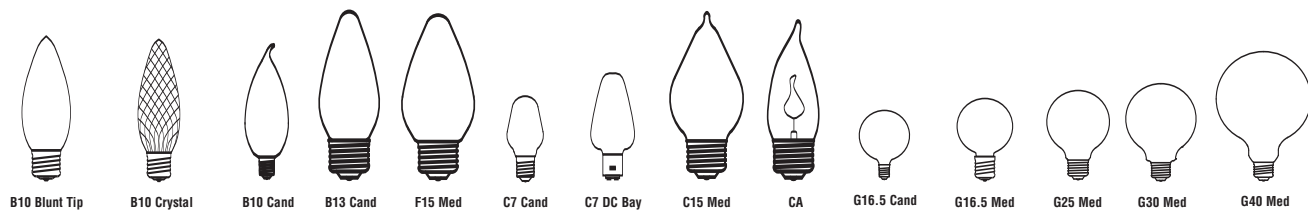
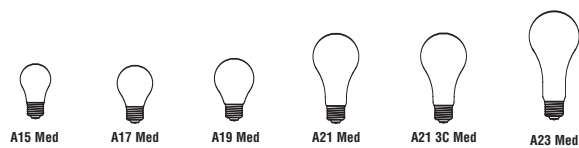


Finishes

W or SW - Soft White
DAY - Daylight®
Y - Yellow
B - Blue
R - Red
G - Green
A - Amber
IC - Iridescent clear
FL - Flood
SP - Spot
IF - Inside frost
AIC - Amber iridescent clear

INCANDESCENT LAMP SHAPES

A bulb designation consists of a letter(s) to indicate the shape and a figure(s) to indicate the approximate major diameter in eighths of an inch. For example, an F-15 bulb is a flame-shape, 15/8 of an inch or 1-7/8 inches in diameter.



HOW TO READ PRODUCT INFORMATION - INCANDESCENT

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
Bulb			Describes the shape of the envelope followed by the lamp's major diameter given in eighths of an inch. See page 4: Incandescent Lamps.										
Base			See page 3: Base Identification.										
Symbols & Footnotes			All symbols and footnotes that apply to a specific product will appear in this space. The explanations of the symbols and footnotes are at the end of the incandescent section.										
Ordering Abbreviation			A text description of the lamp. See below for several examples and explanations of some of the codes.										
Class & Filament			The class is either B (vacuum) or C (gas filled). The filament designation describes the shape and mount structure of the filament. See page 3: Filament Identification.										
Lumens, Beam Angle, CBCP			This column may contain data for any of these values. Lumen values are followed by the designation 'lm'. Beam angles are indicated by either a '°' or the designation 'V x H' for non-symmetric beams. CBCP values are followed by the designation 'cd'.										

HOW TO READ ORDERING ABBREVIATIONS

40B10C/CRYSTAL/DL/BL/2PK		60A/DL/SW/2PK/RP		65BR30/DL/FL/RP	
40	Nominal lamp wattage	60	Nominal lamp wattage	65	Nominal lamp wattage
B	Bulb shape	A	Bulb shape	BR	Bulb shape
10	Bulb size in 8th's of an inch	DL	Double life lamp	30	Bulb size in 8th's of an inch
C	Candelabra base	SW	Soft white	DL	Double life lamp
CRYSTAL	Crystal texture on bulb glass	2PK	2 lamps per package	FL	Flood beam pattern
DL	Double Life Lamp	RP	Retail pack	RP	Retail pack
BL	Blister pack				
2PK	2 lamps per package				

INCANDESCENT BRAND NAME GUIDE

NOTE: These tables are intended only as a guide and may represent another lamp company's closest competitive type rather than an identical match. Individual manufacturers' performance values should be consulted. Environmental conditions, ballast type, and other auxiliary equipment may affect lamp performance.

INCANDESCENT

SYLVANIA	GE*	PHILIPS**
Bug-Light	Bug-Lite	Bug-A-Way
Double Life	Long Life	Dura-Max
Double Life Soft White	Long Life Soft White	Dura-Max Soft White
Daylight®	Reveal	Natural
ellogic™	-	-
Energy Saver Soft White	Soft White Miser	Econo-O-Watt
EXCEL-LINE®	Extended Service	Extended Service
LINESTRA®	Lumiline	
RHINO COAT® SAFELINE®	COV-R-GUARD	Silicone Coated
Rough Service		Rough Service
Rough Service XL	Survivor	
Soft Pink	Soft Pink	Softone Pastels
Spot-GRO®	House Garden - Plant Light	Agro-Lite
SUPERSAVER®	Watt-Miser	Econo-o-Watt
SUPERSAVER EXCEL-LINE	Watt-Miser Plus	Extended Service
SUPERSAVER PAR	Watt-Miser PAR	Econo-o-PAR

*Trademark and or registered trademark of General Electric Company. **Trademark and or registered trademark of Philips.

NOTES:



ELOGIC™ LAMPS

Small Bulb. Big Difference

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
38	A17	Med	10825	●●	38A17/W/ELOGIC/4/48/RP	120	48	Soft White	C, CC-8	2250	410	2.88	3.75
57	A17	Med	11721	●●	57A17/W/ELOGIC/4/48/RP	120	48	Soft White	C, CC-8	1500	740	2.88	3.75
71	A17	Med	10826	●●	71A17/W/ELOGIC/4/48/RP	120	48	Soft White	C, CC-8	1125	1020	2.88	3.75
95	A17	Med	12953	●●	95A17/W/ELOGIC/4/48/RP	120	48	Soft White	C, CC-8	1125	1500	2.88	3.75

DAYLIGHT® LAMPS

White & Natural

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
25	G16.5	Candelabra	10221	●●	25G16.5C/DAY/2PK/BL	120	12	Daylight Globe	C, C-7A	1500			3.00
30 70 100	A21	3 CONTACT Med	19395	●●	30/100/DAYLIGHT/1/12	120	12	Daylight 3-Way	C, CC-8	1200	220lm 700lm 920lm	3.38	5.31
40	A15	Med	10181	●●	40A15/DAY/FAN/BL/2/24	120	24	Daylight Fan	C, C-9	1000	340	2.38	3.50
	A19	Med	10897	●●	40A/DAY/4/160/RP	120	160	Daylight	C, CC-8	1500	350	3.13	4.44
			10864	●●	40A/DAY/RP/4/48	120	48	Daylight	C, CC-8	1500	350	3.13	4.44
			11100	●●	40A/DAY/RP/2/24	120	24	Daylight	C, CC-8	1500	350	3.13	4.44
			10829	●●	40A/DAY/RP/4/48 @ 120_volts, approximate 33 watts, 270 lumens, 3750 hours.	130	48	Daylight	C, CC-8	1500	350	3.13	4.44
	B10	Candelabra	13751	●●	40B10C/DAY/2PK/BL	120	12	Daylight Decor Bent Tip	C, C-7A	1500			3.88
		Med	15354	●●	40B10/DAY/2PK/BL	120	12	Daylight Decor Bent Tip	C, C-7A	1000			3.88
	G16.5	Candelabra	10367	●●	40G16.5C/DAY/2PK/BL	120	12	Daylight Globe	C, C-7A	1500			3.00
	G25	Med	15350	●●	40G25/CL/DAY/1/6	120	6	Daylight Clear Globe	C, C-9	1500			4.44
			13966	●●	40G25/DAY/1/6	120	6	Daylight Globe	C, C-9	1500			4.44
45	R20	Med	15677	●●	45R20/DAY/1/6/RP	120	6	Daylight Reflector	C, C-9	2000			3.94
50 100 150	A21	3 CONTACT Med	18110	●●	50/150/DAY/1/12	120	12	Daylight 3-way	C, CC-8	1200	460lm 1170lm 1630lm	3.38	5.31
50	R20	Med	15231	●●	50R20/DAY/1/6/RP	120	6	Daylight Reflector	C, C-9	2000			3.94
60	A15	Med	10162	●●	60A15/DAY/FAN/BL/2/24	120	24	Daylight Fan	C, C-9	1000	340	2.38	3.50
	A19	Med	11509	●●	60A/DAY/4/160/RP	120	160	Daylight	C, CC-8	1000	640	3.13	4.44
			11463	●●	60A/DAY/RP/4/48	120	48	Daylight	C, CC-8	1000	640	3.13	4.44
			11101	●●	60A/DAY/RP/2/24	120	24	Daylight	C, CC-8	1000	640	3.13	4.44
			11602	●●	60A/DAY/RP/4/48 @ 120_volts, approximate 53 watts, 490 lumens, 2500 hours.	130	48	Daylight	C, CC-8	1000	640	3.13	4.44
	B10	Candelabra	13750	●●	60B10C/DAY/2PK/BL	120	12	Daylight Decor Bent Tip	C, C-7A	1500			3.88
	G25	Med	15351	●●	60G25/CL/DAY/1/6	120	6	Daylight Clear Globe	C, C-9	1500			4.44
			13967	●●	60G25/DAY/1/6	120	6	Daylight Globe	C, C-9	1500			4.44
65	BR30	Med	15223	●●	65BR30/DAY/1/6/RP	120	6	Daylight Reflector	C, CC-6	2000			5.38
	BR40	Med	15487	●●	65BR40/FL/DAY/1/6/RP	120	6	Daylight Reflector	C, CC-6	2000			6.50
75	A19	Med	10863	●●	75A/DAY/4/160/RP	120	160	Daylight	C, CC-8	750	850	3.13	4.44
			10865	●●	75A/DAY/RP/4/48	120	48	Daylight	C, CC-8	750	850	3.13	4.44



A19



BR40



C7 Candelabra



B10



G25



A21



A15

DAYLIGHT® LAMPS

White & Natural

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
75	A19	Med	11102		75A/DAY/RP/2/24	120	24	Daylight	C, CC-8	750	850	3.13	4.44
			10776	102,136	75A/DAY/RP/4/48 @ 120_volts, approximate 66 watts, 650 lumens, 1875 hours.	130	48	Daylight	C, CC-8	750	850	3.13	4.44
	BR40	Med	15349	46,57,107,155	75BR40/FL/DAY/1/6/RP	120	6	Daylight Reflector Flood	C, CC-6	2000			6.50
100	A19	Med	12948		100A/DAY/4/160/RP	120	160	Daylight	C, CC-8	750	1270	3.13	4.44
			12587		100A/DAY/RP/4/48	120	48	Daylight	C, CC-8	750	1270	3.13	4.44
			12952		100A/DAY/RP/2/24	120	24	Daylight	C, CC-8	750	1270	3.13	4.44
			12538	103,136	100A/DAY/RP/4/48 @ 120_volts, approximate 88 watts, 970 lumens, 1875 hours.	130	48	Daylight	C, CC-8	750	1270	3.13	4.44

DOUBLE LIFE LAMPS

Lasts 2X longer than ordinary Soft White lamps

			Product	Symbols &			Pkg		Class &	Avg	Lumens			
Watts	Bulb	Base	Number	Footnotes	Ordering	Abbreviation	Volts	Qty	Description	Filament	Rated Life(hrs)	Beam Angle CBCP	LCL (in)	MOL (in)
4	C7	Candelabra	13523	●●	4C7/DL/BL/4PK		120	48	Double Life Night Light	B, C-9	6000	14		2.13
15	B10	Candelabra	13315	●●	15B10C/DL/BL		120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.88
25	B10	Candelabra	13306	●●	25B10C/DL/BL/4PK		120	24	Clear Double Life Decor Bent Tip	C, C-7A	3000			3.88
			13316	●●	25B10C/DL/BL		120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.88
			13743	●●	25B10C/CRYSTAL/DL/BL/2PK		120	12	Double Life Crystal Bent Tip	C, C-7A	3000			3.88
			13308	●●	25B10C/DLF/BL/4PK		120	24	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.88
			13317	●●	25B10C/DLF/BL		120	12	Frosted Double Life Decor Bent Tip	C, C-2V	3000			3.88
	Med	13331	●●	25B10/DL/BL/4PK		120	24	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.81	
		13318	●●	25B10/DL/BL		120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.81	
	G25	Med	14105	●●	25G25/DL/RP/48		120	48	Clear Double Life Globe	C, C-9	3000			4.44
14145			●●	25G25/DL/RP		120	6	Clear Double Life Globe	C, C-9	3000			4.44	
14103			●●	25G25/DL/SW/RP/48		120	48	Soft White Double Life Globe	C, C-9	3000			4.44	
14146			●●	25G25/DL/SW/RP		120	6	Soft White Double Life Globe	C, C-9	3000			4.44	
30 70 100	A21	3 CONTACT Med	19345	●●	30/100A21/DL/SW/1/48		120	48	Soft White Double Life 3-Way	C, CC-8	2400	270lm 860lm 1130lm	3.38	5.31
			19380	●●	30/100A21/DL/SW/RP		120	12	Soft White Double Life 3-way	C, CC-8	2400	270lm 860lm 1130lm	3.38	5.31
32	B10	Candelabra	13737	●●	32B10C/CRYSTAL/DL/BL/2PK		120	12	Double Life Crystal Bent Tip	C, C-7A	4000			3.88
40	A15	Med	10023	●●	40A15/CL/DL/FAN/BL/2/24		120	24	Clear Double Life Ceiling Fan Light	C, C-9	2000	350	2.38	3.50

**DOUBLE LIFE LAMPS****Lasts 2X longer than ordinary Soft White lamps**

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
40	A15	Med	10046	●	40A15/CL/DL/FAN	120	24	Clear Double Life Fan Light	C, C-9	2000	350	2.38	3.50
			10133	●	40A15/CL/DL/BL	120	12	Clear Double Life Appliance	C, C-9	2000	350	2.38	3.50
			11664	●	40A15/DL/SW/BL/2/24	120	24	Soft White Double Life Fan	C, C-9	2000	310	2.38	3.50
	A19	Med	11646	●	40A/CL/DL/2PK/RP	120	24	Clear Double Life	C, CC-8	3000	385	3.13	4.44
			10939	●	40A/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	3000	390	3.13	4.44
			11645	●	40A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	3000	390	3.13	4.44
	B10	Candelabra	13328	●	40B10C/DL/BL/4PK	120	24	Clear Double Life Decor Bent Tip	C, C-7A	3000			3.88
			13319	●	40B10C/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.88
			13714	●	40B10C/CRYSTAL/DL/BL/4/24	120	24	Double Life Crystal Bent Tip	C, C-7A	3000			3.88
			13741	●	40B10C/CRYSTAL/DL/BL/2PK	120	12	Double Life Crystal Bent Tip	C, C-7A	3000			3.88
			13309	●	40B10C/DL/F/BL/4PK	120	24	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.88
			13320	●	40B10C/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.88
		Med	13321	●	40B10/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.81
			13723	●	40B10/CRYSTAL/DL/BL/4PK	120	24	Double Life Crystal Bent Tip	C, C-7A	3000			3.81
			13740	●	40B10/CRYSTAL/DL/BL/2PK	120	12	Double Life Crystal Bent Tip	C, C-7A	3000			3.81
			13322	●	40B10/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.81
		Med	13366	●	40B13/DL/FAN/2/60/BL	120	60	Clear Double Life Ceiling Fan	C, C-9	3000	455		4.63
			13369	●	40B13/DL/FAN/BL/2PK	120	12	Clear Double Life Ceiling Fan	C, C-9	3000	455		4.63
	G25	Med	14174	●	40G25/DL/1/48	120	48	Clear Double Life Globe	C, C-9	3000			4.44
			14147	●	40G25/DL/RP	120	6	Clear Double Life Globe	C, C-9	3000			4.44
			14148	●	40G25/DL/SW/RP	120	6	Soft White Double Life Globe	C, C-9	3000			4.44
45	R20	Med Brass	15698	2,46,68,155	45R20/DL/RP	120	6	Double Life Reflector Flood	C, C-9	4000	260		3.94
50 100 150	A21	3 CONTACT Med	18168	●	50150A21DL/SW/1/48	120	48	Soft White Double Life 3-way	C, CC-8	2400	540lm 1400lm 1940lm	3.38	5.31
			18044	●	50/150A21/DL/SW/RP	120	12	Soft White Double Life 3-way	C, CC-8	2400	540lm 1400lm 1940lm	3.38	5.31
50	R20	Med Brass	15346	2,46,68,107,155	50R20/DL/1/48	120	48	Double Life Reflector Flood	C, C-9	4000	290		3.94
			14943	2,46,68,107,155	50R20/DL/RP	120	6	Double Life Reflector Flood	C, C-9	4000	290		3.94



A15



A19



B10



B13



G25



BR30, BR40

DOUBLE LIFE LAMPS

Lasts 2X longer than ordinary Soft White lamps

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
60	A15	Med	10024	●	60A15/CL/DL/FAN/BL/2/24	120	24	Clear Double Life Fan Light	C, C-9	2000	530	2.38	3.50
			10048	●	60A15/CL/DL/FAN/RP	120	24	Clear Double Life Fan Light	C, C-9	2000	530	2.38	3.50
			10868	●	60A15/DL/SW/BL/2/24	120	24	Soft White Double Life Fan Light	C, C-9	2000	510	2.38	3.50
	A19	Med	11260	●	60A/CL/DL/RP	120	24	Clear Double Life	C, CC-8	2000	790	3.13	4.44
			11204	●	60A/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	2000	770	3.13	4.44
			11227	●	60A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	2000	770	3.13	4.44
	B10	Candelabra	13705	●	60B10C/DL/BL/4PK	120	24	Clear Double Life Decor Bent Tip	C, C-7A	3000			3.88
			13777	●	60B10C/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.88
			13749	●	60B10C/CRYSTAL/DL/BL/4/24	120	24	Double Life Crystal Bent Tip	C, C-7A	3000			3.88
			13754	●	60B10C/DL/F/BL/4PK	120	24	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.88
			13778	●	60B10C/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.88
		Med	13323	●	60B10/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000			3.81
			13324	●	60B10/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000			3.81
	B13	Med	13370	●	60B13/DL/FAN/BL/2PK	120	12	Clear Double Life Fan Lamp	C, C-9	3000	650		4.63
	G25	Med	14106	●	60G25/DL/RP/48	120	48	Clear Double Life Globe	C, C-9	3000			4.44
			14149	●	60G25/DL/RP	120	6	Clear Double Life Globe	C, C-9	3000			4.44
			14104	●	60G25/DL/SW/RP/48	120	48	Soft White Double Life Globe	C, C-9	3000			4.44
			14150	●	60G25/DL/SW/RP	120	6	Soft White Double Life Globe	C, C-9	3000			4.44
65	BR30	Med Brass	15266	●	65BR30/DL/2/24	120	24	Double Life Reflector Flood	C, CC-6	4000	510		5.38
			15177	●	65BR30/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	510		5.38
	BR40	Med Brass	15332	●	65BR/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	510		6.50
75	A19	Med	11175	●	75A/CL/DL/RP	120	24	Clear Double Life	C, CC-8	1500	1085	3.13	4.44
			11331	●	75A/W/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	1500	1055	3.13	4.44
			11337	●	75A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	1500	1055	3.13	4.44
	BR40	Med Brass	15213	●	75BR40/DL/FL/1/24	120	24	Double Life Reflector Flood	C, CC-6	4000	610		6.50
			15144	●	75BR/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	610		6.50
100	A19	Med	11176	●	100A/CL/DL/RP	120	24	Clear Double Life	C, CC-8	1500	1550	3.13	4.44
			11660	●	100A/CL/DL/PLUS/2PK/RP	120	24	Clear Double Life	C, CC-8	1500	1590	3.13	4.44
			16868	●	100A/DL/SW/PLUS/4PK/RP/160	120	160	Soft White Double Life	C, CC-8	1500	1560	3.13	4.44
			16864	●	100A/DL/SW/PLUS/4PK/RP	120	48	Soft White Double Life	C, CC-8	1500	1560	3.13	4.44



A19



BR40



S6



C7 Candelabra



S14



S11

DOUBLE LIFE LAMPS**Lasts 2X longer than ordinary Soft White lamps**

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
100	A19	Med	11332	●● ₁₀₈	100A/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	1500	1530	3.13	4.44
			12480	●●	100A/DL/SW/PLUS/2PK/RP	120	24	Soft White Double Life	C, CC-8	1500	1560	3.13	4.44
			12805	●● ₁₀₈	100A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	1500	1530	3.13	4.44
120	BR40	Med Brass	14915	● _{2,46,57,107,155}	120BR/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	960		6.50

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
3	S6	Candelabra	16757	●●	3S6/5	120	240	Clear Indicator	B, C-7A	3000	10	1.44	1.88
			16759	●● ₁₃₈	3S6/5	130	240	Clear Indicator	B, C-7A	3000	12	1.44	1.88
4	C7	Candelabra	13523	●●	4C7/DL/BL/4PK	120	48	Double Life Night Light	B, C-9	6000	14		2.13
			13549	●●	4C7/BL/4PK	120	48	Clear Night Light	B, C-9	3000	16		2.13
			13542	●●	4C7/BL/2PK	120	24	Clear Night Light	B, C-9	3000	16		2.13
			13553	●●	4C7/W/BL/4PK	120	48	White Night Light	B, C-7	3000	16		2.13
			13538	●●	4C7/W/BL/2PK	120	24	White Night Light	B, C-9	3000	16		2.13
			13556	●●	4C7/BUE/2PK	120	24	Blue Nightlight	B, C-7A	3000			2.13
			13557	●●	4C7/PINK/2PK	120	24	Pink Nightlight	B, C-7A	3000			2.13
6	S6	Candelabra	16927	●●	6S6/CL12V	12	120	Clear Indicator	B, C-2R	1500	47	1.44	1.88
			16929	●●	6S6/CL24V	24	120	Clear Indicator	B, C-7A	1500	48	1.44	1.88
			16930	●●	6S6/CL30V	30	120	Clear Casino	B, C-7A	1500	46	1.44	1.88
			16960	●●	6S6/CL	120	120	Clear Indicator	B, C-7A	1500	41	1.44	1.88
			16938	●●	6S6/CL	130	120	Clear Indicator	B, C-7A	1500	37	1.44	1.88
			16942	●●	6S6/CL145V	145	120	Clear Indicator	B, C-7A	1500	33	1.44	1.88
			16943	●●	6S6/CL155V	155	120	Clear Indicator	B, C-7A	1500	36	1.44	1.88
		DC Bayonet	16782	●	6S6DC	120	120	Clear Indicator	B, C-9	1500	41	1.44	1.81
			16784	●	6S6DC	130	120	Clear Indicator	B, C-9	1500	37	1.44	1.81
			16790	●	6S6DC145V	145	120	Clear Indicator	B, C-9	1500	37	1.44	1.72
	S14	Med Brass	17314	●	6S14	120	120	Clear	B, C-9	1500	40	2.50	3.50
7	C7	Candelabra	13608	●●	7C7	120	120	Clear Night Light	B, C-9	3000	43		2.13
			13545	●●	7C7/BL/4PK	120	48	Clear Night Light	B, C-9	3000	43		2.13
			13543	●●	7C7/BL/2PK	120	24	Clear Night Light	B, C-9	3000	43		2.13
			13609	●●	7C7	130	120	Clear Night Light	B, C-9	3000	42		2.13
			13623	●●	7C7/CW	120	120	White Night Light	B, C-9	3000	33		2.13
			13544	●●	7C7/W/BL/4PK	120	48	White Night Light	B, C-9	3000	33		2.13
			13540	●●	7C7/W/BL/2PK	120	24	White Night Light	B, C-9	3000	33		2.13
7.5	S11	Med	19353	●●	7.5S	120	120	Clear	B, C-9	1400	47	1.56	2.25
			19355	●●	7.5S	130	120	Clear	B, C-9	1400	45	1.56	2.25
			19420	●●	7.5S/CW	120	120	Ceramic White	B, C-9	1400	32		2.25
			19433	●●	7.5S/CW/BL	120	12	Ceramic White Utility Light	B, C-9	1400	32		2.25
			19421	●●	7.5S/CW/BL/1/6	120	6	Ceramic White Utility Light	B, C-9	1400	32		2.25



S11

C7 Candelabra

S6

S14

A15

A21

T6

T7

T10

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
7.5	S11	Med	19423	●●	7.5S/CR	120	120	Ceramic Red	B, C-9	1400			2.25
10	C7	Candelabra	13636	●● ₁	10C7/CL	120	240	Clear Pilot Light Vibration Resistant	B, C-7A		38		2.13
	S6	Candelabra	16726	●●	10S6	120	240	Clear Indicator	B, C-7A	1500	71	1.44	1.88
			16717	●● ₁₃₈	10S6230V	230	240	Clear Indicator	B, CC-7A	1500	65	1.44	1.88
	S11	Intermediate	16917	●	10S11N/CL	120	120	Clear Vibration Resistant	B, C-7A	1500	74	1.63	2.31
			16919	●	10S11N/CL	130	120	Clear Vibration Resistant	B, C-7A	1500	74	1.63	2.31
	S14	Med Brass	17406	●	10S14	120	120	Clear Vibration Resistant	B, C-9	1500	76	2.50	3.50
11	S14	Med Brass	17448	●	11S14	120	120	Clear Vibration Resistant	B, C-9	3000	74	2.50	3.50
			17450	●	11S14	130	120	Clear Vibration Resistant	B, C-9	3000	72	2.50	3.50
			17453	●	11S14/IF	130	120	Inside Frost Vibration Resistant	B, C-9	3000	68	2.50	3.50
			17487	●	11S14/TR	130	120	Transparent Red	B, C-9	3000		2.50	3.50
12	S6	Candelabra	16718	●●	12S6/250V	250	240	Clear Indicator	B, CC-7A	1500	61	1.44	1.88
15	A15	Med	10015	●	15A15/W/RP	120	24	White Utility Light	C, C-9	2500	65	2.38	3.50
			10018	●	15A15/CL	120	120	Clear Utility Light	B, C-9	2500	105	2.38	3.50
			10028	●	15A15/CL/RP	120	24	Clear Utility Light	B, C-9	2500	105	2.38	3.50
			10019	●	15A15/CL @ 120_volts, approximate 13 watts, 80 lumens, 6250 hours.	130	120	Clear Utility Light	B, C-9	2500	105	2.38	3.50
			10037	●	15A15	120	120	Inside Frost	B, C-9	2500	100	2.38	3.50
			10031	●	15A15/RP	120	24	Inside Frost	B, C-9	2500	100	2.38	3.50
			10038	●	15A15 @ 120_volts, approximate 13 watts, 76 lumens, 6250 hours.	130	120	Inside Frost	B, C-9	2500	100	2.38	3.50
15 135 150	A21	3 CONTACT Med	18009	●▼	15/150A/SECURITYLIGHT	120	12	Soft White Security 3-way	C, CC-8	1200	800m 2070lm 2150lm	3.38	5.31
15	S11	Med	17079	●●	15S11/102/IF	120	120	Inside Frost Refrigerator	B, C-7A	400	138	1.56	2.25
	S14	Med Brass	17240	●	15S14/CL	130	120	Clear Vibration Resistant Sign	B, C-9	3000	106	2.50	3.50
	T6	Candelabra	18037	●●	15T6	120	60	Clear Tubular	B, C-7A	2000	111		3.06
			18038	●●	15T6	130	60	Clear Tubular	B, C-7A	2000	105		3.06
			18078	●●	15T6/145V	145	60	Clear Tubular	B, C-7A	2000	112		3.06
			18036	●●	15T6/BL	145	12	Clear Tubular	B, C-7A	2000	112		3.06
	T7	Candelabra	18185	●●	15T7C	120	60	Clear	B, C-7A	1000	111	1.50	2.25
		DC Bayonet	18208	● ₁₁₁	15T7DC	120	60	Clear	B, C-7A	1000	111	1.31	2.25
			18200	● ₁₁₁	15T7DC/BL	120	12	Clear Carded	B, C-7A	1000	111	1.31	2.25
			18201	● ₁₁₁	15T7DC/BL/1/6	120	6	Clear Carded	B, C-7A	1000	111	1.31	2.25
		Intermediate	18173	● ₁₁₁	15T7N	120	60	Clear	B, C-7A	1000	115	1.56	2.25
			18174	●	15T7N/BL	120	12	Clear	B, C-7A	1000	115	1.56	2.25
	T10	Med	18501	●● ₁₃₈	15T10/CL	120	60	Clear Tubular	B, C-8	2500	112		5.63



T6.5



A19



R14 Inter



R14



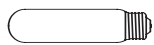
T8



T10

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
20	T6.5	DC Bayonet	18144		20T6.5DC/IF	120	60	Inside Frost Exit Lamp	B, C-8	10000	92		5.56
		Intermediate	18143		20T6.5/IF	120	60	Inside Frost Exit Lamp	B, C-8	10000	92		5.50
25	A19	Med	11090		25A/RS	120	120	Inside Frost Rough Service	B, C-17	1000	210	2.50	3.94
			11092		25A/RS	130	120	Inside Frost Rough Service	B, C-17	1000	210	2.50	3.94
			10562		25A/W/RP	120	24	Soft White	C, C-9	2500	160	2.50	3.94
			10644		25A	120	120	Standard Frost	B, C-9	2500	190	2.50	3.94
			10634		25A/RP	120	24	Standard Frost	B, C-9	2500	190	2.50	3.94
			10645	^{136,146}	25A @120_volts, approximate 22 watts, 130 lumens, 6250 hours	130	120	Standard Frost	B, C-9	2500	180	2.50	3.94
			11285		25A	230	120	Standard Frost	B, C-17	1000	205	2.50	3.94
			11289		25A	277	120	Standard Frost	B, C-17	1000	187	2.50	3.94
		Med Brass	10693		25A/CL	120	120	Clear	B, C-9	2500	190	2.50	3.94
			10683		25A/CL/RP	120	24	Clear	B, C-9	2500	190	2.50	3.94
			10694	^{136,146}	25A/CL @120_volts, approximate 22 watts, 130 lumens, 6250 hours	130	120	Clear	B, C-9	2500	180	2.50	3.94
			11710		25A19/TB/RP	125	6	Transparent Blue	B, C-9	3000		2.50	3.94
			11714		25A19/TG/RP	125	6	Transparent Green	B, C-9	3000		2.50	3.94
			11711		25A19/TO/RP	125	6	Transparent Orange	B, C-9	3000		2.50	3.94
			11712		25A19/TR/RP	125	6	Transparent Red	B, C-9	3000		2.50	3.94
			11713		25A19/TY/RP	125	6	Transparent Yellow	B, C-9	3000		2.50	3.94
			10449		25A	12	120	Standard Frost	B, C-6	1000	385	2.50	3.94
		R14	14793		25R14N	120	60	Reflector Mini Flood	B, CC-2V	1500	132		2.56
			14784		25R14N/RP	120	6	Reflector Mini Flood	B, CC-2V	1500	132		2.56
		Med	14818		25R14/RP	120	6	Reflector Mini Flood	C, CC-2V	1500	132		2.25
T6.5	T6.5	DC Bayonet	18129		25T6.5/DC	120	60	Clear Scale Illuminator	B, C-8	1000	242		5.56
			18106		25T6.5/DC	130	60	Clear Scale Illuminator	B, C-8	1000	242		5.56
			18117		25T6.5/DC/IF	120	60	Inside Frost Scale Illuminator	B, C-8	1000	225		5.56
		Intermediate	18125		25T6.5	120	60	Clear	B, C-8	1000	242		5.50
			18496		25T6.5/CL/BL/10PK	120	10	Clear	B, C-8	1000	242		5.50
			18495		25T6.5/BL/6PK	120	6	Clear	B, C-8	1000	242		5.50
			18128		25T6.5	130	60	Clear	B, C-8	1000	242		5.50
			18113		25T6.5/IF	120	60	Inside Frost	B, C-8	1000	225		5.50
			18111		25T6.5/IF	130	60	Inside Frost	B, C-8	1000	225		5.50
		T8	18289	¹¹¹	25T8C	120	60	Clear Home Appliance	B, C-7A	1000	230	1.50	2.63
			18310	¹¹¹	25T8DC	120	60	Clear Home Appliance	B, C-7A	1000	230	1.31	2.63
			18321	¹¹¹	25T8DC/BL	120	12	Clear Home Appliance	B, C-7A	1000	230	1.31	2.63
			18316	¹¹¹	25T8DC	130	60	Clear Home Appliance	B, C-7A	1000	215	1.31	2.63
T8	T8	Intermediate	18359	¹¹¹	25T8N	120	60	Clear Home Appliance	B, C-7A	1000	230	1.31	2.63
			18365	¹¹¹	25T8N/BL	120	12	Clear Home Appliance	B, C-7A	1000	230	1.31	2.63
			18360	¹¹¹	25T8N/BL/1/6	120	6	Clear Home Appliance	B, C-7A	1000	230	1.31	2.63
T10	T10	Med	18510		25T10	120	60	Clear	B, C-8	1000	232		5.63



T10



A15



A21



R20



S11



A19

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
25	T10	Med	18491	●	25T10/CL/BL/6PK	120	6	Clear	B, C-8	1000	232		5.63
			18512	●	25T10	130	60	Clear	B, C-8	1000	232		5.63
			18503	●	25T10/F	120	60	Inside Frost	B, C-8	1000	230		5.63
			18492	●	25T10/F/BL/6PK	120	6	Inside Frost	B, C-8	1000	230		5.63
			18505	●	25T10/F	130	60	Inside Frost	B, C-8	1000	230		5.63
30	A15	Med Brass	10122	77	30A15 @ 120_volts, approximate 26 watts, 150 lumens, 5000 hours.	130	120	Inside Frost	C, C-9	2000	200	2.38	3.50
30 70 100	A21	3 CONTACT Med	19395	●▼	30/100/DAYLIGHT/1/12	120	12	Daylight 3-Way	C, CC-8	1200	220lm 700lm 920lm	3.38	5.31
			19345	●▼ ¹¹⁸	30/100A21/DL/SW/1/48	120	48	Soft White Double Life 3-Way	C, CC-8	2400	270lm 860lm 1130lm	3.38	5.31
			19380	●▼	30/100A21/DL/SW/RP	120	12	Soft White Double Life 3-way	C, CC-8	2400	270lm 860lm 1130lm	3.38	5.31
			18029	●▼ ¹¹⁸	30/100A/W/DIYPACK	120	48	Soft White 3-way	C, CC-8	1200	300lm 945lm 1245lm	3.38	5.31
			19385	●▼ ¹¹⁸	30/100A21/W/RP	120	12	Soft White 3-way	C, CC-8	1200	300lm 945lm 1245lm	3.38	5.31
30	R20	Med Brass	14794	68,118	30R20	120	60	Reflector Flood	C, C-9	2000	140 40°		3.94
			14836	68,118	30R20/RP	120	6	Reflector Flood	C, C-9	2000	140 40°		3.94
			14802	136,147	30R20	130	60	Reflector Flood	C, C-9	2000	140 40°		3.94
					@ 120_volts, approximate 26 watts, 100 lumens, 5000 hours								
			10765	●	30S11/DC/75V	75	120	Clear Train Marker	C, C-7A	500	284	1.50	2.38
32	A19	Med Brass	10983	79	32A19/49 @ 120_volts, approximate 28 watts, 200 lumens, 7500 hours.	130	120	Clear Street Lighting Group Replacement	C, C-9	3000	258	2.88	4.25
34	A19	Med	11391	●	40A/34/W/ES/4PK	120	48	Soft White Energy Saver	C, CC-8	1500	375	3.13	4.44
			11058	●	40A/34/SS	120	48	Standard Frost SuperSaver	C, CC-8	1500	375	3.13	4.44
			11379	●	40A/34/SS	130	48	Standard Frost SuperSaver	C, CC-8	1500	380	3.13	4.44
					@ 120_volts, approximate 30 watts, 290 lumens, 3750 hours								
		Med Brass	11383	●	40A/34/SS/XL	120	48	Standard Frost SuperSaver XL	C, CC-8	2500	310	3.13	4.44
			11387	●	40A/34/SS/XL	130	48	Standard Frost SuperSaver XL	C, CC-8	2500	310	3.13	4.44
					@ 120_volts, approximate 30 watts, 240 lumens, 6250 hours								
40	A15	Candelabra	11534		40A15C/SW/FAN/2/12/BL	120	12	Soft White Ceiling Fan Light	C, C-9	1000	300	1.94	3.38
			10029		40A15C/CL/FAN/2/12/BL	120	12	Clear Ceiling Fan	C, C-9	1000	330	1.94	3.38
	Med		10181	●	40A15/DAY/FAN/BL/2/24	120	24	Daylight Fan	C, C-9	1000	340	2.38	3.50
			11664	●	40A15/DL/SW/FAN/BL/2/24	120	24	Soft White Double Life Fan	C, C-9	2000	310	2.38	3.50
			10061	●	40A15/CL/DL/APPL/2/12/BL	120	12	Clear Double Life Appliance	C, C-9	2000	350	2.38	3.50



A15

A19

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R14 Inter

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
40	A15	Med	10023	●	40A15/CL/DL/FAN/BL/2/24	120	24	Clear Double Life Ceiling Fan Light	C, C-9	2000	350	2.38	3.50
			10046	●	40A15/CL/DL/FAN	120	24	Clear Double Life Fan Light	C, C-9	2000	350	2.38	3.50
			10034	●	40A15/CL/DL/FAN/2/12/BL	120	12	Clear Double Life Fan Light	C, C-9	2000	350	2.38	3.50
			10133	●	40A15/CL/DL/BL	120	12	Clear Double Life Appliance	C, C-9	2000	350	2.38	3.50
			10082	●	40A15/SL	120	120	Safeline Appliance	C, C-9	1000	420	2.38	3.50
			11111	●	40A15/SW/FAN/BL/2/24	120	24	Soft White Ceiling Fan Light	C, C-9	1000	405	2.38	3.50
			11533	●	40A15/SW/FAN/2/12/BL	120	12	Soft White Ceiling Fan	C, C-9	1000	405	2.38	3.50
			10042	●	40A15/CL/FAN	120	24	Clear Ceiling Fan Light	C, C-9	1000	430	2.38	3.50
			10022	●	40A15/CL/FAN/BL/2/24	120	24	Clear Ceiling Fan Light	C, C-9	1000	430	2.38	3.50
			10036	●	40A15/CL/FAN/2/12/BL	120	12	Clear Ceiling Fan Light	C, C-9	1000	420	2.38	3.50
			10141	●	40A15/2PK/RP	120	24	Clear Appliance	C, C-9	1000	430	2.38	3.50
			10169	●	40A15/CL/BL/2/24	120	24	Clear Appliance	C, C-9	1000	430	2.38	3.50
			10066	●	40A15/CL/APPL/2/12/BL	120	12	Clear Appliance	C, C-9	1000	420	2.38	3.50
			10129	●	40A15/CL/BL	120	12	Clear Appliance	C, C-9	1000	430	2.38	3.50
			10119	●	40A15	120	120	Inside Frost Appliance	C, C-9	1000	420	2.38	3.50
			10117	●	40A15/IF/BL	120	12	Inside Frost Appliance	C, C-9	1000	420	2.38	3.50
		Med Brass	10365		40A15/I	250	120	Inside Frost Appliance	B, C-9	1000	330	2.50	3.50
			10370		40A15/NEO	250	120	Neodymium Doped Appliance Lamp	B, C-9	1000	320	2.50	3.50
40	A19	Med	10897	●☀	40A/DAY/4/160/RP	120	160	Daylight	C, CC-8	1500	350	3.13	4.44
			10864	●☀	40A/DAY/RP/4/48	120	48	Daylight	C, CC-8	1500	350	3.13	4.44
			11100	●☀	40A/DAY/RP/2/24	120	24	Daylight	C, CC-8	1500	350	3.13	4.44
			10829	●☀ ^{99,136}	40A/DAY/RP/4/48 @ 120_volts, approximate 33 watts, 270 lumens, 3750 hours.	130	48	Daylight	C, CC-8	1500	350	3.13	4.44
			10939	●☀	40A/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	3000	390	3.13	4.44
			11645	●☀	40A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	3000	390	3.13	4.44
			11646	●☀	40AC/DL/2PK/RP	120	24	Clear Double Life	C, CC-8	3000	385	3.13	4.44
			10996	●☀	40A/W/4/RP	120	48	Soft White	C, CC-8	1500	465	3.13	4.44
			10977	●☀	40A/W/RP	120	24	Soft White	C, CC-8	1500	465	3.13	4.44
			11223	●☀	40A/CL/RP	120	24	Clear	C, CC-8	1500	480	3.13	4.44
			11036	●☀ ^{136,153}	40A/CL @ 120_volts, approximate 35 watts, 350 lumens, 3750 hours	130	120	Clear	C, CC-8	1500	460	3.13	4.44
			11060	●☀	40A/4/RP	120	48	Standard Frost	C, CC-8	1500	470	3.13	4.44
			11010	●☀	40A/RP	120	24	Standard Frost	C, CC-8	1500	470	3.13	4.44
			11059	●☀ ^{136,153}	40A @ 120_volts, approximate 35 watts, 350 lumens, 3750 hours	130	48	Standard Frost	C, CC-8	1500	460	3.13	4.44
			11011	●☀ ^{136,153}	40A/CVP @ 120_volts, approximate 35 watts, 350 lumens, 3750 hours	130	24	Standard Frost	C, CC-8	1500	460	3.13	4.44
K19	Med		10471	●	40K19/DR	120	24	Inside Frost Directional Reflector	C, CC-6	1150	385		4.13
R14	Intermediate		14820	●	40R14N/RP	120	6	Reflector Mini Flood	C, CC-2V	1500			2.56



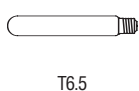
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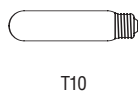
S11



T6.5



T8



T10



A21



BR30



R20



A19

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
40	R14	Med	14819	●	40R14/RP	120	6	Reflector Mini Flood	C, C-9	1500	185		2.25
	R16	Med	14821	●	40R16/FL/RP	120	6	Reflector Mini Flood	C, C-9	1500			3.88
	S11	Intermediate	13595	●	40S11N	120	120	Clear Hi Intensity	C, C-7A	500	440	1.63	2.31
			13607	●	40S11N/BL	120	12	Clear Hi Intensity	C, C-7A	500	440	1.63	2.31
			13644	●	40S11N/BL/2/12	120	12	Clear Hi Intensity	C, C-7A	500	440	1.63	2.31
			13640	●	40S11N/NEO/BULK	120	6000	Neodymium doped Hi Intensity	C, C-7A	500		1.63	2.31
	T6.5	Intermediate	18096	●	40T6.5/2	120	60	Clear Appliance	C, C-8	1000	365		5.50
			18497	●	40T6.5/CL/BL/10PK	120	10	Clear Appliance	C, C-8	1000	365		5.50
			18152	●	40T6.5/CL/BL/6PK	120	6	Clear Appliance	C, C-8	1000	365		5.50
	T8	Intermediate	18358	●	40T8N/NEODYMIUM	120	6000	Neodymium Doped Appliance	B, C-7A	1000	300	1.31	2.63
	T10	Med	18650	●	40T10	120	60	Clear	B, C-8	1000	420		5.63
			18493	●	40T10/CL/BL/6PK	120	6	Clear	B, C-8	1000	420		5.63
			18652	●	40T10	130	60	Clear	B, C-8	1000	420		5.63
			18494	●	40T10/IF/BL/6PK	120	6	Inside Frost	B, C-8	1000	415		5.63
			18669	●	40T10/IF	130	60	Inside Frost	B, C-8	1000	415		5.63
45 95 140	A21	3 CONTACT Med	18048	●	45/140A21/W/ES/RP	120	12	Soft White 3-way Energy Saver	C, CC-8	1200	540lm 1300lm 1840lm	3.38	5.31
45	BR30	Med	15103	●	45BR30/FL/RP	120	6	Reflector Flood	C, CC-6	2000	350lm 170 cd 60°		5.38
	R20	Med	15677	●	45R20/DAY/1/6/RP	120	6	Daylight Reflector	C, C-9	2000	215lm 360 cd 45°		3.94
			15697	●	45R20	120	60	Reflector Flood	C, C-9	2000	295lm 490 cd 45°		3.94
			14997	●	45R20/RP/2/12	120	12	Reflector Flood	C, C-9	2000	295lm 490 cd 45°		3.94
			15670	●	45R20/RP	120	6	Reflector Flood	C, C-9	2000	295lm 490 cd 45°		3.94
			15699	●	45R20	130	60	Reflector Flood	C, C-9	2000	490 cd 45°		3.94
			<i>@ 120_volts, approximate 40 watts, 220 lumens, 5000 hours.</i>										
			15676	●	45R20/CVP	130	6	Reflector Flood	C, C-9	2000	490 cd 45°		3.94
			<i>@ 120_volts, approximate 40 watts, 220 lumens, 5000 hours.</i>										
	Med Brass		15698	●	45R20/DL/RP	120	6	Double Life Reflector Flood	C, C-9	4000	260 430 cd 45°		3.94
50	A19	Med	11096	●	50A/RS/4/144/RP	120	144	Inside Frost Rough Service	C	1000	510		
			14070	●	50A/RS/2/RP	120	24	Inside Frost Rough Service	C	1000	510		
			11393	●	50A/RS	250	120	Inside Frost Rough Service	C, C-22	1000	450	2.50	4.44



A19

A21

ER30

R20

GENERAL PURPOSE LAMPS

			Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
Watts	Bulb	Base											
50	A19	Med	11397	●	50A	250	120	Inside Frost	B, CC-7A	1000	490	2.50	4.44
			11428	●	50A	277	120	Inside Frost	B, CC-7A	1000	475	2.50	4.44
		Med Brass	11118	116	50A/RS/SL	120	120	Safeline Rough Service	C, C-9	1000	490	2.50	3.94
			11068	②133	50A19/RS	75	120	Inside Frost Rough Service Train	C, C-9	1000	505	2.50	3.94
50 100 150	A21	3 CONTACT Med	18110	●▼	50/150/DAY/1/12	120	12	Daylight 3-way	C, CC-8	1200	460lm 1170lm 1630lm	3.38	5.31
			18168	●▼	50/150A21DL/SW/1/48	120	48	Soft White Double Life 3-way	C, CC-8	2400	540lm 1400lm 1940lm	3.38	5.31
			18044	●▼	50/150A21/DL/SW/RP	120	12	Soft White Double Life 3-way	C, CC-8	2400	540lm 1400lm 1940lm	3.38	5.31
			18457	●▼	50/150A21/W/2/48	120	48	Soft White 3-Way	C, CC-8	1200	640lm 1570lm 2210lm	3.38	5.31
			18028	●▼	50/150A/W/DIYPACK	120	48	Soft White 3-way	C, CC-8	1200	640lm 1570lm 2210lm	3.38	5.31
			18458	●▼	50/150A21/W/2PK/12	120	12	Soft White 3-Way	C, CC-8	1200	640lm 1570lm 2210lm	3.38	5.31
			18060	●▼	50/150A21/W/RP	120	12	Soft White 3-way	C, CC-8	1200	640lm 1570lm 2210lm	3.38	5.31
			18726	●▼	50/150A21/SPK/RP	120	12	Soft Pink 3-way	C, CC-8	1200		3.38	5.31
			19404	●▼	50/250A21/W/RP	120	12	Soft White Reading Light 3-way	C, CC-8	1200	640lm 3300lm 3940lm	3.38	5.31
50	A21	Med Brass	11572	②	50A21	12	24	Inside Frost RV-Marine	C, C-6	1000	865	3.88	4.94
			11567	②	50A21/RP	12	12	Inside Frost RV-Marine	C, C-6	1000	865	3.88	4.94
			11603	②	50A21	34	12	Inside Frost Train	C, C-9	1000	800	3.44	4.94
	ER30	Med	15102	●2,155	50ER30	120	24	Elliptical Reflector Flood	C, CC-6	2000	350lm 800 cd 30°		6.38
			15110	●2,155	50ER30/RP	120	6	Elliptical Reflector Flood	C, CC-6	2000	350lm 800 cd 30°		6.38
			15107	●2,136,155,159	50ER30	130	24	Elliptical Reflector Flood	C, CC-6	2000	320lm 730 cd 30°		6.38
	@ 120_volts, approximate 44 watts, 240 lumens, 5000 hours												
	R20	Med	15231	●2,46,68,107,155	50R20/DAY/1/6/RP	120	6	Daylight Reflector	C, C-9	2000	240lm 400 cd 45°		3.94
			14831	●2,46,68,107,155	50R20	120	60	Reflector Flood	C, C-9	2000	330lm 550 cd 45°		3.94
			14914	●2,46,68,107,155	50R20/2PK	120	48	Reflector Flood	C, C-9	2000	330lm 550 cd 45°		3.94
			14998	●107	50R20/RP/2/12	120	12	Reflector Flood	C, C-9	2000	330lm 550 cd 45°		3.94



R20

A19

A15

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
50	R20	Med	14833	● 2,46,68,107, 155	50R20/RP	120	6	Reflector Flood	C, C-9	2000	330lm 550 cd 45°		3.94
			14832	● 2,46,68,107, 136,155,158	50R20	130	60	Reflector Flood	C, C-9	2000	330lm 550 cd 45°		3.94
			<i>@ 120_volts, approximate 44 watts, 250 lumens, 5000 hours</i>										
			14844	● 2,46,68,107, 136,155,158	50R20/CVP	130	6	Reflector Flood	C, C-9	2000	330lm 550 cd 45°		3.94
			<i>@ 120_volts, approximate 44 watts, 250 lumens, 5000 hours</i>										
			14846	● 2,46,68,136, 155	50R20/PINK	130	60	Pink Reflector	C, C-9	2000	420lm		3.94
	Med Brass		15346	2,46,68,107,155	50R20/DL/1/48	120	48	Double Life Reflector Flood	C, C-9	4000	290lm 480 cd 45°		3.94
			14943	2,46,68,107,155	50R20/DL/RP	120	6	Double Life Reflector Flood	C, C-9	4000	290lm 480 cd 45°		3.94
			14834	2,46,68,155	50R20/PINK	120	60	Pink Reflector	C, C-9	2000			3.94
			14842	2,46,68,155	50R20/GRO	120	6	Spot-GRO Reflector	C, C-9	2000			3.94
52	A19	Med	11392	● 104,136	60A52/W/ES/4PK	120	48	Soft White Energy Saver	C, CC-8	1000	715	3.13	4.44
			10893	● 104,136	60A52/CL/SS	130	48	Clear SuperSaver	C, CC-8	1000	740	3.13	4.44
			<i>@ 120_volts, approximate 46 watts, 560 lumens, 2500 hours.</i>										
			11376	● 136	60A52/SS	120	48	Standard Frost SuperSaver	C, CC-8	1000	750	3.13	4.44
			11380	● 136,164	60A52/SS	130	48	Standard Frost SuperSaver	C, CC-8	1000	710	3.13	4.44
			<i>@ 120_volts, approximate 46 watts, 540 lumens, 2500 hours</i>										
	Med Brass		11384	136	60A52/SS/XL	120	48	Standard SuperSaver XL	C, CC-8	2500	620	3.13	4.44
			11388	136,163	60A52/SS/XL	130	48	Standard SuperSaver XL	C, CC-8	2500	610	3.13	4.44
			<i>@ 120_volts, approximate 46 watts, 460 lumens, 6250 hours</i>										
58	A19	Med Brass	11149	136	58A19/62	120	120	Clear Street Lighting Group Replacement	C, C-9	3000	630	2.88	4.25
60	A15	Candelabra	10777		60A15C/SW/FAN/2/12/BL	120	12	Soft White Ceiling Fan Light	C, C-9	1000	510	1.94	3.38
			10894		60A15C/CL/FAN/2/12/BL	120	12	Clear Ceiling Fan Light	C, C-9	1000	560	1.94	3.38
	Med		10162	●	60A15/DAY/FAN/BL/2/24	120	24	Daylight Fan	C, C-9	1000	340	2.38	3.50
			10868	●	60A15/DL/SW/BL/2/24	120	24	Soft White Double Life Fan Light	C, C-9	2000	510	2.38	3.50
			10885	●	60A15/SW/FAN/2/12/BL	120	12	Soft White Double Life Fan Light	C, C-9	1000	680	2.38	3.50
			10048	●	60A15/CL/DL/FAN/RP	120	24	Clear Double Life Fan Light	C, C-9	2000	530	2.38	3.50
			10024	●	60A15/CL/DL/FAN/BL/2/24	120	24	Clear Double Life Fan Light	C, C-9	2000	530	2.38	3.50
			10040	●	60A15/CL/DL/FAN/2/12/BL	120	12	Clear Double Life Fan Light	C, C-9	2000	530	2.38	3.50
			11005	●	60A15/SW/FAN/2PK	120	24	Soft White Ceiling Fan	C, C-9	1000	680	2.38	3.50
			10842	●	60A15/SW/FAN/BL/2/24	120	24	Soft White Ceiling Fan	C, C-9	1000	680	2.38	3.50
			10841	●	60A15/CL/FAN/BL/2/24	120	24	Clear Ceiling Fan Light	C, C-9	1000	700	2.38	3.50



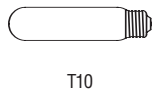
A15



A19

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
60	A15	Med	11007	●	60A15/CL/FAN/RP	120	24	Clear Ceiling Fan Light	C, C-9	1000	700	2.38	3.50
			10884	●	60A15CL/FAN/2/12/BL	120	12	Clear Ceiling Fan Light	C, C-9	1000	700	2.38	3.50
		Med Brass	10886		60A15/GARAGE/2/12/BL	120	12	Clear Garage Light	C, C-9	1000	690	2.38	3.50
			11008		60A15/GARAGE/RP	120	24	Inside Frost Garage Door	C, C-9	1000	690	2.38	3.50
A19	Med		11509	●	60A/DAY/4/160/RP	120	160	Daylight	C, CC-8	1000	640	3.13	4.44
			11463	●	60A/DAY/RP/4/48	120	48	Daylight	C, CC-8	1000	640	3.13	4.44
			11101	●	60A/DAY/RP/2/24	120	24	Daylight	C, CC-8	1000	640	3.13	4.44
			11602	● ^{101,136}	60A/DAY/RP/4/48 @ 120_volts, approximate 53 watts, 490 lumens, 2500 hours.	130	48	Daylight	C, CC-8	1000	640	3.13	4.44
			11204	●	60A/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	2000	770	3.13	4.44
			11227	●	60A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	2000	770	3.13	4.44
			11260	●	60A/CL/DL/RP	120	24	Clear Double Life	C, CC-8	2000	790	3.13	4.44
			10503	●	60A/RS/SL/RP	120	12	Safeline Rough Service Inside Frost	C, C-9	1000	555	3.13	4.44
			13000	●	60A/RS/2/RP	120	24	Inside Frost Rough Service	C, C-9	1000	555	2.88	4.44
			12977	●	60A/RS/RP/1	120	12	Inside Frost Rough Service	C, C-9	1000	555	2.88	4.44
			12420	● ^{136,168}	60A/RS/2/RP @ 120_volts, approximate 53 watts, 420 lumens, 2500 hours	130	24	Inside Frost Rough Service	C, C-9	1000	555	2.88	4.44
			11205	●	60A/W/4/RP	120	48	Soft White	C, CC-8	1000	850	3.13	4.44
			11208	●	60A/W/RP	120	24	Soft White	C, CC-8	1000	850	3.13	4.44
			10553	●	60A/CL	120	120	Clear	C, CC-8	1000	880	3.13	4.44
			11224	●	60A/CL/RP	120	24	Clear	C, CC-8	1000	880	3.13	4.44
			10555	● ^{136,170}	60A/CL @ 120_volts, approximate 53 watts, 650 lumens, 2500 hours	130	120	Clear	C, CC-8	1000	855	3.13	4.44
			10558	● ¹⁷⁰	60A/CL/CVP @ 120_volts, approximate 53 watts, 650 lumens, 2500 hours	130	24	Clear	C, CC-8	1000	855	3.13	4.44
			11180	●	60A/4/RP	120	48	Standard Frost	C, CC-8	1000	870	3.13	4.44
			11214	●	60A/RP	120	24	Standard Frost	C, CC-8	1000	870	3.13	4.44
			11373	● ^{136,170}	60A @ 120_volts, approximate 53 watts, 650 lumens, 2500 hours	130	48	Standard Frost	C, CC-8	1000	855	3.13	4.44
			10489	● ^{136,170}	60A/CVP @ 120_volts, approximate 53 watts, 650 lumens, 2500 hours	130	24	Standard Frost	C, CC-8	1000	855	3.13	4.44
			11715	●	60A/BLACKLIGHT/RP	120	6	Blacklight	C, CC-8	1000		3.13	4.44
			10390	●	60A/Y/RP	120	24	Yellow Bug Light	C, CC-8	1000		3.13	4.44
			10386	●	60A/Y/RP	130	24	Yellow Bug Light	C, CC-8	1000		3.13	4.44
			10576	●	60A/SPK	120	24	Soft Pink	C, CC-8	1000		3.13	4.44
			12280	●	60A/GRO	120	6	Spot-GRO	C, C-9	1000		3.13	4.44
		Med Brass	13021		60A/RS/XL	120	24	Inside Frost Rough Service XL	C, C-9	5000	450	2.88	4.44
			12455	⁸⁰	60A/RS/XL @ 120_volts, approximate 53 watts, 340 lumens, 12500 hours.	130	24	Inside Frost Rough Service XL	C, C-9	5000	450	2.88	4.44
			10640	⊗	60A	24	120	Inside Frost Dental Spot	C, C-9	1000	1010	3.13	4.44



C15

K19

T10

BR30

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
60	C15	Med Brass	14200		60C15/FAN/2PK	120	12	Clear Ceiling Fan Light	C, C-9	4000	528		4.50
	K19	Med	10483	●	60K19/DR	120	24	Inside Frost Directional Reflector	C, CC-6	1150	630		4.13
	T10	Med	18710	●▽▲	60T10/64	120	60	Clear	C, C-8	1000	655		5.63
			18712	●▽▲	60T1064BL	120	6	Clear	C, C-8	1000	655		5.63
			18711	●▽▲	60T10/CF	120	60	Inside Frost Showcase	C, C-8	1000	630		5.63
	S14s		19675	▽▲	LN60 125-130V	125	25	Opal White LINESTRA 1605	B, C-8	1000	460		19.69
65	BR30	Med	15223	●▲2,46,57,155	65BR30/DAY/1/6/RP	120	6	Daylight Reflector	C, CC-6	2000	420lm 250 cd 60°		5.38
			15167	●▲2,46,57,155	65BR30/FL/SL/RP	130	6	Reflector Safeline Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			<i>@ 120_volts, approximate 57 watts, 470 lumens, 5000 hours.</i>										
			15148	●▲2,46,57,155	65BR30/TRAY	120	48	Reflector Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			15165	●▲2,46,57,155	65BR30/FL	120	24	Reflector Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			15246	●▲2,46,57,155	65BR30/2/24/RP	120	24	Reflector Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			15160	●▲2,46,57,155	65BR30/FL/RP	120	6	Reflector Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			15149	●▲2,46,57,155	65BR30/SP/RP	120	6	Reflector Spot	C, CC-6	2000	620lm 580 cd 30°		5.38
			13129	●▲2,46,57,155	65BR30/FL	130	24	Reflector Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			<i>@ 120_volts, approximate 57 watts, 470 lumens, 5000 hours.</i>										
			15172	●▲2,46,57,155	65BR30/FL/CVP	130	6	Reflector Flood	C, CC-6	2000	620lm 370 cd 60°		5.38
			<i>@ 120_volts, approximate 57 watts, 470 lumens, 5000 hours.</i>										
			15150	●▲2,46,57,155	65BR30/A/RP	120	6	Amber Reflector Flood	C, CC-6	2000			5.38
			15151	●▲2,46,57,155	65BR30/B/RP	120	6	Blue Reflector Flood	C, CC-6	2000			5.38
			15152	●▲2,46,57,155	65BR30/G/RP	120	6	Green Reflector Flood	C, CC-6	2000			5.38
			15153	●▲2,46,57,155	65BR30/PK/RP	120	6	Pink Reflector Flood	C, CC-6	2000			5.38
			15161	●▲2,46,57,155	65BR30/R/RP	120	6	Red Reflector Flood	C, CC-6	2000			5.38
			15154	●▲2,46,57,155	65BR30/Y/RP	120	6	Yellow Reflector Flood	C, CC-6	2000			5.38
			15156	●▲2,46,57,155	65BR30/GRO/RP	120	6	Spot-GRO Reflector	C, CC-6	2000			5.38
	Med Brass		15266	▲	65BR30/DL/2/24	120	24	Double Life Reflector Flood	C, CC-6	4000	510lm 300 cd 60°		5.38



BR30, BR40



PAR38



A19

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
65	BR30	Med Brass	15177	2,46,57,155	65BR30/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	510lm 300 cd 60°		5.38
	BR40	Med	15360	46,57,155	65BR/FL/24	120	24	Reflector Flood	C, CC-6	2000	580lm 390 cd 60°		6.50
			15678	46,57,155	65BR/FL/RP	120	6	Reflector Flood	C, CC-6	2000	580lm 390 cd 60°		6.50
			15679	46,57,106, 136,155	65BR/CVP	130	6	Reflector Flood	C, CC-6	2000	540lm 390 cd 60°		6.50
	<i>@ 120_volts, approximate 57 watts, 410 lumens, 5000 hours.</i>												
	Med Brass		15332	46,57,155	65BR/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	510lm 335 cd 60°		6.50
	PAR38	Med Skt	13804		65PAR/SP	120	15	Spot Super Saver	C, CC-6	1750	715lm 5500 cd 12°		5.31
			13802		65PAR/FL	120	15	Flood Super Saver	C, CC-6	1750	715lm 1700 cd 30°		5.31
			13805	136,173	65PAR/FL	130	15	Flood Super Saver	C, CC-6	1750	715lm 1700 cd 30°		5.31
	<i>@ 120_volts, approximate 57 watts, 540 lumens, 4375 hours</i>												
67	A19	Med	11394		75A/67/W/ES/4PK	120	48	Soft White Energy Saver	C, CC-8	750	1040	3.13	4.44
			11377		75A/67/SS	120	48	Standard Frost SuperSaver	C, CC-8	750	1050	3.13	4.44
			11381	136,175	75A/67/SS	130	48	Standard Frost SuperSaver	C, CC-8	750	1020	3.13	4.44
	<i>@ 120_volts, approximate 59 watts, 780 lumens, 1875 hours</i>												
	Med Brass		11385	108	75A/67/SSXL	120	48	Standard Frost SuperSaver XL	C, CC-8	2500	880	3.13	4.44
			11389	108,136,174	75A/67/SSXL	130	48	Standard Frost SuperSaver XL	C, CC-8	2500	860	3.13	4.44
<i>@ 120_volts, approximate 59 watts, 660 lumens, 6250 hours</i>													
75	A19	Med	10863		75A/DAY/4/160/RP	120	160	Daylight	C, CC-8	750	850	3.13	4.44
			10865		75A/DAY/RP/4/48	120	48	Daylight	C, CC-8	750	850	3.13	4.44
			11102		75A/DAY/RP/2/24	120	24	Daylight	C, CC-8	750	850	3.13	4.44
			10776	102,136	75A/DAY/RP/4/48	130	48	Daylight	C, CC-8	750	850	3.13	4.44
	<i>@ 120_volts, approximate 66 watts, 650 lumens, 1875 hours.</i>												
			11331		75A/W/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	1500	1055	3.13	4.44
			11337		75A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	1500	1055	3.13	4.44
			11175		75A/CL/DL/RP	120	24	Clear Double Life	C, CC-8	1500	1085	3.13	4.44
			13001		75A/RS/2/RP	120	24	Inside Frost Rough Service	C, C-9	1000	818	2.88	4.44
			12579		75A/RS/RP/1	120	12	Inside Frost Rough Service	C, C-9	1000	818	2.88	4.44
			12586	136,179	75A/RS/RP/1	130	24	Inside Frost Rough Service	C, C-9	1000	818	2.88	4.44
<i>@ 120_volts, approximate 66 watts, 620 lumens, 2500 hours</i>													



A19



A21



BR38



BR40



ER30

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
75	A19	Med	10970		75A/W/4/RP	120	48	Soft White	C, CC-8	750	1170	3.13	4.44
			10967		75A/W/RP	120	24	Soft White	C, CC-8	750	1170	3.13	4.44
			12500		75A/CL	120	120	Clear	C, CC-8	750	1200	3.13	4.44
			11225		75A/CL/RP	120	24	Clear	C, CC-8	750	1200	3.13	4.44
			12502	136,183	75A/CL @ 120_volts, approximate 66 watts, 910 lumens, 1875 hours	130	120	Clear	C, CC-8	750	1190	3.13	4.44
			12525		75A/4/RP	120	48	Standard Frost	C, CC-8	750	1190	3.13	4.44
			12521		75A/RP	120	24	Standard Frost	C, CC-8	750	1190	3.13	4.44
			11374	136,183	75A @ 120_volts, approximate 66 watts, 910 lumens, 1875 hours	130	48	Standard Frost	C, CC-8	750	1190	3.13	4.44
			12510	183	75A/CVP @ 120_volts, approximate 66 watts, 910 lumens, 1875 hours	130	24	Standard Frost	C, CC-8	750	1190	3.13	4.44
			13022		75A/RS/XL	120	24	Inside Frost Rough Service XL	C, C-9	5000	650	2.88	4.44
A21	Med	Med Brass	12528	81	75A/RS/XL @ 120_volts, approximate 66 watts, 500 lumens, 12500 hours.	130	24	Inside Frost Rough Service XL	C, C-9	5000	700	2.88	4.44
			12554	116	75A21/RS/SL/RP	120	12	Safeline Rough Service Inside Frost	C, C-9	1000	800	3.13	4.44
			11566		75A21	12	24	Inside Frost RV-Marine	C, C-6	1000	1420	3.88	5.31
BR38	Med	Med Brass	15620	155	75/OPAR/BUG/RP	120	6	Outdoor Bug Light	C, CC-6	2000			5.31
			15607	102,107,119,155	75/OPAR/FL	120	12	Outdoor Reflector Economy Flood	C, CC-6	2000	650lm 45°		5.31
BR40	Med	Med Brass	15349	46,57,107,155	75BR40/FL/DAY/1/6/RP	120	6	Daylight Reflector Flood	C, CC-6	2000	680lm 310 cd 60°		6.50
			15126	46,57,107,155	75BR/FL	120	24	Reflector Flood	C, CC-6	2000	680lm 460 cd 60°		6.50
			15128	46,57,107,155	75BR/FL/RP	120	6	Reflector Flood	C, CC-6	2000	680lm 460 cd 60°		6.50
			15125	46,57,107,136,155,184	75BR/FL @ 120_volts, approximate 66 watts, 520 lumens, 5000 hours	130	24	Reflector Flood	C, CC-6	2000	680lm 460 cd 60°		6.50
			15213	46,57,107,155	75BR40/DL/FL/1/24	120	24	Double Life Reflector Flood	C, CC-6	4000	610lm 400 cd 60°		6.50
			15144	46,57,107,155	75BR/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	610lm 400 cd 60°		6.50
			15100	2,46,57,107,155	75ER30	120	24	Elliptical Reflector Flood	C, CC-6	2000	580lm 1500 cd 30°		6.38
ER30	Med	Med	15109	2,46,57,107,155	75ER30/RP	120	6	Elliptical Reflector Flood	C, CC-6	2000	580lm 1500 cd 30°		6.38
			15101	2,46,57,107,136,155,178	75ER30 @ 120_volts, approximate 66 watts, 425 lumens, 4125 hours	130	24	Elliptical Reflector Flood	C, CC-6	2000	580lm 1500 cd 30°		6.38



K19



PAR38 Side Prong



R20



A19

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
75	K19	Med	12583	●	75K19/DR	120	24	Inside Frost Directional Reflector	C, CC-6	1150	855lm		4.13
	PAR38	Med Side Prong	13850	★	75PAR/3FL	120	12	Compact Flood	C, CC-6	2000	1040lm 1800 cd 30°		4.31
	R20	Med	14840	●	75R20/RP	120	6	Reflector Flood	C, CC-9	2000	500lm 500 cd 45°		3.94
	R30	Med	15146	●	75R30/BLACKLIGHT/RP	120	6	Blacklight	C, CC-6	1000			6.50
90	A19	Med	11396	●	100A/90/W/ES/4PK	120	48	Soft White Energy Saver	C, CC-8	750	1450	3.13	4.44
			11378	●	100A/90/SS	120	48	Standard Frost SuperSaver	C, CC-8	750	1480	3.13	4.44
			11382	●	100A/90/SS	130	48	Standard Frost SuperSaver	C, CC-8	750	1480	3.13	4.44
			@ 120_volts, approximate 79 watts, 1130 lumens, 1875 hours										
	Med Brass		11386	●	100A/90/SSXL	120	48	Standard Frost SuperSaver XL	C, CC-8	2500	1220	3.13	4.44
			11390	●	100A/90/SSXL	130	48	Standard Frost SuperSaver XL	C, CC-8	2500	1230	3.13	4.44
100	A19	Med	@ 120_volts, approximate 79 watts, 940 lumens, 6250 hours										
			12948	●	100A/DAY/4/160/RP	120	160	Daylight	C, CC-8	750	1270	3.13	4.44
			12587	●	100A/DAY/RP/4/48	120	48	Daylight	C, CC-8	750	1270	3.13	4.44
			12952	●	100A/DAY/RP/2/24	120	24	Daylight	C, CC-8	750	1270	3.13	4.44
			12538	●	100A/DAY/RP/4/48	130	48	Daylight	C, CC-8	750	1270	3.13	4.44
			@ 120_volts, approximate 88 watts, 970 lumens, 1875 hours										
			16868	●	100A/DL/SW/PLUS/4PK/RP/160	120	160	Soft White Double Life	C, CC-8	1500	1560	3.13	4.44
			16864	●	100A/DL/SW/PLUS/4PK/RP	120	48	Soft White Double Life	C, CC-8	1500	1560	3.13	4.44
			11332	●	100A/DL/SW/4PK/RP	120	48	Soft White Double Life	C, CC-8	1500	1530	3.13	4.44
			12480	●	100A/DL/SW/PLUS/2PK/RP	120	24	Soft White Double Life	C, CC-8	1500	1560	3.13	4.44
			12805	●	100A/DL/SW/2PK/RP	120	24	Soft White Double Life	C, CC-8	1500	1530	3.13	4.44
			11660	●	100A/CL/DL/PLUS/2PK/RP	120	24	Clear Double Life	C, CC-8	1500	1590	3.13	4.44
			11176	●	100A/CL/DL/RP	120	24	Clear Double Life	C, CC-8	1500	1550	3.13	4.44
			13002	●	100A/RS/2/RP	120	24	Inside Frost Rough Service	C, C-9	1000	1260	2.88	4.44
			12997	●	100A/RS/RP/1	120	12	Inside Frost Rough Service	C, C-9	1000	1260	2.88	4.44
			12998	●	100A/RS/2/RP	130	24	Inside Frost Rough Service	C, C-9	1000	1260	2.88	4.44
			@ 120_volts, approximate 88 watts, 960 lumens, 2500 hours										
			12770	●	100A/W/4/RP	120	48	Soft White	C, CC-8	750	1690	3.13	4.44
			12752	●	100A/W/RP	120	24	Soft White	C, CC-8	750	1690	3.13	4.44
			12529	●	100A/CL	120	120	Clear	C, CC-8	750	1720	3.13	4.44
			11226	●	100A/CL/RP	120	24	Clear	C, CC-8	750	1720	3.13	4.44
			12531	●	100A/CL	130	120	Clear	C, CC-8	750	1700	3.13	4.44
			@ 120_volts, approximate 88 watts, 1290 lumens, 1875 hours										
			12750	●	100A/4/RP	120	48	Standard Frost	C, CC-8	750	1710	3.13	4.44
			12735	●	100A/RP	120	24	Standard Frost	C, CC-8	750	1710	3.13	4.44
			11375	●	100A	130	48	Standard Frost	C, CC-8	750	1700	3.13	4.44
			@ 120_volts, approximate 88 watts, 1290 lumens, 1875 hours										



A19

A21

A23

BR38

BR40

K19

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
100	A19	Med	12709	● ^{136,193}	100A/CVP @ 120 _volts, approximate 88 watts, 1290 lumens, 1875 hours	130	24	Standard Frost	C, CC-8	750	1700	3.13	4.44
			12530	● ¹³⁶	100A/LHT	120	120	Standard Frost Left Hand Thread	C, CC-8	750	1710	3.13	4.44
			12763	● ¹³⁶	100A/Y/RP	120	24	Yellow Bug Light	C, CC-8	1000		3.13	4.44
			12766	● ¹³⁶	100A/SPK/RP	120	24	Soft Pink	C, CC-8	1000		3.13	4.44
	Med Brass	13023	● ¹³⁶	100A/RS/XL	120	24	Inside Frost Rough Service XL	C, C-9	5000	840	2.88	4.44	
		12559	● ^{82,136}	100A/RS/XL @ 120 _volts, approximate 88 watts, 765 lumens, 12500 hours.	130	24	Inside Frost Rough Service XL	C, C-9	5000	1040	2.88	4.44	
A21	Med		13218	● ⁸³	100A21/VS @ 120 _volts, approximate 88 watts, 1020 lumens, 2500 hours.	130	48	Inside Frost Vibration Service	C, C-9	1000	1340	3.88	5.31
			12866	●	100A21	120	48	Standard Frost	C, CC-8	750	1675	3.88	5.31
			12883	● ^{136,192}	100A21 @ 120 _volts, approximate 88 watts, 1260 lumens, 1875 hours	130	48	Standard Frost	C, CC-8	750	1650	3.88	5.31
			13404	●	100A21	230	24	Standard Frost	C, C-9	1000	1260	3.88	5.31
			13406	●	100A21	250	24	Standard Frost	C, C-9	1000	1230	3.88	5.31
			13397	●	100A21	277	24	Standard Frost	C, C-7A	1000	1042	3.88	5.31
			12909	●	100A21/LHT	120	48	Standard Frost Left Hand Thread	C, CC-8	750	1675	3.88	5.31
	Med Brass	12834	116	100A21/SL	120	48	Safeline Rhinocoat (Shatter Protected)	C, CC-8	750	1675	3.88	5.31	
		12992	116	100A21/RS/SL/RP	120	12	Safeline Rough Service	C, C-9	1000	1260	3.13	4.44	
		12906	108	100A21/99/XL	120	48	Standard Frost Excel	C, CC-8	2500	1400	3.88	5.31	
		12946	108,136,191	100A21/99/XL @ 120 _volts, approximate 88 watts, 1100 lumens, 6250 hours	130	48	Standard Frost Excel	C, CC-8	2500	1440	3.88	5.31	
A23	Med		12859	● ¹³⁶	100A23	34	12	Inside Frost	C, C-9	1000	1800	4.38	6.06
	Med Brass		13280	108	100A23/20	120	24	Clear Oven	C, C-9	750	1390	4.38	6.06
BR38	Med Brass		15626	★ ^{136,46,57,155}	100/OPAR/FL/B/RP	120	6	Blue Reflector Flood	C, CC-6	2000			5.31
			15627	★ ^{136,46,57,155}	100/OPAR/FL/G/RP	120	6	Green Reflector Flood	C, CC-6	2000			5.31
			15623	★ ^{136,46,57,155}	100/OPAR/FL/R/RP	120	6	Red Reflector Flood	C, CC-6	2000			5.31
			15622	★ ^{136,46,57,155}	100/OPAR/FL/Y/RP	120	6	Yellow Reflector Flood	C, CC-6	2000			5.31
BR40	Med		14851	● ^{57,107,155}	100BR/FL	120	24	Reflector Flood	C, CC-6	2000	935lm 900 cd 60°		6.50
			14871	● ^{57,107,155}	100BR/FL/RP	120	6	Reflector Flood	C, CC-6	2000	935lm 900 cd 60°		6.50
			14847	● ^{57,107,136,155,194}	100BR/FL @ 120 _volts, approximate 88 watts, 710 lumens, 5000 hours	130	24	Reflector Flood	C, CC-6	2000	935lm 900 cd 60°		6.50
K19	Med		12298	● ¹³⁶	100K19/DR	120	24	Inside Frost Directional Reflector	C, CC-6	1150	1235		4.13



PAR38



PS25



A23



BR40



ER40



A19



A21

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
100	PAR38	Med Skt	13849	★ 24,46,155	100PAR38/HEAT/RED	120	15	Hard Glass PAR Heat Lamp with Red Lens	C	5000			
100 200 300	PS25	3 CONTACT Med	14374	●▼	100/300PS25/RP	120	12	Inside Frost 3-way 100/300W	C, CC-8	1200	1385lm 3540lm 4925lm	4.25	6.75
105	A23	Med Brass	13364	57,108	K105A23/CL	125	24	Clear Krypton Filled ST Ltg	C, C-9	12000	1120	4.38	6.06
120	BR40	Med	15074	● 2,46,57, 107,155	120BR40/FL/SL	130	24	RHINOCOAT Safeline Flood	C, CC-6	2000	1150lm 1000 cd 60°		6.50
<i>@ 120_volts, approximate 105 watts, 850 lumens, 5000 hours</i>													
			14903	● 2,46,57, 107,155	120BR/FL	120	24	Reflector Flood	C, CC-6	2000	1150lm 1000 cd 60°		6.50
			14896	● 2,46,57, 107,155	120BR/FL/RP	120	6	Reflector Flood	C, CC-6	2000	1150lm 1000 cd 60°		6.50
			14899	● 2,107,136, 155,196	120BR/FL	130	24	Reflector Flood	C, CC-6	2000	1150lm 1000 cd 60°		6.50
<i>@ 120_volts, approximate 105 watts, 850 lumens, 5000 hours</i>													
			14888	● 2,46,57, 107,136,155,196	120BR/FL/CVP	130	6	Reflector Flood	C, CC-6	2000	1150lm 1000 cd 60°		6.50
<i>@ 120_volts, approximate 105 watts, 850 lumens, 5000 hours</i>													
			14911	● 2,46,57, 107,155	120BR/SP	120	24	Reflector Spot	C, CC-6	2000	1150lm 3300 cd 25°		6.50
			14897	● 2,46,57, 107,155	120BR/SP/RP	120	6	Reflector Spot	C, CC-6	2000	1150lm 3300 cd 25°		6.50
			14909	● 2,46,57, 107,136,155,196	120BR/SP	130	24	Reflector Spot	C, CC-6	2000	1150lm 3300 cd 25°		6.50
<i>@ 120_volts, approximate 105 watts, 850 lumens, 5000 hours</i>													
			14898	● 2,46,57, 155	120BR/GRO	120	6	Spot-GRO Reflector	C, CC-6	2000			6.50
	Med Brass		14915	● 2,46,57,107, 155	120BR/DL/FL/RP	120	6	Double Life Reflector Flood	C, CC-6	4000	960lm 835 cd 60°		6.50
	ER40	Med	15166	● 2,46,57,107, 155	120ER40	120	24	Elliptical Reflector Flood	C, CC-6	2000	1370lm 2350 cd 30°		7.38
125	BR40	Med	15451	● 57,155	125BR40/HEAT/24PK	120	24	Reflector Infrared Heat Lamp	C, C-9	4000			6.50
			14952	● 57,155	125BR40/1/RP	120	6	Reflector Infrared Brooder Bulb	C, CC-6	5000			6.50
135	A19	Med Brass	12831	● 3,108,136	150A/135/SS/XL	130	120	Standard Frost SuperSaver XL	C, CC-8	2500	2050	3.13	4.44
<i>@ 120_volts, approximate 119 watts, 1560 lumens, 6250 hours</i>													
	A21	Med	12820	●	150A21/135/SS	120	48	Standard Frost SuperSaver	C, CC-8	750	2450	3.88	5.50
			12863	● 4,136	150A21/135/SS	130	48	Standard Frost SuperSaver	C, CC-8	750	2450	3.88	5.50
<i>@ 120_volts, approximate 119 watts, 1870 lumens, 1875 hours</i>													



A21



A23



BR38



PAR38



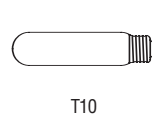
PAR38 Side Prong



PAR46



PS25



T10

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
150	A21	Med	13101	●	150A21/W/RP	120	12	Soft White	C, CC-8	750	2640	3.88	5.31
			13125	●	150A21/CL/RP	120	12	Clear Utility Light	C, CC-8	750	2780	3.88	5.31
			13148	● ^{12,136}	150A21/CL @ 120_volts, approximate 132 watts, 2030 lumens, 1875 hours	130	48	Clear	C, CC-8	750	2730	3.88	5.31
			13141	●	150A21	120	48	Standard Frost	C, CC-8	750	2740	3.88	5.31
			13165	●	150A21/IF/RP	120	12	Standard Frost Utility Light	C, CC-8	750	2740	3.88	5.31
			13153	● ^{12,136}	150A21 @ 120_volts, approximate 132 watts, 2030 lumens, 1875 hours	130	48	Standard Frost	C, CC-8	750	2670	3.88	5.31
	Med Brass	13177	108	150A21/99/XL	120	48	Standard Frost Excel	C, CC-8	2500	2225	3.88	5.31	
		13178	10,108,136	150A21/99/XL @ 120_volts, approximate 132 watts, 1690 lumens, 6250 hours	130	48	Standard Frost Excel	C, CC-8	2500	2225	3.88	5.31	
	A23	Med	15241	●	150A23/RS	120	48	Inside Frost Rough Service	C, C-17	1000	2090	4.38	6.06
			15243	● ^{7,136}	150A23/RS @ 120_volts, approximate 132 watts, 1590 lumens, 2500 hours	130	48	Inside Frost Rough Service	C, C-17	1000	2090	4.38	6.06
			13041	●	150A23	120	48	Inside Frost	C, CC-8	750	2810	4.63	6.06
BR38	Med Brass	15608	★2,107,119,155	150/OPAR/FL	120	12	Outdoor Reflector Economy Flood	C, CC-6	2000	1350lm 45°		5.31	
PAR38	Med Skt	13921	★8,119	150PAR/SP @ 120_volts, approximate 132 watts, 1660 lumens, 1875 hours	130	15	Spot	C, CC-6	750	2175lm 18000 cd 12°		5.31	
		13922	★8,119	150PAR/FL @ 120_volts, approximate 132 watts, 1660 lumens, 1875 hours	130	15	Flood	C, CC-6	750	2175lm 4500 cd 30°		5.31	
	Med Side Prong	13853	★188	150PAR/3FL	120	12	Compact Flood	C, CC-6	2000	2175lm 4000 cd 30°		4.31	
		PAR46	Med Side Prong	15375	★57,117,188	150PAR46/3NSP 125-	125	12	Narrow Spot	C, CC-2V	2000	1500lm 17500 cd 8x12 VH	
	Screw Term	15190	★57,188	150PAR46	130	12	Clear Mine Headlamp	C, C-13	1000	1250lm 8x15 VH		3.75	
	PS25	Med	15276	● ¹⁰⁸	150PS25/IF	120	60	Inside Frost	C, C-9	1000	2340	5.25	6.94
15282			● ^{9,108,136}	150PS25 @ 120_volts, approximate 132 watts, 1770 lumens, 1875 hours	130	60	Inside Frost	C, C-9	750	2330	5.25	6.94	
Med Brass		15293	116	150PS25/SL	120	60	Safeline Rhinocoat (Shatter Protected)	C, C-9	1000	2200	5.25	6.94	
		15300	116	150PS25/RS/SL	120	60	Safeline Rough Service	C, C-17	1000	2145	4.38	5.94	
		15431	5,108,136	150PS25/99/XL @ 120_volts, approximate 132 watts, 1420 lumens, 6250 hours	130	60	Inside Frost Excel-Line	C, C-9	2500	1870	5.25	6.94	
T10	S14s	19690	▼	LN150 125-130	125	16	Opal White LINESTRA 1604	B, C-8	1000	930		39.38	
175	PAR38	Med Skt	13836	★24,46,155	175W/PAR38/HEAT	120	15	Hard Glass PAR Heat Lamp	C, CC-6	5000			5.31
			13840	★24,46,155	175 PAR38/HEAT/RED	120	15	Hard Glass PAR Heat Lamp with Red Lens	C	5000			
200	A21	Med	13103	●	200A21/W/1RP	120	12	Soft White	C, CC-8	750	3650	3.88	5.31



A21



A23



PAR46



PAR56



PS25



PS30



BR38



BR40

GENERAL PURPOSE LAMPS

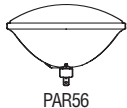
Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
200	A21	Med	13107	●	200A21	120	24	Soft White Recessed Ceiling	C, CC-8	750	3650	3.88	5.31
			15476	●	200A21/CL/RP	120	12	Clear Utility Light	C, CC-8	750	3880	3.88	5.31
			15491	● _{21,136}	200A21/CL @ 120_volts, approximate 176 watts, 2860 lumens, 1875 hours	130	48	Clear	C, CC-8	750	3880	3.88	5.31
			15499	●	200A21/RP	120	12	Standard Frost Utility Light	C, CC-8	750	3850	3.88	5.31
			15543	● _{21,136}	200A21 @ 120_volts, approximate 176 watts, 2860 lumens, 1875 hours	130	48	Standard Frost	C, CC-8	750	3760	3.88	5.31
	A23	Med	15555	● _{22,136}	200A21/99/XL @ 120_volts, approximate 176 watts, 2220 lumens, 6750 hours	125	48	Standard Frost Excel	C, CC-8	2500	2910	3.88	5.31
			15458	● _{15,136}	200A23/RS @ 120_volts, approximate 176 watts, 2220 lumens, 2500 hours	130	48	Inside Frost Rough Service	C, C-17	1000	2920	4.38	5.88
			15505	●	200A23	120	48	Inside Frost	C, CC-8	750	3930	4.63	6.06
			15191	★ _{10,57,117,188}	200PAR46/3NSP	120	12	Narrow Spot	C, CC-13	2000	2270lm 31000 cd 8x12 VH		4.00
			15194	★ _{10,57,117,188}	200PAR46/3MFL	120	12	Med Flood	C, CC-13	2000	2270lm 11500 cd 15x25 VH		4.00
200	PAR46	Med Side Prong	15196	★ _{10,57,117,188}	200PAR46/3MFL 125-	125	12	Med Flood	C, CC-13	2000	2270lm 11500 cd 15x25 VH		4.00
			15007	★ _{10,57,117,188}	200PAR56/MFL	120	12	Med Flood Clear	C, CC-13	2000	2270lm 15000 cd 15x20 VH		5.00
			14968	★	200PAR56	30	12	Locomotive Headlamp	C, CC-8	500	3700lm 27000 cd 9x9 VH		4.50
	PS25	Med	15600	● _{20,136}	200PS25 @ 120_volts, approximate 176 watts, 2820 lumens, 1875 hours	130	60	Inside Frost	C, CC-6	750	3700	5.25	6.94
			15818	● _{17,136}	200PS25/99/XL @ 120_volts, approximate 176 watts, 2360 lumens, 6250 hours	130	60	Inside Frost Excel-Line	C, CC-6	2500	3000	5.25	6.94
	PS30	Med	15675	● _{16,136}	200PS/23 @ 120_volts, approximate 176 watts, 2350 lumens, 2500 hours	130	60	Inside Frost Rough Service	C, C-9	1000	3080	6.00	8.06
			15653	● _{18,136}	200PS/IF @ 120_volts, approximate 176 watts, 2710 lumens, 1875 hours	130	60	Inside Frost	C, C-9	750	3560	6.00	8.06
			15820	●	200/CL	277	60	Clear	C, C-9	1000	2360	6.00	8.06
			15687	116	200PS/23/SL	120	60	Safeline Rough Service	C, C-9	1000	3080	6.00	8.06
			15648	116	200PS/SL	120	60	Safeline	C, C-9	1000	3080	6.00	8.06
			15725	14,136	200PS/CL/99/XL @ 120_volts, approximate 176 watts, 2190 lumens, 6250 hours	130	60	Clear Excel-Line	C, C-9	2500	2875	6.00	8.06
202	PS25	Med Brass	15581	57	202PS25/CL	125	60	Clear Street Lighting Group Replacement	C, C-9	6000	2750	5.25	6.94
250	BR38	Med Brass	14661	★ _{25,46,136}	250K/BR38/FL @ 120_volts, approximate 220 watts, 2360 lumens, 10000 hours	125	12	Reflector Flood Krypton	C, CC-6	4000	3100		5.81
	BR40	Med	14665	● _{24,46,57,155}	250BR40	120	12	Reflector IR Heat Lamp Clear	C, CC-6	5000			6.50
			14664	● _{24,46,57,155}	250BR40/1	120	6	Reflector IR Heat Lamp Clear	C, CC-6	5000			6.50



R40



BR40



PAR56



PS30



PS35

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
250	R40	Med	14663	★ ^{24,46,57,155}	250R40/10	120	6	Red Bowl IR Heat Lamp Reflector Hard Glass	C, C-6	5000			6.88
300	BR40	Med Brass	14779	2,46,57,155	300BR/FL	120	24	Reflector Flood	C, CC-2V	2000	3030lm 2900 cd 60°		6.50
	PAR56	Mog End Prong	14947	★ ^{117,188}	300PAR56/NSP	120	12	Narrow Spot	C, CC-13	2000	3840lm 68000 cd 8x10 VH		5.00
			14944	★ ^{117,188}	300PAR56/NSP	130	12	Narrow Spot	C, CC-13	2000	3840lm 68000 cd 8x10 VH		5.00
			14950	★ ^{117,188}	300PAR56/MFL	120	12	Med Flood	C, CC-13	2000	3840lm 24000 cd 11x25 VH		5.00
			14946	★ ^{117,188}	300PAR56/MFL	130	12	Med Flood	C, CC-13	2000	3840lm 24000 cd 11x25 VH		5.00
			14953	★ ^{117,188}	300PAR56/WFL	120	12	Wide Flood	C, CC-13	2000	3840lm 11000 cd 20x35 VH		5.00
			14945	★ ^{117,188}	300PAR56/WFL	130	12	Wide Flood	C, CC-13	2000	3840lm 11000 cd 20x35 VH		5.00
	Screw Term		14967	★ ^{117,188}	25A/PAR56/WFL	12	12	Swimming Pool	C, C-6	1000	6000lm 15x40 VH		4.50
	PS30	Med	15742	●	300M/CL	120	60	Clear Utility Light	C, C-9	750	5870	6.00	8.06
			15740	●	300M/CL/RP	120	12	Clear Utility Light	C, C-9	750	5870	6.00	8.06
			15744	● ^{29,136}	300M/CL @ 120_volts, approximate 264 watts, 4390 lumens, 1875 hours	130	60	Clear Utility Light	C, C-9	750	5820	6.00	8.06
			15737	●	300M/IF	120	60	Inside Frost Utility Light	C, C-9	750	5860	6.00	8.06
			15735	●	300M/IF/RP	120	12	Inside Frost Utility Light	C, C-9	750	5860	6.00	8.06
			15739	● ^{29,136}	300M/IF @ 120_volts, approximate 264 watts, 4390 lumens, 1875 hours	130	60	Inside Frost Utility Light	C, C-9	750	5760	6.00	8.06
			15738	● ²⁹	300M/IF/CVP/6 @ 120_volts, approximate 264 watts, 4390 lumens, 1875 hours	130	6	Inside Frost Utility Light	C, C-9	750	5760	6.00	8.06
	Med Brass		15761	● ^{27,136}	300M/IF/99/XL @ 120_volts, approximate 264 watts, 3800 lumens, 6250 hours	130	60	Inside Frost Excel-Line	C, C-9	2500	4990	6.00	8.06
	PS35	Mogul	15904		300PS35/CL/99/XL	120	24	Clear Excel-Line	C, C-9	2500	5190	7.00	9.38
			15930		300PS35/99IF/XL	130	24	Inside Frost Excel-Line	C, C-9	2500	5070	7.00	9.38
			15915		300PS35/CL	120	24	Clear Utility Light	C, C-9	1000	5700	7.00	9.38
			15917		300PS35/CL	130	24	Clear Utility Light	C, C-9	1000	5250	7.00	9.38
			15918		300PS35/IF	120	24	Inside Frost Utility Light	C, C-9	1000	5700	7.00	9.38
			15920		300PS35/IF	130	24	Inside Frost Utility Light	C, C-9	1000	5250	7.00	9.38
			16068		300PS35/CL	277	24	Clear	C, C-7A	1000	4220	7.00	9.38
375	R40	Med Skirted	14747	★ ^{24,46}	375R40/1	120	24	Reflector IR Heat Lamp Clear	C, C-11	5000			7.63



PAR64



PS35



CA8, CA10, CA5



B10



F10



G16.5

GENERAL PURPOSE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Lumens Beam Angle CBCP	LCL (in)	MOL (in)
500	PAR64	Ext Mog End Pr	14938	★ 57,117,188	500PAR64/NSP	120	6	Narrow Spot	C, CC-13	2000	6500lm 110000 cd 7x12 VH		6.00
			14932	★ 57,117,188	500PAR64/MFL	120	6	Med Flood	C, CC-13	2000	6500lm 37000 cd 11x25 VH		6.00
			14935	★ 57,117,188	500PAR64/WFL	120	6	Wide Flood	C, CC-13	2000	6500lm 13000 cd 20x40 VH		6.00
	PS35	Mogul	16032		500PS35/CL	120	24	Clear	C, CC-8	1000	10000	7.00	9.38
			16034		500PS35/CL	130	24	Clear	C, CC-8	1000	10000	7.00	9.38
			16040		500PS35/F	130	24	Inside Frost	C, CC-8	1000	10000	7.00	9.38

DECORATIVE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	MOL (in)
3	CA8	Candelabra	11688	●	3CA8C/CL/FL/BL/1/6	120	6	Clear Flicker	B	1500	3.50
	CA10	Med	11689	●	3CA10/CL/FL/BL/1/6	120	6	Clear Flicker	B	1500	3.50
7.5	CA5	Candelabra	11687	●	7.5CA5C/CL/BL/3/18	120	18	Clear Décor Bent Tip	B, C-11V	3000	3.06
15	B10	Candelabra	13315	●●▼	15B10C/DL/BL	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13657	●●▼	15B10C/BAGPK	120	200	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13448	●●▼	15B10C/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13675	●●▼	15B10C/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.63
	Med		13433	●●▼ ₉₄	15B10/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13715	●●▼ ₉₄	15B10/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.56
	F10	Candelabra	13435	●●	15FC/AIC/BL/2PK	120	12	Amber Flame Shape Iridescent	B, C-7A	1500	3.06
			13434	●●	15FC/IC/BL/2PK	120	12	Clear Iridescent Flame Shape	B, C-7A	1500	3.06
			13436	●●	15FC/W/BL/2PK	120	12	White Flame Shape	B, C-7A	1500	3.06
	G16.5	Candelabra	13709	●●▼	15G16.5C/4M	120	24	Clear Globe	B, C-7A	4000	3.00
			13616	●●▼	15G16.5C	120	24	Clear Globe	B, C-7A	1500	3.00
			13617	●●▼	15G16.5C/W	120	24	White Globe	B, C-7A	1500	3.00
25	B10	Candelabra	13306	●●▼●	25B10C/DL/BL/4PK	120	24	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13316	●●▼●	25B10C/DL/BL	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13570	●●▼●	25B10C/BAGPK	120	200	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13452	●●▼●	25B10C/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13678	●●▼●	25B10C/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.63
			13743	●●▼●	25B10C/CRYSTAL/DL/BL/2PK	120	12	Double Life Crystal Bent Tip	C, C-7A	3000	3.88
			13308	●●▼●	25B10C/DL/F/BL/4PK	120	24	Frosted Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13317	●●▼●	25B10C/DL/F/BL	120	12	Frosted Double Life Décor Bent Tip	C, C-2V	3000	3.88



B10

C11

F15

G16.5

G25

G40

DECORATIVE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	MOL (in)
25	B10	Candelabra	13453		25B10C/F/BL/2PK	120	12	Frosted Décor Bent Tip	C, C-7A	1500	3.88
		Med	13331		25B10/DL/BL/4PK	120	24	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.81
			13318		25B10/DL/BL	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.81
			13654		25B10/BL/4PK	120	24	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13438		25B10/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13717		25B10/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.56
			13439		25B10/F/BL/2PK	120	12	Frosted Décor Bent Tip	C, C-7A	1500	3.81
	C11	Candelabra	11690		25C11C/AM/SG/BL/1/6	120	6	Spun-Glo Amber Fiber Wrapped	C, C-7A	1500	4.25
	F15	Med	13823		25F/AIC/BL/2PK	120	12	Amber Flame Shape Iridescent	C, C-7A	1500	4.50
			13806		25F/CL	120	24	Clear Flame Shape	C, C-7A	1500	4.50
			13862		25F/CL/BL/2PK	120	12	Clear Flame Shape	C, C-7A	1500	4.50
			13821		25F/IC/BL/2PK	120	12	Iridescent Flame Shape	C, C-7A	1500	4.50
			13820		25F/W/BL/2PK	120	12	Soft White Flame Shape	C, C-7A	1500	4.50
	G16.5	Candelabra	10221		25G16.5C/DAY/2PK/BL	120	12	Daylight Globe	B, C-7A	1500	3.00
			13704		25G16.5C/4M	120	24	Clear Globe	B, C-7A	4000	3.00
			13618		25G16.5C	120	24	Clear Globe	B, C-7A	1500	3.00
			13625		25G16.5C/BL	120	12	Clear Globe	B, C-7A	1500	3.00
			13622		25G16.5C/W/BL	120	12	White Globe	B, C-7A	1500	3.00
		Med	10298		25G16.5/BL	120	12	Clear Globe	C, C-7A	1500	3.00
			10297		25G16.5/W/BL	120	12	White Globe	C, C-7A	1500	3.00
		G25	14105		25G25/DL/RP/48	120	48	Clear Double Life Globe	C, C-9	3000	4.44
			14145		25G25/DL/RP	120	6	Clear Double Life Globe	C, C-9	3000	4.44
			14276		25G25/4M	120	24	Clear Globe	C, C-9	4000	4.44
			14210		25G25/3PK/RP	120	24	Clear Globe	C, C-9	1500	4.44
			14264		25G25	120	24	Clear Globe	C, C-9	1500	4.44
			14282		25G25/RP	120	6	Clear Globe	C, C-9	1500	4.44
			14103		25G25/DL/SW/RP/48	120	48	Soft White Double Life Globe	C, C-9	3000	4.44
			14146		25G25/DL/SW/RP	120	6	Soft White Double Life Globe	C, C-9	3000	4.44
			14277		25G25/W/4M	120	24	Soft White Globe	C, C-9	4000	4.44
			14211		25G25/W/3PK/RP	120	24	Soft White Globe	C, C-9	1500	4.44
			14265		25G25/W	120	24	Soft White Globe	C, C-9	1500	4.44
			14286		25G25/W/RP	120	6	Soft White Globe	C, C-9	1500	4.44
	G40	Med	14685		25G40	120	6	Clear Globe	C, C-9	2500	6.94
32	B10	Candelabra	13737		32B10C/CRYSTAL/DL/BL/2PK	120	12	Double Life Crystal Bent Tip	C, C-7A	4000	3.88
40	B10	Candelabra	13751		40B10C/DAY/2PK/BL	120	12	Daylight Décor Bent Tip	C, C-7A	1500	3.88
			13328		40B10C/DL/BL/4PK	120	24	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13319		40B10C/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88



B10

B13

C15

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G16.5

DECORATIVE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	MOL (in)
40	B10	Candelabra	13571	●▼▲	40B10C/BAGPK	120	200	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13648	●▼▲	40B10C/BL/4PK	120	24	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13456	●▼▲	40B10C/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13681	●▼▲	40B10C/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.63
			13714	●▼▲	40B10C/CRYSTAL/DL/BL/4/24	120	24	Double Life Crystal Bent Tip	C, C-7A	3000	3.88
			13741	●▼▲	40B10C/CRYSTAL/DL/BL/2PK	120	12	Double Life Crystal Bent Tip	C, C-7A	3000	3.88
			13309	●▼▲	40B10C/DL/F/BL/4PK	120	24	Frosted Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13320	●▼▲	40B10C/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13457	●▼▲	40B10C/F/BL/2PK	120	12	Frosted Décor Bent Tip	C, C-7A	1500	3.88
			13682	●▼▲	40B10C/F/T/BL/2PK	120	12	Frosted Décor Blunt Tip	C, C-7A	1500	3.63
		Med	15354	●▼▲	40B10/DAY/2PK/BL	120	12	Daylight Décor Bent Tip	C, C-7A	1000	3.88
			13321	●▼▲ ⁹⁴	40B10/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.81
			13651	●▼▲ ⁹⁴	40B10/BL/4PK	120	24	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13440	●▼▲ ⁹⁴	40B10/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13719	●▼▲ ⁹⁴	40B10/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.56
			13723	●▼▲ ⁹⁴	40B10/CRYSTAL/DL/BL/4PK	120	24	Double Life Crystal Bent Tip	C, C-7A	3000	3.81
			13740	●▼▲ ⁹⁴	40B10/CRYSTAL/DL/BL/2PK	120	12	Double Life Crystal Bent Tip	C, C-7A	3000	3.81
			13322	●▼▲ ⁹⁴	40B10/DLF/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-2V	3000	3.81
			13441	●▼▲ ⁹⁴	40B10/F/BL/2PK	120	12	Frosted Décor Bent Tip	C, C-7A	1500	3.81
			13720	●▼▲ ⁹⁴	40B10/F/T/BL/2PK	120	12	Frosted Décor Blunt Tip	C, C-7A	1500	3.56
	B13	Candelabra	13357	▲	40B13C/CL/FAN/2/12/BL	120	12	Clear Ceiling Fan Light	C, C-9	1500	4.00
			13366	●▲	40B13/DL/FAN/2/60/BL	120	60	Clear Double Life Ceiling Fan	C, C-9	3000	4.63
			13369	●▲	40B13/DL/FAN/BL/2PK	120	12	Clear Double Life Ceiling Fan	C, C-9	3000	4.63
			13367	●▲	40B13/FAN/BL/2PK	120	12	Clear Fan Lamp	C, C-9	1500	4.63
			13786	●▲	40B13/CRYSTAL/FAN/4/72	120	72	Crystal Fan Lamp	C, C-9	1500	4.63
			13785	●▲	40B13/CRYSTAL/FAN/BL/2PK	120	12	Crystal Fan Lamp	C, C-9	1500	4.63
C15		Med	11691		40C15C/AM/SG/BL/1/6	120	6	Spun Glo Amber Fiber Wrap	C, C-9	1500	4.06
F15	Med		13986	●▲	40F/AIC/BL/2PK	120	12	Amber Flame Shape Iridescent	C, C-7A	1500	4.50
			13974	●▲	40F/CL	120	24	Clear Flame Shape	C, C-7A	1500	4.50
			13985	●▲	40F/IC/BL/2PK	120	12	Iridescent Flame Shape	C, C-7A	1500	4.50
			13984	●▲	40F/W/BL/2PK	120	12	White Flame Shape	C, C-7A	1500	4.50
G16.5	Candelabra		10367	●▼▲	40G16.5C/DAY/2PK/BL	120	12	Daylight Globe	C, C-7A	1500	3.00
			13702	●▼▲	40G16.5C	120	24	Clear Globe	C, C-7A	1500	3.00
			13346	●▼▲	40G16.5C/4PK/BL	120	24	Clear Globe	C, C-7A	1500	3.00



DECORATIVE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	MOL (in)
40	G16.5	Candelabra	13666	●▼▲	40G16.5C/BL	120	12	Clear Globe	C, C-7A	1500	3.00
			13667	●▼▲	40G16.5C/W/BL	120	12	White Globe	C, C-7A	1500	3.00
		Med	10352	●▼▲	40G16.5/4PK/BL	120	24	Clear Globe	C, C-7A	1500	3.00
			10300	●▼▲	40G16.5/BL	120	12	Clear Globe	C, C-7A	1500	3.00
			10299	●▼	40G16.5/W/BL	120	12	White Globe	C, C-7A	1500	3.00
	G25	Med	15350	●▲	40G25/CL/DAY/1/6	120	6	Daylight Clear Globe	C, C-9	1500	4.44
			13966	●▲	40G25/DAY/1/6	120	6	Daylight Globe	C, C-9	1500	4.44
			14174	●▲	40G25/DL/1/48	120	48	Clear Double Life Globe	C, C-9	3000	4.44
			14147	●▲	40G25/DL/RP	120	6	Clear Double Life Globe	C, C-9	3000	4.44
			14212	●▲	40G25/3PK/RP	120	24	Clear Globe	C, C-9	1500	4.44
			14266	●▲	40G25	120	24	Clear Globe	C, C-9	1500	4.44
			14283	●▲	40G25/RP	120	6	Clear Globe	C, C-9	1500	4.44
			14191	●▲	40G25/CVP	130	6	Clear Globe	C, C-9	1500	4.44
			14148	●▲	40G25/DL/SW/RP	120	6	Soft White Double Life Globe	C, C-9	3000	4.44
			14213	●▲	40G25/W/3PK/RP	120	24	Soft White Globe	C, C-9	1500	4.44
			14267	●▲	40G25/W	120	24	Soft White Globe	C, C-9	1500	4.44
			14287	●▲	40G25/W/RP	120	6	Soft White Globe	C, C-9	1500	4.44
			14190	●▲	40G25/W/CVP	130	6	Soft White Globe	C, C-9	1500	4.44
			15638	●▲	40G25/CT/1/6	120	6	Chrome Top Globe	C, C-9	1500	4.44
	G30	Med	14405	●▲	40G30/W/RP	120	6	Soft White Globe	C, C-9	2500	5.50
	G40	Med	14619	●▲	40G40/RP	120	6	Clear Globe	C, C-9	2500	6.94
			14620	●▲	40G40/W/RP	120	6	Soft White Globe	C, C-9	2500	6.94
60	A19	Med Brass	10613	▲	60A/SB	120	120	Silver Bowl	C, CC-8	1000	4.44
	B10	Candelabra	13750	●▼▲	60B10C/DAY/2PK/BL	120	12	Daylight Décor Bent Tip	C, C-7A	1500	3.88
			13705	●▼▲	60B10C/DL/BL/4PK	120	24	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13777	●▼▲	60B10C/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13572	●▼▲	60B10C/BAGPK	120	200	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13649	●▼▲	60B10C/BL/4PK	120	24	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13460	●▼▲	60B10C/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.88
			13684	●▼▲	60B10C/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.63
			13749	●▼▲	60B10C/CRYSTAL/DL/BL/4/24	120	24	Double Life Crystal Bent Tip	C, C-7A	3000	3.88
			13754	●▼▲	60B10C/DL/F/BL/4PK	120	24	Frosted Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13778	●▼▲	60B10C/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000	3.88
			13461	●▼▲	60B10C/F/BL/2PK	120	12	Frosted Décor Bent Tip	C, C-7A	1500	3.88
			13685	●▼▲	60B10C/F/T/BL/2PK	120	12	Frosted Décor Blunt Tip	C, C-7A	1500	3.63
	Med		13254	●▼▲	60B10/DL/BL/4PK	120	24	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.81
			13323	●▼▲	60B10/DL/BL/2PK	120	12	Clear Double Life Décor Bent Tip	C, C-7A	3000	3.81



B10

B13

C15

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G25

G30

G40

A21

P25

DECORATIVE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life (hrs)	MOL (in)
60	B10	Med	13650		60B10/BL/4PK	120	24	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13442		60B10/BL/2PK	120	12	Clear Décor Bent Tip	C, C-7A	1500	3.81
			13721		60B10/T/BL/2PK	120	12	Clear Décor Blunt Tip	C, C-7A	1500	3.56
			13324		60B10/DL/F/BL/2PK	120	12	Frosted Double Life Décor Bent Tip	C, C-7A	3000	3.81
			13443		60B10/F/BL/2PK	120	12	Frosted Décor Bent Tip	C, C-2V	1500	3.81
	B13	Candelabra	13263		60B13C/CL/FAN/2/12/BL	120	12	Clear Ceiling Fan Light	C, C-9	1500	4.00
		Med	13370		60B13/DL/FAN/BL/2PK	120	12	Clear Double Life Fan Lamp	C, C-9	3000	4.63
			13368		60B13/FAN/BL/2PK	120	12	Clear Fan Lamp	C, C-9	1500	4.63
	C15	Med	13757		60C15/SG/BL	120	6	Spun-Glo Clear Fiber Wrapped	C, C-9	4000	4.50
	F15	Med	13993		60F/CL	120	24	Clear Flame Shape	C, C-7A	1500	4.50
			13992		60F/BL	120	12	Clear Flame Shape	C, C-7A	1500	4.50
			13982		60F/IC/BL/2PK	120	12	Iridescent Flame Shape	C, C-7A	1500	4.50
	G16.5	Candelabra	13665		60G16.5C/BL	120	12	Clear Globe	C, C-2	1500	3.00
			13664		60G16.5C/W/BL	120	12	Soft White Globe	C, C-2	1500	3.00
		Med	10382		60G16.5/4PK/BL	120	24	Clear Globe	C, C-7A	1500	3.00
			10302		60G16.5/BL	120	12	Clear Globe	C, C-7A	1500	3.00
			10301		60G16.5/W/BL	120	12	White Globe	C, C-7A	1500	3.00
	G25	Med	15351		60G25/CL/DAY/1/6	120	6	Daylight Clear Globe	C, C-9	1500	4.44
			13967		60G25/DAY/1/6	120	6	Daylight Globe	C, C-9	1500	4.44
			14106		60G25/DL/RP/48	120	48	Clear Double Life Globe	C, C-9	3000	4.44
			14149		60G25/DL/RP	120	6	Clear Double Life Globe	C, C-9	3000	4.44
			14280		60G25	120	24	Clear Globe	C, C-9	1500	4.44
			14214		60G25/3PK/RP	120	24	Clear Globe	C, C-9	1500	4.44
			14261		60G25/RP	120	6	Clear Globe	C, C-9	1500	4.44
			14104		60G25/DL/SW/RP/48	120	48	Soft White Double Life Globe	C, C-9	3000	4.44
			14150		60G25/DL/SW/RP	120	6	Soft White Double Life Globe	C, C-9	3000	4.44
			14215		60G25/W/3PK/RP	120	24	Soft White Globe	C, C-9	1500	4.44
			14281		60G25/W	120	24	Soft White Globe	C, C-9	1500	4.44
			14262		60G25/W/RP	120	6	Soft White Globe	C, C-9	1500	4.44
	G30	Med	14407		60G30/RP	120	6	Clear Globe	C, C-9	2500	5.50
			14406		60G30/W/RP	120	6	Soft White Globe	C, C-9	2500	5.50
	G40	Med	14621		60G40/RP	120	6	Clear Globe	C, C-9	2500	6.94
			14622		60G40/W/RP	120	6	Soft White Globe	C, C-9	2500	6.94
100	A21	Med	13195		100A21/1SB/IF	120	24	Silver Bowl	C, CC-6	1000	5.31
	G40	Med	14623		100G40/RP	120	6	Clear Globe	C, C-9	2500	6.94
			14624		100G40/W/RP	120	6	Soft White Globe	C, C-9	2500	6.94
150	G40	Med	14913		150G40/W/RP	120	6	Soft White Globe	C, C-9	2500	6.94
	P25	Med Brass	15014		150P25/2SB	120	60	Silver Bowl Clear Hard Glass Button	C, C-5	200	4.75



PS25



PS35



A19



A21



A23

DECORATIVE LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	MOL (in)
150	PS25	Med	15271	●	150PS25/SB	120	60	Silver Bowl	C, C-9	1000	6.94
300	PS35	Mogul	15958		300PS35/SB/IF	120	24	Silver Bowl Inside Frost Brass Base	C, C-9	1000	9.38

TRAFFIC SIGNAL LAMPS

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Description	Class & Filament	Avg Rated Life(hrs)	Approx Lumens	LCL (in)	MOL (in)
54	A19	Med Brass	10441	▼ _{96,130}	54A19TS/8M/SS	120	120	Clear Traffic Signal KR Filled w/ Heat Reflector	C, C-11V	8000	515	2.44	4.44
60	A19	Med Brass	10442	▼ _{96,130}	60A19TS/8M/SS 120-	120	120	Clear Traffic Signal KR Filled w/ Heat Reflector	C, C-11V	8000	595	2.44	4.44
67	A21	Med Brass	12570	▼ ₉₆	67A21/40/8M	120	24	Clear Traffic Signal	C, C-9	8000	610	2.44	4.44
			12562	▼ ₉₆	67A21/40/8M	130	120	Clear Traffic Signal	C, C-9	8000	610	2.44	4.44
			12572	▼ ₉₆	67A21/40/8M	130	24	Clear Traffic Signal	C, C-9	8000	610	2.44	4.44
69	A21	Med Brass	12496	▼ ₉₆	69A21/TS/8M	120	24	Clear Traffic Signal	C, C-9	8000	640	2.44	4.44
			12497	▼ ₉₆	69A21/TS/8M	125	24	Clear Traffic Signal	C, C-9	8000	665	2.44	4.44
			12498	▼ ₉₆	69A21/TS/8M	130	24	Clear Traffic Signal	C, C-9	8000	640	2.44	4.44
90	A19	Med Brass	12299	▼ _{96,130}	90A19/1/TS/8M/SS 120-	120	120	Clear Traffic Signal KR Filled w/ Heat Reflector	C, C-11V	8000	1000	3.00	4.44
			11151	▼★ _{96,130}	90A19/TS/8M/SS	120	120	Clear Traffic Signal KR Filled w/ Heat Reflector	C, C-11V	8000	1000	2.44	4.44
101	A23	Med Brass	13305	▼ ₉₆	101A23/6M	120	120	Inside Frost Traffic Signal	C, C-9	6000	900	4.38	6.06
116	A21	Med Brass	12833	▼ ₉₆	116A21/TS/8M	120	24	Clear Traffic Signal	C, C-9	8000	1260	2.44	4.44
			12817	▼ ₉₆	116A21/TS/8M	130	24	Clear Traffic Signal	C, C-9	8000	1260	2.44	4.44
135	A21	Med Brass	12843	▼ _{96,130}	135A21/TS/8M/SS 120-	120	24	Clear Traffic Signal KR Filled w/ Heat Reflector	C, C-11V	8000	1750	3.00	4.44
170	A23	Med Brass	15017	▼ ₉₆	1950L/A23/8M	120	60	Clear Traffic Signal	C, C-9	8000	1950	3.00	4.75
			15021	▼ ₉₆	1950L/A23/8M	130	60	Clear Traffic Signal	C, C-9	8000	1950	3.00	4.75

SYMBOLS & FOOTNOTES FOR INCANDESCENT LAMPS

Symbol	Description
	New item introduced within the past year.
	Item will be discontinued when inventory is depleted.
	Indicates aluminum base.
	Do not operate in household sockets.
	Operate base down.
	Operate base down to horizontal.
	Heat resistant, hard glass.
	PAR lamps are suitable for indoor and outdoor use.
	Do not operate in paper lined sockets.
	This lamp or ballast meets minimum Federal efficiency standards.
	This ECOLOGIC® lamp was designed to pass the Federal TCLP criteria for classification as non-hazardous waste in most states. Disposal regulations may vary; check local and state regulations.

Footnote	Description
1	Indefinite long life. Designed for life in excess of 10,000 hours. In -service life depends upon burning conditions.
2	Should not be used in equipment where base temperature will exceed 500 F.
3	@ 120 volts, approximate 119 watts, 1560 lumens, 6250 hours
4	@ 120 volts, approximate 119 watts, 1870 lumens, 1875 hours
5	@ 120 volts, approximate 132 watts, 1420 lumens, 6250 hours
6	@ 120 volts, approximate 132 watts, 1580 lumens, 2500 hours
7	@ 120 volts, approximate 132 watts, 1590 lumens, 2500 hours
8	@ 120 volts, approximate 132 watts, 1660 lumens, 1875 hours
9	@ 120 volts, approximate 132 watts, 1770 lumens, 1875 hours
10	@ 120 volts, approximate 132 watts, 1690 lumens, 6250 hours
11	@ 120 volts, approximate 132 watts, 1880 lumens, 1875 hours
12	@ 120 volts, approximate 132 watts, 2030 lumens, 1875 hours
13	High temperature base. Designed to operate in equipment where base temperature run between 500F - 570F.
14	@ 120 volts, approximate 176 watts, 2190 lumens, 6250 hours
15	@ 120 volts, approximate 176 watts, 2220 lumens, 2500 hours
16	@ 120 volts, approximate 176 watts, 2350 lumens, 2500 hours
17	@ 120 volts, approximate 176 watts, 2360 lumens, 6250 hours
18	@ 120 volts, approximate 176 watts, 2710 lumens, 1875 hours
19	@ 120 volts, approximate 176 watts, 2740 lumens, 1875 hours
20	@ 120 volts, approximate 176 watts, 2820 lumens, 1875 hours
21	@ 120 volts, approximate 176 watts, 2860 lumens, 1875 hours
22	@ 120 volts, approximate 176 watts, 2220 lumens, 6750 hours
23	@ 120 volts, approximate 188 watts, 3190 lumens, 1125 hours
24	Designed for service other than illumination.
25	@ 120 volts, approximate 220 watts, 2360 lumens, 10000 hours
26	@ 120 volts, approximate 264 watts, 2310 lumens, 5000 hours
27	@ 120 volts, approximate 264 watts, 3800 lumens, 6250 hours

SYMBOLS & FOOTNOTES FOR INCANDESCENT LAMPS

Footnote	Description
28	@ 120 volts, approximate 264 watts, 3850 lumens, 6250 hours
29	@ 120 volts, approximate 264 watts, 4390 lumens, 1875 hours
30	@ 120 volts, approximate 264 watts, 4305 lumens, 1875 hours
31	Additional product information can be found in the SYLVANIA Automotive, Miniature and Sealed Beam Lamp Catalog Form 208.
32	UV Filter capsule with axial filament in dichroic reflector.
33	UV Filter capsule with axial filament in aluminized reflector.
34	UV Filter capsule with axial filament in covered aluminized reflector .
35	2 3/4" circular window.
36	UV Filter capsule with axial filament in constant color, hard coated dichroic reflector.
37	UV Filter capsule with axial filament in constant color, hard coated Dichroic reflector and infrared reflective coating on the lamp capsule.
38	UV Filter capsule with axial filament in precisely engineered aluminum m reflector.
39	Suitable for indoor and outdoor use;
40	For indoor use only; suitable for outdoor use only if not directly exposed to weather
41	For indoor use only;
42	UV control capsule with transverse constant color filament in hard dichroic
43	State of the Art SPL Optics
44	Inner capsule with Infrared conserving coating and hard glass lens
45	UV Filter capsule with axial filament in covered dichroic reflector.
46	Operate only in porcelain sockets.
47	Infrared lamp technology
48	Caution: Operates under pressure and may shutter. Use appropriate techniques to protect people and surroundings. Do not operate in close proximity to persons, combustible materials, or substances affected by heat or drying. Do not operate over 110% rated voltage because such operation increases pressure and lamps' tendency to shatter. Ultraviolet output may cause skin and eye irritation with prolonged exposure. Protect bulb from abrasions and scratches. Do not insert lamps when power is on. Follow operation
49	ECE Approved
50	Lamp Life B3 @ 13.2 volts.
51	Universal lamp housings for T2 slide based pilot lamps.
52	Socket dimensions front to panel to end of terminals.
53	UL File No. E31557(M) CSA File No.LR20904
54	Universal lamp housings for T2.5 and T3.25 miniature bayonet based lamps.
55	UL File No. E31557(M) CSA File No.LR20904
56	MIL-Std. 18236 B-MIL Std. 202B
57	Should be shielded against moisture falling on bulb.
58	Material : Black Phenolic
59	There are two distinctively different lamps with this part number. When ordering T-1 3/4 , #7327, please also specify category and base type. S-11. #7327 discontinued.
60	MOL = Excluding pins.
61	Material : Plastic
62	Max. seal temperature 350 C (662F)
63	Max. bulb temperature 1000 C (1832F)
64	Min. bulb temperature 250 C (482F)
65	UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector.
66	UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector and infrared reflective coating on the lamp capsule.
67	UV Filter capsule with transverse filament in constant color, hard coated dichroic reflector .
68	Not recommended for use in enclosed close-fitting housings.
69	For Indoor Use only.
70	Because this bulb radiates considerable heat, do not use in enclosed, close fitting fixtures, or in close proximity to people, combustible materials, or substances adversely affected by heat or drying.

SYMBOLS & FOOTNOTES FOR INCANDESCENT LAMPS

Footnote	Description
71	Even though this bulb may continue to light after the lens or reflector is cracked or broken, it should be replaced as soon as possible since the pressure filled inner capsule could unexpectedly shatter, creating a risk of personal injury or property damage. In addition, the inner capsule produces ultraviolet radiation that can cause injury to the eyes and skin with prolonged exposure without the blocking effect of the outer glass bulb.
72	To avoid electric shock and/or skin burns, turn off power and allow bulb to cool before handling or attempting replacement.
73	For indoor or outdoor use where not directly exposed to weather. Exposure to weather may damage the bulb.
74	Use only with ceramic/porcelain sockets and in fixtures rated for this bulb type, including voltage and wattage.
75	Screw bulb firmly but not forcibly into socket to obtain good electrical contact and to avoid damaging bulb and/or socket. Socket condition may affect bulb life. Replace socket if deterioration of socket or bulb contacts is observed.
76	Due to change from high pressure capsule to low pressure capsule, dimensions have been changed: LCL from 19.5 to 22mm and bulb diameter from 9 to 9.5mm.
77	@ 120 volts, approximate 26 watts, 150 lumens, 5000 hours.
78	Recommended operating position any within 60 degrees of vertically base up or base down.
79	@ 120 volts, approximate 28 watts, 200 lumens, 7500 hours.
80	@ 120 volts, approximate 53 watts, 340 lumens, 12500 hours.
81	@ 120 volts, approximate 66 watts, 500 lumens, 12500 hours.
82	@ 120 volts, approximate 88 watts, 765 lumens, 12500 hours.
83	@ 120 volts, approximate 88 watts, 1020 lumens, 2500 hours.
84	UV Filter Quartz
85	@ 120 volts, approximate 53 watts, 845 lumens, 6000 hours.
86	Operate only in heat resistant sockets
87	@ 120 volts, approximate 44 watts, 690 lumens, 6000 hours.
88	@ 120 volts, approximate 44 watts, 850 lumens, 6000 hours.
89	For use only in fixtures designed specifically for dichroic Reflector Lamps.
90	@ 120 volts, approximate 53 watts, 660 lumens, 6000 hours.
91	Max pin temperature 220 C.
92	Max pin temperature 250 C.
93	Max temperature at lens reflector joint 240 C.
94	Not for use in ceiling fan fixtures
95	For use where seal temperature does not exceed 662F.
96	Per Title 20 Section 1605.3(m) of the California Code of Regulations, this lamp may not be sold or offered for sale in the state of California for use in Traffic Signals.
97	Board Size MFX Base 1.6mm (0.062") Inside of Board
98	OSRAM Miniwatt lamps for printed circuit boards (the MF series) are designed to work on both inside and outside contact boards and various thickness boards. In order to assure proper electrical contact, be sure to check the thickness of the board and the location of the electrical contacts.
99	@ 120 volts, approximate 33 watts, 270 lumens, 3750 hours.
100	Operate within 25 degrees of vertical base up.
101	@ 120 volts, approximate 53 watts, 490 lumens, 2500 hours.
102	@ 120 volts, approximate 66 watts, 650 lumens, 1875 hours.
103	@ 120 volts, approximate 88 watts, 970 lumens, 1875 hours.
104	@ 120 volts, approximate 46 watts, 560 lumens, 2500 hours.
105	@ 120 volts, approximate 40 watts, 220 lumens, 5000 hours.
106	@ 120 volts, approximate 57 watts, 410 lumens, 5000 hours.
107	Lamps manufactured on or after January 1, 2007 are not for sale in Washington or Oregon.
108	Per Title 20 Section 1605.3(k) of the California Code of Regulations, this lamp may not be sold or offered for sale in the state of California.
109	Lamp may not be operated on a dimmer or DC current
110	Complies with part 15 of FCC rules.
111	Average laboratory life is 200 hours for vacuum cleaner and 600 hours for sewing machine services.
112	Life dependent on service conditions.
113	Operating position 45 degrees base down to horizontal.

SYMBOLS & FOOTNOTES FOR INCANDESCENT LAMPS

Footnote	Description
114	Use only in fixtures designed to adequately dissipate heat from lamp.
115	3" Circular window.
116	Operation of lamp in any position other than base up may result in some loss of protective coating.
117	A protective shield must be used external to the lamp.
118	In base up operation, heat may eventually deteriorate paper-lined or plastic sockets.
119	Operate only in porcelain or other socket approved for 150 watt PAR lamp.
120	Metal sleeve with approximately 6" flexible non-insulated leads. Leads not included in maximum overall length (M.O.L.).
121	High temperature base. Retards seal deterioration where seal temperature exceeds 650F.
122	Lightly inside frosted and side aluminized; M.O.L. exclusive of spring contact.
123	For use where seal temperature does not exceed 650F.
124	Life at rated voltage and at 650F maximum seal temperature.
125	Usually limited to intermittent burning.
126	Maximum bulb wall temperature 480F.
127	Lamp internally fused.
128	2 1/2" braided lead with lug.
129	Nickel sleeve with 11/4" - 11/2" flexible leads with lug. Leads not included in maximum overall length (M.O.L.)
130	Minimum run. Check nearest OSRAM SYLVANIA Sales Office for details.
131	This lamp should not be used in a location where water may be splashed on it.
132	Package quantity may change. See your OSRAM SYLVANIA Lighting Representative for details.
133	For diesel electric locomotives without voltage regulators.
134	Retrofit for 65BR30/FL, or 75R30/FL.
135	Available in bulk pack.
136	Incandescent lamps operated at less than rated voltage provide a lower light output, longer life, lower color temperature and are less efficient in terms of lumens per watt.
137	Approximate life for 130 volt tungsten halogen lamps operated at 120 volts is within the value calculated using the recommended equations for standard incandescent lamps, as set forth in the IES Handbook, 8th edition. Because of the uncertain nature of the halogen cycle on the coil when operated at less than rated voltage, life of tungsten halogen lamps varies considerably and unpredictably. OSRAM SYLVANIA does not recommend operation at other than rated voltage.
138	Nominal wattage - actual may be slightly higher to achieve required light output.
139	A suitable protective shield, screening technique, or both must be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.
140	Standard Clear - UV Filter Quartz
141	Standard Frosted - UV Filter Quartz
142	Starlite Low Pressure - UV Filter Quartz
143	Standard Clear - 24V - UV Filter Quartz - Not suitable for use in open fixtures.
144	Maximum contact to contact tolerance on RSC Base = 1/16"
145	Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.
146	@120 volts, approximate 22 watts, 130 lumens, 6250 hours
147	@ 120 volts, approximate 26 watts, 100 lumens, 5000 hours
148	@ 120 volts, approximate 28/66/94 watts, 255/800/1060 lumens, 1800 hours
149	@ 120 volts, approximate 30 watts, 240 lumens, 6250 hours
150	@ 120 volts, approximate 30 watts, 290 lumens, 3750 hours
151	@ 120 volts, approximate 31 watts, 275 lumens, 5000 hours
152	@ 120 volts, approximate 35 watts, 320 lumens, 6250 hours
153	@ 120 volts, approximate 35 watts, 350 lumens, 3750 hours
154	@ 120 volts, approximate 37 watts, 450 lumens, 7000 hours
155	May not give satisfactory performance if any accessory lighting equipment touches the glass bulb.
156	@ 120 volts, approximate 38 watts, 380 lumens, 2250 hours

SYMBOLS & FOOTNOTES FOR INCANDESCENT LAMPS

Footnote	Description
157	@ 120 volts, approximate 40 watts, 425 lumens, 5000 hours
158	@ 120 volts, approximate 44 watts, 250 lumens, 5000 hours
159	@ 120 volts, approximate 44 watts, 240 lumens, 5000 hours
160	@ 120 volts, approximate 44 watts, 400 lumens, 2500 hours
161	@ 120 volts, approximate 44 watts, 420 lumens, 5000 hours
162	@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours
163	@ 120 volts, approximate 46 watts, 460 lumens, 6250 hours
164	@ 120 volts, approximate 46 watts, 540 lumens, 2500 hours
165	@ 120 volts, approximate 46 watts, 600 lumens, 7000 hours
166	When calculations are based on bare lamp lumens, do not use this lumen rating.
167	@ 120 volts, approximate 47/94/141 watts, 545/1275/1820 lumens, 1800 hours
168	@ 120 volts, approximate 53 watts, 420 lumens, 2500 hours
169	@ 120 volts, approximate 53 watts, 495 lumens, 4000 hours
170	@ 120 volts, approximate 53 watts, 650 lumens, 2500 hours
171	@ 120 volts, approximate 53 watts, 645 lumens, 6000 hours
172	@ 120 volts, approximate 56 watts, 725 lumens, 1500 hours
173	@ 120 volts, approximate 57 watts, 540 lumens, 4375 hours
174	@ 120 volts, approximate 59 watts, 660 lumens, 6250 hours
175	@ 120 volts, approximate 59 watts, 780 lumens, 1875 hours
176	@ 120 volts, approximate 63 watts, 900 lumens, 7000 hours
177	Average laboratory life in excess of 5000 hours.
178	@ 120 volts, approximate 66 watts, 425 lumens, 4125 hours
179	@ 120 volts, approximate 66 watts, 620 lumens, 2500 hours
180	@ 120 volts, approximate 66 watts, 685 lumens, 4000 hours
181	@ 120 volts, approximate 66 watts, 805 lumens, 5000 hours
182	@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours
183	@ 120 volts, approximate 66 watts, 910 lumens, 1875 hours
184	@ 120 volts, approximate 66 watts, 520 lumens, 5000 hours
185	@ 120 volts, approximate 70 watts, 985 lumens, 1125 hours
186	@ 120 volts, approximate 79 watts, 940 lumens, 6250 hours
187	@ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours
188	For use only with heat-resisting connector and with bulb supported by bulb rim or metal shell of base.
189	@ 120 volts, approximate 79 watts, 1130 lumens, 1875 hours
190	@ 120 volts, approximate 88 watts, 960 lumens, 2500 hours
191	@ 120 volts, approximate 88 watts, 1100 lumens, 6250 hours
192	@ 120 volts, approximate 88 watts, 1260 lumens, 1875 hours
193	@ 120 volts, approximate 88 watts, 1290 lumens, 1875 hours
194	@ 120 volts, approximate 88 watts, 710 lumens, 5000 hours
195	@ 120 volts, approximate 94 watts, 1455 lumens, 1125 hours
196	@ 120 volts, approximate 105 watts, 850 lumens, 5000 hours
197	@ 120 volts, approximate 105 watts, 1370 lumens, 6000 hours
198	@ 120 volts, approximate 106 watts, 1040 lumens, 5000 hours

Manufacturers' Cross Reference Guide (continued)

INCANDESCENT LAMPS

SYLVANIA	GE	PHILIPS
4C7/BL/2PK	4C7 CARD 2	BC-4C7
4C7/W/BL/2PK	4C7/W CD2	BC4C7/W
10C7/CL	10C7 TRAY	10C7
10S11N/CL	10S11N	10S11N
15B10/BL/2PK	15CAC/F-CD/2-12	BC15BA9C/CL/LL
15B10C/DL/BL	---	15BA9C/4M
15S14/CL 130V	15S14/GR/CL 130V	---
20T6.5DC/IF	20T61/DC/F	20T61/2DC/IF
25B10C/DL/BL	25CAC	---
25B10/DL/BL	25CAC/L (120)	BC25B9-1/2/CL/LL
25G16.5C/4M	---	---
25G25	25G25	25G25/C/LL
25G25/DLSW/RP	25G25/W/L/24	---
25G40	25G40	25G40/4M
25T10	25T10	BC25T10
30/100A21/W/RP	30/100	30/100A/W
30A15	30A15-130	30A15
30R20	30R20-120	30R20
40A15/CL/FAN	40A15/CF CD2	BC40A15/FAN/CL/LL
40A15/SL	40A15/CF/STG CD2	40A/TF
40A	40A 48PK	40A
40A/34/SS	40A/34WM	40A-34A/EW
40A/34/SS/XL	40A/34/WMP/99	40A-34A/99/EW
40B10/BL/2PK	40CAM CD/2	BC40BA9-1/2/CL/LL
40B10C/DL/BL	40CAC/LL	40B101/2/4M
40B10/W/BL/2PK	40CAM/F CD/2	BC40B9-1/2/F/LL
40F/CL	40FM/L	BC40F15/CL/LL
40G161/2C	40GC-12PK-120	BC40G16-1/2C/CL/LL
40G25	40G25/L	40G25/CL/LL
40G25/DAY/1/6	40G25W/RVL PQ1/6	40G25/NTL 6/1
40G40/W	40G40/W	40G40/CL/LL
40S11N/BL	40S11N/1CARD	BC40S11/N TP
40T10/IF	40T10/F	BC40T10/IF
50/150A21/DLSW/RP	---	---
50/150/PS25	50/150 12PK	50/150A/DL
50A/RS/SL	50A/RS/CVG 24PK	50A/RS/TF
60A	60A	60A
60A/52SS	60A/52WM	60A-52A/EW
60A/52/SS/XL	60A/52WMP/98	---
60A/CL	60A/CL 24PK	60A/CL
60A/DLSW/2PK/RP	60A/W/LL-24PK-120	60A/WL
60A/GRO	60A/PL 6PK	60A/AGRO
60A/Y/RP	60A/Y 24PK	60A/Y
60A21/TS	---	K60A19/TS/EW
60B10C/BL/2PK	60CAC CD/2 6PK	BC60BA9C/CL/LL
60B10/DL/BL/2PK	---	60BA91/24M
60F/BL	---	BC60F15/CL/LL
60G25/RP	60G25 6PK 120V	60G25/CL/LL
60G25/DLSW/RP	---	60G25/W/LL
60K19/DR	---	60K19/DL
60T10/CF	60T10/F 24PK	60T10/64/IF
65BR30/DL/FL/RP	65R30/FL/LL 6PK	65BR30/FL/LL55
65BR30/FL/SS	75R30/FL/65WM	65BR30/FL55
65BR30/SP/RP	65R30/SP/LL 6PK	65BR30/SP20
65BR30/SP/SS	75R30/SP/65WM	65BR30/SP20
65BR30/PK/RP	65R30/FL/PK	---
75A	75A	75A
75A/CL	75A/CL 24PK	75A/CL
75A21/RS/SL	75A/RT 6PK	75A/RH/TF
75A/67/SS	75A/67WM	75A-67A/EW
75A/67/SS/XL	75A/67WMP/99	75A-67A/99/EW 120
75BR/FL	---	---
75ER30	75ER30	75ER30
75K19/DR	---	75K19/DL

INCANDESCENT LAMPS

SYLVANIA	GE	PHILIPS
75R20/RP	75R20 6PK	75R20/LL
100A/90/W/ES/4PK	100A/90WM	100A-90A/EW
100A/90/SS/XL	100A/90WMP/98	100-90A/99EW
100A	100A	100A
100A/DL/SW/2PK/RP	---	100A/W
100A/RS/XL	100A/S-130V-24PK	---
100A21/VS	100A/RS 12PK-5	100A/RS/VS
100A23/20	100A23/20	100A23/20
100G40	---	100G40/CL/LL 6/1
100G40/W	100G40/W 6PK	100G40/W/LL 6/1
120BR/FL	120R40/FL/MI-6PK	120BR/FL60
120BR/SP	120R40/SP/MI-6PK	120BR/SP20
120ER40	120ER40	120ER40
125BR40	125R40	125R40/1
150A21	150A	150A
150A21/135/SS	150A/135WM	150A-135A/EW
150A21/99/XL	150Q21/99/IF	150A/99
150PAR46	150PAR46	---
175W/PAR38/HEAT	175PAR38/HEAT	175PAR38/HEAT/CL
200A21	200A 12PK	200A (A23)
200CL/99/XL	200/99	200/99
200PS/IF	200/IF	200/IF
200PS/CL/99/XL	200/99	200/99
250BR40	250R40/1	250R40/1
250KBR38/FL	---	K250PAR38/FL
300BR/FL	300R/FL	300R/FL
300/M/CL	300M	300M
300PAR56/MFL	300PAR56/MFL	300PAR56/MFL
300PAR56/NSP	300PAR56/NSP	300PAR56/NSP
300PAR56/WFL	300PAR56/WFL	300PAR56/WFL
300PS35/99/IF/XL	300/99IF	300/99IF
375R40/1	375R40/1	375R40/1
500PAR64/NSP	500PAR64/NSP	500PAR64/NSP

OSRAM SYLVANIA: THE LEADER IN HALOGEN LAMP TECHNOLOGY

Halogen lamps are generally of the 'lamp within a lamp' design. The outer 'lamp' or jacket is made from a heavy walled borosilicate glass. The inner 'lamp' is the tungsten halogen capsule that is made from either glass or quartz and contains a filament, lead wires and a halogen gas mixture.

CAPSYLITE IR®

Save energy while still making your merchandise stand out from the crowd. Energy efficient SYLVANIA CAPSYLITE IR® lamps use a specially designed halogen light source that actually recycles some of the heat it creates to generate more light for less energy.



Daylight Plus® PAR

The special blue lenses on these halogen PAR lamps help to fill your space with whiter, more natural light than standard halogen PAR or incandescent lamps.



CAPSYLITE® Soft White Halogen PAR lamps

SYLVANIA CAPSYLITE Soft White Halogen PAR lamps provide the ultimate meeting point between the efficiency and color of a halogen lamp and the soft, glare free light distribution of an incandescent lamp. They can also be used as energy saving replacements for incandescent reflector lamps, with the 50W PAR30 Long Neck lamp replacing a standard 65W BR30 while maintaining the same light levels.



CAPSYLITE® A-Line

Replace a standard incandescent lamp with a CAPSYLITE® A-Line lamp to get a crisp, bright, more natural light that really lasts. Average rated life for these lamp types is 3,000 to 3,500 hours - up to four times the ratings of the lamps that they replace!



Soft Glass Halogen Lamps

SYLVANIA soft glass halogen lamps are an outstanding replacement for standard incandescent lamps in any application. All of the lamps fit standard fixtures, allowing them to be used anywhere to add a new dimension to home or business lighting.



OSRAM MINISTAR™

OSRAM MINISTAR lamps represent a revolution in halogen reflector lamp design. Their unique integration of the reflective surface and the halogen capsule creates the world's smallest halogen reflector lamps.



TRU-AIM® Low Voltage Lamps

SYLVANIA's complete line of TRU-AIM low voltage lamps provides a wide variety of extremely compact and highly directional light sources. Choose from standard MR16s (TRU-AIM), aluminized MR16s (TRU-AIM Brilliant), or top of the line TRU-AIM IR.



FILAMENTS



CC-8



CC-2V



CC-6



Axial (AX)



Transverse (TR)



C-8 Double End

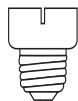
BASES



E10
Miniature Screw



E11 Mini can



E26 Medium Skt.



E26 Medium



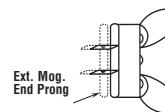
Recessed Single Contact
RSC
R7s



Screw Term.



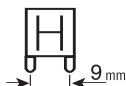
DC Bayonet
B15d
BA15d



Mogul End Prong



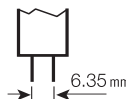
G4



G9



G53



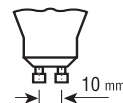
GY 6.35



GU4



GU5.3



GU10



Med Side Pr.

LAMPS



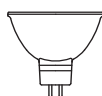
BT4



BT4T3, T4 BI-PIN



T4 G9.



MR16, MR11



PAR14



PAR16



PAR16 GU10



PAR20



F17



PAR30



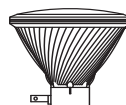
PAR30LN



PAR36
Medium Skt.



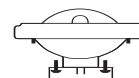
PAR38



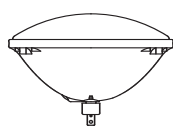
PAR38
Medium Side Prong



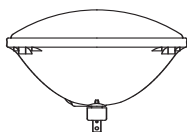
AR70



AR111



PAR56 Mog End Pr



PAR64 Mog End Pr



T4 DC Bayonet



T3, T4 Mini Can



T3, T4 RSC Double End



T10



B11



BT15



A19



G25

HOW TO READ PRODUCT INFORMATION - TUNGSTEN HALOGEN

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Beam Type	Class & Filament	Avg Rated Life (hrs)	Approx Lumens	CBCP	Beam Angle	LCL (in)	MOL (in)
40	T4	G9	57017	☼ 5,10	40T4/G9/F/BL	120	10	Frosted		C, CC-2V	2000	480			1.00	1.88
60	PAR38	E26 Med Skt	14466	☼ ★ 10,11	60PAR/CAP/IR/FL30	120	15		Flood	CC-8	3000	1110	3600	30		5.31
50	PAR30LN	E26 Med	14520	☼ ★ 10,19,20	50PAR30LN/HAL/NFL25	120	15		Narrow Flood	CC-8	2500	660	2300	25		4.63

Bulb	Describes the shape of the bulb followed by the bulb's major diameter given in eighths of an inch. See page 42: Halogen Lamps.
Base	See page 42: Base Identification.
Symbols & Footnotes	All symbols and footnotes that apply to a specific product will appear in this space. The explanations of the symbols and footnotes are at the end of the halogen section on page 64.
Lamp Finish	Applies only to non-reflector type lamps, usually either clear or frosted.
Beam Type	Applies only to reflector type lamps. Describes the beam angle qualitatively as either a spot or a flood, etc.

How to Read Ordering Abbreviations

40T4/G9/F/BL		60PAR/CAP/IR/FL30		50PAR30LN/HAL/NFL25	
40	Nominal lamp wattage	60	Nominal lamp wattage	50	Nominal lamp wattage
T4/G9	T4 lamp with G9 base	PAR	Bulb shape PAR38	PAR30LN	Bulb shape PAR30 Long Neck
F	Frosted finish	CAP	CAPSYLITE lamp	HAL	Halogen lamp
BL	Blister Card Package	IR	Infrared conserving capsule	NFL25	Narrow Flood beam 25 degrees
		FL30	Flood beam 30 degrees		

ANSI BEAM ANGLE DESIGNATION

Beam angles for reflector lamps are designated to conform with ANSI C78.379 -Classification of the Beam Patterns of Reflector Lamps. For beam angles less than 13°, beam angles are rounded to the nearest whole number. For beam angles between 13° and 50°, values are rounded to the nearest 5°. For beam angles 50° and greater, the value is rounded to the nearest 10°. As an example, a family of lamps with an average beam angle of 13° is classified as 15°, and a family of lamps with an average beam angle of 54° would be classified as 50°.

LIFE RATING

The average rated life for 130V tungsten halogen lamps operated at 120V is conservatively estimated to be approximately 2 times the life when operated at 130V.

ANSI CODE REFERENCE GUIDE

ANSI CODE	ITEM NO.	L.L. ORDERING ABBREVIATION (EXCEPT VOLTS)	VOLTS	ANSI CODE	ITEM NO.	L.L. ORDERING ABBREVIATION (EXCEPT VOLTS)	VOLTS	ANSI CODE	ITEM NO.	L.L. ORDERING ABBREVIATION (EXCEPT VOLTS)	VOLTS
BAB	58301	20MR16/T/FL35/C	12	ETD	58757	100Q/DC	120	FMW	58305	35MR16/T/FL35/C	12
EHM	58998	300T3Q/CL	120	ETF	58737	150Q/DC	120	FNV	58310	50MR16/T/WFL60/C	12
EHT	58762	250Q/CL/MC	120	ETG	58735	150Q/CL/MC/2	120	FPA	58311	65MR16/T/SP10/C	12
ESL	58738	150Q/CL/MC	120	ETH	58736	150Q/MC	120	FPB	58313	65MR16/T/FL35/C	12
ESM	58763	250Q/MC	120	EVR	58766	500Q/CL/MC	120	FPC	58312	65MR16/T/NFL25/C	12
ESN	58761	100Q/CL/MC	120	EXN	58309	50MR16/T/FL35/C	12	FRB	58303	35MR16/T/SP10/C	12
ESP	58742	150Q/CL/DC/1	120	EXT	58307	50MR16/T/SP10/C	12	FTB	55133	20MR11/T/SP10/C	12
ESR	58755	100Q/CL/DC	120	EXZ	58308	50MR16/T/NFL25/C	12	FTD	55134	20MR11/T/FL35/C	12
ESS	58720	250Q/CL/DC	120	EYV	58768	500Q/MC	130	FTE	55135	35MR11/T/SP10/C	12
ESX	58300	20MR16/T/SP10/C	12	EYW	58756	500Q/CL/MC	130	FTH	55136	35MR11/T/FL35/C	12
ETB	58753	250Q/DC	120	EYX	58767	500Q/MC	120				
ETC	58741	150Q/CL/DC	120	FCL	58996	500T3Q/CL	120				

TUNGSTEN HALOGEN BRAND NAME GUIDE

SYLVANIA	GE*	PHILIPS**	OSRAM***
CAPSYLITE IR®	HIR PAR	Energy Advantage IR	
CAPSYLITE®	HALOGEN PLUS / HALOGEN Compact	Halogen WISO Reflector	HALOPAR
CAPSYLITE® COOL-LUX	Cool Beam PAR	Cool Beam Reflector	
CAPSYLITE® Designer 16	HALOGEN Compact PAR16	Halogen PAR16	HALOPAR16
CAPSYLITE® A-Line	A-Line		
Daylight Plus® PAR	Reveal	Natural	
TRU-AIM IR®	PRECISE COVERGLASS IR MR16	Halogen MR Energy Advantage IR	Decostar 51 IRC
TRU-AIM TITAN®	ConstantColor Precise Cover Glass	Halogen MR Long Life	Decostar 51 TITAN
TRU-AIM BRILLIANT®		Halogen MR Aluminum	Decostar 51 ALU
TRU-AIM® Standard MR16	Standard MR16	Halogen MR	Decostar 51
TRU-AIM® MR11	STANDARD MR11	Halogen MRC-11	Decostar 35
Softwhite Halogen PAR			
STANDARD Bi-Pin	Quartz Halogen		HALOSTAR Standard
STARLITE Bi-Pin		Halogen Low Voltage Capsule	HALOSTAR STARLITE
Double End	Quartzline	Halogen Double-Ended Linear	HALOLINE
SUPER Q	Halogen	Halogen Single-Ended	HALOLUX Ceram
Large PAR	Halogen		
Tubular Halogen T10	T10		HALOLUX Ceram
AR111	AR111	ALU Line PRO 111	HALOSPOT 111
AR70		Closed Aluminum Reflector	HALOSPOT 70
Soft Glass Halogen	A-Line / Decorative	Halogena	HALOLUX BT
Softwhite Halogen PAR			
Osram MINISTAR			MINISTAR

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For weight and measurement information, please visit www.sylvania.com



CAPSYLITE® A-LINE

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
42	A19	E26 Med	18907	★	42A/HAL/F	120	12	Inside Frost	C,CC-8	3500	580 2750	3.13	4.38
			18908	★ 137,154	42A/HAL/F	130	12	Inside Frost	C,CC-8	3500	580 2750	3.13	4.38
@ 120 volts, approximate 37 watts, 450 lumens, 7000 hours													
50	A19	E26 Med	18968	★	50A/HAL/CRYSTAL	120	12	Crystal	C,CC-8	2500	860 2825	3.13	4.38
52	A19	E26 Med	18921	★	52A/HAL/F	120	12	Inside Frost	C,CC-8	3500	770 2775	3.13	4.38
			18922	★ 137,165	52A/HAL/F	130	12	Inside Frost	C,CC-8	3500	770 2775	3.13	4.38
@ 120 volts, approximate 46 watts, 600 lumens, 7000 hours													
60	A19	E26 Med	18998	★	60A/HAL/CL/CLAM	120	6	Clear	C,CC-8	3000	965 2850	3.13	4.38
			18942	★	60A/HAL/CRYSTAL/CLAM	120	6	Crystal	C,CC-8	3000	965 2850	3.13	4.38
			18960	★	60A/HAL/F	120	12	Inside Frost	C,CC-8	3000	965 2850	3.13	4.38
			18999	★	60A/HAL/F/CLAM	120	6	Inside Frost	C,CC-8	3000	960 2850	3.13	4.38
72	A19	E26 Med	18937	★	72A/HAL/F	120	12	Inside Frost	C,CC-8	3500	1150 2825	3.13	4.38
			18938	★ 137,176	72A/HAL/F	130	12	Inside Frost	C,CC-8	3500	1150 2825	3.13	4.38
@ 120 volts, approximate 63 watts, 900 lumens, 7000 hours													
75	A19	E26 Med	19000	★	75A/HAL/CL/CLAM	120	6	Clear	C,CC-8	3000	1330 2875	3.13	4.38
			18969	★	75A/HAL/CRYSTAL	120	12	Crystal	C,CC-8	3000	1330 2875	3.13	4.38
			18906	★	75A/HAL/CRYSTAL/CLAM	120	6	Crystal	C,CC-8	3000	1330 2875	3.13	4.38
			18965	★	75A/HAL/F	120	12	Inside Frost	C,CC-8	3000	1315 2875	3.13	4.38
			18997	★	75A/HAL/F/CLAM	120	6	Inside Frost	C,CC-8	3000	1315 2875	3.13	4.38
100	A19	E26 Med	19003	★	100A/HAL/CL/CLAM	120	6	Clear	C,CC-8	3000	1800 2900	3.13	4.38
			18911	★	100A/HAL/CRYSTAL/CLAM	120	6	Crystal	C,CC-8	3000	1800 2900	3.13	4.31
			18970	★	100A/HAL/F	120	12	Inside Frost	C,CC-8	3000	1800 2900	3.13	4.38
			18905	★	100A/HAL/F/CLAM	120	6	Inside Frost	C,CC-8	3000	1800 2900	3.13	4.38
150	A19	E26 Med	18912	★	150A/HAL/CLAM	120	6	Inside Frost	C,CC-8	3000	3000 2975	3.13	4.31



BT15



B11



G25



F17



T10

HALOGEN BT15

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
60	BT15	E26 Med	18864	 73,74,84, 145	60BT15/HAL/CL/BL	120	10	Clear	C,CC-8	3000	820 2900	2.94	4.63
			18865	 72,73,74, 84,145	60BT15/HAL/W/BL	120	10	White	C,CC-8	3000	760 2900	2.94	4.63
75	BT15	E26 Med	18866	 72,73,74, 84,145	75BT15/HAL/W/BL	120	10	White	C,CC-8	3000	1010 2900	2.94	4.63
100	BT15	E26 Med	18867	 72,73,74, 84,145	100BT15/HAL/W/BL	120	10	White	C,CC-8	3000	1500 2900	2.94	4.63
150	BT15	E26 Med	18868	 72,73,74, 84,145	150BT15/HAL/W/BL	120	10	White	C,CC-8	3000	2400 2900	2.94	4.63

HALOGEN DÉCOR LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
25	B11	Candelabra	13269	 73,74,145	25B11C/T/HAL/BL	120	6	Clear	C,CC-2V	3000	180 2900	2.60	4.69
40	B11	Candelabra	13334	 73,74,145	40B11C/HAL/BL	120	6	Clear	C,CC-2V	3000	380 2900	2.60	4.56
	G25	E26 Med	13998	 73,74,145	40G25/HAL	120	6	Clear	C,CC-2V	3000	380 2900	3.25	4.44
60	G25	E26 Med	14000	 73,74,145	60G25/HAL	120	6	Clear	C,CC-2V	3000	630 2900	3.25	4.44
	F17	E26 Med	13879		60F/HAL/DAY/CLAM	120	6	Crystal	C,CC-8	3000	960 2850	3.00	4.50

TUBULAR HALOGEN T10

A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
75	T10	E26 Med	18846	 139	75T10/HAL/CL	120	12	Clear	C,CC-2V	2000	1100 2900	2.94	4.13
			18847	 139	75T10/HAL/F	120	12	Frosted	C,CC-2V	2000	1050 2900	2.94	4.13
100	T10	E26 Med	18848	 139	100T10/HAL/CL	120	12	Clear	C,CC-2V	2000	1500 2900	2.94	4.13
			18849	 139	100T10/HAL/F	120	12	Frosted	C,CC-2V	2000	1430 2900	2.94	4.13
150	T10	E26 Med	18850	 46,139	150T10/HAL/CL	120	12	Clear	C,CC-2V	2000	2500 2900	2.94	4.13
			18851	 46,139	150T10/HAL/F	120	12	Frosted	C,CC-2V	2000	2400 2900	2.94	4.13
230	T10	E26 Med	18852	 46,139	230T10/HAL/CL	120	12	Clear	C,CC-2V	2000	4200 2900	2.94	4.13
			18853	 46,139	230T10/HAL/F	120	12	Frosted	C,CC-2V	2000	4000 2900	2.94	4.13



PAR20



PAR30LN



PAR38



PAR14



PAR16 GU10

DAYLIGHT PLUS® PAR LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR20	E26 Med	15226	★ 118	50PAR20/HAL/DAY/NFL	120	6	NFL	C,CC-8	2500	500 2900	1000	30	3.25
	PAR30LN	E26 Med	15227	★ 73,118	50PAR30LN/HAL/DAY/WFL	120	6	WFL	C,CC-8	2500	550 2900	550	50	4.63
75	PAR30LN	E26 Med	15228	★ 73,118	75PAR30LN/HAL/DAY/WFL	120	6	WFL	C,CC-8	2500	1000 3000	1000	50	4.63
50	PAR38	E26 Med Skt	13973	★ 43,47,72,118	50PAR38/CAPIR/DAY/WSP12	120	15	WSP	C,CC-8	3000	700 2925	7000	12	5.31
			15259	★ 43,47,72,118	50PAR38/CAPIR/DAY/FL30	120	15	FL	C,CC-8	3000	700 2925	1800	30	5.31
			15229	★ 118	50PAR38/HAL/DAY/FL	120	6	FL	C,CC-8	2500	540 2900	1550	30	5.31
75	PAR38	E26 Med Skt	15230	★ 118	75PAR38/HAL/DAY/FL	120	6	FL	C,CC-8	2500	960 3000	2800	30	5.31

SOFTWHITE HALOGEN PAR LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR20	E26 Med	13260	★ 43,118	50PAR20/HAL/SW	120	6	FL	C,CC-8	2500	525 2850	525	40	3.25
	PAR30LN	E26 Med	13259	★ 43,73,118,134	50PAR30LN/HAL/SW	120	6	FL	C,CC-8	2500	600 2850	450	50	4.63
75	PAR30LN	E26 Med	13258	43,73,118	75PAR30LN/HAL/SW	120	6	FL	C,CC-8	2500	1050 2900	700	50	4.63
50	PAR38	E26 Med Skt	15236	★ 43,72,118	50PAR38/HAL/SW	120	6	FL	C,CC-8	2500	600 2850	550	50	5.31
75	PAR38	E26 Med Skt	13257	★ 43,72,118	75PAR38/HAL/SW	120	6	FL	C,CC-8	2500	980 2900	1300	50	5.31

CAPSYLITE® PAR14 LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
35	PAR14	E26 Med	15364	41,118	35PAR14/HAL/FL/RP	120	6	FL	C,CC-8	2000	450 2775	200	50	2.44

CAPSYLITE® PAR16 LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
35	PAR16	GU10	13256	72	35PAR16/HAL/GU10/FL/BL3	120	18	FL	C,CC-8	3000	280 2750	500	30	2.25
			59076	72	35PAR16/HAL/GU10/FL/BL	120	6	FL	C,CC-8	3000	280 2750	500	30	2.25



PAR16 GU10



PAR16 GU10



PAR20

CAPSYLITE® PAR16 LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR16	GU10	59061	72	50PAR16/HAL/GU10/FL/BL3	120	18	FL	C,CC-8	3000	450 2800	800	30	2.25
			59075	72	50PAR16/HAL/GU10/FL/BL	120	6	FL	C,CC-8	3000	450 2800	800	30	2.25
			59024	68	50PAR16/HAL/GU10/FL40	120	10	FL	C,CC-2V	1000	400 2950	640	40	2.08
			59020	68	50PAR16/HAL/GU10/FL/CLAM	120	6	FL	C,CC-2V	1000	400 2950	640	40	2.08
60	PAR16	E26 Med	59032	69,118	60PAR16/HAL/NSP10	120	15	NSP	C,CC-8	2000	650 2850	5000	10	2.88
			59037	69,118	60PAR16/HAL/NSP10/RP	120	6	NSP	C,CC-8	2000	650 2850	5000	10	2.88
			59040	69,118,137,169	60PAR16/HAL/NSP10	130	15	NSP	C,CC-8	2000	650 2850	5000	10	2.88
			@ 120 volts, approximate 53 watts, 495 lumens, 4000 hours											
			59030	69,118	60PAR16/HAL/NFL30	120	15	NFL	C,CC-8	2000	650 2850	1300	30	2.88
			59031	69,118	60PAR16/HAL/NFL30/RP	120	6	NFL	C,CC-8	2000	650 2850	1300	30	2.88
75	PAR16	E26 Med	59036	69,118	75PAR16/HAL/NSP10	120	15	NSP	C,CC-8	2000	900 2900	7500	10	2.88
			59044	69,118,137,180	75PAR16/HAL/NSP10	130	15	NSP	C,CC-8	2000	900 2900	7500	10	2.88
			@ 120 volts, approximate 66 watts, 685 lumens, 4000 hours											
			59034	69,118	75PAR16/HAL/NFL30	120	15	NFL	C,CC-8	2000	900 2900	1900	30	2.88
			59033	69,118	75PAR16/HAL/NFL30/RP	120	6	NFL	C,CC-8	2000	900 2900	1900	30	2.88
			59042	69,118,137,180	75PAR16/HAL/NFL30	130	15	NFL	C,CC-8	2000	900 2900	1900	30	2.88
			@ 120 volts, approximate 66 watts, 685 lumens, 4000 hours											

CAPSYLITE IR® PAR20

Halogen PAR lamp with infrared reflective coating on the lamp capsule. Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
40	PAR20	E26 Med	14164	43,47,118	40PAR20/CAPIR/NSP10	120	15	NSP	C,CC-8	4000	510 2750	4200	10	3.25
			14166	43,47,118	40PAR20/CAPIR/NFL30	120	15	NFL	C,CC-8	4000	510 2750	1100	30	3.25
			14130	43,47,118	40PAR20/CAPIR/WFL40	120	15	WFL	C,CC-8	4000	510 2750	800	40	3.25



PAR20



PAR30

CAPSYLITE® PAR20

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
35	PAR20	E26 Med	14467	★ 43,118	35PAR20/HAL/NSP10	120	15	NSP	C,CC-8	2500	360 2775	3000	10	3.25
			14464	★ 43,118	35PAR20/HAL/NFL30	120	15	NFL	C,CC-8	2500	360 2775	800	30	3.25
			14459	★ 43,118,137,151	35PAR20/HAL/NFL30	130	15	NFL	C,CC-8	2500	360 2775	800	30	3.25
			@ 120 volts, approximate 31 watts, 275 lumens, 5000 hours											
			14506	★ 43,118	35PAR20/HAL/WFL40	120	15	WFL	C,CC-8	2500	360 2775	500	40	3.25
			14461	★ 43,118,137,151	35PAR20/HAL/WFL40	130	15	WFL	C,CC-8	2500	360 2775	500	40	3.25
@ 120 volts, approximate 31 watts, 275 lumens, 5000 hours														
50	PAR20	E26 Med	14500	★ 43,118	50PAR20/HAL/NSP10	120	15	NSP	C,CC-8	2500	550 2850	4600	10	3.25
			14528	★ 43,118,137,161	50PAR20/HAL/NSP10	130	15	NSP	C,CC-8	2500	550 2850	4600	10	3.25
			@ 120 volts, approximate 44 watts, 420 lumens, 5000 hours											
			14502	★ 43,118	50PAR20/HAL/NFL30	120	15	NFL	C,CC-8	2500	550 2850	1200	30	3.25
			14173	★ 43,118	50PAR20/HAL/NFL30/RP	120	6	NFL	C,CC-8	2500	550 2850	1200	30	3.25
			14529	★ 43,118,137,161	50PAR20/HAL/NFL30	130	15	NFL	C,CC-8	2500	550 2850	1200	30	3.25
			@ 120 volts, approximate 44 watts, 420 lumens, 5000 hours											
			15662	★ 43,118,137,161	50PAR20/HAL/NFL30/CVP	130	6	NFL	C,CC-8	2500	550 2850	1200	30	3.25
@ 120 volts, approximate 44 watts, 420 lumens, 5000 hours														
			14700	★ 43,118	50PAR20/HAL/WFL40	120	15	WFL	C,CC-8	2500	550 2850	900	40	3.25

CAPSYLITE IR® PAR30

Halogen PAR lamp with infrared reflective coating on the lamp capsule. Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
40	PAR30	E26 Med	13968	★ 43,47,118	40PAR30/CAPIR/NSP9	120	15	NSP	C,CC-8	4000	610 2750	8100	9	3.63
			13969	★ 43,47,118	40PAR30/CAPIR/NFL25	120	15	NFL	C,CC-8	4000	610 2750	2100	25	3.63
			13970	★ 43,47,118	40PAR30/CAPIR/FL40	120	15	FL	C,CC-8	4000	610 2750	1200	40	3.63
50	PAR30	E26 Med	14355	★ 43,47,118,137	50PAR30/CAPIR/NSP9	120	15	NSP	C,CC-8	3000	900 2825	13000	9	3.63
			14354	★ 43,47,118	50PAR30/CAPIR/NFL25	120	15	NFL	C,CC-8	3000	900 2825	2900	25	3.63
			14132	★ 43,47,87,118	50PAR30/CAPIR/NFL25	130	15	NFL	C,CC-8	3000	900 2825	2900	25	3.63
			@ 120 volts, approximate 44 watts, 690 lumens, 6000 hours.											
			14714	★ 43,47,118	50PAR30/CAPIR/FL40	120	15	FL	C,CC-8	3000	900 2825	1600	40	3.63
			14131	★ 43,47,87,118,137	50PAR30/CAPIR/FL40	130	15	FL	C,CC-8	3000	900 2825	1600	40	3.63
@ 120 volts, approximate 44 watts, 690 lumens, 6000 hours.														



PAR30



PAR30LN

CAPSYLITE® PAR30

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR30	E26 Med	14526	★ 43,118	50PAR30/HA/NSP9	120	15	NSP	C,CC-8	2500	660 2850	8800	9	3.63
			14530	★ 43,118,137,162	50PAR30/HA/NSP9	130	15	NSP	C,CC-8	2500	660 2850	8800	9	3.63
			@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours											
			14527	★ 43,118	50PAR30/HA/NFL25	120	15	NFL	C,CC-8	2500	660 2850	2300	25	3.63
			14531	★ 43,118,137,162	50PAR30/HA/NFL25	130	15	NFL	C,CC-8	2500	660 2850	2300	25	3.63
			@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours											
			14710	★ 43,118	50PAR30/HA/FL40	120	15	FL	C,CC-8	2500	660 2850	1300	40	3.63
60	PAR30	E26 Med	14533	★ 43,118,137,162	50PAR30/HA/FL40	130	15	FL	C,CC-8	2500	660 2850	1300	40	3.63
			@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours											
			14332	★ 43,118	60PAR30/HA/NSP9	120	15	NSP	C,CC-8	3000	860 2875	12000	9	3.63
			14333	★ 43,118	60PAR30/HA/NFL25	120	15	NFL	C,CC-8	3000	860 2875	2775	25	3.63
			14090	★ 43,90,118,137	60PAR30/HA/NFL25	130	15	NFL	C,CC-8	3000	860 2875	2775	25	3.63
75	PAR30	E26 Med	@ 120 volts, approximate 53 watts, 660 lumens, 6000 hours.											
			14084	★ 43,90	60PAR30/HA/FL40	130	15	FL	C,CC-8	3000	860 2875	1550	40	3.63
			@ 120 volts, approximate 53 watts, 660 lumens, 6000 hours.											
			14604	★ 43,118	75PAR30/HA/NSP9	120	15	NSP	C,CC-8	2500	1130 2900	15400	9	3.63
			14628	★ 43,118,137,182	75PAR30/HA/NSP9	130	15	NSP	C,CC-8	2500	1130 2900	15400	9	3.63
			@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours											
75	PAR30	E26 Med	14603	★ 43,118	75PAR30/HA/NFL25	120	15	NFL	C,CC-8	2500	1130 2900	4000	25	3.63
			14627	★ 43,118,137,182	75PAR30/HA/NFL25	130	15	NFL	C,CC-8	2500	1130 2900	4000	25	3.63
			@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours											
			14606	★ 43,118	75PAR30/HA/FL40	120	15	FL	C,CC-8	2500	1130 2900	2100	40	3.63
			14629	★ 43,118,137,182	75PAR30/HA/FL40	130	15	FL	C,CC-8	2500	1130 2900	2100	40	3.63
			@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours											

CAPSYLITE® PAR30 LONG NECK

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
35	PAR30LN	E26 Med	14759	★ 43,73,118	35PAR30LN/HA/NSP9	120	15	NSP	C,CC-8	2500	450 2775	4500	10	4.63
			14764	★ 43,73,118	35PAR30LN/HA/WFL50	120	15	WFL	C,CC-8	2500	450 2775	450	50	4.63
50	PAR30LN	E26 Med	14509	★ 43,73,118,134	50PAR30LN/HA/NSP9	120	15	NSP	C,CC-8	2500	660 2850	7000	10	4.63



PAR30LN



PAR38

CAPSYLITE® PAR30 LONG NECK

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR30LN	E26 Med	14482	★  43,73,118,134,137,162	50PAR30LN/HA/NSP9	130	15	NSP	C,CC-8	2500	660 2850	7000	10	4.63
			@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours											
			14520	★  43,73,118,134	50PAR30LN/HA/NFL25	120	15	NFL	C,CC-8	2500	660 2850	2100	25	4.63
			14822	★  43,73,118,134	50PAR30LN/HA/NFL	120	6	NFL	C,CC-8	2500	660 2850	2100	25	4.63
			14478	★  43,73,118,134,137,162	50PAR30LN/HA/NFL25	130	15	NFL	C,CC-8	2500	660 2850	2100	25	4.63
			@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours											
			14537	★  43,73,118,134	50PAR30LN/HA/WFL50	120	15	WFL	C,CC-8	2500	660 2850	660	50	4.63
			14536	★  43,73,118,134	50PAR30LN/HA/WFL	120	6	WFL	C,CC-8	2500	660 2850	660	50	4.63
			14486	★  43,73,118,134,137,162	50PAR30LN/HA/WFL50	130	15	WFL	C,CC-8	2500	660 2850	660	50	4.63
@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours														
75	PAR30LN	E26 Med	15419	★  43,73,118,134,137,162	50PAR30LN/HA/WFL50/CVP	130	6	WFL	C,CC-8	2500	660 2850	660	50	4.63
			@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours											
			14786	★  43,73,118	75PAR30LN/HA/NSP9	120	15	NSP	C,CC-8	2500	1130 2950	12000	10	4.63
			14777	★  43,73,118,137,182	75PAR30LN/HA/NSP9	130	15	NSP	C,CC-8	2500	1130 2900	12000	10	4.63
			@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours											
			14769	★  43,73,118	75PAR30LN/HA/NFL25	120	15	NFL	C,CC-8	2500	1130 2900	3600	25	4.63
			14824	★  43,73,118	75PAR30LN/HA/NFL	120	6	NFL	C,CC-8	2500	1130 2900	3600	25	4.63
			14778	★  43,73,118,137,182	75PAR30LN/HA/NFL25	130	15	NFL	C,CC-8	2500	1130 2900	3600	25	4.63
			@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours											
14768	★  43,73,118	75PAR30LN/HA/WFL50	120	15	WFL	C,CC-8	2500	1130 2900	1100	50	4.63			
14823	★  43,73,118	75PAR30LN/HA/WFL	120	6	WFL	C,CC-8	2500	1130 2900	1100	50	4.63			
14785	★  43,73,118,137,182	75PAR30LN/HA/WFL50	130	15	WFL	C,CC-8	2500	1130 2900	1100	50	4.63			
@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours														
15418	★  43,73,118,137,182	75PAR30LN/HA/WFL50/CVP	130	6	WFL	C,CC-8	2500	1130 2900	1100	50	4.63			
@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours														

CAPSYLITE IR® PAR38

Halogen PAR lamp with infrared reflective coating on the lamp capsule. Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR38	E26 Med Skt	13973	★☐☐☐ 43,47,72,118	50PAR38/CAPIR/DAY/WSP12	120	15	WSP	C,CC-8	3000	700 2875	7000	12	5.31
			15259	★☐☐☐ 43,47,72,118	50PAR38/CAPIR/DAY/FL30	120	15	FL	C,CC-8	3000	700 2875	1800	30	5.31



PAR38

CAPSYLITE IR® PAR38

Halogen PAR lamp with infrared reflective coating on the lamp capsule. Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	PAR38	E26 Med Skt	14136	★④⑤⑥ 43,47,72,118	50PAR38/CAPIR/SP9	120	15	SP	C,CC-8	3000	850 2825	14000	9	5.31
			14124	★④⑤⑥ 43,47,72,88,118,137	50PAR38/CAPIR/SP9	130	15	SP	C,CC-8	3000	850 2825	14000	9	5.31
			@ 120 volts, approximate 44 watts, 650 lumens, 6000 hours.											
			14138	★④⑤⑥ 43,47,72,118	50PAR38/CAPIR/NFL25	120	15	NFL	C,CC-8	3000	850 2825	3000	25	5.31
			14125	★④⑤⑥ 43,47,72,88,118,137	50PAR38/CAPIR/NFL25	130	15	NFL	C,CC-8	3000	850 2825	3000	25	5.31
			@ 120 volts, approximate 44 watts, 650 lumens, 6000 hours.											
60	PAR38	E26 Med Skt	14485	★④⑤⑥ 43,47,72,118	60PAR38/CAPIR/SP9	120	15	SP	C,CC-8	3000	1110 2850	20000	9	5.31
			14716	★④⑤⑥ 43,47,72,85,118,137	60PAR38/CAPIR/SP9	130	15	SP	C,CC-8	3000	1110 2850	20000	9	5.31
			@ 120 volts, approximate 53 watts, 845 lumens, 6000 hours.											
			14360	★④⑤⑥ 43,47,72,118	60PAR38/CAPIR/WSP12	120	15	WSP	C,CC-8	3000	1110 2850	12000	12	5.31
			14442	★④⑤⑥ 43,47,72,118	60PAR38/CAPIR/NFL25	120	15	NFL	C,CC-8	3000	1110 2850	4000	25	5.31
			14466	★④⑤⑥ 43,47,72,118	60PAR38/CAPIR/FL30	120	15	FL	C,CC-8	3000	1110 2850	3600	30	5.31
80	PAR38	E26 Med Skt	14715	★④⑤⑥ 43,47,72,85,118,137	60PAR38/CAPIR/FL30	130	15	FL	C,CC-8	3000	1110 2850	3600	30	5.31
			@ 120 volts, approximate 53 watts, 845 lumens, 6000 hours.											
			14347	★④⑤⑥ 47,72,118	80PAR38/CAPIR/SP10	120	12	SP	C,CC-8	3000	1500 2900	25000	10	5.31
			14327	★④⑤⑥ 47,72,118	80PAR38/CAPIR/FL25	120	12	FL	C,CC-8	3000	1500 2900	5500	25	5.31
100	PAR38	E26 Med Skt	14324	★④⑤⑥ 47,72,118	100PAR38/CAPIR/SP10	120	12	SP	C,CC-8	3000	2070 2900	29000	10	5.31
			14319	★④⑤⑥ 47,72,118	100PAR38/CAPIR/NFL25	120	12	NFL	C,CC-8	3000	2070 2900	6300	25	5.31
			14311	★④⑤⑥ 47,72,118	100PAR38/CAPIR/FL40	120	12	FL	C,CC-8	3000	2070 2900	3400	40	5.31

CAPSYLITE® PAR38

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
45	PAR38	E26 Med Skt	14590	★④⑤⑥ 43,72,118	45PAR38/HAL/SP9	120	15	SP	C,CC-8	2500	560 2825	10000	9	5.31
			15538	★④⑤⑥ 43,72,118	45PAR38/HAL/SP	120	6	SP	C,CC-8	2500	560 2825	10000	9	5.31
			14593	★④⑤⑥ 43,72,118,137,157	45PAR38/HAL/SP9	130	15	SP	C,CC-8	2500	560 2825	10000	9	5.31
			@ 120 volts, approximate 40 watts, 425 lumens, 5000 hours											
			14589	★④⑤⑥ 43,72,118	45PAR38/HAL/WSP12	120	15	WSP	C,CC-8	2500	560 2825	6300	12	5.31
			14592	★④⑤⑥ 43,72,118,137,157	45PAR38/HAL/WSP12	130	15	WSP	C,CC-8	2500	560 2825	6300	12	5.31
@ 120 volts, approximate 40 watts, 425 lumens, 5000 hours														



PAR38

CAPSYLITE® PAR38

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
45	PAR38	E26 Med Skt	14588	★ 43,72,118	45PAR38/HAL/FL30	120	15	FL	C,CC-8	2500	560 2825	1500	30	5.31
			15537	★ 43,72,118	45PAR38/HAL/FL	120	6	FL	C,CC-8	2500	560 2825	1500	30	5.31
			14591	★ 43,72,118,137,157	45PAR38/HAL/FL30	130	15	FL	C,CC-8	2500	560 2825	1500	30	5.31
			@ 120 volts, approximate 40 watts, 425 lumens, 5000 hours											
			14010	★ 43,72,118,137,157	45PAR38/HAL/WFL50	130	15	WFL	C,CC-8	2500	560 2825	700	50	5.31
			@ 120 volts, approximate 40 watts, 425 lumens, 5000 hours											
47	PAR38	E26 Med Skt	15404	★ 43,72,118,137	47PAR38/HAL/DL/SP9	120	15	SP	C,CC-8	6000	570 2750	10000	9	5.31
			15405	★ 43,72,118,137	47PAR38/HAL/DL/FL30	120	15	FL	C,CC-8	6000	570 2750	1500	30	5.31
50	PAR38	E26 Med Skt	15521	★ 43,72,118,137	50PAR38/HAL/SP9	120	6	SP	C,CC-8	2500	650 2850	10500	9	5.31
			15520	★ 43,72,118,137	50PAR38/HAL/FL30	120	6	FL	C,CC-8	2500	650 2850	1850	30	5.31
60	PAR38	E26 Med Skt	14469	★ 43,72,118	60PAR38/HAL/SP9	120	15	SP	C,CC-8	3000	850 2875	16000	9	5.31
			14449	★ 43,72,118,137,171	60PAR38/HAL/SP9	130	15	SP	C,CC-8	3000	850 2875	16000	9	5.31
			@ 120 volts, approximate 53 watts, 645 lumens, 6000 hours											
			14472	★ 118	60PAR38/HAL/NFL25	120	15	NFL	C,CC-8	3000	850 2875	3700	25	5.31
			14468	★ 43,72,118	60PAR38/HAL/FL30	120	15	FL	C,CC-8	3000	850 2875	2500	30	5.31
			14448	★ 43,72,118,137,171	60PAR38/HAL/FL30	130	15	FL	C,CC-8	3000	850 2875	2500	30	5.31
			@ 120 volts, approximate 53 watts, 645 lumens, 6000 hours											
63	PAR38	E26 Med Skt	15421	★ 43,72,118	63PAR38/HAL/DL/SP9	120	15	SP	C,CC-8	6000	800 2800	14000	9	5.31
75	PAR38	E26 Med Skt	14514	★ 43,72,118	75PAR38/HAL/SP9	120	15	SP	C,CC-8	2500	1060 2900	19200	9	5.31
			14854	★ 43,72,118	75PAR38/HAL/SP/RP	120	6	SP	C,CC-8	2500	1060 2900	19200	9	5.31
			14516	★ 43,72,118,137,181	75PAR38/HAL/SP9	130	15	SP	C,CC-8	2500	1060 2900	19200	9	5.31
			@ 120 volts, approximate 66 watts, 805 lumens, 5000 hours											
			14510	★ 43,72,118	75PAR38/HAL/WSP12	120	15	WSP	C,CC-8	2500	1060 2900	12300	12	5.31
			14513	★ 43,72,118	75PAR38/HAL/FL30	120	15	FL	C,CC-8	2500	1060 2900	3150	30	5.31
			14853	★ 43,72,118	75PAR38/HAL/FL/RP	120	6	FL	C,CC-8	2500	1060 2900	3150	30	5.31
			14515	★ 43,72,118,137,181	75PAR38/HAL/FL30	130	15	FL	C,CC-8	2500	1060 2900	3150	30	5.31
			@ 120 volts, approximate 66 watts, 805 lumens, 5000 hours											
			14446	★ 43,72,118,137,181	75PAR38/HAL/FL/CVP	130	6	FL	C,CC-8	2500	1060 2900	3150	30	5.31
			@ 120 volts, approximate 66 watts, 805 lumens, 5000 hours											



PAR38



PAR38 Med Side Prong

CAPSYLITE® PAR38

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
75	PAR38	E26 Med Skt	14517	★ 43,72,118,137,181	75PAR38/HAL/WFL50 @ 120 volts, approximate 66 watts, 805 lumens, 5000 hours	130	15	WFL	C,CC-8	2500	1060 2900	1300	50	5.31
90	PAR38	E26 Med Skt	14586	★ 43,72,118	90PAR38/HAL/SP9	120	15	SP	C,CC-8	2500	1310 2925	19000	9	5.31
			15539	★ 43,72,118	90PAR38/HAL/SP	120	6	SP	C,CC-8	2500	1310 2925	19000	9	5.31
			14587	★ 43,72,118,137,187	90PAR38/HAL/SP9 @ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours	130	15	SP	C,CC-8	2500	1310 2925	19000	9	5.31
			14580	★ 43,72,118	90PAR38/HAL/WSP12	120	15	WSP	C,CC-8	2500	1310 2925	14300	12	5.31
			14578	★ 43,72,118,137,187	90PAR38/HAL/WSP12 @ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours	130	15	WSP	C,CC-8	2500	1310 2925	14300	12	5.31
			14601	★ 43,72,118,137,187	90PAR38/HAL/NFL25 @ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours	130	15	NFL	C,CC-8	2500	1310 2925	4700	25	5.31
			14579	★ 43,72,118	90PAR38/HAL/FL30	120	15	FL	C,CC-8	2500	1310 2925	3500	30	5.31
			15545	★ 43,72,118	90PAR38/HAL/FL	120	6	FL	C,CC-8	2500	1310 2925	3500	30	5.31
			14577	★ 43,72,118,137,187	90PAR38/HAL/FL30 @ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours	130	15	FL	C,CC-8	2500	1310 2925	3500	30	5.31
			14647	★ 43,72,118,137,187	90PAR38/HAL/FL/CVP @ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours	130	6	FL	C,CC-8	2500	1310 2925	3500	30	5.31
			14602	★ 43,72,118,137,187	90PAR38/HAL/WFL50 @ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours	130	15	WFL	C,CC-8	2500	1310 2925	1600	50	5.31
		Med Side Prong	14630	★ 43,72,118	90PAR38/HAL/3WSP12	120	15	WSP	C,CC-8	2500	1310 2925	14300	12	5.31
			14632	★ 43,72,118	90PAR38/HAL/3FL30	120	15	FL	C,CC-8	2500	1310 2925	3500	30	5.31
100	PAR38	E26 Med Skt	15522	★ 43,72,118	100PAR38/HAL/SP9	120	6	SP	C,CC-8	2500	1500 2950	22000	9	5.31
			15585	★ 43,72,118	100PAR38/HAL/FL30	120	6	FL	C,CC-8	2500	1500 2950	4000	30	5.31
106	PAR38	E26 Med Skt	15003	★ 43,72,118	106PAR38/HAL/SP10	120	15	SP	C,CC-8	2000	1800 2975	22500	10	5.31
			15001	★ 43,72,118	106PAR38/HAL/WFL50	120	15	WFL	C,CC-8	2000	1800 2975	2000	50	5.31
120	PAR38	E26 Med Skt	14856	★ 43,72,118	120PAR38/HAL/SP10	120	15	SP	C,CC-8	3000	1800 2950	22500	10	5.31
			14873	★ 43,72,118	120PAR38/HAL/SP	120	6	SP	C,CC-8	3000	1800 2950	22500	10	5.31
			14874	★ 43,72,118,137,197	120PAR38/HAL/SP10 @ 120 volts, approximate 105 watts, 1370 lumens, 6000 hours	130	15	SP	C,CC-8	3000	1800 2950	22500	10	5.31
			14855	★ 43,72,118	120PAR38/HAL/FL30	120	15	FL	C,CC-8	3000	1800 2950	4600	30	5.31



PAR38



PAR56



PAR64

CAPSYLITE® PAR38

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
120	PAR38	E26 Med Skt	14576	★ 43,72,118	120PAR38/HAL/FL	120	6	FL	C,CC-8	3000	1800 2950	4600	30	5.31
			14861	★ 43,72,118,137,197	120PAR38/HAL/FL30	130	15	FL	C,CC-8	3000	1800 2950	4600	30	5.31
			@ 120 volts, approximate 105 watts, 1370 lumens, 6000 hours											
			14594	★ 43,72,118	120PAR38/HAL/WFL50	120	15	WFL	C,CC-8	3000	1800 2950	2000	50	5.31
250	PAR38	E26 Med Skt	15526	★ 43,70,71,72,73,74	250PAR38/HAL/SP10	120	6	SP	C,CC-8	4500	3600 3025	46500	10	5.31
			15558	★ 43,70,71,72,73,74	250PAR38/HAL/FL30	120	6	FL	C,CC-8	4500	3600 3025	9000	30	5.31

CAPSYLITE® COOL LUX

Halogen PAR lamp with dichroic reflector. Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
90	PAR38	E26 Med Skt	14972	★ 72,89,118	90PAR38/HAL/ZSP12	120	15	SP	C,CC-8	2500	1260 2925	12000	12	5.31
			14971	★ 72,89,118	90PAR38/HAL/2FL30	120	15	FL	C,CC-8	2500	1260 2925	3750	30	5.31
			14973	★ 72,89,118,137,187	90PAR38/HAL/2FL30	130	15	FL	C,CC-8	2500	1260 2925	3750	30	5.31

LARGE PAR LAMPS

A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
500	PAR56	Ext Mog End Pr	56210	★ 57,139,188	500PAR56Q/HAL/NSP	120	12	NSP	C,CC-6	4000	8800 2950	78500	8x15	5.00
			56211	★ 57,139,188	500PAR56Q/HAL/MFL	120	12	MFL	C,CC-6	4000	8800 2950	40000	11x30	5.00
			56212	★ 57,139,188	500PAR56Q/HAL/WFL	120	12	WFL	C,CC-6	4000	8800 2950	19500	20x45	5.00
1000	PAR64	Ext Mog End Pr	56206	★ 57,139,188	1000PAR64Q/HAL/NSP	120	6	NSP	C,CC-6	4000	19400 2950	135000	8x20	6.00
			56207	★ 57,139,188	1000PAR64Q/HAL/MFL	120	6	MFL	C,CC-6	4000	19400 2950	82000	10x30	6.00
			56208	★ 57,139,188	1000PAR64Q/HAL/WFL	120	6	WFL	C,CC-6	4000	19400 2950	23000	20x60	6.00



CAPSYLITE® G9 LAMPS

Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
25	T4	G9 Bipin	57020	72,84,145	25T4/G9/CL	120	20	Clear	C,CC-2V	2000	255 2900	0.88	20x60
			57034	72,84,145	25T4/G9/CL/BL	120	10	Clear	C,CC-2V	2000	255 2900	0.88	1.69
			57021	72,84,145	25T4/G9/F	120	20	Frosted	C,CC-2V	2000	230 2900	0.88	1.69
40	T4	G9 Bipin	57022	72,84,145	40T4/G9/CL	120	20	Clear	C,CC-2V	2000	510 2900	0.88	1.69
			57033	72,84,145	40T4G9/CL/BL	120	10	Clear	C,CC-2V	2000	510 2900	0.88	1.69
			57025	72,84,145	40T4/G9/F	120	20	Frosted	C,CC-2V	2000	480 2900	0.88	1.69
			57017	72,84,145	40T4/G9/F/BL	120	10	Frosted	C,CC-2V	2000	480 2900	0.88	1.69
60	T4	G9 Bipin	57023	72,84,145	60T4/G9/CL	120	20	Clear	C,CC-2V	2000	830 2900	1.06	2.00
			57035	72,84,145	60T4G9/CL/BL	120	10	Clear	C,CC-2V	2000	830 2900	1.06	2.00
			57024	72,84,145	60T4/G9/F	120	20	Frosted	C,CC-2V	2000	790 2900	1.06	2.00

SUPERQ SINGLE END HALOGEN LAMPS

A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
75	T3	Min Can	58884	123,139	75Q/CL/MC/RP	120	6	Clear	C,CC-8	2000	1400 2950	1.19	2.56
100	T4	DC Bayonet	58755	123,139	100Q/CL/DC(ESR)	120	12	Clear	C,CC-2V	1000	1900 2950	1.38	2.44
			18845	123,139	100Q/CL/DC/64475	120	12	Clear	C,CC-2V	2000	1600 2950	2.19	3.38
			58732	123,139	100Q/CL/DC	130	12	Clear	C,CC-2V	1000	1900 2950	1.38	2.44
			58757	123,139	100Q/DC(ETD)	120	12	Frosted	C,CC-2V	1000	1750 2950	1.38	2.44
	T4	Min Can	58761	123,139	100Q/CL/MC(ESN)	120	12	Clear	C,CC-2V	1000	1800 2950	1.38	2.75
			58817	123,139	100Q/CL/MC/RP(ESN)	120	6	Clear	C,CC-8	1000	1800 2950	1.38	2.56
			58760	123,139	100Q/CL/MC	130	12	Clear	C,CC-2V	1000	1800 2950	1.38	2.75
150	T4	DC Bayonet	58741	123,139	150Q/CL/DC(ETC)	120	12	Clear	C,CC-8	2000	2800 2950	1.50	2.75
			58742	123,139	150Q/CL/DC/1(ESP)	120	12	Clear	C,CC-2V	1000	2400 2950	1.38	2.44
			58748	123,139	150Q/CL/DC	130	12	Clear	C,CC-2V	1000	2800 2950	1.38	2.75
			58737	123,139	150Q/DC(ETF)	120	12	Frosted	C,CC-8	2000	2700 2950	1.50	2.75



T3

SUPERQ SINGLE END HALOGEN LAMPS

A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
150	T4	Min Can	58738	123,139	150Q/CL/MC(ESL)	120	12	Clear	C,CC-2V	1000	2800 2950	1.38	2.75
			58735	123,139	150Q/CL/MC/2(ETG)	120	12	Clear	C,CC-8	2000	2800 2950	1.50	3.00
			58733	123,139	150Q/CL/MC	130	12	Clear	C,CC-2V	1000	2800 2950	1.38	2.75
			58736	123,139	150Q/MC(ETH)	120	12	Frosted	C,CC-8	2000	2700 2950	1.50	3.00
250	T4	DC Bayonet	58720	123,139	250Q/CL/DC(ESS)	120	12	Clear	C,CC-8	2000	5000 2950	1.63	3.13
			58753	123,139	250Q/DC(ETB)	120	12	Frosted	C,CC-8	2000	4850 2950	1.63	3.13
			58754	123,139	250Q/DC	130	12	Frosted	C,CC-8	2000	4850 2950	1.63	3.13
		Min Can	58762	123,139	250Q/CL/MC(EHT)	120	12	Clear	C,CC-8	2000	5000 2950	1.63	3.13
			58764	123,139	250Q/CL/MC	130	12	Clear	C,CC-8	2000	5000 2950	1.63	3.13
			58763	123,139	250Q/MC(ESM)	120	12	Frosted	C,CC-8	2000	4850 2950	1.63	3.13
			58765	123,139	250Q/MC	130	12	Frosted	C,CC-8	2000	4850 2950	1.63	3.13
500	T4	Min Can	58766	123,139	500Q/CL/MC(EVR)	120	12	Clear	C,CC-8	2000	10450 2950	2.00	3.75
			58756	123,139	500Q/CL/MC(EYW)	130	12	Clear	C,CC-8	2000	10000 2950	2.00	3.75
			58767	123,139	500Q/MC(EYX)	120	12	Frosted	C,CC-8	2000	10100 2950	2.00	3.75
			58768	123,139	500Q/MC(EYV)	130	12	Frosted	C,CC-8	2000	10000 2950	2.00	3.75

DOUBLE END QUARTZ LAMPS

A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
100	T3	RSC	58999	123,139	100T3Q/S/CL	120	20	Clear	C,C-8	2000	1600 2950		3.13
			58887	123,139	100T3Q/S/CL/RP	120	6	Clear	C,C-8	2000	1600 2950		3.13
150	T3	RSC	59001	123,139	150T3Q/S/CL	120	20	Clear	C,C-8	2000	2400 2950		3.13
			58886	123,139	150T3Q/S/CL/RP	120	6	Clear	C,C-8	2000	2400 2950		3.13
			58885	123,139	150T3Q/CL/RP	120	6	Clear	C,C-8	1500	2250 2950		4.69
200	T3	RSC	59003	123,139	200T3Q/CL	120	20	Clear	C,C-8	2000	3350 2950		4.69
300	T3	RSC	58998	123,139	300T3Q/CL(EHM)	120	20	Clear	C,C-8	2000	6000 2950		4.69



T3



T3



BT4



BT4

DOUBLE END QUARTZ LAMPS

A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
300	T3	RSC	58920	123,139	300T3Q/CL/EP(EHM)	120	6	Clear	C,C-8	2000	6000 2950		4.69
			59000	123,139	300T3Q/CL	130	20	Clear	C,C-8	2000	6000 2950		4.69
500	T3	RSC	58996	123,139	500T3Q/CL(FCL)	120	20	Clear	C,C-8	2000	8750 2950		4.69
			58865	123,139	500T3Q/CL/EP(FCL)	120	6	Clear	C,C-8	2000	8750 2950		4.69
			58997	123,139	500T3Q/CL	130	20	Clear	C,C-8	2000	8750 2950		4.69
1000	T3	RSC	58948	123,139	1000T3Q/CL	240	12	Clear	C,C-8	2000	21500 2950		10.06
1500	T3	RSC	58859	123,139	1500T3Q/CL	208	12	Clear	C,C-8	2000	33000 2950		10.06
			58857	123,139	1500T3Q/CL	240	12	Clear	C,C-8	2000	33000 2950		10.06
			58858	123,139	1500T3Q/CL	277	12	Clear	C,C-8	2000	33000 2950		10.06

OSRAM MINISTAR LAMPS

Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
10	T3	G4 Bipin	58520	72,84,123,145	10T3Q/MINISTAR/S	12	40	FL	C,C-8	2000	3000	80	35 x 60	1.31
20	T3	G4 Bipin	58521	72,84,123,145	20T3Q/MINISTAR/S	12	40	FL	C,C-8	2000	3000	120	35 x 60	1.31
	BT4	GY6.35 Bipin	58518	72,84,123,145	20BT4Q/MINISTAR/AX	12	40	FL	C,C-8	2000	3000	800	20	1.75
35	BT4	GY6.35 Bipin	58519	72,84,123,145	35BT4Q/MINISTAR/AX	12	40	FL	C,C-8	2000	3000	1000	30	1.75

BI-PIN IR LAMPS

UV Filter capsule with axial filament and infrared reflective coating. Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
25	BT4	GY6.35 Bipin	58897	145	25BT4Q/IR	12	40	Clear	C,AXIAL	4000	450 3000	1.13	1.75
35	BT4	GY6.35 Bipin	58896	145	35BT4Q/IR	12	40	Clear	C,AXIAL	4000	800 3000	1.13	1.75

STARLITE BI-PIN LAMPS

Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
10	T3	G4 Bipin	58692	 142,145	10T3Q/CL/AX	6	40	Clear	C,AXIAL	4000	130 3000	0.88	1.25
			58691	 142,145	10T3Q/CL/AX	12	40	Clear	C,AXIAL	4000	130 3000	0.88	1.25
20	T3	G4 Bipin	58694	 142,145	20T3Q/CL/AX	12	40	Clear	C,AXIAL	4000	320 3000	0.88	1.25
	T4	GY6.35 Bipin	58663	 142,145	20T4Q/CL/AX	12	40	Clear	C,AXIAL	4000	320 3000	1.13	1.75
35	T4	GY6.35 Bipin	58672	 142,145	35T4Q/CL/AX	12	40	Clear	C,AXIAL	4000	600 3000	1.13	1.75
50	T4	GY6.35 Bipin	58676	 142,145	50T4Q/CL/AX	12	40	Clear	C,AXIAL	4000	910 3000	1.13	1.75
75	T4	GY6.35 Bipin	58680	 142,145	75T4Q/CL/AX	12	40	Clear	C,AXIAL	4000	1450 3000	1.13	1.75
90	T4	GY6.35 Bipin	58684	 142,145	90T4Q/CL/AX	12	40	Clear	C,AXIAL	4000	1800 3000	1.13	1.75

STANDARD BI-PIN LAMPS

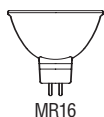
Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
5	T3	G4 Bipin	58652	 123,140,145	5T3Q/CL	12	40	Clear	C,TR	2000	60 3000	0.88	1.25
			58651	 123,141,145	5T3Q/F	12	40	Frosted	C,TR	2000	55 3000	0.88	1.25
10	T3	G4 Bipin	58658	 123,140,145	10T3Q/CL	12	40	Clear	C,TR	2000	140 3000	0.88	1.25
			58650	 123,140	10T3Q/CL/FP	12	6	Clear	C,TR	2000	140 3000	0.88	1.25
			58656	 123,141,145	10T3Q/F	12	40	Frosted	C,TR	2000	130 3000	0.88	1.25
20	T3	G4 Bipin	58661	 123,140,145	20T3Q/CL	12	40	Clear	C,TR	2000	320 3000	0.88	1.25
			58655	 123,140	20T3Q/CL/FP	12	6	Clear	C,TR	2000	320 3000	0.88	1.25
50	T4	GY6.35 Bipin	58675	 123,140	50T4Q/CL	12	40	Clear	C,TR	2000	910 3000	1.13	1.75
			58660	 123,140	50T4Q/CL/FP	12	6	Clear	C,TR	2000	910 3000	1.13	1.75

24V BI-PIN LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Lamp Finish	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	LCL (in)	MOL (in)
20	T3	G4 Bipin	58662	 117,143	20T3Q/CL	24	40	Clear	C,AXIAL	1000	320 3000	0.88	1.25
50	T4	GY6.35 Bipin	58678	 117,143	50T4Q/CL/AX	24	40	Clear	C,AXIAL	2000	850 3000	1.13	1.75



MR16

TRU-AIM IR® MR16 LAMPS

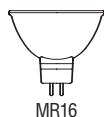
UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector and infrared reflective coating on the lamp capsule.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
20	MR16	GU5.3 Bipin	58531	47,62,66, 91,93	20MR16/IR/SP10/C	12	20	SP	C,AXIAL	5000	3000	6000	10	1.75
			58532	47,62,66, 91,93	20MR16/IR/NFL25/C	12	20	NFL	C,AXIAL	5000	3000	2300	25	1.75
			58533	47,62,66, 91,93	20MR16/IR/FL35/C	12	20	FL	C,AXIAL	5000	3000	1000	35	1.75
			58838	47,62,66, 91,93	20MR16/IR/WFL60/C	12	20	WFL	C, AXIAL	5000	3000	450	60	1.75
37	MR16	GU5.3 Bipin	58641	37,47,62, 92,93	37MR16/IR/SP10/C	12	20	SP	C, AXIAL	5000	3000	12500	10	1.75
			58634	37,47,62, 92,93	37MR16/IR/NFL25/C	12	20	NFL	C, AXIAL	5000	3000	4400	25	1.75
			58633	37,47,62, 92,93	37MR16/IR/FL35/C	12	20	FL	C, AXIAL	5000	3000	2200	35	1.75
			58837	47,62,66, 92,93	37MR16/IR/WFL60/C	12	20	WFL	C, AXIAL	5000	3000	1100	60	1.75
50	MR16	GU5.3 Bipin	54175	37,47,62, 92,93	50MR16/IR/SP10/C	12	20	SP	C, AXIAL	5000	3000	15000	10	1.75
			54174	37,47,62, 92,93	50MR16/IR/NFL25/C	12	20	NFL	C, AXIAL	5000	3000	5700	25	1.75
			54173	37,47,62, 92,93	50MR16/IR/FL35/C	12	20	FL	C, AXIAL	5000	3000	2850	35	1.75
			54237	47,62,66, 92,93	50MR16/IR/WFL60/C	12	20	WFL	C, AXIAL	5000	3000	1430	60	1.75

TRU-AIM TITAN® MR16 LAMPS

UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
20	MR16	GU5.3 Bipin	58300	62,65,91, 145	20MR16/T/SP10/C(ESX)	12	20	SP	C, AXIAL	4000	3000	5000	10	1.75
			58301	62,65,91, 93,145	20MR16/T/FL35/C(BAB)	12	20	FL	C, AXIAL	4000	3000	780	35	1.75
			58302	62,65,91, 93,145	20MR16/T/WFL60/C	12	20	WFL	C, AXIAL	4000	3000	350	60	1.75
35	MR16	GU5.3 Bipin	58303	62,65,91, 93,145	35MR16/T/SP10/C(FRB)	12	20	SP	C, AXIAL	4000	3000	9100	10	1.75
			58304	62,65,91, 93,145	35MR16/T/NFL25/C	12	20	NFL	C, AXIAL	4000	3000	3100	25	1.75
			58305	62,65,91, 93,145	35MR16/T/FL35/C(FMW)	12	20	FL	C, AXIAL	4000	3000	1500	35	1.75
			58306	62,65,91, 93,145	35MR16/T/WFL60/C	12	20	WFL	C, AXIAL	4000	3000	700	60	1.75
50	MR16	GU5.3 Bipin	58307	62,65,91, 93,145	50MR16/T/SP10/C(EXT)	12	20	SP	C, AXIAL	4000	3000	11500	10	1.75
			58308	62,65,91, 93,145	50MR16/T/NFL25/C(EXZ)	12	20	NFL	C, AXIAL	4000	3000	4400	25	1.75
			58309	62,65,91, 93,145	50MR16/T/FL35/C(EXN)	12	20	FL	C, AXIAL	4000	3000	2200	35	1.75



MR16

TRU-AIM TITAN® MR16 LAMPS

UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	MR16	GU5.3 Bipin	58310	62,65,91, 93,145	50MR16/T/WFL60/C(FNV)	12	20	WFL	C, AXIAL	4000	3000	1100	60	1.75
			58500	62,65,91, 93,145	50MR16/T/DAY/NFL25/C	12	10	NFL	C, AXIAL	4000	3050	2650	25	1.75
65	MR16	GU5.3 Bipin	58311	62,65,92, 93	65MR16/T/SP10/C(FPA)	12	20	SP	C, AXIAL	4000	3000	13300	10	1.75
			58312	62,65,92, 93	65MR16/T/NFL25/C(FPC)	12	20	NFL	C, AXIAL	4000	3000	3800	25	1.75
			58313	62,65,92, 93	65MR16/T/FL35/C(FPB)	12	20	FL	C, AXIAL	4000	3000	2000	35	1.75

TRU-AIM BRILLIANT® MR16 LAMPS

UV Filter capsule with axial filament in constant color, aluminized reflector.

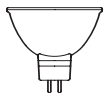
A suitable protective shield, screening technique or both shall be used to protect people and surroundings from the possibility of a lamp shattering.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
20	MR16	GU5.3 Bipin	58314	33,62,91, 117	20MR16/B/SP10	12	20	SP	C, AXIAL	4000	3000	5000	10	1.75
			58315	33,62,91, 117	20MR16/B/FL35	12	20	FL	C, AXIAL	4000	3000	780	35	1.75
35	MR16	GU5.3 Bipin	58316	33,62,92, 117	35MR16/B/SP10	12	20	SP	C, AXIAL	4000	3000	9100	10	1.75
			58317	33,62,92, 117	35MR16/B/FL35	12	20	FL	C, AXIAL	4000	3000	1500	35	1.75
50	MR16	GU5.3 Bipin	58319	33,62,92, 117	50MR16/B/SP10	12	20	SP	C, AXIAL	4000	3000	12500	10	1.75
			58320	33,62,92, 117	50MR16/B/NFL25	12	20	NFL	C, AXIAL	4000	3000	4400	25	1.75
			58321	33,62,92, 117	50MR16/B/FL35	12	20	FL	C, AXIAL	4000	3000	2200	35	1.75

TRU-AIM® MR16 LAMPS

UV Filter capsule with axial filament in covered dichroic reflector.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
20	MR16	GU5.3 Bipin	54305	45,62,91, 93,145	20MR16/SP10/C(ESX)	12	20	SP	C, AXIAL	2000	3000	3000	10	1.75
			54306	45,62,91, 93,145	20MR16/FL35/C(BAB)	12	20	FL	C, AXIAL	2000	3000	510	35	1.75
35	MR16	GU5.3 Bipin	54307	45,62,92, 93,145	35MR16/SP10/C(FRB)	12	20	SP	C, AXIAL	2000	3000	6000	10	1.75
			58322	45,62,92, 93,145	35MR16/NFL25/C	12	20	NFL	C, AXIAL	2000	3000	2000	25	1.75
			58324	45,62,92, 93,145	35MR16/FL35/C(FMW)	12	20	FL	C, AXIAL	2000	3000	1000	35	1.75
50	MR16	GU5.3 Bipin	58325	45,62,92, 93,145	50MR16/SP10/C(EXT)	12	20	SP	C, AXIAL	2000	3000	7800	10	1.75



MR16, MR11, MR16 SIG 64005



PAR36

TRU-AIM® MR16 LAMPS

UV Filter capsule with axial filament in covered dichroic reflector.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	MR16	GU5.3 Bipin	58326	45,62,92,93,145	50MR16/NFL25/C(EXZ)	12	20	NFL	C, AXIAL	2000	3000	2800	25	1.75
			58327	45,62,92,93,145	50MR16/FL35/C(EXN)	12	20	FL	C, AXIAL	2000	3000	1450	35	1.75
			58328	45,62,92,93,145	50MR16/WFL60/C(FNV)	12	20	WFL	C, AXIAL	2000	3000	690	60	1.75

TRU-AIM® MR11 LAMPS

UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
20	MR11	GU4 Bipin	55133	62,65,92,93	20MR11/T/SP10/C(FTB)	12	10	SP	C, AXIAL	4000	3000	4000	10	1.50
			55134	62,65,92,93	20MR11/T/FL35/C(FTD)	12	10	FL	C, AXIAL	4000	3000	700	35	1.50
35	MR11	GU4 Bipin	55135	62,65,92,93	35MR11/T/SP10/C(FTE)	12	10	SP	C, AXIAL	4000	3000	6200	10	1.50
			55136	62,65,92,93	35MR11/T/FL35/C(FTH)	12	10	FL	C, AXIAL	4000	3000	1350	35	1.50

SIRIUS MR16 LAMPS

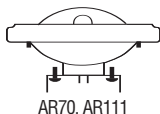
For traffic signal and other fiber optic applications.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
50	MR16 SIG 64005	K23D	58701	32,117	50SIRIUS/SIG64005	10	10		C, AXIAL	6000	220 3000			1.88

CAPSYLITE® PAR36 LAMPS

Suitable for use in unshielded fixtures.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
36	PAR36	Screw Term	55100	★ 73	36PAR36/HAL/VNSP5	12	12	VNSP	C, C-8	4000	500 3000	17000	5	2.75
			55090	★ 73	36PAR36/HAL/NSP13	12	12	NSP	C, C-8	4000	500 3000	3500	13	2.75
			55091	★ 73	36PAR36/HAL/WFL32	12	12	WFL	C, C-8	4000	500 3000	1000	30	2.75
50	PAR36	Screw Term	55118	★ 73	50PAR36/HAL/NSP6	12	12	NSP	C, C-8	4000	700 3000	25000	6	2.75
			55017	★ 73	50PAR36/HAL/WFL30	12	12	WFL	C, C-8	4000	700 3000	1400	30	2.75



AR70, AR111

AR70 ALUMINUM REFLECTOR LAMPS

UV Filter capsule with axial filament in precisely engineered aluminum reflector.

Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
20	AR70	DC Bayonet	59013	 38,145	20AR70/SP8	12	10	SP	C, C-8	3000	3000	7700	8	1.94
			59012	 38,145	20AR70/FL25	12	10	FL	C, C-8	3000	3000	900	25	1.94
50	AR70	DC Bayonet	59017	 38,145	50AR70/SP8	12	10	SP	C, C-8	3000	3000	12500	8	1.94
			59016	 38,145	50AR70/FL25	12	10	FL	C, C-8	3000	3000	2600	25	1.94

AR111 ALUMINUM REFLECTOR LAMPS

UV Filter capsule with axial filament in precisely engineered aluminum reflector.

Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.

Watts	Bulb	Base	Product Number	Symbols & Footnotes	Ordering Abbreviation	Volts	Pkg Qty	Beam Type	Class & Filament	Avg Rated Life(hrs)	Lumens CCT	CBCP	Beam Angle	MOL (in)
35	AR111	Push Screw Term	55101	 38,145	35AR111/SSP4	6	6	SSP	C, C-8	3000	3000	30000	4	2.38
			55102	 38,145	35AR111/SSP4	12	6	SSP	C, C-8	3000	3000	40000	4	2.38
			55110	 38,145	35AR111/SP8	12	6	SP	C, C-8	3000	3000	14000	8	2.25
			55114	 38,145	35AR111/FL25	12	6	FL	C, C-8	3000	3000	2500	25	2.31
50	AR111	Push Screw Term	55105	 38,145	50AR111/SSP4	12	6	SSP	C, C-8	3000	3000	45000	4	2.38
			55104	 38,145	50AR111/SP8	12	6	SP	C, C-8	3000	3000	20000	8	2.25
			55103	 38,145	50AR111/FL25	12	6	FL	C, C-8	3000	3000	4000	25	2.31
75	AR111	Push Screw Term	55125	 38,145	75AR111/SP8	12	6	SP	C, C-8	3000	3000	30000	8	2.25
			55123	 38,145	75AR111/FL25	12	6	FL	C, C-8	3000	3000	5300	25	2.31
			55124	 38,145	75AR111/WFL45	12	6	WFL	C, C-8	3000	3000	2000	45	2.19
100	AR111	Push Screw Term	55129	 38,145	100AR111/SP8	12	6	SP	C, C-8	3000	3000	48000	8	2.25
			55127	 38,145	100AR111/FL25	12	6	FL	C, C-8	3000	3000	8500	25	2.31
			55128	 38,145	100AR111/WFL45	12	6	WFL	C, C-8	3000	3000	2800	45	2.19

SYMBOLS & FOOTNOTES FOR TUNGSTEN HALOGEN LAMPS

Symbol	Description
	New item introduced within the past year.
	Item will be discontinued when inventory is depleted.
	Indicates aluminum base.
	Do not operate in household sockets.
	Operate base down.
	Operate base down to horizontal.
	Heat resistant, hard glass.
	PAR lamps are suitable for indoor and outdoor use.
	Do not operate in paper lined sockets.
	This lamp or ballast meets minimum Federal efficiency standards.
	This ECOLOGIC® lamp was designed to pass the Federal TCLP criteria for classification as non-hazardous waste in most states. Disposal regulations may vary; check local and state regulations.

Footnote	Description
1	Indefinite long life. Designed for life in excess of 10,000 hours. In -service life depends upon burning conditions.
2	Should not be used in equipment where base temperature will exceed 500 F.
3	@ 120 volts, approximate 119 watts, 1560 lumens, 6250 hours
4	@ 120 volts, approximate 119 watts, 1870 lumens, 1875 hours
5	@ 120 volts, approximate 132 watts, 1420 lumens, 6250 hours
6	@ 120 volts, approximate 132 watts, 1580 lumens, 2500 hours
7	@ 120 volts, approximate 132 watts, 1590 lumens, 2500 hours
8	@ 120 volts, approximate 132 watts, 1660 lumens, 1875 hours
9	@ 120 volts, approximate 132 watts, 1770 lumens, 1875 hours
10	@ 120 volts, approximate 132 watts, 1690 lumens, 6250 hours
11	@ 120 volts, approximate 132 watts, 1880 lumens, 1875 hours
12	@ 120 volts, approximate 132 watts, 2030 lumens, 1875 hours
13	High temperature base. Designed to operate in equipment where base temperature run between 500F - 570F.
14	@ 120 volts, approximate 176 watts, 2190 lumens, 6250 hours
15	@ 120 volts, approximate 176 watts, 2220 lumens, 2500 hours
16	@ 120 volts, approximate 176 watts, 2350 lumens, 2500 hours
17	@ 120 volts, approximate 176 watts, 2360 lumens, 6250 hours
18	@ 120 volts, approximate 176 watts, 2710 lumens, 1875 hours
19	@ 120 volts, approximate 176 watts, 2740 lumens, 1875 hours
20	@ 120 volts, approximate 176 watts, 2820 lumens, 1875 hours
21	@ 120 volts, approximate 176 watts, 2860 lumens, 1875 hours
22	@ 120 volts, approximate 176 watts, 2220 lumens, 6750 hours
23	@ 120 volts, approximate 188 watts, 3190 lumens, 1125 hours
24	Designed for service other than illumination.
25	@ 120 volts, approximate 220 watts, 2360 lumens, 10000 hours
26	@ 120 volts, approximate 264 watts, 2310 lumens, 5000 hours
27	@ 120 volts, approximate 264 watts, 3800 lumens, 6250 hours

SYMBOLS & FOOTNOTES FOR TUNGSTEN HALOGEN LAMPS

Footnote	Description
28	@ 120 volts, approximate 264 watts, 3850 lumens, 6250 hours
29	@ 120 volts, approximate 264 watts, 4390 lumens, 1875 hours
30	@ 120 volts, approximate 264 watts, 4305 lumens, 1875 hours
31	Additional product information can be found in the SYLVANIA Automotive, Miniature and Sealed Beam Lamp Catalog Form 208.
32	UV Filter capsule with axial filament in dichroic reflector.
33	UV Filter capsule with axial filament in aluminized reflector.
34	UV Filter capsule with axial filament in covered aluminized reflector .
35	2 3/4" circular window.
36	UV Filter capsule with axial filament in constant color, hard coated dichroic reflector.
37	UV Filter capsule with axial filament in constant color, hard coated Dichroic reflector and infrared reflective coating on the lamp capsule.
38	UV Filter capsule with axial filament in precisely engineered aluminum m reflector.
39	Suitable for indoor and outdoor use;
40	For indoor use only; suitable for outdoor use only if not directly exposed to weather
41	For indoor use only;
42	UV control capsule with transverse constant color filament in hard dichroic
43	State of the Art SPL Optics
44	Inner capsule with Infrared conserving coating and hard glass lens
45	UV Filter capsule with axial filament in covered dichroic reflector.
46	Operate only in porcelain sockets.
47	Infrared lamp technology
48	Caution: Operates under pressure and may shutter. Use appropriate techniques to protect people and surroundings. Do not operate in close proximity to persons, combustible materials, or substances affected by heat or drying. Do not operate over 110% rated voltage because such operation increases pressure and lamps' tendency to shatter. Ultraviolet output may cause skin and eye irritation with prolonged exposure. Protect bulb from abrasions and scratches. Do not insert lamps when power is on. Follow operation
49	ECE Approved
50	Lamp Life B3 @ 13.2 volts.
51	Universal lamp housings for T2 slide based pilot lamps.
52	Socket dimensions front to panel to end of terminals.
53	UL File No. E31557(M) CSA File No.LR20904
54	Universal lamp housings for T2.5 and T3.25 miniature bayonet based lamps.
55	UL File No. E31557(M) CSA File No.LR20904
56	MIL-Std. 18236 B-MIL Std. 202B
57	Should be shielded against moisture falling on bulb.
58	Material : Black Phenolic
59	There are two distinctively different lamps with this part number. When ordering T-1 3/4 , #7327, please also specify category and base type. S-11. #7327 discontinued.
60	MOL = Excluding pins.
61	Material : Plastic
62	Max. seal temperature 350 C (662F)
63	Max. bulb temperature 1000 C (1832F)
64	Min. bulb temperature 250 C (482F)
65	UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector.
66	UV Filter capsule with axial filament in covered constant color, hard coated dichroic reflector and infrared reflective coating on the lamp capsule.
67	UV Filter capsule with transverse filament in constant color, hard coated dichroic reflector .
68	Not recommended for use in enclosed close-fitting housings.
69	For Indoor Use only.
70	Because this bulb radiates considerable heat, do not use in enclosed, close fitting fixtures, or in close proximity to people, combustible materials, or substances adversely affected by heat or drying.

SYMBOLS & FOOTNOTES FOR TUNGSTEN HALOGEN LAMPS

Footnote	Description
71	Even though this bulb may continue to light after the lens or reflector is cracked or broken, it should be replaced as soon as possible since the pressure filled inner capsule could unexpectedly shatter, creating a risk of personal injury or property damage. In addition, the inner capsule produces ultraviolet radiation that can cause injury to the eyes and skin with prolonged exposure without the blocking effect of the outer glass bulb.
72	To avoid electric shock and/or skin burns, turn off power and allow bulb to cool before handling or attempting replacement.
73	For indoor or outdoor use where not directly exposed to weather. Exposure to weather may damage the bulb.
74	Use only with ceramic/porcelain sockets and in fixtures rated for this bulb type, including voltage and wattage.
75	Screw bulb firmly but not forcibly into socket to obtain good electrical contact and to avoid damaging bulb and/or socket. Socket condition may affect bulb life. Replace socket if deterioration of socket or bulb contacts is observed.
76	Due to change from high pressure capsule to low pressure capsule, dimensions have been changed: LCL from 19.5 to 22mm and bulb diameter from 9 to 9.5mm.
77	@ 120 volts, approximate 26 watts, 150 lumens, 5000 hours.
78	Recommended operating position any within 60 degrees of vertically base up or base down.
79	@ 120 volts, approximate 28 watts, 200 lumens, 7500 hours.
80	@ 120 volts, approximate 53 watts, 340 lumens, 12500 hours.
81	@ 120 volts, approximate 66 watts, 500 lumens, 12500 hours.
82	@ 120 volts, approximate 88 watts, 765 lumens, 12500 hours.
83	@ 120 volts, approximate 88 watts, 1020 lumens, 2500 hours.
84	UV Filter Quartz
85	@ 120 volts, approximate 53 watts, 845 lumens, 6000 hours.
86	Operate only in heat resistant sockets
87	@ 120 volts, approximate 44 watts, 690 lumens, 6000 hours.
88	@ 120 volts, approximate 44 watts, 850 lumens, 6000 hours.
89	For use only in fixtures designed specifically for dichroic Reflector Lamps.
90	@ 120 volts, approximate 53 watts, 660 lumens, 6000 hours.
91	Max pin temperature 220 C.
92	Max pin temperature 250 C.
93	Max temperature at lens reflector joint 240 C.
94	Not for use in ceiling fan fixtures
95	For use where seal temperature does not exceed 662F.
96	Per Title 20 Section 1605.3(m) of the California Code of Regulations, this lamp may not be sold or offered for sale in the state of California for use in Traffic Signals.
97	Board Size MFX Base 1.6mm (0.062") Inside of Board
98	OSRAM Miniwatt lamps for printed circuit boards (the MF series) are designed to work on both inside and outside contact boards and various thickness boards. In order to assure proper electrical contact, be sure to check the thickness of the board and the location of the electrical contacts.
99	@ 120 volts, approximate 33 watts, 270 lumens, 3750 hours.
100	Operate within 25 degrees of vertical base up.
101	@ 120 volts, approximate 53 watts, 490 lumens, 2500 hours.
102	@ 120 volts, approximate 66 watts, 650 lumens, 1875 hours.
103	@ 120 volts, approximate 88 watts, 970 lumens, 1875 hours.
104	@ 120 volts, approximate 46 watts, 560 lumens, 2500 hours.
105	@ 120 volts, approximate 40 watts, 220 lumens, 5000 hours.
106	@ 120 volts, approximate 57 watts, 410 lumens, 5000 hours.
107	Lamps manufactured on or after January 1, 2007 are not for sale in Washington or Oregon.
108	Per Title 20 Section 1605.3(k) of the California Code of Regulations, this lamp may not be sold or offered for sale in the state of California.
109	Lamp may not be operated on a dimmer or DC current
110	Complies with part 15 of FCC rules.
111	Average laboratory life is 200 hours for vacuum cleaner and 600 hours for sewing machine services.
112	Life dependent on service conditions.
113	Operating position 45 degrees base down to horizontal.

SYMBOLS & FOOTNOTES FOR TUNGSTEN HALOGEN LAMPS

Footnote	Description
114	Use only in fixtures designed to adequately dissipate heat from lamp.
115	3" Circular window.
116	Operation of lamp in any position other than base up may result in some loss of protective coating.
117	A protective shield must be used external to the lamp.
118	In base up operation, heat may eventually deteriorate paper-lined or plastic sockets.
119	Operate only in porcelain or other socket approved for 150 watt PAR lamp.
120	Metal sleeve with approximately 6" flexible non-insulated leads. Leads not included in maximum overall length (M.O.L.).
121	High temperature base. Retards seal deterioration where seal temperature exceeds 650F.
122	Lightly inside frosted and side aluminized; M.O.L. exclusive of spring contact.
123	For use where seal temperature does not exceed 650F.
124	Life at rated voltage and at 650F maximum seal temperature.
125	Usually limited to intermittent burning.
126	Maximum bulb wall temperature 480F.
127	Lamp internally fused.
128	2 1/2" braided lead with lug.
129	Nickel sleeve with 11/4" - 11/2" flexible leads with lug. Leads not included in maximum overall length (M.O.L.)
130	Minimum run. Check nearest OSRAM SYLVANIA Sales Office for details.
131	This lamp should not be used in a location where water may be splashed on it.
132	Package quantity may change. See your OSRAM SYLVANIA Lighting Representative for details.
133	For diesel electric locomotives without voltage regulators.
134	Retrofit for 65BR30/FL, or 75R30/FL.
135	Available in bulk pack.
136	Incandescent lamps operated at less than rated voltage provide a lower light output, longer life, lower color temperature and are less efficient in terms of lumens per watt.
137	Approximate life for 130 volt tungsten halogen lamps operated at 120 volts is within the value calculated using the recommended equations for standard incandescent lamps, as set forth in the IES Handbook, 8th edition. Because of the uncertain nature of the halogen cycle on the coil when operated at less than rated voltage, life of tungsten halogen lamps varies considerably and unpredictably. OSRAM SYLVANIA does not recommend operation at other than rated voltage.
138	Nominal wattage - actual may be slightly higher to achieve required light output.
139	A suitable protective shield, screening technique, or both must be used to protect people and surroundings from the possibility of a lamp shattering and from possible ultraviolet radiation.
140	Standard Clear - UV Filter Quartz
141	Standard Frosted - UV Filter Quartz
142	Starlite Low Pressure - UV Filter Quartz
143	Standard Clear - 24V - UV Filter Quartz - Not suitable for use in open fixtures.
144	Maximum contact to contact tolerance on RSC Base = 1/16"
145	Suitable for use in unshielded fixtures. Consult most recent luminaire standards for your area to determine luminaire requirements.
146	@120 volts, approximate 22 watts, 130 lumens, 6250 hours
147	@ 120 volts, approximate 26 watts, 100 lumens, 5000 hours
148	@ 120 volts, approximate 28/66/94 watts, 255/800/1060 lumens, 1800 hours
149	@ 120 volts, approximate 30 watts, 240 lumens, 6250 hours
150	@ 120 volts, approximate 30 watts, 290 lumens, 3750 hours
151	@ 120 volts, approximate 31 watts, 275 lumens, 5000 hours
152	@ 120 volts, approximate 35 watts, 320 lumens, 6250 hours
153	@ 120 volts, approximate 35 watts, 350 lumens, 3750 hours
154	@ 120 volts, approximate 37 watts, 450 lumens, 7000 hours
155	May not give satisfactory performance if any accessory lighting equipment touches the glass bulb.
156	@ 120 volts, approximate 38 watts, 380 lumens, 2250 hours

SYMBOLS & FOOTNOTES FOR TUNGSTEN HALOGEN LAMPS

Footnote	Description
157	@ 120 volts, approximate 40 watts, 425 lumens, 5000 hours
158	@ 120 volts, approximate 44 watts, 250 lumens, 5000 hours
159	@ 120 volts, approximate 44 watts, 240 lumens, 5000 hours
160	@ 120 volts, approximate 44 watts, 400 lumens, 2500 hours
161	@ 120 volts, approximate 44 watts, 420 lumens, 5000 hours
162	@ 120 volts, approximate 44 watts, 500 lumens, 5000 hours
163	@ 120 volts, approximate 46 watts, 460 lumens, 6250 hours
164	@ 120 volts, approximate 46 watts, 540 lumens, 2500 hours
165	@ 120 volts, approximate 46 watts, 600 lumens, 7000 hours
166	When calculations are based on bare lamp lumens, do not use this lumen rating.
167	@ 120 volts, approximate 47/94/141 watts, 545/1275/1820 lumens, 1800 hours
168	@ 120 volts, approximate 53 watts, 420 lumens, 2500 hours
169	@ 120 volts, approximate 53 watts, 495 lumens, 4000 hours
170	@ 120 volts, approximate 53 watts, 650 lumens, 2500 hours
171	@ 120 volts, approximate 53 watts, 645 lumens, 6000 hours
172	@ 120 volts, approximate 56 watts, 725 lumens, 1500 hours
173	@ 120 volts, approximate 57 watts, 540 lumens, 4375 hours
174	@ 120 volts, approximate 59 watts, 660 lumens, 6250 hours
175	@ 120 volts, approximate 59 watts, 780 lumens, 1875 hours
176	@ 120 volts, approximate 63 watts, 900 lumens, 7000 hours
177	Average laboratory life in excess of 5000 hours.
178	@ 120 volts, approximate 66 watts, 425 lumens, 4125 hours
179	@ 120 volts, approximate 66 watts, 620 lumens, 2500 hours
180	@ 120 volts, approximate 66 watts, 685 lumens, 4000 hours
181	@ 120 volts, approximate 66 watts, 805 lumens, 5000 hours
182	@ 120 volts, approximate 66 watts, 860 lumens, 5000 hours
183	@ 120 volts, approximate 66 watts, 910 lumens, 1875 hours
184	@ 120 volts, approximate 66 watts, 520 lumens, 5000 hours
185	@ 120 volts, approximate 70 watts, 985 lumens, 1125 hours
186	@ 120 volts, approximate 79 watts, 940 lumens, 6250 hours
187	@ 120 volts, approximate 79 watts, 1000 lumens, 5000 hours
188	For use only with heat-resisting connector and with bulb supported by bulb rim or metal shell of base.
189	@ 120 volts, approximate 79 watts, 1130 lumens, 1875 hours
190	@ 120 volts, approximate 88 watts, 960 lumens, 2500 hours
191	@ 120 volts, approximate 88 watts, 1100 lumens, 6250 hours
192	@ 120 volts, approximate 88 watts, 1260 lumens, 1875 hours
193	@ 120 volts, approximate 88 watts, 1290 lumens, 1875 hours
194	@ 120 volts, approximate 88 watts, 710 lumens, 5000 hours
195	@ 120 volts, approximate 94 watts, 1455 lumens, 1125 hours
196	@ 120 volts, approximate 105 watts, 850 lumens, 5000 hours
197	@ 120 volts, approximate 105 watts, 1370 lumens, 6000 hours
198	@ 120 volts, approximate 106 watts, 1040 lumens, 5000 hours

Manufacturers' Cross Reference

HALOGEN LAMPS

SYLVANIA	GE	PHILIPS	OSRAM
HALOGEN BT15			
60BT15/HAL/CL/BL	---	BC60BT15/HAL/CL	---
60BT15/HAL/W/BL	---	BC60BT15/HAL/W	---
75BT15/HAL/W/BL	---	BC75BT15/HAL/W	---
100BT15/HAL/W/BL	---	BC100BT15/HAL/W	---
150BT15/HAL/W/BL	---	BC150BT15/HAL/W	---
CAPSYLITE MIDBREAK			
52A/CAP	50A/HAL	---	---
60A/HAL/DAY	60A/HAL	---	---
60A/HAL/DAY/CL	60A/HAL/CL	---	---
75A/HAL/DAY	75A/HAL	---	---
100A/HAL/DAY	90A/HAL	---	---
CAPSYLITE PAR			
60PAR16/CAP/NSP10	60PAR16/H/SP10	60PAR16/HAL/NSP10	---
60PAR16/CAP/NFL30	60PAR16/H/FL30	60PAR16/HAL/NFL27	---
75PAR16/CAP/NSP10	75PAR16/H/SP10	---	---
75PAR16/CAP/NFL30	75PAR16/H/FL30	---	---
50PAR20/HAL/SPL/NFL30	50PAR20/H/FL25	50PAR20/HAL/NFL30	---
50PAR20/HAL/SPL/NSP10	50PAR20/H/SP10	50PAR20/HAL/NSP9	---
50PAR30/CAP/SPL/NFL25	50PAR30/H/FL25	50PAR30/HAL/NFL30	---
50PAR30/CAP/SPL/NSP9	50PAR30/H/SP10	50PAR30S/HAL/NSP10	---
50PAR30/HAL/SPL/FL40	50PAR30/H/FL35	50PAR30S/HAL/FL40	---
50PAR30LN/CAP/SPL/NFL30	50PAR30L/H/FL40	50PAR30L/HAL/NFL30	---
50PAR30LN/CAP/SPL/NSP9	50PAR30L/H/SP10	50PAR30L/HAL/NSP9	---
50PAR30LN/CAP/SPL/WFL50	50PAR30L/H/WFL	50PAR30L/HAL/WFL60	---
60PAR30/CAP/SPL/NSP9	60PAR30/H/NSP9	60PAR30S/HAL/NSP10	---
60PAR30/CAP/SPL/NFL25	60PAR30/H/FL25	60PAR30S/HAL/NFL30	---
75PAR30/CAP/SPL/NSP9	75PAR30/H/SP10	75PAR30S/HAL/SP10	---
75PAR30/CAP/SPL/NFL25	75PAR30/H/FL25	75PAR30S/HAL/NFL30	---
75PAR30/CAP/SPL/FL40	75PAR20/H/FL35	75PAR30S/HAL/FL40	---
75PAR30LN/CAP/SPL/NSP9	75PAR30L/H/SP10	75PAR30L/HAL/NSP9	---
75PAR30LN/CAP/SPL/NFL25	75PAR30L/H/FL25	75PAR30L/HAL/NFL30	---
75PAR30LN/CAP/SPL/WFL50	75PAR30L/H/WFL	75PAR30L/HAL/FL40	---
36PAR36CAPNSP13	35PAR36/H/SP8	---	---
36PAR36CAPVNSP5	35PAR36/H/SP5	---	---
36PAR36CAPWFL	35PAR36/H/FL30	---	---
50PAR36CAPNSP6	50PAR36/H/SP5	---	---
45PAR/CAP/SPL/SP9	45PAR/H/SP10	---	---
45PAR/CAP/SPL/WSP12	---	45PAR38/HAL/SP12/LL	---
45PAR/CAP/SPL/FL30	45PAR/H/FL25	45PAR38/HAL/FL28/LL	---
60PAR/CAP/SPL/SP9	60PAR/H/SP10	60PAR38/HAL/NSP10/WLL	---
60PAR/CAP/SPL/WSP12	---	60PAR38/HAL/SP12/WLL	---
60PAR/CAP/SPL/NFL25	60PAR/H/FL25	---	---
60PAR/CAP/SPL/FL30	---	60PAR38/HAL/FL28/WLL	---
75PAR/CAP/SPL/SP9	75PAR/H/SP9	75PAR38/HAL/SP10/WLL	---
75PAR/CAP/SPL/FL30	75PAR/H/FL25	75PAR38/H/FL28/WLL	---
90PAR/CAP/SPL/SP9	90PAR/H/SP10	---	---
90PAR/CAP/SPL/WSP12	---	90PAR38/HAL/SP12/LL	---
90PAR/CAP/SPL/FL30	90PAR/H/FL25	90PAR38/HAL/FL28/LL	---
90PAR/CAP/SPL/WFL50	90PAR/H/WFL	90PAR38/HAL/WFL60/WLL	---
120PAR/CAP/SPL/SP9	120PAR/H/SP9	---	---
120PAR/CAP/SPL/FL30	120PAR/H/FL30	---	---
250PARCAPSPLSP10	Q250PAR/SP10	---	---
250PARCAPSPLFL30	Q250PAR/FL30	---	---
500PAR56QMFL	Q500PAR56MFL	500PAR56Q/MFL	---
500PAR56QNSP	Q500PAR56NSP	500PAR56Q/NSP	---
500PAR56QWFL	Q500PAR56WFL	500PAR56Q/WFL	---
1000PAR64QMFL	Q1000PAR64MFL	1000PAR64Q/MFL	---
1000PAR64QNSP	Q1000PAR64NSP	1000PAR64Q/NSP	---
1000PAR64QWFL	Q1000PAR64WFL	1000PAR64Q/WFL	---
CAPSYLITE IR PAR			
50PAR30/CAP/IR/NSP9 130V	45PAR30/HIR/SP9XL	---	---
50PAR30/CAP/IR/NFL25 130V	45PAR30/HIR/FL25XL	---	---

Manufacturers' Cross Reference Guide (continued)

HALOGEN LAMPS

SYLVANIA	GE	PHILIPS	OSRAM
CAPSYLITE IR PAR (continued)			
50PAR30/CAP/IR/FL40 130V	45PAR30/HIR/FL35XL	---	---
50PAR30/CAP/IR/NSP9	50PAR30/HIR/SP9	50PAR30S/IRC/NSP10	---
50PAR30/CAP/IR/NFL25	50PAR30/HIR/FL25	50PAR30S/IRC/NFL30	---
50PAR30/CAP/IR/FL40	50PAR30/HIR/FL35	50PAR30S/IRC/FL40	---
50PAR/CAP/IR/SP10 130V	45PAR/HIR/SP12/XL	---	---
50PAR/CAP/IR/NFL25 130V	45PAR/HIR/FL40/XL	---	---
50PAR/CAP/IR/SP10	50PAR/HIR/SP9	50PAR38/IRC/SP12	---
50PAR/CAP/IR/NFL25	50PAR/HIR/FL25	50PAR38/IRC/FL25	---
55PAR38/CAP/IR/XP/SP9	55PAR/HIR/SP12/XL	---	---
55PAR38/CAP/IR/XP/FL30	55PAR/HIR/FL40/XL	---	---
60PAR/CAP/IR/SP10	60PAR/HIR/SP10	60PAR38/IRC/SP10	---
60PAR/CAP/IR/WSP12	60PAR/HIR/SP12	60PAR38/IRC/WSP12	---
60PAR/CAP/IR/NFL25	---	60PAR38/IRC/FL25	---
60PAR/CAP/IR/FL30	60PAR/HIR/FL30	---	---
80PAR/CAP/IR/SP10	80PAR/HIR/SP10	---	---
80PAR/CAP/IR/FL25	80PAR/HIR/FL25	---	---
100PAR/CAP/IR/SP10	100PAR/HIR/SP10	100PAR38/IRC/SP10	---
100PAR/CAP/IR/NFL25	100PAR/HIR/FL25	100PAR38/IRC/FL25	---
100PAR/CAP/IR/FL40	100PAR/HIR/FL40	---	---
TRU-AIM MR11			
20MR11/SP10/FTB	Q20MR11/SP15(FTC)	20MRC11/SP10	46890SP
20MR11/FL35/FTD	Q20MR11/NFL30(FTD)	20MRC11/FL30	46890WFL
35MR11/FL40/FTH	Q35MR11/NFL30(FTH)	---	46892WFL
35MR11/SP10/FTE	Q35MR11/SP20(FTF)	---	46892SP
STANDARD TRU-AIM MR16			
20MR16/NSP8/ESX	Q20MR16/SP	20MRC16/SP10	41860SP
20MR16/FL40/BAB	Q20MR16/FL	20MRC16/FL36	41860WFL
35MR16/FL40	Q35MR16CG/FL	---	41865WFL
50MR16/NSP12/EXT	Q50MR16/SP	50MRC16/SP10	41870SP
50MR16/NFL25/EXZ	---	50MRC16/NFL24	---
50MR16/FL40/EXN	Q50MR16/FL	50MRC16/FL38	41870WFL
65MR16/NSP10/FPA	---	75MR16/SP10-EYF	---
65MR16/FL40/FPB	---	75MR16/FL36-EYC	---
TRU-AIM BRILLIANT MR16			
20MR16/B/FL35/C	---	---	41861WFL
50MR16/B/NSP11/C/EXT	---	50MRC16/SP12/A	---
50MR16/B/NFL25/EXZ	---	50MRC16/NFL24/A	---
50MR16/B/FL35/C/EXN	---	50MRC16/FL36	41871WFL
TRU-AIM TITAN MR16			
20MR16/T/NSP10/ESX	Q20MR16/C/VNSP7	20MRC16/CC/SP10	46860SP
20MR16/T/FL40/BAB	Q20MR16/C/FL40	20MRC16/CC/FL38	46860WFL
35MR16/T/NSP10/FRB	---	---	46865SP
35MR16/T/NFL25	Q35MR16/C/SP20	---	46865FL
35MR16/T/FL40/FMW	Q35MR16/C/FL40	---	46865WFL
50MR16/T/NSP10/EXT	Q50MR16/C/NSP15	50MRC16/CC/SP10	46870SP
50MR16/T/NFL25/EXZ	Q50MR16/C/NFL25	50MRC16/CC/NFL24	46870FL
50MR16/T/FL40/EXN	Q50MR16/C/FL40	50MRC16/CC/FL38	46870WFL
50MR16/T/WFL60/FNV	Q50MR16/C/WFL55	---	46870VWFL
65MR16/T/NSP10/FPA	Q71MR16/C/NSP15	---	---
65MR16/T/NFL25	Q71MR16/C/NFL25	---	---
65MR16/T/FL40/FPB	Q71MR16/C/FL40	---	---
TRU-AIM IR MR16			
20MR16/IR/SP10/C	---	20MRC16/IRC/SP8	48860SP
20MR16/IR/NFL25/C	---	---	48860FL
20MR16/IR/FL40/C	---	20MRC16/IRC/FL36	48860WFL
20MR16/IR/WFL60/C	---	---	48860VWFL
37MR16/IR/SP10/C	Q37MR16/HIR/CG10	35MRC16/IRC/SP8	48865SP
37MR16/IR/NFL25/C	Q37MR16/HIR/CG25	35MRC16/IRC/NFL24	48865FL
37MR16/IR/FL40/C	Q37MR16/HIR/CG40	35MRC16/IRC/FL36	48865WFL
37MR16/IR/WFL60/C	---	35MRC16/IRC/WFL60	48865VWFL
50MR16/IR/SP10/C	Q50MR16/HIR/CG10	45MRC16/IRC/SP8	48870SP
50MR16/IR/NFL25/C	Q50MR16/HIR/CG25	45MRC16/IRC/NFL24	48870FL

Manufacturers' Cross Reference (continued)

HALOGEN LAMPS

SYLVANIA	GE	PHILIPS	OSRAM
TRU-AIM IR MR16 (continued)			
50MR16/IR/FL40/C	Q50MR16/HIR/CG40	45MRC16/IRC/FL36	48870WFL
50MR16/IR/WFL60/C	---	45MRC16/IRC/WFL60	48870VWFL
SINGLE ENDED			
100Q/CL/DC/64485	---	---	64485
100Q/CL/DC/ESR	Q100CL/DC	100Q/CL/DC ESR	---
100Q/CL/MC/ESN	Q100CL/MC	100Q/CL ESN	---
100Q/DC/ETD	Q100DC	---	---
150Q/CL/DC/1/ESP	Q150CL/DC/2V	---	---
150Q/CL/DC/ETC	Q150CL/DC	150Q/CL/DC ETC	---
150Q/CL/MC/2/ETG	Q150CL/MC	150Q/CL	---
150Q/CL/MC/ESL	Q150CL/MC/2V	---	---
150Q/DC/ETF	Q150DC	150Q/DC	---
150Q/MC/ETH	Q150MC	150Q ETH	---
250Q/CL/DC/ESS	Q250CL/DC	250Q/CL/DC ESS	---
250Q/CL/MC/EHT	Q250CL/MC	250Q/CL EHT	---
250Q/DC/ETB	Q250DC	---	---
250Q/MC/ESM	Q250MC	---	---
DOUBLE ENDED			
100T3Q/CL	Q100T3/CL/CD	BC100T3Q/CL/TP	---
150T3Q/S/CL	Q150T4/CL	BC150T3Q/CL/TP	---
150T3Q/CL	Q150T3/117/CL/CD	---	---
300T3Q/CL	Q300T3/CL	300T3Q/P/CL	---
500T3Q/CL	Q500T3/CL	500T3Q/P/CL	---
BIPIN			
5T3Q/CL	Q5T3/CL	5W/12V/CAPSULE	64405S
10T3Q/CL	Q10T3/CL	---	64415
20T3Q/CL	Q20T3/CL/CD	---	64425
50T4Q/CL	Q50T3/CL	50W/12V/CAPSULE	64440
75T4Q/CL/CP	Q75T4/CL/CD	---	---
10T3Q/CL/AX	---	10W/12V/CAPSULE	64415S
20T3Q/CL/AX	---	20W/12V/CAPSULE	64425S
35T4Q/CL/AX	Q35T3/CL	35W/12V/CAPSULE	64432S
50T4Q/CL/AX	---	---	64440S
75T4Q/CL/AX	---	---	64450S
90T4Q/CL/AX	---	---	64458S
AR 70 & AR111			
20AR70/SP8	---	15ALR18/NSP6-GBA	41970 SP USA
20AR70/FL25	---	---	41970 FL USA
50AR70/SP8	---	50ALR18/SP10-GBJ	41990 SP USA
50AR70/FL25	---	50ALR18/NFL22-GBK	41990 FL USA
35AR111/SSP4	---	---	41830 SSP
50AR111/SSP4	---	---	41835 NSP 12V 50W
50AR111/SP8	---	---	41835 SP 12V 50W
50AR111/FL25	---	---	41835 FL 12V 50W
75AR111/SP8	---	---	41840 SP 12V 75W
75AR111/FL25	---	---	41840 FL 12V 75W
75AR111/WFL45	---	---	41840 WFL 12V 75W
100AR111/SP8	---	---	41850 SP 12V 100W
100AR111/FL25	---	---	41850 FL 12V 100W
100AR111/WFL45	---	---	41850 WFL 12V 100W

MINIATURE & AUTOMOTIVE LAMPS

Ordering Abbreviation	Product Number	Bulb	Base	Avg Rated Life (hrs)	Approx Lumens	Amps	Design Voltage (V)	Pkg Qty	MOL (in)	Footnotes
1076	36183	S8	DC Bayonet	200	402.12	1.8	13	1000	2	
1130	36237	S8	DC Bayonet	200	263.89	2.63	6	1000	2	
1141	36377	S8	SC Bayonet	1000	263.89	1.44	13	1000	2	
1156	36521	S8	SC Bayonet	1200	402	2.1	13	1000	2	
1156	36521	S8	SC Bayonet	1200	402	2.1	13	1000	2	
1157	36561	S8	DC Index	1200 5000	402.00 38.00	2.1 0.6	13 14	1000	2	
120MB	34503	T2.5	Mini Bayonet	10000	4.52	0.025	120	1000	1.19	
120MB	34503	T2.5	Mini Bayonet	10000	4.52	0.025	120	1000	1.19	
120MB 6W	34513	T2.5	Mini Bayonet	3000	18	0.052	120	1000	1.19	
120PC	34519	T2	Bipin	7500		0.025	120	1000	1.125	1
120PSB	34557	T2	Slide Base # 5	10000		0.025	120	1000	1.11	
120PSB	34557	T2	Slide Base # 5	10000		0.025	120	1000	1.11	
12PSB	32983	T2	Slide Base # 5	12000		0.17	12	1000	1.11	
161	34691	T3.25	W2.1x9.2D	4000	12.57	0.19	14	1000	1.054	
168	34711	T3.25	W2.1x9.2D	1500	37.7	0.35	14	1000	1.054	
17	33061	T1.75	W2.1x4.9D	5000	8.17	0.065	28	1000	0.8	
1815	37329	T3.25	Mini Bayonet	3000	17.59	0.2	14	1000	1.19	
1816	37333	T3.25	Mini Bayonet	1000	37.7	0.33	13	1000	1.19	
1819	37351	T3.25	Mini Bayonet	2500	4.27	0.04	28	1000	1.19	
1820	37355	T3.25	Mini Bayonet	1000	20.11	0.1	28	1000	1.19	
1822	37367	T3.25	Mini Bayonet	1000	26.39	0.1	36	1000	1.19	
1829	37377	T3.25	Mini Bayonet	1000	12.57	0.07	28	1000	1.19	
1835	37387	T3.25	Mini Bayonet	5000	13.82	0.05	55	1000	1.19	
1847	37391	T3.25	Mini Bayonet	5000	4.78	0.15	6	1000	1.19	
1864	37413	T3.25	Mini Bayonet	1500	37.7	0.17	28	1000	1.19	
1893	37505	T3.25	Mini Bayonet	2500	25.13	0.33	14	1000	1.19	
1895	37531	G4.5	Mini Bayonet	2000	25.13	0.27	14	1000	1.06	
194	34761	T3.25	W2.1x9.2D	2500	25.13	0.27	14	1000	1.054	
1992 ERD	30215	T3.25	Wedge	150	804	2.5	14	24	1	
214-2 BU	34942	T3	End Caps	1000	50.27	0.52	14	1000	1.72	
2187	37747	T1.75	5/8" Wire Term	7000	3.7	0.04	28	1000	0.52	
222	34967	TL3	Mini Screw	5		0.22	2	1000	0.94	
2342 24:30V30MA	39307	T5	W2x4.6D	1000		0.3	24	200	0.78	
24E	33181	T2	Slide Base # 3	7000		0.035	24	1000	1.69	
24ESB	33189	T2	Slide Base # 5	8000		0.04	24	1000	1.11	
24MB	33213	T2.5	Mini Bayonet	10000	6.28	0.07	24	1000	1.19	
24PSB	33229	T2	Slide Base # 5	10000		0.072	24	1000	1.11	
24X	33257	T2	Slide Base # 3	8000		0.035	24	1000	1.69	
259	35027	T3.25	W2.1x9.2D	5000	8.17	0.25	6	1000	1.054	
28ESB	33285	T2	Slide Base # 5	6000		0.04	28	1000	1.11	
28MB	33311	T2.5	Mini Bayonet	5000	3.64	0.04	28	1000	1.19	
28PSB	33327	T2	Slide Base # 5	5000		0.04	28	1000	1.11	
30099 PLH	32169	T2	Socket					100	0.91	2,3,4
30110 PILOT TPLR	32161	T2	Dome Trans					1000	0.38	5
30112 PILOT TPLG	32159	T2	Dome Trans					1000	0.38	5
30120 PILOT FLR	32119	T2	Dome Fluted					1000	0.38	5
31099 PLH BAY	32173	T2.5 & T3.25	Socket					100	1.68	2,4,6
313	35133	T3.25	Mini Bayonet	500	43.92	0.17	28	1000	1.06	
3157WL	59894	S8	Wedge	1200 5000	402.12 37.69	2.1 0.59	13 14	1000	1.7	
327	35155	T1.75	SC Midg Flanged	4000	4.27	0.04	28	1000	0.63	
328	35169	T1.75	SC Midg Flanged	1000	4.27	0.2	6	1000	0.63	

MINIATURE & AUTOMOTIVE LAMPS

Ordering Abbreviation	Product Number	Bulb	Base	Avg Rated Life (hrs)	Approx Lumens	Amps	Design Voltage (V)	Pkg Qty	MOL (in)	Footnotes
330	35183	T1.75	SC Midg Flanged	1500	6.28	0.08	14	1000	0.63	
334	35205	T1.75	Midget Groove	4000	4.27	0.04	28	1000	0.63	
3797 24V2W	39375	T2.75	BA9S	200	16.96	0.083	24	200	0.932	
382	35311	T1.75	SC Midg Flanged	15000	3.76	0.08	14	1000	0.63	
385	35321	T1.75	SC Midg Flanged	10000	1.88	0.04	28	1000	0.36	
387	35327	T1.75	SC Midg Flanged	7000	3.76	0.04	28	1000	0.63	
388	35349	T1.75	Midget Groove	7000	3.76	0.04	28	1000	0.63	
44	33459	T3.25	Mini Bayonet	3000	11.28	0.25	6	1000	0.94	
4414 PAR 36	30965	PAR36	2 Screw Terminal	300		1.41	13	12	2 3/4	
464	35413	T3.25	W2.1x9.2D	1500	37.7	0.17	28	1000	1.054	
47	33479	T3.25	Mini Bayonet	3000	6.28	0.15	6	1000	0.94	
48C	33507	T2	Slide Base # 3	7000		0.035	48	1000	1.69	
48PSB	33599	T2	Slide Base # 5	10000		0.05	48	1000	1.69	
502	35417	G4.5	Mini Screw	100	7.53	0.15	5	1000	1.06	
516/2PK/RP 12V	35920	T5	W2.1x9.2D	300	43.98	0.312	13	12	1.49	
52A TB OBS	33711	T2	Slide Base # 6	8000		0.03	24	1000	0.92	
53	33719	G3.5	Mini Bayonet	1000	12.57	0.12	14	1000	0.6	
55	33785	G4.5	Mini Bayonet	500	25.13	0.41	7	1000	0.84	
56	33831	T1.75	W2.1x4.9D	20000	1.88	0.115	5	1000	0.8	
57	33871	G4.5	Mini Bayonet	500	25.13	0.24	14	1000	0.84	
60MB	33927	T2.5	Mini Bayonet	7500	9.17	0.05	60	1000	1.19	
60PSB	33945	T2	Slide Base # 5	7500		0.05	60	1000	1.11	
6411 12V10W	39407	T3.25	SV8.5-8	200	100.53	0.83	12	200	1.61	
64111 12V5W	39431	T2.75	Mini Bayonet	240	80.42		12	200	1.29	7
6413 12V5W	39405	T3.25	SV8.5-8	200	100.53	0.4	12	200	1.61	
64150 H1 12V55W	31393	T2.5	P14.5S	225	1621.06		12	100	2.43	
64151 H3 12V55W	31397	T3.25	PK22S	225	1520.53		12	100	1.65	8,9
64156 H3 24V70W	31415	T3.25	PK22S	225	1834.69		24	100	1.65	8,9
6421 24V3W	39376	T3.25	SV8.5-8	1000	17.59	0.125	24	200	1.61	
6424 24V5W	39411	T3.25	SV8.5-8	200	61.95	0.2	24	200	1.61	
6429 24V10W	39397	T3.25	SV8.5-8	200	105.55	0.42	24	200	1.61	
656	35561	T3.25	W2.1x9.2D	2500	7.79	0.06	28	1000	1.054	
657	35565	T3.25	W2.1x9.2D	15000	7.79	0.08	28	1000	1.054	
657	35565	T3.25	W2.1x9.2D	15000	7.79	0.08	28	1000	1.054	
67	34021	G6	SC Bayonet	5000	50.27	0.69	14	1000	1.44	
68	34067	G6	DC Bayonet	5000	50.27	0.59	14	1000	1.44	
6PSB	32803	T2	Slide Base # 5	20000		0.14	6	1000	1.11	
73	34091	T1.75	W2.1x4.9D	15000	3.77	0.08	14	1000	0.8	
7327 BIPIN T1 3/4	38289	T1.75	Bipin	4000	4.27	0.04	28	1000	0.63	10
7371	38379	T1.75	Bipin	20000	1.25	0.04	12	1000	0.63	
7382	38417	T1.75	Bipin	15000	3.76	0.08	14	1000	0.63	
7511 P21W 24V21W	39361	S8	BAY15S	150	464.95	0.88	24	200	2.095	
755	35763	T3.25	Mini Bayonet	20000	4.15	0.15	6	1000	0.94	
755	35763	T3.25	Mini Bayonet	20000	4.15	0.15	6	1000	0.94	
756	35771	T3.25	Mini Bayonet	15000	3.9	0.08	14	1000	1.06	
757	35781	T3.25	Mini Bayonet	7500	7.79	0.08	28	1000	1.06	
85	34179	T1.75	W2.1x4.9D	7000	3.77	0.04	28	1000	0.8	
86	34201	T1.75	W2.1x4.9D	20000	5.03	0.2	6	1000	0.8	
88	34219	S8	DC Bayonet	300	188.5	1.91	7	1000	2	
89	34233	G6	SC Bayonet	750	75.4	0.58	13	1000	1.44	
90	34271	G6	DC Bayonet	750	75.4	0.58	13	1000	1.44	
90MB	34299	T2.5	Mini Bayonet	5000	4.67	0.03	90	1000	1.19	

MINIATURE & AUTOMOTIVE LAMPS

Ordering Abbreviation	Product Number	Bulb	Base	Avg Rated Life (hrs)	Approx Lumens	Amps	Design Voltage (V)	Pkg Qty	MOL (in)	Footnotes
912	35869	T5	W2.1x9.2D	1000	150.8	1	13	500	1.49	
918	35923	T5	W2.1x9.2D	500	81.62	0.54	13	500	1.49	
918/2PK/RP 13V	35921	T5	W2.1x9.2D	500	81.68	0.54	13	12	1.49	
93	34311	S8	SC Bayonet	700	188.5	1.04	13	1000	2	
93BL2PK 13V	16810	S8	SC Bayonet	700	188.49	1.04	13	24	1.8	
94	34337	S8	DC Bayonet	700	187.87	1.04	13	1000	2	
NE51 B1A	32427	T3.25	Mini Bayonet	25000		0.3	105	1000		11
NE51H B2A	32429	T3.25	Mini Bayonet	25000		1.2	105	1000		11
PR12	38931	B3.5	SC Mini Flanged	15	37.69	0.5	6	1000	1 1/4	
PR13	38939	B3.5	SC Mini Flanged	15	25.13	0.5	5	1000	1 1/4	
PR2	38891	B3.5	SC Mini Flanged	15	10.05	0.5	2	1000	1 1/4	
PR3	38901	B3.5	SC Mini Flanged	15	18.84	0.5	4	1000	1 1/4	
PR4	38911	B3.5	SC Mini Flanged	10	5.02	0.27	2	1000	1 1/4	
PR6	38917	B3.5	SC Mini Flanged	30	5.65	0.3	2	1000	1 1/4	
SM2A PCS 30096	32249	T2	Solder Lugs					500	1.2	2,12,13

FOOTNOTES FOR MINIATURE LAMPS

Footnote	Description
1	MOL = Excluding pins.
2	Socket dimensions front to panel to end of terminals.
3	UL File No. E31557(M) CSA File No.LR20904
4	Universal lamp housings for T2.5 and T3.25 miniature bayonet based lamps.
5	Universal lamp housings for T2 slide based pilot lamps.
6	UL File No. E31557(M) CSA File No.LR20904
7	Caution: Operates under pressure and may shutter. Use appropriate techniques to protect people and surroundings. Do not operate in close proximity to persons, combustible materials, or substances affected by heat or drying. Do not operate over 110% rated voltage because such operation increases pressure and lamps' tendency to shatter. Ultraviolet output may cause skin and eye irritation with prolonged exposure. Protect bulb from abrasions and scratches. Do not insert lamps when power is on. Follow operating instructions.
8	ECE Approved
9	Lamp Life B3 @ 13.2 volts.
10	There are two distinctively different lamps with this part number. When ordering T-1 3/4 , #7327, please also specify category and base type. S-11. #7327 discontinued.
11	Material : Black Phenolic
12	MIL-Std. 18236 B-MIL Std. 202B
13	Material : Plastic

OSRAM SYLVANIA: THE LEADER IN ENERGY-SAVING HID LAMPS

UNDERSTANDING HIGH INTENSITY DISCHARGE LIGHTING

A brief description of the catalog format and related terminology will assist the reader in understanding the information presented in this section.

All product families are listed in ascending wattage, followed by alphabetical bulb designation to simplify lamp identification. Performance ratings are based on tests conducted under controlled conditions on AC circuits with auxiliary equipment meeting current published ANSI specifications.

Lamp performance under typical service conditions may vary from rated values. Ratings and specifications are subject to change without notice.

For more information on HID SYSTEM SOLUTIONS, refer to page 101.

ANSI CODE

This is a unique code that describes the class and the electrical characteristics of the lamp and ballast as well as the fixture requirements. The code is developed and assigned by the American National Standards Institute (ANSI). It is intended to aid in matching the lamp to both the correct ballast and to a luminaire with the required features. The ANSI CODE consists of type of lamp (S = HPS, H = Mercury, M = Metal Halide, L = LPS, C = Ceramic Metal Halide), followed by the ballast number, and for metal halide and Ceramic metal halide lamps followed by the fixture requirement (O, E, S, F).

The emergence of electronic ballasts to operate metal halide lamps has produced additional need to separate the lamp designation of quartz and ceramic metal halide lamps, as there can be some important differences in system performance. Therefore the C lamp designation from NEMA has been introduced going forward for future differentiation of ceramic metal halide lamps and they will begin to be labeled accordingly.

ARC LENGTH

Arc length is the dimension of the arc discharge measured from one electrode tip to the other. This is useful for optical design of reflectors and affects fixture efficiency.

AVERAGE LIFE (HOURS)

The average life of a lamp is based on vertical operation (unless otherwise noted) of representative lamps operated under controlled conditions of at least 10 hours per start (except for M1500 and Briteline lamps, which are based on 5 hours per start). Average life is defined as the total operation hours at which 50% (Median) of any group of lamps is still operating (except for most High Pressures Sodium and Mercury lamps, for which 65% of the lamps are operating at the end of life denoted by a "+" next to the life rating). Variations in operating conditions such as bulb and base temperatures and line voltage can also affect lamp life.

Regular operation of lamps with off times less than the hot restrike time will shorten lamp life. For hot restrike values of specific lamp types, please refer to the SYLVANIA Metal Halide Lamp Specification Guide.

Operating cycles shorter than 10 hours per start will reduce lamp life as follows:

- 5 hours / start - Approximately 75% of rating
- 2.5 hours / start - Approximately 55% of rating
- 1.25 hours / start - Approximately 40% of rating

BASE

Most SYLVANIA HID lamp bases for general lighting are made of corrosion-resistant brass with special lubricant to provide easy removal at end of lamp life. See the following pages for all base illustrations.

E26 Medium - Medium (MED) bases are used on lamps in E17 bulbs and are limited to 175W maximum.

E26 Medium Skirted - Medium skirted (Med. Skt.) bases consist of a medium brass base with a skirt, which is mechanically connected to a PAR38 bulb.

E39 Mogul - All (MOG) bases are embossed with letters and numbers representing months and years. The date of installation can be recorded by marking the letter of the current month and the number that coincides with the last digit of the current year.

EX39 Exclusionary Mogul Base - Exclusionary Mogul bases (EXCL MOG) are bases used on metal halide lamps having shrouded arc tubes, permitting them to be used in open fixture applications. These bases are compatible with exclusionary or standard mogul sockets.

E39 POM - Position Oriented Mogul (POM) bases are used on lamps designed to operate only in the horizontal position and require a special POM socket. A pin located on the base engages in a slot within the POM socket ensuring proper operating position of the lamp within the fixture.

Rx7s / R7s Recessed Single Contact - SYLVANIA double-ended HID lamps with recessed single contact (RSC) bases have silver plated contacts to provide maximum electrical contact.

BULB

Each bulb description consists of a letter to indicate bulb shape, followed by numbers that indicate maximum bulb diameter in 1/8 inch increments. For example, a BT37 bulb is a blown shape with a tubular top, 37/8 of an inch or 4 5/8 inches in diameter. Illustrations of bulb shapes are shown on the following pages.

Although SYLVANIA HID bulbs are made of glass designed to resist thermal shock in normal applications, they must be shielded from direct contact with liquids, such as rain, during operation to avoid bulb breakage.

COLOR RENDERING INDEX (CRI)

Color Rendering Index (CRI) is an international scale (numbering system) up to 100 indicating the relative color rendering quality of a light source when compared to a standard reference light source of the same chromaticity (color temperature). The CRI expresses the degree to which colors will appear "familiar" or "natural" under the light source selected. In general, the higher the CRI number, the better the color rendering properties of the light source being measured. The color rendering index of any two like sources should only be compared if those sources have the same correlated color temperature (CCT).

CORRELATED COLOR TEMPERATURE (CCT)

The correlated color temperature of a light source, expressed in Kelvin (K), is a means of describing the appearance or chromaticity of the source. The correlated color temperature of the light source contributes to the visual appearance of the lighted space. "Warm" light sources have a low color temperature (2000-3000K) and feature more light in the red/orange/yellow range. Light with a higher color temperature (>4000K) features more blue and is referred to as "cool."

With new installations, or group relamps, all color performance evaluations should be made after at least 100 hours of operation (at recommended operating cycles) to allow the lamps to stabilize. Additional changes in chemistry within the arc tube over the life of the lamp may also cause the color temperature to shift as the lamp gets closer to the end of its rated life. To minimize color variation within an installation, it is recommended that HID lamps be group relamped and run on equal operating cycles.

DIMMING HID

Most SYLVANIA HID products can be dimmed on stepped, bi-level dimming systems provided specific guidelines are followed. Generally, most Metalarc® metal halide lamps can be dimmed down to 50% of rated wattage depending on the lamp type and operating position. Lumalux® high pressure sodium lamps can also be dimmed down to 50% of rated wattage. In addition to lower light output, HID lamps may shift in overall color and exhibit a lower color rendering index (CRI) when operated in a dimmed mode. Some restrictions apply to both the operation of the ballast and lamp. For more information on dimming, please reference NEMA guidelines or contact a SYLVANIA representative.

FIXTURE REQUIREMENT

Developed by the American National Standard Institute (ANSI), the fixture requirement code describes the type of fixture required for each lamp type. See lamp warnings for additional information and proper operating instructions.

E = Lamps classified as E-type are to be used only in suitably rated enclosed luminaires.

O = Lamps classified as O-type, comply with ANSI Standard C78.389 for containment testing and may be used in open luminaires.

S = When operated within 15 degrees of vertical, this lamp may be operated in an open luminaire provided the installation is not near people or flammable or combustible material, otherwise it must be operated in a suitably enclosed luminaire.

F = F-rated lamps require an enclosed fixture with a U.V filter and lens interlock.

The 2005 NEC requires that luminaires which use a metal halide lamp shall be provided with either a containment barrier that encloses the lamp (historically referred to as an enclosed luminaire) or shall be provided with a means, typically a special lampholder, that will only accept an ANSI Type-O metal halide lamp. (Exception: This requirement will not apply to open luminaires with thick-glass parabolic reflector PAR lamps.)

UNDERSTANDING HIGH INTENSITY DISCHARGE LIGHTING (continued)

FIXTURE REQUIREMENT (continued)

The 2005 NEC also requires that metal halide luminaires for new construction/major renovations in the playing and spectator areas of indoor sports, mixed use, and all purpose facilities, which are subject to physical damage, must be of a type that protects the lamp with a glass or plastic lens. Open luminaires will not be permitted. The use of self-extinguishing lamps is still recommended and permitted for all existing installations.

For more information regarding the use of Type-O, S, and E metal halide systems, please refer to the NEMA white paper on this subject that is freely available at nema.org.

HOT RESTRIKE

In most instances, if an HID lamp experiences a momentary power interruption or sudden voltage drop, the lamp may extinguish. A lamp that is still hot will not restart immediately. Because the arc tube within the lamp must cool down before it can re-start, HID lamps have hot restrike times ranging from 1-15 minutes depending on the product type.

KEY TO DATE OF MANUFACTURE

Consult your SYLVANIA Sales Representative or call 1-800-LIGHTBULB.

LAMP WARNINGS

HID Metal Halide and Mercury lamps are marked with a "T" or "R" on their packaging. These letters provide safety information about the lamp. Below is the text used by the FDA to describe each of the letters.

T: WARNING: This lamp should self-extinguish within 15 minutes after the outer envelope is broken or punctured. If such damage occurs, TURN OFF AND REMOVE LAMP to avoid possible injury from hazardous shortwave ultraviolet radiation.

R: WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available.

LIGHT CENTER LENGTH (LCL)

The light center length of HID lamps is a measurement from the center of the arc tube to the bottom of the lamp base.

LUMENS

Initial lumen ratings are based on photometry under controlled conditions of at least 10 hours per start in the prescribed position at rated lamp wattage after 100 operating hours. HQI®, LUMALUX® Super and SOX lamp ratings are based on measurements at constant input voltage. Lamp performance under typical service conditions may vary from rated values. Operating universal METALARC® lamps in off-vertical positions will result in reduced lumen output.

Mean lumens are measured on ANSI reference circuits at rated wattage (HQI, LUMALUX Super and SOX lamp ratings are based on input voltage) at 40% of average rated life except for those lamps with a "+" next to their life rating; these lamps are measured at 50% of average rated life. All measurements are based on ballast operation on systems with current crest factors of 1.8 or less. Higher current crest factors reduce values. In actual applications on CW or CWA ballasts, mean lumens may be higher than published ratings.

Unless otherwise noted, all photometry measurements are made on an ANSI reference ballast at rated lamp wattage.

MAXIMUM OVERALL LENGTH (MOL)

The maximum overall length of single-ended lamps is the maximum distance from the top of the bulb to the bottom of the base. For double-ended lamps, it is the maximum distance from end-to-end (excluding any leadwires).

ORDERING ABBREVIATION

Ordering abbreviation provides a shorthand description of the lamp, using a unique code which can be used when ordering a lamp if you do not know the product number. This information can be found on the lamp etch.

PACKAGE QUANTITY

This identifies the number of lamps contained in a standard shipping carton.

PRODUCT NUMBER

Product number is a five digit number used to identify a specific SYLVANIA lamp and should be used when ordering.

WARM UP TIME

Most HID lamps do not have instant on capabilities. It may take several minutes for the arc tube to stabilize before optimal light output is achieved.

WATTS

Watts shown are nominal lamp watts only.

HOW TO READ PRODUCT INFORMATION - HID

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Ballast Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life(hrs)	Approx Lumens (initial) (mean)	CCT (K)	Footnotes
100	E17	E26 Med	67506	LU100/MED	S54	20	Clear	Universal	O	24000+	9500 8000	22	2100 5,34
320	BT37	E39 Excl Mogul	64851	MCP320/C/PS/BU-ONLY/840/BT37 PB	M154/O	6	Coated	Base up within 15" only	O	20000	36000 27000	88	3900 1,10,11,13
360	BT37	E39 Mogul	64655	MS360/SS/BU-HOR	M59/S	6	Clear	BU-HOR	S	20000V 15000H	36000V 23500V 30000H 19000H	65	4000 * 20,23,24
1000	BT37	E39 Mogul	64351	M1000/PS/U/BT37	M141/E	6	Clear	Universal	E	15000V 9000H	110000V 96000V 107800H 86300H	65	3800 2,10

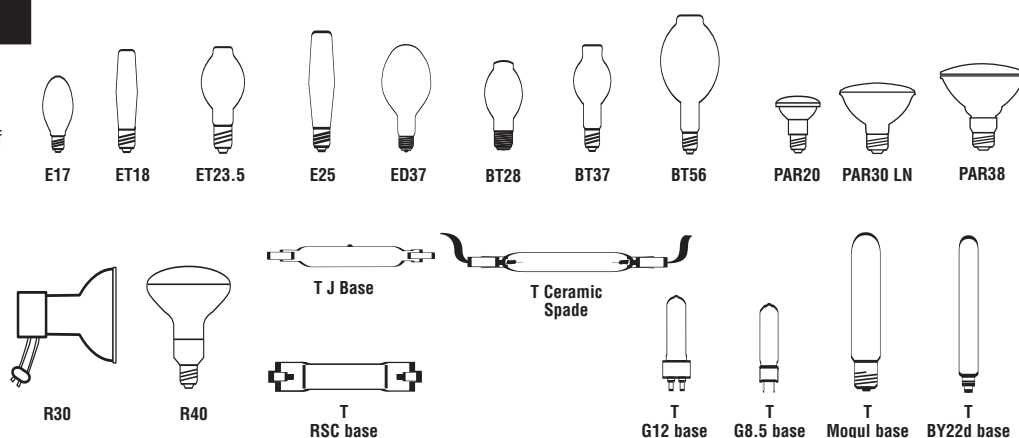
Please refer to the "Understanding High Intensity Discharge" section on previous pages for definitions and explanations of the category headers.

HOW TO READ ORDERING ABBREVIATIONS

MS360/SS/BU-HOR		MCP320/C/PS/BU-ONLY/840/BT37 PB		LU100/D/MED		H39KC-175/DX	
MS	Super METALARC	MCP	Metalarc Ceramic Pro-Tech	LU	Lumalux®	H39	ANSI Ballast Number
360	Wattage			100	Wattage	175	Wattage
SS	SUPERSAVER	320	Wattage	D	Coated	DX	Brite White Deluxe Coated
BU-HOR	Operating Position: Base up through Horizontal	C	Coated	MED	Medium Base		
		PS	Pulse Start				
		BU-ONLY	Operating Position: Base up only				
		840	80+ CRI; 4000 CCT				
		BT37	Bulb Type				
		PB	Powerball				

BULBS

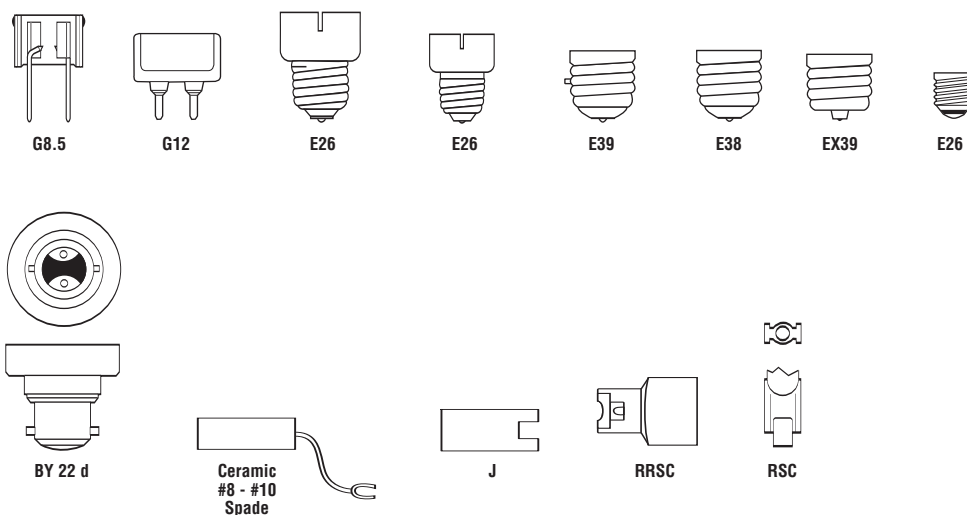
A bulb designation consists of a letter(s) to indicate the shape and a number(s) to indicate the approximate maximum diameter in eighths of an inch. Thus, an E17 lamp is an Ellipsoidal shape and 17/8 of an inch or 2 1/8 inches in diameter. Other letter designations include: BT=Bulbous Tubular; E or ED=Ellipsoidal; ET=Ellipsoidal Tubular; PAR=Parabolic; R=Reflector; T=Tubular.



BASES

Lamps with screw bases have one lead-in wire soldered or welded to the center contact and the other soldered or welded to the upper rim of the base shell.

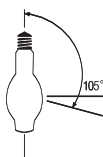
Bases with ceramic bodies have internal leads welded to either silver-plated contacts or external lead wires.



OPERATING POSITIONS

A designated operating positions assure maximum lamp performance. Where it is not specified, the lamp is suitable for operation in any position.

Vertical
BU-HOR



Vertical
BD-ONLY



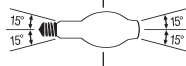
Vertical
BU-ONLY



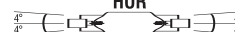
Universal
U



Horizontal
HOR



Double Ended
HOR



HID BRAND NAME GUIDE

Note: These tables are intended only as guides and may represent another lamp company's most similar product or product family rather than an identical match. Individual manufacturer's performance values should be consulted.

SYLVANIA	GE *	PHILIPS **
METALARC®	Multi-Vapor	Metal Halide
METALARC Powerball®	ConstantColor CMH	MasterColor
METALARC PRO-TECH®	Protected Multi-Vapor	Protected Metal Halide
Super METALARC	High Output Multi-Vapor	Metal Halide
METALARC Pulse Start	PulseArc Multi-Vapor	Pulse Start Metal Halide
METALARC Super Saver	Watt-Miser High Output Multi-Vapor	Metal Halide
METALARC Briteline	SportsLighting	Double-Ended Metal Halide
HQI®	Arcstream	Double-Ended Metal Halide
METALARC SAFELINE®	Saf-T-Gard Multi-Vapor	Safety Lifeguard Metal Halide

*Trademark or registered trademark of General Electric Company.

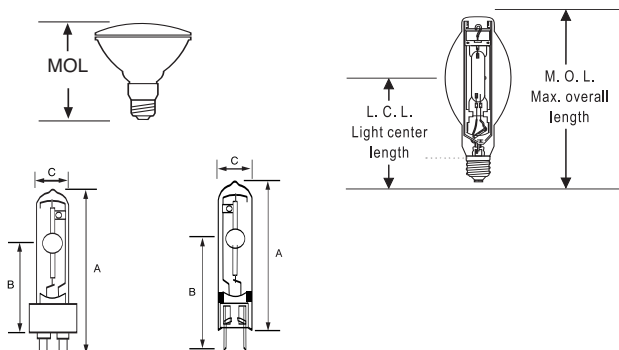
SYLVANIA	GE *	PHILIPS **
LUMALUX®	Lucalox	Ceramalux
LUMALUX / ECO®	Ecolux	Ceramalux ALTO
LUMALUX PLUS®/ ECO	Ecolux NC	Ceramalux ALTO NC
LUMALUX Standby	Standby Longlife Lucalox	Ceramalux Instant Restrike
UNALUX®	E-Z Lux	Ceramalux RetroLux
SOX Low Pressure Sodium	SOX Low Pressure Sodium	SOX Low Pressure Sodium
**Trademark or registered trademark of Philips.		

PHYSICAL DIMENSIONS

BRITELINE	PHYSICAL SIZE	(dimensions in mm)
Bulb	LCL	MOL
T7	127	256
T8	127	254
T9	127	254

HQI	PHYSICAL SIZE	(dimensions in mm)
Bulb	LCL	MOL
T6	57	114
T7	66	132
T7.5	56	84
R30	--	3.5

MERCURY VAPOR	PHYSICAL SIZE	(dimensions in inches)
Bulb	LCL	MOL
E17	3.75	5.44
ET23.5	5	7.5
ED28	5	8.31
ED37	7	11.5
BT56	9.5	15.38
PAR38	--	5.44
R40 (100W)	--	5.44
R40 (175W)	--	7.5



METALARC METAL HALIDE	PHYSICAL SIZE	(dimensions in inches)
Bulb	LCL	MOL
T4.5/TC	2	3.19
E17/ED17	3.4	5.44
ET18 (250W)	5.75	9.75
ET18 (400W)	6.14	9.75
ET23.5	4.49	6.97
BT28/ED28	5	8.31
BT37	7	11.5
BT56	9.5	15.38
T6	2.2	3.94
T6 (DE)	2.25	4.5
T7.5	2.2	4.13
PAR20	--	3.65
PAR30LN	--	4.76
PAR38	--	5.32

LUMALUX HIGH PRESSURE SODIUM	PHYSICAL SIZE	(dimensions in inches)
Bulb	LCL	MOL
T7	5	10.06
T14.5	6.89	11.22
E17	3.43	5.43
ET18	5.75	9.75
ET23.5	5	7.75
E25	8.75	15.08
BT28	5	8.98
BT28 (UNALUX)	5	8.31
BT37	7	11.5



The following items were accepted into the 2006 IESNA Progress Report, which recognizes innovative products introduced to the industry during that year.

20-watt PAR30 METALARC POWERBALL
39-watt PAR20 METALARC POWERBALL
39-watt PAR30 METALARC POWERBALL
750-watt METALARC Metal Halide

LAMP DISPOSAL LABELING

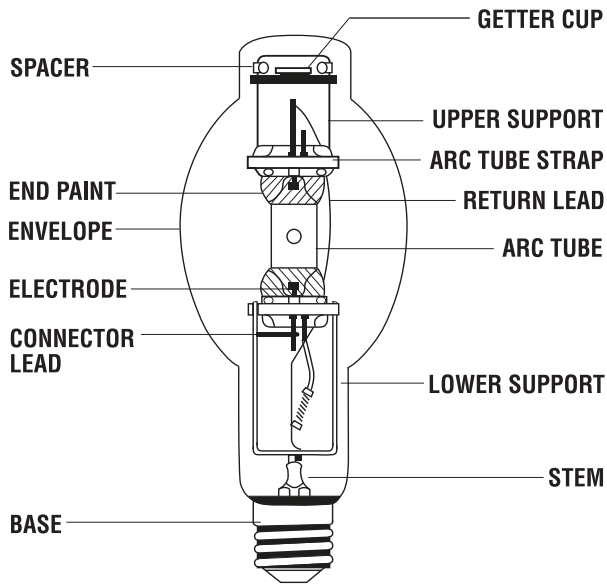
The following information appears on the packages of high intensity discharge lamps that contain mercury. For more information on lamp disposal labeling, see the inside back cover of this catalog.



For weight and measure information, please visit www.sylvania.com

For more information about HID lamp warranties, please visit the warranty section of this catalog.

GUIDE TO METAL HALIDE LAMPS



METALARC® Metal Halide lamps are designed for general lighting applications such as commercial, industrial lighting and outdoor floodlighting where good color and high efficiency are desired. OSRAM SYLVANIA currently offers ten families of Metal Halide lamps:

STANDARD METALARC(M) — Offered in a range of wattages (from 175-1500 watts), standard METALARC metal halide lamps allow for design flexibility with multiple light source solutions to choose from. METALARC lamps have significantly higher efficacy than mercury vapor or incandescent products and considerably better CRI than mercury vapor and high pressure sodium lamps.

COMPACT METALARC(M/BT##) — These lamps have reduced outer jacket sizes compared to standard metal halide lamps for use in smaller fixtures. The reduced bulb diameter allows fixture manufacturers to design more versatile, less expensive and highly efficient luminaries.

SUPER METALARC(MS) — Super METALARC lamps are position dedicated, which means that they are specifically designed to be run in particular operating positions. Because of this feature, these lamps exhibit improved performance over standard, universal operating metal halide lamps of similar wattage. Product features include long life, higher maintained lumens and

increased efficacy.

METALARC PRO-TECH®(MP) — These are specially designed lamps that incorporate a protective shroud to contain a non-passive arc tube failure. Metalarc Pro-Tech lamps can be used in open or enclosed fixtures. Dedicated bases are standard on both low and high wattage lamp types.

METALARC POWERBALL® CERAMIC(MC or MCP) — POWERBALL lamps use a patented round ceramic arc tube, which allows for a more uniform arc tube temperature, higher color rendering (>85), and improved color consistency. These lamps are ideal for applications that demand the best in color performance.

METALARC PULSE START(M/PS) — METALARC Pulse Start lamps utilize metal halide performance with proven ignitor technology for longer life, improved lumen maintenance and reduced color shift over lamp life compared to standard metal halide products. Lamp configurations include low and high wattage types, both clear and coated. METALARC PRO-TECH designs are also available for open fixture applications. All METALARC products lower than 150-watts and all METALARC POWERBALL products utilize Pulse Start technology exclusively.

METALARC SUPERSAVER®(M/SS) — Constructed with an enhanced arc tube for peak performance, METALARC SUPERSAVER lamps are designed as energy-saving, replacement metal halide lamps. The 360W SUPERSAVER lamp is a direct retrofit for existing 400W products, the 950W SUPERSAVER replaces 1000W lamps, and the 150W SUPERSAVER replaces 175 W lamps -- no ballast change is required.

METALARC BRITELINE(M) — These double-ended lamps are designed for compact fixtures, which provide excellent optical control and high efficiency. These higher wattage lamps are particularly well suited for sports lighting and outdoor floodlighting applications.

METALARC SAFELINE®(MT) — METALARC SAFELINE lamps are designed to self-extinguish when the outer bulb is broken reducing exposure to possible ultraviolet radiation. These lamps are recommended for use in sports facilities and other places of public assembly where the lamps may be subject to breakage by external objects.

HQI® — With their compact size and very short arc length, HQI metal halide lamps allow luminaire manufacturers to design highly efficient fixtures using proven quartz arc tube technology.

Enclosed fixture rated METALARC®, E-Type Lamp

R



ANSI Luminaire Code **E**
ENCLOSED FIXTURE

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. RUPTURE RISKS:** This Metal Halide lamp is constructed of a UV-attenuating outer quartz bulb with an internal arc-tube. Metal Halide arc-tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc-tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE THESE RISKS:

1. Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2192°F, 1200°C for a ceramic arc tube and 2012°F, 1100°C for quartz). If you are uncertain, contact your fixture manufacturer.
2. Only operate lamp with compatible ballast and fixture. (See catalog for specific information.)
3. Only operate lamp in designated operating positions. (See catalog for illustration.)
4. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
5. Never expose an operating lamp to moisture (such as rain, sleet or snow).
6. Replace lamp if outer glass bulb is scratched, cracked or damaged in any way.
7. Electrically insulate any metal support in contact with the outer bulb to avoid glass decomposition.
8. Replace lamp at or before the end of rated life. (See catalog for rated life.)

FOR APPLICATIONS WHERE AN ADDITIONAL MEASURE OF SAFETY IS DESIRED, LAMPS USING AN INTERNAL SHIELD DESIGNED TO CONTAIN AN ARC-TUBE RUPTURE ARE AVAILABLE.

- II. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.

III. ULTRAVIOLET RADIATION EXPOSURE:

WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. This product conforms to the following federal regulations: U.S.A.: 21 CFR 1040.30 and CANADA: SOR/80-381

IV. LAMP INSTALLATION:

1. Screw lamp firmly but not forcibly into socket to avoid breakage.
2. All horizontal lamps with position oriented mogul (POM) bases (with locating pin) require a POM socket. Do not remove pin from base.
3. All pulse start lamps require a socket rated to withstand a 4000 volt pulse.
4. Never install the lamp into an ordinary household socket.

- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

Enclosed fixture rated METALARC® E-Type (Ceramic & Quartz, G12, G8.5 & DE, UV-Stop Outer-jacket) Lamp

R



ANSI Luminaire Code **E**
ENCLOSED FIXTURE

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. RUPTURE RISKS:** This Metal Halide lamp is constructed of an outer glass bulb with an internal ceramic or quartz arc-tube. Metal Halide arc-tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc-tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE RISKS:

1. Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2192°F, 1200°C for a ceramic arc-tube and 2012°F, 1100°C for quartz). If you are uncertain, contact your fixture manufacturer.
 2. Only operate lamp with compatible ballast and fixture. (See catalog for specific information.)
 3. Only operate lamp in designated operating positions. (See catalog for illustration.)
 4. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
 5. Never expose operating lamp to moisture (such as rain, sleet or snow).
 6. Replace lamp if outer glass bulb is scratched, cracked or damaged in any way.
 7. Electrically insulate any metal support in contact with the outer bulb to avoid glass decomposition.
 8. Replace lamp at or before the end of rated life. (See catalog for rated life.)
- II. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.
- III. ULTRAVIOLET RADIATION EXPOSURE:**
WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. This product conforms to the following federal regulations: U.S.A.: 21 CFR 1040.30 and CANADA: SOR/80-381
- IV. LAMP INSTALLATION:**
1. Ensure that lamp is securely seated in the socket.
 2. All sockets must be rated to withstand the maximum pulse voltage output of the ballast.
 3. Never install the lamp into an ordinary household socket or a fixture intended for tungsten halogen lamps.
- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

Open Fixture Rated, METALARC PRO-TECH®, O-Type Lamp

R



ANSI Luminaire Code **O**
OPEN FIXTURE permissible

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. RUPTURE RISKS:** This Metal Halide lamp is constructed of an outer glass bulb with an internal arc-tube. Metal Halide arc-tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc-tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE THESE RISKS:

1. Only operate with compatible ballast and fixture. (See catalog for specific information.)
2. Only operate lamp in designated operating positions. (See catalog for illustration.)
3. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
4. Never expose operating lamp to moisture (such as rain, sleet or snow).
5. Replace lamp if outer glass bulb is scratched, cracked or damaged in any way.
6. Electrically insulate any metal support in contact with the outer glass bulb to avoid glass decomposition.
7. Replace lamp at or before the end of rated life. (See catalog for rated life.)

This lamp is intended for use in open fixtures since it contains a special shield which was designed to contain a ruptured arc-tube and thereby minimize the resultant risks of personal injury, property damage, burns and fire. In applications where an additional measure of safety is desired, an enclosed fixture may be used with a lens/diffuser material able to contain hot lamp fragments (up to 2192°F, 1200°C for a ceramic arc tube and 2012°F, 1100°C for quartz). If you are uncertain, contact your fixture manufacturer.

- II. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.

III. ULTRAVIOLET RADIATION EXPOSURE:

WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. This product conforms to the following federal regulations: U.S.A.: 21 CFR 1040.30 and CANADA: SOR/80-381

IV. LAMP INSTALLATION:

1. Screw lamp firmly but not forcibly into socket to avoid breakage.
2. All pulse start lamps require a socket rated to withstand a 4000 volt pulse.
3. Never install the lamp into an ordinary household socket.

- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

METALARC®, S-Type Lamp

R



ANSI Luminaire Code **S**
**ENCLOSED FIXTURE/Open if meets
requirement of Paragraph I.1 below**

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. RUPTURE RISKS:** This Metal Halide lamp is constructed of an outer glass bulb with an internal arc-tube. Metal Halide arc-tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc-tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE THESE RISKS:

1. Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2012°F, 1100°C). If you are uncertain, contact your fixture manufacturer. When operated within 15° of vertical, this lamp may be operated in an open fixture **PROVIDED THE INSTALLATION IS NOT NEAR PEOPLE OR FLAMMABLE OR COMBUSTIBLE MATERIAL.**
2. Only operate lamp with compatible ballast and fixture. (See catalog for specific information.)
3. Only operate lamp in designated operating positions. (See catalog for illustration.)
4. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
5. Never expose an operating lamp to moisture (such as rain, sleet or snow).
6. Replace lamp if outer glass bulb is scratched, cracked or damaged in any way.
7. Electrically insulate any metal support in contact with the outer bulb to avoid glass decomposition.
8. Replace lamp at or before the end of rated life. (See catalog for rated life.)

FOR APPLICATIONS WHERE AN ADDITIONAL MEASURE OF SAFETY IS DESIRED, LAMPS USING AN INTERNAL SHIELD DESIGNED TO CONTAIN AN ARC-TUBE RUPTURE ARE AVAILABLE.

- II. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.

III. ULTRAVIOLET RADIATION EXPOSURE:

WARNING: This lamp can cause serious skin burn and eye inflammation from shortwave ultraviolet radiation if the outer envelope of the lamp is broken or punctured. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available. This product conforms to the following federal regulations: U.S.A.: 21 CFR 1040.30 and CANADA: SOR/80-381

IV. LAMP INSTALLATION:

1. Screw lamp firmly but not forcibly into socket to avoid breakage.
2. All horizontal lamps with position oriented mogul (POM) bases (with locating pin) require a POM socket. Do not remove pin from base.
3. All pulse start lamps require a socket rated to withstand a 4000 volt pulse.
4. Never install the lamp into an ordinary household socket.

- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

METALARC® SAFELINE®, S-Type Lamp

T



ANSI Luminaire Code **S**
**ENCLOSED FIXTURE/Open if meets
requirement of Paragraph I.1 below**

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. RUPTURE RISKS:** This Metal Halide lamp is constructed of an outer glass bulb with an internal arc-tube. Metal Halide arc-tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc-tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE THESE RISKS:

1. Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2012°F, 1100°C). If you are uncertain, contact your fixture manufacturer. When operated within 15° of vertical, this lamp may be operated in an open fixture **PROVIDED THE INSTALLATION IS NOT NEAR PEOPLE OR FLAMMABLE OR COMBUSTIBLE MATERIAL.**
2. Only operate lamp with compatible ballast and fixture. (See catalog for specific information.)
3. Only operate lamp in designated operating positions. (See catalog for illustration.)
4. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
5. Never expose an operating lamp to moisture (such as rain, sleet or snow).
6. Replace lamp if outer glass bulb is scratched, cracked or damaged in any way.
7. Electrically insulate any metal support in contact with the outer bulb to avoid glass decomposition.
8. Replace lamp at or before the end of rated life. (See catalog for rated life.)

FOR APPLICATIONS WHERE AN ADDITIONAL MEASURE OF SAFETY IS DESIRED, LAMPS USING AN INTERNAL SHIELD DESIGNED TO CONTAIN AN ARC-TUBE RUPTURE ARE AVAILABLE.

- II. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.
- III. ULTRAVIOLET RADIATION EXPOSURE:** This lamp should self-extinguish within 15 minutes after the outer envelope is broken or punctured. If such damage occurs, **TURN OFF AND REMOVE LAMP** to avoid possible injury from hazardous shortwave ultraviolet radiation. This product conforms to the following federal regulations: U.S.A.: 21 CFR 1040.30 and CANADA: SOR/80-381
- IV. LAMP INSTALLATION:**
1. Screw lamp firmly but not forcibly into socket to avoid breakage.
 2. Never install the lamp into an ordinary household socket.
- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

METALARC® BRITELINE, F-Type Lamp



ANSI Luminaire Code F
**ENCLOSED FIXTURE with UV
filter and lens interlock required**

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. RUPTURE RISKS:** This Metal Halide lamp is constructed with a quartz arc-tube which operates at high pressure and at very high temperatures. The arc-tube can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE THESE RISKS:

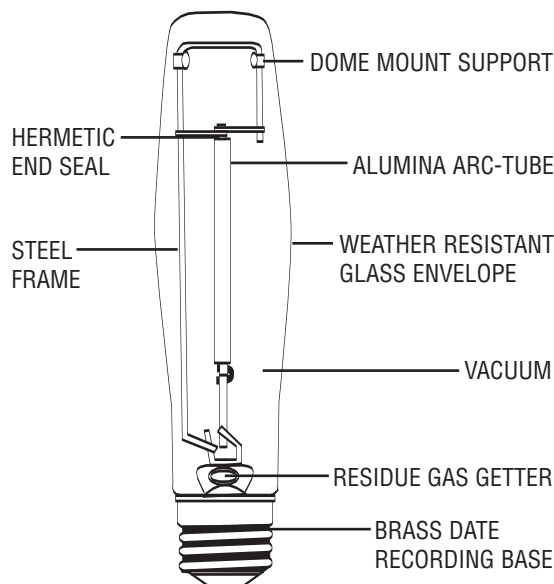
1. Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2012°F, 1100°C). If you are uncertain, contact your fixture manufacturer.
 2. Only operate lamp with compatible ballast and fixture. (See catalog for specific information.)
 3. Only operate lamp in horizontal position. (See catalog for allowable deviation from horizontal.)
 4. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
 5. Never expose operating lamp to moisture (such as rain, sleet or snow).
 6. Replace lamp if bulb is scratched, cracked or damaged in any way.
 7. Keep all metals at least 3 inches from the body of the arc tube to avoid glass decomposition.
 8. Replace lamp at or before the end of rated life. (See catalog for rated life.)
- II. ULTRAVIOLET RADIATION HAZARD:** THIS LAMP EMITS ULTRAVIOLET (UV) POWER DURING OPERATION AND IS IN RISK GROUP 3 PER ANSI-IESNA Rp-27.3-96. THIS LAMP CAN CAUSE SERIOUS SKIN BURN AND EYE INJURY FROM SHORTWAVE ULTRAVIOLET RADIATION. IT **MUST** BE OPERATED IN AN ENCLOSED FIXTURE WHICH FILTERS OUT THE HARMFUL SHORTWAVE ULTRAVIOLET RADIATION. IF YOU ARE UNCERTAIN, CONTACT YOUR FIXTURE MANUFACTURER.

A power interlock device is required to automatically turn off the lamp if the fixture assembly is opened. It is strongly recommended that a power interlock device also turn off power to the lamp if the fixture lens is broken. If the fixture lens breaks and the lamp remains on, turn off power immediately and repair before re-energizing.

This lamp is to be used **ONLY** in a fixture specifically designed for use with this lamp and recommended for its use by the equipment manufacturer.

- III. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. Allow lamp to cool before removing.
- IV. LAMP INSTALLATION AND FIXTURE:** Do not remove lamp from package until ready for use and then handle only with clean cotton gloves. If lamp is handled, fingerprints, grease or oils may be removed from the bulb by wiping with alcohol. This will remove materials which cause whitish spotting (devitrification) and premature lamp failure. Dry lamp carefully with clean cotton cloth.
1. Install lamp without undue pressure.
 2. Ensure that lamp electrical connections are secure and nothing is touching bulb.
 3. All seal gaskets and wire insulation must be shielded from the UV radiation produced by this lamp.
 4. Fixture wiring must have a temperature rating of 250° C and a minimum voltage rating of 600 V RMS for all lamps except the 1500T7 lamp which must have a voltage rating of 1500V RMS.
 5. For maximum performance, all double-ended lamps must be operated with the arc-tube tip up.
- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

GUIDE TO HIGH PRESSURE SODIUM LAMPS



High Pressure Sodium lamps are one of the most efficient HID sources available today. These lamps are used for general lighting applications where high efficiency and long life are desired while color rendering is not critical. Typical applications include street lighting, parking lot lighting, building floodlighting and general area lighting.

LUMALUX PLUS® / ECO® AND LUMALUX PLUS® — These environmentally friendlier lamps contain significantly less Mercury than standard high pressure sodium lamps. They will not cycle at the end of life and are rated for 30,000 hours life. All lamps operate on existing high pressure sodium ballasts. LUMALUX Plus / ECO lamps are designed with lead-free bases and they pass the existing Federal TCLP limits.*

LUMALUX® AND LUMALUX / ECO — Available in a broad range of wattages, in both clear and coated configurations, LUMALUX and LUMALUX / ECO lamps are ideal for a variety of applications. LUMALUX medium based lamps are available in wattages ranging from 35-150 watts while mogul based lamps are offered in 50-1000 watts. The mogul based LUMALUX / ECO lamps operate on standard high pressure sodium ballasts and pass the Federal TCLP test.*

LUMALUX STANDBY — These lamps are designed with two arc tubes to provide instant restrike capability in the event of a momentary power interruption. With almost twice the life of standard high pressure sodium lamps, LUMALUX Standby lamps are a great way to reduce maintenance costs.

SOX — These energy efficient low pressure sodium lamps emit a characteristic yellow light that is ideal for certain exterior street and area lighting.

* based on NEMA LL Series Standards

WARNING

LUMALUX, LUMALUX / ECO, LUMALUX PLUS / ECO, AND LUMALUX STANDBY LAMPS

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

I. OPERATE WITH COMPATIBLE BALLAST AND FIXTURE ONLY:

This lamp must be operated in a fixture and ballast which has an ANSI designation identical to that found on the lamp outer glass bulb. (with the exception of the LU/PLUS on Cooper ignitor 220C173G11, which may have compatibility issues).

II. ELECTRICAL SHOCK AND BURN HAZARD:

Do not remove or insert lamp when power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.

III. INSTALLATION AND OPERATING INSTRUCTIONS:

See catalog for specific operating parameters.

1. A specially designed socket which is electrically rated to withstand a 4000 volt pulse is required for all High Pressure Sodium lamps except for the 750 and 1000 watt lamps which require a socket rated to withstand a 5000 volt pulse.
2. These lamps have a vacuum jacket and may implode if broken. For added safety, wear safety glasses and gloves when installing or removing lamps.
3. To avoid burn injury, allow lamp to cool before removing from fixture.
4. Screw lamp firmly but not forcibly into socket to avoid breakage.
5. Replace lamps at or before end of rated life. (See catalog for rated life.)
6. Never install it into an ordinary household socket.
7. This lamp may be operated in any position.

IV. PROPER CARE AND MAINTENANCE:

To reduce the possibility of a rupture and premature lamp failure:

1. Do not use with luminaires which would cause an excessive increase in arc-tube operating voltage.
2. Do not expose operating lamp to moisture (such as, rain, sleet or snow).
3. Replace lamp if outer glass bulb has been scratched, cracked, or damaged in any way.
4. Electrically insulate any metal support in contact with the outer glass bulb to avoid glass decomposition.

V. BROKEN ARC-TUBE: Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

WARNING

ANSI LUMINAIRE Code F
ENCLOSED FIXTURE with UV
Filter and lens interlock required

LUMALUX® Double-Ended Quartz Jacketed Lamps

- I. OPERATE WITH COMPATIBLE BALLAST AND FIXTURE ONLY:** This lamp must be operated in a fixture and ballast which has an ANSI designation identical to that found on the lamp outer glass bulb.
- II. ULTRAVIOLET RADIATION HAZARD:** THIS LAMP EMITS ULTRAVIOLET (UV) POWER DURING OPERATION AND IS IN RISK GROUP 2 PER ANSI-IESNA Rp-27.3-96. THIS LAMP CAN CAUSE SERIOUS SKIN BURN AND EYE INJURY FROM SHORTWAVE ULTRAVIOLET RADIATION. IT **MUST** BE OPERATED IN AN ENCLOSED FIXTURE WHICH FILTERS OUT THE HARMFUL SHORTWAVE ULTRAVIOLET RADIATION. IF YOU ARE UNCERTAIN, CONTACT YOUR FIXTURE MANUFACTURER.

A power interlock device is required to automatically turn off the lamp if the fixture assembly is opened. It is strongly recommended that a power interlock device also turn off power to the lamp if the fixture lens is broken. If the fixture lens breaks and the lamp remains on, turn off power immediately and repair before re-energizing.

This lamp is to be used **ONLY** in a fixture specifically designed for use with this lamp and recommended for its use by the equipment manufacturer.

- III. ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. Allow lamp to cool before removing.
- IV. LAMP INSTALLATION AND FIXTURE:** Do not remove lamp from package until ready for use and then handle only with clean cotton gloves. If lamp is handled, fingerprints, grease or oils may be removed from the bulb by wiping with alcohol. This will remove materials which cause whitish spotting (devitrification) and premature lamp failure. Dry lamp carefully with clean cotton cloth.
1. Install lamp without undue pressure.
 2. Ensure that lamp electrical connections are secure and nothing is touching bulb.
 3. All seal gaskets and wire insulation must be shielded from the UV radiation produced by this lamp.
 4. Fixture wiring must have a temperature rating of 250° C and a minimum voltage rating of 600 V RMS.
 5. Never install it into a fixture designed for use with tungsten halogen lamps.
 6. Do not expose operating lamp to moisture (such as rain, sleet or snow).
 7. Replace lamp if outer glass bulb has been scratched, cracked, or damaged in any way.
- V. BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

R

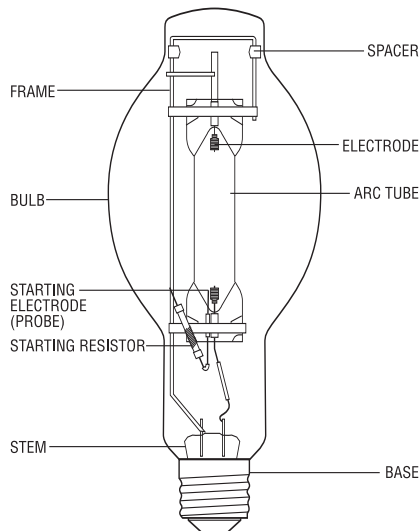


SOX LAMPS

THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE

- I. BURNS AND FIRE HAZARD:**
Sox lamps contain a quantity of sodium which may heat from a reaction with moisture in the air or on the skin if a lamp is broken. Hot sodium will burn spontaneously when exposed to the air. Sodium lamps must be packed, shipped, and stored in the wrapping provided to reduce the risk of breakage.
- II. IMPLOSION HAZARD:**
Always wear safely glasses when handling lamp. Low pressure sodium lamps are made of glass and are evacuated and could therefore implode if damaged or handled incorrectly. Replace lamp if outer glass bulb has been scratched, cracked, or damaged in any way. To reduce the possibility of a lamp cracking or breaking, do not expose operating lamp to rain, snow, or water.
- III. ELECTRICAL SHOCK AND BURN HAZARD:**
Do not remove or insert lamp when power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.
- IV. OPERATE WITH COMPATIBLE BALLAST AND FIXTURE ONLY:**
This lamp must be operated in a fixture and ballast which was specifically designed for use with this lamp.
- V. INSTALLATION AND OPERATING INSTRUCTIONS:**
1. When operated in other than the base up orientation, single-based "SOX" lamps of from 35 watts to 180 watts must be supported at the end opposite to the base in such a way as to allow for thermal expansion and contraction along the lamp axis.
 2. Install lamp firmly but not forcibly into socket to avoid breakage.
 3. For maximum system performance, replace lamp at or before end of rated life. (See catalog for rated life.)
 4. Only operate lamps in designated operating positions. (See catalog for illustration.)
- VI. LAMP DISPOSAL:**
To avoid the risk of personal injury or property damage from sodium reaction when disposing of spent lamps, the following procedure should be followed:
1. Before commencing, operator must be outfitted with appropriate OSHA-approved face mask, gloves and apron.
 2. Place no more than 20 lamp(s) in a large, dry container. (Do not exceed one-quarter of the container height.)
 3. Break lamp(s) into small pieces inside the container in a dry atmosphere and in a well ventilated area.
 4. From a safe distance, carefully pour enough tap water into container to cover all materials.
 5. After a few minutes, the reaction of the sodium with the large quantity of water will produce a mild sodium hydroxide solution which may be disposed of in accordance with applicable federal, state and local regulations.

GUIDE TO MERCURY VAPOR LAMPS



OSRAM SYLVANIA Mercury lamps are designed primarily for use in general lighting applications where good efficiency and long life are desired while color rendering requirements are moderate. Applications include street lighting, industrial hi-bay, parking lot lighting, and general flood-lighting.

STANDARD MERCURY — Available in a wide range of lamp types from 75-1000 watts, in both clear and coated configurations, Mercury vapor lamps are ideal for a variety of lighting applications. PAR lamps offer floodlighting and ultra-violet spectra for special lighting applications.

WARNING

STANDARD MERCURY “R” LAMPS

- I. **RUPTURE RISKS:** This Mercury lamp is constructed of an outer glass bulb with an internal arc-tube made of quartz. Mercury arc-tubes operate at high pressure and at very high temperatures and can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication. An arc-tube rupture can burst and shatter the outer glass bulb resulting in the discharge of glass fragments and extremely hot quartz particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

TO REDUCE THESE RISKS:

1. Only operate lamp with compatible ballast and fixture. (See catalog for specific information.)
2. Fixture lens/diffuser material must be able to contain hot lamp fragments (as high as 1832°F, 1000°C). If you are uncertain, contact your fixture manufacturer.
3. Never expose an operating lamp to moisture (such as rain, sleet, or snow).
4. Replace lamp if outer glass bulb is scratched, cracked or damaged in any way.
5. Electrically insulate any metal support in contact with the outer bulb to avoid glass decomposition.
6. Replace lamp at or before the end of rated life. (See catalog for rated life.)

- II. **ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp when power is on. If outer glass bulb is broken, shut off power immediately and remove lamp after it has cooled.

III. ULTRAVIOLET RADIATION EXPOSURE:

WARNING: THIS LAMP CAN CAUSE SERIOUS SKIN BURN AND EYE INFLAMMATION FROM SHORT WAVE ULTRAVIOLET RADIATION IF OUTER ENVELOPE OF THE LAMP IS BROKEN OR PUNCTURED. DO NOT USE WHERE PEOPLE WILL REMAIN FOR MORE THAN A FEW MINUTES UNLESS ADEQUATE SHIELDING OR OTHER SAFETY PRECAUTIONS ARE USED. LAMPS THAT WILL AUTOMATICALLY EXTINGUISH WHEN THE OUTER ENVELOPE IS BROKEN OR PUNCTURED ARE COMMERCIALY AVAILABLE.

THIS PRODUCT CONFORMS TO THE FOLLOWING FEDERAL REGULATIONS:

U.S.A.: 21 CFR 1040.30

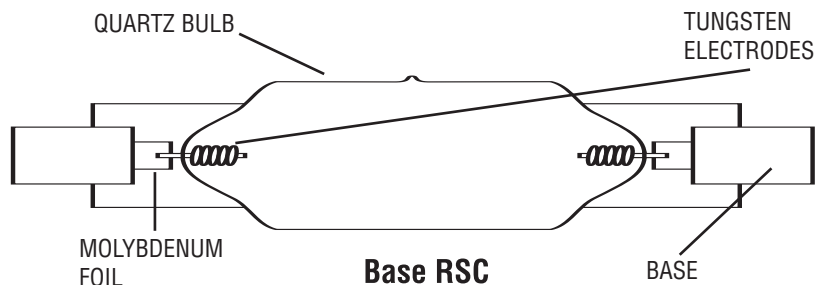
CANADA: SOR/80-381

IV. INSTALLATION:

1. Screw lamp firmly but not forcibly into socket to avoid breakage.
2. To avoid damaging a lamp, never install it into an ordinary household socket.
3. This lamp may be operated in any position.

- V. **BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.

GUIDE TO REPROGRAPHIC LAMPS



OSRAM SYLVANIA reprographic lamps are designed for applications other than general lighting. These applications include: plate making, photo resist exposure, imaging and other requiring the use of ultraviolet energy.

UNJACKETED REPROGRAPHIC E-TYPE LAMP



THE FOLLOWING INSTRUCTIONS MUST BE COMPLIED WITH TO AVOID RISK OF PERSONAL INJURY, PROPERTY DAMAGE AND POOR LAMP PERFORMANCE.

- I. **RUPTURE RISKS:** This High Intensity Discharge (HID) lamp is constructed with a quartz arc-tube which operates at high pressure and at very high temperatures. The arc-tube can unexpectedly rupture due to internal causes or external factors such as a ballast failure or misapplication resulting in the discharge of glass fragments and extremely hot particles. In the event of such rupture, **THERE IS A RISK OF PERSONAL INJURY, PROPERTY DAMAGE, BURNS AND FIRE.**

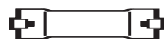
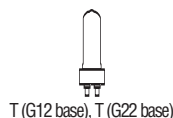
TO REDUCE THESE RISKS:

1. Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2012°F, 1100°C). If you are uncertain, contact your fixture manufacturer.
2. Only operate lamp with compatible ballast (including capacitor and ignitor) and fixture.
3. Only operate lamp in horizontal position (Maximum deviation from horizontal is 15°).
4. Lamp must be turned off for a minimum of fifteen minutes at least once a week.
5. Never expose an operating lamp to moisture (such as rain, sleet or snow).
6. Replace lamp if bulb is scratched, cracked or damaged in any way.
7. Keep all metals at least 3 inches from the body of the arc-tube to avoid glass decomposition.
8. Do not operate lamps when output radiation falls below 75% of its initial value.

- II. **ULTRAVIOLET RADIATION HAZARD:** THIS LAMP EMITS ULTRAVIOLET (UV) POWER DURING OPERATION AND IS IN RISK GROUP 3 PER ANSI-IESNA Rp-27.3-96. THIS LAMP CAN CAUSE SERIOUS SKIN BURN AND EYE INFLAMMATION FROM SHORTWAVE ULTRAVIOLET RADIATION. KEEP OUT OF DIRECT OR INDIRECT LIGHT DURING OPERATION UNLESS APPROPRIATE EYE AND SKIN PROTECTION IS WORN. A POWER INTERLOCK DEVICE IS RECOMMENDED TO AUTOMATICALLY TURN OFF THE LAMP IF THE FIXTURE ASSEMBLY IS OPENED.

DUE TO THE ULTRAVIOLET HAZARD, THIS LAMP IS TO BE USED **ONLY** IN EQUIPMENT SPECIFICALLY DESIGNED FOR USE WITH THIS LAMP AND RECOMMENDED FOR ITS USE BY THE EQUIPMENT MANUFACTURER.

- III. **ELECTRICAL SHOCK AND BURN HAZARD:** Do not remove or insert lamp while power is on. Allow lamp to cool before removing.
- IV. **LAMP INSTALLATION AND FIXTURE:** Do not remove lamp from package until ready for use and then handle only with clean cotton gloves. If lamp is handled, fingerprints, grease or oils may be removed from the bulb by wiping with alcohol. This will remove materials which cause whitish spotting (devitrification) and premature lamp failure. Dry lamp carefully with clean cotton cloth.
 1. Install lamps without undue pressure.
 2. Ensure that lamp electrical connections are secure and nothing is touching bulb.
 3. The seal base temperature must not exceed 350° C and the bulb wall temperature, as measured in center, must be maintained between 600° C and 700° C.
 4. If cooling is required to maintain the seal/base and the bulb wall temperatures of item 3 above, air interlock vane switches are recommended to protect against fan-motor failure.
 5. All seal gaskets and wire insulation must be shielded from the UV radiation produced by this lamp.
 6. Fixture wiring must have a temperature rating of 250° C and a minimum voltage rating of 600V RMS for lamps of less than 1000 watts and 1500V RMS for lamps of 1000 watts or greater.
 7. For maximum performance, all double-ended lamps must be operated with the arc-tube tip up.
- V. **BROKEN ARC-TUBE:** Take care in handling and disposing of this lamp. If arc-tube is broken, avoid skin contact with any of the contents and fragments. See Product Safety Data Sheet for further details.



POWERBALL® CERAMIC METALARC® TUBULAR SINGLE-ENDED High CRI, Pulse Start, UV Stop – Enclosed Fixtures Only

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
20	T4.5	G8.5	64882	MC20TC/U/G8.5/830PB	M156/E	12	Clear	Universal	E	12000	1700	1275	83	3000	1,4,18, 24,25,30,48
39	T4.5	G8.5	64791	MC39TC/U/G8.5/830PB	M130/E	12	Clear	Universal	E	12000	3400	2720	82	3000	1,4,18,24, 25,30,48
	T6	G12	64363	MC39T6/U/G12/830PB	M130/E	12	Clear	Universal	E	12000	3400	2720	82	3000	1,4,18,24, 25,30,48
			64325	MC39T6/U/G12/940PB	M130/E	12	Clear	Universal	E	12000	3300	2640	90	4200	1,4,18, 24,25,26,30,48
70	T4.5	G8.5	64825	MC70TC/U/G8.5/930PB	M139/E, M98/E	12	Clear	Universal	E	12000	6300	5040	95	3000	1,4,18, 24,25,26,30,48
	T6	G12	64361	MC70T6/U/G12/830PB	M139/E, M98/E	12	Clear	Universal	E	12000	7000	5600	87	3000	1,4,18,24, 25,26,30,48
			64200	MC70T6/U/G12/930PB	M139/E, M98/E	12	Clear	Universal	E	12000	6400	5120	95	3000	1,4,18, 24,25,26,30,48
			64338	MC70T6/U/G12/940PB	M139/E, M98/E	12	Clear	Universal	E	12000	6700	5360	93	4200	1,4,18,24, 25,26,30,48
150	T7.5	G12	64359	MC150T7.5/U/G12/830	M102/E, M142/E	12	Clear	Universal	E	12000	15500	12400	89	3000	1,4,18,24, 30,31,48
			64337	MC150T7.5/U/G12/940PB	M102/E, M142/E	12	Clear	Universal	E	12000	14500	11600	95	4200	1,4,18,24, 30,31,48
250	T9	G22	64167	MC250T9/U/G22/830PB	M80/E	10	Clear	Universal	E	12000	24500	19600	86	3000	1,4,18,24,30,31,48

POWERBALL® CERAMIC METALARC® TUBULAR DOUBLE-ENDED

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
70	T6	RX7s RSC	64793	MC70T6/DE/830PB	M139/E, M85/E, M98/E	12	Clear	HOR ± 45°	E	12000	6900	5520	88	3000	1,4,18,25, 26,30,35,48
150	T7.5	RX7s RSC	64794	MC150T7.5/DE/830PB	M102/E, M142/E, M81/E	12	Clear	HOR ± 45°	E	12000	14800	11840	91	3000	1,4,18,30, 37,48

POWERBALL® CERAMIC METALARC® PAR High CRI, Pulse Start, UV Stop – Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Beam Type	Beam Angle	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	MBCP	CRI	CCT (K)	Symbols & Footnotes
20	PAR30LN E26 Med		64879	MCP20PAR30LN/U/830/SP/ECOPB	M156/O	6	SP	10°	Universal	O	12000	24000	1200	82	3100	1,4,7,17,24,30,48
			64878	MCP20PAR30LN/U/830/FL/ECOPB	M156/O	6	FL	30°	Universal	O	12000	4000	1200	82	3100	1,4,7,17,24,30,48
39	PAR20 E26 Med		64824	MCP39PAR20/U/830/SPPB	M130/O	12	SP	10°	Universal	O	12000	20000	2000	87	3000	1,4,17, 24,25,30,48
			64826	MCP39PAR20/U/830/FLPB	M130/O	12	FL	30°	Universal	O	12000	5000	2000	87	3000	1,4,17, 24,25,30,48
	PAR30LN E26 Med		64880	MCP39PAR30LN/U/830/SP/ECOPB	M130/O	6	SP	10°	Universal	O	12000	39600	2300	85	3000	1,4,7,17,24,25,30,48
			64881	MCP39PAR30LN/U/830/FL/ECOPB	M130/O	6	FL	30°	Universal	O	12000	8000	2300	85	3000	1,4,7,17,24,25,30,48



PAR30 LN

PAR38

E17

POWERBALL® CERAMIC METALARC® PAR High CRI, Pulse Start, UV Stop – Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Beam Type	Beam Angle	Operating Position	Fix Req	Avg Rated Life (hrs)	MBCP	Approx Lumens (initial)	CRI	CCT (K)	Symbols & Footnotes
39	PAR30LN	E26 Med	64885	MCP39PAR30LN/U/830/VWFL/ECOPB	M139/O, M130/O	6	VWFL	46°	Universal	O	12000	3500	2300	85	3000	1,4,7,17,24,25,30,48
70	PAR30LN	E26 Med	64201	MCP70PAR30LN/U/930/SP/ECOPB	M139/O, M98/O	6	SP	12°	Universal	O	12000	42000	3600	95	3000	1,4,7,17,25,26,30,48
			64202	MCP70PAR30LN/U/930/FL/ECOPB	M139/O, M98/O	6	FL	30°	Universal	O	12000	12000	3600	95	3000	1,4,7,17,25,26,30,48
	PAR38	E26 Med Skt	64749	MCP70PAR38/U/830/SP/ECOPB	M139/O, M98/O	6	SP	15°	Universal	O	12000	40000	4300	88	3000	1,4,7,17,26,30,38,48
			64750	MCP70PAR38/U/830/FL/ECOPB	M139/O, M98/O	6	FL	25°	Universal	O	12000	16000	4300	88	3000	1,4,7,17,26,30,38,48
			64751	MCP70PAR38/U/VWFL/830/ECOPB	M139/O, M98/O	6	VWFL	65°	Universal	O	12000	3500	4300	88	3000	1,4,7,17,26,30,38,48
100	PAR38	E26 Med Skt	64752	MCP100PAR38/U/830/SP/ECOPB	M90/O, M140/O	6	SP	15°	Universal	O	12000	58000	6500	88	3000	1,4,7,17,27,30,38,48
			64753	MCP100PAR38/U/830/FL/ECOPB	M90/O, M140/O	6	FL	25°	Universal	O	12000	25000	6500	88	3000	1,4,7,17,27,30,38,48
			64754	MCP100PAR38/U/830/VWFL/ECOPB	M90/O, M140/O	6	VWFL	60°	Universal	O	12000	6000	6500	88	3000	1,4,7,17,27,30,38,48
150	PAR38	E26 Med Skt	64841	MCP150PAR38/U/830/SP/ECOPB	M102/O, M142/O	6	SP	15°	Universal	O	12000	50000	9100	88	3000	1,4,7,17,31,38,48
			64842	MCP150PAR38/U/830/FL/ECOPB	M102/O, M142/O	6	FL	25°	Universal	O	12000	28000	9100	88	3000	1,4,7,17,31,38,48
			64843	MCP150PAR38/U/830/VWFL/ECOPB	M102/O, M142/O	6	VWFL	65°	Universal	O	12000	6500	9100	88	3000	1,4,7,17,31,38,48

POWERBALL® CERAMIC METALARC® E17 & HIGH WATTAGE High CRI, Pulse Start – Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
50	E17	E26 Med	64840	MCP50/U/MED/830PB	M110/O, M148/O	12	Clear	Universal	O	12000	4100	2850	88	3000	1,4,17,30,48
			64849	MCP50/C/U/MED/830PB	M110/O, M148/O	12	Coated	Universal	O	12000	3800	2640	88	2900	1,4,17,30,48
70	E17	E26 Med	64739	MCP70/U/MED/830PB	M139/O, M98/O	12	Clear	Universal	O	16000	5900	4365	88	3000	1,4,17,26,30,48
			64740	MCP70/C/U/MED/830PB	M139/O, M98/O	12	Coated	Universal	O	16000	5500	3900	88	3000	1,4,17,26,30,48
			64193	MCP70/U/MED/940PB	M139/O, M98/O	12	Clear	Universal	O	12000	6000	4800	93	4000	1,4,17,26,30,48
			64194	MCP70/C/U/MED/940PB	M139/O, M98/O	12	Coated	Universal	O	12000	5600	4480	93	3800	1,4,17,26,30,48
100	E17	E26 Med	64743	MCP100/U/MED/830PB	M90/O, M140/O	12	Clear	Universal	O	16000	9000	6660	88	3000	1,4,17,27,30,48
			64744	MCP100/C/U/MED/830PB	M90/O, M140/O	12	Coated	Universal	O	16000	8100	5994	88	3000	1,4,17,27,30,48
			64322	MCP100/U/MED/940PB	M90/O, M140/O	12	Clear	Universal	O	20000	8200	6150	93	4000	1,4,17,27,30,48
			64315	MCP100/C/U/MED/940PB	M90/O, M140/O	12	Clear	Universal	O	20000	7500	5625	90	4000	1,4,17,27,48

POWERBALL® CERAMIC METALARC® E17 & HIGH WATTAGE

High CRI, Pulse Start – Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
150	E17	E26 Med	64741	MCP150/U/MED/830PB	M102/O	12	Clear	Universal	0	12000	13000	11000	88	3000	1,4,17,30,31,48
			64742	MCP150/C/U/MED/830PB	M102/O	12	Coated	Universal	0	12000	12000	10000	88	3000	1,4,17,30,31,48
250	BT28	EX39 Excl Mogul	64786	MCP250/PS/BU-ONLY/940PB	M153/O	6	Clear	BU ± 15°	0	15000	24000	19200	94	4200	1,4,17,23,48
			64821	MCP250/C/PS/BU-ONLY/940PB	M153/O	6	Coated	BU ± 15°	0	15000	22500	18000	94	4000	1,4,17,23,48
320	BT37	EX39 Excl Mogul	64834	MCP320/PS/BU-ONLY/840PB	M154/O	6	Clear	BU ± 15°	0	20000	37500	28125	88	4000	1,4,17,48
			64851	MCP320/C/PS/BU-ONLY/840PB	M154/O	6	Coated	BU ± 15°	0	20000	36000	27000	88	3900	1,4,17,48

METALARC® PULSE START

High Output, Reduced Color Shift – Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
175	ED17	E26 Med	64171	MS175/PS/BU-ONLY/MED	M152/E, M137E	12	Clear	BU ± 15°	E	15000	17500	12800	65	4000	4,18,23,39
			64170	MS175/C/PS/BU-ONLY/MED	M152/E, M137E	12	Coated	BU ± 15°	E	15000	16600	12500	70	3700	4,18,23,39
	ED28	E39 Mogul	64815	MS175/PS/BU-ONLY	M152/E, M137E	12	Clear	BU ± 15°	E	15000	17500	12800	65	4000	4,18,23,39
			64816	MS175/C/PS/BU-ONLY	M152/E, M137E	12	Coated	BU ± 15°	E	15000	16600	12500	70	3700	4,18,23,39
200	ET23.5	E39 Mogul	64837	MS200/PS/BU-ONLY/ET23.5	M136/E	12	Clear	BU ± 15°	E	15000	19000	13300	65	4200	4,18,23
	BT28	E39 Mogul	64838	MS200/PS/BU-ONLY/BT28	M136/E	6	Clear	BU ± 15°	E	15000	19000	13500	65	4000	4,18,23
			64839	MS200/C/PS/BU-ONLY/BT28	M136/E	6	Coated	BU ± 15°	E	15000	18000	12800	70	3800	4,18,23
250	BT28	E39 Mogul	64320	M250/PS/U	M153/E, M138/E	6	Clear	Universal	E	15000V 12000H	22000V 19000H	15400V 14000H	65	3800	4,18,23
			64578	MS250/PS/BU-ONLY	M153/E, M138/E	6	Clear	BU ± 15°	E	20000	23000	17000	65	4200	4,18,23
			64617	MS250/C/PS/BU-ONLY	M153/E, M138/E	6	Coated	BU ± 15°	E	20000	21500	15500	70	3600	4,18,23
320	BT28	E39 Mogul	64507	MS320/PS/BU-HOR	M154/E, M132/E	6	Clear	BU-HOR	E	20000V 15000H	30000V 28000H	21000V 19700H	65	4300	4,18,23,41
			64646	MS320/C/PS/BU-HOR	M154/E, M132/E	6	Coated	BU-HOR	E	20000V 15000H	30000V 28000H	19700V 18400H	70	3900	4,18,23,41
400	BT28	E39 Mogul	64188	M400/PS/U/BT28	M155/E	6	Clear	Universal	E	20000V 15000H	36000V 31000H	25500V 22400H	65	4000	4,18,23,42
			64191	MS400/PS/BD-ONLY/BT28	M155/E, M135/E	6	Clear	BD ± 15°	E	20000	40000	32500	65	4100	4,18,23,42,46
			64189	MS400/PS/BU-ONLY/BT28	M155/E, M135/E	6	Clear	BU ± 15°	E	20000	40000	32500	65	4100	4,18,23,42,46
	BT37	E39 Mogul	64321	M400/PS/U	M155/E	6	Clear	Universal	E	20000V 15000H	36000V 31000H	25500V 22400H	65	4000	4,18,23
			64525	MS400/PS/BU-ONLY	M155/S, M135/S	6	Clear	BU ± 15°	S	20000	42000	31000	65	4000	4,6,20,21,23,24,42,46



BT37



E17



BT28

METALARC® PULSE START

High Output, Reduced Color Shift – Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
400	BT37	E39 Mogul	64527	MS400/C/PS/BU-ONLY	M155/S, M135/S	6	Coated	BU ± 15°	S	20000	42000 29000	70	3600	4,6,20,21,23,24, 42,46
750	BT37	E39 Mogul	65424	MS750/PS/BD-ONLY/BT37	M149/E	6	Clear	BD ± 15°	E	16000	78000 67000	65	4000	4,18,33
			64787	MS750/PS/BU-HOR/BT37	M149/E	6	Clear	BU-HOR	E	16000V 12000H	78000V 67000V 68000H 56000H	65	4000	4,18,33
			64822	MS750/C/PS/BU-HOR/BT37	M149/E	6	Coated	BU-HOR	E	16000V 12000H	75000V 63000V 65000H 53000H	70	3700	4,18,33
1000	BT37	E39 Mogul	64351	M1000/PS/U/BT37	M141/E	6	Clear	Universal	E	15000V 9000H	110000V 96000V 107800H 86300H	65	3800	4,18

METALARC PRO-TECH® PULSE START

High Output, Reduced Color Shift – Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
50	E17	E26 Med	64587	MP50/U/MED	M110/O	20	Clear	Universal	O	20000V 10000H	3450 1900	70	3000	4,17
			64588	MP50/C/U/MED	M110/O	20	Coated	Universal	O	20000V 10000H	3200 1820	70	2900	4,17
70	E17	E26 Med	64625	MPD70/U/MED/840	M98/O	20	Clear	Universal	O	7500H 6000V	5500 4000	80	4200	4,17
			64621	MPD70/C/U/MED/840	M98/O	20	Coated	Universal	O	7500H 6000V	5100 3800	82	4000	4,17
			64547	MP70/U/MED	M98/O	20	Clear	Universal	O	15000V 10000H	5200 3400	75	3000	4,17
			64546	MP70/C/U/MED	M98/O	20	Coated	Universal	O	15000V 10000H	4700 3100	75	2900	4,17
100	E17	E26 Med	64417	MP100/U/MED	M90/O	20	Clear	Universal	O	15000V 10000H	8500 5525	75	3000	4,17
			64418	MP100/C/U/MED	M90/O	20	Coated	Universal	O	15000V 10000H	7900 5800	75	2900	4,17
			64426	MPD100/U/MED/840	M90/O	20	Clear	Universal	O	7500V 6000H	8400 5800	82	4200	4,17
			64433	MPD100/C/U/MED/840	M90/O	20	Coated	Universal	O	7500V 6000H	7700 5500	82	4000	4,17
150	E17	E26 Med	64402	MP150/U/MED	M102/O	20	Clear	Universal	O	15000V 10000H	12900 8000	75	3000	4,17
			64406	MP150/C/U/MED	M102/O	20	Coated	Universal	O	15000V 10000H	11600 7500	75	2900	4,17
			64403	MPD150/U/MED/840	M102/O	20	Clear	Universal	O	7500V 6000H	12500 11000	88	4200	4,17
			64425	MPD150/C/U/MED/840	M102/O	20	Coated	Universal	O	7500V 6000H	11500 9500	88	4000	4,17
250	BT28	EX39 Excl Mogul	64790	MP250/C/PS/BU-ONLY	M153/O, M138/O	6	Coated	BU ± 15°	O	15000	21000 16000	70	4000	4,17,23
			64789	MP250/PS/BU-ONLY	M153/O, M138/O	6	Clear	BU ± 15°	O	15000	22500 17000	65	4000	4,17,23
320	BT28	EX39 Excl Mogul	64391	MP320/350/PS/BU-ONLY/BT28	M154/O, M132/O, M131/O	6	Clear	BU ± 15°	O	20000	28600V 21000V 33500H 24000H	65	3800 3600	4,17,23,41



METALARC PRO-TECH® PULSE START

High Output, Reduced Color Shift – Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
320	BT28	EX39 Excl Mogul	64349	MP320/350/C/PS/BU-ONLY/BT28	M154/O, M132/O, M131/O	6	Coated	BU ± 15°	0	20000	27700V 19000V 32000H 22000H	70	3600	4,17,23,41
350	BT37	EX39 Excl Mogul	64769	MP350/400/PS/BU-ONLY	M131/O, M155/O, M135/O	6	Clear	BU ± 15°	0	20000	33000V 24500V 40000H 29500H	65	3700	4,17,23,42,46
			64770	MP350/400/C/PS/BU-ONLY	M131/O, M155/O, M135/O	6	Coated	BU ± 15°	0	20000	32000V 23000V 39000H 28000H	70	3500	4,17,23,42,46

METALARC PRO-TECH® PULSE START - PAR

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Beam Type	Beam Angle	Operating Position	Fix Req	Avg Rated Life (hrs)	MBCP	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
70	PAR38	E26 Med Skt	64590	MP70PAR38/U/SP20/ECO	M98/O	6	SP	20°	Universal	0	8500	18000	3400	75	3200	4,7,17,38
			64592	MP70PAR38/U/FL35/ECO	M98/O	6	FL	35°	Universal	0	8500	10000	3400	75	3200	4,7,17,38
			64594	MP70PAR38/U/VWFL65/ECO	M98/O	6	VWFL	65°	Universal	0	8500	3000	3400	75	3200	4,7,17,38
100	PAR38	E26 Med Skt	64580	MP100PAR38/U/SP20/ECO	M90/O	6	SP	20°	Universal	0	8500	26000	5800	75	3000	4,7,17,38
			64582	MP100PAR38/U/FL35/ECO	M90/O	6	FL	35°	Universal	0	8500	12000	5800	75	3000	4,7,17,38
			64584	MP100PAR38/U/VWFL65/ECO	M90/O	6	VWFL	65°	Universal	0	8500	4500	5800	75	3000	4,7,17,38
150	PAR38	E26 Med Skt	64593	MP150PAR38/U/SP20/ECO	M102/O	6	SP	20°	Universal	0	8500	34000	8800	75	3200	4,7,17,38
			64597	MP150PAR38/U/FL35/ECO	M102/O	6	FL	35°	Universal	0	8500	17000	8800	75	3200	4,7,17,38
			64599	MP150PAR38/U/VWFL65/ECO	M102/O	6	VWFL	65°	Universal	0	8500	7500	8800	75	3200	4,7,17,38

METALARC PRO-TECH® SUPERSAVER®

Energy Saving, Metal Halide Retrofit - Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
360	BT37	EX39 Excl Mogul	64737	MSP360/SS/BU-ONLY	M59/O, M165/O	6	Clear	BU ± 15°	0	20000	35000 23500	65	4000	12,17,46
			64738	MSP360/C/SS/BU-ONLY	M59/O, M165/O	6	Coated	BU ± 15°	0	20000	34000 22500	70	3600	12,17,46

METALARC PRO-TECH®

Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
175	ED17	E26 Med	64733	MP175/BU-ONLY/MED	M57/O	20	Clear	BU ± 15°	0	10000	14400 10800	65	3600	17
	BT28	EX39 Excl Mogul	64773	MP175/BU-ONLY	M57/O	6	Clear	BU ± 15°	0	10000	14400 10200	65	4000	17
			64774	MP175/C/BU-ONLY	M57/O	6	Coated	BU ± 15°	0	10000	12800 7800	70	3800	17
250	BT28	EX39 Excl Mogul	64404	MP250/BU-ONLY	M58/O	6	Clear	BU ± 15°	0	10000	23000 17000	65	4000	17
			64405	MP250/C/BU-ONLY	M58/O	6	Coated	BU ± 15°	0	10000	20000 14350	70	3800	17
400	BT37	EX39 Excl Mogul	64705	MP400/BU-ONLY	M59/O	6	Clear	BU ± 15°	0	20000	40000 26000	65	3600	17



BT37



BT56



BT28

METALARC PRO-TECH® Open or Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
400	BT37	EX39 Excl Mogul	64706	MP400/C/BU-ONLY	M59/O	6	Coated	BU ± 15°	0	20000	38500	25000	70	3400	17
			64717	MP400/BD-ONLY	M59/O	6	Clear	BD ± 15°	0	20000	40000	26000	65	3600	17
1000	BT56	EX39 Excl Mogul	64714	MP1000/BU-ONLY	M47/O	6	Clear	BU ± 15°	0	15000	109000	87500	65	3500	17
			64716	MP1000/C/BU-ONLY	M47/O	6	Coated	BU ± 15°	0	15000	102000	82000	70	3200	17

METALARC® SUPER High Output, Position Dedicated – Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
175	BT28	E39 POM	64439	MS175/HOR	M57/E	6	Clear	HOR ± 15° E		10000	15000	8000	65	4200	11,18
			64440	MS175/C/HOR	M57/E	6	Coated	HOR ± 15° E		10000	14500	8000	70	4000	11,18
250	BT28	E39 POM	64448	MS250/HOR	M58/E	6	Clear	HOR ± 15° E		10000	23000	15000	65	4200	11,18
			64449	MS250/C/HOR	M58/E	6	Coated	HOR ± 15° E		10000	22000	14000	70	3800	11,18
			64496	MS250/3K/HOR	M58/E	6	Coated	HOR ± 15° E		10000	17200	13500	70	3200	11,18
400	BT28	E39 POM	64443	MS400/HOR/BT28	M59/E	6	Clear	HOR ± 15° E		20000	39000	26000	65	4200	11,18
			64444	MS400/C/HOR/BT28	M59/E	6	Coated	HOR ± 15° E		20000	36500	24000	70	3800	11,18
	BT37	E39 POM	64445	MS400/HOR	M59/E	6	Clear	HOR ± 15° E		20000	39000	25000	65	4200	11,18
			64446	MS400/C/HOR	M59/E	6	Coated	HOR ± 15° E		20000	38000	24000	70	3800	11,18
			64498	MS400/3K/HOR	M59/E	6	Coated	HOR ± 15° E		20000	33500	23300	70	3200	11,18
	BT28	E39 Mogul	64441	MS400/BU-ONLY/BT28	M59/E	6	Clear	BU ± 15°	E	20000	40000	26000	65	3800	18
	BT37	E39 Mogul	64450	MS400/BU-ONLY	M59/S	6	Clear	BU ± 15°	S	20000	42000	26000	65	4000	6,20,47
			64452	MS400/C/BU-ONLY	M59/S	6	Coated	BU ± 15°	S	20000	42000	24700	70	3600	6,20,47
			64454	MS400/3K/BU-ONLY	M59/S	6	Coated	BU ± 15°	S	20000	35000	22000	70	3200	20
			64451	MS400/BD-ONLY	M59/S	6	Clear	BD ± 15°	S	20000	42000	27500	65	4000	20
1000	BT56	E39 Mogul	64435	MS1000/BU-ONLY	M47/S	6	Clear	BU ± 15°	S	18000	115000	92000	65	4000	20
			64460	MS1000/C/BU-ONLY	M47/S	6	Coated	BU ± 15°	S	18000	110000	88000	70	3400	20
			64436	MS1000/BD-ONLY	M47/S	6	Clear	BD ± 15°	S	18000	115000	92000	65	4000	20

METALARC® SUPERSAVER® Energy Saving, Metal Halide Retrofit

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
150	BT28	E39 Mogul	64719	M150/SS/U/BT28	M107/E, M57/E	6	Clear	Universal	E	10000V 7500H	13000V 12000H	7500V 8500H	65	4000	18,29,46
360	BT37	E39 Mogul	64655	MS360/SS/BU-HOR	M59/S, M165/S	6	Clear	BU-HOR	S	20000V 15000H	36000V 30000H	23500V 19000H	65	4000	12,20,46
			64656	MS360/C/SS/BU-HOR	M59/S, M165/S	6	Coated	BU-HOR	S	20000V 15000H	36000V 30000H	22500V 19000H	70	3600	12,20,46
		EX39 Excl Mogul	64737	MSP360/SS/BU-ONLY	M59/O, M165/O	6	Clear	BU ± 15°	0	20000	35000	23500	65	4000	12,17,46



BT37



BT56



E17



BT28



ET18

METALARC® SUPERSAVER®

Energy Saving, Metal Halide Retrofit

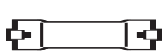
Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
360	BT37	EX39 Excl Mogul	64738	MSP360/C/SS/BU-ONLY	M59/O, M165/O	6	Coated	BU ± 15°	0	20000	34000 22500	70	3600	12,17,46
950	BT56	E39 Mogul	64850	M950/SS/U/BT56	M47/E, M176/E	6	Clear	Universal	E	18000V 12000H	103000V 80000V 90000H 64000H	65	4000	18,44

METALARC® STANDARD

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)	CRI	CCT (K)	Symbols & Footnotes
175	E17	E26 Med	64479	M175/U/MED	M57/E	20	Clear	Universal	E	10000V 7500H	14400V 9300 12800H	65	4000	18
			64480	M175/C/U/MED	M57/E	20	Coated	Universal	E	10000V 7500H	13000V 8400 11080H	70	3600	18
	BT28	E39 Mogul	64471	M175/U	M57/E	6	Clear	Universal	E	10000V 7500H	14400V 9300 12800H	65	4200	18
			64472	M175/C/U	M57/E	6	Coated	Universal	E	10000V 7500H	14000V 8400 12000H	70	3800	18
			64473	M175/3K/BU-ONLY	M57/E	6	Coated	BU ± 15°	E	10000	11800 7600	70	3200	18
250	ET18	E39 Mogul	64474	M250/U/ET18	M58/E	10	Clear	Universal	E	10000V 7500H	22000V 17500V 20000H 13500H	65	4000	18
			64457	M250/U	M58/E	6	Clear	Universal	E	10000V 7500H	22000V 15000V 20000H 13000H	65	4200	18
	BT28	E39 Mogul	64458	M250/C/U	M58/E	6	Coated	Universal	E	10000V 7500H	21500V 17000V 19500H 14000H	70	3800	18
			64475	M250/3K/BU-ONLY	M58/E	6	Coated	BU ± 15°	E	10000	17500 13000	70	3200	18
400	ET18	E39 Mogul	64575	M400/U/ET18	M59/E	10	Clear	Universal	E	20000V 15000H	36000V 25000V 33000H 21500H	65	4000	18
			64488	M400/U/BT28	M59/E	6	Clear	Universal	E	20000V 15000H	36000V 25000V 32000H 20500H	65	4000	18
	BT28	E39 Mogul	64489	M400/C/U/BT28	M59/E	6	Coated	Universal	E	20000V 15000H	36000V 25000V 32000H 20500H	70	3600	18
			64490	M400/U	M59/S	6	Clear	Universal	S	20000V 15000H	36000V 23500V 32000H 20500H	65	4000	6,20,47
	BT37	E39 Mogul	64492	M400/C/U	M59/S	6	Coated	Universal	S	20000V 15000H	36000V 22500V 32000H 20500H	70	3700	6,20,47
1000	BT37	E39 Mogul	64469	M1000/U/BT37	M47/E	6	Clear	Universal	E	15000V 9000H	110000V 96000V 107800H 86300H	65	3800	18
	BT56	E39 Mogul	64468	M1000/U	M47/S	6	Clear	Universal	S	18000V 12000H	110000V 86000V 107800H 86000H	65	4000	20
			64470	M1000/C/U	M47/S	6	Coated	Universal	S	18000V 12000H	107000V 80000V 101600H 80700H	70	3400	20
1500	BT56	E39 Mogul	64431	M1500/BU-HOR	M48/E	6	Clear	BU-HOR	E	3000	170000V 140000 153000H	70	4000	18,28
			64432	M1500/BD	M48/E	6	Clear	BD ± 15°	E	3000	167000 140000	70	4000	18



BT37



T (RSC base)



R30/R40



T (G12 base)



ET23.5



E17

METALARC® SAFELINE® Self-Extinguishing

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
400	BT37	E39 Mogul	64707	MT400/BU-ONLY	M59/S	6	Clear	BU ± 15°	S	20000	36000	22000	60	4500	12,16,20,32
			64709	MT400/C/BU-ONLY	M59/S	6	Coated	BU ± 15°	S	20000	35000	20600	65	4100	12,16,20,32

METALARC® BRITELINE Double-Ended – Enclosed Fixtures Only

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
1500	T7	RX7s RSC	66619	M1500T7/DE	M_F	10	Clear	HOR ± 4°	F	3000	150000	127500	65	4200	2,10,21,43,45,46
	T8	Cer #8-10 Spade	66632	M1500T8/DE	M133/F	10	Clear	HOR ± 4°	F	6000	150000	127500	65	4200	2,21,43,45
2000	T8	RX7s RSC	66627	M2000T8/DE	M_F	10	Clear	HOR ± 4°	F	3000	200000	170000	65	4000	2,10,21,43,45,46
	T9	Cer #8-10 Spade	66631	M2000T9/DE	M134/F	10	Clear	HOR ± 4°	F	3000	180000	153000	65	4200	2,21,43,45

HQI® METAL HALIDE DOUBLE-ENDED Compact, Quartz – Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
70	T6	RX7s RSC	64360	HQI-DE70/WDX	M85/E	12	Clear	HOR ± 45°	E	9000	5000	4400	76	3000	18,30
			64362	HQI-DE70/NDX	M85/E	12	Clear	HOR ± 45°	E	9000	5500	3800	83	4000	18,30
150	T7	RX7s RSC	64366	HQI-DE150/WDX	M81/E	12	Clear	HOR ± 45°	E	12000	11000	9000	76	3000	18,30
			64368	HQI-DE150/NDX	M81/E	12	Clear	HOR ± 45°	E	12000	11250	9500	85	4200	18,30

HQI® FIBER-OPTIC INTEGRATED DICHROIC REFLECTOR Compact, High CRI, Quartz – Enclosed Fixtures

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
150	R30	2 Pin Connector	64339	HQI-R150/NDX/FO	M81/E	12	Clear	HOR	E	9000	11000		85	4200	

HQI® METAL HALIDE SINGLE-ENDED

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
150	T7.5	G12	64342	HQI-SE 150/NDX	M81/E	12	Clear	Universal	E	9000	13000	9200	85	4200	18,30

LUMALUX PLUS® AND LUMALUX PLUS® ECO® Non-Cycling High Pressure Sodium

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
50	ET23.5	E39 Mogul	67607	LU50/PLUS/ECO	S68	20	Clear	Universal	0	30000	4000	3600	22	1900	4,7,8
70	E17	E26 Medium	67322	LU70/PLUS/MED	S62	20	Clear	Universal	0	30000	6300	5600	22	1900	4,8
	ET23.5	E39 Mogul	67497	LU70/PLUS/ECO	S62	20	Clear	Universal	0	30000	6300	5600	22	1900	4,7,8



E17



ET23.5, BT28



ET18



E25



BT37



T (Mog base)

LUMALUX PLUS® AND LUMALUX PLUS® ECO® Non-Cycling High Pressure Sodium

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
100	E17	E26 Medium	67323	LU100/PLUS/MED	S54	20	Clear	Universal	0	30000	10000	9000	22	2100	☀️ _{4,8}
	ET23.5	E39 Mogul	67559	LU100/PLUS/ECO	S54	20	Clear	Universal	0	30000	10000	9000	22	2100	☀️ _{4,7,8}
150	ET23.5	E39 Mogul	67494	LU150/55/PLUS/ECO	S55	20	Clear	Universal	0	30000	16000	14400	22	2100	☀️ _{4,7,8,13,36}
200	ET18	E39 Mogul	67495	LU200/PLUS/ECO	S66	20	Clear	Universal	0	30000	22000	19800	22	2100	☀️ _{4,7,8}
250	ET18	E39 Mogul	67572	LU250/PLUS/ECO	S50	20	Clear	Universal	0	30000	29000	26100	22	2100	☀️ _{4,7,8}
310	ET18	E39 Mogul	67660	LU310/PLUS/ECO	S67	20	Clear	Universal	0	30000	37000	33300	22	2100	☀️ _{4,7,8}
400	ET18	E39 Mogul	67312	LU400/PLUS/ECO	S51	20	Clear	Universal	0	30000	50000	45000	22	2100	☀️ _{4,7,8}
1000	E25	E39 Mogul	67316	LU1000/PLUS	S52	6	Clear	Universal	0	30000	130000	124000	22	2100	☀️ _{4,8}

LUMALUX® STANDARD AND LUMALUX® ECO®

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial)	(mean)	CRI	CCT (K)	Symbols & Footnotes
35	E17	E26 Medium	67500	LU35/MED	S76	20	Clear	Universal	0	16000+	2250	2050	22	1900	4,22
			67501	LU35/D/MED	S76	20	Coated	Universal	0	16000+	2100	1935	22	1900	4,22
50	E17	E26 Medium	67502	LU50/MED	S68	20	Clear	Universal	0	24000+	4000	3600	21	1900	4,22
			67503	LU50/D/MED	S68	20	Coated	Universal	0	24000+	3700	3420	22	1900	4,22
	ET23.5	E39 Mogul	67510	LU50/ECO	S68	20	Clear	Universal	0	24000+	4000	3600	22	1900	☀️ _{4,7,22}
			67511	LU50/D	S68	20	Coated	Universal	0	24000+	3700	3420	22	1900	4,22
70	E17	E26 Medium	67504	LU70/MED	S62	20	Clear	Universal	0	24000+	6300	5350	22	1900	4,22
			67505	LU70/D/MED	S62	20	Coated	Universal	0	24000+	5800	4900	22	1900	4,22
	ET23.5	E39 Mogul	67512	LU70/ECO	S62	20	Clear	Universal	0	24000+	6300	5500	22	1900	☀️ _{4,7,22}
			67513	LU70/D	S62	20	Coated	Universal	0	24000+	5500	4900	22	1900	4,22
100	E17	E26 Medium	67506	LU100/MED	S54	20	Clear	Universal	0	24000+	9500	8000	22	2100	4,22
			67507	LU100/D/MED	S54	20	Coated	Universal	0	24000+	8800	7500	22	2100	4,22
	ET23.5	E39 Mogul	67514	LU100/ECO	S54	20	Clear	Universal	0	24000+	9500	8000	22	2100	☀️ _{4,7,22}
			67515	LU100/D	S54	20	Coated	Universal	0	24000+	8800	7500	22	2100	4,22
150	E17	E26 Medium	67508	LU150/55/MED	S55	20	Clear	Universal	0	24000+	15800	13400	22	2100	4,13,22,36
			67509	LU150/55/D/MED	S55	20	Coated	Universal	0	24000+	14500	12300	22	2100	4,13,22,36
	ET23.5	E39 Mogul	67516	LU150/55/ECO	S55	20	Clear	Universal	0	24000+	16000	13800	22	2100	☀️ _{4,7,13,22,36}
			67517	LU150/55/D	S55	20	Coated	Universal	0	24000+	14000	12500	22	2100	4,13,22,36
	BT28	E39 Mogul	67518	LU150/100	S56	10	Clear	Universal	0	24000+	15700	14100	22	2100	4,14,22,36
200	ET18	E39 Mogul	67576	LU200/ECO	S66	20	Clear	Universal	0	24000+	22000	19800	22	2100	☀️ _{4,7,22}
250	ET18	E39 Mogul	67578	LU250/ECO	S50	20	Clear	Universal	0	24000+	29000	26100	22	2100	☀️ _{4,7,22}
	BT28	E39 Mogul	67521	LU250/D	S50	10	Coated	Universal	0	24000+	26000	23400	22	2100	4,22
310	ET18	E39 Mogul	67580	LU310/ECO	S67	20	Clear	Universal	0	24000+	37000	32300	22	2100	☀️ _{4,7,22}
400	ET18	E39 Mogul	67533	LU400/ECO	S51	20	Clear	Universal	0	24000+	50000	45000	22	2100	☀️ _{4,7,22}
	BT37	E39 Mogul	67524	LU400/D	S51	10	Coated	Universal	0	24000+	47500	40000	22	2100	4,22
600	T14.5	E40 Mogul	67610	LU600 SUPER	S106	12	Clear	Universal	0	24000	90000	81000	25	2200	3
750	BT37	E39 Mogul	67547	LU750	S111	6	Clear	Universal	0	24000+	105000	94500	22	2100	3,22
1000	E25	E39 Mogul	67307	LU1000/ECO	S52	6	Clear	Universal	0	24000+	130000	124000	22	2100	3,22



LUMALUX®STANDBY Dual Arc Tube,Long Life

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)		CRI	CCT (K)	Symbols & Footnotes
70	ET23.5	E39 Mogul	67540	LU70/SBY	S62	20	Clear	Universal	0	40000	6050	4950	22	1900	4,19
100	ET23.5	E39 Mogul	67542	LU100/SBY	S54	20	Clear	Universal	0	40000	9500	7600	22	2100	4,19
150	ET23.5	E39 Mogul	67544	LU150/55/SBY	S55	20	Clear	Universal	0	40000	15700	12100	22	2100	4,13,19,36
200	ET18	E39 Mogul	67586	LU200/100/SBY	S66	20	Clear	Universal	0	40000	21500	18000	22	2100	4,19
250	ET18	E39 Mogul	67582	LU250/SBY	S50	20	Clear	Universal	0	40000	27500	23200	22	2100	4,19
400	ET18	E39 Mogul	67584	LU400/SBY	S51	20	Clear	Universal	0	40000	47500	40000	22	2100	4,19
1000	E25	E39 Mogul	67543	LU1000/SBY	S52	6	Clear	Universal	0	24000+	127000	115000	22	2100	3,22

SPECIALTY

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)		CRI	CCT (K)	Symbols & Footnotes
400	T7	RX7s RSC	67527	LU400T7/RSC	S51	10	Clear	Horizontal	E	24000	4600	41400	21	2100	4,18
	T14.5	E40 Mogul	67711	400W PLANTASTAR	S51	12	Clear	Universal	0	16000	55000	50000	22	2000	3,43
600	T14.5	E40 Mogul	67712	600W PLANTASTAR	S106	12	Clear	Universal	0	16000	90000	81000	22	2000	3,43
1000	E25	E39 Mogul	67314	LU1000/PLANTASTAR	S52	6	Clear	Universal	0	24000	130000	124000	22	2100	3

MERCURY VAPOR

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Beam Type	Beam Angle	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)		CRI	CCT (K)	Arc Length (in)	Symbols & Footnotes
75	E17	E26 Med	69402	H43AV-75/DX	H43	20			Coated	Universal	0	16000+	2700	1800	45	4300		22,34
100	E17	E26 Med	69403	H38AV-100/DX	H38	20			Coated	Universal	0	18000+	4000	3560	45	4000		22,34
	PAR38	ADMed Skt	68843	H44GS-100SP	H44	12	SP	8°		Universal	0	16000	2500	1950	20	5900		22,34
		E26 Med Skt	68846	H44GS-100/MDSKSP	H44	12	SP	8°		Universal	0	16000	2500	1950	20	5900		22,34
	R40	E26 Med	69405	H38BP-100/DX	H38	10	FL		Coated	Universal	0	24000+	2500	2000	45	4000		22,34
	ET23.5	E39 Mogul	69408	H38JA-100/DX	H38	20			Coated	Universal	0	24000+	4100	3300	45	4000		22,34
175	R40	E26 Med	69406	H39BP-175/DX	H39	10	FL		Coated	Universal	0	24000+	5100	4100	45	4000		22,34
	ED28	E39 Mogul	69444	H39KB-175	H39	6			Clear	Universal	0	24000+	7700	7150	22	5900		22,34
			69445	H39KC-175/DX	H39	6			Coated	Universal	0	24000+	8400	6800	45	4000		22,34
250	ED28	E39 Mogul	69448	H37KC-250/DX	H37	6			Coated	Universal	0	24000+	12500	10000	45	4000		22,34
400	ED37	E39 Mogul	69449	H33CD-400	H33	6			Clear	Universal	0	24000+	20000	18700	22	5900		22,34
			69450	H33GL-400/DX	H33	6			Coated	Universal	0	24000+	23000	16200	43	4000		22,34
1000	BT56	E39 Mogul	69331	H36GW-1000/DX	H36	6			Coated	Universal	0	24000+	58000	48500	45	4000		9,22,34

LOW PRESSURE SODIUM

Watts	Bulb	Base	Product Number	Ordering Abbreviation	ANSI Code	Pkg Qty	Beam Type	Beam Angle	Lamp Finish	Operating Position	Fix Req	Avg Rated Life (hrs)	Approx Lumens (initial) (mean)		CRI	CCT (K)	Arc Length (in)	Symbols & Footnotes
18	T17	BY22D	69510	SOX18	L69	12			Clear	BU+/-	E	18000	1800	1620		1700		
35	T17	BY22D	69511	SOX35	L70	12			Clear	BU+/-	E	18000	4550	4095		1700		
55	T17	BY22D	69512	SOX55	L71	12			Clear	BU+/-	E	18000	7800	7800		1700		
90	T21	BY22D	69513	SOX90	L72	12			Clear	HOR+/-	E	18000	14300	12155		1700		
135	T21	BY22D	69514	SOX135	L73	12			Clear	HOR+/-	E	18000	22600	19210		1700		
180	T21	BY22D	69519	SOX180 6PK	L74RF	6			Clear	HOR+/-	E	18000	32000	22400		1700		

SYMBOLS & FOOTNOTES FOR HIGH INTENSITY DISCHARGE (HID) LAMPS

Symbol	Description
	New item introduced within the past year.
	Item will be discontinued when inventory is depleted.
	New item introduced within the past year.
	This ECOLOGIC® lamp was designed to pass the Federal TCLP criteria for classification as non-hazardous waste in most states. Disposal regulations may vary; check local and state regulations.
	This lamp is a High Color Rendering Lamp

Footnote	Description
1	Consult your OSRAM SYLVANIA Lighting Representative for compatible electronic operating systems.
2	Use in equipment where gasket material is protected from all lamp radiation.
3	Use with 5000V pulse rated sockets only.
4	Use with 4000V pulse rated sockets only.
5	Unjacketed reprographical/photochemical lamp.
6	20,000 average rated life based on 10 hrs/start. 30,000 average rated life based on 120 hrs/start.
7	Passes Federal TCLP test based on NEMA LL Series Standards. TCLP data available upon request. Disposal regulations may vary depending on location. Please check your local and state/provincial regulations.
8	Voltage rise due to fixture effect is to be evaluated using standard lamp types and not LUMALUX PLUS lamp types
9	H34 and H36 lamps are not interchangeable.
10	Consult your OSRAM SYLVANIA Lighting Representative for lamp/ballast compatibility.
11	Horizontally oriented lamps require a position oriented mogul (POM) socket to accept position oriented mogul bases.
12	Operates at 360 watts on 400w M59 ballast or a M165 ballast.
13	55 Volt lamp.
14	100 Volt lamp.
15	UNALUX lamps must be operated on mercury lag or reactor ballasts only.
16	Lamps must be operated on CW/CWA ballasts only
17	O = Lamps classified as O-type, comply with ANSI standard C78.389 for containment testing and may be used in open luminaires. See lamp warning.
18	E = Lamps classified as E-type are to be used ONLY in suitably enclosed luminaires. See lamp warning.
19	Standby feature not guaranteed beyond 24,000 operating hours.
20	S = When operated within 15 degrees of vertical, this lamp may be operated in an open luminaire provided the installation is not near people or flammable or combustible material, otherwise it must be operated in a suitably enclosed luminaire. See lamp warning.
21	F = Enclosed luminaire with UV filter and lens interlock required. WARNING: This lamp emits ultraviolet radiation which can cause serious skin burn and eye inflammation. Additionally, this lamp operates under high pressure at very high temperatures. Should the lamp break there can exist a danger of personal injury and/or fire from the broken lamp particles being discharged. This lamp should only be used in fully enclosed luminaire with ultraviolet (UV) filter tempered glass lens capable of containing any particles discharges by breakage. Do not use this lamp if the filter lens is damaged or missing. This lamp should only be used in luminaires equipped with safety interlock lens switches. See lamp warning.
22	Mean lumens measured at 50% of average rated life
23	When operated on ballasts having a sustaining voltage less than 270V, lamp life may be significantly reduced.
24	The circuit must include overcurrent protection (I.e. Thermally switched ballast).
25	Lamp requires a nominal Open Circuit Voltage of 230V or higher. Without an igniter in the circuit minimum OCV is 209Vrms.
26	Lamps may be operated on ANSI M98 Compliant Ballast.
27	Lamps may be operated on ANSI M140 Compliant Ballast.
28	Published rated life based on 5 hours per start. Life rating will increase to 6,000 hours if operated for at least 10 hours per start in the base up position. Lumens will be lower for operating positions other than base up. See lumen tilt factor curve in the Metal Halide Specification Guide.
29	Operates at 150W on a 175W M57 ballast or a M107 ballast.
30	UV-Stop quartz
31	Lamps may be operated on a M142 Compliant ballast.

SYMBOLS & FOOTNOTES FOR HIGH INTENSITY DISCHARGE (HID) LAMPS

Footnote	Description
32	Do not operate on dimming systems. Dimming systems will prevent a lamp the ability to self-extinguish.
33	When operating on a ballast with a sustaining voltage less than 310V, lamp life may be significantly reduced.
34	In general, Horizontal lumen values will be 5-10% lower than the vertical lumen values.
35	Lamps may be operated on ANSI M85 or M98 Compliant ballasts.
36	LU150/100 and LU150/55 lamps are not interchangeable.
37	Lamps may be operated on ANSI M142 or M81 Compliant ballasts.
38	Lamps with a E26 medium skirt base are not compatible with exclusionary medium sockets.
39	Lamps may be operated on ANSI M137 Compliant ballasts.
40	The ULX880 lamp should not be used on any circuit other than 480V H36 mercury reactor.
41	Lamps may be operated on ANSI M132 (320W) Compliant ballasts.
42	Lamps may be operated on ANSI M135 (400W) Compliant ballasts.
43	Use with 4-5kV igniter.
44	Operates at 950 watts on 1000W M47 CWA ballasts
45	For use where seal temperature does not exceed 350C.
46	Please consult with your ballast and fixture manufacturer for compatible systems
47	Lamps may be operated M155 or M135 pulse start ballast with a sustaining voltage greater than 270V
48	The emergence of electronic ballasts to operate metal halide lamps has produced additional need to separate the lamp designation of quartz and ceramic metal halide lamps, as there can be some important differences in system performance. Therefore the C lamp designation from NEMA has been introduced going forward for future differentiation of ceramic metal halide lamps and they will begin to be labeled accordingly.

Manufacturers' Cross Reference

HIGH INTENSITY DISCHARGE LAMPS

SYLVANIA	GE	PHILIPS
METALARC CERAMIC METAL HALIDE		
MC150T7.5/U/G12/940 PB	CMH150/T/U/942/G12	CDM150/T6/942
MC70T6/U/G12/940 PB	CMH70/T/U/942/G12	CDM70/T6/942
MC150T7.5/G12/U/830 PB	CMH150/T/U/830/G12	CDM150/T6/830
MC39T6/U/G12/830 PB	CMH39/T/U/830/G12	CDM35/T6/830
MCP70/U/MED/830 PB	CMH70/U/830MED	MHC70/U/MP/3K
MCP70/C/U/MED/830 PB	CMH70/C/U/830/MED	MHC70/C/U/MP/3K
MCP100/U/MED/830 PB	CMH100/U/830/MED	MHC100/U/MP/3KALTO
MCP100/C/U/MED/830 PB	CMH100/C/U/830/MED	MHC100/C/U/MP/3KALTO
MCP70PAR38/U/SP/830/ECO PB	CMH70/PAR38/830/SP15	CDM70/PAR38/SP/3K
MCP70PAR38/U/FL/830/ECO PB	CMH70PAR38/830FL25	CDM70/PAR38/FL/3K
MCP70PAR38/U/VWFL/830/ECO PB	CMH70/PAR38/830WF	CDM70/PAR38/WFL/3K
MCP100PAR38/U/SP/830/ECO PB	CMH100/PAR38/830S15	CDM100/PAR38/SP/3K
MCP100PAR38/U/FL/830/ECO PB	CMH100/PAR38/830FL2	CDM100/PAR38/FL/3K
MCP100PAR38/U/VWFL/830/ECO PB	CMH100/PAR38/830W	CDM100/PARWFL/3K
MC39TC/U/G8.5/830 PB	CMH39/TC/U/830/G8.5	CDM35/TC/830
MC70T6/DE/830 PB	CMH70/TD/942/RX7S	CDM70/TD/830
MC150T7.5/DE/830 PB	CMH150/TD830/RX7S	CDM150/TD/830
MCP320/PS/BU-ONLY/840/BT37 PB	CMH320/PA/O	CDM320/V/O/PS/4K/ALTO
MCP70/U/MED/940 PB	CMH70/U/942/MED/O	MHC70/U/MP/4K/ALTO
MCP70/C/U/MED/940 PB	CMH70/C/U/942/MED/O	MHC70/C/U/MP/4K/ALTO
MC70T6/U/G12/930 PB	----	----
MCP70PAR30LN/U/930/SP/ECO PB 90V	CMH70/PAR30L/830SP	CDM70/PAR30L/M/SP (830)
MCP70PAR30LN/U/930/FL/ECO PB 90V	CMH70/PAR30L/830FL	CDM70/PAR30L/M/FL (830)
MCP100/U/MED/940 PB	----	MHC100/U/MP/4K/ALTO
MC39T6/U/G12/940 PB 90V	CMH39/T/U/942/G12	----
MCP150/U/MED/830 PB	CMH150/U/830/MED/O	MHC150/U/MP/3K/ALTO
MCP150/C/U/MED/830 PB	CMH150/C/U/830/MED/O	MHC150/C/U/MP/3K/ALTO
MCP250/PS/BU-ONLY/940 PB	CMH250/VBU/PA/O	----
MCP250/C/PS/BU-ONLY/940 PB	CMH250/C/VBU/PA/O	----
MCP39PAR20U830SP PB	CMH39/UPAR20/SP10	CDM35/PAR20/M/SP
MC70TC/U/G8.5/930 PB	CMH70/TC/U/942/G8.5	CDM70/TC/830
MCP39PAR20U830FL PB	CMH39/UPAR20/FL25	CDM35/PAR20/M/FL
MCP50/U/MED/830 PB	----	MHC50/U/MP/3K/ALTO
MCP150/PAR38/U/830/SP/ECO PB	----	----
MCP150/PAR38/U/830/FL/ECO PB	----	----
MCP150/PAR38/U/830/VWFL/ECO PB	----	----
MCP50/C/U/MED/830 PB	----	----
MCP320/C/PS/BU-ONLY/840/BT37 PB	CMH320/C/PA/O	CDM320/C/V/O/PS/4K/ALTO
MCP20PAR30LN/U/830/FL/ECO PB	CMH20PAR30/FL25	----
MCP20PAR30LN/U/830/SP/ECO PB	CMH20PAR30/SP10	----
MCP39PAR30LNU830SPECO PB	CMH39/PAR30L/SP10	CDM35/PAR30L/M/SP
MCP39PAR30LNU830FLECO PB	CMH39/PAR30L/FL25	CDM35/PAR30L/M/FL
MC20TC/U/G8.5/830PB	CMH20/TC/U/830/G8.5	----
MC70TC/U/G8.5/930PB	CMH70/T/U/830/G12	CDM70/T6/830
METALARC PULSE START		
MP50/C/U/MED	MXR50/U/MED	----
MP50/U/MED	MXR50/U/MED/O	----
MP70/C/U/MED	MVR70/C/U/MED	----
MP70/U/MED	MVR70/U/MED	----
MP100/C/U/MED	MXR100/C/U/MED	----
MP100/U/MED	MXR100/U/MED	----
MP150/C/U/MED	MXR150/C/U/MED/O	----
MP150/U/MED	MXR150/U/MED/O	----
MS175/C/PS/BU-ONLY	MVR175/C/VBU/PA	----
MS175/C/PS/BU-ONLY/MED	MVR175/C/VBU/MED/PA	----
MS175/PS/BU-ONLY	MVR175/VBU/PA	MS175/BU/PS
MS175/PS/BU-ONLY/MED	MVR175/VBU/VBU/PA	----
MS200/C/PS/BU-ONLY/BT28	----	----
MS200/PS/BU-ONLY/BT28	----	----
MS200/PS/BU-ONLY/ET23.5	----	----
M250/PS/U	----	----
MP250/C/PS/BU-ONLY	MVR250/C/VBU/PA	----
MP250/PS/BU-ONLY	MVR250/VBU/PA	----
MS250/C/PS/BU-ONLY	MVR250/C/VBU/MED/PA	----

Manufacturers' Cross Reference Guide (continued)

HIGH INTENSITY DISCHARGE LAMPS - METALARC CERAMIC

SYLVANIA	GE	PHILIPS
MS250/PS/BU-ONLY	MVR250/VBU/PA	----
MS320/C/PS/BU-HOR	MVR320/C/VBU/XHOPA	----
MS320/PS/BU-HOR	MVR320VBU/XHO/PA	----
MP320/350/C/PS/BU-ONLY/BT28	MPR350/C/VBU/PA	MP350/C/BU/PS
MP320/350/C/PS/BU-ONLY/BT28	MPR320/C/VBU/XHO/PA	MP320/C/BU/PS
MP320/350/PS/BU-ONLY/BT28	MPR350/VBU/PA	MP350/BU/PS
MP320/350/PS/BU-ONLY/BT28	MPR320/VBU/XHOPA	MP320/BU/PS
MP350/400/C/PS/BU-ONLY	MPR400/C/VBU/XHOPA	MP400/C/BU/PS
MP350/400/PS/BU-ONLY	MPR350/VBU/PA	MP400/BU/PS
MS400/C/PS/BU-ONLY	MVR400/VBU/XHO/PA	MS400/C/BU/PS
MS400/PS/BD-ONLY/BT28	MVR400/C/VBU/ED28/PA	----
MS400/PS/BU-ONLY	MVR400/VBU/HO/PA	MS400/BU/PS
MS400/PS/BU-ONLY/BT28	MVR400/VBU/ED28/PA	----
MS750/C/PS/BU-HOR/BT37	----	----
MS750/PS/BD-ONLY/BT37	----	----
MS750/PS/BU-HOR/BT37	MVR750/VBU/PA	----
M1000/PS/U/BT37	MVR1000/U/BT37/PA	MS1000/BU/BT37/PS

METALARC SUPERSAVER

M150/SS/U/BT-28	MVR150/U/WM	----
MS360/C/SS/BU-HOR	MVR360CVBU/WM/HO	----
MS360/SS/BU-HOR	MVR360/VBU/WM/HO	MS360/BU/EW
MSP360/C/SS/BU-ONLY	MVR360/C/VBU/WM/HO	MP360/C/BU/EW
MSP360/SS/BU-ONLY	MPR360/VBU/WM/HO/O	MP360BU/EW
M950/SS/U/BT56	----	----
METALARC SUPER		
MS175/HOR	MVR175/HOR	----
MS175/C/HOR	MVR175/C/HOR	MS175/C/HOR
MS250/3K/HOR	----	----
MS250/C/HOR	MVR250/C/HOR	MS250/C/HOR
MS250/HOR	MVR250/HOR	----
MS400/3K/BU-ONLY	MVR400/VBU/XHO	MS400/3K/BU
MS400/BD-ONLY	MVR400/VBD	----
MS400/BU-ONLY	MVR400VBU/HO	MS400/BU
MS400/BU-ONLY/BT28	MVR400/VBU/BT28	MS400/BU/ED28
MS400/C/BU-ONLY	MVR400/C/VBU	MS400/C/BU
MS400/C/HOR	MVR400/C/HOR/MOG	----
MS400/C/HOR/BT28	----	----
MS400/HOR	MVR400/HOR/MOG	----
MS400/HOR/BT28	MVR400/HOR/BT28	----
MS1000/BD-ONLY	----	MS1000/BD
MS1000/BU-ONLY	MVR1000/VBU/HO	MS1000/BU
MS1000/C/BU-ONLY	MVR1000/C/VBU/HO	MS1000/C/BU

METALARC STANDARD® & METALARC PRO-TECH®

M175/U	MVR175/U	MH175/U
M175/C/U	MVR175/C/U	MH175/C/U
M175/C/U/MED	MVR175/C/U/MED	MH175/C/U/M
M175/U/MED	MVR175/U/MED	MH175/U/M
M175/3K/BU-ONLY	MVR175/SP30/U	MH175/3K/BU
MP175/BU-ONLY	MPR175/VBU/O	MP175/BU
MP175/BU-ONLY/MED	----	----
MP175/C/BU-ONLY	MPR175/C/VBU/O	----
M250/U	MVR250/U	MH250/U
M250/C/U	MVR250/C/U	MH250/C/U
M250/3K/BU-ONLY	MVR250/SP30/U	MH250/3K/BU
M250/U/ET18	----	----
MP250/BU-ONLY	MPR250/VBU/O	MP250/BU
MP250/C/BU-ONLY	MPR250/C/VBU/O	----
M400/U	MVR400/U	MH400U
M400/C/U	MVR400/C/U	MH400/C/U
M400/C/U/BT28	MVR400/C/U/ED28	MH400/U/ED28
M400/U/BT28	MVR400/U/ED28	MH400/U/ED28
M400/U/ET18	----	----

Manufacturers' Cross Reference (continued)

HIGH INTENSITY DISCHARGE LAMPS - METAL HALIDE / HIGH PRESSURE SODIUM

SYLVANIA	GE	PHILIPS
METALARC STANDARD® & METALARC PRO-TECH®		
MP400/BD-ONLY	----	----
MP400/BU-ONLY	MPR400/VBU/HO/O	MP400/BU
MP400/C/BU-ONLY	MPR400/C/VBU/HO/O	MP400/C/BU
M1000/U	MVR1000/U	MH1000/U
M1000/C/U	MVR1000/C/U	MH1000/C/U
M1000/U/BT37	MVR1000/U/BT37	MH1000/U/BT37
MP1000/BU-ONLY	MPR1000/VBU/O	MP1000/BU
MP1000/C/BU-ONLY	----	----
M1500/BD	----	MH1500/U
M1500/BU-HOR	MVR1500/HBU	MH1500/U
METALARC BRITELINE		
M1500T7/DE	SPL1500/L/H/652	----
M2000T8/DE	----	----
M2000T9/DE	MQI2000/T9/40	----
METALARC SAFELINE		
MT400/BU-ONLY	MVT400/VBU	MHT400/U
MT400/C/BU-ONLY	MVT400/C/VBU	MHT400/C/U
DOUBLE-ENDED HQI		
HQI-DE150/NDX	ARC150/TD/UVC/742	MHN150/TD/840
HQI-DE150/WDX	ARC150/TD/UVC/730	----
HQI-DE70/NDX	ARC70/TD/UVC/743	MHN70/TD/840
HQI-DE70/WDX	ARC70/TD/UVC/730	----
HQI-SE 150/NDX	ARC150T/U/840G12	----
LUMALUX PLUS® ECOLOGIC®		
LU50/PLUS/ECO	----	C50S68/ALTONC
LU70/PLUS/ECO	LU70/ECO/NC	C70S62/ALTO/PLUS
LU70/PLUS/MED	----	----
LU100/PLUS/ECO	LU100/ECO/NC	C100S54/ALTONC
LU150/55/PLUS/ECO	LU150/ECO/NC	C150S55/ALTONC
LU200/PLUS/ECO	LU200/ECO/NC	C200S66/ALTONC
LU250/PLUS/ECO	LU250/ECO/NC	C250S50/ALTO/NC
LU310/PLUS/ECO	----	----
LU400/PLUS/ECO	LU400/ECO/NC	CS400S51/ALTO/PLUS
LUMALUX® STANDARD & ECOLOGIC®		
LU35/D/MED	LU35/D/MED	C35S76/D/M
LU35/MED	LU35/MED	C35S76/M
LU50/D/MED	LU50/D/MED	C50S68/D/M
LU50/ECO	LU50	C50S68/ALTO
LU50/MED	LU50/MED	C50S68/M
LU50/D	LU50/D	C50S68/D/ALTO
LU70/D	LU70/D	C70S62/D/ALTO
LU70/D/MED	LU70/D/MED	C70S62/D/M
LU70/ECO	LU70/ECO	C70S62/ALTO
LU70/MED	LU70/MED	C70S62/M
LU100/D	LU100/D	C100S54/D/ALTO
LU100/D/MED	LU100/D/MED	C100S54/D/M
LU100/ECO	LU100/ECO	C100S54/ALTO
LU100/MED	LU100/MED	C100S54/M
LU150/100	LU150/100	C150/S56/ALTO
LU150/55/D	LU150/55/D	C50S55/D/ALTO
LU150/55/D/MED	LU150/55/D/MED	C150S55/D/M
LU150/55/ECO	LU150/55/ECO	C150S55/ALTO
LU150/55/MED	LU150/MED	C150S55/M
LU200/ECO	LU200/ECO	C200S66/ALTO
LU250/D	LU250/D	C250S50/D/ALTO
LU250/ECO	LU250/ECO	C250S50/ALTO
LU310/ECO	LU310	C310S67
LU400/D	LU400/D	C400S51/D/ALTO

Manufacturers' Cross Reference Guide (continued)

HIGH INTENSITY DISCHARGE LAMPS - HIGH PRESSURE SODIUM / SOX / MERCURY VAPOR

SYLVANIA	GE	PHILIPS
LUMALUX® STANDARD & ECOLOGIC®		
LU400/ECO	LU400/ECO	C50S68/D/ALTO
LU750	LU750	----
LU1000	LU1000/ECO	C1000S52/ALTO
LUMALUX STANDBY		
LU70/SBY	LU70/SBY/XL	C70S62/2
LU100/SBY	LU100/SBY/XL	C100S54/2
LU150/55/SBY	LU150/55/SBY/XL	C150S55/2
LU200/100/SBY	LU200/SBY/XL	----
LU250/SBY	LU250/SBY/XL	C250S50/2
LU400/SBY	LU400/SBY/XL	C400S51/2
LU1000/SBY	LU1000/SBY/XL	C1000S52/2
SOX LOW PRESSURE SODIUM		
SOX18	SOX18	SOX-E18
SOX35	SOX35	SOX35
SOX55	SOX55	SOX55
SOX90	SOX90	SOX90
SOX180	----	SOX180
MERCURY VAPOR		
H33CD-400	HR400A33	H33CD-400
H33GL-400/DX	HR400DX33	H33GL-400/DX
H36GW-1000/DX	HR1000DX36	H36GW-1000/DX
H37KC-250/DX	HR250DX37	H37KC-250/DX
H38AV-100/DX	HR100DX38/MED	H38MP-100/DX
H38BP-100/DX	HR100RFL38	H38BP-100/DX
H38JA-100/DX	HR100DX38/12PK	H38JA-100/DX
H39BP-175/DX	HR175RFL39	H39BM-175
H39KB-175	HR175A39/CP	H39KB-175
H39KC-175/DX	HR175DX39	H39KC-175/DX
H43AV-75/DX	HR75DX43	H43AV-75/DX
H44GS-100/MDSKSP	HR100PSP44/MED	H44GS-100/M
H44GS-100SP	HR100PSP44	H44GS-100

OSRAM SYLVANIA: THE LEADER IN ENERGY SAVING COMPACT FLUORESCENT LAMPS

The compact fluorescent lamp is an electric discharge device which utilizes a low pressure mercury vapor arc to generate ultra-violet (plus a little visible) energy. The ultra-violet energy is absorbed by a phosphor coat on the inside of the glass tube and converted by the phosphor to visible wavelengths; the wavelengths of the light generated are determined by the composition of the phosphor. In addition to the small amount of mercury vapor, the fluorescent tube contains an atmosphere of an inert gas, usually argon, krypton, neon, or a mixture of two or more of these gases. The pressure of the gases contained in the lamp is very low, usually from 2 to 3 torr. Atmospheric pressure is 760 torr.

BULB

A wide variety of compact fluorescent bulb shapes are available

PHOSPHOR

Coating inside the bulb transforms ultraviolet radiation into visible light. Color of light produced depends on composition of phosphor.

CATHODE

"Hot cathodes" at each end of lamp are coated with emissive materials which emit electrons. Usually made of coiled-coil or single-coil tungsten wire.

EXHAUST TUBE

Air is exhausted through this tube during manufacture and inert gas introduced into the bulb.

MERCURY

A minute quantity of liquid mercury is placed in the bulb to furnish mercury vapor.

GAS

Usually a mixture of argon and neon at low pressure.

STEM PRESS

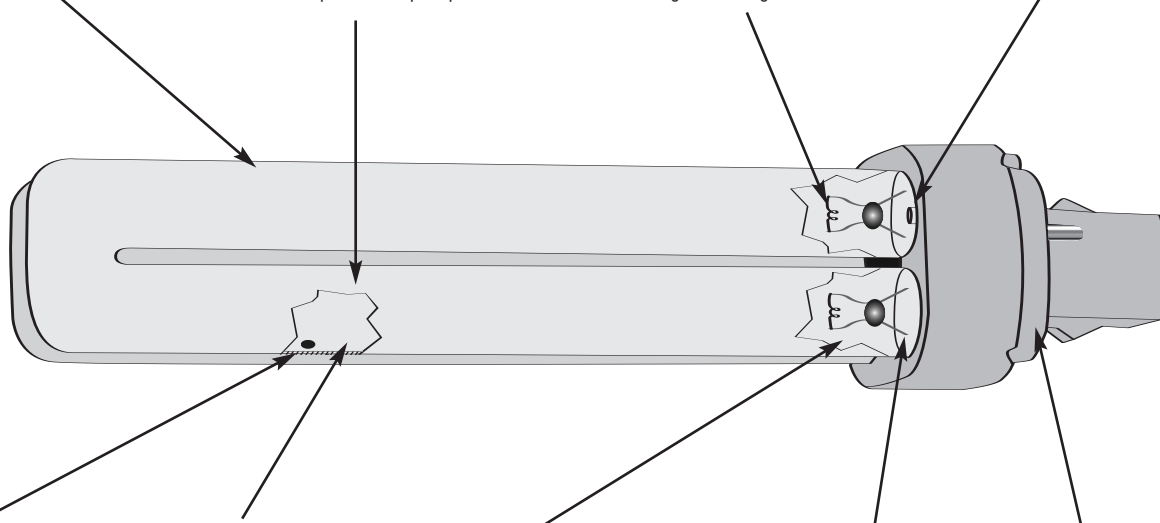
The lead-in wires have an air tight seal here and are made of specific material to assure about the same coefficient of expansion as the glass.

LEAD-IN WIRES

Connect to the base pins and carry the current to and from the cathodes and the mercury arc.

BASE

Several different types used to connect the lamp to the electric circuit and to support the lamp in the lampholder.



HOW TO READ PRODUCT INFORMATION - COMPACT FLUORESCENT

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F (@35°C/95°F)	Symbols & Footnotes
13	Twist	4.6	117	Med	29116	CF13EL/MINITWIST		6	8000	3000	82	800 640	2,21,28, 36,63,64
26	D(T4)	6.8	173	G24D-3	20710	CF26DD/830/ECO	CFQ26W/G24D/30	50	10000	3000	82	1800 1548	2,21,28, 34,37
32	T(T4)	5.5	140	GX24Q-3	20885	CF32DT/E/IN/835/ECO	CFTR32W/GX24Q/35	50	10000	3500	82	2328 2002 2400 2064	2,21,28, 33,35,59
40	L(T5)	22.6	573	2G11	20586	FT40DL/841/RS/ECO	FT40W/2G11/RS/41	10	20000	4100	82	3150 2709	2,21,28

Nominal Wattage	Design wattage on reference ballast. Actual wattage dependent on ballast.
Bulb	Describes the shape of the bulb.
Base	Base designations for compact fluorescent lamps are the NEMA designations. Please see page 111 for base illustrations.
MOL	Maximum overall length. The actual length of the lamp measured from the bottom of the base to the top outside edge of the glass. In many cases, the bottom of the base is the bottom of the center post of the base of the lamp.
Symbols & Footnotes	Most symbols and footnotes that apply to a specific product will appear in this space. The explanations of the symbols and footnotes are at the end of the fluorescent section.
Ordering Abbreviation	A text description of the lamp. Please see below for several examples and explanations of some of the codes.
NEMA Generic Designation	Designation assigned by NEMA (National Electrical Manufacturers Association).
CCT	Correlated Color Temperature. The degree of "whiteness" of the light. Expressed in kelvins (K). Please see page 109 for more information.
CRI	Color Rendering Index. A numbering system for rating the relative color rendering quality of a light source compared to a standard. Please see page 109 for more information.
Initial & Mean Lumens	Initial lumens are measured when the lamp has been operating for 100 hours. Mean lumens are typically measured at 40% of the rated life of the lamp. Compact Fluorescent lamp lumens are measured at 25°C (77°F) and 35°C (95°F)

How to Read Ordering Abbreviations

CF26DD/830		CF32DT/E/IN/835/ECO		FT40DL/841/RS/ECO		CF20EL/830/MED/ECO	
CF	Compact Fluorescent	CF	Compact Fluorescent	FT	Fluorescent Twin	CF	Compact Fluorescent
26	Nominal lamp wattage	32	Nominal lamp wattage	40	Nominal lamp wattage	20	Nominal lamp wattage
DD	DULUX® Double	DT	DULUX Triple	DL	DULUX Long	EL	Electronic Lamp
8	82 CRI	E	Electronic or dimming operation	8	82 CRI	8	82 CRI
30	3000K CCT	IN	Amalgam	41	4100K CCT	30	3000K CCT
		8	82 CRI	RS	Rapid Start	MED	Medium screw base
		35	3500K CCT	ECO	ECOLOGIC	ECO	ECOLOGIC
		ECO	ECOLOGIC				

DULUX® LAMP FAMILIES

CF... DS = DULUX Single, 2-pin for magnetic operation, ECOLOGIC®
 CF... DS/E = DULUX Single, 4-pin for electronic or dimming operation
 CF... DD = DULUX Double, 2-pin for magnetic operation, ECOLOGIC
 CF... DD/E = DULUX Double, 4-pin for electronic or dimming operation, ECOLOGIC
 CF... DT = DULUX Triple, 2-pin for magnetic operation, ECOLOGIC
 CF... DT/E = DULUX Triple, 4-pin for electronic or dimming operation, ECOLOGIC
 CF... DT/E/IN = DULUX Triple, 4-pin for electronic or dimming operation, amalgam, ECOLOGIC
 FT... DL = Fluorescent Twin, DULUX Long, 4-pin
 CF... DF = DULUX Flat, 4-pin
 CF... EL = DULUX self-ballasted, medium screw base

For weight and measurement information, please visit www.sylvania.com

Lamp Disposal Labeling

The following information appears on packages of fluorescent lamps. For more information on lamp disposal labeling, see the inside back cover of this catalog.



Lamp Contains Mercury

Manage in accordance with disposal laws
See www.lamprecycle.org or 1-866-666-6850

COMPACT FLUORESCENT LAMP COLORS

COLOR	COLOR ABBREVIATION	CORRELATED COLOR TEMPERATURE(1)	COLOR RENDERING INDEX(2)
DULUX® 2700K	827	2700	82
SOFT WHITE	Soft White	2900	82
WARM WHITE	WW	3000	52
DULUX SOFT WHITE	830	3000	82
DULUX 3000K	830	3000	82
DULUX 4100K	841	4100	82
DULUX 5000K	850	5000	82
DAYLIGHT™	D	6500	76

COMPACT FLUORESCENT COMPETITIVE GUIDES

NOTE: These tables are intended only as guides and may represent another lamp company's most similar product or product family rather than an identical match. Individual manufacturer's performance values should be consulted. Environmental conditions, ballast type, and other auxiliary equipment may affect lamp performance.

COMPACT FLUORESCENT BRAND NAMES

SYLVANIA	GE*	PHILIPS**
DULUX®	BIAX	PL
DULUX S	Low wattage BIAX	PL
DULUX D, D/E	Double BIAX	PL-C
DULUX T, T/E	Triple BIAX	PL-T
DULUX F	---	---
DULUX L	High Lumen BIAX	PL-L
DULUX EL	Spiral	Marathon Twister
---	2D	---
DURA-ONE™	GENURA	---
ECOLOGIC® (ECO®)	Ecolux (ECO)	ALTO

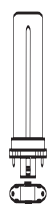
* Trademarks or registered trademarks of General Electric Company ** Trademarks or registered trademarks of Philips

COMPACT FLUORESCENT COLOR CROSS REFERENCE

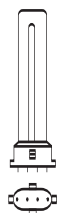
SYLVANIA	GE	PHILIPS
827	SPX27	27
830	SPX30	30, 830
835	SPX35	35, 835
841	SPX41	41, 841
850	SPX50	50, 850
865	SPX65	865
950		950

COMPACT FLUORESCENT LAMPS

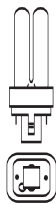
The overall length of DULUX® compact fluorescent lamps is measured from the bottom of the base to the outside edge of the glass. In many cases, the bottom of the base is the bottom of the center post of the base of the lamp.



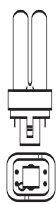
DULUX S



DULUX S/E



DULUX D



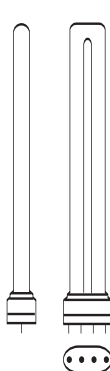
DULUX D/E



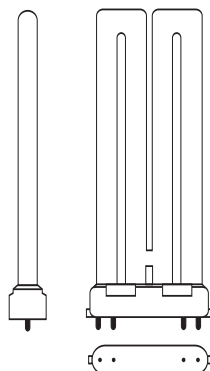
DULUX T



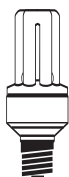
DULUX T/E
DULUX T/E/IN



DULUX L



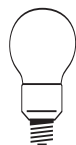
DULUX F



DULUX
EL Triple



DULUX
EL TWIST



DULUX EL CLASSIC
(A-Shape)



DULUX EL
BULLET



DULUX EL Low
Profile GLOBE



DULUX EL
GLOBE



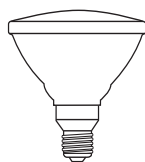
DULUX EL
DECOR



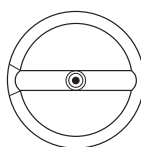
DULUX EL
REFLECTOR



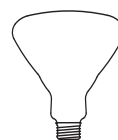
BR-30



PAR-38



DULUX EL Circline (6-1/2"
& 8" outside diameters)



BR40 Med



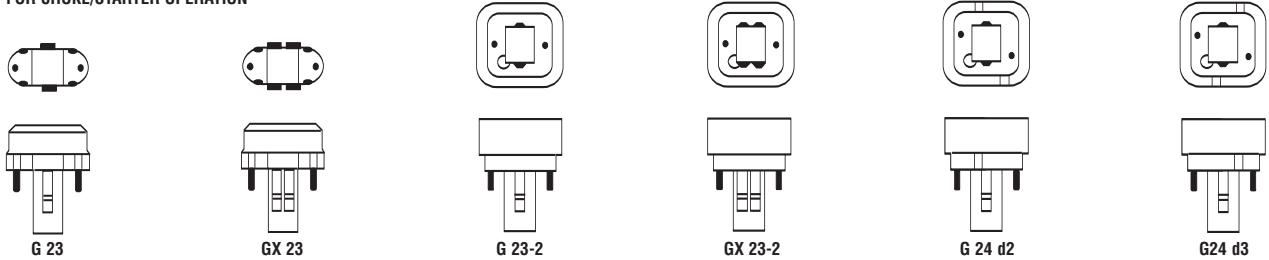
PAR38 Med
Skrt

BASES

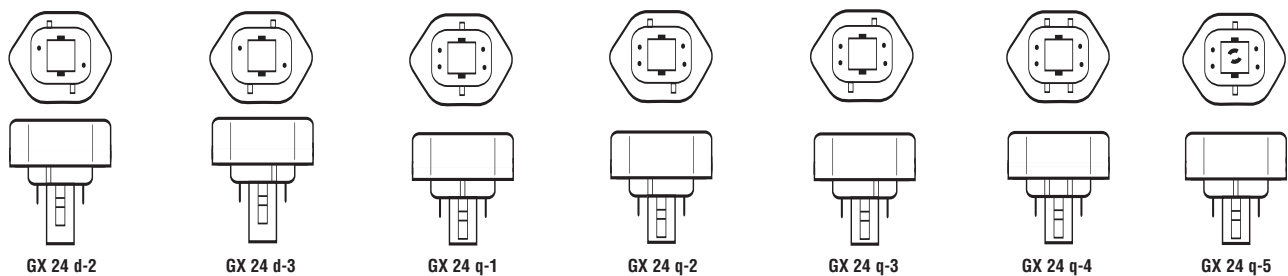
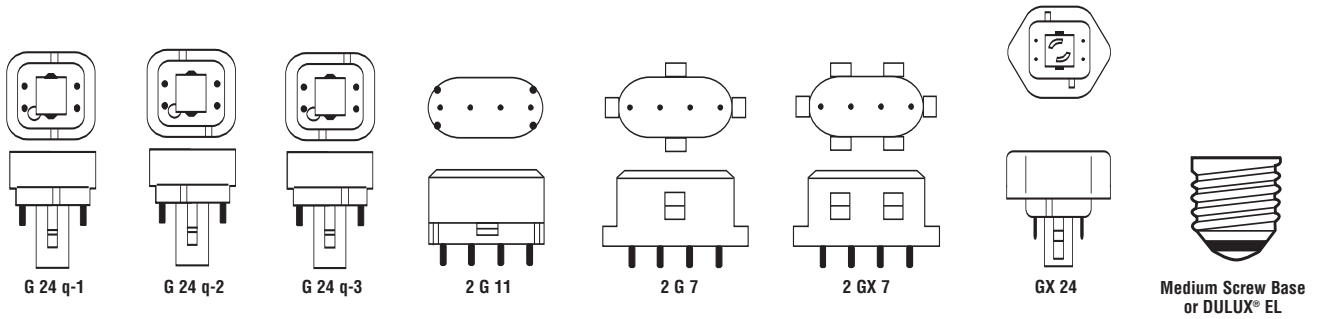
Pin-based compact fluorescent lamps have either 2 pins or 4 pins. Each 2-pin lamp has an internal starter and is designed for preheat, magnetic operation. The 4-pin lamps are designed for electronic ballast operation and are dimmable. These lamps have no internal starter; starting the lamps is a function of the ballast.

Medium screw base, compact fluorescent lamps have integral ballasts.

FOR CHOKE/STARTER OPERATION



FOR ELECTRONIC OR DIMMING OPERATION



SYLVANIA DULUX® COMPACT FLUORESCENT CROSS REFERENCE

DULUX S

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20325	CF5DS/827	CFT5W/G23/827	F5BX/SPX27	PL-S 5W/827	5	G23
20303	CF5DS/841	CFT5W/G23/827	F5BX/SPX41	—	5	G23
20327	CF7DS/827	CFT7W/G23/827	F7BX/SPX27	PL-S 7W/827	7	G23
20310	CF7DS/835	CFT7W/G23/835	F7BX/SPX35	PL-S 7W/835	7	G23
20304	CF7DS/841	CFT7W/G23/841	F7BX/SPX41	PL-S 7W/841	7	G23
20307	CF7DS/850	CFT7W/G23/850	—	PL-S 7W/850	7	G23
20329	CF9DS/827	CFT9W/G23/827	F9BX/SPX27	PL-S 9W/827	9	G23
20333	CF9DS/835	CFT9W/G23/835	F9BX/SPX35	PL-S 9W/835	9	G23
20305	CF9DS/841	CFT9W/G23/841	F9BX/SPX41	PL-S 9W/841	9	G23
20308	CF9DS/850	CFT9W/G23/850	—	PL-S 9W/850	9	G23
20331	CF13DS/827	CFT13W/GX23/827	F13BX/SPX27	PL-S 13W/827	13	GX23
20283	CF13DS/830	CFT13W/GX23/830	F13BX/SPX30	PL-S 13W/830	13	GX23
20335	CF13DS/835	CFT13W/GX23/835	F13BX/SPX35	PL-S 13W/835	13	GX23
20306	CF13DS/841	CFT13W/GX23/841	F13BX/SPX41	PL-S 13W/841	13	GX23
20309	CF13DS/850	CFT13W/GX23/850	F13BX/SPX50	PL-S 13W/850	13	GX23
20374	CFT13WDS/EC/827	CFT13W/GX23/827	F13BX/E/827	—	13	GX23
20397	CFT13WDS/EC/830	CFT13W/GX23/830	F13BX/E/830	—	13	GX23
20368	CFT13WDS/EC/835	CFT13W/GX23/835	F13BX/E/835	—	13	GX23
20375	CFT13WDS/EC/841	CFT13W/GX23/841	F13BX/E/841	—	13	GX23

DULUX S/E

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20311	CF5DS/E/827	CFT5W/2G7/827	—	—	5	2G7
20315	CF5DS/E/841	CFT5W/2G7/841	—	—	5	2G7
20312	CF7DS/E/827	CFT7W/2G7/827	—	—	7	2G7
20316	CF7DS/E/841	CFT7W/2G7/841	—	—	7	2G7
20313	CF9DS/E/827	CFT9W/2G7/827	—	—	9	2G7
20317	CF9DS/E/841	CFT9W/2G7/841	—	—	9	2G7
20314	CF13DS/E/827	CFT13W/2GX7/827	—	—	13	2GX7
20284	CF13DS/E/830	CFT13W/2GX7/830	—	—	13	2GX7
20318	CF13DS/E/841	CFT13W/2GX7/841	—	—	13	2GX7

DULUX D

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20689	CF9DD/827	CFQ9W/G23/827	F9DBX23T4/SPX27	—	9	G23-2
20783	CF9DD/830	CFQ9W/G23/830	—	—	9	G23-2
20690	CF9DD/835	CFQ9W/G23/835	—	—	9	G23-2
20691	CF13DD/827	CFQ13W/GX23/827	F13DBX23T4/SPX27	PL-C 13W/827/USA	13	GX23-2
20705	CF13DD/830	CFQ13W/GX23/830	F13DBX23T4/SPX30	PL-C 13W/830/USA	13	GX23-2
20692	CF13DD/835	CFQ13W/GX23/835	F13DBX23T4/SPX35	PL-C 13W/835/USA	13	GX23-2
20708	CF13DD/841	CFQ13W/GX23/841	F13DBX23T4/SPX41	PL-C 13W/841/USA	13	GX23-2
20676	CF18DD/827	CFQ18W/G24d/827	F18DBXT4/SPX27	PL-C 18W/827	18	G24 d-2
20709	CF18DD/830	CFQ18W/G24d/830	F18DBXT4/SPX30	PL-C 18W/830	18	G24 d-2
20677	CF18DD/835	CFQ18W/G24d/835	F18DBXT4/SPX35	PL-C 18W/835	18	G24 d-2
20678	CF18DD/841	CFQ18W/G24d/841	F18DBXT4/SPX41	PL-C 18W/841	18	G24 d-2
20679	CF26DD/827	CFQ26W/G24d/827	F26DBXT4/SPX27	PL-C 26W/827	26	G24 d-3
20710	CF26DD/830	CFQ26W/G24d/830	F26DBXT4/SPX30	PL-C 26W/830	26	G24 d-3
20680	CF26DD/835	CFQ26W/G24d/835	F26DBXT4/SPX35	PL-C 26W/835	26	G24 d-3
20681	CF26DD/841	CFQ26W/G24d/841	F26DBXT4/SPX41	PL-C 26W/841	26	G24 d-3

DULUX D/E

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20682	CF13DD/E/827	CFQ13W/G24q/827	F13DBX/SPX27/4P	PL-C 13W/827/4P	13	G24 q-1
20721	CF13DD/E/830	CFQ13W/G24q/830	F13DBX/SPX30/4P	PL-C 13W/830/4P	13	G24 q-1
20671	CF13DD/E/835	CFQ13W/G24q/835	F13DBX/SPX35/4P	PL-C 13W/835/4P	13	G24 q-1
20667	CF13DD/E/841	CFQ13W/G24q/841	F13DBX/SPX41/4P	PL-C 13W/841/4P	13	G24 q-1
20683	CF18DD/E/827	CFQ18W/G24q/827	F18DBX/SPX27/4P	PL-C 18W/827/4P	18	G24 q-2
20724	CF18DD/E/830	CFQ18W/G24q/830	F18DBX/SPX30/4P	PL-C 18W/830/4P	18	G24 q-2
20672	CF18DD/E/835	CFQ18W/G24q/835	F18DBX/SPX35/4P	PL-C 18W/835/4P	18	G24 q-2
20668	CF18DD/E/841	CFQ18W/G24q/841	F18DBX/SPX41/4P	PL-C 18W/841/4P	18	G24 q-2
20684	CF26DD/E/827	CFQ26W/G24q/827	F26DBX/SPX27/4P	PL-C 26W/827/4P	26	G24 q-3
20722	CF26DD/E/830	CFQ26W/G24q/830	F26DBX/SPX30/4P	PL-C 26W/830/4P	26	G24 q-3
20673	CF26DD/E/835	CFQ26W/G24q/835	F26DBX/SPX35/4P	PL-C 26W/835/4P	26	G24 q-3
20669	CF26DD/E/841	CFQ26W/G24q/841	F26DBX/SPX41/4P	PL-C 26W/841/4P	26	G24 q-3

SYLVANIA DULUX® COMPACT FLUORESCENT CROSS REFERENCE

DULUX T

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20756	CF18DT/827	CFQ18W/GX24d/827	—	—	18	GX24 d-2
20752	CF26DT/827	CFQ26W/GX24d/827	—	—	26	GX24 d-3

DULUX T/E

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20891	CF13DT/E/827	CFTR13W/GX24q/827	F13TBX/827/4P/EOL	—	13	GX24 q-1
20892	CF13DT/E/830	CFTR13W/GX24q/830	—	—	13	GX24 q-1
20893	CF13DT/E/835	CFTR13W/GX24q/835	—	—	13	GX24 q-1
20894	CF13DT/E/841	CFTR13W/GX24q/841	—	—	13	GX24 q-1
20760	CF18DT/E/827	CFTR18W/GX24q/827	F18TBX/827/4P/EOL	—	18	GX24 q-2
20767	CF26DT/E/827	CFTR26W/GX24q/827	F26TBX/827/4P/EOL	—	26	GX24 q-3
20768	CF32DT/E/827	CFTR32W/GX24q/827	—	—	32	GX24 q-3

DULUX T/E/IN

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20875	CF18DT/E/IN/827	CFTR18W/GX24q/827	F18TBX/SPX27/A/4P	PL-T 18W/827/4P	18	GX24 q-2
20876	CF18DT/E/IN/830	CFTR18W/GX24q/830	F18TBX/SPX30/A/4P	PL-T 18W/830/4P	18	GX24 q-2
20877	CF18DT/E/IN/835	CFTR18W/GX24q/835	F18TBX/SPX35/A/4P	PL-T 18W/835/4P	18	GX24 q-2
20878	CF18DT/E/IN/841	CFTR18W/GX24q/841	F18TBX/SPX41/A/4P	PL-T 18W/841/4P	18	GX24 q-2
20879	CF26DT/E/IN/827	CFTR26W/GX24q/827	F26TBX/SPX27/A/4P	PL-T 26W/827/4P	26	GX24 q-3
20880	CF26DT/E/IN/830	CFTR26W/GX24q/830	F26TBX/SPX30/A/4P	PL-T 26W/830/4P	26	GX24 q-3
20881	CF26DT/E/IN/835	CFTR26W/GX24q/835	F26TBX/SPX35/A/4P	PL-T 26W/835/4P	26	GX24 q-3
20882	CF26DT/E/IN/841	CFTR26W/GX24q/841	F26TBX/SPX41/A/4P	PL-T 26W/841/4P	26	GX24 q-3
20883	CF32DT/E/IN/827	CFTR32W/GX24q/827	F32TBX/SPX27/A/4P	PL-T 32W/827/4P	32	GX24 q-3
20884	CF32DT/E/IN/830	CFTR32W/GX24q/830	F32TBX/SPX30/A/4P	PL-T 32W/830/4P	32	GX24 q-3
20885	CF32DT/E/IN/835	CFTR32W/GX24q/835	F32TBX/SPX35/A/4P	PL-T 32W/835/4P	32	GX24 q-3
20886	CF32DT/E/IN/841	CFTR32W/GX24q/841	F32TBX/SPX41/A/4P	PL-T 32W/841/4P	32	GX24 q-3
20887	CF42DT/E/IN/827	CFTR42W/GX24q/827	F42TBX/827/A/4P/EOL	PL-T 42W/827/4P	42	GX24 q-4
20888	CF42DT/E/IN/830	CFTR42W/GX24q/830	F42TBX/830/A/4P/EOL	PL-T 42W/830/4P	42	GX24 q-4
20871	CF42DT/E/IN/835	CFTR42W/GX24q/835	F42TBX/835/A/4P/EOL	PL-T 42W/835/4P	42	GX24 q-4
20890	CF42DT/E/IN/841	CFTR42W/GX24q/841	F42TBX/841/A/4P/EOL	PL-T 42W/841/4P	42	GX24 q-4
20895	CF57DT/E/IN/827	CFTR57W/GX24q/827	F57QBX/827/A/4P/EOL	—	57	GX24 q-5
20896	CF57DT/E/IN/830	CFTR57W/GX24q/830	F57QBX/830/A/4P/EOL	PL-T 57W/830/4P/A	57	GX24 q-5
20897	CF57DT/E/IN/835	CFTR57W/GX24q/835	F57QBX/835/A/4P/EOL	PL-T 57W/835/4P/A	57	GX24 q-5
20899	CF57DT/E/IN/841	CFTR57W/GX24q/841	F57QBX/841/A/4P/EOL	PL-T 57W/841/4P/A	57	GX24 q-5
20794	CF70DT/E/IN/827	CFTR70W/GX24q/827	F70QBX/827/A/4P/EOL	—	70	GX24 q-6
20795	CF70DT/E/IN/830	CFTR70W/GX24q/830	F70QBX/830/A/4P/EOL	—	70	GX24 q-6
20796	CF70DT/E/IN/835	CFTR70W/GX24q/835	F70QBX/835/A/4P/EOL	—	70	GX24 q-6
20797	CF70DT/E/IN/841	CFTR70W/GX24q/841	F70QBX/841/A/4P/EOL	—	70	GX24 q-6

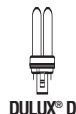
DULUX L

NAED	SYLVANIA	NEMA / GENERIC	GE	PHILIPS	WATTAGE	BASE
20587	FT18DL830	FT18W/2G11/830	F18BX/SPX30	PL-L 18W/830	18	2G11
20595	FT18DL830RS	FT18W/2G11/RS/830	F18BX/SPX30/RS	PL-L 18W/830	18	2G11
20588	FT18DL835	FT18W/2G11/835	F18BX/SPX35	PL-L 18W/835	18	2G11
20594	FT18DL835RS	FT18W/2G11/RS/835	F18BX/SPX35/RS	PL-L 18W/835	18	2G11
20589	FT18DL841	FT18W/2G11/841	F18BX/SPX41	PL-L 18W/841	18	2G11
20593	FT18DL841RS	FT18W/2G11/RS/841	F18BX/SPX41/RS	PL-L 18W/841	18	2G11
20597	FT24DL830	FT24W/2G11/830	F27BX/SPX30/RS	PL-L 24W/830	24	2G11
20580	FT24DL835	FT24W/2G11/835	F27BX/SPX35/RS	PL-L 24W/835	24	2G11
20596	FT24DL841	FT24W/2G11/841	F27BX/SPX41/RS	PL-L 24W/841	24	2G11
20581	FT36DL830	FT36W/2G11/830	F39BX/SPX30/RS	PL-L 36W/830	36	2G11
20582	FT36DL835	FT36W/2G11/835	F39BX/SPX35/RS	PL-L 36W/835	36	2G11
20583	FT36DL841	FT36W/2G11/841	F39BX/SPX41/RS	PL-L 36W/841	36	2G11
20518	FT40DL28W/830/SS/IS	FT40W/2G11/RS/830	—	—	28	2G11
20519	FT40DL28W/835/SS/IS	FT40W/2G11/RS/835	—	—	28	2G11
20488	FT40DL28W/841/SS/IS	FT40W/2G11/RS/841	—	—	28	2G11
20584	FT40DL830RS	FT40W/2G11/RS/830	F40/30BX/SPX30	PL-L 40W/830/RS/IS	40	2G11
20585	FT40DL835RS	FT40W/2G11/RS/835	F40/30BX/SPX35	PL-L 40W/835/RS/IS	40	2G11
20586	FT40DL841RS	FT40W/2G11/RS/841	F40/30BX/SPX41	PL-L 40W/841/RS/IS	40	2G11
20576	FT40DL850RS	FT40W/2G11/RS/850	F40/30BX/SPX50RS	—	40	2G11
20554	FT40DL965RS	FT40W/2G11/RS/865	—	—	40	2G11
20590	FT55DL830	FT55W/2G11/RS/830	F55BX/830	—	55	2G11
20591	FT55DL835	FT55W/2G11/RS/835	F55BX/835	—	55	2G11
20592	FT55DL841	FT55W/2G11/RS/841	F55BX/841	—	55	2G11
20563	FT55DL965	FT55W/2G11/RS/965	—	—	55	2G11
20572	FT80DL830	FT80W/2G11/RS/830	—	PL-L 80W/830/4P	80	2G11
20622	FT80DL835	FT80W/2G11/RS/835	—	PL-L 80W/835/4P	80	2G11
20624	FT80DL841	FT80W/2G11/RS/841	—	PL-L 80W/841/4P	80	2G11

DULUX S PREHEAT 2-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

With starter in Lamp Base for Magnetic Ballast

Nominal Wattage		Bulb	MOL (in) (mm)		Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
5	S (T4)	4.2	107	G23	20547	CF5DS/827/RP/ECO	CFT5W/G23/827	10	10000	2700	82	230	198	  1,4,6,11,12,20,22	
					20325	CF5DS/827/ECO	CFT5W/G23/827	50	10000	2700	82	230	198	  1,4,6,11,12,20,22	
					20303	CF5DS/841/ECO	CFT5W/G23/841	50	10000	4100	82	230	198	  1,4,6,11,12,20,22	
7	S (T4)	5.3	135	G23	20548	CF7DS/827/RP/ECO	CFT7W/G23/827	10	10000	2700	82	400	344	  1,4,6,11,12,20,22	
					20327	CF7DS/827/ECO	CFT7W/G23/827	50	10000	2700	82	400	344	  1,4,6,11,12,20,22	
					20310	CF7DS/835/ECO	CFT7W/G23/835	50	10000	3500	82	400	344	  1,4,6,11,12,20,22	
					20304	CF7DS/841/ECO	CFT7W/G23/841	50	10000	4100	82	400	344	  1,4,6,11,12,20,22	
					20307	CF7DS/850/ECO	CFT7W/G23/850	50	10000	5000	82	400	344	  1,4,6,11,12,20,22	
9	S (T4)	6.5	165	G23	20536	CF9DS/827/RP/ECO	CFT9W/G23/827	10	10000	2700	82	580	499	  1,4,6,11,12,20,22	
					20329	CF9DS/827/ECO	CFT9W/G23/827	50	10000	2700	82	580	499	  1,4,6,11,12,20,22	
					20299	DULUX S 9W/78		50	10000						1,4,10,11,12,22
					20333	CF9DS/835/ECO	CFT9W/G23/835	50	10000	3500	82	580	499	  1,4,6,11,12,20,22	
					20305	CF9DS/841/ECO	CFT9W/G23/841	50	10000	4100	82	580	499	  1,4,6,11,12,20,22	
					20308	CF9DS/850/ECO	CFT9W/G23/850	50	10000	5000	82	580	499	  1,4,6,11,12,20,22	
13	S (T4)	7.1	180	GX23	20549	CF13DS/827/RP/ECO	CFT13W/GX23/827	10	10000	2700	82	800	688	  1,4,6,11,12,20,22	
					20331	CF13DS/827/ECO	CFT13W/GX23/827	50	10000	2700	82	800	688	  1,4,6,11,12,20,22	
					20283	CF13DS/830/ECO	CFT13W/GX23/830	50	10000	3000	82	800	688	  1,4,6,11,12,20,22	
					20335	CF13DS/835/ECO	CFT13W/GX23/835	50	10000	3500	82	800	688	  1,4,6,11,12,20,22	
					20306	CF13DS/841/ECO	CFT13DS/GX23/841	50	10000	4100	82	800	688	  1,4,6,11,12,20,22	
					20309	CF13DS/850/ECO	CFT13W/GX23/850	50	10000	5000	82	800	688	  1,4,6,11,12,20,22	
					20374	CFT13WDS/EC/827/ECO	CFT13W/GX23/827	10	10000	2700	82	800	688	 1,2,4,11,12,20	
					20397	CFT13WDS/EC/830/ECO	CFT13W/GX23/830	10	10000	3000	82	800	688	 1,2,4,11,12,20	
					20368	CFT13WDS/EC/835/ECO	CFT13W/GX23/835	10	10000	3500	82	800	688	 1,2,4,11,12,20	
					20375	CFT13WDS/EC/841/ECO	CFT13W/GX23/841	10	10000	4100	82	800	688	 1,2,4,11,12,20	



DULUX S/E 4-PIN COMPACT FLUORESCENT LAMPS

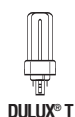
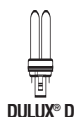
for Dimming and Electronic Ballast. Lamps have End-of-lamp Life (EOL) Protection

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
5	S (T4)	3.4	85	2G7	20311	CF5DS/E/827	CFT5W/2G7/827	50	10000	2700	82	230	198	1,2,5,12,16,20
					20315	CF5DS/E/841	CFT5W/2G7/841	50	10000	4100	82	230	198	1,2,5,12,16,20
7	S (T4)	4.5	115	2G7	20312	CF7DS/E/827	CFT7W/2G7/827	50	10000	2700	82	400	344	1,2,5,12,16,20
					20316	CF7DS/E/841	CFT7W/2G7/841	50	10000	4100	82	400	344	1,2,5,12,16,20
9	S (T4)	5.7	145	2G7	20313	CF9DS/E/827	CFT9W/2G7/827	50	10000	2700	82	580	499	1,2,5,12,20
					20317	CF9DS/E/841	CFT9W/2G7/841	50	10000	4100	82	580	499	1,2,5,12,20
13	S (T4)	6.2	157	2GX7	20314	CF13DS/E/827	CFT13W/2GX7/827	50	10000	2700	82	800	688	1,2,5,12,20
					20284	CF13DS/E/830	CFT13W/2GX7/830	50	10000	3000	82	800	688	1,2,5,12,20
					20318	CF13DS/E/841	CFT13W/2GX7/841	50	10000	4100	82	800	688	1,2,5,12,20

DULUX D PREHEAT 2-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

With starter in Lamp Base for Magnetic Ballast

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
9	D (T4)	4.3	110	G23-2	20537	CF9DD/827/RP/ECO	CFQ9W/G23/827	10	10000	2700	82	525	452	1,4,6,11,12,20,22
					20689	CF9DD/827/ECO	CFQ9W/G23/827	50	10000	2700	82	525	452	1,4,6,11,12,20,22
					20783	CF9DD/830/ECO	CFQ9W/G23/830	50	10000	3000	82	525	452	1,4,6,11,12,20,22
					20690	CF9DD/835/ECO	CFQ9W/G23/835	50	10000	3500	82	525	452	1,4,6,11,12,20,22
13	D (T4)	4.6	118	GX23-2	20691	CF13DD/827/ECO	CFQ13W/GX23/827	50	10000	2700	82	780	671	1,4,6,11,12,20,22
					20705	CF13DD/830/ECO	CFQ13W/GX23/830	50	10000	3000	82	780	671	1,4,6,11,12,20,22
					20692	CF13DD/835/ECO	CFQ13W/GX23/835	50	10000	3500	82	780	671	1,4,6,11,12,20,22
					20708	CF13DD/841/ECO	CFQ13W/GX23/841	50	10000	4100	82	780	671	1,4,6,11,12,20,22
18	D (T4)	6.0	153	G24D-2	20676	CF18DD/827/ECO	CFQ18W/G24D/827	50	10000	2700	82	1150	989	1,4,6,11,12,20,22
					20709	CF18DD/830/ECO	CFQ18W/G24D/830	50	10000	3000	82	1150	989	1,4,6,11,12,20,22
					20677	CF18DD/835/ECO	CFQ18W/G24D/835	50	10000	3500	82	1150	989	1,4,6,11,12,20,22
					20678	CF18DD/841/ECO	CFQ18W/G24D/841	50	10000	4100	82	1150	989	1,4,6,11,12,20,22
26	D (T4)	6.8	173	G24D-3	20679	CF26DD/827/ECO	CFQ26W/G24D/827	50	10000	2700	82	1710	1470	1,4,6,11,12,20,22
					20710	CF26DD/830/ECO	CFQ26W/G24D/830	50	10000	3000	82	1710	1470	1,4,6,11,12,20,22
					20680	CF26DD/835/ECO	CFQ26W/G24D/835	50	10000	3500	82	1710	1470	1,4,6,11,12,20,22
					20681	CF26DD/841/ECO	CFQ26W/G24D/841	50	10000	4100	82	1710	1470	1,4,6,11,12,20,22



DULUX® D/E 4-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

for Dimming and Electronic Ballast. Lamps have End-of-lamp Life (EOL) Protection

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
13	D (T4)	5.2	131	G24Q-1	20682	CF13DD/E/827/ECO	CFQ13W/G24Q/827	50	12000	2700	82	900 774	1,2,5,6, 7,12,20
					20721	CF13DD/E/830/ECO	CFQ13W/G24Q/830	50	12000	3000	82	900 774	1,2,5,6, 7,12,20
					20671	CF13DD/E/835/ECO	CFQ13W/G24Q/835	50	12000	3500	82	900 774	1,2,5,6, 7,12,20
					20667	CF13DD/E/841/ECO	CFQ13W/G24Q/841	50	12000	4100	82	900 774	1,2,5,6, 7,12,20
18	D (T4)	5.8	147	G24Q-2	20683	CF18DD/E/827/ECO	CFQ18W/G24Q/827	50	12000	2700	82	1150 989	1,2,5,6, 7,12,20
					20724	CF18DD/E/830/ECO	CFQ18W/G24Q/830	50	12000	3000	82	1150 989	1,2,5,6, 7,12,20
					20672	CF18DD/E/835/ECO	CFQ18W/G24Q/835	50	12000	3500	82	1150 989	1,2,5,6, 7,12,20
					20668	CF18DD/E/841/ECO	CFQ18W/G24Q/841	50	12000	4100	82	1150 989	1,2,5,6, 7,12,20
26	D (T4)	6.5	166	G24Q-3	20684	CF26DD/E/827/ECO	CFQ26W/G24Q/827	50	12000	2700	82	1710 1470	1,2,5,6, 7,12,20
					20722	CF26DD/E/830/ECO	CFQ26W/G24Q/830	50	12000	3000	82	1710 1470	1,2,5,6, 7,12,20
					20673	CF26DD/E/835/ECO	CFQ26W/G24Q/835	50	12000	3500	82	1710 1470	1,2,5,6, 7,12,20
					20669	CF26DD/E/841/ECO	CFQ26W/G24Q/841	50	12000	4100	82	1710 1470	1,2,5,6, 7,12,20

DULUX T PREHEAT 2-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

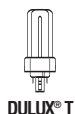
With starter in Lamp Base for Magnetic Ballast

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
18	T (T4)	4.8	123	GX24D-2	20756	CF18DT/827/ECO	CFTR18W/GX24D/827	50	12000	2700	82	1200 1032	1,4,6,11, 12,20,22
26	T (T4)	5.4	138	GX24D-3	20752	CF26DT/827/ECO	CFTR26W/GX24D/827	50	12000	2700	82	1800 1548	1,4,6,11, 12,20,22

DULUX T/E 4-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

For dimming and electronic ballast. Lamps have End-of-Lamp Life (EOL) Protection

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
13	T (T4)	4.2	106	GX24Q-1	20891	CF13DT/E/827/ECO	CFTR13W/GX24Q/827	50	12000	2700	82	900 774	1,2,5,6, 7,12,20
					20892	CF13DT/E/830/ECO	CFTR13W/GX24Q/830	50	12000	3000	82	900 774	1,2,5,6, 7,12,20
					20893	CF13DT/E/835/ECO	CFTR13W/GX24Q/835	50	12000	3500	82	900 774	1,2,5,6, 7,12,20
					20894	CF13DT/E/841/ECO	CFTR13W/GX24Q/841	50	12000	4100	82	900 774	1,2,5,6, 7,12,20
18	T (T4)	4.6	116	GX24Q-2	20760	CF18DT/E/827/ECO	CFTR18W/GX24Q/827	50	12000	2700	82	1200 1032	1,2,5,6, 7,12,20



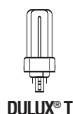
DULUX® D/E 4-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @35°C/95°F	Symbols & Footnotes
26	T (T4)	5.2	124	GX24Q-3	20767	CF26DT/E/827/ECO	CFTR26W/GX24Q/827	50	12000	2700	82	1800	1548	1,2,5,6, 7,12,20
					20995	CF26DT/E/835/ECO/BL/1	CFTR26W/GX24Q/835	50	12000	3500	82	1800	1548	1,2,5,6, 7,12,20
32	T (T4)	5.8	147	GX24Q-3	20768	CF32DT/E/827/ECO	CFTR32W/GX24Q/827	50	12000	2700	82	2400	2064	1,2,5,6, 7,12,18,20

DULUX T/E/IN AMALGAM, 4-PIN ECOLOGIC COMPACT FLUORESCENT LAMPS

For electronic ballast for high and low temperature applications. Lamps have End-of-Lamp Life (EOL) Protection

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @35°C/95°F	Symbols & Footnotes
18	T (T4)	4.4	111	GX24Q-2	20875	CF18DT/E/IN/827/ECO	CFTR18W/GX24Q/827	50	12000	2700	82	1164	1001	1,2,5,6, 7,12,20,21
					20876	CF18DT/E/IN/830/ECO	CFTR18W/GX24Q/830	50	12000	3000	82	1164	1001	1,2,5,6, 7,12,20,21
					20877	CF18DT/E/IN/835/ECO	CFTR18W/GX24Q/835	50	12000	3500	82	1164	1001	1,2,5,6, 7,12,20,21
					20878	CF18DT/E/IN/841/ECO	CFTR18W/GX24Q/841	50	12000	4100	82	1164	1001	1,2,5,6, 7,12,20,21
26	T (T4)	5.0	126	GX24Q-3	20879	CF26DT/E/IN/827/ECO	CFTR26W/GX24Q/827	50	12000	2700	82	1746	1501	1,2,5,6, 7,12,20,21
					20880	CF26DT/E/IN/830/ECO	CFTR26W/GX24Q/830	50	12000	3000	82	1746	1501	1,2,5,6, 7,12,20,21
					20881	CF26DT/E/IN/835/ECO	CFTR26W/GX24Q/835	50	12000	3500	82	1746	1501	1,2,5,6, 7,12,20,21
					20882	CF26DT/E/IN/841/ECO	CFTR26W/GX24Q/841	50	12000	4100	82	1746	1501	1,2,5,6, 7,12,20,21
32	T (T4)	5.6	142	GX24Q-3	20883	CF32DT/E/IN/827/ECO	CFTR32W/GX24Q/827	50	12000	2700	82	2328	2002	1,2,5,6, 7,12,18,20,21
					20884	CF32DT/E/IN/830/ECO	CFTR32W/GX24Q/830	50	12000	3000	82	2328	2002	1,2,5,6, 7,12,18,20,21
					20885	CF32DT/E/IN/835/ECO	CFTR32W/GX24Q/835	50	12000	3500	82	2328	2002	1,2,5,6, 7,12,18,20,21
					20886	CF32DT/E/IN/841/ECO	CFTR32W/GX24Q/841	50	12000	4100	82	2328	2002	1,2,5,6, 7,12,18,20,21
42	T (T4)	6.5	163	GX24Q-4	20887	CF42DT/E/IN/827/ECO	CFTR42W/GX24Q/827	50	12000	2700	82	3104	2670	1,2,5,6, 7,12,18,20,21
					20888	CF42DT/E/IN/830/ECO	CFTR42W/GX24Q/830	50	12000	3000	82	3104	2670	1,2,5,6, 7,12,18,20,21
					20871	CF42DT/E/IN/835/ECO	CFTR42W/GX24Q/835	50	12000	3500	82	3104	2670	1,2,5,6, 7,12,18,20,21
					20890	CF42DT/E/IN/841/ECO	CFTR42W/GX24Q/841	50	12000	4100	82	3104	2670	1,2,5,6, 7,12,18,20,21
57	T (T4)	7.76	197	GX24Q-5	20895	CF57DT/E/IN/827/ECO	CFTR57W/GX24Q/827	50	12000	2700	82	4171	3587	1,2,5,6, 12,18,20,21
					20896	CF57DT/E/IN/830/ECO	CFTR57W/GX24Q/830	50	12000	3000	82	4171	3587	1,2,5,6, 12,18,20,21
					20897	CF57DT/E/IN/835/ECO	CFTR57W/GX24Q/835	50	12000	3500	82	4171	3587	1,2,5,6, 12,18,20,21

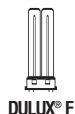


DULUX® T/E/IN AMALGAM, 4-PIN ECOLOGIC® COMPACT FLUORESCENT LAMPS

												Approx Lumens		
Nominal Wattage	Bulb	MOL		Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Initial	Mean	Symbols & Footnotes
		(in)	(mm)									@25°C/77°F	@35°C/95°F	
57	T (T4)	7.76	197	GX24Q-5	20899	CF57DT/E/IN/841/ECO	CFTR57W/GX24Q/841	50	12000	4100	82	4171 4300	3587 3698	 1,2,5,6, 7,12,18,20,21

DULUX L HIGH LUMEN ECOLOGIC® COMPACT FLUORESCENT LAMPS

Nominal Wattage		Bulb	MOL (in) (mm)		Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F Mean		Symbols & Footnotes
18	L (T5)	9.0	229	2G11	20587	FT18DL/830/ECO	FT18W/2G11/830	10	12000	3000	82	1250	1075	1,2,5,12,20	
					20588	FT18DL/835/ECO	FT18W/2G11/835	10	12000	3500	82	1250	1075	1,2,5,12,20	
					20589	FT18DL/841/ECO	FT18W/2G11/841	10	12000	4100	82	1250	1075	1,2,5,12,20	
	L (T5)	10.5	267	2G11	20595	FT18DL/830/RS/ECO	FT18W/2G11/RS/830	10	20000	3000	82	1250	1075	1,2,5,12,20	
					20594	FT18DL/835/RS/ECO	FT18W/2G11/RS/835	10	20000	3500	82	1250	1075	1,2,5,12,20	
					20593	FT18DL/841/RS/ECO	FT18W/2G11/RS/841	10	20000	4100	82	1250	1075	1,2,5,12,20	
24	L (T5)	12.9	326	2G11	20597	FT24DL/830/ECO	FT24W/2G11/830	10	12000	3000	82	1800	1548	1,2,5,12,16,20	
					20580	FT24DL/835/ECO	FT24W/2G11/835	10	12000	3500	82	1800	1548	1,2,5,12,16,20	
					20596	FT24DL/841/ECO	FT24W/2G11/841	10	12000	4100	82	1800	1548	1,2,5,12,16,20	
36	L (T5)	16.6	422	2G11	20581	FT36DL/830/ECO	FT36W/2G11/830	10	12000	3000	82	2900	2494	1,2,5,12,16,20	
					20582	FT36DL/835/ECO	FT36W/2G11/835	10	12000	3500	82	2900	2494	1,2,5,12,16,20	
					20583	FT36DL/841/ECO	FT36W/2G11/841	10	12000	4100	82	2900	2494	1,2,5,12,16,20	
40	L (T5)	22.4	570	2G11	20518	FT40DL/28W/830/SS/IS/ECO	FT28W/2G11/830	10	20000	3000	82	2800	2408	1,2,5,6,12,18,20	
					20584	FT40DL/830/RS/ECO	FT40W/2G11/RS/830	10	20000	3000	82	3150	2709	1,2,5,12,20	
		22.4	570	2G11	20519	FT40DL/28W/835/SS/IS/ECO	FT28W/2G11/835	10	20000	3500	82	2800	2408	1,2,5,6,12,18,20	
					20585	FT40DL/835/RS/ECO	FT40W/2G11/RS/835	10	20000	3500	82	3150	2709	1,2,5,12,20	
		22.4	570	2G11	20488	FT40DL/28W/841/SS/IS/ECO	FT28W/2G11/841	10	20000	4100	82	2800	2408	1,2,5,6,12,18,20	
					20586	FT40DL/841/RS/ECO	FT40W/2G11/RS/841	10	20000	4100	82	3150	2709	1,2,5,12,20	
		20576	FT40DL/850/RS/ECO	FT40W/2G11/RS/850	10	20000	5000	82	3150	2709	1,2,5,12,20				
50	L (T5)	22.6	573	2G11	20276	FT50DL/841/RS/ECO	FT50W/2G11/RS/841	10	14000	4100	82	4300	3655	1,2,5,12,20	
					20278	FT50DL/835/RS/ECO	FT50W/2G11/RS/835	10	14000	3500	82	4300	3655	1,2,5,12,20	



DULUX® L HIGH LUMEN ECOLOGIC® COMPACT FLUORESCENT LAMPS

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
50	L (T5)	22.6	573	2G11	20280	FT50DL/830/RS/ECO	FT50W/2G11/RS/830	10	14000	3000	82	4300	3655	1,2,5,12, 20
55	L (T5)	21.1	535	2G11	20590	FT55DL/830/ECO	FT55W/2G11/830	10	12000	3000	82	4800	4128	1,2,5,12, 17,20
					20726	FT55DL/930/ECO	FT55W/2G11/30	10	12000	3000	90	4800	4128	1,2,5,12,17,20
					20591	FT55DL/835/ECO	FT55W/2G11/835	10	12000	3500	82	4800	4128	1,2,5,12, 17,20
					20592	FT55DL/841/ECO	FT55W/2G11/841	10	12000	4100	82	4800	4128	1,2,5,12, 17,20
					20725	FT55DL/954/ECO	FT55W/2G11/50	10	12000	5400	90	4800	4128	1,2,5,12,17,20
80	L (T5)	22.6	4.5	2G11	20572	FT80DL/830/ECO	FT80W/2G11/830	10	12000	3000	82	6000	5160	1,2,5,12, 17,20
			573	2G11	20622	FT80DL/835/ECO	FT80W/2G11/835	10	12000	3500	82	6000	5160	1,2,5,12, 17,20
			4.5	2G11	20624	FT80DL/841/ECO	FT80W/2G11/841	10	12000	4100	82	6000	5160	1,2,5,12, 17,20

DULUX F FLAT COMPACT FLUORESCENT LAMPS

Nominal Wattage	Bulb	MOL (in)	(mm)	Base	Product Number	Ordering Abbreviation	NEMA Generic Designation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
18	F (T5)	4.8	122	2G10	20551	CF18DF/830	CFM18W/2G10/830	10	10000	3000	82	1100	946	1,2,5,12,19,20
					20552	CF18DF/841	CFM18W/2G10/841	10	10000	4100	82	1100	946	1,2,5,12,19,20
24	F (T5)	6.7	171	2G10	20553	CF24DF/830	CFM24W/2G10/830	10	10000	3000	82	1700	1462	1,2,5,12,19,20
					20558	CF24DF/841	CFM24W/2G10/841	10	10000	4100	82	1700	1462	1,2,5,12,19,20
36	F (T5)	8.5	217	2G10	20559	CF36DF/830	CFM36W/2G10/830	10	10000	3000	82	2800	2408	1,2,5,12,19,20
					20560	CF36DF/841	CFM36W/2G10/841	10	10000	4100	82	2800	2408	1,2,5,12,19,20

DULUX EL SELF-BALLASTED COMPACT FLUORESCENT LAMPS

Mini Twist Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
7	MINITWIST	4.4	Medium	29451	CF7EL/MINI/827	120	6	8000	2700	82	375	300	1,3,8, 9,12,14,20
				29379	CF7EL/MINI/830	120	6	8000	3000	82	375	300	1,3,8, 9,12,14,20
				29371	CF7EL/MINI/830/BL	120	6	8000	3000	82	375	300	1,3,8, 9,12,14,20
		4.2	Medium	29697	CF7EL/SUPER/830/BL	120	6	10000	3000	82	375	300	1,3,8, 9,12,14,20
11	MINITWIST	4.2	Medium	29766	CF11EL/SUPER/830/BL	120	6	10000	3000	82	600	480	1,3,8, 9,12,14,20
		4.5	Medium	29378	CF11EL/MINI/830	120	6	8000	3000	82	600	480	1,3,8, 9,12,14,20
				29364	CF11EL/MINI/830/BL	120	6	8000	3000	82	600	480	1,3,8, 9,12,14,20
13	MINITWIST	4.6	Medium	29409	CF13EL/MINI/827	120	6	10000	2700	82	800	640	1,3,8, 9,12,14,20



DULUX® EL Twist

DULUX® EL SELF-BALLASTED COMPACT FLUORESCENT LAMPS**Mini Twist Compact Fluorescent Lamps**

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
13	MINITWIST	4.6	Medium	29727	CF13EL/MICRO/830/RP2	120	12	12000	3000	82	825	660	1,3,8, 9,12,14,20
		4.5	Medium	29376	CF13EL/MINI/830	120	6	8000	3000	82	800	640	1,3,8, 9,12,14,20
		4.2	Medium	29059	CF13EL/SUPER/827/BL	120	6	10000	2700	82	880	704	1,3,8, 9,12,14,20
				29449	CF13EL/SUPER/830/BL	120	6	10000	3000	82	880	704	1,3,8, 9,12,14,20
				29713	CF13EL/SUPER/835/BL	120	6	10000	3500	82	800	640	1,3,8, 9,12,14,20
		4.6	Medium	29567	CF13EL/MINI/841	120	6	10000	4100	82	800	640	1,3,8, 9,12,14,20
		4.2	Medium	29588	CF13EL/SUPER/850/BL	120	10	10000	5000	82	800	640	1,3,8, 9,12,14,20
				29469	CF13EL/MINI/865/BL/CS10	120	10	10000	6500	82	800	640	1,3,8, 9,12,14,20
19	MINITWIST	5.2	Medium	29410	CF19EL/MINI/827	120	6	8000	2700	82	1200	960	1,3,8, 9,12,14,20
		5.5	Medium	29396	CF19EL/MINI/830	120	6	8000	3000	82	1200	960	1,3,8, 9,12,14,20
		4.7	Medium	29689	CF19EL/SUPER/830/BL	120	6	10000	3000	82	1200	960	1,3,8, 9,12,14,20
				28950	CF19EL/SUPER/850/BL	120	6	10000	5000	82	1200	960	1,3,8, 9,12,14,20
				29720	CF19EL/SUPER/865/BL	120	6	10000	6500	82	1200	960	1,3,8, 9,12,14,20
20	MINITWIST	4.2	Medium	29728	CF20EL/MICRO/830/RP2	120	12	12000	3000	82	1280	1024	1,3,8, 9,12,14,20
23	MINITWIST	4.6	Medium	29411	CF23EL/MINI/827	120	6	10000	2700	82	1600	1280	1,3,8, 9,12,14,20
		4.4	Medium	29729	CF23EL/MICRO/830/RP2	120	12	12000	3000	82	1600	1280	1,3,8, 9,12,14,20
		5.75	Medium	29397	CF23EL/MINI/830	120	6	8000	3000	82	1600	1280	1,3,8, 9,12,14,20
		5.06	Medium	29692	CF23EL/SUPER/830/BL	120	6	10000	3000	82	1600	1280	1,3,8, 9,12,14,20
				29714	CF23EL/SUPER/835/BL	120	6	10000	3500	82	1600	1280	1,3,8, 9,12,14,20
		4.6	Medium	29564	CF23EL/MINI/841	120	6	10000	4100	82	1600	1280	1,3,8, 9,12,14,20
		5.06	Medium	29690	CF23EL/SUPER/850/BL	120	6	10000	5000	82	1600	1280	1,3,8, 9,12,14,20
				29716	CF23EL/SUPER/865/BL	120	6	10000	6500	82	1600	1280	1,3,8, 9,12,14,20
30	MINITWIST	4.93	Medium	29578	CF30EL/MINI/835/DAY/BL	120	5	6000	3500	82	2000	1600	1,3,8, 9,12,14,20



DULUX® EL SELF-BALLASTED COMPACT FLUORESCENT LAMPS

Twist Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
27	TWIST	6.1	Medium	29390	CF27EL/TWIST/830	120	6	10000	3000	82	1750	1400	1,3,8, 9,12,14,20
30	TWIST	5.13	Medium	29395	CF30EL/TWIST/830	120	6	10000	3000	82	2000	1600	1,3,8, 9,12,14,20
				29392	CF30EL/TWIST/830/BL	120	5	6000	3000	82	2000	1600	1,3,8, 9,12,14,20
				29415	CF30EL/TWIST/827	120	6	10000	2700	82	2000	1600	1,3,8, 9,12,14,20
40	TWIST	5.25	Medium	29147	CF40EL/TWIST/827	120	6	8000	2700	82	2600	2080	1,3,8, 9,12,14,20
				29481	CF40EL/TWIST/830/BL	120	10	6000	3000	82	2600	2080	1,3,8, 9,12,14,20
65	TWIST	7.85	Medium	29508	CF65EL/TWIST/841	120	6	8000	4100	82	4200	3360	1,3,8, 9,12,14,20
12 19 28	TWIST	5.75	3CON Med	29523	CF28EL/3WAY/TWIST/827	120	6	6000	2700	82	600 1100 1800	480 880 1440	1,3,8, 9,12,14,20
				29351	CF28EL/3WAY/TWIST/830	120	6	6000	3000	82	600 1100 1800	480 880 1440	1,3,8, 9,12,14,20
				29349	CF28EL/3WAY/TWIST/830/BL	120	5	6000	3000	82	600 1100 1800	480 880 1440	1,3,8, 9,12,14,20

Classic (A-shape) Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
5	A15	3.95	Medium	29743	CF5EL/A15/DIM/830	120	6	15000	3000	82	200	160	1,3,8, 12,14,20
9	A19	4	Medium	29665	CF9EL/A19/827	120	6	8000	2700	82	450	360	1,3,8, 9,12,14,20
	A15	4	Medium	29526	CF9EL/A15/830/BL2	120	12	8000	3000	82	450	360	1,3,8, 9,12,14,20
14	A19	4.75	Medium	29575	CF14EL/A19/827	120	6	6000	2700	82	800	640	1,3,8, 9,12,14,20
				29468	CF14EL/A19/830	120	6	6000	3000	82	800	640	1,3,8, 9,12,14,20
	5	Medium		29485	CF14EL/A19/830/BL	120	6	8000	3000	82	800	640	1,3,8, 9,12,14,20
				29346	CF14EL/A19/Y/BL	120	5	6000	-	-	405	324	1,3,8, 9,12,14,20

Decorative Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
4	FLAME	4.25	Candelabra	29135	CF4EL/B15/C/827	120	6	6000	2700	82	160	128	1,3,8, 9,12,14,20
				29121	CF4EL/B15/C/830/BL	120	6	6000	3000	82	160	128	1,3,8, 9,12,14,20



DULUX® EL Globe



DULUX® EL Reflector



FLAME

DULUX® EL SELF-BALLASTED COMPACT FLUORESCENT LAMPS

Decorative Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
5	FLAME	5.06	Medium	29742	CF5EL/B10/DIM/830	120	6	25000	3000	82	200	160	1,3,8, 9,12,14,20
7	FLAME	5.0	Medium	29039	CF7EL/B15/827	120	6	6000	2700	82	280	224	1,3,8, 9,12,14,20
				29167	CF7EL/B15/830/BL	120	6	6000	3000	82	280	224	1,3,8, 9,12,14,20
9	FLAME	4.25	Candelabra	29584	CF9EL/B14/C/830/ADP/BL2	120	12	8000	3000	82	450	360	1,3,8, 9,12,14,20

Globe Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
9	G25	4.25	Medium	29414	CF9EL/G25/827	120	6	8000	2700	82	495	396	1,3,8, 9,12,14,20
				29528	CF9EL/G25/830/BL2	120	12	8000	3000	82	495	396	1,3,8, 9,12,14,20
14	G30	5.5	Medium	29195	CF14EL/G30/830	120	6	6000	3000	82	700	560	1,3,8, 9,12,14,20

Reflector Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
9	R20	3.94	Medium	29638	CF9EL/R20/827	120	6	8000	2700	82	300	240	1,3,8, 9,12,14,20
				29640	CF9EL/R20/830/BL	120	6	8000	3000	82	300	240	1,3,8, 9,12,14,20
14	R20	4.25	Medium	29624	CF14EL/R20/827	120	6	8000	2700	82	495	396	1,3,8, 9,12,14,20
				29587	CF14EL/R20/830/BL	120	6	8000	3000	82	495	396	1,3,8, 9,12,14,20
15	BR30	5.5	Medium	29465	CF15EL/BR30/DIM/827	120	6	6000	2700	82	600	480	1,3,8, 9,12,14,20
				29667	CF15EL/BR30/DIM/830/BL	120	6	8000	3000	82	600	480	1,3,8, 9,12,14,20
		5.6	Medium	29539	CF15EL/BR30/850/BL	120	6	6000	5000	82	560	448	1,3,8, 9,12,14,20
16	BR30	5.7	Medium	29591	CF16EL/BR30/827	120	6	8000	2700	82	750	600	1,3,8, 9,12,14,20
				29590	CF16EL/BR30/830	120	6	8000	3000	82	750	600	1,3,8, 9,12,14,20
19	PAR38	5.8	Medium	29581	CF19EL/PAR38/830	120	6	8000	3000	82	950	760	1,3,8, 9,12,14,20
20	BR40	6.5	Medium	29399	CF20EL/BR40/827	120	6	8000	2700	82	900	720	1,3,8, 9,12,14,20
				29363	CF20EL/BR40/830	120	6	8000	3000	82	900	720	1,3,8, 9,12,14,20
23	PAR38	6.25	Medium	29359	CF23EL/PAR38/827	120	6	8000	2700	82	1200	960	1,3,8, 9,12,14,20



DULUX® EL SELF-BALLASTED COMPACT FLUORESCENT LAMPS

Reflector Compact Fluorescent Lamps

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
23	PAR38	6.25	Medium	29897	CF23EL/PAR38/GL/827	120	6	8000	2700	82	1000	800	1,3,8, 9,12,14,20
	BR40	6.5	Medium	29442	CF23EL/BR40/830/BL	120	6	8000	3000	82	1250	1000	1,3,8, 9,12,14,20
	PAR38	6.25	Medium	29586	CF23EL/PAR38/830/BL	120	6	8000	3000	82	1200	960	1,3,8, 9,12,14,20

DURA-ONE™ COMPACT FLUORESCENT LAMPS

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
20	A19	5.31	Medium	29537	CF20RC/A19/827	120	6	15000	2700	82	1200	960	1,3,8,12,15,20
23	BR30	5.56	Medium	29535	CF23RC/BR30/827	120	6	15000	2700	82	1100	880	1,3,8,12, 15,20

LOW PROFILE BULLET AND CIRCLINE ELECTRONIC COMPACT FLUORESCENT LAMPS

Nominal Wattage	Bulb	MOL (in)	Base	Product Number	Ordering Abbreviation	Voltage	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
14	BULLET	5.5	Medium	29196	CF14EL/T20/830	120	6	6000	3000	82	700	560	1,3,8, 9,12,14,20

SYMBOLS & FOOTNOTES FOR COMPACT FLUORESCENT LAMPS

Symbol	Description
	New item introduced within the past year.
	Item will be discontinued when inventory is depleted.
	This ECOLOGIC® lamp was designed to pass the Federal TCLP criteria for classification as non-hazardous waste in most states. Disposal regulations may vary; check local and state regulations.
	This lamp is a High Color Rendering Lamp
	Product is Canadian Standards Association approved for the Canadian market
	Product is Underwriters Laboratories listed
Footnote	Description
1	Approximate initial lumens after 100 hours operation.
2	Minimum starting temperature is a function of the ballast; consult the ballast manufacturer.
3	Minimum starting temperature for DULUX EL lamps is 0° F, unless otherwise specified in product literature. .
4	2 pin CF lamps are not suitable for use in frequently cycled applications or with occupancy sensors. 2 pin CF lamps should never be installed in 4 pin sockets regardless if lamp will fit.
5	There is a NEMA supported, industry issue where T2, T4, and T5 fluorescent and compact fluorescent lamps operated on high frequency ballasts may experience an abnormal end-of-life phenomenon. This end-of-life phenomenon can resulting one or both of the following: 1. Bulb wall cracking near the lamp base. 2. The lamp can overheat in the base area and possibly melt the base and socket. NEMA recommends that high frequency compact fluorescent ballasts have an end-of-life shutdown circuit which will safely and reliably shut down the system in the rare event of an abnormal end-of-life failure mode described above. The final requirements of this system are yet to be defined by ANSI. For additional information refer to NEMA papers on their WEBSITE at www.NEMA.org .
6	SYLVANIA ECOLOGIC fluorescent lamps are designed to pass the Federal Toxic Characteristic Leaching Procedure (TCLP) criteria for classification as non-hazardous waste in most states. TCLP test results are available upon request. Lamp disposal regulations may vary, check your local & state regulations. For more information, please visit www.lamprecycle.org
7	This 4-pin DULUX lamp has an internal end-of-life mechanism (EOL) that shuts down the lamp preventing abnormal end-of life failure modes. This lamp was designed for use with high frequency ballasts that do not have their own end-of-life (lamp) sensing circuits, but it is also compatible with high frequency ballasts that have their own end-of-life (lamp) sensing circuits.
8	DULUX EIs meet CSA, FCC and UL requirements.
9	Caution: DULUX EL units cannot be used on dimming circuits, emergency exit fixtures or lights, electronic timers, photocells, lighted switches or any other switches that do not meet UL20 Sec. 7.6.15. In outdoor applications, use only in enclosed fixtures to avoid exposure to weather. Use only on 120V, 60 Hz circuits. Never disassemble or modify lamp. Install or remove unit from fixture by grasping plastic base. Best performance achieved when operated at 77degrees F (25 degrees C). 40 Watt lamp is designed for base down orientation only.
10	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 1 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.3 meters (12 inches) should be limited; for example exposure at 0.2m (8 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
11	2 pin CF lamps should never be installed in 4 pin sockets regardless if lamp will fit.
12	The life ratings of fluorescent lamps are based on 3 hr. burning cycles under specified conditions and with ballast meeting ANSI specifications. If burning cycle is increased, there will be a corresponding increase in the average hours life.
13	Caution: DULUX EL Circline units cannot be used on dimming circuits, emergency exit fixtures or lights, electronic timers, photocells or lighted switches. In outdoor applications, use only in enclosed fixtures to avoid exposure to weather. Use only on 120V, 60 Hz circuits.
14	Minimum starting temperature for DULUX EL lamps is 0 degrees F
15	Caution: Although DURA-ONE lamps can be used with occupancy sensors that have a fluorescent volt-amp rating, DURA-ONE lamps cannot be used on any other dimming circuits, emergency exit fixtures or lights, electronic timers, photocells, lighted switches or any other switches that do not meet UL20 Sec. 7.6.15. In outdoor applications, use only in enclosed fixtures to avoid exposure to weather. Use only on 120V, 60 Hz circuits. Never disassemble or modify lamp. Install or remove unit from fixture by grasping plastic base. Best performance achieved when operated at 77°F (25°C). Operating temperature range of DURA-ONE lamps is -20°F/-29°C to 122°F/50°C.
16	These lamps may also be operated on rapid start circuits. On rapid start circuits the 24 watt lamp operates at 27 watts and the 36 watt lamp operated at 39 watts. Rated lamp life is unchanged.
17	Lumen output rated on high frequency operation. 60 HZ operation would result in lower lumen output.
18	Lumen output and life rated on high frequency operation.
19	DULUX F lamps can typically be operated on DULUX L and PENTRON HO ballasts of the same/similar wattage. Check with the ballast manufacturer to verify lamp/ballast compatibility.
20	Rule of Thumb for Compact Fluorescent Lamps: Divide wattage of incandescent lamp by 4 to determine approximate wattage of compact fluorescent lamp that will provide similar light output.
21	Optimum light output for DULUX T/E IN amalgam compact fluorescent lamps occurs at approximately 35 deg. C/ 95 deg. F ambient temperature when the lamp is operated in the base up position. The lumen value listed refers to the optimum light output. Non-amalgam compact fluorescent lamps provide at least 90% light output from 60-100 degrees F in the base up position, the temperature range is narrower for horizontal or base down position.
22	Minimum starting temperature: CF5: -22 degrees F; CF7: -4 degrees F; CF9: 14 degrees F; CF13DS: 14 degrees F; CF13DD: -4 degrees F; CF18DD: 5 degrees F; CF18DT: -4 degrees F; CF26: 14 degrees F.

Manufacturers' Cross Reference

COMPACT FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
CF5DS/827/ECO	F5BX/SPX27/827	PL-S_5W/27
CF5DS/827/RP/ECO	F5BX-SPX27_CD	PL-S_5W/27
CF5DS/841/ECO	F5BX/SPX41/840_10PK	PL-S_5W/841/2P/ALTO
CF7DS/827/ECO	F7BX/SPX27/827	PL-S7W/27
CF7DS/827/RP/ECO	F7BX/SPX27_CD	PL-S7W/27
CF7DS/835/ECO	F7BX7/SPX35/825_10PK	PL-S_7W/35
CF7DS/841/ECO	F7BX/SPX41/840_10PK	PL-S_7W/41
CF7DS/850/ECO	F7BX/SPX50/850	PL-S7W/50
CF7EL/DECO/MEDIUM/1/BL	FLE7/2/CAM/827	BC-EL/MCAN9ALTO
CF7EL/DECO/MEDIUM/2700K	FLE7/2/CAM/827	---
CF7EL/MINITWIST/1	---	---
CF7EL/MINITWIST/2700K	---	EL/MDT9
CF9DD/827/ECO	F9DBXT4/SPX41/827	---
CF9DD/835/ECO	---	---
CF9DS/827/ECO	F9BX/SPX27/827_10PK	PL-S9W/27
CF9DS/827/RP/ECO	F9BX/SPX27_CD	PL-S9W/27
CF9DS/835/ECO	F9BX/SPX35/835	PL-S9W/35
CF9DS/841/ECO	F9BX/SPX41/840_10PK	PL-S9W/41
CF9DS/850/ECO	F9BX/SPX50/850	PL-S9W/50
CF9EL/G25/2700K	FLE11/2/G25XL/CD_12	EL/AG25
CF9EL/R20/2700K	---	---
CF9WEL/FAN/2BL	FLE11/2/A17	---
CF11EL/MINITWIST/1	---	EL/mdT 11
CF13DD/827/ECO	F13DBX23T4/SPX27	PL-C_13W/27/USA
CF13DD/827/ECO/RP/1	FL3DBX/SPX27/CD	PL-C 13W/827/USA/ALTO
CF13DD/827/RP/ECO	FL3DBX/SPX27/CD	PL-C_13W/827
CF13DD/830/ECO	F13DBX23T4/SPX30	PL-C_13W/30/USA
CF13DD/835/ECO	F13DBX23T4/SPX35	PL-C_13W/35/USA
CF13DD/841/ECO	F13DBX23T4/SPX41	PL-C_13W/41/USA
CF13DD/E/827/ECO	F13DBX/SPX27/4P	PL-C_13W/27/4P
CF13DD/E/830/ECO	F13DBX/SPX30/4P	PL-C 13W/830/4P/ALTO
CF13DD/E/835/ECO	F13DBX/SPX35/4P	PL-C_13W/35/4P
CF13DD/E/841/ECO	F13DBX/SPX41/4P	PL-C_13W/41/4P
CF13DS/827/ECO	14650_F13BX/SPX27_#011	PL-S13W/27
CF13DS/827/ECO/RP/1	14650_F13BX/SPX27_#011	PL-S13W/27
CF13DS/830/ECO	F13BX/SPX30/830	PL-S13W/30
CF13DS/835/ECO	17048_F13BX/SPX35_#013	PL-S13W/35
CF13DS/841/ECO	20434_F13BX/SPX41_#014	PL-S13W/41
CF13DS/841/ECO/RP/1	20434_F13BX/SPX41_#014	PL-S13W/41
CF13DS/850/ECO	F13BX/SPX50/850	PL-S13W/50
CF13DT/E/827/ECO	F13TBX/SPX27/A/4P	---
CF13DT/E/830/ECO	F13TBX/SPX30/A/4P	---
CF13DT/E/835/ECO	F13TBX/SPX35/A/4P	---
CF13DT/E/841/ECO	F13TBX/SPX41/A/4P	---
CF13EL/MINITWIST/2700K	FLE13HT3/2/827	---
CF13EL/MINITWIST/4100K	---	14786-8
CF13EL/SUPERMINI/5K/1BL	---	EL/MDT135000K
CF13EL/SUPERMINI/BL 120V	---	---
CF14EL/A19	FLE15/2/A21XL	---
CF14EL/A19/1/BL/YELLOW	FLE14/2/TC16/BUG	EL/O_15_BAW
CF14EL/A19/2700K	FLE15/A19/827	---
CF14EL/G/830/MED	FLG15/E-120	EL/A116WG30ALTO
CF14EL/R20/2700K	---	---
CF15BR30DIMMABLE3000KBL	FLE15/2/DV/R30	EL/A/R30
CF15EL/BR30/5000K/BL	---	---
CF15ELBR30/DIMMABLE/2700K	FLE15/2/DV/R30	EL/AR30DIM16ALTO
CF15ELBR30/DIMMABLE/2700K	FLE15/2/DV/R30	EL/AR30DIM16ALTO
CF15ELBR30DIMMABLERP3000K	FLE15/2/DV/R30	EL/A R30 Dim 16 ALTO
CF16EL/BR30	---	BR30 16 ALTO
CF16ELBR30/2700K	FLE15/A2/R30	EL/AR30
CF18DD/827/ECO	F18DBXT4/SPX27	PL-C_18W/27
CF18DD/830/ECO	F18DBXT4/SPX30	PL-C_18W/30
CF18DD/835/ECO	F18DBXT4/SPX35	PL-C_18W/35
CF18DD/841/ECO	F18DBXT4/SPX41	PL-C_18W/41

Manufacturers' Cross Reference Guide (continued)

COMPACT FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
CF18DD/E/827/ECO	F18DBX/SPX27/4P	PL-C_18W/27/4P
CF18DD/E/830/ECO	F18DBX/SPX30/4P	PL-C_18W/830/4P/ALTO
CF18DD/E/835/ECO	F18DBX/SPX35/4P	PL-C_18W/35/4P
CF18DD/E/841/ECO	F18DBX/SPX41/4P	PL-C_18W/41/4P
CF18DT/E/827/ECO	F18TBX827/4P/ECO	PL-T_18W/827/4P/ALTO
CF18DT/E/IN/827/ECO	F18TBX/SPX27/A/4P	PL-T_18W/827/4P
CF18DT/E/IN/830/ECO	F18TBX/SPX30/A/4P	PL-T_18W/30/4P/ALTO
CF18DT/E/IN/835/ECO	F18TBX/SPX35/A/4P	PL-T_18W/35/4P/ALTO
CF18DT/E/IN/841/ECO	F18TBX/SPX41/A/4P	PL-T_18W/41/4P/ALTO
CF19EL/MINITWIST	---	EL/MDT 20
CF19EL/MINITWIST/2700K	FLE20HT3/2/XL	EL/MDT20
CF19EL/MINITWIST/DAY/BL/1	---	---
CF19ELSUPERMINI5KBL	---	---
CF19ELSUPERMINI6500BL	FLE20HT3/2/D/2PK	---
CF19ELSUPERMINIRP3	---	---
CF20EL/BR40/2700K	FLE15/A2/R30	---
CF20EL/BR40/3000K	FLE23/A4/R40	EL/AR40
CF20EL/TWIST	FLE21/HLX/8/SW/CD	Mini-Deco Twister EL/mdT
CF23EL/BR40/BL/1	FLE23/A4/R40	---
CF23EL/MINITWIST/2700K	FLE23HT3/2/XL	EL/MDT27
CF23EL/PAR38/2700K	FLE26/2/PAR38/SW/CD	EL/APAR38
CF23EL/PAR38/2700K	FLE26/2/PAR38/SW/CD	EL/APAR38
CF23EL/PAR38/BL/1	---	---
CF23EL/TWIST	FLE27/HLX/8/SW/CD	---
CF23ELSUPERMINI6500RP3	---	---
CF23RC/BR30/2700K/1 120V	GENURA_EL23/R25/SW	---
CF26DD/827/ECO	F26DBXT4/SPX27	PL-C_26W/27
CF26DD/830/ECO	F26DBXT4/SPX30	PL-C_26W/30
CF26DD/835/ECO	F26DBXT4/SPX35	PL-C_26W/35
CF26DD/841/ECO	F26DBXT4/SPX41	PL-C_26W/41
CF26DD/E/827/ECO	F26DBXT4/SPX27/4P	PL-C_26W/27/4P
CF26DD/E/830/ECO	F26DBXT4/SPX30/4P	PL-C_26W/30/4P
CF26DD/E/835/ECO	F26DBX/SPX35/4P	PL-C_26W/35/4P
CF26DD/E/841/ECO	F26DBX/SPX41/4P	PL-C_26W/41/4P
CF26DT/E/827/ECO	F26TBX827/4P/ECO	PL-T_26W/827/4P/ALTO
CF26DT/E/827/ECO/RP/1	F26TBX827/4P/ECO	PL-T_26W/827/4P/ALTO
CF26DT/E/IN/827/ECO	F26TBX/SPX27/A/4P	PL-T_26W/827/4P
CF26DT/E/IN/830/ECO	F26TBX/SPX30/A/4P	PL-T_26W/30/4P/ALTO
CF26DT/E/IN/835/ECO	F26TBX/SPX35/A/4P	PL-T_26W/35/4P/ALTO
CF26DT/E/IN/841/ECO	F26TBX/SPX41/A/4P	PL-T_26W/41/4P/ALTO
CF27EL/TWIST	FLE26HT3/2/SW/3PK	EL/mdT 27
CF27EL/TWIST/2700K	FLE26HT3/2/SW/3PK	---
CF28EL/3WAY/TWIST/2700K	FLE29HLX/2D3/827	EL/TW134-26-18
CF28EL/3WAY/TWIST/2700K	FLE29HLX/2D3/827	EL/TW134-26-18
CF28EL/3WAY/TWIST/830/1		EL/TW134-26-18
CF28EL/3WAY/TWIST/830/BL/1		EL/TW134-26-18
CF30EL/CIRC/830/MED	FEA30CIR/SW/CD	FC9T5
CF30EL/TWIST/2700K	FLE29HLX/2/XL/827	EL/MDT27
CF32DT/E/827/ECO	---	PL-T_32W/827/4P/ALTO
CF32DT/E/IN/827/ECO	F32TBX/SPX27/A/4P	PL-T_32W/827/4P
CF32DT/E/IN/830/ECO	F32TBX/SPX30/A/4P	PL-T_32W/30/4P/ALTP
CF32DT/E/IN/835/ECO	F32TBX/SPX35/A/4P	PL-T_32W/35/4P/ALTO
CF32DT/E/IN/841/ECO	F32TBX/SPX41/A/4P	PL-T_32W/41/4P/ALTO
CF40EL/TWIST/2700K	FLE42HLX/VT/827	EL/DT42
CF42DT/E/IN/827/ECO	F42TBX/827/A/4P/EOL	PL-T_42W/827/4P
CF42DT/E/IN/830/ECO	F42TBX/830/A/48/EOL	PL-T_42W/30/4P/ALTO
CF42DT/E/IN/835/ECO	F42TBX/835/A/ECO	PL-T_42W/835/4P
CF42DT/E/IN/841/ECO	F42TBX/841/A/48/EOL	PL-T_42W/41/4P
CF4EL/DECO/CANDELABRA/1/BL	FLE5/2/CAC/827	EL/MCAN5
CF4EL/DECO/CANDELABRA/2700K	FLE5/2/CAM/827	EL/A mCan Cand.
CF57DT/E/IN/830/ECO	F57QBX/830/A/ECO	PL-T_57W/830/4P/A
CF57DT/E/IN/835/ECO	F57QBX/835/A/ECO	PL-T_57W/835/4P/A
CF57DT/E/IN/841/ECO	F57QBX/841/A/ECO	PL-T_57W/841/4P/A
FT18DL/830/ECO	F18BX/SPX30	PL-L_18W/830

Manufacturers' Cross Reference (continued)

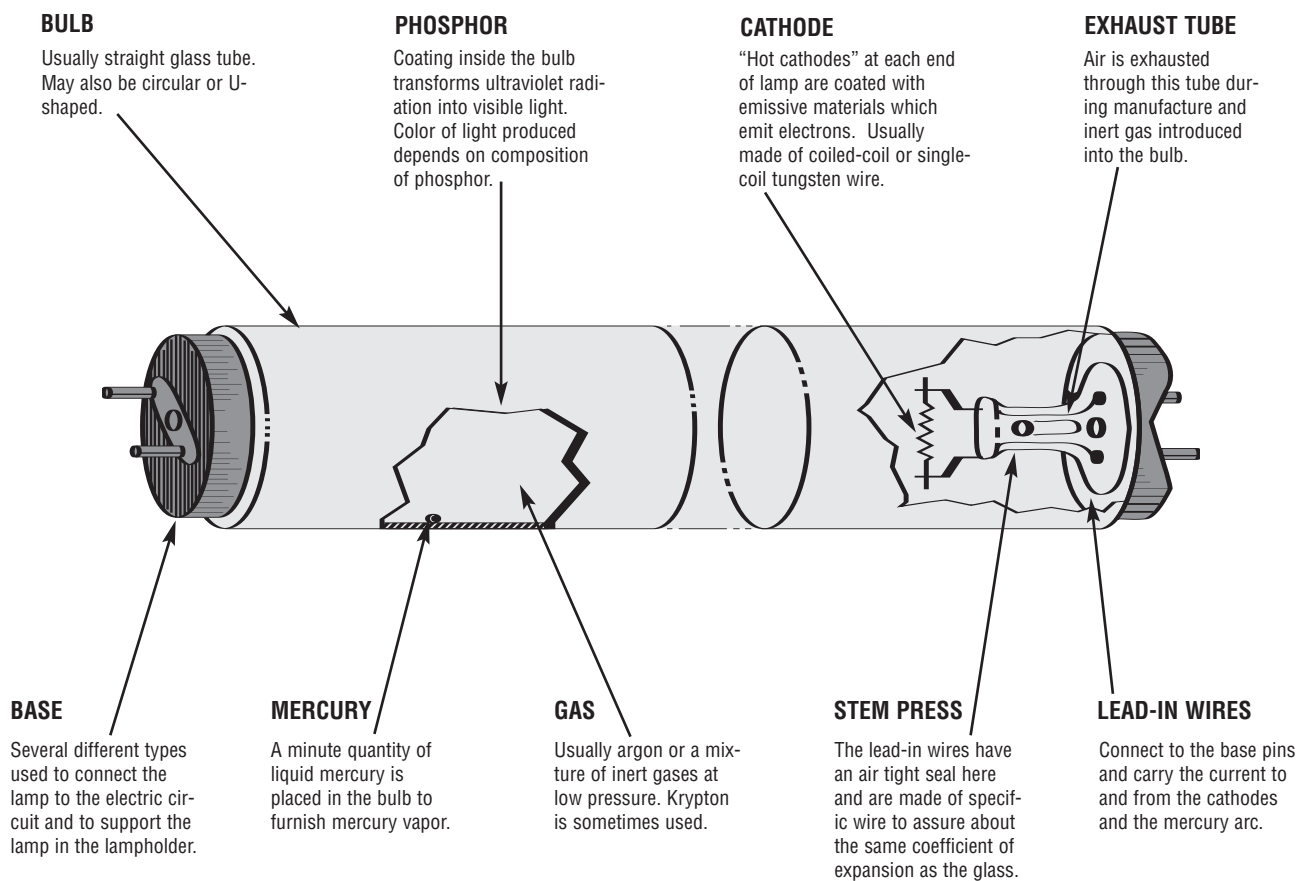
COMPACT FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
FT18DL/830/RS/ECO	F18BX/SPX30/RS	PL-L_18W/830
FT18DL/835/ECO	F18BX/SPX35	PL-L_18W/835
FT18DL/835/RS/ECO	F18BX/SPX35/RS	PL-L_18W/835
FT18DL/841/ECO	F18BX/SPX41	PL-L_18W/41
FT18DL/841/RS/ECO	F18BX/SPX41/RS	PL-L_18W/41
FT24DL/830/ECO	F27/24BX/SPX30	PL-L_24W/830
FT24DL/835/ECO	F27/24BX/SPX35	PL-L_24W/835
FT24DL/841/ECO	F27/24BX/SPX41	PL-L_24W/41
FT36DL/830/ECO	F39/36BX/SPX30	PL-L_36W/30
FT36DL/835/ECO	F39/36BX/SPX35	PL-L_36W/35
FT36DL/841/ECO	F39/36BX/SPX41	PL-L_36W/41
FT40DL/28W/830/SS/IS/ECO 100V	---	---
FT40DL/28W/835/SS/IS/ECO 100V	---	---
FT40DL/28W/841/SS/IS/ECO 100V	---	---
FT40DL/830/RS/ECO	F40/30BX/SPX30_36PK_BULK	PL-L_40W/30/RS
FT40DL/835/RS/ECO	F40/30BX/SPX35_36PK_BULK	PL-L_40W/35/RS
FT40DL/841/RS/ECO	F40/30BX/SPX41_36PK_BULK	PL-L_40W/41/RS
FT40DL/850/RS/ECO	F40/30BX/SPX50RS	---
FT55DL/C/841/ECO	---	---
FT80DL/830/ECO	---	PL-L_80W/830/4P
FT80DL/835/ECO	---	PL-L_80W/835/4P
FT80DL/841/ECO	---	PL-L_80W/841/4P

Notes:

OSRAM SYLVANIA: THE LEADER IN ENERGY SAVING FLUORESCENT LAMPS

The fluorescent lamp is an electric discharge device which utilizes a low pressure mercury vapor arc to generate ultra-violet (plus a little visible) energy. The ultra-violet energy is absorbed by a phosphor coat on the inside of the glass tube and converted by the phosphor to visible wavelengths; the wavelengths of the light generated are determined by the composition of the phosphor. In addition to the small amount of mercury vapor, the fluorescent tube contains an atmosphere of an inert gas, usually argon, krypton, neon, or a mixture of two or more of these gases. The pressure of the gases contained in the lamp is very low, usually from 2 to 3 torr. Atmospheric pressure is 760 torr.



HOW TO READ PRODUCT INFORMATION - FLUORESCENT

Nominal Wattage	Bulb	Nominal Length(in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F Mean @35°C/95°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21763	F032/835XP/ECO	30	24000	3500	85	3000 2850	☼  2,21,31, 35,39,60,70
34	T12	48	47.78	Med Bipin	24594	F34CW/SS Formerly F40CW/SS	30	20000	4200	60	2650 2279	☼ 2,10,13, 19,21,42
54	T5	48	45.5	Mini Bipin	20857	FP54/830/HO	40	20000	3000	85	4450 5000 4228 4750	 2,21,26,35,59
60	T12	96	94	Single Pin	29815	F96T12/CW/SS	15	12000	4200	60	5300 4664	☼ 2,15,21

Nominal Wattage	Design wattage on reference ballast. Actual wattage dependent on ballast.
Bulb	Describes the shape of the bulb followed by the bulb's diameter at its widest point. The diameter value is expressed in eighths of an inch. Ex. T = Tubular, 8 = 8/8 inch = 1 inch. Please see page 134 for bulb illustrations.
Base	Please see page 134 for base illustrations.
Nominal Length	The nominal length of linear fluorescent lamps is typically measured from back of lampholder to back of lampholder. PENTRON® linear lamp, CURVALUME® and Circline lamps are exceptions. The nominal length given for PENTRON linear lamps is the closest familiar nominal length. CURVALUME lamps are measured from the face of the bases to the outside of the glass bend. The measurement for Circline lamps is the outside diameter. Values are in inches.
MOL	Maximum overall length. The length of the lamp measured in inches.
Symbols & Footnotes	Most symbols and footnotes that apply to a specific product will appear in this space. The explanations of the symbols and footnotes are at the end of the fluorescent section.
Ordering Abbreviation	A text description of the lamp. Please see below for several examples and explanations of some of the codes.
CCT	Correlated Color Temperature. The degree of "whiteness" of the light. Expressed in kelvins (K). Please see page 131 for more information.
CRI	Color Rendering Index. A numbering system for rating the relative color rendering quality of a light source compared to a standard. Please see page 131 for more information.
Initial & Mean Lumens	Initial lumens are measured when the lamp has been operating for 100 hours. Mean lumens are typically measured at 40% of the rated life of the lamp. For longer life lamp such as the OCTRON® XP® lamps, the mean lumens are measured at the same point in time as they are measured for the standard lamps they replace. Fluorescent lamp lumens are typically measured at 25°C (77°F). The lamp lumens are measured at both 25°C (77°F) and 35°C (95°F) for PENTRON® linear lamps.

How to Read Ordering Abbreviations

F032/835XP/ECO		F34CW/SS		FP54/830/HO		F96T12/CW/SS	
F	Fluorescent	F	Fluorescent	F	Fluorescent	F	Fluorescent
0	OCTRON®	34	Nominal lamp	P	PENTRON	96	96" nominal length
32	Nominal lamp wattage		wattage	54	Nominal lamp wattage	T	Tubular Shape Bulb
8	85 CRI	CW	Cool White phosphor	8	85 CRI	12	Bulb diameter; 1 1/8 inch = 1 1/2 inches
35	3500K CCT	SS	SUPERSAVER® - reduced wattage lamp	30	3000K CCT	CW	Cool White phosphor
XP®	EXtended Performance			HO	High Output	SS	SUPERSAVER - reduced wattage lamp
ECO®	ECOLOGIC® - TCLP passing lamp						

Lamp Disposal Labeling

The following information appears on the packages of fluorescent lamps. For more information on lamp disposal labeling, see the inside back cover of this catalog.



Lamp Contains Mercury

Manage in accordance with disposal laws
See www.lamprecycle.org or 1-866-666-6850

For weight and measurement information, please visit www.sylvania.com

FLUORESCENT LAMP COLORS

COLOR	COLOR ABBREVIATION	CORRELATED COLOR TEMPERATURE(1)	COLOR RENDERING INDEX(2)
OCTRON® "800" 2700K	827	2700	85
OCTRON XP® "800" 2700K	827	2700	85
WARM WHITE DELUXE	WWX	2900	82
WARM WHITE	WW	3000	52
WARM WHITE PLUS	WWP	3000	70
DESIGNER® 3000K	D30	3000	70
DESIGNER WARM WHITE	DWW	3000	70
DESIGNER "800" 3000K	D830	3000	80
DESIGNER WARM WHITE PLUS	DWWP	3000	80
OCTRON "700" 3000K	730	3000	75
OCTRON XP "700" 3000K	730	3000	78
OCTRON "800" 3000K	830	3000	82
OCTRON XP "800" 3000K	830	3000	85
OCTRON XPS® "800" 3000K	830	3000	85
PENTRON® 3000K	830	3000	85
GRO-LUX® Aquarium WIDE SPECTRUM	GRO/AQ/WS	3400	89
WHITE	W	3450	57
DESIGNER 3500K	D35	3500	70
DESIGNER "800" 3500K	D835	3500	80
ICETRON® 3500K	835	3500	80
PENTRON 3500K	835	3500	85
OCTRON "700" 3500K	735	3500	75
OCTRON XP "700" 3500K	735	3500	78
OCTRON "800" 3500K	835	3500	82
OCTRON XP "800" 3500K	835	3500	85
OCTRON XPS "800" 3500K	835	3500	86
NATURAL WHITE	N	3600	86
DESIGNER 4100K	D41	4100	70
DESIGNER COOL WHITE	DCW	4100	70
DESIGNER "800" 4100K	D841	4100	80
DESIGNER COOL WHITE PLUS	DCWP	4100	80
ICETRON 4100K	841	4100	80
OCTRON "700" 4100K	741	4100	75
OCTRON XP "700" 4100K	741	4100	78
OCTRON "800" 4100K	841	4100	82
OCTRON XP "800" 4100K	841	4100	85
OCTRON XPS "800" 4100K	841	4100	86
PENTRON 4100K	841	4100	85
COOL WHITE DELUXE	CWX	4100	87
LITE WHITE	LW	4150	48
COOL WHITE	CW	4200	60
COOL WHITE PLUS	CWP	4100	70
ICETRON 5000K	850	5000	80
OCTRON "700" 5000K	750	5000	75
OCTRON "800" 5000K	850	5000	80
OCTRON XP "800" 5000K	850	5000	85
OCTRON "900" 5000K	950	5000	90
PENTRON 5000K	580	5000	85
DESIGN 50®	DSGN50	5000	90
DAYLIGHT FULL SPECTRUM	DAYLIGHTFULL SPECTRUM	5000	90
DAYLIGHT®	DAYLIGHT	6500	76
DAYLIGHT 6500	DAYLIGHT6500V	6500	80
OCTRON "700" 6500K	765	6500	75
OCTRON XP "800" 6500K	865	6500	85
PENTRON 6500K	865	6500	85
DESIGNER 6500K	865	6500	80
DAYLIGHT DELUXE	DX	6500	88
OCTRON SKYWHITE	SKYWHITE	8000	88

FLUORESCENT COMPETITIVE GUIDES

NOTE: These tables are intended only as guides and may represent another lamp company's most similar product or product family rather than an identical match. Individual manufacturer's performance values should be consulted. Environmental conditions, ballast type, and other auxiliary equipment may affect lamp performance.

FLUORESCENT BRAND NAMES

SYLVANIA	GE*	PHILIPS**
CURVALUME® (FB)	MOD-U-LINE (U)	U-Bent (FB)
CWX		Home Light Everywhere (HL Everywhere)
DESIGN 50® (DSGN50)	Chroma 50 (C50)	Colortone 50 (C50)
DESIGNER® Series	Specification Series (SP)	SPEC or TL700
DESIGNER 800 Series	Specification Series (SPX)	Ultralume or TL800
DESIGNER Cool White	SP41	Home Light Cool (HL Cool)
DESIGNER Cool White PLUS	SPX41	41U
DESIGNER Warm White	Kitchen and Bath ULTRA (70 CRI)	SPEC30
DESIGNER Warm White PLUS (DWWP)	Kitchen and Bath ULTRA (80 CRI)	Home Light WX (HL WX)
DESIGNER 700, 3500K (D35)	SP35	Home Light Warm (HL Warm)
ECOLOGIC® (ECO®)	Ecolux (ECO)	ALTO
GRO-LUX®	Gro & Sho/Plant & Aquarium/Terrarium	Agro-Lite (AGRO)
ICETRON®	---	---
OCTRON®	T8 (was Trimline)	TL70/TL80
OCTRON 700 XP™ ECO	SP Ecolux XL T8 Lamps with Starcoat	TL700 PLUS ALTO
OCTRON 800 XP ECO	SPX Ecolux XL T8 Lamps with Starcoat	TL800 PLUS ALTO
OCTRON 800 XPS ECO	---	---
OCTRON 950	---	TL950
PENTRON®	T5 Starcoat	SILHOUETTE™
---	---	QL (similar to ICETRON, but not interchangeable)
SAFELINE®	covRguard	---
SUN STICK®	SUN (Sunshine)	C50
SUPERSAVER® (SS)	Watt-Miser (WM)	Econ-o-Watt (EW)
HO (800mA)	HO (800mA)	HO (800mA)
VHO (1500mA)	1500 (1500mA) & Power Grove	VHO (1500mA) (was SHO)
VHO/LT	T10/1500MA	VHO-0
XP®	XL	Plus
XPS®		Advantage

* Trademarks or registered trademarks of General Electric Company ** Trademarks or registered trademarks of Philips

FLUORESCENT COLOR CROSS REFERENCE

SYLVANIA	GE	PHILIPS	SYLVANIA	GE	PHILIPS
CW	CW	CW	D41	SP41	Spec 41
CWX		CWX, HL Everywhere		SP65	
D	D	D	D830	SPX30	30U
DX	DX	DX	D835	SPX35	35U
DSGN50	C50	50	D841	SPX41	41U
DSGN50	SGN	C50	D865		
DCW, D41	SP41	HL Cool	730	SP30	730
DCWP	SPX41	U41	735	SP35	735
DWW, D30	KB / 70 CRI, SP30	SPEC30	741	SP41	741
DWWP, D830	KB / 82 CRI, SPX30	HL WX	750	SP50	750
D35	SP35	HL Warm	765	SP65	
GRO/AQ		AGRO	827	SPX27	27
GRO/WS/AQ	PL/AQ		830	SPX30	30, 830
LW	LW	LW	835	SPX35	35, 835
N	N	N	841	SPX41	41, 841
SUN STICK	SUN	C50	850	SPX50	50, 850
WW	WW	WW	865	SPX65	865
D30	SP30	Spec 30	950		950
D35	SP35	Spec 35			

FLUORESCENT COMPETITIVE GUIDES (continued)

FLUORESCENT ELECTRICAL INTERCHANGEABILITY

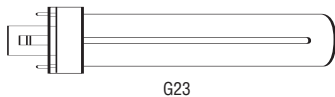
SYLVANIA	GE	PHILIPS
Linear Lamps		
F18T8/CW/K/23	F24" T8/CW/4	F15T8/CW/24
F18T8/CW/K/26	F26" T8/CW/4	F16T8/CW/26
F18T8/CW/K/28	F28" T8/CW/4	F17T8/CW/28
F18T8/CW/K/30	F30" T8/CW/4	F18T8/CW/30
F34CW/SS	F34CW/WM	F34CW/EW
Formerly known as F40CW/SS	F40CW/WM	F40CW/EW
F96T12/CW/SS	F96T12/CW/WM	F96T12/CW/EW
FB40/D41/6	F40/SP41/U/6	FB40/SPEC41/6
FB40/CW/6/SS (new FB34/CW/6/SS)	F40CW/U/6/WM (new F34CW/U/6/WM)	FB40/CW/6/EW (new F34/CW/6/EW)
OCTRON®	T8 (was Trimline)	TL70/TL80
OCTRON 700 Series	T8 SP	TL70
OCTRON 800 Series	T8 SPX	TL80
F017...	F17T8/SP(or SPX)...	F17T8/TL...
F025...	F25T8/SP(or SPX)...	F25T8/TL...
F032...	F32T8/SP(or SPX)...	F32T8/TL...
F032/...XP®	F32T8/XL/SP (or SPX)	F32T8/TL...PLUS
F032/...XPS®/ECO®	---	F32T8/ADV
F030...XP/SS/ECO	F32T8/SP.../IS/WM/ECO	F32T8/ADV8.../EW
F028/8...XP/SS/ECO	---	---
F032/25W/8...XP/SS/ECO	---	F32T8/ADV8.../XEW/ALTO
F040...	F40T8/SP... (or SPX)	F40T8/TL
F072...	---	---
F096...	F96T8/SP... (or SPX)	F96T8/TL...
F096/7...XP/ECO	F96T8/XL/SP...	---
F096/8...XP/ECO	F96T8/XL/SPX...	---
F096/8...XP/SS/ECO	F96T8/SP.../WM	---
---	---	F48T8/TL.../HO
---	---	F60T8/TL.../HO
---	---	F72T8/TL.../HO
F096.../HO/ECO	F96T8/SP (or SPX).../HO	F96T8/TL.../HO
---	F25T12/SP... (for T8 electronic ballasts)	---
FB016...	---	---
FB024...	---	---
FB031...	F31T8/SPX.../U	---
FB031...XP	---	---
FB032...	F32T8/SP(or SPX).../U6	FB32T8/TL.../6
FB032...XP	---	---
FB031/...XPS/ECO	---	---
FB032/...XPS/ECO	---	---
FB032/8...XP/SS/ECO	---	---
FP14/8..	F14/T5/8..	F14T5/8..
FP21/8..	F21/T5/8..	F21T5/8..
FP28/8..	F28/T5/8..	F28T5/8..
FP35/8..	F35/T5/8..	F35T5/8..
FP24/8../HO	F24/T5/8../HO	F24T5/8../HO
FP39/8../HO	F39/T5/8../HO	F39T5/8../HO
FP54/8../HO	F54/T5/8../HO	F54T5/8../HO
FP80/8../HO	F80/T5/8../HO	F80T5/8../HO
---	F40T17/CW/IS	---
---	F96T17/...	---
HO (800mA)	HO (800mA)	HO (800mA)
F96T12/.../HO/COLDTEMP	F96T12/.../HO/CT	F96T12/.../HO-0
VHO (1500mA)	1500 or PG17 (both 1500mA)	VHO (1500mA)
VHO/LT (1500mA)	T10, 1500-0 (both 1500mA)	VHO-0 (1500mA)
Induction Lamps		
ICE 70/8... (ICETRON®)	---	---
ICE 100/8... (ICETRON)	---	---
ICE 150/8... (ICETRON)	---	---
---	EL23/R25/... (Genura™)	---
---	---	QL55W/... (QL)
---	---	QL85W/... (QL)
---	---	QL165W/... (QL)

For a more complete manufacturers' cross reference, please see that section of this catalog or visit the electronic catalog at www.sylvania.com.

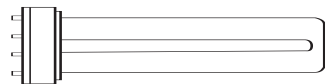
FLUORESCENT LAMPS

The bulb shape and size of a fluorescent lamp are expressed by means of a code consisting of the letter "T" (which designates that the bulb is "tubular" in shape) followed by a number that expresses the diameter in eighths of an inch. Diameters range from T2 ($\frac{1}{4}$ inch) to T17 ($2\frac{1}{8}$ inch). In nominal overall length, linear fluorescent lamps range from 6 to 96 inches. The nominal length is measured from back of lamp holder to back of lamp holder. For example, the actual overall length of the 40-watt rapid start T12 lamp with a nominal length of 48 inches is $47\frac{3}{4}$ inches. The nominal length given for PENTRON® linear lamps is the closest familiar nominal length. CURVALUME® U-shaped fluorescent lamps are available as OCTRON® T8 lamps with leg spacings of $1\frac{1}{8}$ inches and 6 inches and as rapid start T12 lamps with 6 spacings of 6 inches. The leg spacing is measured from the center of one leg to the center of the other leg. The overall length of the CURVALUME lamps is measured from the face of the bases to the outside of the glass bend. Circline lamps, which are circular in shape, are available as T9 lamps with outside diameters of 6 $\frac{1}{2}$, 8, 12 and 16 inches as well as PENTRON T5 lamps with outside diameters of 8.85 and 11.77 inches.

Germicidal Compact Fluorescent



G23



2G11



Germicidal Single End

T2 MINIATURE

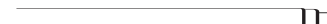


T2 Axial Base (2/8" Diameter)

PREHEAT, RAPID START



Preheat T5 Miniature Bipin (5/8" diameter)
PENTRON T5 Miniature Bipin (5/8" diameter)



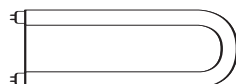
T8 Medium Bipin (1" diameter)



OCTRON T8 Medium Bipin (1" diameter)
Rapid Start or Instant Start operation



T12 Medium Bipin (1-1/2" diameter)



U-Shaped T12
(1-1/2" diameter)
6" leg spacing



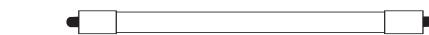
OCTRON T8 U-Shaped
with 1 5/8" leg spacing
(1" diameter)



OCTRON T8 U-Shaped
with 6" leg spacing
(1" diameter)



ICETRON®

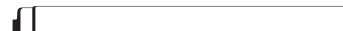


Germicidal Single Pin

HIGH OUTPUT AND VERY HIGH OUTPUT



OCTRON T8 Recessed Double Contact (1" diameter)



T12 Recessed Double Contact (1-1/2" diameter)



T14-1/2 Recessed Double Contact (1-13/16" diameter)



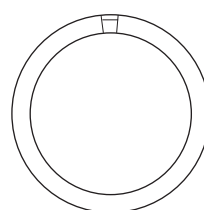
T6 Single Pin (3/4" diameter)



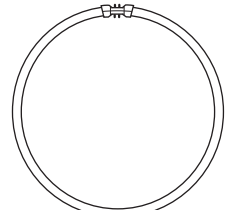
T8 Single Pin (1" diameter)
OCTRON T8 Single Pin (1" diameter)



T12 Single Pin (1-1/2" diameter)



CIRCLINE 4-Pin T-9
(6-1/2", 8", 12", 16"
outside diameters)



PENTRON CIRCLINE 4-Pin T5
(8.85" & 11.77"
outside diameters)



Germicidal T5 Bipin



Germicidal T8 Bipin

BASES

For linear Preheat and Rapid Start Lamps, four electrical contacts are required, two at each end of the lamp. This is accomplished in the standard line of lamps by the use of a miniature bipin base for T5 lamps and a medium bipin for T8 and T12 lamps. The OCTRON® T8 medium bipin lamps may also be operated as instant start lamps with the proper wiring and ballasts. When operating OCTRON bipin lamps with instant start ballasts, the two contacts in the lamp holder are shorted together and connected to the single circuit in the ballast. In Circline lamps, the cathodes are connected to a four-pin base located between the junction of the two ends of the lamp. High Output (HO) and Very High Output (VHO) lamps have recessed double contact (RDC) type bases. Slimline Instant Start lamps require only two electrical contacts, one on each lamp end and have single pin bases.

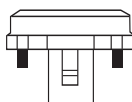
Germicidal Compact Fluorescent



GX 23



2 G 11



SINGLE PIN



Single Pin for
T6 Slimline



Single Pin for T8 Slimline
& OCTRON



Single Pin for
T12 Slimline

BIPIN



Miniature Bipin for T5
Preheat & PENTRON®



Miniature Bipin for T8
Preheat & OCTRON



Medium Bipin for T12



Axial T2 Subminiature



Recessed Double Contact
for OCTRON T8 HO



Recessed Double Contact
for T12 HO & VHO



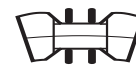
ICETRON® Mounting Brackets



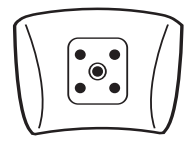
Germicidal Single End



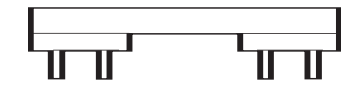
Germicidal Single Pin



4-pin for
PENTRON Circline



4-pin for T9 Circline



OCTRON T8 & T12 Rapid Start CURVALUME



Germicidal T5 Bipin



Germicidal T8 Bipin

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® lamps are T8 fluorescent lamps designed to be operated on dedicated magnetic rapid start or electronic instant start or programmed rapid start (also known as programmed start) ballasts. For details on various lamp/ballast system combinations, please refer to the Systems Performance Guide in the "SYLVANIA QUICKTRONIC® Ballast Technology and Specification Guide".

OCTRON® 800 XPS® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21680	F032/830/XPS/ECO	30	36000 (42000)	3000	85	3100 2945	19,31,33,48,52,76,94
					21697	F032/835/XPS/ECO	30	36000 (42000)	3500	85	3100 2945	19,31,33,48,52,76,94
					21681	F032/841/XPS/ECO	30	36000 (42000)	4100	85	3100 2945	19,31,33,48,52,76,94
					21660	F032/850/XPS/ECO	30	36000 (42000)	5000	80	3000 2850	19,31,33,48,52,76,94
					21659	F032/865/XPS/ECO	30	36000 (42000)	6500	80	2900 2750	19,31,33,48,52,76,94
17	T8	24	23.78	Med Bipin	22150	F017/830/XPS/ECO	30	30000	3000	85	1400 1330	31,33,48,52,76,94
					22151	F017/835/XPS/ECO	30	30000	3500	85	1400 1330	31,33,48,52,76,94
					22152	F017/841/XPS/ECO	30	30000	4100	85	1400 1330	31,33,48,52,76,94
25	T8	36	35.78	Med Bipin	22153	F025/830/XPS/ECO	30	30000	3000	85	2200 2090	31,33,48,52,76,94
					22154	F025/835/XPS/ECO	30	30000	3500	85	2200 2090	31,33,48,52,76,94
					22155	F025/841/XPS/ECO	30	30000	4100	85	2200 2090	31,33,48,52,76,94

OCTRON® 800 XP® 4 Foot SUPERSAVER® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
25		48	47.78	Med Bipin	22232	F032/25W/830/XP/SS/ECO	30	36000 (42000)	3000	85	2475 2350	31,16,17,18,20,31,33,76,94
					22233	F032/25W/835/XP/SS/ECO	30	36000 (42000)	3500	85	2475 2350	31,16,17,18,20,31,33,76,94
					22234	F032/25W/841/XP/SS/ECO	30	36000 (42000)	4100	85	2475 2350	31,16,17,18,20,31,33,76,94
					22235	F032/25W/850/XP/SS/ECO	30	36000 (42000)	5000	85	2300 2185	31,16,17,18,20,31,33,76,94
28	T8	48	47.78	Med Bipin	22177	F028/830/XP/SS/ECO	30	36000 (42000)	3000	85	2725 2590	31,16,20,23,31,33,44,76,94,95
					22178	F028/835/XP/SS/ECO	30	36000 (42000)	3500	85	2725 2590	31,16,20,23,31,33,44,76,94,95
					22179	F028/841/XP/SS/ECO	30	36000 (42000)	4100	85	2725 2590	31,16,20,23,31,33,44,76,94,95
					22184	F028/850XP/SS/ECO	30	36000 (42000)	5000	80	2600 2470	31,16,20,23,31,33,76,94,95

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® 800 XP® 4 Foot SUPERSAVER® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
30	T8	48	47.78	Med Bipin	22063	F030/830/XP/SS/ECO	30	36000 (42000)	3000	85	2850	2710	 31,33,76,94,95
					22060	F030/835/XP/SS/ECO	30	36000 (42000)	3500	85	2850	2710	 31,33,76,94,95
					22062	F030/841/XP/SS/ECO	30	36000 (42000)	4100	85	2850	2710	 31,33,76,87,95
					22202	F030/850/XP/SS/ECO	30	36000 (42000)	5000	85	2800	2660	 31,33,76,94,95

OCTRON® 800 XP® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	22039	F032/827/XP/ECO	30	36000 (42000)	2700	85	3000	2850	 20,31,33,48,52,76,94
					21759	F032/830/XP/ECO	30	36000 (42000)	3000	85	3000	2850	 20,31,33,48,52,76,94
					21763	F032/835/XP/ECO	30	36000 (42000)	3500	85	3000	2850	 20,31,33,48,52,76,94
					21767	F032/841/XP/ECO	30	36000 (42000)	4100	85	3000	2850	 20,31,33,48,52,76,94
					22026	F032/850/XP/ECO	30	36000 (42000)	5000	85	3000	2850	 20,31,33,48,52,76,94
					21720	F032/865/XP/ECO	30	36000 (42000)	6500	85	2850	2708	 20,31,33,48,52,76,94
					22594	F032/SKYWHITE/XP/ECO	30	36000 (42000)	8000	88	2650	2518	 20,31,33,48,52,76,94

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	21587	F017/827/XP/ECO	30	24000	2700	85	1375	1305	 31,33,44,48,52,76,87
					21785	F017/830/XP/ECO	30	24000	3000	85	1375	1305	 31,33,44,48,52,76,87
					21778	F017/835/XP/ECO	30	24000	3500	85	1375	1305	 31,33,44,48,52,76,87
					21907	F017/841/XP/ECO	30	24000	4100	85	1375	1305	 31,33,44,48,52,76,87
					22193	F017/850/XP/ECO	30	24000	5000	85	1375	1305	 31,33,44,48,52,76,87
					21718	F017/865/XP/ECO	30	24000	6500	85	1250	1188	 31,33,44,48,52,76,87
25	T8	36	35.78	Med Bipin	21586	F025/827/XP/ECO	30	24000	2700	85	2175	2065	 31,33,44,48,52,76,87
					21910	F025/830/XP/ECO	30	24000	3000	85	2175	2065	 31,33,44,48,52,76,87
					21776	F025/835/XP/ECO	30	24000	3500	85	2175	2065	 31,33,44,48,52,76,87
					21774	F025/841/XP/ECO	30	24000	4100	85	2175	2065	 31,33,44,48,52,76,87

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS**OCTRON® 800 XP® Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
25	T8	36	35.78	Med Bipin	22194	F025/850/XP/ECO	30	24000	5000	85 2175 2065	 31,33,44,48, 52,76,87
					21719	F025/865/XP/ECO	30	24000	6500	85 2000 1900	 31,33,44,48, 52,76,87
40	T8	60	59.61	Med Bipin	21912	F040/830/XP/ECO	30	24000	3000	85 3750 3560	 31,33,44,48, 52,76,87
					21911	F040/835/XP/ECO	30	24000	3500	85 3750 3560	 31,33,44,48, 52,76,87
					21916	F040/841/XP/ECO	30	24000	4100	85 3750 3560	 31,33,44,48, 52,76,87
					21721	F040/865/XP/ECO	30	24000	6500	85 3650 3468	 31,33,44,48, 52,76,87

OCTRON® 700 XP® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start @12hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21711	F032/730/XP/ECO	30	36000 (42000)	3000	78 2850 2705	 31,33,44, 48,52,76,94
					22044	F032/735/XP/ECO	30	36000 (42000)	3500	78 2850 2705	 31,33,44, 48,52,76,94
					21712	F032/741/XP/ECO	30	36000 (42000)	4100	78 2850 2705	 31,33,44, 48,52,76,94
17	T8	24	23.78	Med Bipin	21699	F017/735/XP/ECO	30	24000	3500	78 1325 1255	 31,33,44,48, 52,76,87
					21637	F017/741/XP/ECO	30	24000	4100	78 1325 1255	 31,33,44,48, 52,76,87
25	T8	36	35.78	Med Bipin	21698	F025/735/XP/ECO	30	24000	3500	78 2050 1945	 31,33,44,48, 52,76,87
					21639	F025/741/XP/ECO	30	24000	4100	78 2050 1945	 31,33,44,48, 52,76,87

OCTRON® 800 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start @12hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21777	F032/830/ECO	30	30000 (35000)	3000	85 2950 2802	 21,31,33, 48,52,76,94
					21779	F032/835/ECO	30	30000 (35000)	3500	85 2950 2802	 21,31,33, 48,52,76,94
					21781	F032/841/ECO	30	30000 (35000)	4100	85 2950 2802	 21,31,33, 48,52,76,94
					22143	F032/850/ECO	30	30000 (35000)	5000	80 2800 2660	 21,31,33, 48,52,76,94
17	T8	24	23.78	Med Bipin	22135	F017/830/ECO	30	20000	3000	82 1350 1240	 31,33,35,48, 52,76

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® 800 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	22136	F017/835/ECO	30	20000	3500	82	1350 1240	  31,33,35,48,52,76
					22137	F017/841/ECO	30	20000	4100	82	1350 1240	  31,33,35,48,52,76
25	T8	36	35.78	Med Bipin	22138	F025/830/ECO	30	20000	3000	82	2150 1975	  31,33,35,48,52,76
					22139	F025/835/ECO	30	20000	3500	82	2150 1975	  31,33,35,48,52,76
					22140	F025/841/ECO	30	20000	4100	82	2150 1975	  31,33,35,48,52,76
40	T8	60	59.61	Med Bipin	22144	F040/830/ECO	30	20000	3000	82	3650 3473	  31,33,35,48,52,76
					22145	F040/835/ECO	30	20000	3500	82	3650 3473	  31,33,35,48,52,76
					22146	F040/841/ECO	30	20000	4100	82	3650 3473	  31,33,35,48,52,76

OCTRON® 700 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21997	F032/730/ECO	30	25000	3000	78	2800 2520	  31,33,48,52,76,119
					21998	F032/735/ECO	30	25000	3500	78	2800 2520	  31,33,48,52,76,119
					21678	F032/735/SL	30	25000	3500	78	2716 2444	  31,33,52,96,98,119
					22181	F032/741/ECO/CVP	12	25000	4100	78	2800 2520	  31,33,48,52,76,119
					21547	F032/741/ECO/SL	30	25000	4100	78	2716 2444	  31,33,52,76,96,98,119
					21999	F032/741/ECO	30	25000	4100	78	2800 2520	  31,33,48,52,76,119
					22141	F032/750/ECO	30	25000	5000	78	2650 2385	  31,33,48,52,76,119
					22175	F032/765/ECO	30	25000	6500	78	2700 2430	  31,33,48,52,76,119
14	T8	18	17.91	Med Bipin	21666	F013/735/ECO	30	20000	3500	75	830 745	  31,33,35,48,52,76
					21667	F013/741/ECO	30	20000	4100	75	830 745	  31,33,35,48,52,76
17	T8	24	23.78	Med Bipin	21918	F017/730/ECO	30	20000	3000	75	1300 1170	  31,33,35,48,52,76
					21769	F017/735/ECO	30	20000	3500	75	1300 1170	  31,33,35,48,52,76
					21770	F017/741/ECO	30	20000	4100	75	1300 1170	  31,33,35,48,52,76
25	T8	36	35.78	Med Bipin	21937	F025/730/ECO	30	20000	3000	75	1950 1755	  31,33,35,48,52,76

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® 700 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
25	T8	36	35.78	Med Bipin	21941	F025/735/ECO	30	20000	3500	75	1950 1755	 31,33,35,48,52,76
					21942	F025/741/ECO	30	20000	4100	75	1950 1755	 31,33,35,48,52,76
40	T8	60	59.61	Med Bipin	22102	F040/730/ECO	30	20000	3000	75	3500 3150	 31,33,35,48,52,76
					22103	F040/735/ECO	30	20000	3500	75	3500 3150	 31,33,35,48,52,76
					22104	F040/741/ECO	30	20000	4100	75	3500 3150	 31,33,35,48,52,76

OCTRON® 800 XP® 8 Foot SUPERSAVER® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
55	T8	96	94	Single Pin	22100	F096/835/XP/SS/ECO	24	18000	3500	85	5700 5415	 7,31,33,76,85
					22101	F096/841/XP/SS/ECO	24	18000	4100	85	5700 5415	 7,31,33,76,85

OCTRON® 800 XP® 8 Foot Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
59	T8	96	94	Single Pin	22036	F096/830/XP/ECO	24	18000	3000	85	6100 5795	 31,33,44,48,76,85
					22034	F096/835/XP/ECO	24	18000	3500	85	6100 5795	 31,33,44,48,76,85
					22032	F096/841/XP/ECO	24	18000	4100	85	6100 5795	 31,33,44,48,76,85
					22174	F096/850/XP/ECO	24	18000	5000	85	6100 5795	 31,33,44,48,76,85

OCTRON® 800 8 Foot Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
59		96	94	Single Pin	22147	F096/830/ECO	24	15000	3000	82	5900 5428	 10,31,33,48,76
					22148	F096/835/ECO	24	15000	3500	82	5900 5428	 10,31,33,48,76
					22149	F096/841/ECO	24	15000	4100	82	5900 5428	 10,31,33,48,76
					22173	F096/850/ECO	24	15000	5000	80	5900 5428	 10,31,33,48,76
86	T8	96	93.91	Recessed DC	22206	F096/835/HO/ECO	24	18000	3500	85	8200 7710	 31,33,48,76
					22207	F096/841/HO/ECO	24	18000	4100	85	8200 7710	 31,33,48,76

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® 700 8 Foot Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
59	T8	96	94	Single Pin	22030	F096/730/ECO	24	15000	3000	75	5700 5130	  31,33,48, 76,84
					21737	F096/735/ECO	24	15000	3500	75	5700 5130	  31,33,48, 76,84
					21736	F096/741/ECO	24	15000	4100	75	5700 5130	  31,33,48, 76,84
86	T8	96	93.91	Recessed DC	22204	F096/735/H0/ECO	24	18000	3500	78	8000 7520	  31,33,48, 76
					22205	F096/741/H0/ECO	24	18000	4100	78	8000 7520	  31,33,48, 76

OCTRON® 800 XP® SUPERSAVER® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing

The OCTRON® CURVALUME® lamps are made to the same color standards and may be used in conjunction with other SYLVANIA OCTRON lamps to meet the needs of lighting installations where OCTRON T8 systems are used. Since CURVALUME and linear OCTRON lamps of the same/similar wattages operate on the same ballasts, the types of ballasts used in an installation can be minimized. When OCTRON FBO31 lamps are used in 2X2 luminaires, the 2X2 luminaire can deliver light levels similar to 2X4 luminaires with the same number of linear OCTRON lamps. The nominal length of the CURVALUME lamp is measured from the base face to the outside of the glass bend.

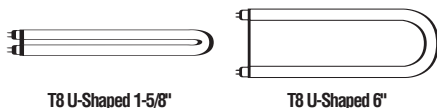
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
29	T8	22.5	22.6	Med Bipin	22195	FBO29/830XP/SS/ECO	15	24000	3000	85	2775 2636	  31,33,44, 54,76,87,95
					22196	FBO29/835XP/SS/ECO	15	24000	3500	85	2775 2636	  31,33,44, 54,76,87,95
					22197	FBO29/841XP/SS/ECO	15	24000	4100	85	2775 2636	  31,33,44, 54,76,87,95

OCTRON® 800 XP® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
31	T8	22.5	22.6	Med Bipin	21693	FB031/830/XP/ECO	15	24000	3000	85	2775 2636	  31,33,44, 48,52,54,55,76,87
					21695	FB031/835/XP/ECO	15	24000	3500	85	2775 2636	  31,33,44, 48,52,54,55,76,87
					21696	FB031/841/XP/ECO	15	24000	4100	85	2775 2636	  31,33,44, 48,52,54,55,76,87

OCTRON® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
31		22.5	22.6	Med Bipin	21877	FB031/830	15	20000	3000	82	2725 2507	 31,33,35,48,52,54, 55
					21878	FB031/835	15	20000	3500	82	2725 2507	 31,33,35,48,52,54, 55
					21879	FB031/841	15	20000	4100	82	2725 2507	 31,33,35,48,52,54, 55
16	T8	10.5	10.60	Med Bipin	21834	FB016/830	15	20000	3000	82	1125 1035	 31,33,35,48,52,54, 55
					21835	FB016/835	15	20000	3500	82	1125 1035	 31,33,35,48,52,54, 55



T8 U-Shaped 1-5/8"

T8 U-Shaped 6"

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
16	T8	10.5	10.60	Med Bipin	21836	FB016/841	15	20000	4100	82	1125	1035	31,33,35,48,52,54,55
24	T8	16.5	16.6	Med Bipin	21874	FB024/830	15	20000	3000	82	1925	1771	31,33,35,48,52,54,55
					21875	FB024/835	15	20000	3500	82	1925	1771	31,33,35,48,52,54,55
					21876	FB024/841	15	20000	4100	82	1925	1771	31,33,35,48,52,54,55

OCTRON® 800 XP® SUPERSAVER® CURVALUME® U-SHAPED Lamps - 6" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
30	T8	22.5	22.6	Med Bipin	22170	FB030/830XP/6/SS/ECO	16	24000	3000	85	2800	2660	31,33,44,54,76,87,95
					22171	FB030/835XP/6/SS/ECO	16	24000	3500	85	2800	2660	31,33,44,54,76,87,95
					22172	FB030/841XP/6/SS/ECO	16	24000	4100	85	2800	2660	31,33,44,54,76,87,95

OCTRON® 800 XP® CURVALUME® U-SHAPED Lamps - 6" Leg Spacing

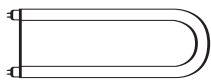
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32	T8	22.5	22.6	Med Bipin	22054	FB032/830XP/6/ECO	16	24000	3000	85	2900	2755	31,33,44,48,52,54,76,87
					22055	FB032/835XP/6/ECO	16	24000	3500	85	2900	2755	31,33,44,48,52,54,76,87
					22057	FB032/841XP/6/ECO	16	24000	4100	85	2900	2755	31,33,44,48,52,54,76,87

OCTRON® 800 CURVALUME® U-SHAPED Lamps - 6" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32		22.5	22.6	Med Bipin	21663	FB032/830/6/ECO	16	20000	3000	82	2850	2622	31,33,35,48,52,54,76
					21670	FB032/835/6/ECO	16	20000	3500	82	2850	2622	31,33,35,48,52,54,76
					21671	FB032/841/6/ECO	16	20000	4100	82	2850	2622	31,33,35,48,52,54,76

OCTRON® 700 CURVALUME® U-SHAPED Lamps - 6" Leg Spacing

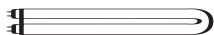
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32		22.5	22.6	Med Bipin	22046	FB032/730/6/ECO	16	20000	3000	75	2750	2475	31,33,35,48,52,54,76
					22051	FB032/735/6/ECO	16	20000	3500	75	2750	2475	31,33,35,48,52,54,76



T8 U-Shaped 6"



T8 Med Bipin



T8 U-Shaped 1-5/8"

OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® 700 CURVALUME® U-SHAPED Lamps - 6" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	22.5	22.6	Med Bipin	22052	FB032/741/6/ECO	16	20000	4100	75	2750 2475	31,33,35,48,52,54,76
					22053	FB032/750/6/ECO	16	20000	5000	75	2625 2363	31,33,35,48,52,54,76

OCTRON® 5000K And 6500K for Displays, Signage and Backlighting

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
14	T8	18	17.91	Med Bipin	21731	F013/865XP/ECO	30	24000	6500	85	850 805	31,33,44,48,52,76,87
15	T8	20	19.78	Med Bipin	21868	F014/950/20in	30	20000	5000	90	750 638	31,33,35,48,52
					21716	F014/865XP/ECO	30	24000	6500	85	1000 950	31,33,44,48,52,76,87
16	T8	10.5	10.60	Med Bipin	21726	FB016/865XP	15	24000	6500	85	1125 1069	31,33,44,48,52,54,55,87
17	T8	24	23.78	Med Bipin	21871	F017/950/24in	30	20000	5000	90	800 680	31,33,35,48,52
					21718	F017/865XP/ECO	30	24000	6500	85	1250 1188	31,33,44,48,52,76,87
21	T8	30	29.78	Med Bipin	21869	F021/950/30in	30	20000	5000	90	1000 850	31,33,35,48,52
					21730	F021/865XP/ECO	30	24000	6500	85	1600 1520	31,33,44,48,52,76,87
25	T8	36	35.78	Med Bipin	21872	F025/950/36in	30	20000	5000	90	1250 1063	31,33,35,48,52
					21719	F025/865XP/ECO	30	24000	6500	85	2000 1900	31,33,44,48,52,76,87
28	T8	40	39.78	Med Bipin	21870	F028/950/40in	30	20000	5000	90	1400 1190	31,33,35,48,52
32	T8	48	47.78	Med Bipin	21880	F032/950/48in	30	25000	5000	90	1800 1530	31,33,48,52
					21720	F032/865XP/ECO	30	36000 ()	6500	85	2850 2708	20,31,33,48,52,76,94
40	T8	60	59.61	Med Bipin	21873	F040/950/60in	30	20000	5000	90	2200 1870	31,33,35,48,52
					21721	F040/865XP/ECO	30	24000	6500	85	3650 3468	31,33,44,48,52,76,87

OCTRON® Specialty

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21961	F032/GOLD	10	25000			1700 1530	31,33,35,43,48,52

PENTRON® T5 FLUORESCENT LAMPS

PENTRON® T5 lamps are designed to operate on dedicated electronic programmed rapid start (also known as programmed start) ballasts only. These lamps are globally standardized and are designed to operate with their peak light output at 35°C (95°F) ambient temperature. For comparison purposes and to accommodate existing lamp measurement standards, ratings are given at both 25°C (77°F) and 35°C (95°F). The new lamp dimensions allow for innovative fixture designs and improved fixture performance.

PENTRON® High Performance T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
28	T5	48	45.8	Mini Bipin	20868	FP28/830/ECO	40	20000	3000	85	2600 2900	2418 2697	 31,33,38,48, 74,76
					20901	FP28/835/ECO	40	20000	3500	85	2600 2900	2418 2697	 31,33,38,48, 74,76
					20902	FP28/841/ECO	40	20000	4100	85	2600 2900	2418 2697	 31,33,38,48, 74,76
					22203	FP28/850/ECO	40	20000	5000	85	2545 2840	2367 2641	 31,33,38,48, 74,76
					20990	FP28/865/ECO	40	20000	6500	85	2400 2750	2232 2558	 31,33,38,48, 74,76
					20977	FP28RED 40/CS 1/SKU	40	20000			2100		15,31,33,38,48,74
					20978	FP28GREEN 40/CS 1/SKU	40	20000			3500		15,31,33,38,48,74
					20986	FP28BLUE 40/CS 1/SKU	40	20000			700		15,31,33,38,48,74
14	T5	24	22.2	Mini Bipin	20907	FP14/830/ECO	40	20000	3000	85	1200 1350	1116 1256	 31,33,38,48, 74,76
					20908	FP14/835/ECO	40	20000	3500	85	1200 1350	1116 1256	 31,33,38,48, 74,76
					20914	FP14/841/ECO	40	20000	4100	85	1200 1350	1116 1256	 31,33,38,48, 74,76
					20988	FP14/865/ECO	40	20000	6500	85	1100 1300	1045 1209	 31,33,38,48, 74,76
21	T5	36	34	Mini Bipin	20919	FP21/830/ECO	40	20000	3000	85	1900 2100	1767 1953	 31,33,38,48, 74,76
					20921	FP21/835/ECO	40	20000	3500	85	1900 2100	1767 1953	 31,33,38,48, 74,76
					20924	FP21/841/ECO	40	20000	4100	85	1900 2100	1767 1953	 31,33,38,48, 74,76
					20989	FP21/865/ECO	40	20000	6500	85	1750 2000	1662 1860	 31,33,38,48, 74,76
35	T5	60	57.6	Mini Bipin	20925	FP35/830/ECO	40	20000	3000	85	3300 3650	3069 3394	 31,33,38,48, 74,76
					20926	FP35/835/ECO	40	20000	3500	85	3300 3650	3069 3394	 31,33,38,48, 74,76
					20927	FP35/841/ECO	40	20000	4100	85	3300 3650	3069 3394	 31,33,38,48, 74,76

PENTRON® PREMIER™ High Performance T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
28	T5	48	45.8	Mini Bipin	20948	FP28/830PM/ECO	40	20000	3000	85	2730 3050	2594 2898	 31,33,38,48, 74,76
					20943	FP28/835PM/ECO	40	20000	3500	85	2730 3050	2594 2898	 31,33,38,48, 74,76
					20944	FP28/841PM/ECO	40	20000	4100	85	2730 3050	2594 2898	 31,33,38,48, 74,76

PENTRON® T5 FLUORESCENT LAMPS**PENTRON® High Output, High Performance T5 Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F (@35°C/95°F)		Symbols & Footnotes
54	T5	48	45.8	Mini Bipin	20903	FP54/830/HO/ECO	40	25000 (35000)	3000	85	4450 5000	4138 4650	31,33,38,48, 74,76
					20904	FP54/835/HO/ECO	40	25000 (35000)	3500	85	4450 5000	4138 4650	31,33,38,48, 74,76
					21020	FP54/835/HO/ECO/SL	40	25000 (35000)	3500	85	4316 4850	4014 4510	31,33,38,48, 74,76,96,98
					20906	FP54/841/HO/ECO	40	25000 (35000)	4100	85	4450 5000	4138 4650	31,33,38,48, 74,76
					21021	FP54/841/HO/ECO/SL	40	25000 (35000)	4100	85	4316 4850	4014 4510	31,33,48,74, 76,96,98
					20949	FP54/850/HO/ECO	40	25000 (35000)	5000	85	4375 4900	4069 4557	31,33,38,48, 74,76
					21022	FP54/850/HO/ECO/SL	40	25000 (35000)	5000	85	4243 4753	3946 4420	31,33,48,74, 76,96,98
					20862	FP54/865/HO/ECO	40	25000 (35000)	6500	85	4050 4750	3766 4418	31,33,38,48, 74,76
					20997	FP54/RED/HO	40	20000				3300	15,31,33,38,48,74
					20998	FP54/GREEN/HO	40	20000				5550	15,31,33,38,48,74
					20999	FP54/BLUE/HO	40	20000				1150	15,31,33,38,48,74
24	T5	24	22.2	Mini Bipin	20928	FP24/830/HO/ECO	40	20000	3000	85	1750 2000	1627	31,33,38,48, 74,76
					20929	FP24/835/HO/ECO	40	20000	3500	85	1750 2000	1627	31,33,38,48, 74,76
					20931	FP24/841/HO/ECO	40	20000	4100	85	1750 2000	1627	31,33,38,48, 74,76
39	T5	36	34	Mini Bipin	20932	FP39/830/HO/ECO	40	20000	3000	85	3100 3500	2883	31,33,38,48, 74,76
					20933	FP39/835/HO/ECO	40	20000	3500	85	3101 3500	2883	31,33,38,48, 74,76
					20934	FP39/841/HO/ECO	40	20000	4100	85	3102 3500	2883	31,33,38,48, 74,76
80	T5	60	57.6	Mini Bipin	20935	FP80/830/HO/ECO	40	20000	3000	85	6150 7000	5719 6510	31,33,38,48, 74,76
					20936	FP80/835/HO/ECO	40	20000	3500	85	6151 7000	5720 6510	31,33,38,48, 74,76
					20937	FP80/841/HO/ECO	40	20000	4100	85	6152 7000	5721 6510	31,33,38,48, 74,76

PENTRON® High Output, Wide Temperature Range T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F (@35°C/95°F)		Symbols & Footnotes
54	T5	48	45.8	Mini Bipin	21042	FP54/835/C/HO/ECO	40	25000 (35000)	3500	85	4900 4900	4655 4655	31,33,38,48, 74,76
					21043	FP54/841/C/HO/ECO	40	25000 (35000)	4100	85	4900 4900	4655 4655	31,33,38,48, 74,76
					21044	FP54/850/C/HO/ECO	40	25000 (35000)	5000	85	4800 4800	4560 4560	31,33,38,48, 74,76



Circline 4-Pin T5

T12 Med Bipin

PENTRON® T5 FLUORESCENT LAMPS

PENTRON® Circline T5 Lamps

Nominal Wattage	Bulb	Outside Diameter (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
22	T5	8.66 - 9.06	2GX13	20702	FPC22/830	12	12000	3000	82	1800	1585	31,33,38,48,74
				20712	FPC22/835	12	12000	3500	82	1800	1585	31,33,38,48,74
				20715	FPC22/841	12	12000	4100	82	1800	1585	31,33,38,48,74
40	T5	11.54 - 12.01	2GX13	20731	FPC40/830	12	12000	3000	82	3200	2815	31,33,38,48,74
				20732	FPC40/835	12	12000	3500	82	3200	2815	31,33,38,48,74
				20733	FPC40/841	12	12000	4100	82	3200	2815	31,33,38,48,74
55	T5	11.54 - 12.01	2GX13	20741	FPC55/830/HO	12	12000	3000	82	4000	3520	31,33,38,48,74
				20750	FPC55/835/HO	12	12000	3500	82	4000	3520	31,33,38,48,74
				20751	FPC55/841/HO	12	12000	4100	82	4000	3520	31,33,38,48,74

RAPID START LAMPS

Rapid Start lamps, 3-foot and 4-foot in length, are typically designated by their wattage: e.g. F40 = Fluorescent 40W. Therefore lamps previously designated as F30T12/RS/SS, F40/SS and FB40/SS energy saving types will now be designated as F25T12/RS/SS, F34/SS and FB34/SS, respectively to comply with standard lamp designation nomenclature for these families of lamps.

3' SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
25	T12	36	35.78	Med Bipin	23473	F25T12/WW/RS/SS <i>formerly F30T12/WW/RS/SS</i>	30	18000	3000	52	1975	1679	22,31,33
					23485	F25T12/D35/RS/SS <i>formerly F30T12/D35/RS/SS</i>	30	18000	3500	70	2050	1804	22,31,33
					23472	F25T12/CW/RS/SS <i>formerly F30T12/CW/RS/SS</i>	30	18000	4200	60	1925	1636	22,31,33

3' Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
30	T12	36	35.78	Med Bipin	23490	F30T12/SW/RP	6	18000	3000	52	2275	1934	30,31,33,48
					23482	F30T12/WW/RS	30	18000	3000	52	2275	1934	30,31,33,48
					23474	F30T12/D830/RS	30	18000	3000	80	2290	2061	30,31,33,48
					23484	F30T12/D35/RS	30	18000	3500	70	2250	1980	30,31,33,48
					23139	F30T12/D835/RS	30	18000	3500	80	2290	2061	30,31,33,48
					23493	F30T12/CW/RP	6	18000	4200	60	2200	1870	30,31,33,48
					23476	F30T12/CW/RS	30	18000	4200	60	2200	1870	30,31,33,48
					23487	F30T12/CW/RS/UPC	30	18000	4200	60	2200	1870	30,31,33,48
					23478	F30T12/D/RS	30	18000	6500	76	1900	1615	30,31,33,48

4' SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
34	T12	48	47.78	Med Bipin	24538	F34WW/SS/ECO <i>formerly F40WW/SS/ECO</i>	30	20000	3000	52	2750	2365	224,30,31,33,56,76
					24535	F34/D30/SS/ECO <i>formerly F40/D30/SS/ECO</i>	30	20000	3000	70	2800	2520	224,30,31,33,56,76

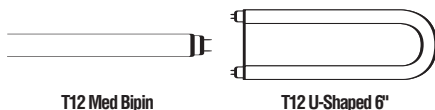
RAPID START LAMPS

4' SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
34	T12	48	47.78	Med Bipin	24589	F34/D830/SS formerly F40/D830/SS	30	20000	3000	80	2900 2610	☼ 2,24,30,31,33,56
					24544	F34/D830/SS/ECO formerly F40/D830/SS/ECO	30	20000	3000	80	2900 2610	☼ 2,24,30,31,33,56,76
					24591	F34W/SS formerly F40W/SS	30	20000	3450	57	2750 2365	☼ 2,24,30,31,33,56
					24585	F34/D35/SS formerly F40/D35/SS	30	20000	3500	70	2800 2520	☼ 2,24,30,31,33,56
					24522	F34/D35/SS/CVP formerly F40/D35/SS/CVP	10	20000	3500	70	2800 2520	☼ 2,24,30,31,33,56
					24540	F34/D35/SS/ECO formerly F40/D35/SS/ECO	30	20000	3500	70	2800 2520	☼ 2,24,30,31,33,56,76
					24547	F34/D835/SS/ECO formerly F40/D835/SS/ECO	30	20000	3500	80	2900 2610	☼ 2,24,30,31,33,56,76
					24542	F34/D41/SS/ECO formerly F40/D41/SS/ECO	30	20000	4100	70	2800 2520	☼ 2,24,30,31,33,56,76
					24554	F34/D841/SS/ECO formerly F40/D841/SS/ECO	30	20000	4100	80	2900 2610	☼ 2,24,30,31,33,56,76
					24588	F34CW/SS formerly F40CW/SS	30	20000	4100	87	1925 1656	2,24,30,31,33,56
					24566	F34LW/SS/ECO formerly F40LW/SS/ECO	30	20000	4150	48	2825 2430	☼ 2,24,30,31,33,56,76
					24590	F34LW/SS formerly F40LW/SS	30	20000	4150	48	2825 2430	☼ 2,24,30,31,33,56
					24516	F34CW/SS/10 formerly F40CW/SS/10	10	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56
					24524	F34CW/SS/CVP formerly F40/CW/SS/CVP	10	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56
					24396	F34CW/SS/SL formerly F40CW/SS/SL	30	20000	4200	60	2570 2313	☼ 2,24,30,31,33,56,98
					24596	F34CW/SS/ECO formerly F40CW/SS/ECO	30	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56,76
					24632	F34CW/SS/ECO/CVP formerly F40/CW/SS/ECO/CVP	10	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56,76
					24642	F34CW/SS/ECO/CVP30 formerly F40CW/SS/ECO/CVP30	30	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56,76
					24633	F34CW/SS/ECO/RP formerly F40/CW/SS/ECO/RP	30	20000	4200	60	2650 2279	☼ 2,24,30,31,33,48,56,76
					24599	F34/DX/SS formerly F40/DX/SS	30	20000	6500	88	1930 1565	2,24,30,31,33,56
					24706	F34/D865/SS formerly F40/D865/SS	30	20000	6500	80	2650 2385	☼ 2,24,30,31,33,56

4' Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24521	F40/D30/ECO	30	20000	3000	70	3200 2880	☼ 2,30,31,33,48,56,64,76



T12 Med Bipin

T12 U-Shaped 6"

RAPID START LAMPS

4' Standard Rapid Start Lamps

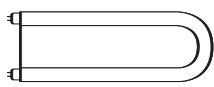
Nominal Wattage Bulb		Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F		Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24543	F40/D830/ECO	30	20000	3000	80	3300	2970	Ⓔ ⒸⒶ [CRI] 2,30,31,33,48,56,64,76
					24537	F40/D35/ECO	30	20000	3500	70	3200	2880	Ⓔ ⒸⒶ [CRI] 2,30,31,33,48,56,64,76
					24546	F40/D835/ECO	30	20000	3500	80	3300	2970	Ⓔ ⒸⒶ [CRI] 2,30,31,33,48,56,64,76
					24438	F40N	30	20000	3600	86	2100	1806	[CRI] 2,30,31,33,48,56,64
					24442	F40CWX 10/CS	10	20000	4100	87	2150	1849	[CRI] 2,30,31,33,48,56,64
					24441	F40CWX	30	20000	4100	87	2150	1849	[CRI] 2,30,31,33,48,56,64
					24541	F40/D41/ECO	30	20000	4100	70	3200	2880	Ⓔ ⒸⒶ [CRI] 2,30,31,33,48,56,64,76
					24553	F40/D841/ECO	30	20000	4100	80	3300	2970	Ⓔ ⒸⒶ [CRI] 2,30,31,33,48,56,64,76
					24584	F40/D41	30	20000	4100	70	3200	2880	Ⓔ [CRI] 2,30,31,33,48,56,64
					24683	F40DSGN50	30	20000	5000	90	2200	1892	[CRI] 2,30,31,33,48,56,64
					24477	F40/DX	30	20000	6500	88	2180	1770	[CRI] 2,30,31,33,48,56,64
					24570	F40/D865	30	20000	6500	80	3000	2700	Ⓔ [CRI] 2,30,31,33,48,56,64
24673	F40/GO	10	20000			1980		2,30,31,33,48,56,64					

CURVALUME® SUPERSAVER® Rapid Start Lamps – U-Shaped, 6" Leg Spacing

Nominal Wattage Bulb		Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F		Symbols & Footnotes
34	T12	22.5	22.6	Med Bipin	24062	FB34/WW/6/SS/UPC formerly FB40WW/6/SS	12	18000	3000	52	2650	2279	Ⓔ 24,30,31,33
					24052	FB34/WW/6/SS/ECO formerly FB40WW/6/SS/ECO	12	18000	3000	52	2650	2279	Ⓔ  24,30,31,33,76
					24065	FB34/D35/6/SS formerly FB40/D35/SS	12	18000	3500	70	2730	2457	Ⓔ  24,30,31,33
					24059	FB34/CW/6/SS/UPC formerly FB40/CW/SS/6	12	18000	4200	60	2600	2236	Ⓔ 24,30,31,33
					24054	FB34/CW/6/SS/ECO formerly FB40/CW/6/SS/ECO	12	18000	4200	60	2600	2236	Ⓔ  24,30,31,33,76

CURVALUME® Standard Rapid Start Lamps – U-Shaped, 6" Leg Spacing

Nominal Wattage		Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F		Symbols & Footnotes
40	T12	22.5	22.6	Med Bipin	24080	FB40/D30/6	12	18000	3000	70	3050	2745	Ⓔ ⒸⒶ 30,31,33,48	
					24017	FB40/D830/6	12	18000	3000	80	3200	2880	Ⓔ ⒸⒶ 30,31,33,48	
					24081	FB40/D35/6	12	18000	3500	70	3050	2745	Ⓔ ⒸⒶ 30,31,33,48	
					24004	FB40/CWX/6	12	18000	4100	87	2100	1806	ⒸⒶ 30,31,33,48	



T12 U-Shaped 6"



Circline 4-Pin T9



T12 RDC

RAPID START LAMPS

CURVALUME® Standard Rapid Start Lamps – U-Shaped, 6" Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
40	T12	22.5	22.6	Med Bipin	24082	FB40/D41/6	12	18000	4100	70	3050	2745	Ⓔ CRI 30,31,33,48

Circline T9 Rapid Start Lamps

Nominal Wattage	Bulb	Outside Diameter (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
20	T9	6.25 - 6.75	4 PIN	20155	FC6T9/WW/RS	12	8000	3000	52	800	696	31,33,42,48
				20156	FC6T9/CW/RS	12	8000	4200	60	750	653	31,33,42,48
22	T9	8.00 - 8.50	4 PIN	20088	FC8T9/WW/RS	12	12000	3000	52	1050	914	31,33,42,48
				20209	FC8T9/DSW/RP	6	12000	3000	70	1100	990	CRI 31,33,42,48
				20151	FC8T9/CW/RS/6 PACK	6	12000	4200	60	1050	914	31,33,42,48
				20148	FC8T9/CW/RS	12	12000	4200	60	1050	914	31,33,42,48
				20080	FC8T9/D/RS	12	12000	6500	76	900	783	CRI 31,33,42,48
				20210	FC8T9/830/EL	6	10000	3000	80	1850	1591	CRI 31,33,40,49,79,81
32	T9	11.5 - 12.0	4 PIN	20233	FC12T9/DSW/RP	6	15000	3000	70	2100	1806	CRI 31,33,42,48
				20037	FC12T9/WW/RS	12	15000	3000	52	1950	1697	31,33,42,48
				20143	FC12T9/CW/RS/6 PACK	6	15000	4200	60	1925	1675	31,33,42,48
				20142	FC12T9/CW/RS	12	15000	4200	60	1925	1675	31,33,42,48
				20030	FC12T9/D/RS	12	15000	6500	76	1650	1436	CRI 31,33,42,48
				20057	FC16T9/WW/RS	12	18000	3000	52	2800	2436	31,33,42,48
40	T9	15.6 - 16.0	4 PIN	20132	FC16T9/CW/RS	12	18000	4200	60	2750	2393	31,33,42,48
				20072	FC16T9/D/RS	12	18000	6500	76	2350	2045	CRI 31,33,42,48

High Output (800mA) SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
55	T12	48	46	Recessed DC	25137	F48T12D35/HO/SS	30	12000	3500	70	3750	3375	CRI 27,31,33,97
95	T12	96	93.91	Recessed DC	25011	F96T12/WW/HO/SS	15	12000	3000	52	7700	6237	Ⓔ 27,31,33,97
					25024	F96T12/D35/HO/SS	15	12000	3500	48	8350	7515	Ⓔ CRI 27,31,33,97
					25023	F96T12/D41/HO/SS	15	12000	4100	70	8350	7515	Ⓔ CRI 27,31,33,97
					25025	F96T12/LW/HO/SS	15	12000	4150	48	8000	6480	Ⓔ 27,31,33,97
					25010	F96T12/CW/HO/SS	15	12000	4200	60	8000	6480	Ⓔ 27,31,33,97
					25001	F96T12/CW/HO/SS/ECO	15	12000	4200	60	8000	6480	Ⓔ 27,31,33,76,97

High Output (800mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
25	T12	18	15.91	Recessed DC	25303	F18T12/DSGN50/HO	30	9000	5000	90	850	740	CRI 31,33,48
35	T12	24	21.91	Recessed DC	25313	F24T12/CW/HO	30	9000	4200	60	1650	1337	31,33,48
					25312	F24T12/DSGN50/HO	30	9000	5000	90	1200	1044	CRI 31,33,48
					25314	F24T12/D/HO	30	9000	6500	76	1400	1134	CRI 31,33,48

RAPID START LAMPS

High Output (800mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
42	T12	30	27.91	Recessed DC	25322	F30T12/CW/HO	30	9000	4200	60	2250 1825	31,33,48
45	T12	36	33.91	Recessed DC	25333	F36T12/CW/HO	30	9000	4200	60	2850 2309	31,33,48
					25334	F36T12/DSGN50/HO	30	9000	5000	90	2100 1701	31,33,48
					25332	F36T12/D/HO	30	9000	6500	76	2500 2025	31,33,48
55	T12	42	39.91	Recessed DC	25342	F42T12/CW/HO	30	9000	4200	60	3400 2754	31,33,48
					25344	F42T12/DSGN50/HO	30	9000	5000	90	2550 2066	31,33,48
					25343	F42T12/D/HO	30	9000	6500	76	3050 2471	31,33,48
60	T12	48	46	Recessed DC	25147	F48T12/WW/HO	30	12000	3000	52	4130 3345	31,33,48,97
					25148	F48T12/D830/HO	30	12000	3000	80	4400 4048	31,33,48,97
					25154	F48T12/D35/HO	30	12000	3500	70	4250 3825	31,33,48,97
					25136	F48T12/D41/HO	30	12000	4100	70	4250 3443	31,33,48,97
					25146	F48T12/CW/HO	30	12000	4200	60	4050 3281	31,33,48,97
					25122	F48T12/CW/HO/ECO	30	12000	4200	60	4050 3281	31,33,48,76,97
					25153	F48T12/DSGN50/HO	30	12000	5000	90	3050 2471	31,33,48,97
					25150	F48T12/D/HO	30	12000	6500	76	3600 2916	31,33,48,97
75	T12	60	57.91	Recessed DC	25128	F60T12/D35/HO	30	12000	3500	70	5600 5040	31,33,48,97
					25126	F60T12/CW/HO	30	12000	4200	60	5200 4212	31,33,48,97
					25119	F60T12/DSGN50/HO	30	12000	5000	90	3850 3119	31,33,48,97
					25120	F60T12/D/HO	30	12000	6500	76	4600 3826	31,33,48,97
80	T12	64	61.91	Recessed DC	25352	F64T12/CW/HO	30	12000	4200	60	5750 4658	31,33,48,97
					25355	F64T12/DSGN50/HO	30	12000	5000	90	4200 3402	31,33,48,97
					25353	F64T12/D/HO	30	12000	6500	76	4900 3969	31,33,48,97
85	T12	72	69.91	Recessed DC	25098	F72T12/D830/HO	15	12000	3000	80	6750 6210	1,31,33,48,97
					25177	F72T12/WW/HO	15	12000	3000	52	6400 5184	1,31,33,48,97
					27249	F72T12/D35/HO	15	12000	3500	70	6650 5985	1,31,33,48,97
					25281	F72T12/D835/HO	15	12000	3500	80	6750 6210	1,31,33,48,97
					25182	F72T12/N/HO	15	12000	3600	86	4400 3564	1,31,33,48,97
					27245	F72T12/D41/HO	15	12000	4100	70	6650 5985	1,31,33,48,97
					25176	F72T12/CW/HO	15	12000	4200	60	6250 5063	1,31,33,48,97
					25171	F72T12/CW/HO/ECO	15	12000	4200	60	6250 5063	1,31,33,48,76
					25190	F72T12/DSGN50/HO	15	12000	5000	90	4600 3726	1,31,33,48,97
					25189	F72T12/D/HO	15	12000	6500	76	5550 4496	1,31,33,48,97
100	T12	84	81.91	Recessed DC	25384	F84T12/CW/HO	15	12000	4200	60	7550 6115	31,33,48,97
					25386	F84T12/DSGN50/HO	15	12000	5000	90	5600 4536	31,33,48,97
					25385	F84T12/D/HO	15	12000	6500	76	6700 5427	31,33,48,97
110	T12	96	93.91	Recessed DC	25149	F96T12/D30/HO	15	12000	3000	70	9050 8145	31,33,48,97
					25152	F96T12/D830/HO	15	12000	3000	80	9400 8648	31,33,48,97
					25165	F96T12/D35/HO	15	12000	3500	70	9050 8145	31,33,48,97
					25166	F96T12/D835/HO	15	12000	3500	80	9400 8648	31,33,48,97
					25162	F96T12/N/HO	15	12000	3600	86	6050 4900	31,33,48,97
					25184	F96T12/D41/HO	15	12000	4100	70	9050 8145	31,33,48,97



T12 RDC

T12 Single Pin

RAPID START LAMPS

High Output (800mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
110	T12	96	93.91	Recessed DC	25164	F96T12/DSGN50/HO	15	12000	5000	90	6450 5225	31,33,48,97
					25185	F96T12/D865/HO	15	12000	6500	80	8800 7920	31,33,48,97

High Output (800mA) Rapid Start Lamps for Cold Temperature Operation

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
110		96	93.91	Recessed DC	25118	F96T12/CW/HO/COLD/10/CVP	10	12000	4200	60	8600 6966	31,33,48,91,97
					25129	F96T12/CW/HO/CT/ECO	15	12000	4200	60	8600 6966	31,33,48,76,91,97
					25134	F96T12/CW/HO/COLD TEMP	15	12000	4200	60	8600 6966	31,33,48,91,97
					25135	F96T12/D/HO/COLD TEMP	15	12000	6500	76	7600 6156	31,33,48,91,97

Very High Output (1500mA) SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
195	T12	96	93.91	Recessed DC	25296	F96T12/CW/VHO/SS	15	10000	4200	60	13000 9100	28,31,33,48,108

Very High Output (1500mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
115	T12	48	46	Recessed DC	25248	F48T12/CW/VHO	30	10000	4200	60	6600 4620	31,33,48,108
					25249	F48T12/CW/VHO/LT	30	10000	4200	60	6750 5250	31,33,48,58,88,108
					25244	F48T12/D/VHO	30	10000	6500	76	5600 3920	31,33,48,108
135	T12	60	57.91	Recessed DC	25262	F60T12/CW/VHO	30	10000	4200	60	8700 6090	31,33,48,108
141	T12	60	57.91	Recessed DC	25263	F60T12/CW/VHO/LT	30	10000	4200	60	8700 6090	31,33,48,58,88,108
160	T12	72	69.91	Recessed DC	25272	F72T12/CW/VHO	15	10000	4200	60	10600 7420	31,33,48,108
					25274	F72T12/CW/VHO/LT	15	10000	4200	60	11000 7700	31,33,48,58,88,108
					25270	F72T12/D/VHO	15	10000	6500	76	9400 6580	31,33,48,108
215	T12	96	93.91	Recessed DC	25209	F96T12/CW/VHO	15	10000	4200	60	14000 9800	31,33,48,108
					25292	F96T12/CW/VHO/LT	15	10000	4200	60	15000 10500	31,33,48,58,88,108
					25210	F96T12/D/VHO	15	10000	6500	76	11600 8120	31,33,48,108

INSTANT START LAMPS

Slimline SUPERSAVER® Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T12	48	46.00	Single Pin	24829	F48T12/D35/SS	30	9000	3500	70	2575 2369	26,31,33
					24825	F48T12/D41/SS	30	9000	4100	70	2575 2369	26,31,33
					24823	F48T12/CW/SS	30	9000	4200	60	2450 2200	26,31,33
57	T12	96	94	Single Pin	29900	F96T12/D41/SSP/ECO	15	12000	4100	82	5600 5152	26,31,33,76,97

INSTANT START LAMPS

Slimline SUPERSAVER® Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
60	T12	96	94	Single Pin	29795	F96T12/WW/SS/ECO	15	12000	3000	52	5500 4840	 26,31,33,76,97
					29809	F96T12/D30/SS/ECO	15	12000	3000	70	5600 5152	  26,31,33,76,97
					29854	F96T12/D830/SS/ECO	15	12000	3000	80	5800 5452	  26,31,33,76,97
					29819	F96T12/D35/SS	15	12000	3500	70	5600 5152	  26,31,33,97
					29808	F96T12/D35/SS/ECO	15	12000	3500	70	5600 5152	  26,31,33,76,97
					29811	F96T12/D835/SS	15	12000	3500	80	5800 5452	  26,31,33,97
					29859	F96T12/D835/SS/ECO	15	12000	3500	80	5800 5452	  26,31,33,76,97
					29853	F96T12/D41/SS/ECO	15	12000	4100	70	5600 5152	  26,31,33,76,97
					29860	F96T12/D841/SS/ECO	15	12000	4100	80	5800 5452	  26,31,33,76,97
					29820	F96T12/LW/SS	15	12000	4150	48	5600 4928	 26,31,33,97
					29815	F96T12/CW/SS	15	12000	4200	60	5300 4664	 26,31,33,97
					29805	F96T12/CW/SS/CVP	10	12000	4200	60	5300 4664	 26,31,33,97
					29816	F96T12/CW/SS/UPC	15	12000	4200	60	5300 4664	 26,31,33,97
					29555	F96T12/CW/SS/SL	15	12000	4200	60	5140 4420	 26,31,33,96,97,98
					29505	F96T12/CW/SS/ECO	15	12000	4200	60	5300 4664	  26,31,33,76,97
					29851	F96T12/D865/SS	15	12000	6500	80	5300 4770	  26,31,33,97
					29828	F96T12/DX/SS	15	12000	6500	88	3860 3397	 26,31,33,97
					29868	F96T12/DX/SS/ECO	15	12000	6500	88	3860 3397	  26,31,33,76,97

Slimline Standard Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
21	T12	24	22	Single Pin	22403	F24T12/CW	30	7500	4200	60	1150 1000	 31,33,48
25	T6	42	40	Single Pin	24270	F42T6/WW	24	7500	3032	52	1825 1606	 31,33,48
					24269	F42T6/D35	24	7500	3500	70	1830 1684	  31,33,48
					24266	F42T6/CW	24	7500	4200	60	1750 1540	 31,33,48
30	T12	36	34	Single Pin	23618	F36T12/CW	30	7500	4200	60	1970 1734	31,33,48
38	T6	64	62	Single Pin	26470	F64T6/WW	24	7500	3000	52	2900 2552	 31,33,48
					26466	F64T6/CW	24	7500	4200	60	2800 2464	 31,33,48
					27270	F72T8/WW	24	7500	3000	52	3100 2728	 31,33,48
	T8	72	70	Single Pin	27266	F72T8/CW	24	7500	4200	60	3050 2684	 31,33,48
					27200	F72T8/D	24	7500	6500	76	2600 2288	  31,33,48
39	T12	48	46	Single Pin	24832	F48T12/D35	30	9000	3500	70	3000 2760	  31,33,48
					24827	F48T12/CW/ECO	30	9000	4200	60	2820 2482	 31,33,48,76
					24830	F48T12/CW	30	9000	4200	60	2820 2482	31,33,48



T8 Single Pin

T12 Single Pin

INSTANT START LAMPS

Slimline Standard Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean	Symbols & Footnotes
39	T12	48	46	Single Pin	24834	F48T12/D	30	9000	6500	76	2450	2156	31,33,48
					24836	F48T12D/ECO	30	9000	6500	76	2450	2156	31,33,48,76
50	T12	60	58	Single Pin	26018	F60T12/D35	30	12000	3500	70	3850	3542	31,33,48,97
					26001	F60T12/CW	30	12000	4200	60	3700	3256	31,33,48,97
					26002	F60T12/D	30	12000	6500	76	3000	2640	31,33,48,97
51	T8	96	94	Single Pin	29666	F96T8/CW	24	7500	4200	60	4000	3520	31,33,48
					29650	F96T8/D	24	7500	6500	76	3550	3124	31,33,48
52	T12	64	62	Single Pin	26403	F64T12/CW	30	12000	4200	60	3900	3432	31,33,48,97
					26404	F64T12/D	30	12000	6500	76	3300	2904	31,33,48,97
55	T12	72	70	Single Pin	27255	F72T12/D830	15	12000	3000	80	4800	4512	31,33,48,97
					27250	F72T12/D35	15	12000	3500	70	4700	4324	31,33,48,97
					27243	F72T12/D41	15	12000	4100	70	4700	4324	31,33,48,97
					27256	F72T12/CW	15	12000	4200	60	4500	3960	31,33,48,97
					27259	F72T12/D	15	12000	6500	76	3800	3432	31,33,48,97
70	T12	84	82	Single Pin	28417	F84T12/CW	15	12000	4200	60	5300	4664	31,33,48,97
75	T12	96	94	Single Pin	29796	F96T12/D30/ECO	15	12000	3000	70	6420	5906	31,33,48,76,97
					29827	F96T12/D830	15	12000	3000	80	6550	6157	31,33,48,97
					29856	F96T12/D830/ECO	15	12000	3000	80	6550	6157	31,33,48,76,97
					29685	F96T12/D35	15	12000	3500	70	6420	5906	31,33,48,97
					29686	F96T12/D35/ECO	15	12000	3500	70	6420	5906	31,33,48,76,97
					29843	F96T12/D835	15	12000	3500	80	6550	6157	31,33,48,97
					29838	F96T12/D835/ECO	15	12000	3500	80	6550	6157	31,33,48,76,97
					29797	F96T12/D41/CVP	10	12000	4100	70	6420	5906	31,33,48,97
					29478	F96T12/CWX	15	12000	4100	87	4400	3872	31,33,48,97
					29858	F96T12/CWX/CVP	10	12000	4100	87	4400	3872	31,33,48,97
					29489	F96T12/CWX/UPC	15	12000	4100	87	4400	3872	31,33,48,97
					29852	F96T12/D41/UPC	15	12000	4100	70	6420	5906	31,33,48,97
					29798	F96T12/D41/ECO	15	12000	4100	70	6420	5906	31,33,48,76,97
					29857	F96T12/D841	15	12000	4100	80	6550	6157	31,33,48,97
					29850	F96T12/D841/ECO	15	12000	4100	80	6550	6157	31,33,48,76,97
					29833	F96T12/DSGN50	15	12000	5000	90	4400	3872	31,33,48,97
					29849	F96T12/D865	15	12000	6500	80	6000	5520	31,33,48,97
					29500	F96T12/DX	15	12000	6500	88	4360	3837	31,33,48,97

PREHEAT LAMPS

Miniature T5 Preheat Lamps (Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
4	T5	6	5.91	Mini Bipin	20416	F4T5/CW	24	6000	4200	60	135 117	31,33
					20415	F4T5CW/BL/1/6	6	6000	4200	60	135 117	31,33
6	T5	9	8.91	Mini Bipin	20617	F6T5/WW	24	7500	3000	52	275 239	31,33
					20619	F6T5CW/BL/1/6	6	7500	4200	60	270 235	31,33
					20616	F6T5/CW	24	7500	4200	60	270 235	31,33
8	T5	12	11.91	Mini Bipin	20817	F8T5/WW	24	7500	3000	52	400 348	31,33
					20819	F8T5/SW/BL/1/6	6	7500	3000	52	400 348	31,33
					20837	F8T5/CWX	24	7500	4100	87	270 235	 31,33
					20816	F8T5/CW	24	7500	4200	60	390 339	31,33
					20834	F8T5CW/BL/1/6	6	7500	4200	60	390 339	31,33
					20820	F8T5/D	24	7500	6500	76	350 305	 31,33
13	T5	21	20.91	Mini Bipin	21317	F13T5/WW	24	7500	3000	52	880 766	31,33
					21316	F13T5/CW	24	7500	4200	60	860 748	31,33
					21315	F13T5CW/BL/1/6	6	7500	4200	60	860 748	31,33

Standard T8 and T12 Preheat Lamps (Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
13	T8	12	11.71	Med Bipin	21766	F13T8/CW	24	7500	4200	60	530 461	31,33
14	T8	15	14.78	Med Bipin	21486	F14T8/CW	24	7500	4200	60	685 644	31,33
					21488	F14T8/D	24	7500	6500	76	575 561	 31,33
	T12	15	14.78	Med Bipin	21435	F14T12/WW	30	9000	3000	52	660 574	31,33
					21451	F14T12/DSW/RP	6	9000	3000	70	720 648	 31,33
					21536	F14T12/DCW/1/6/RP	6	9000	4100	70	720 648	31,33
					21409	F14T12/CW	30	9000	4200	60	650 566	31,33
					21410	F14T12/CW/6/RP	6	9000	4200	60	650 566	31,33
					21411	F14T12/D	30	9000	6500	76	590 513	 31,33
15	T8	18	17.78	Med Bipin	21656	F15T8/DSW/RP	6	7500	3000	70	900 810	 31,33
					21610	F15T8/D830	24	7500	3000	82	920 846	 31,33
					21701	F15T8/WW	24	7500	3000	52	845 735	31,33
					21765	F15T8/SW/RP	6	7500	3000	52	845 735	31,33
					21609	F15T8/D35	24	7500	3500	70	940 846	 31,33
					21682	F15T8/N	24	7500	3600	86	560 487	 31,33
					21603	F15T8/DCW/RP	6	7500	4100	70	900 810	 31,33
					21616	F15T8/CW	24	7500	4200	60	825 718	31,33
					21619	F15T8/CW/6PK	6	7500	4200	60	825 718	31,33
					21642	F15T8/DSGN50	24	7500	5000	90	600 539	 31,33
	T12	18	17.78	Med Bipin	21600	F15T8/D	24	7500	6500	76	700 653	 31,33
					21542	F15T12/WW	30	9000	3000	52	770 670	31,33
					21551	F15T12/DSW/RP	6	9000	3000	70	770 693	 31,33
					21532	F15T12/CW	30	9000	4200	60	750 653	31,33

PREHEAT LAMPS

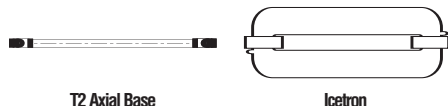
Standard T8 and T12 Preheat Lamps (Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
15	T12	18	17.78	Med Bipin	21513	F15T12/CW/6PK	6	9000	4200	60	750 653	31,33
					21535	F15T12/DCW/RP	6	9000	4100	76	770 693	31,33
					21534	F15T12/D	30	9000	6500	76	660 574	31,33
18	T8	24	23.78	Med Bipin	23014	F18T8CW/K24	24	7500	4200	60	1190 1035	31,33
					23012	F18T8CW/K24/1/12/UPC	12	7500	4200	60	1190 1035	31,33
		26	25.78	Med Bipin	23027	F18T8CW/K26	24	7500	4200	60	1280 1079	31,33
					23025	F18T8/CW/K26PLT	3168	7500	4200	60	1280 1079	31,33
					21728	F18T8/D/K26	24	7500	6500	76	1100 957	31,33
		28	27.78	Med Bipin	23028	F18T8CW/K28	24	7500	4200	60	1360 1131	31,33
		30	29.78	Med Bipin	23030	F18T8CW/K30	24	7500	4200	60	1400 1200	31,33
20	T12	24	23.78	Med Bipin	22131	F20T12/WW	30	9000	3000	52	1250 1088	31,33
					22134	F20T12/WW/RP	6	9000	3000	52	1250 1088	31,33
					22252	F20T12/DSW/RP	6	9000	3000	70	1300 1170	31,33
					22251	F20T12/D35	30	9000	3500	70	1300 1170	31,33
					22256	F20T12/DCW/RP	6	9000	4100	70	1300 1170	31,33
					22078	F20T12/CW	30	9000	4200	60	1200 1044	31,33
					22074	F20T12/CW/CVP/10	10	9000	4200	60	1200 1044	31,33
					22015	F20T12/CW/RP	6	9000	4200	60	1200 1044	31,33
					22073	F20T12/CW/UPC	30	9000	4200	60	1200 1044	31,33
					22119	F20T12/DSGN50	30	9000	5000	90	880 766	31,33
					22083	F20T12/D	30	9000	6500	76	1075 935	31,33
25	T12	28	27.78	Med Bipin	22527	F25T12/CW/28	30	7500	4200	60	1670 1453	31,33
		30	29.78	Med Bipin	22333	F25T12/WW/30	30	7500	3000	52	1750 1523	31,33
					22528	F25T12/CW/30	30	7500	4200	60	1730 1505	31,33
		33	32.78	Med Bipin	22529	F25T12/CW/33	30	7500	4200	60	1850 1610	31,33
30	T8	36	35.78	Med Bipin	23701	F30T8/WW	24	7500	3000	52	2150 1871	31,33
					23140	F30T8/DWW/RP	6	7500	3000	70	2360 2124	31,33
					23182	F30T8/N	24	7500	3600	86	1500 1305	31,33
					23127	F30T8/CWX	24	7500	4100	87	1550 1349	31,33
					23116	F30T8/CW	24	7500	4200	60	2180 1897	31,33
					23121	F30T8CW 6/CS	6	7500	4200	60	2180 1897	31,33
					23100	F30T8/D	24	7500	6500	76	1850 1653	31,33
40	T12	48	47.2	Med Bipin	24409	L40W/30-1	25		3000	50		31
58	T8	60	59.6	Med Bipin	24729	L58W/840	25	20000	4000	80	5200 4785	31,33,48
70	T8	70	70	Med Bipin	20804	L70W / 21 - 840	25	15000	4000	80	6550 6026	31,33,48

SPECIALTY FLUORESCENT LAMPS

SAFELINE® Shatter Resistant Coated Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21678	F032/735/SL	30	25000	3500	78	2716 2444	31,33,52,96, 98, 119



T2 Axial Base

Icetron

SPECIALTY FLUORESCENT LAMPS

Miniature T2 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
11	T2	16.6	16.6	Axial	26235	FM11/835	20	10000	3000	80	750	675	631,33,38,48,74,118
					26231	FM11/841	20	10000	4100	80	750	675	631,33,38,48,74,118
13	T2	20.6	20.6	Axial	26253	FM13/830	20	10000	3000	80	930	837	631,33,38,48,74,118
					26291	FM13/835	20	10000	3500	80	930	837	631,33,38,48,74,118
					26230	FM13/841	20	10000	4100	80	930	837	631,33,38,48,74,118

ICETRON® Inductively Coupled, Electrodeless Lamps

The ICETRON® System is a unique adaptation of the inductively coupled electrodeless technology delivering high luminous efficacy and extremely long system life of 100,000 hours in a shape uniquely suited for a variety of lighting applications. The ICETRON lamps and ballasts are designed as dedicated systems and are not interchangeable with other lamps and ballasts. Please consult OSRAM SYLVANIA for fixture design and application assistance. An ICETRON Design Guide is available on request.

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
70	T17	12.32	Mount Brkts	26087	ICE70/835/2P/ECO		1	100000	3500	80	6200	4605	631,33,38,51,76,78,100,101
				26081	ICE70/835		1	100000	3500	80	6200	4605	631,33,38,51,78,100,101
				26088	ICE70/841/2P/ECO		1	100000	4100	80	6200	4605	631,33,38,51,76,78,100,101
				26082	ICE70/841		1	100000	4100	80	6200	4605	631,33,38,51,78,100,101
				26089	ICE70/850/2P/ECO		1	100000	5000	80	5950	4420	631,33,38,51,76,78,100,101
100	T17	12.32	Mount Brkts	26102	ICE100/835/2P/ECO		1	100000	3500	80	8000	5945	631,33,38,51,76,78,100,101
				26103	ICE100/841/2P/ECO		1	100000	4100	80	8000	5945	631,33,38,51,76,78,100,101
				26105	ICE100/850/2P/ECO		1	100000	5000	80	7600	5645	631,33,38,51,76,78,100,101
				26106	ICE100/BL/2P		1						631,33,38,51,78,100,101,109
150	T17	16.28	Mount Brkts	26152	ICE150/835/2P/ECO		1	100000	3500	80	12000	8915	631,33,38,51,76,78,100,101
				26153	ICE150/841/2P/ECO		1	100000	4100	80	12000	8915	631,33,38,51,76,78,100,101
				26155	ICE150/850/2P/ECO		1	100000	5000	80	11650	8655	631,33,38,51,76,78,100,101
				26154	ICE150/BL/2P		1						31,33,38,51,78,100,101,109

ICETRON® Inductively Coupled Electrodeless Reflector Lamp

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
100	T17	12.32	Mount Brkts	26161	ICE100/841/R/2P/ECO		1	100000	4100	80	7300	5014	631,33,38,51,76,78,100,101

SPECIALTY FLUORESCENT LAMPS

Diazo (SDB)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
65	T12	48	47.78	Med Bipin	24465	F40T12/SDB/65W	30	1000			115

Blacklight, Preheat Lamps (Starter Required)

These lamps are not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
15	T8	18	17.78	Med Bipin	21623	F15T8/350BL	24	7500			31,33,59,60,105
20	T12	24	23.78	Med Bipin	22113	F20T12/350BL	24	9000			31,33,59,60,105
22	T12	15	14.78	Med Bipin	21445	F15T12/350BL/500/PH	30				31,33,59,60,111
25	T8	18	17.78	Med Bipin	21703	F25T8/350BL/18in	24	7500			31,33,59,60,107
30	T8	36	35.78	Med Bipin	23113	F30T8/350BL	24	7500			31,33,59,60,109
32	T12	18	17.78	Med Bipin	21525	F18T12/350BL/700/PH	30				31,33,59,60,112

Blacklight, Rapid Start Lamps (No Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24922	F40/350BL	30	20000			2,30,31,33,56,60,64,110
115	T12	48	45.91	Recessed DC	25251	FR48T12/350BL/VHO/180	30	10000			31,33,60,90,113

Blacklight Blue, Preheat Lamps (Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
4	T5	6	5.91	Mini Bipin	20425	F4T5/BLB	24	6000			31,33,59,60,99
8	T5	12	11.91	Mini Bipin	20825	F8T5/BLB	24	7500			31,33,59,60,99
15	T8	18	17.78	Med Bipin	21625	F15T8/BLB	6	7500			31,33,59,60,99

Blacklight Blue, Rapid Start Lamps (No Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24026	F40/BLB/RP	6	20000			2,30,31,33,56,60,64,102

GERMICIDAL LAMPS

Germicidal Compact Fluorescent Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
7	T5			G23	23372	GCF7DS/G23/SE/OF	10	8000			31,33,45,47,50,82
9	T5			G23	23373	GCF9DS/G23/SE/OF	10	8000			31,33,45,47,50,82
11	T4			G23	23377	GCF11DS/G23/SE/OF	10	8000			31,33,45,47,50,82
18	T5			2G11	23378	GFT18DL/2G11/SE/OF	10	8000			31,33,36,48,74,82
24	T5			2G11	23379	GFT24DL/2G11/SE/OF	10	8000			31,33,36,48,74,82