



Product Catalog & Specification Guide

shat-r-shield® INC.
PLASTIC-COATED, SHATTER-RESISTANT LAMPS & LIGHTING PRODUCTS

Safety-Coated • Compact Fluorescent Lamps • Fluorescent Lamps • Globes • High Intensity Discharge Lamps • Incandescent Lamps

How to Use This Catalog

Welcome to Shat-R-Shield's Product Catalog & Specification Guide. This catalog offers detailed product information in a user-friendly format to help you quickly find the information you need. The color-coded table of contents and page tabs will allow you to quickly find the lamps you need. For more general lamp information, literature downloads and more, go to Shat-R-Shield's website online at www.shat-r-shield.com.

NOTE - This catalog contains our most popular products only. Many other products are available upon request. Please call our Customer Service Department for products not listed (800-223-0853).

\$: Designates the lamp is an energy-saving product.
(E) : Designates the bulb meets U.S. Federal minimum efficiency standards.

Color Selection Guide

Lamp Description	Color Designation	Kelvin Temperature
COOL WHITE	CW	4100K
COOL WHITE DELUXE	CWX	4200K
DAYLIGHT	D	6500K
LITE WHITE	LW	4100K
WARM WHITE	WW	3500K
NATURAL	N	3400K
COLORTONE 50	C50	5000K
COLORTONE 75	C75	7500K
SPEC 30	SPEC 30	3000K
SPEC 35	SPEC 35	3500K
SPEC 41	SPEC 41	4100K
ULTRALUME 30	30U	3000K
ULTRALUME 35	35U	3500K
ULTRALUME 41	41U	4100K
ULTRALUME 50	50U	5000K

Nominal Lamp Watts:
Designates the wattage of the lamp.

Lamp Base:
Designates the base style of the lamp, such as Medium, Medium Skirted or Mogul.

Ordering Description:
Must be used in conjunction with the UPC# when placing orders for accuracy.

Comments:
Generally gives the specifications of the lamp, often including Kelvin temperature and CRI.

Average Life:
Average life under specified test conditions with lamps turned off and on no more than once every three burning hours.

Plastic-Coated, Shatterproof Metal Halide Lamps									
Protective-Shroud ¹ Designed to be used in open fixtures.									
Nominal Lamp Watts	Bulb	Base	UPC/Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
50	ED-17	Medium	93110G	MP50/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	10,000	1,700
	ED-17	Medium	93111G	MP50/IF/BU/MED/PS	6	FROSTED/3500K/70CRI	5 ⁷ / ₁₆	10,000	1,500
70	ED-17	Medium	93210G	MP70/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	12,000	3,500
	ED-17	Medium	93211G	MP70/IF/BU/MED/PS	6	FROSTED/3500K/70CRI	5 ⁷ / ₁₆	12,000	3,300
100	ED-17	Medium	93310G	MP100/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	15,000	6,200
	ED-17	Medium	93311G	MP100/IF/BU/MED/PS	6	FROSTED/3500K/70CRI	5 ⁷ / ₁₆	15,000	5,900
150	ED-17	Medium	93411G	MP150/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	15,000	8,600
175	ED-17	Medium	93510S	MP175/BU/MED	20	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	10,000	10,800
	BT-28	Mog EXCL	93500S	MP175/BU	6	CLEAR/3500K/70CRI	8 ⁷ / ₁₆	10,000	12,000
250	BT-28	Mog EXCL	93501S	MP175/IF/BU	6	FROSTED/3500K/70CRI	8 ⁷ / ₁₆	10,000	10,000
	BT-28	Mog EXCL	93600S	MP250/BU	6	CLEAR/3500K/70CRI	8 ⁷ / ₁₆	10,000	17,000

Bulb Shape:
Designates the shape of the bulb.

UPC/Catalog Order#:
Both UPC# and Ordering Description must be used when placing orders for accuracy.

Package Qty:
Number of lamps packaged in a shipping container. Quantity shown is the minimum size shipping container.

M.O.L.:
Maximum Overall Length, in inches.

Mean Lumens:
Also called design lumens, mean lumens are calculated at 40% of average rated life.

CERTIFIED



ANSI/NSF 2
Fabricated Food Service Equipment
<38EJ>

Many products contained within this catalog are UL and/or NSF certified. Underwriters Laboratories (UL) and NSF International are independent, non-profit product safety testing and certification organizations dedicated to public health safety and protection of the environment. The UL and NSF Marks confirm that Shat-R-Shield products meet or exceed rigorous public health safety standards.

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Dedicated to Improvement

Shat-R-Shield's history dates back to the late 1960s, when Jim Nolan co-founded a company that provided plastic-coating services. This company, Incoplas, was involved in coating a variety of items, from fence parts to computer bus bars. The firm developed an expertise in coating with nylon, epoxy, vinyl and other plastic materials.

After many months of research and testing, Shat-R-Shield introduced the first plastic-coated, shatterproof fluorescent lamp in 1978, and with that arrival, the protective lighting industry began.

Since the first plastic-coated fluorescent lamp that Shat-R-Shield developed over 25 years ago, we have continued to innovate the protective lighting industry. During the last two and a half decades, Shat-R-Shield has developed a full line of protective lighting products, including protective incandescent, high intensity discharge, compact fluorescent, halogen and more.

This edition of the Shat-R-Shield Product Catalog & Specification Guide offers even more new products, including plastic-coated, shatterproof T5 high-output fluorescent lamps, compact fluorescent lamps and UV/Germicidal lamps. Today, Shat-R-Shield continues to maintain its leadership role in the protective lighting industry, and as the largest manufacturer of plastic-coated, shatterproof fluorescent lamps in the world, we are dedicated to improving our products, the industry, and food safety as a whole.



Shat-R-Shield Safety-Coated Lamp Advantages:

- **Guarantee:** Coating is guaranteed to last for the rated-life of the fluorescent lamp.
- **Coating:** Skin-tight to prevent dust, oil & heat build-up. Prevents premature lamp burnout and allows higher lumen output.
- **Full Protection:** Tough coating forms a complete seal, from end-to-end, in a full 16-mil thickness, which will safely contain virtually all glass, phosphors and mercury if a lamp is dropped or broken.
- **UV Protection:** Antioxidants and ultraviolet stabilizers are present in the clear coating to block UV emissions from 180 to 390 nanometers.
- **Light Output:** Provides maximum protection with minimum light output loss of less than 1%.
- **Installation Ease:** Ready to install — right out of the box — without the extra assembly of awkward and risky plastic sleeves and end-caps.
- **Safety:** Installation by one person ensuring bare, unprotected glass is never exposed to employees or work environments.





YOU ARE REQUIRED!

Broken glass in food is difficult, if not impossible, to detect. ***The government has strict regulations requiring protective lighting to ensure that broken glass from lamps does not come into contact with food, food equipment or food packaging.*** To protect their products, employees and reputation, your customers should be using only Shat-R-Shield protective lighting.

Protective Lighting is Required in Foodservice & Food Processing Areas

"...light bulbs shall be shielded, coated, or otherwise shatter-resistant in areas where there is exposed food; clean equipment, utensils, and linens; or unwrapped single-service and single-use articles."

FDA Food Code

Chapter 6, Section 202.11

"Light fixtures in rooms where exposed meat or poultry is handled should ensure maximum safety, to preclude contamination of products with broken glass and prevent collection of dirt, product, and debris on lamp surfaces..."

USDA Food Safety and Inspection Service

Sanitation Requirements for Official Meat and Poultry Establishments - Chapter 5, Section 1

"... provide safety-type light bulbs, fixtures, skylights, or other glass suspended over exposed food in any step of preparation or otherwise protect against food contamination in case of glass breakage."

FDA Plant Construction and Design

110.20 Section B, Part 5

"Light bulbs and fixtures suspended over exposed food or packaging materials at any stage of production are of a safety type or are protected to prevent contamination of food in case of breakage."

Canadian Food Inspection Agency (CFIA)

3.1.2.1 Design and Construction, Accepted Construction Materials

"The processing area lamps must be covered with a protective device of unbreakable material, to avoid product contamination in case of any breakage."

Mexican Department of Agriculture, Livestock and Rural Development

Standard 008 - 5.5.1.4

ELEVATOR REGULATIONS

"Light bulbs and tubes within the car shall be externally guarded or coated to contain broken glass in case the bulb or tube accidentally breaks."

American Society of Mechanical Engineers

204.7d Protection of Light Bulbs and Tubes

Fluorescent Lamps

Shat-R-Shield fluorescent lamps are coated from end-to-end with our exclusive, patented plastic coating. If a Shat-R-Shield lamp is dropped or broken, virtually all glass, phosphors and mercury are safely contained within the coating. Our coating reduces light output by less than 1% and is a minimum of 16 mils thick. Shat-R-Shield lamps are UL & NSF Certified, USDA approved, and meet FDA and OSHA standards. Lamps should not be installed in areas where ambient temperatures exceed 120°F. Shat-R-Shield linear fluorescent lamps are available in various wattages, colors and Kelvin temperatures, including T5, T8 & T12 sizes. Shat-R-Shield also offers many fluorescent lamps in ultraviolet (UV) blocking versions.

STANDARD -

In full wattage, energy-saving, preheat, rapid start & instant start linear versions.

HIGH OUTPUT (HO) -

Shat-R-Shield HO fluorescent lamps for non-refrigerated areas combine the heat-resistant properties of PFA with the strength of our highly-specialized coating (Refrigerated & Non-Refrigerated Areas).

VERY HIGH OUTPUT (VHO) -

Shat-R-Shield's plastics can reliably withstand the extreme temperatures emitted by a VHO fluorescent lamp (Refrigerated, Non-Refrigerated & Freezer Areas).

U-SHAPED -

The safest choice for 2' x 2' luminaries. These lamps can provide the same light output as a linear lamp of twice the length.

REDUCED MERCURY LAMPS -

With the lowest mercury content on the market, these lamps are manufactured to meet the Toxic Characteristic Leaching Procedure (TCLP) standards established by the U.S. EPA.

BLACK LIGHT & BLACK LIGHT BLUE -

Shat-R-Shield's black light coating utilizes ultraviolet stabilizers to prevent degradation of the coating while also allowing critical ultra-wavelengths to pass through for maximum insect control.

GOLD LAMPS -

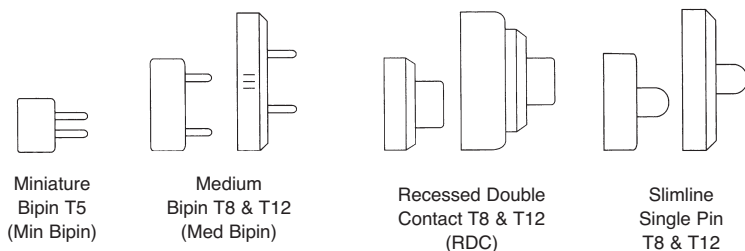
These lamps block all ultraviolet and plus light emissions up to 530 nms. They are ideal for use in cleanroom environments, microchip production and all other photosensitive applications.

UV / GERMICIDAL LAMPS -

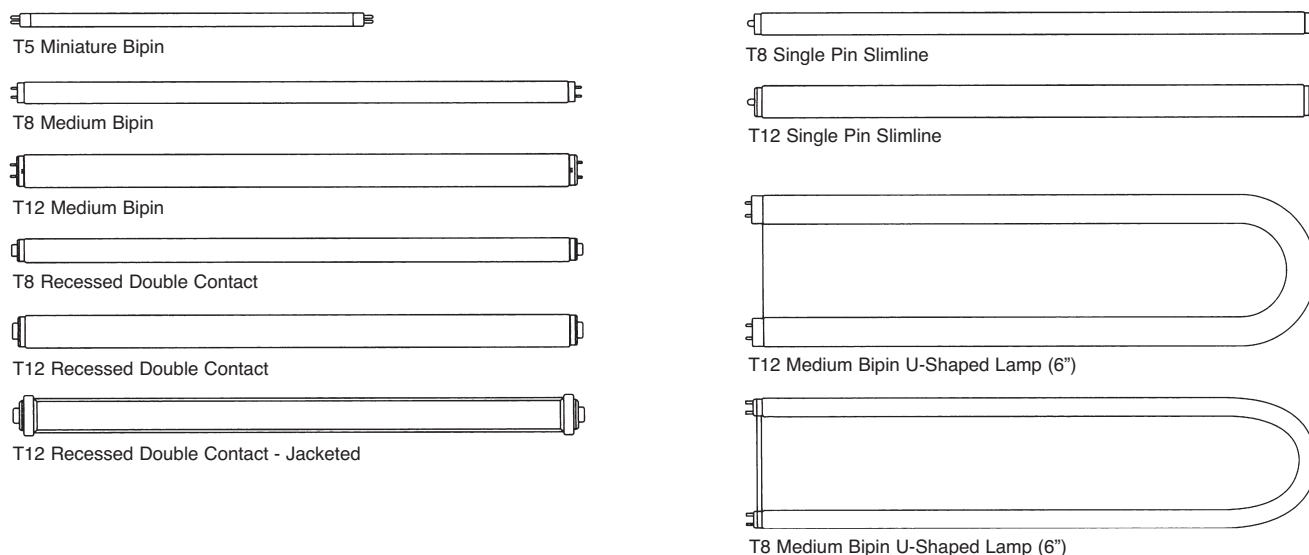
These lamps destroy microbes such as bacteria, viruses, molds and spores with high-output ultraviolet (UV-C) radiation. Germicidal lamps are perfect for use in HVAC and water treatment systems. This popular and effective method of decontamination is a physical process eliminating the need for toxic chemicals.



Base Types (Not Actual Sizes)



Bulb Shapes (Not Actual Sizes - Letters indicate the bulb shape while numbers indicate the diameter of the bulb in eighths of an inch.)



Protection From Ultraviolet (UV) Light

Antioxidants and ultraviolet stabilizers are present in the exclusive, clear plastic coating to block UV emissions from 180 to 390 nanometers. These additives also prevent the coating from yellowing, cracking or flaking. UV light causes the loss of vitamins and riboflavin which can negatively effect the taste of food and adds to food discoloration. UV can also cause the fading of colors or pigments in fabric and paper. Shat-R-Shield lamps are ideally suited for use in environments such as offices, retail/grocery stores, museums, galleries, computer chip industry and libraries.

Shat-R-Shield Fluorescent Lamp Warranty

The plastic coating on a Shat-R-Shield fluorescent is guaranteed to last for the rated-life of the lamp and will not turn yellow, crack or otherwise fail during that time, subject to the following conditions:

- The lamps can be installed in open or enclosed fixtures.
- T8 and T12 fluorescent lamps must be installed and operating in ambient temperatures below 150°F (400°F for T5HO lamps).
- The lamps cannot be used in fixtures employing defective ballasts, ballasts that have been used longer than their rated-life or ballasts that are improperly wired.
- The lamps cannot be used in fixtures where poor pin contact occurs.
- Lamp types and ballast types must be compatible (Rapid Start lamps with Rapid Start ballast, etc.).
- Shat-R-Shield, Inc. reserves the right to have an employee or agent inspect the fixture, ballast and/or location where a lamp with a failed coating was installed.
- Additional warranty coverage is provided by Osram/Sylvania® Quick 60+ and Philips Advantage® Plus 90 programs -- call Shat-R-Shield for details.

Shat-R-Shield, Inc. fluorescent lamps sold for use in refrigerated areas only are designated as such by a label on the lamp stating "REFRIGERATION USE ONLY" and are not covered by this guarantee. Because Shat-R-Shield has no control over the temperature range in the areas where lamps are operated, their performance cannot be guaranteed. Note that if used in temperatures below 45°F, the coating should be expected to last for the rated-life of the lamp.

T5 Plastic-Coated, Shatter-Resistant Fluorescent Lamps**Preheat T5 Fluorescent Lamps** Min Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
4	10010	F4T5/CW	25	4100K, 62 CRI	6	6,000	95
6	11010	F6T5/CW	25	4100K, 62 CRI	9	7,500	230
	11022	F6T5/D	25	6500K, 79 CRI	9	7,500	180
8	12010	F8T5/CW	25	4100K, 62 CRI	12	7,500	300
	12020	F8T5/D	25	6500K, 79 CRI	12	7,500	265
	12030	F8T5/WW	25	3000K, 53 CRI	12	7,500	300
13	13010	F13T5/CW	25	4100K, 62 CRI	21	7,500	655

Programmed Start T5 Fluorescent Lamps Min Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
14	\$ 79520	F14T5/830	40	3000K, 85 CRI	22	20,000	1,275
	\$ 79530	F14T5/835	40	3500K, 85 CRI	22	20,000	1,275
	\$ 79540	F14T5/841	40	4100K, 85 CRI	22	20,000	1,275
	\$ 71520	F21T5/830	40	3000K, 85 CRI	34	20,000	2,000
21	\$ 71530	F21T5/835	40	3500K, 85 CRI	34	20,000	2,000
	\$ 71540	F21T5/841	40	4100K, 85 CRI	34	20,000	2,000
28	ⓔ \$ 73520	F28T5/830	40	3000K, 85 CRI	46	20,000	2,750
	ⓔ \$ 73530	F28T5/835	40	3500K, 85 CRI	46	20,000	2,750
	ⓔ \$ 73540	F28T5/841	40	4100K, 85 CRI	46	20,000	2,750
	\$ 77520	F35T5/830	40	3000K, 85 CRI	58	20,000	3,450
35	\$ 77530	F35T5/835	40	3500K, 85 CRI	58	20,000	3,450
	\$ 77540	F35T5/841	40	4100K, 85 CRI	58	20,000	3,450

High Output Programmed Start T5 Fluorescent Lamps Min Bipin **RECOMMENDED FOR OPEN FIXTURES ONLY**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
24	\$ 80528	F24T5/830/HO/ALTO	40	3000K, 85 CRI	22	20,000	1,895
	\$ 80538	F24T5/835/HO/ALTO	40	3500K, 85 CRI	22	20,000	1,895
	\$ 80548	F24T5/841/HO/ALTO	40	4100K, 85 CRI	22	20,000	1,895
39	\$ 87528	F39T5/830/HO/ALTO	40	3000K, 85 CRI	34	20,000	3,320
	\$ 87538	F39T5/835/HO/ALTO	40	3500K, 85 CRI	34	20,000	3,320
	\$ 87548	F39T5/841/HO/ALTO	40	4100K, 85 CRI	34	20,000	3,320
54	ⓔ \$ 82527	F54T5/830/HO/ALTO	40	3000K, 85 CRI	46	25,000	4,740
	ⓔ \$ 82537	F54T5/835/HO/ALTO	40	3500K, 85 CRI	46	25,000	4,740
	ⓔ \$ 82548	F54T5/841/HO/ALTO	40	4100K, 85 CRI	46	25,000	4,740
	ⓔ \$ 82558	F54T5/850/HO/ALTO	40	5000K, 85 CRI	46	25,000	4,750
80	\$ 89528	F80T5/830/HO/ALTO	40	3000K, 85 CRI	58	20,000	6,650
	\$ 89548	F80T5/841/HO/ALTO	40	4100K, 85 CRI	58	20,000	6,650

NOTE: T5 HO, 54-Watt Models Average Life: 25,000 Hours@3-hour start; 35,000 Hours@6-hour start

T8 Plastic-Coated, Shatter-Resistant Fluorescent Lamps**Energy-Saving Preheat T8 Fluorescent Lamps** T8 Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life Hours	Mean Lumens
15	17016	F15T8/CW/ALTO	24	COOL WHITE (4100K)	18	7,500	765
	17026*	F15T8/D/ALTO	24	DAYLIGHT (6500K)	18	7,500	660
30	27016*	F30T8/CW/ALTO	24	COOL WHITE (4100K)	36	7,500	2000
	27022*	F30T8/D	24	DAYLIGHT (6500K)	36	7,500	1350

\$ – Energy-Saving Product

ⓔ – This bulb meets U.S. Federal minimum efficiency standards.

ALTO® – Reduced Mercury Lamps

■ – Features ALTO® Lamp Technology

■ – Features ECOLOGIC® Lamp Technology

Footnotes located on page 28

T8 Plastic-Coated, Shatter-Resistant Fluorescent Lamps

Extended Performance (XP) T8 Fluorescent Lamps

Medium Bipin

(4)(7)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
17	20858S	F17T8 730/XP/ECO	30	3000K, 78 CRI	24	24,000	1,255
	20860S	F17T8 735/XP/ECO	30	3500K, 78 CRI	24	24,000	1,330
	20878S	F17T8 741/XP/ECO	30	4100K, 78 CRI	24	24,000	1,330
	20870S	F17T8 830/XP/ECO	30	3000K, 85 CRI	24	24,000	1,305
	20838S	F17T8 835/XP/ECO	30	3500K, 85 CRI	24	24,000	1,305
	20848S	F17T8 841/XP/ECO	30	4100K, 85 CRI	24	24,000	1,305
25	45858S	F25T8 730/XP/ECO	30	3000K, 78 CRI	36	24,000	1,945
	45868S	F25T8 735/XP/ECO	30	3500K, 78 CRI	36	24,000	1,945
	45878S	F25T8 741/XP/ECO	30	4100K, 78 CRI	36	24,000	1,945
	45828S	F25T8 830/XP/ECO	30	3000K, 85 CRI	36	24,000	2,065
	45838S	F25T8 835/XP/ECO	30	3500K, 85 CRI	36	24,000	2,065
	45848S	F25T8 841/XP/ECO	30	4100K, 85 CRI	36	24,000	2,065
32	46493S	F32T8 730/XP/ECO	30	3000K, 78 CRI	48	24,000	2,705
	46503S	F32T8 735/XP/ECO	30	3500K, 78 CRI	48	24,000	2,705
	46878S	F32T8 741/XP/ECO	30	4100K, 78 CRI	48	24,000	2,705
	46523S	F32T8 830/XP/ECO	30	3000K, 85 CRI	48	24,000	2,850
	46188S	F32T8 835/XP/ECO	30	3500K, 85 CRI	48	24,000	2,850
	46466S	F32T8 841/XP/ECO	30	4100K, 85 CRI	48	24,000	2,850
40	46828S	F32T8 850/XP/ECO	30	5000K, 85 CRI	48	24,000	2,850
	47828S	F40T8 830/XP/ECO	30	3000K, 85 CRI	60	24,000	3,560
	47536S	F40T8 835/XP/ECO	30	3500K, 85 CRI	60	24,000	3,560
	47546S	F40T8 841/XP/ECO	30	4100K, 85 CRI	60	24,000	3,560
59	43828S	F96T8 830/XP/ECO	24	3000K, 85 CRI	96	18,000	5,796
	43533S	F96T8 835/XP/ECO	24	3500K, 85 CRI	96	18,000	5,795
	43848S	F96T8 841/XP/ECO	24	4100K, 86 CRI	96	18,000	5,795
	43248S	F96T8 850/XP/ECO	24	5000K, 85 CRI	96	18,000	5,605

Energy-Saving Rapid Start T8 Fluorescent Lamps

Medium Bipin

(4)(7)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
17	\$ 20498	F17T8/TL730/ALTO	25	3000K, 75 CRI	24	20,000	1,200
	\$ 20508	F17T8/TL735/ALTO	25	3500K, 75 CRI	24	20,000	1,200
	\$ 20518	F17T8/TL741/ALTO	25	4100K, 75 CRI	24	20,000	1,200
	\$ 20520	F17T8/TL830/ALTO	25	3000K, 85 CRI	24	20,000	1,300
	\$ 20530	F17T8/TL835/ALTO	25	3500K, 85 CRI	24	20,000	1,300
	\$ 20540	F17T8/TL841/ALTO	25	4100K, 85 CRI	24	20,000	1,300
25	\$ 45498	F25T8/TL730/ALTO	25	3000K, 75 CRI	36	20,000	1,925
	\$ 45508	F25T8/TL735/ALTO	25	3500K, 75 CRI	36	20,000	1,925
	\$ 45518	F25T8/TL741/ALTO	25	4100K, 75 CRI	36	20,000	1,925
	\$ 45528	F25T8/TL830/ALTO	25	3000K, 85 CRI	36	20,000	2,050
	\$ 45538	F25T8/TL835/ALTO	25	3500K, 85 CRI	36	20,000	2,050
	\$ 45542	F25T8/TL841/ALTO	25	4100K, 85 CRI	36	20,000	2,050
32	ⓔ \$ 46496	F32T8/TL730/HV/ALTO	25	3000K, 78 CRI	48	20,000	2,710
	ⓔ \$ 46506	F32T8/TL735/HV/ALTO	25	3500K, 78 CRI	48	20,000	2,710
	ⓔ \$ 46516	F32T8/TL741/HV/ALTO	25	4100K, 78 CRI	48	20,000	2,710
	ⓔ \$ 46526	F32T8/TL830/HV/ALTO	25	3000K, 86 CRI	48	20,000	2,800
	ⓔ \$ 46536	F32T8/TL835/HV/ALTO	25	3500K, 86 CRI	48	20,000	2,800
	ⓔ \$ 46546	F32T8/TL841/HV/ALTO	25	4100K, 86 CRI	48	20,000	2,800
40	\$ 46823	F32T8/TL850/HV/ALTO	25	5000K, 86 CRI	48	20,000	2,800
	\$ 47498	F40T8/TL730/ALTO	25	3000K, 75 CRI	60	20,000	3,250
	\$ 47508	F40T8/TL735/ALTO	25	3500K, 75 CRI	60	20,000	3,250
	\$ 47518	F40T8/TL741/ALTO	25	4100K, 75 CRI	60	20,000	3,250
	\$ 47528	F40T8/TL830/ALTO	25	3000K, 85 CRI	60	20,000	3,500
	\$ 47538	F40T8/TL835/ALTO	25	3500K, 85 CRI	60	20,000	3,500
	\$ 47546	F40T8/TL841/ALTO	25	4100K, 86 CRI	60	20,000	3,500

\$ – Energy-Saving Product

ⓔ – This bulb meets U.S. Federal minimum efficiency standards.

ALTO® – Reduced Mercury Lamps

ECO – Reduced Mercury Lamps HV – Hi-Vision Phosphor

– Features ALTO® Lamp Technology

– Features ECOLOGIC® Lamp Technology

Footnotes located on page 28

NOTE – Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems. (3)

T8 Plastic-Coated, Shatter-Resistant Fluorescent Lamps**Energy-Saving Instant Start T8 Fluorescent Lamps** Single Pin (4)(7)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
59	ⓔ \$ 43498S	F96T8/730/ECO	24	3000K, 75 CRI	96	15,000	5,190
	ⓔ \$ 43508S	F96T8/735/ECO	24	3500K, 75 CRI	96	15,000	5,190
	ⓔ \$ 43518S	F96T8/741/ECO	24	4100K, 75 CRI	96	15,000	5,190
	ⓔ \$ 43528S	F96T8/830/ECO	24	3000K, 85 CRI	96	15,000	5,490
	ⓔ \$ 43538S	F96T8/835/ECO	24	3500K, 85 CRI	96	15,000	5,490
	ⓔ \$ 43548S	F96T8/841/ECO	24	4100K, 85 CRI	96	15,000	5,490

High Output T8 Fluorescent Lamps Recessed Double Contact (RDC) **RECOMMENDED FOR OPEN FIXTURES ONLY**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
86	ⓔ \$ 68517	F96T8/TL741/HO/PLUS/ALTO	24	4100K, 75 CRI	96	18,000	7,100
	ⓔ \$ 68527	F96T8/TL830/HO/PLUS/ALTO	24	3000K, 85 CRI	96	18,000	7,625
	ⓔ \$ 68537	F96T8/TL835/HO/PLUS/ALTO	24	3500K, 85 CRI	96	18,000	7,625
	ⓔ \$ 68547	F96T8/TL841/HO/PLUS/ALTO	24	4100K, 85 CRI	96	18,000	7,625

T8 Plastic-Coated, Shatter-Resistant Fluorescent Black Lights**Preheat T8 Fluorescent Black Lights** Medium Bipin (5)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Bulb
15	171911	F15T8/BL	6	BLACK LIGHT (2)(5)	18	7,500	T8
	172011	F15T8/BLB	6	BLACK LIGHT BLUE (2)(5)	18	7,500	T8
30	271911	F30T8/BL	6	BLACK LIGHT (2)(5)	36	7,500	T8
	27202	F30T8/BLB	6	BLACK LIGHT BLUE (2)(5)	36	7,500	T8

T8 Plastic-Coated, Shatter-Resistant Fluorescent Gold Lamps**T8 Fluorescent Gold Lamps** Medium Bipin & Single Pin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
17	20499	F17T8/SRS/GOLD	25	RAPID START, BIPIN	24	20,000	966
32	46499	F32T8/SRS/GOLD/ALTO	25	RAPID START, BIPIN	48	20,000	1,932
59	43499	F96T8/SRS/GOLD	24	INSTANT START, SINGLE PIN	96	15,000	3,863

T8 Plastic-Coated, Shatter-Resistant U-Shaped Fluorescent Lamps**U-Shaped T8 Fluorescent Lamps** Medium Bipin with 6" Leg

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
32	ⓔ \$ 78498S	FB32T8/730/6/ECO	16	3000K, 6" LEG, 75 CRI	22 7/16	20,000	2,370
	ⓔ \$ 78500S	FB32T8/735/6/ECO	16	3500K, 6" LEG, 75 CRI	22 7/16	20,000	2,370
	ⓔ \$ 78510S	FB32T8/741/6/ECO	16	4100K, 6" LEG, 75 CRI	22 7/16	20,000	2,370
	ⓔ \$ 78488S	FB32T8/750/6/ECO	16	5000K, 6" LEG, 75 CRI	22 7/16	20,000	2,325
	ⓔ \$ 78528S	FB32T8/830/6/ECO	16	3000K, 6" LEG, 75 CRI	22 7/16	20,000	2,535
	ⓔ \$ 78538S	FB32T8/835/6/ECO	16	3500K, 6" LEG, 75 CRI	22 7/16	20,000	2,535
	ⓔ \$ 78548S	FB32T8/841/6/ECO	16	4100K, 6" LEG, 75 CRI	22 7/16	20,000	2,535
	ⓔ \$ 78248S	FB32T8/850/6/ECO	16	5000K, 6" LEG, 75 CRI	22 7/16	20,000	2,500

\$ – Energy-Saving Product

ⓔ – This bulb meets U.S. Federal minimum efficiency standards.

ALTO® – Reduced Mercury Lamps

■ – Features ALTO® Lamp Technology

■ – Features ECOLOGIC® Lamp Technology

Footnotes located on page 28

NOTE – Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems. (3)

T12 Plastic-Coated, Shatter-Resistant Fluorescent Lamps**Preheat T12 Fluorescent Lamps** Medium Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
14	16010	F14T12/CW	24	COOL WHITE	15	9,000	590
15	18010	F15T12/CW	24	COOL WHITE	18	9,000	695
	18020	F15T12/D	24	DAYLIGHT	18	9,000	535
	18030	F15T12/WW	24	WARM WHITE	18	9,000	670
20	23018	F20T12/CW/ALTO	30	COOL WHITE	24	9,000	1,050
	23028	F20T12/D/ALTO	30	COOL WHITE	24	9,000	960
	23028	F20T12/WW/ALTO	30	WARM WHITE	24	9,000	1,100
25	26010	F25T12/CW/33"	24	COOL WHITE, 33"	33	7,500	1,710
	26020	F25T12/D	24	DAYLIGHT	33	7,500	1,440
	26320	F25T12/CW/28"	24	COOL WHITE, 28" (6)	28	7,500	1,500
	26330	F25T12/CW/30"	24	COOL WHITE, 30" (6)	30	7,500	1,500

Rapid Start T12 Fluorescent Lamps Medium Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
30	28018	F30T12/CW/ALTO	30	COOL WHITE	36	18,000	1,900
	28028	F30T12/D/ALTO	30	DAYLIGHT	36	18,000	1,700
	28030	F30T12/WW/ALTO	30	WARM WHITE	36	18,000	1,950
	28250	F30T12/SPEC30	30	3000K, SPEC	36	18,000	2,080
	28260	F30T12/SPEC35	30	3500K, SPEC	36	18,000	2,080
	28270	F30T12/SPEC41	30	4100K, SPEC	36	18,000	2,080
	28150	F30T12/C50	30	COLORTONE 50	36	18,000	1,400
	28210	F30T12/30U	30	3000K, ULTRALUME	36	18,000	2,160
	28220	F30T12/35U	30	3500K, ULTRALUME	36	18,000	2,160
	28230	F30T12/41U	30	4100K, ULTRALUME	36	18,000	2,160
	28240	F30T12/50U	30	5000K, ULTRALUME	36	18,000	2,140

Preheat/Rapid Start T12 Fluorescent Lamps Medium Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
40	30010	F40T12/CW	30	COOL WHITE	48	20,000+	2,680
	30730	F40T12/CW/PK6	6	COOL WHITE	48	20,000+	2,680
	30028	F40T12/DX/ALTO	30	DAYLIGHT DELUXE	48	20,000+	1,910
	30048	F40T12/CWX/ALTO	30	COOL WHITE DELUXE	48	20,000+	1,800
	30150	F40T12/C50	30	COLORTONE 50	48	20,000+	1,915
	30160	F40T12/C75	30	COLORTONE 75	48	20,000+	1,720
	ⓔ 30648	F40T12/ADV830/ALTO	30	3000K, ADV	48	24,000+	3,250
	ⓔ 30536	F40T12/ADV835/ALTO	30	3500K, ADV	48	24,000+	3,250
	ⓔ 30618	F40T12/ADV841/ALTO	30	4100K, ADV	48	24,000+	3,250
	ⓔ 30438	F40T12/ADV850/ALTO	30	5000K, ADV	48	24,000+	3,250
	ⓔ 30255	F40T12/830/ALTO	30	3000K	48	20,000+	3,040
	ⓔ 30538	F40T12/835/ALTO	30	3500K	48	20,000+	3,040
	ⓔ 30235	F40T12/841/ALTO	30	4100K	48	20,000+	3,040

Energy-Saving Rapid Start T12 Fluorescent Lamps Medium Bipin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
34	ⓔ \$ 30011	F34T12/CW/ES	30	COOL WHITE	48	20,000+	2,280
	\$ 30041	F34T12/CWX/ES	30	COOL WHITE DELUXE	48	20,000+	1,580
	\$ 30021S	F34T12/DX/ES	30	DAYLIGHT DELUXE	48	20,000+	1,620
	ⓔ \$ 30731	F34T12/CW/ES/PK6	6	COOL WHITE	48	20,000+	2,280
	ⓔ \$ 30016	F34T12/CW/ES/ALTO	30	COOL WHITE (1)	48	20,000+	2,300
	ⓔ \$ 30036	F34T12/WW/ES/ALTO	30	WARM WHITE	48	20,000+	2,320
	ⓔ \$ 30245	F34T12/ADV850/ES/ALTO	30	5000K, ADV	48	20,000+	2,845
	ⓔ \$ 30265	F34T12/835/ES/ALTO	30	3500K	48	20,000+	2,660
	ⓔ \$ 30275	F34T12/841/ES/ALTO	30	4100K	48	20,000+	2,660

T12 Plastic-Coated, Shatter-Resistant Fluorescent Lamps**Instant Start Slimline T12 Fluorescent Lamps** Single Pin

Nominal Lamp Watts	UPC/Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
30	29010	F36T12/CW	24	COOL WHITE	36	7,500	1,800
35	33019	F42T12/CW	24	COOL WHITE	42	7,500	1,920
39	34018	F48T12/CW/ALTO	30	COOL WHITE	48	9,000	2,680
	34028	F48T12/D/ALTO	30	DAYLIGHT	48	9,000	2,600
	34038	F48T12/WW/ALTO	30	WARM WHITE	48	9,000	2,650
	34260	F48T12/SPEC35	30	3500K, SPEC	48	9,000	2,800
50	35010	F60T12/CW	15	COOL WHITE	60	12,000	3,050
	35020	F60T12/D	15	DAYLIGHT	60	12,000	2,850
51	38010	F64T12/CW	15	COOL WHITE	64	12,000	3,540
	38020	F64T12/D	15	DAYLIGHT	64	12,000	2,800
56	40018	F72T12/CW/ALTO	15	COOL WHITE	72	12,000	4,140
	40028	F72T12/D/ALTO	15	DAYLIGHT	72	12,000	3,350
	40038	F72T12/WW/ALTO	15	WARM WHITE	72	12,000	4,000
75	44010	F96T12/CW	15	COOL WHITE	96	12,000	5,660
	44020	F96T12/D	15	DAYLIGHT	96	12,000	3,950
	44040	F96T12/CWX	15	COOL WHITE DELUXE	96	12,000	3,950
	44150	F96T12/C50	15	COLORTONE 50	96	12,000	4,200
	44267	F96T12/835/ALTO	15	3500K	96	12,000	6,225
	44548	F96T12/841/ALTO	15	4100K	96	12,000	6,225
	44247	F96T12/850/ALTO	15	5000K	96	12,000	5,500

Energy-Saving Instant Start Slimline T12 Fluorescent Lamps Single Pin

Nominal Lamp Watts		UPC/Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
30	\$	34016	F48T12/CW/ES/ALTO	30	COOL WHITE	48	9,000	2,150
60	\$	44011	F96T12/CW/ES	15	COOL WHITE	96	12,000	4,750
	ⓔ \$	44016	F96T12/CW/ES/ALTO	15	COOL WHITE	96	12,000	4,750
	\$	44028	F96T12/DX/ES/ALTO	15	DAYLIGHT DELUXE	96	12,000	3,675
	ⓔ \$	44036	F96T12/WW/ES/ALTO	15	WARM WHITE	96	12,000	4,850
	ⓔ \$	44275	F96T12/841/ES/ALTO	15	4100K	96	12,000	5,550

High Output (800ma) T12 Fluorescent Lamps Recessed Double Contact (RDC)

PFA/Shat-R-Kote® Combination (HO/TSC)

RECOMMENDED FOR OPEN FIXTURES ONLY

Nominal Lamp Watts		UPC/Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
60		57017	F48T12/CW/HO/ALTO/TSC	30	COOL WHITE	48	12,000	3,500
		57023	F48T12/D/HO/TSC	30	DAYLIGHT	48	12,000	3,000
75		58013	F60T12/CW/HO/TSC	15	COOL WHITE	60	12,000	4,500
		58023	F60T12/D/HO/TSC	15	DAYLIGHT	60	12,000	4,050
85		60017	F72T12/CW/HO/ALTO/TSC	15	COOL WHITE	72	12,000	5,500
		60027	F72T12/D/HO/ALTO/TSC	15	DAYLIGHT	72	12,000	4,850
110		62013	F96T12/CW/HO/TSC	15	COOL WHITE	96	12,000	7,650
		62043	F96T12/CWX/HO/TSC	15	COOL WHITE DELUXE	96	12,000	5,500
		62027	F96T12/D/HO/ALTO/TSC	15	DAYLIGHT	96	12,000	6,800

\$ – Energy-Saving Product

ⓔ – This bulb meets U.S. Federal minimum efficiency standards.

ALTO® – Reduced Mercury Lamps

■ – Features ALTO® Lamp Technology

Footnotes located on page 28

NOTE – Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems. (3)

T12 Plastic-Coated, Shatter-Resistant Fluorescent Lamps

Energy-Saving High Output (800ma) T12 Fluorescent Lamps

Recessed Double Contact (RDC)

PFA/Shat-R-Kote® Combination (HO/TSC)

RECOMMENDED FOR OPEN FIXTURES ONLY

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
95	ⓔ \$ 62015	F96T12/CW/HO/ES/TSC	15	COOL WHITE	96	12,000	6,950
	ⓔ \$ 62017	F96T12/CW/HO/ES/ALTO/TSC	15	COOL WHITE	96	12,000	6,950
	\$ 62025	F96T12/DX/HO/ES/TSC	15	DAYLIGHT DELUXE	96	12,000	5,000

PFA/Shat-R-Kote® Combination (HO/TSC) - HO/TSC lamps combine the high heat-resistant properties of PFA with the strength and cost-effectiveness of Shat-R-Kote®. These lamps can be used anywhere high output (800ma) lamps are normally used, however, **HO/TSC lamps are recommended for open fixtures only**. HO/TSC lamps may not operate efficiently in refrigerated areas. For refrigerator applications below 45°F, see our HO/R lamp category.

High Output (800ma) T12 Fluorescent Lamps

Recessed Double Contact (RDC)

For Refrigerated Areas Only (HO/R)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
60	57016	F48T12/CW/HO/ALTO/R	30	COOL WHITE	48	12,000	3,500
	57022	F48T12/D/HO/R	30	DAYLIGHT	48	12,000	3,000
75	58012	F60T12/CW/HO/R	15	COOL WHITE	60	12,000	4,500
	58022	F60T12/D/HO/R	15	DAYLIGHT	60	12,000	4,050
85	60012	F72T12/CW/HO/ALTO/R	15	COOL WHITE	72	12,000	5,500
	60022	F72T12/D/HO/ALTO/R	15	DAYLIGHT	72	12,000	4,850
110	62012	F96T12/CW/HO/R	15	COOL WHITE	96	12,000	7,650
	62042	F96T12/CWX/HO/R	15	COOL WHITE DELUXE	96	12,000	5,500
	62026	F96T12/D/HO/ALTO/R	15	DAYLIGHT	96	12,000	6,800

Energy-Saving High Output (800ma) T12 Fluorescent Lamps

Recessed Double Contact (RDC)

For Refrigerated Areas Only (HO/R)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
95	ⓔ \$ 62014	F96T12/CW/HO/ES/R	15	COOL WHITE	96	12,000	6,950
	ⓔ \$ 62016	F96T12/CW/HO/ES/ALTO/R	15	COOL WHITE	96	12,000	6,950
	\$ 62024	F96T12/DX/HO/ES/R	15	DAYLIGHT DELUXE	96	12,000	5,000

For Refrigerated Areas Only (HO/R) - Due to the high heat created at the cathode ends, any use of these lamps in conditions above 45°F may cause deterioration of the protective Shat-R-Kote® coating. **HO/R lamps are for use in refrigerated areas where ambient temperatures do not exceed 45°F**. Conversely, HO/R lamps used in freezing temperatures will not operate efficiently, coated or uncoated. Because Shat-R-Shield has no control over the temperature range in the areas in which the lamps are operated, their performance cannot be guaranteed. However, HO/R lamps are being used with apparent success and should be expected to perform as well as other Shat-R-Shield lamps.

\$ – Energy-Saving Product

ⓔ – This bulb meets U.S. Federal minimum efficiency standards.

ALTO® – Reduced Mercury Lamps

■ – Features ALTO® Lamp Technology

Footnotes located on page 28

NOTE – Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems. (3)



Shat-R-Shield Fluorecents
Performance
Plus Protection

T12 Plastic-Coated, Shatter-Resistant Fluorescent Lamps**Very High Output (1500ma) T12 Fluorescent Lamps**

Recessed Double Contact (RDC)

Low Temperature-Jacketed (VHO/LT/Jacketed)**RECOMMENDED FOR OPEN FIXTURES ONLY**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
116	76567	F48T12/CW/VHO/LT/JACKETED	12	COOL WHITE	48	10,000	4,900
140	72567	F60T12/CW/VHO/LT/JACKETED	12	COOL WHITE	60	10,000	6,250
162	75567	F72T12/CW/VHO/LT/JACKETED	12	COOL WHITE	72	10,000	7,750
212	70567	F96T12/CW/VHO/LT/JACKETED	12	COOL WHITE	96	10,000	10,400

For Refrigerated Areas Only (VHO/LT/Jacketed) - These lamps are for use in low temperatures ranging from -20°F to 0°F. They are encased in plastic jackets for optimal burning conditions and optimal safety. The plastic jacket minimizes bulb cool down and allows the lamp to operate efficiently at low temperatures.

Very High Output (1500ma) T12 Fluorescent Lamps

Recessed Double Contact (RDC)

Low Temperature PFA/Shat-R-Kote® Combination (VHO/LT/TSC)**RECOMMENDED FOR OPEN FIXTURES ONLY**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
116	76563	F48T12/CW/VHO/LT/TSC	15	COOL WHITE	48	10,000	4,900
140	72563	F60T12/CW/VHO/LT/TSC	15	COOL WHITE	60	10,000	6,250
162	75563	F72T12/CW/VHO/LT/TSC	15	COOL WHITE	72	10,000	7,750
212	70563	F96T12/CW/VHO/LT/TSC	15	COOL WHITE	96	10,000	10,400

For Refrigerated Areas Only (VHO/LT/TSC) - VHO/LT/TSC lamps combine the high heat-resistant properties of PFA with the strength and cost-effectiveness of Shat-R-Kote®. **These lamps are for use in open fixtures in ambient temperatures ranging from 0°F to 50°F.** They are safe and shatterproof, because this plastic combination can reliably withstand the extreme temperatures emitted by a very high output lamp in refrigerated areas.

Very High Output (1500ma) T12 Fluorescent Lamps

Recessed Double Contact (RDC)

PFA/Shat-R-Kote® Combination (VHO/TSC)**RECOMMENDED FOR OPEN FIXTURES ONLY**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
110	76013	F48T12/CW/VHO/TSC	15	COOL WHITE	48	12,000	4,950
135	72013	F60T12/CW/VHO/TSC	15	COOL WHITE	60	12,000	6,300
160	75023	F72T12/D/VHO/TSC	15	DAYLIGHT	72	12,000	6,400
160	75013	F72T12/CW/VHO/TSC	15	COOL WHITE	72	12,000	7,850
215	70023	F96T12/D/VHO/TSC	15	DAYLIGHT	96	12,000	8,750
215	70033	F96T12/WW/VHO/TSC	15	WARM WHITE	96	12,000	11,200
215	70013	F96T12/CW/VHO/TSC	15	COOL WHITE	96	12,000	10,700
215	70233	F96T12/41U/VHO/ALTO/TSC	15	4100K, ULTRALUME	96	12,000	16,100

Energy-Saving Very High Output (1500ma) T12 Fluorescent Lamps

Recessed Double Contact (RDC)

PFA/Shat-R-Kote® Combination (VHO/TSC)**RECOMMENDED FOR OPEN FIXTURES ONLY**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
185	\$ 70015	F96T12/CW/VHO/ES/TSC	15	COOL WHITE, ENERGY-SAVING	96	12,000	9,900
	\$ 70065	F96T12/LW/VHO/ES/TSC	15	LITE WHITE, ENERGY-SAVING	96	12,000	10,100

PFA/Shat-R-Kote® Combination (VHO/TSC) - VHO/TSC lamps combine the high heat-resistant properties of PFA with the strength and cost-effectiveness of Shat-R-Kote®. **These lamps are for use in open fixtures in ambient temperatures above 50°F.** They are safe and shatterproof, because this plastic combination can reliably withstand the extreme temperatures emitted by a very high output lamp.

\$ - Energy-Saving Product

Ⓢ - This bulb meets U.S. Federal minimum efficiency standards.

ALTO® - Reduced Mercury Lamps

■ - Features ALTO® Lamp Technology

Footnotes located on page 28

NOTE - Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems. (3)

T12 Plastic-Coated, Shatter-Resistant Fluorescent Black Lights**Preheat T12 Fluorescent Black Lights** Medium Bipin

(5)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Bulb
20	23191I	F20T12/BL (6)	15	BLACK LIGHT (2)(5)	24	9,000	T12
	27201I	F20T12/BLB (6)	15	BLACK LIGHT BLUE (2)(5)	24	9,000	T12

Rapid Start T12 Fluorescent Black Lights Medium Bipin

(5)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Bulb
40	30191I	F40T12/BL	15	BLACK LIGHT (2)(5)	48	20,000+	T12
	30200S	F40T12/BLB	15	BLACK LIGHT BLUE (2)(5)	48	20,000+	T12

T12 Plastic-Coated, Shatter-Resistant Fluorescent Gold Lamps**T12 Fluorescent Gold Lamps** Medium Bipin & Single Pin

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
34	\$ 30039	F34T12/SRS/GOLD/ES/ALTO	30	RAPID START, ENERGY-SAVING	48	20,000	1,754
40	30259	F40T12/SRS/GOLD	30	RAPID START	48	20,000	2,170
56	40039	F72T12/SRS/GOLD	15	INSTANT START, SINGLE PIN	72	12,000	3,490
60	\$ 44039	F96T12/SRS/GOLD/ES	15	INSTANT START, SINGLE PIN	96	12,000	3,580
75	44259	F96T12/SRS/GOLD	15	INSTANT START, SINGLE PIN	96	12,000	4,361

T12 Plastic-Coated, Shatter-Resistant U-Shaped Fluorescent Lamps**U-Shaped T12 Fluorescent Lamps** Medium Bipin with 6" Leg

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
40	Ⓔ 81490S	FB40T12/730/6	12	3000K, 6" LEG, 70 CRI	22 1/2	18,000	2,880
	Ⓔ 81500S	FB40T12/735/6	12	3500K, 6" LEG, 70 CRI	22 1/2	18,000	2,880
	Ⓔ 81270S	FB40T12/741/6	12	4100K, 6" LEG, 70 CRI	22 1/2	18,000	2,880
	Ⓔ 81520S	FB40T12/830/6	12	3000K, 6" LEG, 80 CRI	22 1/2	18,000	2,880
	81040S	FB40T12/CWX/6	12	4100K, 6" LEG, 87 CRI	22 1/2	18,000	2,880

Energy-Saving U-Shaped T12 Fluorescent Lamps Medium Bipin with 6" Leg

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	Nominal Length (Inches)	Avg. Life (Hours)	Mean Lumens
34	Ⓔ \$ 81491S	FB34T12/730/6/ES	12	3000K, 6" LEG, 70 CRI	22 1/2	18,000	2,457
	Ⓔ \$ 81501S	FB34T12/735/6/ES	12	3500K, 6" LEG, 70 CRI	22 1/2	18,000	2,457
	Ⓔ \$ 81511S	FB34T12/741/6/ES	12	4100K, 6" LEG, 70 CRI	22 1/2	18,000	2,457
	Ⓔ \$ 81011S	FB34T12/CW/6/ES	12	4200K, 6" LEG, 70 CRI	22 1/2	18,000	2,457
	Ⓔ \$ 81031S	FB34T12/WW/6/ES	12	3000K, 6" LEG, 70 CRI	22 1/2	18,000	2,457

\$ – Energy-Saving Product

Ⓔ – This bulb meets U.S. Federal minimum efficiency standards.

ALTO® – Reduced Mercury Lamps

■ – Features ALTO® Lamp Technology

Footnotes located on page 28

NOTE – Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems. (3)

T5, T8 Plastic-Coated, Shatter-Resistant UV / Germicidal Lamps**UV / Germicidal Lamps T5 & T8**

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Specifications Amps Volts UV Output	Length (mm)	Av. Life (Hours)	Base
7.2	86905U	G8T5	6	.145 57 2.2	287	8,000	Min Bi-Pin
16	86906U	G16T5	6	.350 50 3.2	287	8,000	Min Bi-Pin
39	86911U	G36T5L	6	.424 115 13.0	846	9,000	Single Pin
	86912U	G36T5L/4P	6	.424 115 13.0	846	9,000	4-Pin
15	86907U	G15T8	6	.305 55 4.9	436	8,000	Med Bi-Pin
30.5	86906U	G30T8	6	.355 99 13.9	893	8,000	Med Bi-Pin

Are you prepared for the risks of breaking an ordinary lamp in the workplace?

**Injury to employees and customers • Wasted time on clean-up or a shut down
Contamination of product and equipment**

Rely on Shat-R-Shield products to provide maximum protection

PAR Lamps

Shat-R-Shield's PAR lamps are coated with clear and tough PFA, and will not yellow, crack or flake. They can withstand the extreme temperatures of summer heat and winter ice without breaking. Often used to illuminate trailers during loading/unloading processes without the fear of broken glass.

Globes

Shatter-resistant, temperature-resistant, vapor-tight globes to be used over incandescent lamps. Transparent for maximum light output and easy to clean.

Full-Wattage Fluorescents

Shat-R-Shield's safety-coated fluorescent lamps are exempt from EPACT regulations that have outlawed full-wattage lamps in the U.S. These lamps replace energy-saving T12 lamps which are not designed to strike below 60°F. Full-wattage lamps operate without problems in drafty, loading dock areas.

HID Lamps

Shat-R-Shield's HPS and Metal Halide lamps are coated with a clear and tough plastic and are perfect for lighting high-bay warehouse areas. Shat-R-Shield also offers protective-shrouded metal halide lamps that offer the safest HID solution for open fixtures.

T5 HO Fluorescent Lamps

A High-Output T5 lighting system is more energy efficient, provides less lumen depreciation, better color rendering, and instant re-strike. With a shatter-resistant high-output T5 lighting system--dispense with enclosed fixtures while complying with government codes.

Reflector Lamps

Complies with ASME building code requirements for lighting in elevators cars.

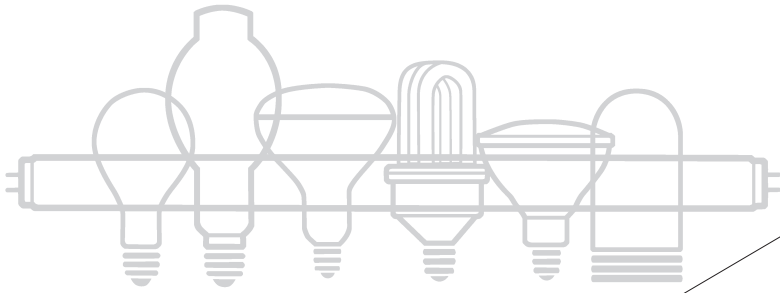
Fluorescent Lamps

Shat-R-Shield's fluorescent lamps are coated end-to-end with the patented, skin-tight plastic and will contain virtually all glass, phosphors & mercury in the event of breakage. Many Shat-R-Shield fluorescent lamps also block up to 95% of the ultraviolet light spectrum. UV can adversely affect some people's health.

Compact Fluorescent Lamps

Where "zero tolerance" of exposed glass is required, Shat-R-Shield's plastic-coated compact fluorescent lamps offer a superior performance, energy-efficient, long service life alternative to incandescent lighting. Offered in both pin-type or medium base models.





UV/Germicidal Lamps

Ideal for use in air conditioning/heating and water treatment systems to safely and economically eliminate microbes. Ultra-violet (UV-C) wavelengths destroy bacteria, molds and viruses with a physical process; no need for the use of toxic chemicals.

Gold Lamps - Safety-Coated

Offered in popular T12 and T8 fluorescent sizes, Shat-R-Shield safety-coated Gold Lamps filter UV wavelengths below 520nm for critical light-sensitive applications such as semiconductor manufacturing and research laboratories.

High-Output Fluorescents

Shat-R-Shield's plastic-coated HO fluorescent lamps should be used in open fixtures to maximize light output on production lines. Shat-R-Shield lamps eliminate the need for enclosed fixtures, which can cause insect debris and dust build-up; possible contaminants when changing-out lamps.

Incandescent Lamps

Shat-R-Shield's incandescent lamps are coated with tough, clear PFA. Available in rough-service, vibration-service and extended-life models. The easy-to-clean PFA coating acts as thermal shock-guard, eliminating the fear of a hot bulb breaking if it comes into contact with cooler liquid lubricants or water; which may happen with task lighting applications.

U-Shaped Lamps

Shat-R-Shield's U-Shaped fluorescent lamps are perfect for 2 x 2 ceiling fixtures in restrooms and other similar areas. Even though protective lighting may not be required in these areas, should a lamp break, glass and other components could be carried into production areas on employee's shoes; causing contamination of product and equipment.

Black Lights

Shat-R-Shield's black lights are coated from end-to-end with the patented plastic process. Often overlooked, yet required to be coated when used in food processing facilities. Black Lights need to be replaced every 7,000 hours to be effective.

Very High Output (VHO) Fluorescent Lamps

Shat-R-Shield's VHO jacketed lamps are perfect for walk-in freezers. The plastic jacket provides adequate insulation for optimal lamp performance, while providing safety from the fear of broken glass.

Heat Lamps

Shat-R-Shield's red and clear heat lamps are coated with tough, clear PFA. They can withstand the extreme temperatures of grease spatters without breaking. Perfect for cafeteria and food warming table -- protective lighting is required by the FDA Food Code, Chapter 6.

Halogen PAR Lamps

Using new IR (infrared) technology, select halogen PARs produce an energy-saving, brighter, whiter light while using fewer watts, providing 33% longer service than standard PARs. This shatterproof halogen PAR lamp makes an excellent landscape/security lighting solution that discourages facility vandalism.



Compact Fluorescent Lamps (CFLs)

Shat-R-Shield offers safe and efficient, plastic-coated, shatter-resistant compact fluorescent lamps (CFLs). A versatile, high-efficiency replacement for incandescent lamps, Shat-R-Shield CFLs offer superior performance, longer life, high-quality light, compact design and safety from the fear of broken glass.

Shat-R-Shield compact fluorescent lamps offer four main advantages over incandescent lighting, including 10 times longer life, 90% less heat output, lower operating costs and reduced energy usage. Today's technology enables CFLs to use up to 75% less energy than a standard incandescent bulb and last longer. This means that over the life of one CFL, you can avoid replacing up to 13 incandescent bulbs. Highly efficient CFLs enable you to save over \$25.00 in energy costs over the life of each CFL that replaces an incandescent bulb.* For example, a 13-watt CFL has the approximate lumen equivalence of a 60-watt incandescent, saving 47-watts of energy (See chart below for more comparisons).

PIN-TYPE (PLUG-IN TYPE) -

Shat-R-Shield offers a wide variety of pin-type CFLs, including three shapes in various sizes, wattages and Kelvin temperatures. Available in 16 plug-in base configurations, these lamps offer maximum design and application flexibility. Many styles are also available in reduced mercury versions.

MEDIUM BASE (SELF-BALLASTED) -

Featuring medium bases for easy incandescent replacement, stable light output over a broad temperature range, and a variety of shapes, sizes and wattages, Shat-R-Shield's medium base CFLs meet the industry's highest quality standards.

*Based on a minimum life of 6,000 hours at \$0.10 kWh.



Shatter-Resistant CFLs offer
Safety & Savings

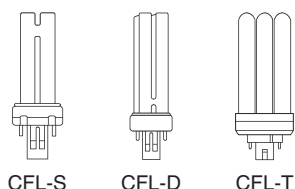
COMPACT FLUORESCENT VS INCANDESCENT

(approximate lumen equivalent)

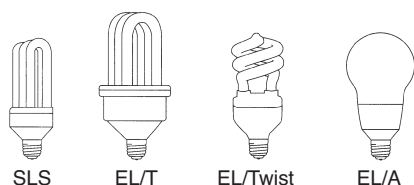
5W	25W
7W	40W
9W	50W
13W	60W
18W	75W
26W	100W
32W	150W
42W	200W
Average life 10,000 hrs.	Average life 750 - 2,000 hrs.

	shat-r-shield®	PHILIPS	OSRAM SYLVANIA	GE	Generic
COMPACT FLUORESCENT LAMPS (PIN TYPE) - CROSS REFERENCE GUIDE	CFL-S/5W/827 CFL-S/7W/827 CFL-S/7W/835 CFL-S/7W/841 CFL-S/7W/850 CFL-S/9W/827 CFL-S/9W/835 CFL-S/9W/841 CFL-S/9W/850 CFL-S/13W/827 CFL-S/13W/830 CFL-S/13W/835 CFL-S/13W/841 CFL-S/13W/850	PL-S 5W/827 PL-S 7W/827 PL-S 7W/835 PL-S 7W/841 PL-S 7W/850 PL-S 9W/827 PL-S 9W/835 PL-S 9W/841 PL-S 9W/850 PL-S 13W/827 PL-S 13W/830 PL-S 13W/835 PL-S 13W/841 PL-S 13W/850	CF5DS/827 CF7DS/827 CF7DS/835 CF7DS/841 CF7DS/850 CF9DS/827 CF9DS/835 CF9DS/841 CF9DS/850 CF13DS/827 CF13DS/830 CF13DS/835 CF13DS/841 CF13DS/850	F5BX/SPX27 F7BX/SPX27 F7BX/SPX35 F7BX/SPX41 F7BX/SPX50 F9BX/SPX27 F9BX/SPX35 F9BX/SPX41 F9BX/SPX50 F13BX/SPX27 F13BX/SPX30 F13BX/SPX35 F13BX/SPX41 F13BX/SPX50	CFT5W/G23/827 CFT7W/G23/827 CFT7W/G23/835 CFT7W/G23/841 CFT7W/G23/850 CFT9W/G23/827 CFT9W/G23/835 CFT9W/G23/841 CFT9W/G23/850 CFT13W/GX23/827 CFT13W/GX23/830 CFT13W/GX23/835 CFT13W/GX23/841 CFT13W/GX23/850
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	CFL-D/13W/827/4P CFL-D/13W/830/4P CFL-D/13W/835/4P CFL-D/13W/841/4P CFL-D/18W/827/4P CFL-D/18W/830/4P CFL-D/18W/835/4P CFL-D/18W/841/4P CFL-D/18W/850/4P CFL-D/26W/827/4P CFL-D/26W/830/4P CFL-D/26W/835/4P CFL-D/26W/841/4P	PL-C 13W/827/4P/ALTO PL-C 13W/830/4P/ALTO PL-C 13W/835/4P/ALTO PL-C 13W/841/4P/ALTO PL-C 18W/827/4P/ALTO PL-C 18W/830/4P/ALTO PL-C 18W/835/4P/ALTO PL-C 18W/841/4P/ALTO PL-C 18W/850/4P/ALTO PL-C 26W/827/4P/ALTO PL-C 26W/830/4P/ALTO PL-C 26W/835/4P/ALTO PL-C 26W/841/4P/ALTO	CF13DD/E/827 CF13DD/E/830 CF13DD/E/835 CF13DD/E/841 CF18DD/E/827 CF18DD/E/830 CF18DD/E/835 CF18DD/E/841 CF18DD/E/850 CF26DD/E/827 CF26DD/E/830 CF26DD/E/835 CF26DD/E/841	F13DBX/SPX27/4P F13DBX/SPX30/4P F13DBX/SPX35/4P F13DBX/SPX41/4P F18DBX/SPX27/4P F18DBX/SPX30/4P F18DBX/SPX35/4P F18DBX/SPX41/4P F18DBX/SPX50/4P F26DBX/SPX27/4P F26DBX/SPX30/4P F26DBX/SPX35/4P F26DBX/SPX41/4P	CFQ13W/G24q/827 CFQ13W/G24q/830 CFQ13W/G24q/835 CFQ13W/G24q/841 CFQ18W/G24q/827 CFQ18W/G24q/830 CFQ18W/G24q/835 CFQ18W/G24q/841 CFQ18W/G24q/850 CFQ26W/G24q/827 CFQ26W/G24q/830 CFQ26W/G24q/835 CFQ26W/G24q/841
	CFL-T/18W/827 CFL-T/18W/830 CFL-T/18W/835 CFL-T/18W/841 CFL-T/26W/827 CFL-T/26W/830 CFL-T/26W/835 CFL-T/26W/841 CFL-T/32W/827 CFL-T/32W/830 CFL-T/32W/835 CFL-T/32W/841 CFL-T/42W/827 CFL-T/42W/830 CFL-T/42W/835 CFL-T/42W/841	PL-T 18W/827/4P/ALTO PL-T 18W/830/4P/ALTO PL-T 18W/835/4P/ALTO PL-T 18W/841/4P/ALTO PL-T 26W/827/4P/ALTO PL-T 26W/830/4P/ALTO PL-T 26W/835/4P/ALTO PL-T 26W/841/4P/ALTO PL-T 32W/827/4P/ALTO PL-T 32W/830/4P/ALTO PL-T 32W/835/4P/ALTO PL-T 32W/841/4P/ALTO PL-T 42W/827/4P/ALTO PL-T 42W/830/4P/ALTO PL-T 42W/835/4P/ALTO PL-T 42W/841/4P/ALTO	CF18DT/E/IN/827 CF18DT/E/IN/830 CF18DT/E/IN/835 CF18DT/E/IN/841 CF26DT/E/IN/827 CF26DT/E/IN/830 CF26DT/E/IN/835 CF26DT/E/IN/841 CF32DT/E/IN/827 CF32DT/E/IN/830 CF32DT/E/IN/835 CF32DT/E/IN/841 CF42DT/E/IN/827 CF42DT/E/IN/830 CF42DT/E/IN/835 CF42DT/E/IN/841	F18TBX/SPX27/A/4P F18TBX/SPX30/A/4P F18TBX/SPX35/A/4P F18TBX/SPX41/A/4P F26TBX/SPX27/A/4P F26TBX/SPX30/A/4P F26TBX/SPX35/A/4P F26TBX/SPX41/A/4P F32TBX/SPX27/A/4P F32TBX/SPX30/A/4P F32TBX/SPX35/A/4P F32TBX/SPX41/A/4P F42TBX/SPX27/A/4P F42TBX/SPX30/A/4P F42TBX/SPX35/A/4P F42TBX/SPX41/A/4P	CFTR18W/GX24q/827 CFTR18W/GX24q/830 CFTR18W/GX24q/835 CFTR18W/GX24q/841 CFTR26W/GX24q/827 CFTR26W/GX24q/830 CFTR26W/GX24q/835 CFTR26W/GX24q/841 CFTR32W/GX24q/827 CFTR32W/GX24q/830 CFTR32W/GX24q/835 CFTR32W/GX24q/841 CFTR42W/GX24q/827 CFTR42W/GX24q/830 CFTR42W/GX24q/835 CFTR42W/GX24q/841

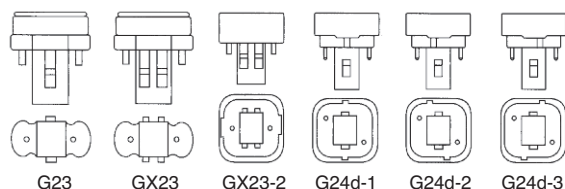
Base Types & Bulb Shapes (Not Actual Sizes)



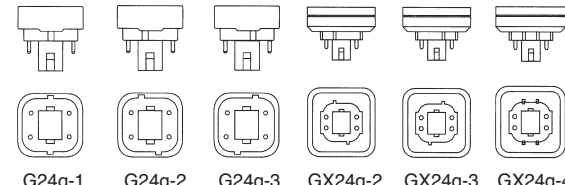
CFL-S CFL-D CFL-T



SLS EL/T EL/Twist EL/A



G23 GX23 GX23-2 G24d-1 G24d-2 G24d-3



G24q-1 G24q-2 G24q-3 GX24q-2 GX24q-3 GX24q-4

CFL Plastic-Coated, Shatter-Resistant Compact Fluorescent Lamps**CFL-S** (2-Pin)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	M.O.L. (Inches)	Base	Mean Lumens
5	\$ 88100	CFL-S/5W/827*	10	2700K	4 ¹ / ₈	G23	250
7	\$ 88110	CFL-S/7W/827*	10	2700K	5 ¹ / ₄	G23	340
	\$ 88112	CFL-S/7W/835*	10	3500K	5 ¹ / ₄	G23	340
	\$ 88113	CFL-S/7W/841*	10	4100K	5 ¹ / ₄	G23	340
	\$ 88114	CFL-S/7W/850*	10	5000K	5 ¹ / ₄	G23	320
	\$ 88120	CFL-S/9W/827*	10	2700K	6 ¹ / ₂	G23	510
9	\$ 88122	CFL-S/9W/835*	10	3500K	6 ¹ / ₂	G23	510
	\$ 88123	CFL-S/9W/841*	10	4100K	6 ¹ / ₂	G23	510
	\$ 88124	CFL-S/9W/850*	10	5000K	6 ¹ / ₂	G23	485
	\$ 88130	CFL-S/13W/827*	10	2700K	7	GX23	700
13	\$ 88131	CFL-S/13W/830*	10	3000K	7	GX23	700
	\$ 88132	CFL-S/13W/835*	10	3500K	7	GX23	700
	\$ 88133	CFL-S/13W/841*	10	4100K	7	GX23	700
	\$ 88134	CFL-S/13W/850*	10	5000K	7	GX23	680

CFL-D (2-Pin)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	M.O.L. (Inches)	Base	Mean Lumens
13	\$ 88330	CFL-D/13W/827/2P	10	2700K	4 ⁵ / ₈	GX23-2	735
	\$ 88331	CFL-D/13W/830/2P	10	3000K	4 ⁵ / ₈	GX23-2	735
	\$ 88332	CFL-D/13W/835/2P	10	3500K	4 ⁵ / ₈	GX23-2	735
	\$ 88333	CFL-D/13W/841/2P	10	4100K	4 ⁵ / ₈	GX23-2	735
	\$ 88340	CFL-D/18W/827/2P	10	2700K	6	G24d-2	1070
18	\$ 88341	CFL-D/18W/830/2P	10	3000K	6	G24d-2	1070
	\$ 88342	CFL-D/18W/835/2P	10	3500K	6	G24d-2	1070
	\$ 88343	CFL-D/18W/841/2P	10	4100K	6	G24d-2	1070
	\$ 88360	CFL-D/26W/827/2P	10	2700K	6 ¹³ / ₁₆	G24d-3	1545
26	\$ 88361	CFL-D/26W/830/2P	10	3000K	6 ¹³ / ₁₆	G24d-3	1545
	\$ 88362	CFL-D/26W/835/2P	10	3500K	6 ¹³ / ₁₆	G24d-3	1545
	\$ 88363	CFL-D/26W/841/2P	10	4100K	6 ¹³ / ₁₆	G24d-3	1545

CFL-D (4-Pin)

Nominal Lamp Watts	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	M.O.L. (Inches)	Base	Mean Lumens
13	\$ 88530	CFL-D/13W/827/4P	10	2700K	5 ³ / ₁₆	G24q-1	775
	\$ 88531	CFL-D/13W/830/4P	10	3000K	5 ³ / ₁₆	G24q-1	775
	\$ 88532	CFL-D/13W/835/4P	10	3500K	5 ³ / ₁₆	G24q-1	775
	\$ 88533	CFL-D/13W/841/4P	10	4100K	5 ³ / ₁₆	G24q-1	775
	\$ 88540	CFL-D/18W/827/4P	10	2700K	5 ¹¹ / ₁₆	G24q-2	1075
18	\$ 88541	CFL-D/18W/830/4P	10	3000K	5 ¹¹ / ₁₆	G24q-2	1075
	\$ 88542	CFL-D/18W/835/4P	10	3500K	5 ¹¹ / ₁₆	G24q-2	1075
	\$ 88543	CFL-D/18W/841/4P	10	4100K	5 ¹¹ / ₁₆	G24q-2	1075
	\$ 88560	CFL-D/26W/827/4P	10	2700K	6 ¹ / ₂	G24q-3	1550
26	\$ 88561	CFL-D/26W/830/4P	10	3000K	6 ¹ / ₂	G24q-3	1550
	\$ 88562	CFL-D/26W/835/4P	10	3500K	6 ¹ / ₂	G24q-3	1550
	\$ 88563	CFL-D/26W/841/4P	10	4100K	6 ¹ / ₂	G24q-3	1550

\$ – Energy-Saving Product

Ⓢ – This bulb meets U.S. Federal minimum efficiency standards.

Footnotes located on page 28

* - Asterick denotes lamp is NSF Certified.

CFL Plastic-Coated, Shatter-Resistant Compact Fluorescent Lamps**CFL-T** (Triple with 4-Pin)

Nominal Lamp Watts		UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	M.O.L. (Inches)	Base	Mean Lumens
18	\$	88240	CFL-T/18W/827	10	2700K	4 ⁵ / ₈	GX24q-2	1020
	\$	88241	CFL-T/18W/830	10	3000K	4 ⁵ / ₈	GX24q-2	1020
	\$	88242	CFL-T/18W/835	10	3500K	4 ⁵ / ₈	GX24q-2	1020
	\$	88243	CFL-T/18W/841	10	4100K	4 ⁵ / ₈	GX24q-2	1020
26	\$	88260	CFL-T/26W/827	10	2700K	5	GX24q-3	1530
	\$	88261	CFL-T/26W/830	10	3000K	5	GX24q-3	1530
	\$	88262	CFL-T/26W/835	10	3500K	5	GX24q-3	1530
	\$	88263	CFL-T/26W/841	10	4100K	5	GX24q-3	1530
32	\$	88280	CFL-T/32W/827	10	2700K	5 ⁵ / ₈	GX24q-3	2040
	\$	88281	CFL-T/32W/830	10	3000K	5 ⁵ / ₈	GX24q-3	2040
	\$	88282	CFL-T/32W/835	10	3500K	5 ⁵ / ₈	GX24q-3	2040
	\$	88283	CFL-T/32W/841	10	4100K	5 ⁵ / ₈	GX24q-3	2040
42	\$	88290	CFL-T/42W/827	10	2700K	6 ³ / ₈	GX24q-4	2720
	\$	88291	CFL-T/42W/830	10	3000K	6 ³ / ₈	GX24q-4	2720
	\$	88292	CFL-T/42W/835	10	3500K	6 ³ / ₈	GX24q-4	2720
	\$	88293	CFL-T/42W/841	10	4100K	6 ³ / ₈	GX24q-4	2720

CFL-EL/Twist

Nominal Lamp Watts		UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	M.O.L. (Inches)	Base	Mean Lumens
15	\$	88612	CFL-EL/TWIST/15W*	10	5000K	5 ³ / ₈	MED	850
20	\$	88613	CFL-EL/TWIST/20W*	10	2700K	5 ⁵ / ₈	MED	1100
23	\$	88615	CFL-EL/TWIST/23W*	10	2700K	5 ¹³ / ₁₆	MED	1400

CFL-SLS

Nominal Lamp Watts		UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Lamp Description	M.O.L. (Inches)	Base	Mean Lumens
15	\$	88910	CFL-SLS/15W*	10	2700K	4 ¹⁵ / ₁₆	MED	900
20	\$	88913	CFL-SLS/20W*	6	2700K	5 ⁵ / ₈	MED	1200
23	\$	88915	CFL-SLS/23W*	6	2700K	6 ³ / ₁₆	MED	1500
25	\$	88917	CFL-SLS/25W*	6	2700K	6 ³ / ₁₆	MED	1750
34	\$	88919	CFL-SLS/34W/THREE-WAY*	10	2700K	6 ⁵ / ₈	MED	1100/1600/2100

\$ – Energy-Saving Product

E – This bulb meets U.S. Federal minimum efficiency standards.

WARNING

Self-Ballasted models MUST be used in OPEN FIXTURES per manufacturer's recommended operation.

* - Asterick denotes lamp is NSF Certified.

Footnotes located on page 28





High Intensity Discharge (HID) Lamps

Shat-R-Shield High Intensity Discharge (HID) lamps are designed to be safely used in open fixtures and are excellent for lighting large areas. In addition to offering greater flexibility in system design, open fixtures are less expensive and more compact than enclosed fixtures. The lenses on enclosed fixtures can reduce light output by up to 10 percent (compounded over time by the build-up of dirt, insects and other debris on the lens).

METAL HALIDE -

Metal halide lamps are the most efficient source of pure white light available. They provide good color rendering and are used in high quality outdoor lighting installations, as well as floodlighting, industrial high bay and many commercial applications.

PROTECTIVE-SHROUD (MP)

The combination of Shat-R-Shield's shatterproof coating on a protective-shrouded (MP) lamp offers the greatest possible protection on the market. Regardless of the lamp manufacturer, metal halide lamps can suffer "non-passive failure" (arc tube rupture) on rare occasions. MP lamps contain a special quartz shield which is designed to contain a ruptured arc tube and thereby minimize the risks. An additional benefit with the quartz shroud is that, combined with the thicker glass bulb wall, ultraviolet emissions from the lamp are reduced by over 70%.

ENERGY SAVING

Shat-R-Shield also offers energy-saving lamps. Our 360-watt lamps can be used in standard 400-watt fixtures, will deliver nearly the same lumens as the 400 lamp (97% lumens) and save you 40-watts in energy usage - saving over \$80 during the life of a 20,000 hour lamp.

PULSE START (PS)

These lamps are newly designed and require an external ignitor and compatible ballast to insure longer life. They offer shorter hot restrike time (5-7 minutes vs. 10-12 minutes for standard lamps), improved lumen maintenance and reduced color shift compared to standard metal halides.

SELF-EXTINGUISHING

These lamps are designed to self-extinguish if the outer bulb is broken, preventing long-term exposure to UV emissions from the lamp.

RETROFIT

These lamps are made to operate on HPS ballast. They provide crisp, white light with 85%+ lumen maintenance and pass the EPA's TCLP test.

High Pressure Sodium (HPS) -

These lamps are the most efficient source of high intensity light and are also available in non-cycling versions. Their efficiency is up to 140 lumens per watt and the light produced is a warm golden color. Because of their yellow light output, they are frequently used in street lighting and other areas where color



rendering is not critical. (Although they are not quite as energy efficient, metal halide is generally used when pure white light is needed.)

MERCURY VAPOR -

Although many of these applications have been converted to the much more efficient metal halide and high pressure sodium lamps, we will still be able to satisfy the needs of your customers that use mercury vapor lamps. Please call customer service for your specific requests.

The Facts on Arc-Tube Rupture

Shat-R-Shield lamps have a shatterproof coating to contain glass, phosphors and mercury in the event a lamp is dropped or broken. Our coating is not designed to contain an arc-tube rupture ("non-passive failure"). In extraordinary applications or under certain conditions, glass fragments may escape the coating. Shat-R-Shield HID lamps must be burned base up only and in open fixtures only. On rare occasion, usually at the end-of-life, an arc-tube can rupture and shatter the outer glass bulb and coating, resulting in the discharge of glass fragments and extremely hot quartz particles (as high as 2192°F, 1200°C). This is possible with all non-shrouded metal halide lamps, regardless of manufacturer. Shat-R-Shield protective-shrouded lamps contain a special quartz shield which is designed to contain a ruptured arc-tube and thereby minimize the risk.

To reduce the possibility of arc-tube rupture and premature lamp or coating failure:

1. Operate with compatible ballast and fixture only.
2. Burn lamp base-up only and in open fixtures only.
3. Turn lamp off a minimum of 15-minutes per week.
4. Replace lamp at or before the end of rated-life.
5. Follow all instructions on the lamp's sleeve.

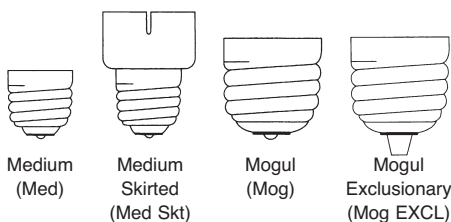
NOTE: Due to variable temperature conditions and fixture design, Shat-R-Shield does not warrant or otherwise guarantee the plastic coating on their HID lamps for the rated-life of the lamp. The purpose of the coating is to contain virtually all glass fragments, phosphors and mercury in the event the lamp is accidentally dropped or broken. The coating is not designed to contain arc-tube rupture in the event of "non-passive failure". Shat-R-Shield suggests that HID shatterproof lamps be inspected and replaced if the coating material is compromised due to temperature extremes.

Shat-R-Shield HID Lamp Warranty

The plastic coating on a Shat-R-Shield HID lamp is guaranteed not to yellow and will withstand bulb wall temperatures up to 500° F. Except under the foregoing conditions, due to variable conditions and fixture design, Shat-R-Shield does not warrant or otherwise guarantee the plastic coating on HID lamps for the rated-life of the lamp. The purpose of the coating is to contain virtually all glass fragments, phosphors and mercury in the event the lamp is accidentally dropped or broken. Shat-R-Shield suggests the HID shatterproof lamps be inspected and replaced if the coating material is compromised due to temperature extremes.

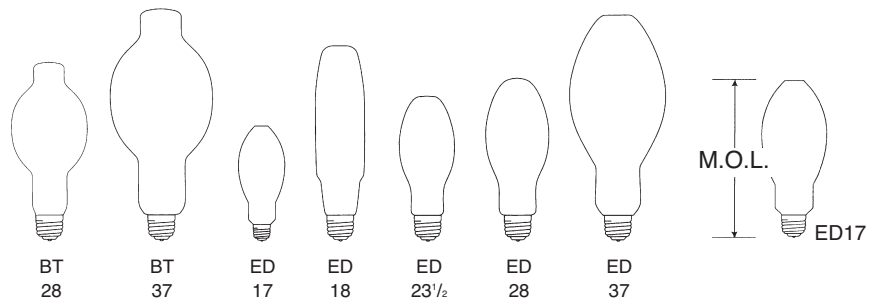
- The coating is not designed to contain an arc-tube rupture.
- Under certain conditions, glass fragments may escape the coating.
- Lamps MUST be burned base up only and in open fixtures.
- On rare occasion, usually at end of life, an arc-tube can rupture and shatter the outer glass and coating. This is possible with all non-shrouded metal halide lamps.

Base Types (Not Actual Sizes)



Bulb Shapes (Not Actual Sizes)

Letters indicate the bulb shape while numbers indicate the diameter of the bulb in eighths of an inch



Plastic-Coated, Shatter-Resistant Metal Halide Lamps

Protective-Shroud Designed to be used in open fixtures.

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
50	ED-17	Medium	93110G	MP50/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	10,000	1,700
	ED-17	Medium	93111G	MP50/IF/BU/MED/PS	6	FROSTED/3500K/70CRI	5 ⁷ / ₁₆	10,000	1,500
70	ED-17	Medium	93210G	MP70/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	12,000	3,500
	ED-17	Medium	93211G	MP70/IF/BU/MED/PS	6	FROSTED/3500K/70CRI	5 ⁷ / ₁₆	12,000	3,300
100	ED-17	Medium	93310G	MP100/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	15,000	6,200
	ED-17	Medium	93311G	MP100/IF/BU/MED/PS	6	FROSTED/3500K/70CRI	5 ⁷ / ₁₆	15,000	5,900
150	ED-17	Medium	93411G	MP150/BU/MED/PS	6	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	15,000	8,600
175	ED-17	Medium	93510S	MP175/BU/MED	20	CLEAR/3500K/70CRI	5 ⁷ / ₁₆	10,000	10,800
	BT-28	Mog EXCL	93500S	MP175/BU	6	CLEAR/3500K/70CRI	8 ⁵ / ₁₆	10,000	12,000
	BT-28	Mog EXCL	93501S	MP175/IF/BU	6	FROSTED/3500K/70CRI	8 ⁵ / ₁₆	10,000	10,000
250	BT-28	Mog EXCL	93600S	MP250/BU	6	CLEAR/3500K/70CRI	8 ⁵ / ₁₆	10,000	17,000
	BT-28	Mog EXCL	93601S	MP250/IF/BU	6	FROSTED/3500K/70CRI	8 ⁵ / ₁₆	10,000	17,000
	BT-37	Mog EXCL	93700S	MP360/ES/BU	6	CLEAR/3500K/70CRI	11 ¹ / ₂	20,000	24,200
360	BT-37	Mog EXCL	93701S	MP360/IF/ES/BU	6	FROSTED/3500K/70CRI	11 ¹ / ₂	20,000	24,200
	BT-37	Mog EXCL	93800S	MP400/BU	6	CLEAR/3500K/70CRI	11 ¹ / ₂	20,000	25,000
400	BT-37	Mog EXCL	93801S	MP400/IF/BU	6	FROSTED/3500K/70CRI	11 ¹ / ₂	20,000	25,000

TYPE "O" - The Protective-Shroud lamps listed above exhibit an ANSI fixture rating of Type "O", and are specifically designed for open fixtures.

Standard

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
400	BT-37	Mogul	90800S	M400/BU*	6	CLEAR/4000K/65CRI	11 ¹ / ₂	20,000	25,000
	BT-37	Mogul	90801S	M400/IF/BU*	6	FROSTED/4000K/65CRI	11 ¹ / ₂	20,000	25,000

TYPE "S" - The Standard lamps listed above exhibit an ANSI fixture rating of Type "S". These lamps are not recommended for open fixtures.

Pulse Start & Protective-Shrouded Pulse Start

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
320-350	BT-28	Mog EXCL	94600S	MP320-350/PS/BU	6	CLEAR/SHROUDED/4000-3900K/65-70CRI	8 ⁵ / ₁₆	20,000	21,000-24,000
	BT-28	Mog EXCL	94601S	MP320-350/IF/PS/BU	6	FROSTED/SHROUDED/3900-3800K/65-70CRI	8 ⁵ / ₁₆	20,000	19,000-22,000
350-400	BT-37	Mog EXCL	94830S	MP350-400/PS/BU	6	CLEAR/SHROUDED/3700-3500K/65CRI	11 ¹ / ₂	20,000	24,500-29,500
	BT-37	Mog EXCL	94831S	MP350-400/IF/PS/BU	6	FROSTED/SHROUDED/3500-3300K/70CRI	11 ¹ / ₂	20,000	23,000-28,000

TYPE "O" - The Pulse Start lamps listed above exhibit an ANSI fixture rating of Type "O", and are specifically designed for open fixtures.

Self-Extinguishing

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
400	BT-37	Mogul	92800S	MT400/BU*	6	CLEAR/4500K/60CRI	11 ¹ / ₂	20,000	22,000
	BT-37	Mogul	92801S	MT400/IF/BU*	6	FROSTED/4100K/65CRI	11 ¹ / ₂	20,000	20,600

TYPE "S" - The Extinguishing lamps listed above exhibit an ANSI fixture rating of Type "S". These lamps are not recommended for open fixtures.

Retro-Fit

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
400	ED-37	Mogul	95840G	MR400/RETRO/BU*	6	CLEAR/FOR HPS BALLAST	11 ¹ / ₂	20,000	22,600

TYPE "S" - The Retro-fit lamps listed above exhibit an ANSI fixture rating of Type "S". These lamps are not recommended for open fixtures.

NOTE: There are currently two types of HID lamps approved for use in open fixtures - Type "S" and Type "O". Type "S" lamps have been assigned this ANSI letter designation indicating "suitable" for use in open fixtures. Type "O" lamps have been assigned this ANSI letter designation indicating they comply with ANSI standard C78.387 for containment testing. Shat-R-Shield strongly recommends that all of our metal halide lamps used in open fixtures be the MP (protected shroud) type, which are Type "O" lamps. Lamps with an ANSI Type"E" rating are designed for enclosed fixtures only, which may compromise Shat-R-Shield's plastic coating due to extreme heat.

NOTE: Most higher wattage metal halide open fixtures incorporate an exclusionary mogul base (EX 39 or Mog EXCL) that will accept only a MP type lamp. The industry has begun color-coding these sockets pink. MP lamps with mogul bases are designed to work in this dedicated base, as well as in a standard mogul base used for enclosed fixtures. A metal halide lamp without an EX 39 exclusionary mogul base will not operate in an open fixture with a EX 39 base.

BU = BURN BASE UP, **IF** = INSIDE FROST, **ES** = ENERGY-SAVING, **PS** = PULSE START, **CRI** = COLOR RENDERING

Mean lumens are calculated at 40% of rated-life. In actual applications on a CWA ballast the mean lumens will be higher.

* **WARNING:** Be sure that your socket is not a "restricted" type. They connect with MP-type lamps with restricted bases only.

Plastic-Coated, Shatter-Resistant High Pressure Sodium Lamps

HPS Standard & HPS EcoSafe Designed to be used in open fixtures.

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
35	ED-17	Medium	97010	HPS35/MED	12	CLEAR	5 ⁷ / ₁₆	24,000+	2,025
	ED-17	Medium	97011	HPS35/IF/MED	12	INSIDE FROST	5 ⁷ / ₁₆	24,000+	1,935
50	ED-17	Medium	97110	HPS50/MED	12	CLEAR	5 ⁷ / ₁₆	24,000+	3,600
	ED-17	Medium	97311	HPS50/IF/MED	12	INSIDE FROST	5 ⁷ / ₁₆	24,000+	3,420
	ED-23 ¹ / ₂	Mogul	97109	HPS50/ECO	12	CLEAR/ECOSAFE	7 ³ / ₄	24,000+	3,600
	ED-23 ¹ / ₂	Mogul	97101	HPS50/IF	12	INSIDE FROST	7 ³ / ₄	24,000+	3,420
70	ED-17	Medium	97210	HPS70/MED	12	CLEAR	5 ⁷ / ₁₆	24,000+	5,670
	ED-17	Medium	97211	HPS70/IF/MED	12	INSIDE FROST	5 ⁷ / ₁₆	24,000+	5,270
	ED-23 ¹ / ₂	Mogul	97209	HPS70/ECO	12	CLEAR/ECOSAFE	7 ³ / ₄	24,000+	5,670
	ED-23 ¹ / ₂	Mogul	97201	HPS70/IF	12	INSIDE FROST	7 ³ / ₄	24,000+	5,270
100	ED-17	Medium	97310	HPS100/MED	12	CLEAR	5 ⁷ / ₁₆	24,000+	8,550
	ED-17	Medium	97111	HPS100/IF/MED	12	INSIDE FROST	5 ⁷ / ₁₆	24,000+	7,920
	ED-23 ¹ / ₂	Mogul	97309	HPS100/ECO	12	CLEAR/ECOSAFE	7 ³ / ₄	24,000+	8,550
	ED-23 ¹ / ₂	Mogul	97301	HPS100/IF	12	INSIDE FROST	7 ³ / ₄	24,000+	7,920
150	ED-17	Medium	97410	HPS150/55/MED	12	CLEAR/55 VOLT	5 ⁷ / ₁₆	24,000+	14,400
	ED-17	Medium	97411	HPS150/55/IF/MED	12	INSIDE FROST/55 VOLT	5 ⁷ / ₁₆	24,000+	13,500
	ED-23 ¹ / ₂	Mogul	97409	HPS150/55/ECO	12	CLEAR/ECOSAFE/55 VOLT	7 ³ / ₄	24,000+	14,000
	ED-23 ¹ / ₂	Mogul	97401	HPS150/55/IF	12	INSIDE FROST/55 VOLT	7 ³ / ₄	24,000+	13,500
250	ED-18	Mogul	97600	HPS250/ECO	12	CLEAR/ECOSAFE	9 ³ / ₄	24,000+	25,600
	ED-28	Mogul	97601	HPS250/IF	12	INSIDE FROST	8 ¹⁵ / ₁₆	24,000+	24,300
400	ED-18	Mogul	97800	HPS400/ECO	12	CLEAR/ECOSAFE	9 ³ / ₄	24,000+	45,000
	ED-37	Mogul	97801	HPS400/IF	6	INSIDE FROST	11 ¹ / ₂	24,000+	42,750

HPS EcoSafe Non-Cycling

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
70	ED-23 ¹ / ₂	Mogul	97207S	HPS70/ECO/N-C	20	CLEAR/ECOSAFE/NON-CYCLING	7 ³ / ₄	30,000+	5,600
100	ED-23 ¹ / ₂	Mogul	97307S	HPS100/ECO/N-C	20	CLEAR/ECOSAFE/NON-CYCLING	7 ³ / ₄	30,000+	8,550
150	ED-23 ¹ / ₂	Mogul	97407S	HPS150/ECO/N-C	20	CLEAR/ECOSAFE/NON-CYCLING	7 ³ / ₄	30,000+	14,400
250	ED-18	Mogul	97607S	HPS250/ECO/N-C	20	CLEAR/ECOSAFE/NON-CYCLING	9 ³ / ₄	30,000+	26,100
400	ED-18	Mogul	97807S	HPS400/ECO/N-C	20	CLEAR/ECOSAFE/NON-CYCLING	9 ³ / ₄	30,000+	45,000

HPS Dual Arc

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
70	ED-23 ¹ / ₂	Mogul	97230	HPS70/DA	12	CLEAR/DUAL ARC TUBES	7 ³ / ₄	24,000+	5,050
100	ED-23 ¹ / ₂	Mogul	97330	HPS100/DA	12	CLEAR/DUAL ARC TUBES	7 ³ / ₄	24,000+	8,190
150	ED-23 ¹ / ₂	Mogul	97430	HPS150/DA	12	CLEAR/DUAL ARC TUBES	7 ³ / ₄	24,000+	14,000
250	ED-18	Mogul	97630	HPS250/DA	12	CLEAR/DUAL ARC TUBES	9 ³ / ₄	24,000+	24,750
400	ED-18	Mogul	97830	HPS400/DA	12	CLEAR/DUAL ARC TUBES	9 ³ / ₄	24,000+	44,000

HPS Retro-Fit

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	M.O.L. (Inches)	Avg. Life (Hours)	Mean Lumens
150	ED-28	Mogul	97440	HPS150/RETRO-FIT	12	CLEAR/RETRO-FIT ON MV & MH	8 ¹⁵ / ₁₆	24,000+	13,500
215	ED-28	Mogul	97080	HPS215/RETRO-FIT	12	CLEAR/RETRO-FIT ON MV & MH	8 ¹⁵ / ₁₆	24,000+	20,700
360	ED-37	Mogul	97740	HPS360/RETRO-FIT	6	CLEAR/RETRO-FIT ON MV & MH	11 ¹ / ₂	24,000+	40,500

ECO = ECOSAFE, N-C = NON-CYCLING, DA = DUAL ARC, MV = MERCURY VAPOR, MH = METAL HALIDE

Mean lumens are calculated at 40% of rated-life. In actual applications on a CWA ballast the mean lumens will be higher.

NOTE – For metal halide lamps that operate on HPS ballast, see page 22.

Incandescent Lamps

Coated with clear and tough PFA, Shat-R-Shield incandescent lamps offer outstanding performance and reliability. PFA is resistant to chemical contamination, degradation, and keeps its integrity and clarity over the life of the bulb. Our coating forms a protective envelope which is designed to protect your employees, worksites and products from broken glass. Our lamps resist breakage from the thermal shock of rain or snow, hot and cold liquids, and even hot weld splatters. Our lamps are also easy to clean, because food and grease will not stick to the smooth PFA coating.

Shat-R-Shield PFA coated incandescent lamps will withstand bulb-wall temperatures of up to 500°F, but continuous burning in ambient temperatures in excess of 150°F could result in some loss of protective coating. Shat-R-Shield lamps are inspected for coating thickness, integrity and lighting performance.

INDUSTRIAL SERVICE LAMPS

Similar to standard inside frost lamps, industrial service lamps are specifically designed for industrial applications where normal shock and vibration are constantly present.

VIBRATION SERVICE & ROUGH SERVICE LAMPS

Designed with added strength to the filament to provide long lasting service in areas where high frequencies, shocks or rough handling are normal. Rough service lamps have more supports than vibration service lamps.

INFRARED HEAT LAMPS

Our PFA coated heat lamps can withstand temperatures up to 500°F. Offered in red or clear types,

HALOGEN PAR LAMPS

The addition of halogen PAR lamps to Shat-R-Shield's incandescent product line offers customers more flexibility in their lighting design. Shat-R-Shield halogen PAR lamps are coated with PFA for maximum heat resistance and durability.

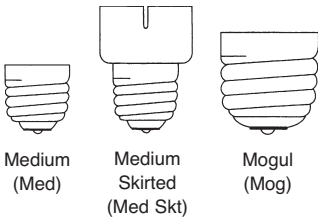
HALOGEN PAR LAMPS, ALL INCANDESCENTS, HEAT LAMPS (200 WATT and UP)

Will operate in any burning position, but fixed-socket usage other than base up, or continuous burning in any position in ambient temperatures above 150°F (66°C), may result in some loss of protective coating.

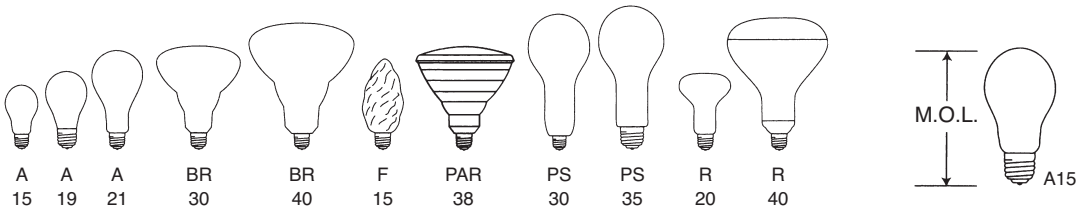


Shat-R-Shield Incandescents Safety-Coated Lamps for Your Applications

Base Types (Not Actual Sizes)



Bulb Shapes (Not Actual Sizes - Letters indicate the bulb shape while numbers indicate the diameter of the bulb in eighths of an inch.)



Shat-R-Shield Incandescent Lamp Warranty

The plastic coating on a Shat-R-Shield incandescent lamp is guaranteed not to crack, peel or turn yellow and will withstand bulb wall temperatures up to 500° F subject to the following conditions:

- The lamps should not be in enclosed fixtures or fixtures that do not allow heat dissipation.
- Lamps must be installed and operating in ambient temperatures below 150° F.
- The coating is designed to minimize glass shattering in the event a lamp is dropped or accidentally broken.
- Under certain conditions, glass fragments may escape the coating.

PFA Coated, Shatter-Resistant Incandescent Lamps

Incandescent Lamps

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	Avg. Life (Hours)	Volts	M.O.L. (Inches)
30	R-20	Med. Brass	01910S	30R20/FL	12	REFLECTOR FLOOD	2,000	130	3 ¹⁵ / ₁₆
40	A-15	Medium	01111S	40A15/IF	120	APPLIANCE/FROST	1,000	130	3 ¹ / ₂
	A-15	Medium	01116S	40A15/IF	12	APPLIANCE/FROST	1,000	130	3 ¹ / ₂
50	R-20	Medium	01727S	50R20/FL	12	REFLECTOR FLOOD	2,000	130	3 ¹⁵ / ₁₆
60	A-19	Medium	01220	60A19/IF/IS	48	INDUSTRIAL SERVICE/FROST	3,500	130	4 ⁷ / ₁₆
	A-19	Medium	01218	60A19/IF/IS	12	INDUSTRIAL SERVICE/FROST	3,500	130	4 ⁷ / ₁₆
	Above lamp operating at 120 volts (53 watts) >>						9,987	120	4 ⁷ / ₁₆
	F-15	Medium	01813S	60F15/CL	24	FLAME SHAPE/CLEAR	1,500	120	4 ¹ / ₂
65	BR-30	Medium	01222	65BR30/FL	12	REFLECTOR FLOOD	2,000	130	5 ³ / ₈
75	A-19	Medium	01231S	75A19/IF	48	FROST	750	130	4 ⁷ / ₁₆
	A-19	Medium	01219S	75A19/IF	12	FROST	750	130	4 ⁷ / ₁₆
	Above lamp operating at 120 volts (66 watts) >>						2,120	120	4 ⁷ / ₁₆
100	A-19	Medium	01224	100A19/IF	48	FROST	750	130	4 ⁷ / ₁₆
	A-21	Medium	01310	100A21/IF/RS/VS	60	ROUGH SERVICE/VIBRATION SERVICE/FROST	1,000	130	5 ⁵ / ₁₆
	A-21	Medium	01312	100A21/IF/RS/VS	6	ROUGH SERVICE/VIBRATION SERVICE/FROST	1,000	130	5 ⁵ / ₁₆
	Above lamp operating at 120 volts (94 watts) >>						1,700	120	5 ⁵ / ₁₆
	PAR-38	Medium	01616	100PAR38/FL	12	PAR FLOOD	1,500	130	5 ⁵ / ₁₆
120	BR-40	Medium	01726S	120BR40/FL	24	REFLECTOR FLOOD	2,000	130	6 ¹ / ₂
125	BR-40	Medium	01729	125BR40/1	6	CLEAR HEAT LAMP	##	120	7 ¹ / ₄
150	A-21	Medium	01316	150A21/35/IF/RS	60	ROUGH SERVICE/FROST	2,100	130	5 ⁵ / ₁₆
	Above lamp operating at 120 volts (141 watts) >>						5,950	120	5 ⁵ / ₁₆
	PAR-38	Medium	01611S	150PAR38/FL	12	PAR FLOOD	750	130	5 ⁵ / ₁₆
	Above lamp operating at 120 volts (132 watts) >>						2,000	120	5 ⁵ / ₁₆
200	PS-30	Medium	01511S	200PS30/RS	60	ROUGH SERVICE/FROST	1,000	130	8 ¹ / ₁₆
	Above lamp operating at 120 volts (177 watts) >>						2,830	120	8 ¹ / ₁₆
250	BR-40	Medium	01725I	250BR40/1	12	CLEAR HEAT LAMP	##	120	6 ¹ / ₂
	R-40	Medium	01713I	250R40/RED	12	RED HEAT LAMP	##	120	6 ⁷ / ₈
300	PS-30	Medium	01512	300PS30/IF	60	FROST	750	130	8 ¹ / ₁₆
	Above lamp operating at 120 volts (265 watts) >>						2,120	120	8 ¹ / ₁₆
	PS-35	Mogul	01513	300PS35/IF	12	FROST	1,000	130	9 ³ / ₈
	Above lamp operating at 120 volts (265 watts) >>						2,854	120	9 ³ / ₈

PFA Coated, Shatter-Resistant Halogen Lamps

Halogen PAR Lamps

Nominal Lamp Watts	Bulb	Base	UPC/ Catalog Order#	Ordering Description	Std. Pkg. Qty.	Comments	Avg. Life (Hours)	Volts	M.O.L. (Inches)
60	PAR-38	Med. Skt.	01620S	60PAR/CAP/IR	15	HALOGEN INFRARED PAR FLOOD	3,000	130	5 ⁵ / ₁₆
80	PAR-38	Med. Skt.	01621S	80PAR/CAP/IR	12	HALOGEN INFRARED PAR FLOOD	3,000	120	5 ⁵ / ₁₆
90	PAR-38	Med. Skt.	01622S	90PAR/CAP/SPL	15	HALOGEN PAR FLOOD	2,500	130	5 ⁵ / ₁₆
100	PAR-38	Med. Skt.	01623S	100PAR/CAP/IR	12	HALOGEN INFRARED PAR FLOOD	3,000	120	5 ⁵ / ₁₆
120	PAR-38	Med. Skt.	01624S	120PAR/CAP/SPL	15	HALOGEN PAR FLOOD	3,000	130	5 ⁵ / ₁₆
250	PAR-38	Med. Skt.	01625S	250PAR/CAP/SPL	6	HALOGEN PAR FLOOD	4,500	120	5 ⁵ / ₁₆

\$ – Energy-Saving Product

ALTO® – Reduced Mercury Lamps

– Average laboratory life in excess of 5,000 hours. In-service life depends upon service conditions.

NOTE – Energy-Saving lamps are not intended for use in ambient temperatures below 60°F, in drafty locations, on low power factor ballasts, reduced current and light output ballasts, dimming ballasts, or on inventor powered emergency lighting systems.

NOTE – The incandescent lamps shown above are stock items. We can provide other PFA coated incandescents, however, there is a minimum order required. Please contact your local distributor, sales rep or the factory for minimum requirements and prices.

EPACT INFORMATION - Certain 130 volt lamps listed above indicate that they can be operated at 120 volt for greater energy savings and longer life. Please note that at 120 volt operation, the life increases and the lumen output decreases.

Heat lamps are not guaranteed by the lamp manufacturer.



PFA Safety-Coated Globes

Superior to silicone rubber coated globes, Shat-R-Shield's PFA coated globes are more transparent, allowing more lumen output and range of vision. Shat-R-Shield's coated globes are also easier to clean (nothing sticks to PFA) and resist thermal shock from grease and other liquid splatters. These globes can reliably withstand the heat emitted by a 100-watt incandescent lamp.

Shat-R-Shield's shatterproof, PFA coated globes are designed to be safely used in food preparation and storage areas to protect employees, products and worksites from contamination by broken glass. Entrance and exit doors; shipping and receiving docks; and range hoods in foodservice are ideal applications. If a Shat-R-Shield globe is broken, virtually all glass is safely contained within the smooth, PFA coating.

PFA has excellent long-term resistance to extreme heat or cold, and is unaffected by ultraviolet (UV) light. PFA is chemically inert and is normally unaffected by chemicals. PFA will not yellow, crack or flake.

PFA Coated, Shatter-Resistant Globes

Globes

Style	Base Diameter (Inches)	Height (Inches)	UPC/ Catalog Order#	Description	Std. Pkg. Qty.	Coating Material
Globe	3 ¹ / ₄ "	6 ¹ / ₂ "	G1001	CLEAR, SAFETY COATED GLASS GLOBE	32	PFA
	3 ¹ / ₄ "	6 ¹ / ₂ "	G1002	CLEAR, SAFETY COATED GLASS GLOBE	2	PFA

Glossary of Terms

Average Life (Hours)

Under specified test conditions with lamps turned off and on no more often than once every three burning hours. Lamp life is appreciably longer if lamps are started less frequently.

Color Temperature (CT)

The overall color appearance of the light itself. Lamps range from 2100-7500 Kelvin. Lower color temperature (3000K) represents "warm" light, higher (4100K) represents "cool" light.

Color Rendering Index (CRI)

Color rendering is the ability of a light source to produce color in objects. The CRI is expressed on a scale from 0-100, where 100 is best in producing more natural color in objects.

Initial Lumens

Lumen value at 100 hours of burn time.

Instant Start

A circuit used to start specially-designed fluorescent lamps without the aid of a starter. This circuit is used today in slim-line and cold cathode lamps.

Light

The energy that allows us to see. Professionally, light can be expressed in four terms: 1) Intensity (candela), 2) Flux (lumen), 3) Luminance (candela/sq. ft.) and 4) Exitance (lumen/sq. ft.).

Lumen

The unit of measure for the light energy which flows in air. The total light output from electric sources is expressed in lumens.

Lumen Maintenance

The decrease of the lumen output of a light source over time.

Mean Lumens

Mean lumens are the approximate lamp lumen output at 40% of the lamp's Rated Average Life.

Nominal Length

A measurement of fluorescent lamp length based on the length of the lamp plus the proper allowance for standard lamp holders.

Preheat

A circuit used in fluorescent lamps where in the electrodes are heated or warmed to a glow stage by an auxilliary switch or starter before the lamps are lighted. This system was used on the original fluorescent lamps and is still in use today.

Rapid Start

A circuit designed to start lamps by continuously heating or preheating the electrodes. This circuit is a modern version of the trigger start system and requires lamps designed for this circuit. Except for slimline lamps, all modern fixtures using 40-watt and higher lamps are equipped with rapid start ballasts.

Rated Average Life

The operating life (hours) at which 50% of the lamps are still operating. Where a (+) is used in stating the life, survival rate is 67% at the stated time.

Watt

Unit used to measure power consumption of lamp.

Footnotes

- (1) The pins of these lamps are short circuited inside the end caps and lamp will not operate on preheat or rapid start ballast circuits.
 - (2) Designed for service other than illumination.
 - (3) Energy-saving lamps are only recommended for use on high power factor lead, indoor ballasts that meet ANSI standards. The lamps are not recommended for use in drafty areas, or locations where the ambient temperature is less than 60°F, except as noted. They should not be operated on low power factor ballasts, reduced light or reduced current ballasts, dimming ballasts or emergency system inverter ballasts.
 - (4) These lamps do not use PFA to seal the cathode ends as T-8 lamps with the PFA/Shat-R-Kote Combination. While less expensive, these lamps IF NOT USED ON ELECTRONIC BALLAST MUST BE USED IN REFRIGERATED AREAS WHERE AMBIENT TEMPERATURES DO NOT EXCEED 45°F. Due to the high heat generated at the cathode ends, any use of these lamps in conditions above 45°F may cause deterioration of the protective coating. Conversely, T-8 lamps used in freezing temperatures will not operate efficiently, coated or uncoated. Because Shat-R-Shield, Inc. has no control over the temperature range in the areas where lamps are operated, their performance cannot be guaranteed. However, T-8 lamps for refrigerated areas are being used in refrigerated areas with apparent success and can be expected to perform as well as other Shat-R-Shield lamps.
 - (5) When used in insect electrocutors, we recommend replacement of lamps after 7,000 hours of use because the black light in a coated or uncoated lamp deteriorates at a predictable rate. After 7,000 hours, the lamp's ability to attract insects is ineffective.
 - (6) Appliance lamp – for use with starters.
 - (7) To be operated on electronic ballasts.
- Ⓔ – These lamps comply with United States federal energy efficiency requirements.

Name: _____
Address: _____
City: _____ **State:** ____ **ZIP:** ____
Phone/Fax: _____
E-mail: _____

PURCHASE ORDER

PO No:

Date:

Bill To:

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Ship To: _____

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TERMS		SHIPPED VIA		ISSUED BY	
QTY	DESCRIPTION	UNIT PRICE	AMOUNT		

TO SUBMIT YOUR ORDER, FAX TOLL FREE TO 866-271-3420.

shat-r-shield[®] INC.
PLASTIC-COATED. SHATTERPROOF LAMPS & LIGHTING PRODUCTS

116 Ryan Patrick Drive, Salisbury, NC 28147
800-223-0853 - Fax 704-633-3420
www.shatrshield.com

- **Guarantee:** Coating is guaranteed to last for the rated-life of the fluorescent lamp.
- **Coating:** Skin-tight plastic to prevent dust, oil and heat build-up. Prevents premature lamp burnout and allows higher lumen output.
- **Full Protection:** Tough coating forms a complete seal, end-to-end, in a full 16-mils thickness, which will safely contain virtually all glass, phosphors and mercury if a lamp is accidentally broken.
- **UV Protection:** Antioxidants and ultraviolet stabilizers are present in the clear coating to block UV emissions from 180 to 390 nanometers.
- **Light Output:** Provides maximum protection with minimum light output loss of less than 1%.
- **Installation Ease:** Ready to install -- right out of the box -- without the extra assembly of risky and awkward plastic sleeves and end caps.
- **Safety:** Installation by one person -- ensuring bare, unprotected glass is never exposed to employees or work environments.

IT'S ALL COVERED



shat-r-shield® INC.
PLASTIC-COATED, SHATTER-RESISTANT LAMPS & LIGHTING PRODUCTS

Shat-R-Shield, Inc. • 116 Ryan Patrick Drive • Salisbury, NC 28147

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EcoSafe® is a trademark of Shat-R-Shield, Inc.

Shat-R-Shield coated fluorescent lamps and their manufacture are covered by U.S. Patent No. 4,507,332, 4,499,850, 5,021,710 and 5,043,626. Canadian Patents 1,126,501 and 1,118,034.

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The color ORANGE is a registered trademark of Shat-R-Shield®