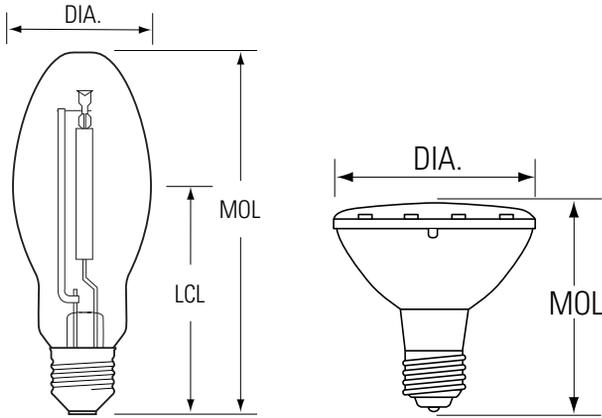




CONSTANTCOLOR® CMH™ METAL HALIDE LAMPS	
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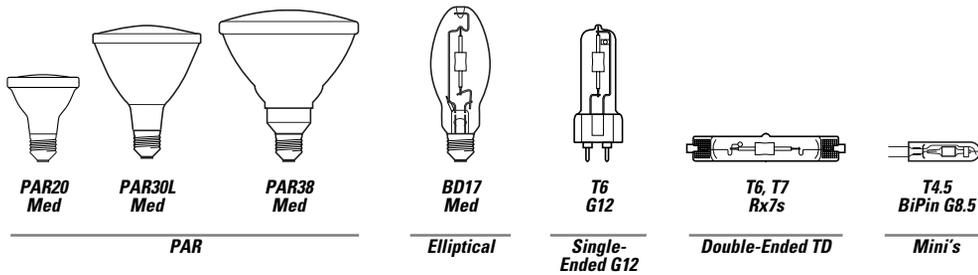
BULB IDENTIFICATION



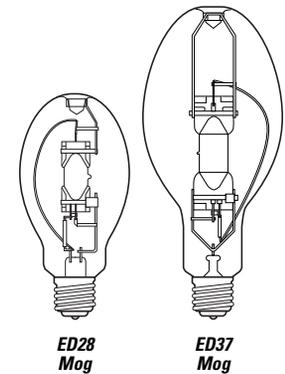
DIA: Diameter of bulb at widest point.
 MOL: Maximum Overall Length including base or pins.
 LCL: Distance between the center of the arc tube and the Light Center Length reference plane.
 Note: Lamp drawings are not drawn to scale.
 Be sure to check size and dimension information when identifying each lamp.

To convert inches to millimeters, multiply the dimension (in inches) by 25.4 (i.e. 1.5" x 25.4 = 38.1 mm).

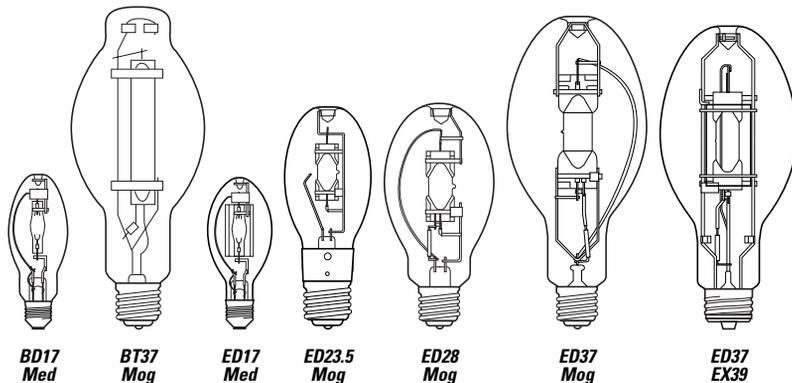
LAMP LOCATOR



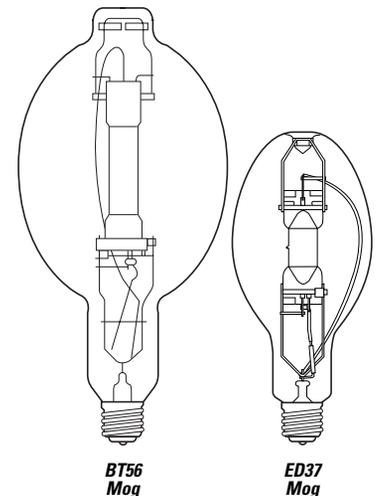
ConstantColor® CMH™ Ceramic Metal Halide



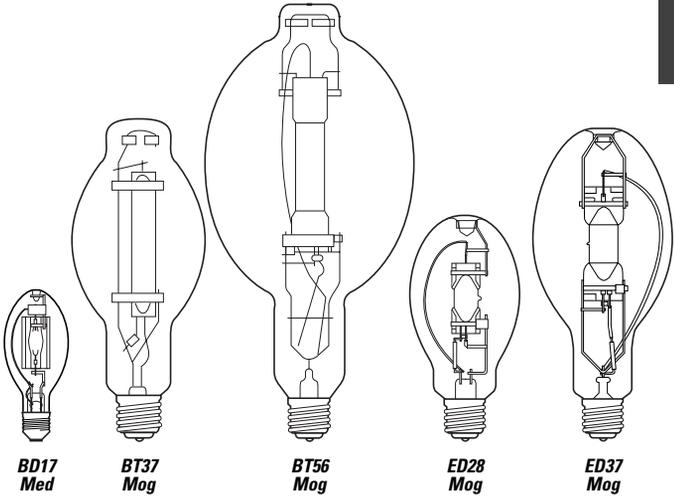
Chromafit™ Multi-Vapor® Metal Halide Lamps (HPS Retrofit Lamps)



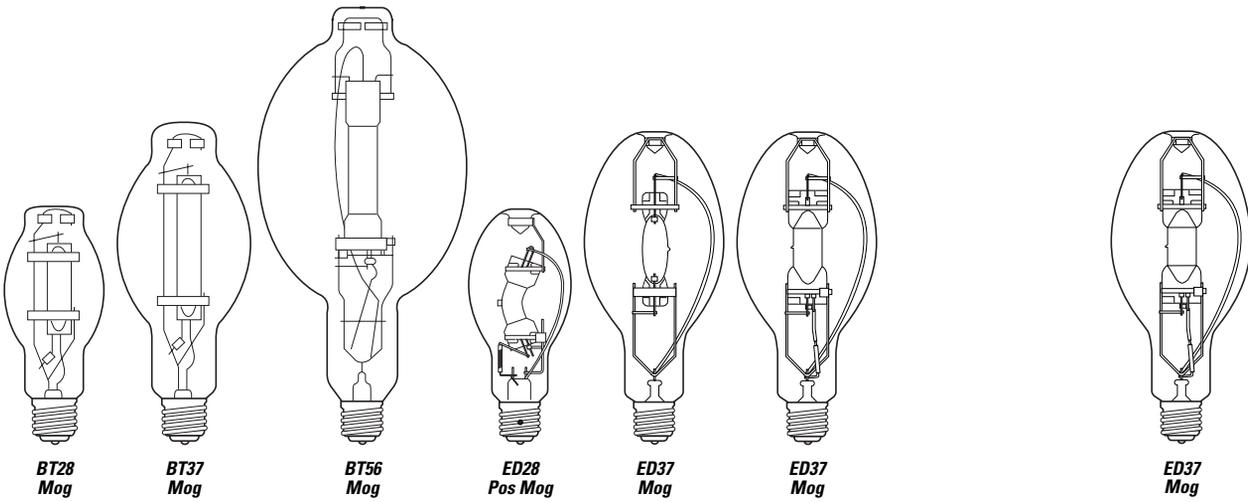
PulseArc™ Multi-Vapor® Metal Halide Lamps



I-Line Multi-Vapor® Metal Halide Lamps (Mercury Retrofit Lamps)

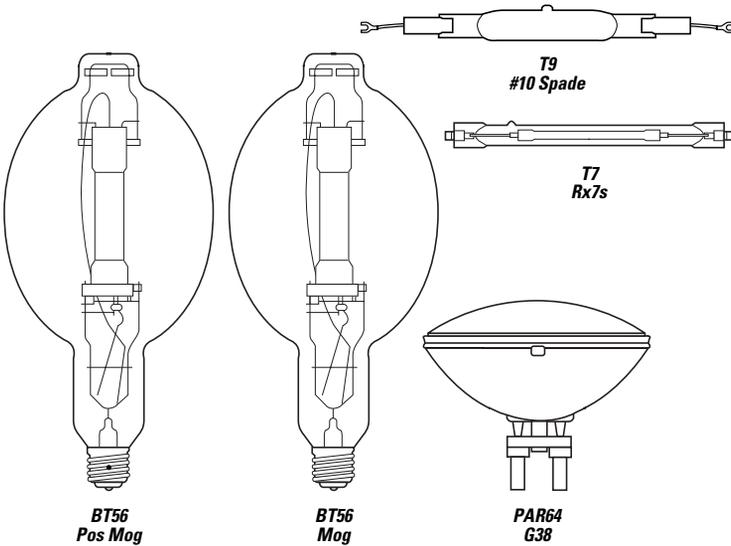


Multi-Vapor® Metal Halide Lamps

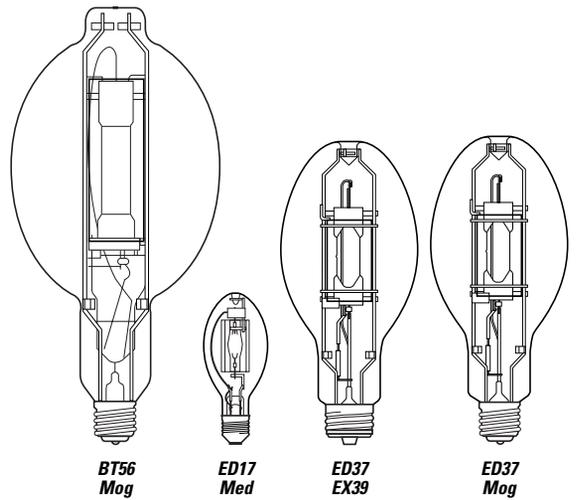


High Output and XHO Multi-Vapor® Metal Halide Lamps

**Saf-T-Gard®
Self-Extinguishing
Multi-Vapor® Lamps**

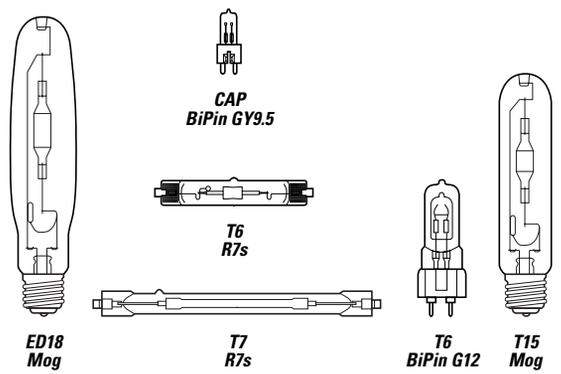


Sportsighting

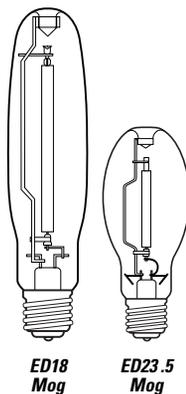


Protected Multi-Vapor® Metal Halide Lamps

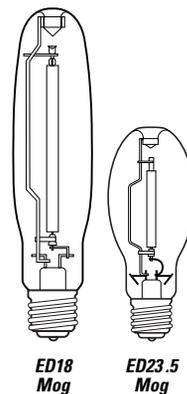
High Intensity Discharge Lamps



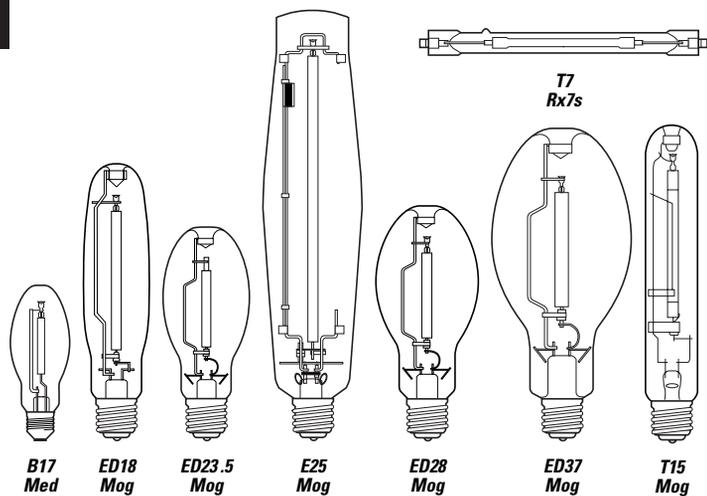
Arcstream™ Metal Halide Lamps



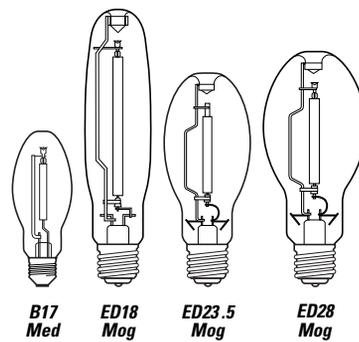
**Ecolux® NC
Non-cycling
High Pressure
Sodium Lamps
(TCLP Compliant)**



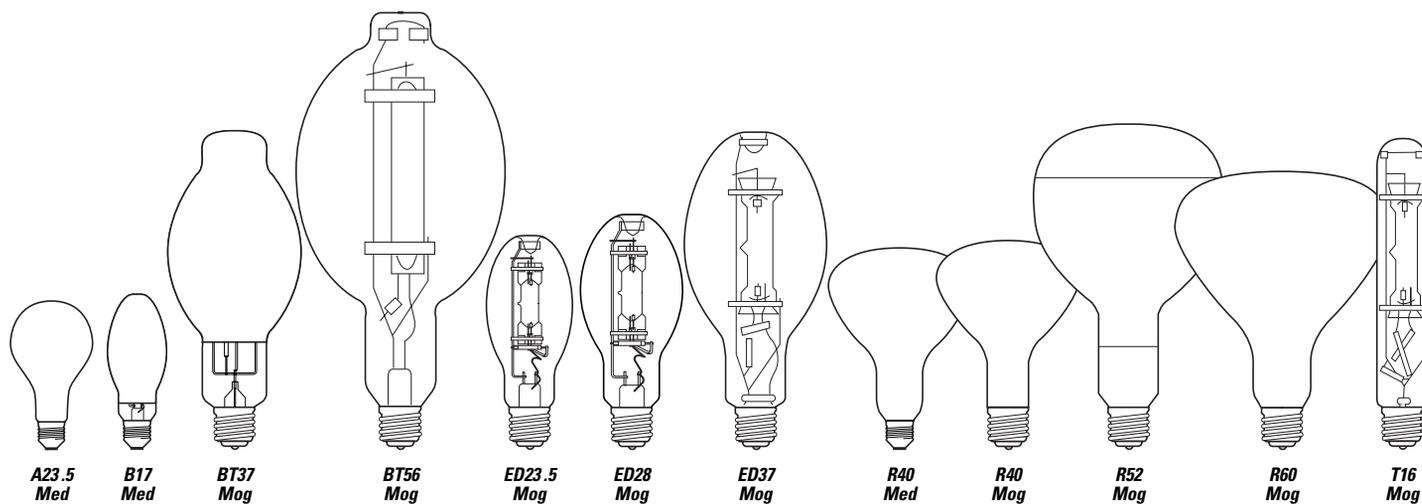
**Ecolux®
High Pressure
Sodium Lamps
(TCLP Compliant)**



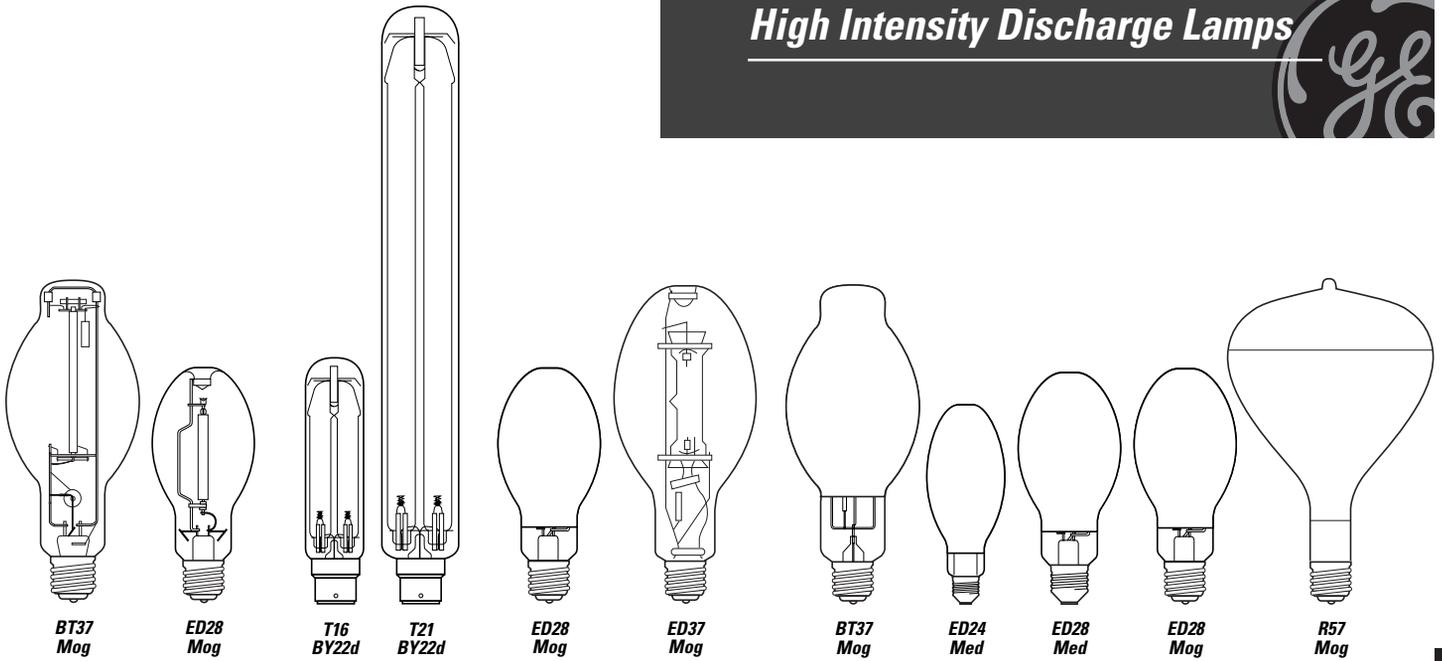
Lucalox® High Pressure Sodium Lamps



**Deluxe Lucalox® High Pressure
Sodium Lamps**



Mercury Lamps



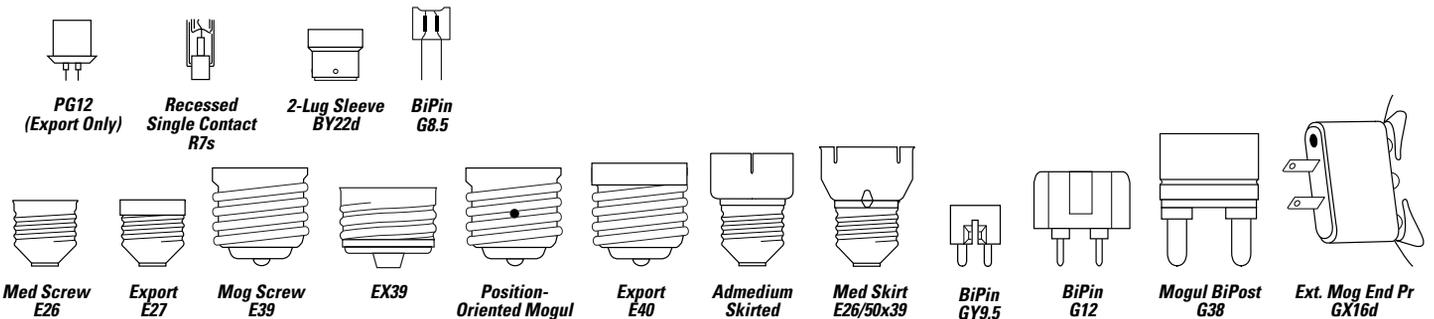
E-Z Lux® High Pressure Sodium Lamps (Mercury Retrofit)

SOX Low Pressure Sodium Lamps

Saf-T-Gard® Mercury Lamps

E-Z Merc® Self-Ballasted Lamps (Incandescent Retrofit)

BASE IDENTIFICATION



INTRODUCTION

GE HID lamps provide the following benefits:

High Efficacy/Low Operating Cost.

HID is generally the most efficient light source. Better efficiency almost always means lower operating cost.

Long Life.

Most HID lamps have life ratings that are better than incandescent lamps and similar to fluorescent lamps.

Compact Size.

An HID lamp produces high light output from a relatively compact source. Like incandescent, it is a "point" light source, which allows for good optical control.

The chart below shows how HID lamps compare to incandescent, halogen, and fluorescent in terms of efficiency and rated average life. Efficiency is measured in lumens per watt (LPW). Rated average life for most lamp types is the number of burning hours when 50% of the tested samples have failed and 50% are still operational. For both HID and fluorescent, lamp life depends on the number of hours per start.

The combination of high efficiency and long life makes HID an ideal light source for many commercial and industrial applications.

Typical Lamp Characteristics

Lamp Type	Typical LPW	Rated Avg. Life (in hours)
Incandescent	5 - 22	750 - 2000
Halogen	12 - 36	2000 - 6000
Compact Fluorescent	27 - 80	9000 - 20,000
Fluorescent	75 - 100	12,000 - 24,000 +
Mercury	50 - 60	12,000 - 24,000 +
ConstantColor® CMH™	80 - 95	6,000 - 15,000
Multi-Vapor® Metal Halide	80 - 115	10,000 - 20,000
Lucalox® High Pressure Sodium	90 - 140	10,000 - 40,000



INTRODUCTION (CONTINUED)

SUGGESTED COLOR APPLICATIONS FOR HID LAMPS

CMH™: Stores, people places, display, accent.

MVR: Stores, public spaces, industrial, gymnasiums, floodlighting signs and buildings, parking areas, sports.

MVR/C: Same as MVR – warmer color – diffuse coating reduces glare.

MVR/SP30: Same as MVR – warmer than MVR or MVR/C – matches SP30 fluorescent.

MXR: Warm color (3200K) – good match for halogen.

LU: Street lighting, parking areas, industrial, floodlighting, security, CCTV.

LU/DX: Floodlighting, parking areas, indoor/outdoor pedestrian malls, industrial, security, roadway.

Deluxe (DX) Mercury: Stores, public spaces – Metal Halide lamps however, are preferred.

Clear Mercury: Landscape lighting, specialized floodlighting such as green copper roofs.

PRODUCT INFORMATION

GE CONSTANTCOLOR® CMH™ CERAMIC METAL HALIDE LAMPS (pg 3-9)

- Color uniformity lamp-to-lamp and over lamp life
- Excellent color rendering (80+CRI)
- Delivers more light than standard metal halide (10%–20% more than standard metal halide)
- Lamp operates at high efficacy — up to 95 lumens per watt
- Universal burn — may be operated in any position
- Easy retrofit since lamp operates on standard metal halide ballasts
- Perfect for retail and commercial display lighting, accent and floodlighting, lobby and foyer lighting. Ideal for “people places.”

GE MULTI-VAPOR® METAL HALIDE LAMPS (pgs 3-10 to 3-15)

- Sparkling white light (3000-4000K) and very good color rendition (65-75CRI)
- Warm, rich 3000K color of SP30 blends well with incandescent, halogen and triphosphor fluorescent lamps for interior retail applications
- High efficacy – more efficient than incandescent, mercury and most fluorescent sources
- Long life – 10,000-20,000 hours for most types
- Full line, 150-1000 watts, to meet most application needs
- Uses: Downlighting, floodlighting, corridors, lobbies, walkways; retail, commercial, industrial

GE PULSEARC™ MEDIUM BASED METAL HALIDE LAMPS (/MED MODELS) (pg 3-10)

- Low wattage metal halide lamps (formerly Halarc®) are now part of the PulseArc™ family
- Compact source
- Sparkling white light (3000-4000K) and very good color rendition (70-75CRI)
- High efficacy – more than 3 times the lumens per watt of incandescent
- Long life – up to 15 times longer than incandescent systems and up to 7 times longer than most PAR and R systems, saving maintenance and labor costs
- Superior optical control
- Uses: Display lighting, downlighting, floodlighting, corridors, lobbies, walkways; retail, office, commercial

GE PULSEARC™ MULTI-VAPOR® METAL HALIDE LAMPS (/PA MODELS) (pgs 3-10 and 3-11)

- Designed for operation only on approved ballasts with metal halide pulse ignitors
- More light – 400W lamps provide highest initial and highest maintained lumens versus other standard universal or vertical base-up lamp options
- 50% longer life – 400W lamps provide 30,000 hours life when burned on 120 hour on/1 hour off cycle (approximately continuous)
- Faster hot restrike – less than 4 minutes versus 10-15 minutes for typical metal halide lamps

GE HIGH OUTPUT MULTI-VAPOR® LAMPS (pgs 3-12 and 3-13)

- More light – optimized for higher light output in horizontal, vertical base-up and base-down burn applications
 - Horizontal burn lamps provide up to 25% more light than standard universal burn equivalents
 - 400W/XHO vertical burn lamps provide up to 22% more light than standard universal burn equivalents; the highest lumen lamps available for operation on standard M59 ballasts
- Longer life – horizontal burn lamps last up to 67% longer than universal burn lamp equivalents, significantly reducing replacement lamp and maintenance costs
- Brighter longer - introducing GE Staybright® (/STB) with 32% higher mean lumens
- Uses: any application where fixed-orientation lamps can be used. Gas stations, sports lighting, billboards, retail, office, roadway, parking garages, floodlights, sign lighting.

GE PROTECTED HIGH OUTPUT MULTI-VAPOR® LAMPS (/O) (pg 3-14)

- Protective quartz jacket surrounds the arc tube
- The/O suffix and/or the “MPR” prefix in the Lamp Description indicates lamps are suitable for open fixture applications

GE CHROMAFIT™ MULTI-VAPOR® LAMPS (/R) (pg 3-14)

- Convert high pressure sodium sockets to crisp white metal halide light
- Operate on standard HPS ballasts and auxiliary equipment
- Uses: Area lighting, industrial and “people places”



PRODUCT INFORMATION (CONTINUED)

GE I-LINE MULTI-VAPOR® LAMPS (pg 3-15)

- Convert mercury sockets to crisp, white metal halide light
- More light, better color, energy cost savings for mercury users
- 40%-100% more light than existing mercury lamps
- Operate on standard CW and CWA mercury ballasts and auxiliary equipment

GE SAF-T-GARD® MULTI-VAPOR LAMPS (MVT) (pg 3-15)

- Special self-extinguishing feature prevents exposure to harmful UV in case outer bulb is punctured or broken; lamp turns off within 15 minutes
- Meets requirements of Federal Standard 21CFR1040.30
- Saf-T-Gard® I-line lamps convert mercury sockets to crisp, white metal halide light
- Saf-T-Gard® I-line lamps operate on standard mercury ballasts and auxiliary equipment
- Uses: Industrial, commercial, gymnasiums, sports complexes, especially where open fixtures are used and risk of outer bulb breakage is possible

GE ARCSTREAM™ METAL HALIDE LAMPS (pg 3-15)

- Compact size, white light, excellent color
- Precise optical control delivers a concentrated beam of light right where it's needed
- Variety of color temperatures (3,000K - 6,000K)
- PAR64: ideal for long-range projection and sports lighting applications
- Uses: Ideal for retail and commercial display lighting, floodlighting, accent/highlighting

GE LUCALOX® HIGH PRESSURE SODIUM LAMPS (pg 3-15 to 3-17)

- Very high efficacy/low operating cost
- Superior lumen maintenance – over 90% @ 50% of life
- Very long life – 24,000+ hours
- Universal burn – can be operated in any position without affecting performance
- Warm color
- For open or enclosed fixtures
- Uses: Industrial, roadway, security, floodlighting

GE DOUBLE-ENDED LUCALOX® LAMPS (TD) (pg 3-17)

- Compact tubular design fits compact fixtures for excellent optical control
- High efficacy, lumen maintenance and long life of standard Lucalox® HPS

GE STANDBY LONGLIFE LUCALOX® LAMPS (SBY) (pg 3-17)

- Extra arc tube provides light instantly after momentary power interruption, and will increase to 80% light output in 1-2 minutes
- Dual arc tubes provide 40,000 hour rated life
- Operates on standard HPS ballasts and auxiliary equipment
- Uses: Industrial, roadway, security, and hard-to-reach sockets

GE ECOLUX® NC “NON-CYCLING” HIGH PRESSURE SODIUM LAMPS (ECO/NC) (pg 3-17)

- Low mercury. Passes TCLP, which can lower disposal costs.
- Non-cycling feature makes locating and replacing end-of-life lamps quick and easy
- Lead-free base
- High efficacy/low operating cost
- 6%-11% higher initial lumens than standard HPS in 100W and 400W versions
- Long life - 24,000 hours
- Open or enclosed fixtures
- Uses: Industrial, roadway, security

GE ECOLUX® HIGH PRESSURE SODIUM LAMPS (ECO) (pg 3-18)

- Lead-free base. Passes TCLP, which can lower disposal costs.

GE DELUXE LUCALOX® HIGH PRESSURE SODIUM LAMPS (pg 3-18)

- High efficacy, lumen maintenance and long life of standard Lucalox® HPS
- High color rendering (65-70CRI), much better than standard HPS
- Blends well with incandescent and standard HPS sources
- Operates on standard HPS ballasts and auxiliary equipment
- Uses: Storage rooms, industrial facilities, offices, gymnasiums, malls, parks, building floodlighting

GE E-Z LUX® HIGH PRESSURE SODIUM LAMPS (pg 3-18)

- Direct replacement for mercury lamps on mercury ballasts
- More efficient, 57-114% more lumens and 10-14% fewer watts than mercury lamps they replace
- Uses: General lighting, roadway
- See operating notes for further information

GE SOX LOW PRESSURE SODIUM LAMPS (pg 3-18)

- Highest luminous efficacy for general, not for color-critical lighting
- Monochromatic, yellow color (589nm)

GE MERCURY LAMPS (pg 3-19)

- Long life and good efficacy
- Phosphor coated Deluxe lamps provide good color rendering(50CRI)
- Uses: Industrial, roadway, landscapes, residential and commercial security, parking lots

GE SAF-T-GARD® MERCURY LAMPS (pgs 3-19 and 3-20)

- Special self-extinguishing feature prevents exposure to harmful UV in case outer bulb is punctured or broken; lamp turns off within 15 minutes
- Meets requirements of Federal Standard 21 CFR 1040.30
- See operating notes for further information



PRODUCT INFORMATION (CONTINUED)

GE EZ MERC® SELF BALLASTED MERCURY LAMPS (pg 3-20)

- Retrofit incandescent sockets to longer-life mercury lamps without additional mercury ballasts or auxiliary equipment

GE EXPORT BASE LAMPS (pg 3-20 and 3-21)

- Export-only lamps are not intended for use in North America due to potential shock hazard. The lamps are identified by “/27” or “/40” at the end of the lamp description, and comply with electrical characteristics defined by IEC standards.
- Bulb shapes are generally similar to U.S. lamp types. Refer to drawings on pages 3-2 to 3-5.

HEADINGS IN THIS CATALOG SECTION

The following terms and descriptions can help you when checking High Intensity Discharge lamp specifications and when ordering products. Within each product line, lamps are divided into families. Within families, lamps are listed by wattage. In each of these wattage groups, lamps are listed by bulb shape.

HID BRAND NAME CROSS-REFERENCE

GE	OSRAM/SYLVANIA	PHILIPS
Arcstream™ MQI	BRITE-LINE™, HQI®	MHN-TD
ChromaFit™ Multi-Vapor®	—	—
ConstantColor® CMH™ Ceramic Metal Halide	—	MasterColor™ CDM
Deluxe Lucalox®	—	Ceramalux™ Comfort
E-Z Lux®	Unalux®	Ceramalux™ Retrolux
E-Z Merc®	—	Self Ballasted Mercury
Ecolux®	Lumalux ECO®	Ceramalux Alto®
Ecolux® NC	Lumalux Plus™/ECO®	Ceramalux Alto® Plus
High Output Multi-Vapor®	Super Metalarc®	Metal Halide
Horizontal Multi-Vapor®	Super Metalarc®	—
I-Line Multi-Vapor®	—	—
Lucalox®	Lumalux®	Ceramalux™
Multi-Vapor®	Metalarc®	Metal Halide
Protected High Output Multi-Vapor®	Metalarc® Pro-Tech™	—
PulseArc™	Super Metalarc® Pulse Start	Pulse Start
Saf-T-Gard™ Mercury	Mercury Safeline®	Safety Lifeguard Mercury
Saf-T-Gard™ Multi-Vapor®	Metalarc® Safeline®	Safety Lifeguard Metal Halide
SOX Low Pressure Sodium	SOX Low Pressure Sodium	SOX Low Pressure Sodium
Standby Longlife Lucalox®	Lumalux® Standby	Instant Restrike Ceramalux™
StayBright®	—	—
Watt-Miser® Multi-Vapor®	—	—

ATTENTION: This brand-name cross-reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp manufacturers' performance specifications should be consulted. Lamp performance may be affected by environmental conditions, ballast type and/or other auxiliary equipment.

Approximate CBCP (Center Beam Candlepower):

For reflector type lamps. Center Beam Candlepower is the intensity (candelas) at the center or maximum intensity of the beam. Used only for ConstantColor® CMH™ Metal Halide Lamps.

Bulb:

Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).

LET (Lamp Enclosure Type):

Describes fixture requirements for this lamp (see page 3-22).

OP (Operating Position):

(see page 3-22).

MOL:

Maximum Overall Length in inches.

Base Type:

The type of base.

LCL:

Distance between the center of the filament and the Light Center Length reference plane, in inches.

Order Code:

It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

Lamp Description:

The lamp's identification code.

Lumens - Mean:

Lamp light output (lumens) at 40% of rated lamp life for Metal Halide lamps and 50% of rated life for Mercury and HPS lamps.

Case Qty.:

Number of product units packed in a case.

ANSI Ballast Type:

Ballast type used to operate lamp.

Lumens - Initial:

Initial light output.

Rated Avg Life Hours:

Lamp burning hours to median life expectancy.

Color Temperature Kelvins (K):

A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value the whiter or "cooler" the light appears.

Color Rendering Index (CRI or R_a):

An indication of the ability of the lamp to render object colors in a normal, natural way. The higher the number (0-100), the better the color appearance.

Additional Information:

Typical application and/or other important information.

Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
ED37	Mog	S	VBU	11.5	7	49656	MVR400/C/VBU	M59	6	20000	41000	26500	3700	70	Coated	

MVR400 / C / VBU

Identifies as Multi-Vapor® lamp. Identifies the lamp's wattage. Outer bulb finish. Operating position (see page 3-22)

WHEN YOU DON'T KNOW THE LAMP DESCRIPTION

1. Identify bulb shape by using illustrations on pages 3-2 to 3-5.
2. Measure bulb diameter using ruler in Appendix section page A-1 to determine width in eighths of an inch.
3. Identify base type using table on page 3-5.
4. Find your lamp in the tabular data containing the bulb shape, size and base, which are all listed by wattage.



Bulb	Base	LET	OP	Watts	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	CBCP	Rated Avg. Life Hours		Lumens		Color Temp. K	CRI	Footnotes
												Initial	Mean	Initial	Mean			
CONSTANTCOLOR® CMH™ METAL HALIDE LAMPS																		
PAR (COLOR STABILITY OVER LIFE –150K)																		
PAR20	Med	0	U	39	3.12		42068	CMH39/UPAR20/FL25	M130	15	7500	10000	2100	N/A	3000	> 85	33, 41	
							42069	CMH39/UPAR20/SP10	M130	15	22000	10000	2100	N/A	3000	> 85	33, 41	
PAR30L	Med	0	U	39	4.75		42066	CMH39/PAR30L/SP15	M130	6	29000	10000	2400	N/A	3000	> 80	33, 41	
							42067	CMH39/PAR30L/FL25	M130	6	11000	10000	2400	N/A	3000	> 80	33, 41	
							45066	CMH39/PAR30L/SP10	M130	6	39600	10000	2400	N/A	3000	> 80	33, 41	
							22152	CMH70/PAR30L/830SP	M98 or M139	6	43000	10000	4700	N/A	3000	> 80	33, 41	
				70	4.75		22159	CMH70/PAR30L/830FL	M98 or M139	6	10000	10000	4700	N/A	3000	> 80	33, 41	
PAR38	Med	0	U	70	5.31		45675	CMH70/PAR38/830SP15	M98 or M139	6	40000	10000	4800	N/A	3000	> 80	33	
							45677	CMH70/PAR38/830FL25	M98 or M139	6	14000	10000	4800	N/A	3000	> 80	33	
							45679	CMH70/PAR38/830WVF	M98 or M139	6	10000	10000	4800	N/A	3000	> 80	33	
							45680	CMH100/PAR38/830S15	M90 or M140	6	45000	10000	6500	N/A	3000	> 80	33	
							45681	CMH100/PAR38/830F25	M90 or M140	6	15000	10000	6500	N/A	3000	> 80	33	
				100	5.31		45682	CMH100/PAR38/830W	M90 or M140	6	10000	10000	6500	N/A	3000	> 80	33	
ELLIPTICAL (COLOR STABILITY OVER LIFE –150K)																		
BD17	Med	E	U	70	5.43	3.37	22119	CMH70/U/830/MED	M98 or M139	6	10000	6300	4500	3000	> 80			
							22124	CMH70/C/U/830/MED	M98 or M139	6	10000	6000	4300	3000	> 80			
				100	5.43	3.37	22127	CMH100/U/830/MED	M90 or M140	6	10000	9200	6600	3000	> 80			
							22137	CMH100/C/U830/MED	M90 or M140	6	10000	8700	6300	3000	> 80			
SINGLE-ENDED G12 (COLOR STABILITY OVER LIFE –75K)																		
T6	BiPin G12	E	U	39	3.56	2.18	42070	CMH39/T/U/830/G12	M130	12	10000	3400	2400	3000	> 80	33, 39, 41		
							92582	CMH70/T/U/830/G12	M85, M98, or M139	12	15000	6200	5000	3000	> 80	33, 39, 41		
							92583	CMH70/T/U/942/G12	M85, M98, or M139	12	15000	6400	5200	4200	> 90	33, 39, 41		
				150	3.93	2.18	92584	CMH150/T/U/830/G12	M81, M102 or M142	12	12000	14000	11000	3000	> 80	33, 39, 41		
							92586	CMH150/T/U/942/G12	M81, M102 or M142	12	12000	13000	11000	4200	> 90	33, 39, 41		
DOUBLE-ENDED TD (COLOR STABILITY OVER LIFE –75K)																		
T6	Rx7s	E	H45	70	4.5	2.25	92587	CMH70/TD/830/RX7S	M85, M98, or M139	12	15000	7000	5600	3000	> 80	33, 39		
							92588	CMH70/TD/942/RX7S	M85, M98, or M139	12	15000	7000	5600	4200	> 90	33, 39		
T7	Rx7s	E	H45	150	5.37	2.62	92589	CMH150/TD/830/RX7S	M81, M102 or M142	12	15000	14000	11500	3000	> 80	33, 39		
							92590	CMH150/TD/942/RX7S	M81, M102 or M142	12	15000	14000	11500	4200	> 90	33, 39		
MINI'S																		
T4.5	BiPin G8.5	E	U	20	3.37	2	92696	CMH20/TC/U/830/G8.5	Pending	12	6000	1700	1200	3000	> 80	33, 39, 41		
							90352	CMH39/TC/U/830/G8.5	M130	12	9000	3400	2600	3000	> 80	33, 39, 41		
							92585	CMH70/TC/U/830/G8.5	M98 or M139	12	9000	6200	4700	3000	> 80	33, 39, 41		

High Intensity Discharge Lamps



Bulb	Base	LET	OP	MOL	LCL	Order		Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours		Lumens		Color Temp. K CRI		Additional Information	Footnotes	
						Code					Initial	Mean							
PULSEARC™ MULTI-VAPOR® METAL HALIDE LAMPS																			
32 WATTS																			
ED17	Med	O	VBD	5.43	3.43	12651		MXR32/C/VBD/O	M100	6	10000	2400	1700	3200	70	Coated, Protected			
			VBU	5.43	3.43	16469		MXR32/C/VBU/O	M100	6	10000	2400	1700	3200	70	Coated, Protected			
50 WATTS																			
ED17	Med	O	U	5.43	3.43	45670		MXR50/U/MED/O	M110	6	10000	3400	1700	3500	70	Clear, Protected			
						45671		MXR50/C/U/MED/O	M110	6	10000	3200	1500	3500	70	Coated, Protected			
BD17	Med	E	U	5.43	3.43	10361		MXR50/U/MED	M110	6	5000	3900	2200	3200	70	Clear			
						10364		MXR50/C/U/MED	M110	6	5000	3500	1900	3200	70	Coated			
						12581		MVR50/U/MED	M110	6	5000	3100	1900	4000	75	Clear			
						12583		MVR50/C/U/MED	M110	6	5000	2900	1600	4000	75	Coated			
70 WATTS																			
ED17	Med	O	U	5.43	3.43	12377		MXR70/U/MED/O	M98	6	12000	5500	3500	3200	70	Clear, Protected			
						12577		MXR70/C/U/MED/O	M98	6	12000	5300	3300	3200	70	Coated, Protected			
BD17	Med	E	U	5.43	3.43	22158		MXR70/U/MED	M98	6	12000	5500	3500	3200	70	Clear			
						22162		MXR70/C/U/MED	M98	6	12000	5300	3300	3200	70	Coated			
						12590		MVR70/U/MED	M98	6	12000	4700	3000	4000	75	Clear			
						12594		MVR70/C/U/MED	M98	6	12000	4500	2800	4000	75	Coated			
100 WATTS																			
ED17	Med	O	U	5.43	3.43	12381		MXR100/U/MED/O	M90	6	15000	9000	6200	3200	70	Clear, Protected			
						12579		MXR100/C/U/MED/O	M90	6	15000	8500	5900	3200	70	Coated, Protected			
BD17	Med	E	U	5.43	3.43	18680		MXR100/U/MED	M90	6	15000	9000	6200	3200	70	Clear			
						18679		MXR100/C/U/MED	M90	6	15000	8500	5900	3200	70	Coated			
						12652		MVR100/U/MED	M90	6	15000	8100	5800	4000	75	Clear			
						12653		MVR100/C/U/MED	M90	6	15000	7600	4900	4000	75	Coated			
150 WATTS																			
ED17	Med	O	U	5.43	3.43	45683		MXR150/U/MED/O	M102	6	15000	12500	8600	3500	70	Clear, Protected			
						45688		MXR150/C/U/MED/O	M102	6	15000	12000	8300	3500	70	Coated, Protected			
BD17	Med	E	U	5.43	3.43	22935		MXR150/U/MED	M102	6	15000	12500	8600	3200	70	Clear			
						22936		MXR150/C/U/MED	M102	6	15000	12000	8300	3200	70	Coated			
						12598		MVR150/U/MED	M102	6	15000	11700	8100	4000	75	Clear			
						12604		MVR150/C/U/MED	M102	6	15000	11200	7700	4000	75	Coated			
175 WATTS																			
ED23.5	Mog	E	VBU	7.5	5	22342		MXR175/VBU/PA	M137	6	15000	17000	12500	3200	65	Clear		43	
						11185		MXR175/C/VBU/PA	M137	6	15000	16000	12000	3200	65	Coated		43	
						12622		MVR175/VBU/PA	M137	6	15000	17500	13000	4000	75	Clear		43	
						12633		MVR175/C/VBU/PA	M137	6	15000	16500	12500	4000	75	Coated		43	
BD17	Med	E	VBU	5.75	3.43	12636		MVR175/VBU/MED/PA	M137	6	15000	17500	13000	4000	75	Clear		43	
						12637		MVR175/C/VBU/MED/PA	M137	6	15000	16500	12500	4000	75	Coated		43	
250 WATTS																			
ED28	Mog	E	VBU	8.25	5	26317		MVR250/VBU/PA	M138	12	20000 15000	23000	17000	4200	65	Clear		30, 43	
						26319		MVR250/C/VBU/PA	M138	12	20000 15000	21500	15500	3900	65	Coated		30, 43	
320 WATTS																			
ED28	Mog	E	VBU	8.25	5	27501		MVR320/VBU/HO/PA	M132	12	20000	31000	18000	4000	65	Clear		43	
						27502		MVR320/C/VBU/HO/PA	M132	12	20000	30000	16500	3700	70	Coated		43	
						45666		MVR320/VBU/XHO/PA	M132	12	20000	34000	25000	4000	65	Clear		43	
						45669		MVR320/C/VBU/XHO/PA	M132	12	20000	33000	23000	3700	70	Coated		43	



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
PULSEARC™ MULTI-VAPOR® METAL HALIDE LAMPS (CONTINUED)																
320 WATTS (CONTINUED)																
ED37	EX39	0	VBU	11.5	7	46275	MPR320/VBU/XHO/PA	M132	6	20000	32000	22500	4000	65	Clear, Protected	43
						46276	MPR320/C/VBU/XHO/PA	M132	6	20000	30500	21500	3700	70	Coated, Protected	43
350 WATTS																
ED37	Mog	S	VBU	11.5	7	40376	MVR350/VBU/XHO/PA	M131	6	30000 20000	37000	27500	4000	62	Clear	30, 43
						40377	MVR350/C/VBU/XHO/PA	M131	6	30000 20000	36000	26000	3700	65	Coated	30, 43
	EX39	0	VBU	11.5	7	48824	MPR350/C/VBU/PA	M131	6	30000 20000	33400	23500	3400	70	Clear, Protected	30, 43
						48825	MPR350/C/VBU/3K/PA	M131	6	30000 20000	33400	23500	3700	70	Coated, Protected	30, 43
400 WATTS																
ED37	Mog	S	VBU	11.5	7	45664	MVR400/VBU/HO/PA	M135	6	30000 20000	41000	31000	4000	65	Clear	30, 43
						45665	MVR400C/VBU/HO/PA	M135	6	30000 20000	40000	30000	3700	70	Coated	30, 43
						12642	MVR400/VBU/XHO/PA	M135	6	30000 20000	44000	33000	4000	65	Clear	30, 43
						12644	MVR400/C/VBU/XHO/PA	M135	6	30000 20000	42000	31500	3700	70	Coated	30, 43
	EX39	0	VBU	11.5	7	46273	MPR400/VBU/XHO/PA	M135	6	20000	42000	29500	4000	65	Clear, Protected	43
						46274	MPR400/C/VBUXHO/PA	M135	6	20000	40000	28000	3700	70	Coated, Protected	43
ED28	Mog	E	VBU	8.25	5	46271	MVR400/VBU/ED28/PA	M135	12	20000	44000	28500	4000	65	Clear	43
						46272	MVR400/C/VBU/ED28/PA	M135	12	20000	42000	27500	3700	70	Coated	43
750 WATTS																
BT37	Mog	S	VBU	11.5	7	27219	MVR750/VBU/PA	M149	6	16000	82000	60000	4000	65	Clear	43
						45560	MVR750/C/VBU/PA	M149	6	16000	72000	54000	3700	70	Coated	43
MULTI-VAPOR® METAL HALIDE LAMPS																
150 WATTS																
ED28	Mog	E	U	8.25	5	13481	MVR150/U/WM	M57	12	10000 V 7500 H	13500 V 11500 H	8500 V 7200 H	4000	65	Clear, Watt-Miser®	↗
						13490	MVR150/C/U/WM	M57	12	10000 V 7500 H	12800 V 10900 H	8000 V 6900 H	3700	70	Coated, Watt-Miser®	↗
175 WATTS																
BD17	Med	E	U	5.75	3.43	18902	MVR175/U/MED	M57	6	10000 V 6000 H	13600 V 11700 H	8800 V 7400 H	4000	65	Clear	
						26432	MVR175/U/MED/CP	M57	4	10000 V 6000 H	13600 V 11700 H	8800 V 7400 H	4000	65	Clear, Consumer Pack	
						19976	MVR175/C/U/MED	M57	6	10000 V 6000 H	12900 V 11900 H	8400 V 7900 H	3900	65	Coated	
ED28	Mog	E	U	8.25	5	47760	MVR175/U	M57	12	10000 V 6000 H	13600 V 11700 H	8800 V 7400 H	4000	65	Clear	
						26433	MVR175/U/CP	M57	4	10000 V 6000 H	13600 V 11700 H	8800 V 7400 H	4000	65	Clear, Consumer Pack	
						47761	MVR175/C/U	M57	12	10000 V 6000 H	12900 V 11900 H	8400 V 7900 H	3900	70	Coated	
						17634	MVR175/SP30/U	M57	12	10000 V 6000 H	12000 V 10300 H	7600 V 6500 H	3000	70	RE730 Phosphor Coating	↗
PAR38	Med	E	U	5.62		25218	MVR175/PAR38/FL/1	M57	6	7500 V	12000 V	7600 V	3800	65	Clear, One-piece PAR	

High Intensity Discharge Lamps



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
MULTI-VAPOR® METAL HALIDE LAMPS (CONTINUED)																
250 WATTS																
ED28	Mog	E	U	8.25	5	42729	MVR250/U	M58	12	10000 V 6000 H	20800 V 19100 H	13500 V 12400 H	4200	65	Clear	
						26434	MVR250/U/CP	M58	4	10000 V 6000 H	20800 V 19100 H	13500 V 12400 H	4200	65	Clear, Consumer Pack	
						42731	MVR250/C/U	M58	12	10000 V 6000 H	19800 V 18200 H	13000 V 11600 H	3900	70	Coated	
						17633	MVR250/SP30/U	M58	12	10000 V 6000 H	18000 V 16600 H	11500 V 10600 H	3000	70	RE730 Phosphor Coating	✓
360 WATTS — WATT-MISER® ENERGY-SAVING REPLACEMENT FOR 400W METAL HALIDE																
ED37	Mog	S	VBU	11.5	7	13495	MVR360/VBU/WM/HO	M59	6	20000	36000	23500	4300	65	Clear, Watt-Miser®	↔ 32
						13496	MVR360/C/VBU/WM/HO	M59	6	20000	35000	23000	4000	70	Coated, Watt-Miser®	↔ 32
400 WATTS																
ED37	Mog	S	U	11.5	7	43828	MVR400/U	M59	6	20000 V 15000 H	36000 V 33100 H	23500 V 22100 H	4000	65	Clear	
						26435	MVR400/U/CP	M59	4	20000 V 15000 H	36000 V 33100 H	23500 V 22100 H	4000	65	Clear, Consumer Pack	
						43829	MVR400/C/U	M59	6	20000 V 15000 H	35000 V 32200 H	23000 V 19300 H	3700	70	Coated	
						17632	MVR400/SP30/U	M59	6	20000 V 15000 H	31000 V 28500 H	18600 V 17100 H	3000	70	RE730 Phosphor Coating	✓
ED28	Mog	E	U	8.25	5	18904	MVR400/U/ED28	M59	12	20000 V 15000 H	36000 V 33100 H	23500 V 22100 H	4000	65	Clear, Compact Bulb	
						19979	MVR400/C/U/ED28	M59	12	20000 V 15000 H	35000 V 32200 H	23000 V 19300 H	4000	65	Coated, Compact Bulb	
1000 WATTS																
BT56	Mog	S	U	15.37	9.5	41826	MVR1000/U	M47	6	15000 V 11000 H	108000 V 100280 H	86000 V 79000 H	4000	65	Clear	
						41827	MVR1000/C/U	M47	6	15000 V 11000 H	105000 V 96600 H	80000 V 73000 H	3700	65	Coated	
BT37	Mog	E	U	11.5	7	18205	MVR1000/U/BT37	M47	6	12000 V 9000 H	115000 V 105000 V	90000 V 82000 H	3900	65	Clear, Compact Bulb	
HIGH OUTPUT AND XHO MULTI-VAPOR® METAL HALIDE LAMPS																
175 WATTS																
ED28	Pos Mog	E	HOR	8.25	5	18104	MVR175/HOR	M57	12	10000	15000	7700	4000	65	Clear, Position Oriented Socket Required	
						18105	MVR175/C/HOR	M57	12	10000	14100	7500	3500	70	Coated, Position Oriented Socket Required	
250 WATTS																
ED28	Pos Mog	E	HOR	8.25	5	18101	MVR250/HOR	M58	12	15000	21000	10000	4200	65	Clear, Position Oriented Socket Required	
						18103	MVR250/C/HOR	M58	12	15000	19700	9400	3600	70	Coated, Position Oriented Socket Required	



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
HIGH OUTPUT AND XHO MULTI-VAPOR® METAL HALIDE LAMPS (CONTINUED)																
360 WATTS — WATT-MISER® ENERGY-SAVING REPLACEMENT FOR 400W METAL HALIDE																
ED37	Mog	S	VBU	11.5	7	40053	MVR360/VBU/WM/XHO	M59	6	20000	39000	25500	4200	65	Clear, Watt-Miser®	↔ 32
						40055	MVR360/C/VBU/WM/XHO	M59	6	20000	37500	24500	4000	70	Coated, Watt-Miser®	↔ 32
						47685	MVR360/VBU/STB/WM	M59	6	20000	36000	27000	4300	65	Clear, Watt-Miser®, StayBright®	32
						47686	MVR360/C/VBU/STB/WM	M59	6	20000	35000	26000	4000	70	Coated, Watt-Miser®, StayBright®	32
400 WATTS																
ED37	Mog	S	VBU	11.5	7	26865	MVR400/VBU/STB/HO	M59	6	20000	41000	31000	4000	65	Clear, StayBright®	
						26866	MVR400/CVBU/STB/HO	M59	6	20000	41000	29500	3700	70	Coated, StayBright®	
						49657	MVR400/VBU/HO	M59	6	20000	41000	26500	4000	65	Clear	
						49656	MVR400/C/VBU	M59	6	20000	41000	26500	3700	70	Coated	
			VBD	11.5	7	49655	MVR400/VBD	M59	6	20000	41000	26500	4000	65	Clear	
BT28	Mog	E	VBU	8.31	7	40335	MVR400/VBU/BT28	M59	12	20000	41000	26500	4000	65	Clear, Compact Bulb	
ED37	Mog	S	VBU	11.5	7	20931	MVR400/SP30/VBU/HO	M59	6	20000	34000	20400	3200	70	RE730 Phosphor Coating, Vertical Base Up -15	
						13923	MVR400/VBU/XHO	M59	6	20000	44000	28500	4000	65	Clear	
						13924	MVR400/C/VBU/XHO	M59	6	20000	43000	28000	3700	70	Coated	
BT28	Mog	E	HOR	8.25	5	40201	MVR400/HOR/BT28	M59	12	20000	37000	22000	4200	65	Clear, Compact Bulb	
BT37	Mog	E	HOR	11.5	7	26218	MVR400/HOR/MOG	M59	6	20000	38000	22500	4200	65	Clear	
						26219	MVR400/C/HOR/MOG	M59	6	20000	36800	22000	3900	70	Coated	
1000 WATTS																
BT56	Mog	O	VBU	15.37	9.5	41433	MPR1000/VBU/O	M47	6	12000	107000	85500	3500	65	Clear, Protected	
		S	VBU	15.37	9.5	44835	MVR1000/VBU/HO	M47	6	15000 V	111000 V	87000 V	3800	65	Clear	
						13137	MVR1000/C/VBU/HO	M47	6	15000 V	107000 V	81500 V	3700	70	Coated	
SPORTSLIGHTING																
1000 WATTS																
PAR64	G38	E	U	6.87		29333	SPL1000/PAR64840	-	1	3500	63000	53000	4000	80	Clear, Narrow Spot, 6 Beam, 1,350,000 CBCP	↗ 38
						29336	SPL1000/PAR64/HR	-	1	3500	63000	53000	4000	80	Clear, Narrow Spot, 6 Beam, 1,350,000 CBCP, Hot Restrike	↗ 38
1500 WATTS																
T7	Rx7s	E	HOR	10.12	5	30061	SPL1500/L/H/652	-	1	6000	120000	90000	5200	80	Frosted	38
BT56	Mog	E	U	15.37	9.5	47326	MVR1500/U/SPORTS	M48	6	3000 H	178000 V	160000 V	4000	65	Clear	17, 42
			HBU	15.37	9.5	37405	MVR1500/HBU	M48	6	3000 H	165000 V	140000 V	3900	65	Clear	16, 17
										3000 V	155000 H	130000 H				
1650 WATTS																
BT56	Pos Mog E	HOR	15.37	9.5		25532	MVR1650/HOR	M112	6	3000	177000	145000	3200	65	Clear, Position Oriented Socket Required	17
2000 WATTS																
T9	#10 Spade	E	HOR	10	4.3	12275	MQI2000/T9/40	M134	10	4000	200000	160000	4000	65	Clear	

High Intensity Discharge Lamps



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
PROTECTED MULTI-VAPOR® METAL HALIDE LAMPS																
32 WATTS																
ED17	Med	0	VBD	5.43	3.43	12651	MXR32/C/VBD/O	M100	6	10000	2400	1700	3200	70	Coated, Protected	
			VBU	5.43	3.43	16469	MXR32/C/VBU/O	M100	6	10000	2400	1700	3200	70	Coated, Protected	
50 WATTS																
ED17	Med	0	U	5.43	3.43	45670	MXR50/U/MED/O	M110	6	10000	3400	1700	3500	70	Clear, Protected	
						45671	MXR50/C/U/MED/O	M110	6	10000	3200	1500	3500	70	Coated, Protected	
70 WATTS																
ED17	Med	0	U	5.43	3.43	12377	MXR70/U/MED/O	M98	6	12000	5500	3500	3200	70	Clear, Protected	
						12577	MXR70/C/U/MED/O	M98	6	12000	5300	3300	3200	70	Coated, Protected	
100 WATTS																
ED17	Med	0	U	5.43	3.43	12381	MXR100/U/MED/O	M90	6	15000	9000	6200	3200	70	Clear, Protected	
						12579	MXR100/C/U/MED/O	M90	6	15000	8500	5900	3200	70	Coated, Protected	
150 WATTS																
ED17	Med	0	U	5.43	3.43	45683	MXR150/U/MED/O	M102	6	15000	12500	8600	3500	70	Clear, Protected	
						45688	MXR150/C/U/MED/O	M102	6	15000	12000	8300	3500	70	Coated, Protected	
320 WATTS																
ED37	EX39	0	VBU	11.5	7	46275	MPR320/VBU/XHO/PA	M132	6	20000	32000	22500	4000	65	Clear, Protected	
						46276	MPR320/C/VBU/XHO/PA	M132	6	20000	30500	21500	3700	70	Coated, Protected	
350 WATTS																
ED37	EX39	0	VBU	11.5	7	48824	MPR350/C/VBU/PA	M131	6	30000 20000	33400	23500	3400	70	Clear, Protected	30
						48825	MPR350/C/VBU/3K/PA	M131	6	30000 20000	33400	23500	3700	70	Coated, Protected	30
360 WATTS — WATT-MISER® ENERGY-SAVING REPLACEMENT FOR 400W METAL HALIDE																
ED37	Mog	0	VBU	11.5	7	40056	MPR360/VBU/WM/HO/O	M59	6	20000	36000	23500	4000	65	Clear, Protected	↔ 32
400 WATTS																
ED37	Mog	0	VBU	11.5	7	18708	MPR400/VBU/HO/O	M59	6	20000	40000	26000	3400	65	Clear, Protected	
						13582	MPR400/C/VBU/HO/O	M59	6	20000	38000	25000	3200	70	Coated, Protected	
	EX39	0	VBU	11.5	7	46273	MPR400/VBU/XHO/PA	M135	6	20000	42000	29500	4000	65	Coated, Protected	
						46274	MPR400/C/VBUXHO/PA	M135	6	20000	40000	28000	3700	70	Coated, Protected	
1000 WATTS																
BT56	Mog	0	VBU	15.37	9.5	41433	MPR1000/VBU/O	M47	6	12000	107000	85500	3500	65	Clear, Protected	
CHROMAFIT™ MULTI-VAPOR® METAL HALIDE LAMPS (HPS RETROFIT LAMPS)																
250 WATTS																
ED28	Mog	E	VBU	8.25	5.75	12762	MVR250/VBU/R	S50	12	10000	18500	13900	4500	65	Clear, HPS Retrofit	
						12769	MVR250/C/VBU/R	S50	12	10000	18000	13000	4000	70	Coated, HPS Retrofit	
400 WATTS																
ED28	Mog	E	U	8.31	5	26851	MVR400/U/ED28/R	S51	12	20000 V 15000 H	36000 V 33100 H	22000 V 20200 H	4000	65	Clear, HPS Retrofit, Compact Bulb	
ED37	Mog	S	VBU	11.5	5.75	12770	MVR400/VBU/R	S51	6	20000	37600	22600	4500	65	Clear, HPS Retrofit	
						12772	MVR400/C/VBU/R	S51	6	20000	35700	21400	4000	70	Coated, HPS Retrofit	



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
I-LINE MULTI-VAPOR® METAL HALIDE LAMPS (MERCURY RETROFIT LAMPS)																
325 WATTS																
ED37	Mog	S	U	11.5	7	10687	MVR325/I/U/WM	H33	6	20000 V 10000 H	28000 V 25800 H	13300 V 12200 H	4000	65	Clear, Retrofit for 400W Mercury, Watt-Miser®	↗
						10688	MVR325/C/I/U/WM	H33	6	20000 V 10000 H	26300 V 24200 H	12900 V 11800 H	3700	70	Coated, Retrofit for 400W Mercury, Watt-Miser®	↗
400 WATTS																
ED37	Mog	S	U	11.5	7	43817	MVR400/I/U	H33 or M59	6	15000 V 10000 H	36000 V 33100 H	24000 V 22100 H	4000	65	Clear, Retrofit for 400W Mercury	
						43818	MVR400/C/I/U	H33 or M59	6	15000 V 10000 H	35000 V 32200 H	21000 V 19300 H	3700	70	Coated, Retrofit for 400W Mercury	
950 WATTS ENERGY-SAVING REPLACEMENT FOR 1000W MERCURY																
BT56	Mog	S	VBU	15.06	9.5	39097	MVR950/I/VBU	H36 or M47	6	12000	100000	62900	3800	65	Coated, Retrofit for 1000W Mercury, Watt-Miser®	↗
SAF-T-GARD® SELF-EXTINGUISHING MULTI-VAPOR® LAMPS																
400 WATTS																
ED37	Mog	S	U	11.5	7	11146	MVT400/I/U	H33 or M59	6	15000 V 10000 H	36000 V 33100 H	23500 V 22100 H	4000	65	Clear, Retrofit for 400W Mercury	
						11119	MVT400/C/I/U	H33 or M59	6	15000 V 10000 H	35000 V 32200 H	23000 V 19300 H	3700	70	Coated, Retrofit for 400W Mercury	
			VBU	11.5	7	11144	MVT400/VBU	M59	6	20000	41000	26500	4000	65	Clear	
						11145	MVT400/C/VBU	M59	6	20000	41000	26500	3700	70	Coated	
ARCSTREAM™ METAL HALIDE LAMPS																
70 WATTS																
T6	R7s	E	HOR	4.68		34530	ARC70/TD/UVC/730	M85	12	6000	6000	4800	3000	75	Clear	
						34536	ARC70/TD/UVC/743	M85	12	6000	6000	4800	4300	75	Clear	
150 WATTS																
T7	R7s	E	HOR	5.37		34527	ARC150/TD/UVC/730	M81	12	6000	13000	11000	3000	75	Clear	
						34535	ARC150/TD/UVC/742	M81	12	6000	12000	10000	4200	75	Clear	
T6	BiPin G12	E	U	3	2.25	21053	ARC150T/U/830G12	M81	10	6000	12000	9500	3000	80	Clear	/
						21054	ARC150T/U/840G12	M81	10	6000	11500	10500	4000	80	Clear	/
CAP	BiPin GY9.5	E	U	1.62	1.12	34813	CSS150/CAP/50	M81	10	1000	10000	8000	5000	80	Clear, Disco Lamp	
250 WATTS																
T15	Mog	E	HOR	8.37	5.62	26683	ARC250/T/H/960/E	M80	12	10000	19000	13300	6000	90	Clear, Daylight Color	/
400 WATTS																
ED18	Mog	E	HOR	10.5	6.75	26685	KRC400/T/H/960/E	M135	12	10000	25000	17500	6000	90	Clear, Daylight Color	/
LUCALOX® HIGH PRESSURE SODIUM LAMPS																
35 WATTS																
B17	Med	O	U	5.43	3.43	11668	LU35/MED	S76	6	16000	2250	2025	1900	22	Clear	
						26420	LU35/MED/CP	S76	4	16000	2250	2025	1900	22	Clear, Consumer Pack	
						11669	LU35/D/MED	S76	6	16000	2150	1935	1900	22	Diffuse	

High Intensity Discharge Lamps



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
LUCALOX® HIGH PRESSURE SODIUM LAMPS (CONTINUED)																
50 WATTS																
B17	Med	0	U	5.43	3.43	11345	LU50/MED	S68	6	24000 +	4000	3600	1900	22	Clear	
						26421	LU50/MED/CP	S68	4	24000 +	4000	3600	1900	22	Clear, Consumer Pack	
						11347	LU50/D/MED	S68	6	24000 +	3800	3420	1900	22	Diffuse	
ED23.5	Mog	0	U	7.75	5	44975	LU50	S68	12	24000 +	4000	3600	1900	22	Clear	
						26425	LU50/CP	S68	4	24000 +	4000	3600	1900	22	Clear, Consumer Pack	
						45006	LU50/D	S68	12	24000 +	3800	3420	1900	22	Diffuse	
70 WATTS																
B17	Med	0	U	5.43	3.43	11339	LU70/MED	S62	6	24000 +	6400	5450	1900	22	Clear	
						26422	LU70/MED/CP	S62	4	24000 +	6400	5450	1900	22	Clear, Consumer Pack	
						11340	LU70/D/MED	S62	6	24000 +	5950	5050	1900	22	Diffuse	
ED23.5	Mog	0	U	7.75	5	44033	LU70	S62	12	24000 +	6400	5450	1900	22	Clear	
						26426	LU70/CP	S62	4	24000 +	6400	5450	1900	22	Clear, Consumer Pack	
						44035	LU70/D	S62	12	24000 +	5950	5050	1900	22	Diffuse	
100 WATTS																
B17	Med	0	U	5.5	3.43	13250	LU100/MED	S54	6	24000 +	9500	8550	2000	22	Clear	
						26423	LU100/MED/CP	S54	4	24000 +	9500	8550	2000	22	Clear, Consumer Pack	
						13251	LU100/D/MED	S54	6	24000 +	8800	7920	2000	22	Diffuse	
ED23.5	Mog	0	U	7.75	5	44037	LU100	S54	12	24000 +	9500	8550	2000	22	Clear	
						26427	LU100/CP	S54	4	24000 +	9500	8550	2000	22	Clear, Consumer Pack	
						44038	LU100/D	S54	12	24000 +	8800	7920	2000	22	Diffuse	
150 WATTS																
B17	Med	0	U	5.75	3.5	13252	LU150/MED	S55	6	24000 +	16000	14400	2000	22	Clear	
						26424	LU150/MED/CP	S55	4	24000 +	16000	14400	2000	22	Clear, Consumer Pack	
						13253	LU150/D/MED	S55	6	24000 +	15000	13500	2000	22	Diffuse	
ED23.5	Mog	0	U	7.75	5	44043	LU150/55	S55	12	24000 +	16000	14400	2000	22	Clear	
						26429	LU150/55/CP	S55	4	24000 +	16000	14400	2000	22	Clear, Consumer Pack	
						44045	LU150/55/D	S55	12	24000 +	15000	13500	2000	22	Diffuse	
ED28	Mog	0	U	8.31	5	44243	LU150/100(ED28)	S56	12	24000 +	15000	13500	2000	22	Clear	
200 WATTS																
ED18	Mog	0	U	9.75	5.75	44206	LU200	S66	12	24000 +	22000	19800	2100	22	Clear	
250 WATTS																
ED18	Mog	0	U	9.75	5.75	44047	LU250	S50	12	24000 +	28000	27000	2100	22	Clear	
						26430	LU250/CP	S50	4	24000 +	28000	27000	2100	22	Clear, Consumer Pack	
ED28	Mog	0	U	9	5	44051	LU250/D	S50	12	24000 +	26000	23400	2100	22	Diffuse	
310 WATTS																
ED18	Mog	0	U	9	5.75	44053	LU310	S67	12	24000 +	37000	33300	2100	22	Clear	
400 WATTS																
ED18	Mog	0	U	9	5.75	44054	LU400	S51	12	24000 +	51000	45000	2100	22	Clear	
						26431	LU400/CP	S51	4	24000 +	51000	45000	2100	22	Clear, Consumer Pack	
ED37	Mog	0	U	11.31	7	44056	LU400/D	S51	6	24000 +	47500	42750	2100	22	Diffuse	
T7	Rx7s	0	HOR	10.12		30244	LU400/TD	S51	10	24000	43000	37300	2000	25	Clear, Double-ended, Horizontal Burn -20	
600 WATTS																
T15	Mog	0	U	11.06	6.62	27187	LU600/T	S106	12	12000 +	90000	81000	2000	22	Clear	
750 WATTS																
ED37	Mog	0	U	11.5	6.75	14682	LU750	S111	6	24000 +	110000	99000	2100	22	Clear	



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
LUCALOX® HIGH PRESSURE SODIUM LAMPS (CONTINUED)																
1000 WATTS																
E25	Mog	0	U	15.06	8.75	44058	LU1000/ECO	S52	6	24000 +	140000	126000	2100	22	Clear	
T7	Rx7s	0	HO	13.18		30246	LU1000/TD	S52	10	24000	137500	118200	2000	25	Clear, Double-ended, Horizontal Burn -20	
STANDBY LONGLIFE LUCALOX® LAMPS																
70 WATTS																
ED23.5	Mog	0	U	7.75	5	19264	LU70/SBY/XL	S62	12	40000	6400	5050	2000	22	Clear, Standby Longlife, Dual Arc Tube	
100 WATTS																
ED23.5	Mog	0	U	7.75	5	19265	LU100/SBY/XL	S54	12	40000	9500	8190	2000	22	Clear, Standby Longlife, Dual Arc Tube	
150 WATTS																
ED23.5	Mog	0	U	7.75	5	19266	LU150/55/SBY/XL	S55	12	40000	16000	14000	2000	22	Clear, Standby Longlife, Dual Arc Tube	
200 WATTS																
ED18	Mog	0	U	9.75	5.75	23431	LU200/SBY/XL	S66	12	40000	21500	18150	2000	22	Clear, Standby Longlife, Dual Arc Tube	
250 WATTS																
ED18	Mog	0	U	9.75	5.75	19270	LU250/SBY/XL	S50	12	40000	27500	24750	2000	22	Clear, Standby Longlife, Dual Arc Tube	
400 WATTS																
ED18	Mog	0	U	9.75	5.75	19272	LU400/SBY/XL	S51	12	40000	50000	45000	2000	22	Clear, Standby Longlife, Dual Arc Tube	
1000 WATTS																
E25	Mog	0	U	15.06	8.75	27185	LU1000/SBY/XL	S52	6	40000	127000	115000	2100	22	Clear, Standby Longlife, Dual Arc Tube	
ECOLUX® NC NON-CYCLING HIGH PRESSURE SODIUM LAMPS (TCLP COMPLIANT)																
70 WATTS																
ED23.5	Mog	0	U	7.75	5	14672	LU70/ECO/NC	S62	12	24000	6300	5670	1900	23	Clear, Non-Cycling, TCLP Compliant	
100 WATTS																
ED23.5	Mog	0	U	7.75	5	14673	LU100/ECO/NC	S54	12	24000	10500	9450	2000	23	Clear, Non-Cycling, TCLP Compliant	
150 WATTS																
ED23.5	Mog	0	U	7.75	5	40390	LU150/ECO/NC	S55	12	24000	16000	14400	2000	23	Clear, Non-Cycling, TCLP Compliant	
200 WATTS																
ET18	Mog	0	U	9.75	5.75	45059	LU200/ECO/NC	S66	20	24000	22000	19800	2100	22	Clear, Non-Cycling, TCLP Compliant	
250 WATTS																
ED18	Mog	0	U	9.75	5.75	14674	LU250/ECO/NC	S50	12	24000	29000	27500	2000	30	Clear, Non-Cycling, TCLP Compliant	
400 WATTS																
ED18	Mog	0	U	9.75	5.75	14675	LU400/ECO/NC	S51	12	24000	54000	48600	2100	30	Clear, Non-Cycling, TCLP Compliant	

High Intensity Discharge Lamps



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
ECOLUX® HIGH PRESSURE SODIUM LAMPS (TCLP COMPLIANT)																
70 WATTS																
ED23.5	Mog	0	U	7.75	5	45760	LU70/ECO	S62	12	24000 +	6400	5450	1900	22	Clear, TCLP Compliant	
100 WATTS																
ED23.5	Mog	0	U	7.75	5	45761	LU100/ECO	S54	12	24000 +	9500	8550	2000	22	Clear, TCLP Compliant	
150 WATTS																
ED23.5	Mog	0	U	7.75	5	45762	LU150/55/ECO	S55	12	24000 +	16000	14400	2000	22	Clear, TCLP Compliant	
200 WATTS																
ED18	Mog	0	U	9.75	5.75	45763	LU200/ECO	S66	12	24000 +	22000	19800	2100	22	Clear, TCLP Compliant	
250 WATTS																
ED18	Mog	0	U	9.75	5.75	45764	LU250/ECO	S50	12	24000 +	28000	27000	2100	22	Clear, TCLP Compliant	
400 WATTS																
ED18	Mog	0	U	9	5.75	45765	LU400/ECO	S51	12	24000 +	51000	45000	2100	22	Clear, TCLP Compliant	
DELUXE LUCALOX® HIGH PRESSURE SODIUM LAMPS																
70 WATTS																
B17	Med	0	U	5.5	3.5	16611	LU70/DX/MED	S62	6	10000	3800	3040	2200	65	Clear, Improved CRI	/
150 WATTS																
B17	Med	0	U	5.75	3.5	18094	LU150/DX/MED	S54	6	15000	10500	9135	2200	65	Clear, Improved CRI	/
ED23.5	Mog	0	U	7.75	5	18092	LU150/55/DX	S55	12	15000	10500	9135	2200	65	Clear, Improved CRI	/
250 WATTS																
ED18	Mog	0	U	9.75	5.75	11785	LU250/DX	S50	12	15000	22500	20700	2200	65	Clear, Improved CRI	/
400 WATTS																
ED28	Mog	0	U	9	5.18	19650	LU400/DX	S51	12	15000	37400	34400	2200	70	Clear, Improved CRI	/
E-Z LUX® HIGH PRESSURE SODIUM LAMPS (MERCURY RETROFIT)																
150 WATTS																
ED28	Mog	0	U	9	5	49943	LUH150/EZ	H39	12	13000	12500	12000	1900	22	Clear, Energy-saving Retrofit for 175W Mercury	↗
215 WATTS																
ED28	Mog	0	U	9	5	49939	LUH215/EZ	H37	12	12000	20200	18600	1900	22	Clear, Energy-saving Retrofit for 250W Mercury	↗
360 WATTS																
BT37	Mog	0	U	11.31	7.12	18012	LUH360/EZ	H33	6	24000	45000	40500	2100	25	Clear, Energy-saving Retrofit for 400W Mercury	↗
SOX LOW PRESSURE SODIUM LAMPS																
18 WATTS																
T16	BY22d	E		8.5	5.37	21294	SOX18	L69	16	18000	1800	1570	1800	0	Clear, Horizontal Burn -20 or Vertical Base Up -15	
35 WATTS																
T16	BY22d	E		12.25	7.25	21296	SOX35	L70	16	18000	4600	4000	1800	0	Clear, Horizontal Burn -20 or Vertical Base Up -15	
55 WATTS																
T16	BY22d	E		16.75	9.5	21297	SOX55	L71	16	18000	7650	6655	1800	0	Clear, Horizontal Burn -20 or Vertical Base Up -15	
90 WATTS																
T21	BY22d	E		20.75	11.5	21298	SOX90	L72	9	16000	12750	11095	1800	0	Clear, Horizontal Burn -20	



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
SOX LOW PRESSURE SODIUM LAMPS (CONTINUED)																
135 WATTS																
T21	BY22d	E		30.5	16.37	21299	SOX135	L73	9	16000	22000	19140	1800	0	Clear, Horizontal Burn	-20
MERCURY LAMPS																
40/50 WATTS																
B17	Med	0	U	5.12	3.12	12460	HR40/50DX45-46	H45 H46	5	6000 V 6000 H	1140 V 1575 H	910 V 1250 H	3900	50	40W on H45 Ballast, 50W on H46 Ballast, Deluxe White	
75 WATTS																
B17	Med	0	U	5.43	3.5	12461	HR75DX43	H43	5	16000	2700	2250	3900	50	Deluxe White	
100 WATTS																
A23.5	Med	0	U	5.43	3.5	12464	HR100A38/A23	H38	5	18000	3700	2400	5700	15	Clear	
						12467	HR100DX38/A23	H38	5	18000	4000	2600	3800	50	Deluxe White	
B17	Med	0	U	5.43	3.5	17113	HR100DX38/MED	H38	5	18000	4000	2600	3900	50	Deluxe White	
ED23.5	Mog	0	U	7.5	5	12471	HR100A38	H38	5	24000 +	3850	2500	5700	15	Clear	
						22575	HR100DX38	H38	12	24000 +	4000	2600	3900	50	Deluxe White	
						26437	HR100DX38/CP	H38	4	24000 +	4000	2600	3900	50	Deluxe White, Consumer Pack	
R40	Med	0	U	7		36238	HR100RFL38	H38	12	24000 +	2450	2000	5700	15	Reflector Flood, 48 Beam Spread	
						36495	HR100RDXFL38	H38	12	24000 +	2450	2050	3900	50	Deluxe White, Reflector WFL, 140 Beam Spread	
175 WATTS																
ED28	Mog	0	U	8.25	5	24048	HR175A39	H39	12	24000 +	7850	6830	5700	15	Clear	
						26440	HR175A39/CP	H39	4	24000 +	7850	6830	5700	15	Clear, Consumer Pack	
						24062	HR175DX39	H39	12	24000 +	7800	6800	3900	50	Deluxe White	
						26439	HR175DX39/CP	H39	4	24000 +	7800	6800	3900	50	Deluxe White, Consumer Pack	
R40	Med	0	U	7		24058	HR175RFL39	H39	12	24000 +	5700	4800	5700	15	Clear, Reflector Flood, 40 Beam Spread	
						33026	HR175RDXFL39	H39	12	24000 +	5700	4350	3900	50	Deluxe White, Reflector WFL, 120 Beam Spread	
	Mog	0	U	7.5		36445	HR175RFL39/M	H39	12	24000 +	5700	4800	5700	15	Clear, Reflector Flood, 40 Beam Spread	
250 WATTS																
ED28	Mog	0	U	8.25	5	24068	HR250A37	H37	12	24000	11000	8250	5700	15	Clear	
						32127	HR250DX37	H37	12	24000 +	11200	8400	3900	50	Deluxe White	
400 WATTS																
BT37	Mog	0	U	11.31	7	32313	HR400DX33/BT	H33	6	24000 +	22600	14400	3900	50	Deluxe White	
ED37	Mog	0	U	11.31	7	23974	HR400A33	H33	6	24000 +	21000	13400	5700	15	Clear	
						23998	HR400DX33	H33	6	24000 +	22600	14400	3900	50	Deluxe White	
R52	Mog	0	U	11.75		33879	HR400RDX33	H33	6	24000 +	20800	13400	3900	50	Reflector, Deluxe White, 160 Beam Spread	
R60	Mog	0	U	10.12		33938	HR400RDXFL33	H33	6	24000 +	15500	8950	3900	50	Reflector WFL, Deluxe White, Clear Face, 110 Beam Spread	
T16	Mog	0	U	11	7	14873	H400A33/T16	H33	6	12000	20000	18200	5700	15	Clear	
1000 WATTS																
BT56	Mog	0	U	15.06	9.5	24171	HR1000A36	H36	6	24000 +	57000	28500	5700	15	Clear	
						24191	HR1000DX36	H36	6	24000 +	58000	29000	3900	50	Deluxe White	
						9.37 32733	HR1000DX34	H34	6	16000	58300	29200	3900	50	Deluxe White	28
SAF-T-GARD® MERCURY LAMPS																
175 WATTS																
ED28	Mog	0	U	8.25	5	43391	HT175DX39	H39	12	16000	7800	6800	3900	50	Deluxe White	

High Intensity Discharge Lamps



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
SAF-T-GARD® MERCURY LAMPS (CONTINUED)																
400 WATTS																
ED37	Mog	0	U	11.31	7	43363	HT400DX33	H33	6	24000	22600	14400	3900	50	Deluxe White	
E-Z MERC® SELF-BALLASTED LAMPS (INCANDESCENT RETROFIT)																
160 WATTS																
ED24	Med	0	U	7	4.5	45178	HSB160/M	0	24	12000	2300	1600	3900	50	Deluxe White, 120V	9
250 WATTS																
ED28	Med	0	U	8.5	5.18	45174	HSB250M	0	12	12000	5000	3750	3900	50	Deluxe White, 120V	9
	Mog	0	U	8.5	5.18	45176	HSB250	0	12	12000	5000	3750	3900	50	Deluxe White, 120V	9
450 WATTS																
BT37	Mog	0	U		7.37	40122	HSB450	0	6	16000	9100	8280	3900	50	Deluxe White, 120V	9
750 WATTS																
R57	Mog	0	U	12.75	8.37	44012	HSB750R/120	0	6	16000	14000	11200	3900	50	Deluxe White, Reflector Flood, 120V, 130 Beam Spread	9
EXPORT LAMPS																
METAL HALIDE																
ED17	E27	0	VBU	5.43	3.43	16893	MXR32/C/VBU/O/27	M100	6	10000	2400	1700	3200	70	Coated, Protected	ML
BD17	E27	E	U	5.43	3.43	18686	MXR100/U/27	M90	6	15000	9000	6200	3200	70	Clear	
						18684	MXR100/C/U/27	M90	6	15000	8500	5900	3200	70	Coated	
ED28	E40	E	U	8.25	5	47762	MVR175/U/40	M57	12	10000 V 6000 H	13600 V 11700 H	8800 V 7400 H	4000	65	Clear	14
	Mog	E	U	8.25	5	47763	MVR175/C/U/40	M57	12	10000 V 6000 H	12900 V 11900 H	8400 V 7900 H	3900	70	Coated	14
						17714	MVR175/SP30/U/40	M57	12	10000 V 6000 H	12000 V 10300 H	7600 V 6500 H	3000	70	RE730 Phosphor Coating	14
						44542	MVR250/U/40	M58	12	10000 V 6000 H	20800 V 19100 H	13500 V 12400 H	4200	65	Clear	14
						44543	MVR250/C/U/40	M58	12	10000 V 6000 H	19800 V 18200 H	13000 V 11600 H	3900	70	Coated	14
						17715	MVR250/SP30/U/40		12	10000 V 6000 H	18000 V 16600 H	11500 V 10600 H	3000	70	RE730 Phosphor Coating	14
ED37	E40	S	U	11.5	7	43907	MVR400/U/40	M59	6	20000 V 15000 H	36000 V 33100 H	23500 V 22100 H	4000	65	Clear	14
						43908	MVR400/C/U/40	M59	6	20000 V 15000 H	35000 V 32200 H	23000 V 19300 H	3700	70	Coated	14
						49860	MVR400/VBU/40	M59	6	20000	41000	26500	4000	65	Clear, Vertical Base Up -15	
						49857	MVR400/C/VBU/40	M59	6	20000	41000	25000	3700	70	Coated, Vertical Base Up -15	
						46420	MVR400/VBU/STB/40	M59	6	20000	41000	31000	4000	65	Clear, StayBright®	
						46421	MVR400/C/VBU/STB/40	M59	6	20000	41000	29500	3700	70	Coated, StayBright®	
E37	E40	V	U	11.5	7	17716	MVR400/SP30/U/40	M59	6	20000 V 15000 H	31000 V 28500 H	18600 V 17100 H	3000	70	RE730 Phosphor Coating	14
ED37	Mog	S	VBU	11.5	7	21440	MVR400/SP30/VBU/40	M59	6	20000	34000	20400	3200	70	RE730 Phosphor Coating, Vertical Base Up -15	
		O	VBU	11.5	7	18709	MPR400/VBU/O/40	M59	6	20000	40000	24900	3400	65	Clear, Vertical Base Up -15, Shrouded Arc Tube	32
BT56	E40	S	U	15.37	9.5	41828	MVR1000/U/40	M47	6	15000 V 11000 H	108000 V 100280 H	86000 V 79000 H	4000	65	Clear	
						41829	MVR1000/C/U/40	M47	6	15000 V 11000 H	105000 V 96600 H	80000 V 73000 H	3700	65	Coated	



Bulb	Base	LET	OP	MOL	LCL	Order Code	Description	ANSI Ballast Type	Case Qty.	Rated Avg. Life Hours	Lumens Initial	Lumens Mean	Color Temp. K	CRI	Additional Information	Footnotes
EXPORT LAMPS (CONTINUED)																
LUCALOX® HIGH PRESSURE SODIUM																
E21	E27	0				10405	LU70/90/27		12	24000 +	6000	5400	1900	22	Clear	
ED23.5	E40	0	U	7.75	5	27230	LU100/100/D/40		12	24000 +	9200	7820	2000	22	Diffuse	
	Mog	0	U	7.75	5	44044	LU150/55/40	S55	12	24000 +	16000	14400	2000	22	Clear	
T14.5	E40	0				27223	LU150/100/40		12	24000 +	15000	13500	2000	22	Clear	
ED28	E40	0				27228	LU150/100/D/40		12	24000 +	14000	12600	2000	22	Diffuse	
ED18	E40	0	U	9.75	5.75	44048	LU250/40	S50	12	24000 +	28000	27000	2100	22	Clear	
ED28	E40	0	U	9	5	27226	LU250/D/40	S50	12	24000 +	26000	23400	2100	22	Clear	
ED18	E40	0	U	9	5.75	44055	LU400/40	S51	12	24000 +	51000	45000	2100	22	Clear	
ED37	E40	0	U	11.31	7	27229	LU400/D/40	S51	6	24000 +	47500	42750	2100	22	Diffuse	
E25	E40	0	U	15.06	8.75	44059	LU1000/40	S52	6	24000 +	140000	126000	2100	22	Clear	
T18	E40	0				44247	LU1000/T18/40		6	24000 +	140000	126000	2100	22	Clear	
E-Z LUX® LUCALOX® HIGH PRESSURE SODIUM (MERCURY RETROFIT)																
ED28	E40	0	U	9	5	49941	LUH215/D/EZ/40		12	12000	20200	18600	1900	22	Diffuse, Energy-saving Retrofit for 250W Mercury	↗
MERCURY																
ED37	E40	0	U			32294	HR400DX33/40	H33	6	24000 +	22600	14400	3900	50	Deluxe White	

FOOTNOTES

Footnote

- 9 Do not use this lamp in fixtures designed for less than rated lamp wattage.
- 14 Life shown is for vertical -15° operation.
- 16 Approximate lumen ratings at 45° burning position: Initial - 145,000. Mean - 124,000.
- 17 Rated life based on 5 or more burning hours per start.
- 28 Use only 1000-watt H12 or H34-type ballasts. Do not use on 1000-watt H36-type ballasts.
- 30 Higher life rating refers to operation @ 120 hrs. on / 1 hr. off cycle. Lower life rating refers to operation @ 11 hrs. on / 1 hr. off cycle.
- 32 Lamp will run at 400-watts when used on a linear reactor ballast.
- 33 Rated life based on 7 hours per start.
- 38 Requires a non-ANSI designated ballast with a special, add-on metal halide ignitor. Contact your local GE Representative for a list of approved ballasts and ignitors.
- 39 UV Control is a new, quartz material that effectively cuts UVB and UVC radiation.
- 41 Must use on thermally protected ballast.
- 42 Approximate lumen ratings at 45° burning position: Initial - 160,000. Mean - 145,000.
- 43 When operated on a 120 hrs. cycle (minimum), lamp life rating may be extended by up to 50% based on engineering estimates.



GENERAL INFORMATION

FIXTURE REQUIREMENTS – LAMP ENCLOSURE TYPE

HID lamps have fixture requirements that must be followed. The following three codes identify the appropriate fixture for a particular lamp. Lamps having an “O” code can be operated in an “Open or Enclosed” fixture. Lamps with a “S” code can be used in open fixtures only if operated in a vertical –15° burn position. Lamps in all other burn positions must be suitably enclosed.

O = Open or Enclosed Fixtures

E = Enclosed Fixtures Only

S = Lamps operated in a vertical position (Base Up or Down), –15°, can be used in an open fixture. Lamps burned in any other orientation must be used in “enclosed fixtures only”.

Use in Enclosed Fixtures. “Enclosed” fixture means a fixture suitably enclosed and designed to contain fragments of hot quartz or glass (up to 1100 C) per UL Standard #1572 (if in doubt, contact your fixture manufacturer).

Use In Open Fixtures. For lamps operated in the vertical position –15° that are not designated “Enclosed Fixtures Only,” lamp may be used in an open or enclosed lighting fixture depending upon the application and operating environment. For example, if the lamp is located near combustible material or in an area which is unoccupied for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. For more information, contact your fixture manufacturer.

PROTECTION OF BULBS FROM MOISTURE

Outer bulbs of HID lamps are made of heat-resistant glass, designed to have strength and thermal-shock-resistant characteristics suitable for normal applications in typical luminaries. However, shielding of lamps must be provided to avoid bulb breakage that could result from direct contact with liquids (such as water) during operation.

RATED AVERAGE LIFE

Values are based on laboratory tests of a large number of representative lamps under controlled conditions, including operation at 10 hours per start on ballasts having specified electrical characteristics. Individual lamps or groups of lamps may, of course, vary from the Rated Average Life shown. Lamp operating conditions can also affect life. Where Rated Average Life is less than 24,000 hours, it is a **MEDIAN** value of life expectancy; that is, the total operating time at which, under normal operating conditions, 50% of any large group of initially installed lamps is expected to be still burning. Where Rated Average Life is 24,000+ hours, 67% of lamps are expected to be still burning at 24,000 hours. For cost-of-light calculations involving these lamps, if an estimated operating time is required at which 50% of the lamps will still be burning, a value of 28,500 hours is suggested. At burning cycles shorter than 10 hours per start, the median life will be shortened as follows:

5 hrs/start: approx. life 75% of rating

2½ hrs/start: approx. life 56% of rating

1¼ hrs/start: approx. life 42% of rating

LUMENS– LUMENS LISTED ARE REFERENCE LUMENS

Rated average lamp lumens are obtained under controlled laboratory conditions in a prescribed burning position. **Initial Reference Lumens** refer to the lamp lumen output after 100-hours burning. **Mean Reference Lumens** refer to the lamp lumen output at the mean lumen point during lamp life. The mean lumen point occurs at 50% rated life for HPS and mercury lamps, and at 40% rated life for metal halide lamps. Lamp performance on typical systems under typical service conditions will vary from the reference lumen ratings.

High Intensity Discharge lighting systems are subject to a wide range of variations which may affect final lighting levels. As a result, lamp performance on actual systems may vary due to lamp orientation, ambient temperatures, ballast variations, line voltage and other reasons. Care must be taken when choosing a system to consider how these changes can affect your light levels both initially and at the mean lumen point.

BALLASTS

HID lamps (except E-Z-Merc®) require auxiliary ballast equipment designed to produce proper electrical values. Actual lamp watts may vary depending on ballast characteristics. For total system watts, add nominal ballast watts.

All Lucalox®, Mercury, and Metal Halide lamps (except I-Line) will start at ambient temperatures of –22 F (–30 C). I-Line Multi-Vapor® will start at ambient temperatures of 5 F (–15 C) when used on approved mercury ballasts.

START CHARACTERISTICS

Full light output does not occur immediately when power is applied. Instead, there is a time delay for the lamp to reach 90% total light output. The starting delay for High Pressure Sodium is 3-4 minutes, for Metal Halide 2-5 minutes, and for Mercury 5-7 minutes.

RESTART CHARACTERISTICS

With a power interruption of a half cycle or more, the arc will extinguish. When power is immediately reapplied, full light output does not occur immediately. For HPS lamps there is a delay of 1 minute to reach 90% total light output; however, Lucalox® LU1000 requires 2 minutes and E-Z Lux® lamps require 3 minutes to reach 90% total light output. For most Metal Halide lamps, including CMH™, when the power is immediately reapplied, there will be a delay of 10 to 15 minutes before the lamps reach the 90% light output level. PulseArc™ lamps restrike in <4 minutes. The restart delay for mercury lamps is 3 to 6 minutes to reach 90% total light output.

OPERATING POSITIONS AND CODES

Mercury and High Pressure Sodium lamps may be operated in any burn position and will still maintain their rated performance specifications. Metal Halide and Low Pressure Sodium lamps, however, are optimized for performance in specific burn positions, or may be restricted to certain burn positions for safety reasons.

U = Universal burning position

HBU = Horizontal –15° to Base Up

HBD = Horizontal +15° to Base Down

HOR = Horizontal –15°

H45 = Horizontal to –45° only

VBU = Vertical Base Up –15°

VBD = Vertical Base Down –15°

If no special burn position is noted, the burn position is universal.



GENERAL INFORMATION (CONTINUED)

HID COLOR

The color temperature and CRI listed in the tabular data are for reference purposes only. All high intensity discharge lamps exhibit some degree of lamp to lamp color variation and shift over life. These characteristics can be increased based on choice of fixture, ballast, burning position, and ambient conditions. Color variation can be greater than normal during the initial 100 hours of burning. Where color consistency is important, consider using ConstantColor® CMH™ for better performance (page 3-9). Contact your local GE Lighting representative for more information.

OPERATING NOTES

E-Z LUX® LAMPS

These high pressure sodium lamps should be operated only on certain mercury ballasts, as indicated below.

LUH110/EZ: use only with the following types of 125-watt mercury ballasts: high-reactance lag-type autotransformers or 220-volt or greater reactors.

LUH150/EZ: use only with the following types of H39 175-watt mercury ballasts: high-reactance lag-type autotransformers or 240-volt and 277-volt reactors. Do not use with CW (lead-type) or CWA ballasts.

LUH215/EZ: use only with the following types of H37 250-watt mercury ballasts: high reactance lag-type autotransformers or 240-volt and 277-volt reactors. Do not use with CW (lead-type) or CWA ballasts.

LUH360/EZ: use only with the following types of H33 400-watt mercury ballasts: high-reactance lag-type autotransformers, reactors, CWA auto regulators or CW regulators.

WARNING NOTICES

THE FOLLOWING WARNING NOTICES MUST BE COMPLIED WITH TO HELP AVOID POSSIBLE LAMP RUPTURE. General Electric Company will not be responsible for poor lamp performance, personal injury or property damage resulting from failure to follow these instructions.

HID LAMPS - GENERAL

WARNING

Most HID lamps are constructed of an outer bulb with an internal arc tube made of quartz. The arc tube operates under high pressure at very high temperatures - as high as approximately 1100 C. The arc tube and outer bulb may unexpectedly rupture due to internal causes or external factors such as a system 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 (as high as 1100 C). There is a risk of personal injury, property damage, burns and fire.

Some lamps are position-sensitive and must only be operated in specified burning positions (see "Additional Information" column in this catalog) with compatible electrical equipment in the types of fixtures prescribed in "Lamp Enclosure Type" on Page 3-22 of this catalog.

In addition to the general warnings above, there are specific warnings for the HID lamp types listed below.

EXPORT BASE LAMPS (/27 AND /40)

Export only lamps have a non-domestic (non-U.S.) base and are not intended for use in the United States due to potential shock hazard. The lamps are identified by "/27" or "/40" at the end of the lamp description and comply with electrical characteristics defined by IEC standards.

MXR32 METAL HALIDE LAMP AND ELECTRONIC BALLAST

MXR32 lamps must be operated on GE Lighting's special, high power factor electronic ballast, HAL32/120 (page 3-8). Outside dimensions for the ballast are 9¼" long, 3⅞" wide and 1¾" high.

SAF-T-GARD® MULTI-VAPOR® AND SAF-T-GARD® MERCURY LAMPS

Caution: If the outer glass envelope of a Saf-T-Gard® lamp is broken, the arc tube will self-extinguish, but the supporting structure will still be electrically connected. Be sure power is off and the lamp has cooled before removing the lamp to avoid possible electrical shock from contact with the arc tube support and to avoid risk of burn from the hot arc tube.

ARCSTREAM™ METAL HALIDE LAMPS

Arcstream™ tubular-shaped lamps must be used in suitably-enclosed fixtures with UV-absorbing cover glass. Enclosed fixtures must be capable of containing fragments of hot quartz or glass (up to 1100 C) in the unusual event of the outer bulb shattering. Also see complete Warning and Caution Notices on metal halide lamps.

Metal Halide Lamps

Fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100 C). If you do not know whether your fixture can safely withstand an arc tube rupture, contact your fixture manufacturer.

In continuously-operating systems (24 hours/day, 7 days/week), turn lamps off once per week for at least 15 minutes. **FAILURE TO COMPLY INCREASES THE RISK OF RUPTURE.**

Relamp fixtures at or before the end of rated life. Beyond rated life, light output diminishes while energy consumption and risk of rupture increase.

High Pressure Sodium Lamps

This is a vacuum jacket lamp and may implode if broken. As a precaution, wear safety glasses and gloves when installing or removing lamp. High pressure sodium lamps are not position-sensitive and may be operated in any burning position.



WARNING NOTICES (CONTINUED)

Mercury Lamps

Fixture lens/diffuser material must be able to contain fragments of hot quartz or glass (up to 1100 C). If you do not know whether your fixture can safely withstand an arc tube rupture, contact your fixture manufacturer.

Relamp fixtures at or before the end of rated life. Beyond rated life, light output diminishes while energy consumption and risk of rupture increase.

Mercury lamps are not position-sensitive and may be operated in any burning position.

Low Pressure Sodium Lamps

These lamps contain sodium which will ignite when exposed to water. If lamps are not disposed of properly, there is a risk of fire in the disposal vessel. Consult GE for disposal instructions.

LAMP ENCLOSURE TYPE

Use in Enclosed Fixtures. "Enclosed" fixture means a fixture suitably enclosed and designed to contain fragments of hot quartz or glass (up to 1100 C) in accordance with UL Standard #1572 (if in doubt, contact your fixture manufacturer).

Use In Open Fixtures. For lamps operated in the vertical position -15 that are not designated "Enclosed Fixtures Only," lamp may be used in an open or enclosed lighting fixture depending upon the application and operating environment. For example, if the lamp is located near combustible material or in an area which is unoccupied for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended. For more information, contact your fixture manufacturer.

IMPORTANT NOTICE

In accordance to Federal Regulations (21 CFR 1040.30), the following notice applies to all lamps in the HID section of this catalog except High Pressure and Low Pressure Sodium Lamps.

"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, and the arc tube continues to operate. Do not use where people will remain for more than a few minutes unless adequate shielding or other safety precautions are used. Certain types of lamps that will automatically extinguish when the outer envelope is broken or punctured are commercially available."

