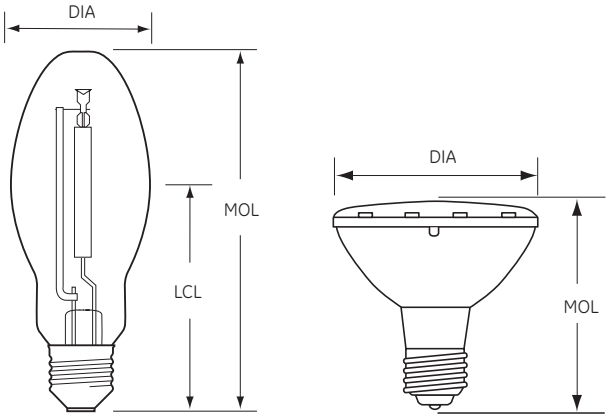
Bulb Identification



DIA: Diameter of bulb at widest point.

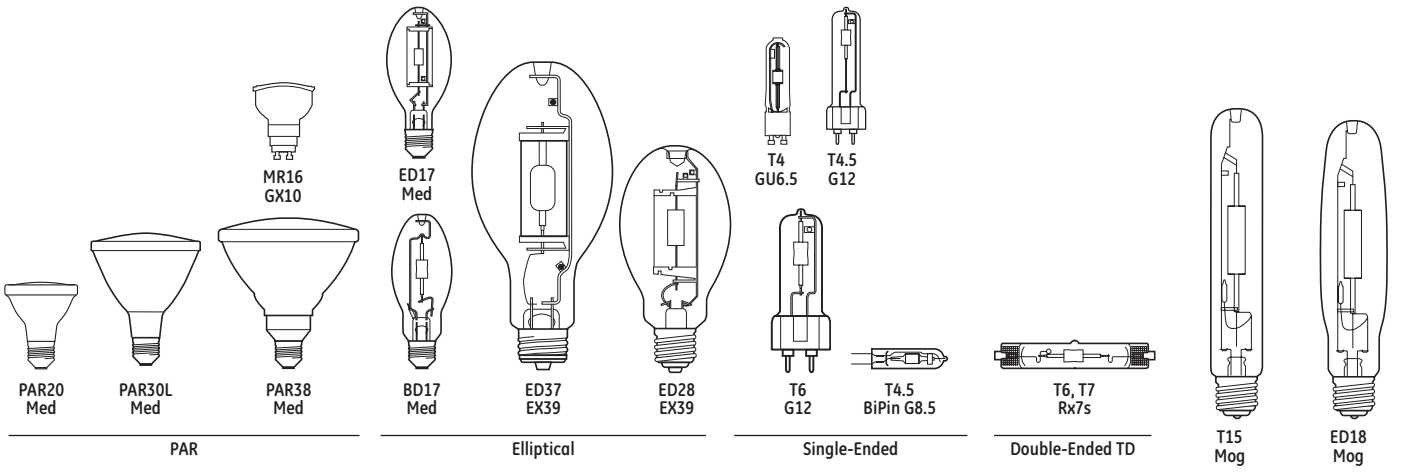
MOL: Maximum Overall Length including base or pins.

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.

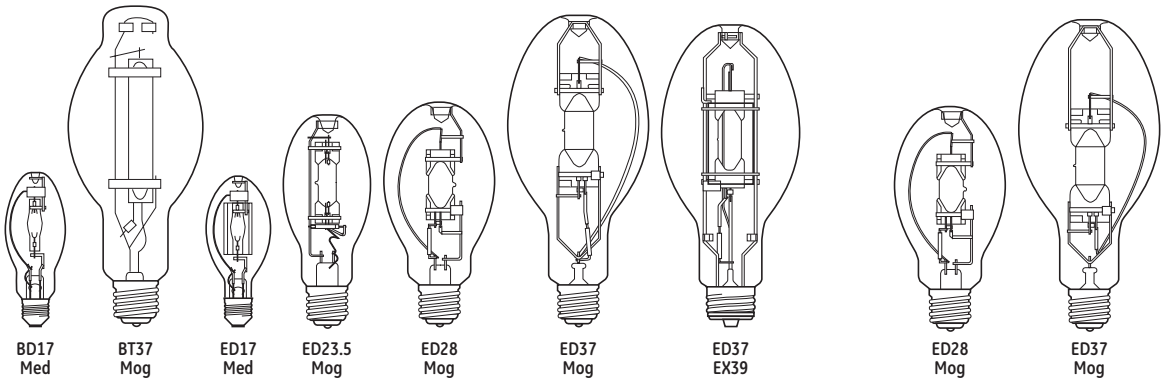
To convert inches to millimeters, multiply the dimension (in inches) by 25.4 (i.e. 1.5" x 25.4 = 38.1 mm).

Lamp Locator



ConstantColor® CMH® Ceramic Metal Halide

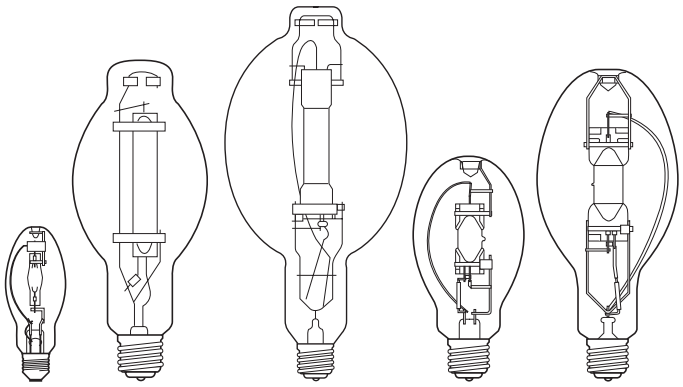
CMH® Chromafit™ Ceramic Metal Halide (HPS Retrofit Lamps)



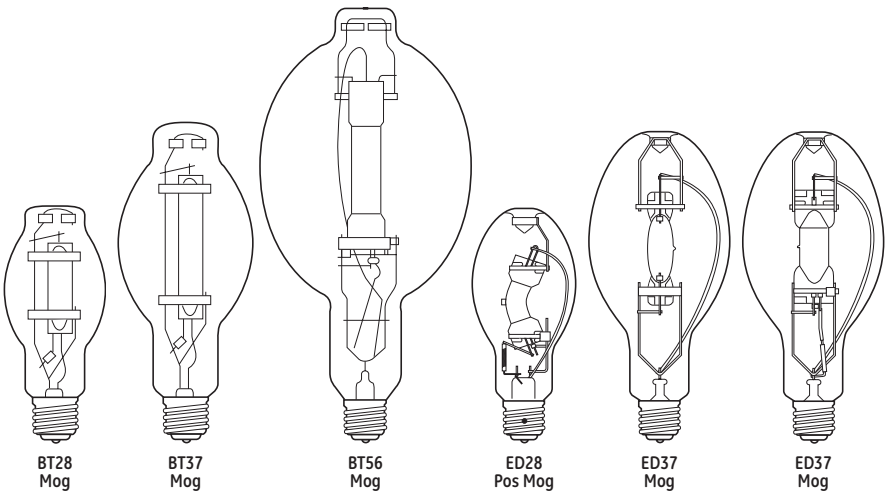
PulseArc® Multi-Vapor® Metal Halide Lamps

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

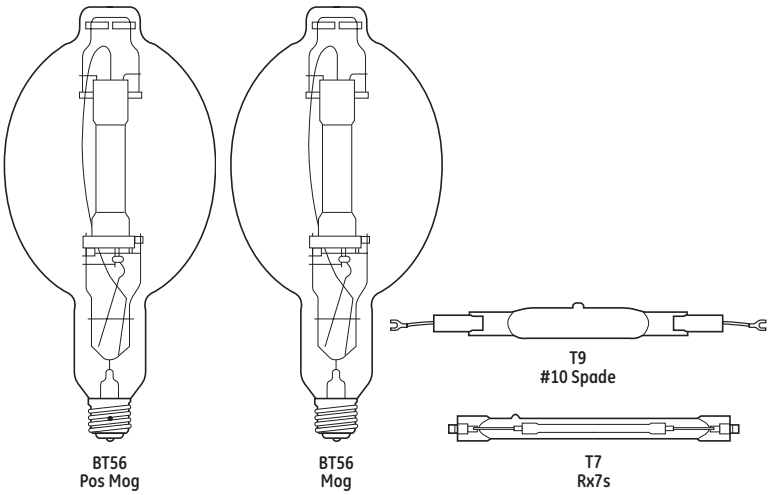
Lamp Locator (continued)



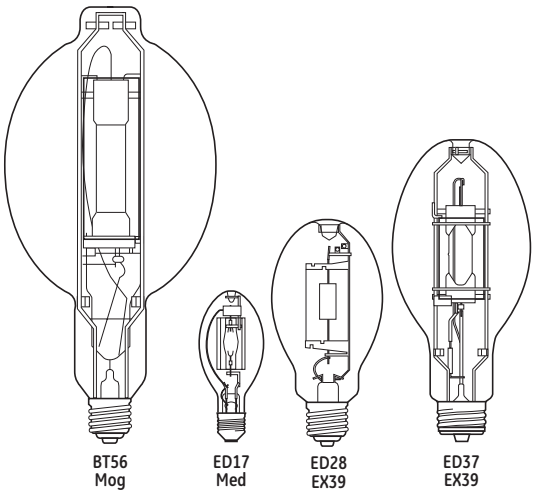
Multi-Vapor® Metal Halide Lamps



High Output and XHO Multi-Vapor® Metal Halide Lamps

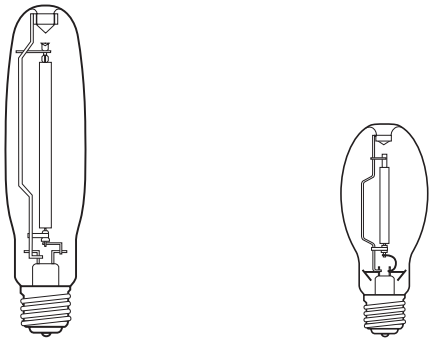


Sports Lighting

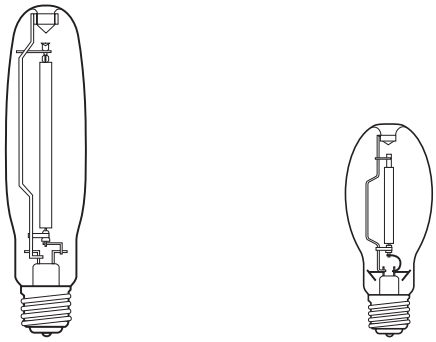


Protected Multi-Vapor® Metal Halide Lamps

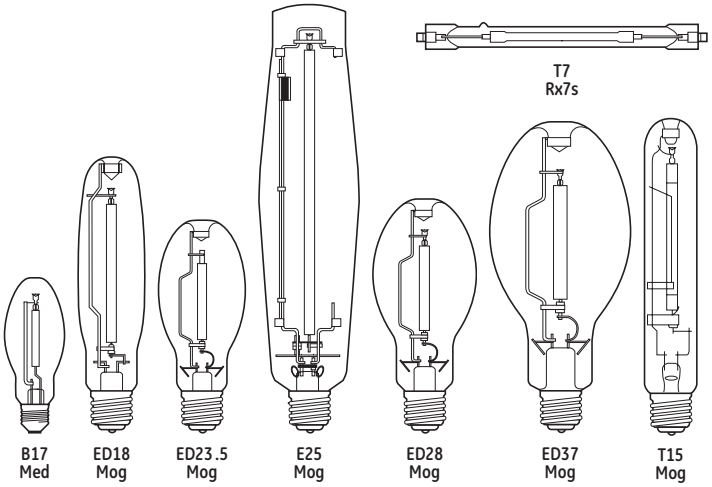
Lamp Locator (continued)



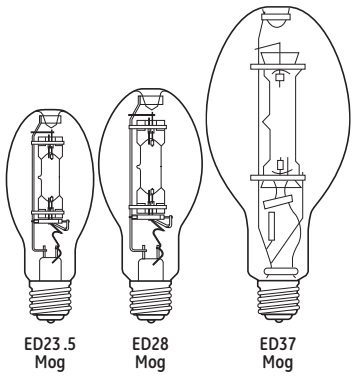
Ecolux® NC Non-Cycling High Pressure Sodium Lamps
(TCLP Compliant)



Ecolux® High Pressure Sodium Lamps
(TCLP Compliant)

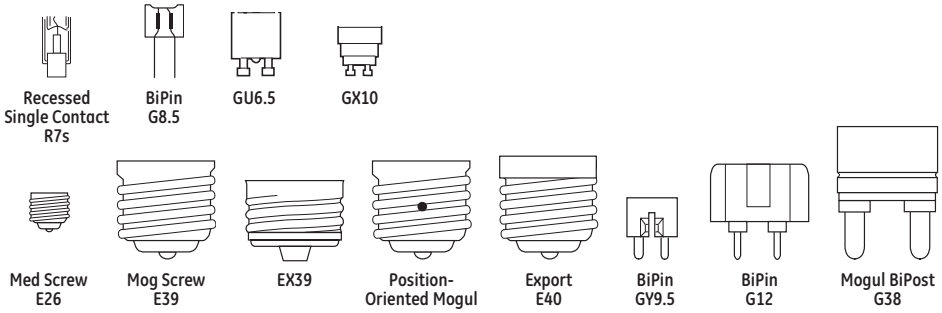


Lucalox® High Pressure Sodium Lamps



Mercury Lamps

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 at right shows how HID lamps compare to incandescent, halogen, and fluorescent in terms of efficiency and rated life. Efficiency is measured in lumens per watt (LPW). Rated 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 Life (in hours)
Incandescent	5-22	750-2000
Halogen	12-36	2,000-6000
Compact Fluorescent	27-80	9,000-20,000
Fluorescent	75-100	5,000-36,000
Mercury	50-60	12,000-24,000+
ConstantColor® CMH®	80-95	10,000-20,000
Multi-Vapor® Metal Halide	80-115	10,000-20,000
Lucalox® High Pressure Sodium	90-140	10,000-40,000

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 reducing glare.

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® and CMH® Ultra Ceramic Metal Halide Lamps (pgs 3-9 to 3-11)

- Color uniformity lamp-to-lamp and over lamp life
- Excellent color rendering (80+ CRI, 90+ CRI for SPXX versions)
- Delivers more light than standard metal halide (10%–20% more)
- Lamp operates at high efficacy—up to 95 lumens per watt
- Many are universal burn—may be operated in any position
- Perfect for retail and commercial display lighting, accent and floodlighting, lobby and foyer lighting. Ideal for "people places"

GE CMH® Chromafit™ Ceramic Metal Halide Lamps (pg 3-11)

- Convert High Pressure Sodium sockets to crisp, white ceramic metal halide light (80+ CRI)
- Operate on standard HPS ballasts and auxiliary equipment
- Universal burn—may be operated in any position
- Uses: Area lighting, industrial and "people places"
- Enclosed glass fixtures only

GE PulseArc® Medium Based Metal Halide Lamps (/MED models) (pg 3-12)

- 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 (70-75 CRI)
- 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 3-12 to 3-13)

- 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 Multi-Vapor® Metal Halide Lamps (pg 3-13)

- Sparkling white light (3000-4000K) and very good color rendition (65-75 CRI)
- 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 High Output Multi-Vapor® Lamps (pgs 3-13 to 3-14)

- 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 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

GE Protected High Output Multi-Vapor® Lamps (/O) (pgs 3-14 to 3-15)

- 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 3-15)

- Convert high pressure sodium sockets to crisp white metal halide light (65-70 CRI)
- Operate on standard HPS ballasts and auxiliary equipment
- Uses: Area lighting, industrial and "people places"

GE Lucalox® High Pressure Sodium Lamps (pg 3-15)

- Very high efficacy/low operating cost
- Excellent 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 Ecolux® High Pressure Sodium Lamps (/ECO) (pgs 3-15 to 3-16)

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

GE Standby Longlife Lucalox® and Ecolux® Lamps (/SBY) (pgs 3-16 to 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
- Ecolux® lamps use lead-free bases. Passes TCLP, which can lower disposal costs.

Product Information (continued)

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—up to 40,000 hours
- Open or enclosed fixtures
- Uses: Industrial, roadway, security

GE Mercury Lamps (pg 3-17)

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

HID Brand Name Cross-Reference

GE	OSRAM/SYLVANIA	PHILIPS
ChromaFit™ Multi-Vapor®	—	—
ConstantColor® CMH®	Powerball® MCP	MasterColor® CDM
Deluxe Lucalox®	—	Ceramalux™ Comfort
E-Z Lux®	Unalux®	Ceramalux™ Retrolux
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®	—
Lucalox®	Lumalux®	Ceramalux™
Multi-Vapor®	Metalarc®	Metal Halide
Protected High Output Multi-Vapor®	Metalarc® Pro-Tech™	—
PulseArc®	Super Metalarc® Pulse Start	Pulse Start

GE	OSRAM/SYLVANIA	PHILIPS
Standby Longlife Lucalox®	Lumalux® Standby	Instant Restrike Ceramalux™
Watt-Miser® Multi-Vapor®	Metalarc® Supersaver®	—

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.

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.

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

Energy Used – Nominal Watts: Energy Used (as defined by FTC Lamp Label Rules). To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000.

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

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.

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.

LET (Lamp Enclosure Type): Describes fixture requirements for this lamp.

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

Case Qty: Number of product units packed in a case.

Color Rendering Index (CRI): 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.

OP (Operating Position)

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

ANSI Ballast Type: Ballast type used to operate lamp.

Initial Lumens: Initial light output.

Additional Information: Typical application and/or other important information.

MOL (in): Maximum Overall Length in inches.

Rated Life (hours): Lamp burning hours to median life expectancy.

Footnotes: See page 3-19.

Base: The type of base.

Description: The lamp's identification code.

Warning and Caution Notices: See page 3-21.

Constant Color CMH® Metal Halide Lamps

Bulb Shape	Base	LET	OP	Watts	MOL (in)	LCL (in)	Order Code	Description	ANSI Ballast Type	Case Qty	CBCP	Rated Life (hrs)	Initial Lumens	Mean Lumens	Color Temp K	CRI	Additional Information	Footnotes	Warning and Caution Notices
CMH® MR16																			
MR16	GX10	O	U	20	2.28		85101	CMH20MR16/830/SP	M156	12	9000	12000	1000		3000	81	12 Spotlight, UV control	33,39,51	107

CMH20MR16 / 830 / SP

- CMH20MR16: Identifies as CMH® lamp.
- MR16: Identifies the lamp's wattage.
- 830: Identifies the bulb shape. Color temp. and CRI.
- SP: Additional information.

WHEN YOU DON'T KNOW THE LAMP DESCRIPTION

1. Identify bulb shape by using illustrations on pages 3-2 to 3-4.
2. Measure bulb diameter using ruler in Appendix section page D-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 Shape	Base	LET	OP	Watts	MOL (in)	LCL (in)	Order Code	Description	ANSI Ballast Type	Case Qty	CBCP	Rated Life (hrs)	Initial Lumens	Mean Lumens	Color Temp K	CRI	Additional Information	Reduced Watts/ High Color Rendering	Footnotes	Warning and Caution Notices
PulseArc® Multi-Vapor® Metal Halide Lamps (continued)																				
ED28	E39	E	VBU	400	8.25	5.00	46271	MVR400/VBUED28PA	M135/ M155	12		20000	44000	28500	4000	65	Clear		43,49	116
		E	VBU	400	8.25	5.00	46272	MVR400CVBUED28PA	M135/ M155	12		20000	42000	27500	3700	70	Coated Compact		43,49	116
		E	HOR	400	8.25	5.00	72885	MVR400/HOR/ED28/PA	M135/ M155	12		20000	38000	21400	4100	65	Clear Compact		43,49	117
750 Watts																				
BT37	E39	E	VBU	750	11.50	7.00	27219	MVR750/VBU/PA	M149	6		16000	82000	60000	4000	65	Clear		49	117
		E	VBU	750	11.50	7.00	45560	MVR750/C/VBU/PA	M149	6		16000	72000	54000	3700	70	Coated		49	117
1000 Watts																				
BT37	E39	E	U	1000	11.50	7.00	10389	MVR1000U/BT37/PA	M141	6		9000H/ 12000V	105000H/ 115000V	82000H/ 90000V	3900	65	Clear		43,49	116
Multi-Vapor® Metal Halide Lamps																				
150 Watts																				
ED28	E39	E	U	150	8.25	5.00	13481	MVR150/U/WM	M57/ M107	12		7500H/ 10000V	11500H/ 13500V	7200H/ 8500V	4000	65	Clear, Watt-Miser®	✓		117
		E	U	150	8.25	5.00	13490	MVR150/C/U/WM	M57/ M107	12		7500H/ 10000V	10900H/ 12800V	6900H/ 8000V	3700	70	Coated, Watt-Miser®	✓		117
175 Watts																				
BD17	E26	E	U	175	5.75	3.43	18902	MVR175/U/MED	M57	6		6000H/ 10000V	11700H/ 14000V	7400H/ 8800V	4000	60	Clear			117
		E	U	175	5.75	3.43	26432	MVR175/U/MED/CP	M57	4		6000H/ 10000V	11700H/ 13600V	7400H/ 8800V	4000	65	Clear, Consumer Pack			117
		E	U	175	5.75	3.43	19976	MVR175/C/U/MED	M57	6		6000H/ 10000V	11900H/ 12900V	7900H/ 8400V	3900	60	Coated			117
ED28	E39	E	U	175	8.25	5.00	47760	MVR175/U	M57	12		6000H/ 10000V	11700H/ 13600V	7900H/ 8800V	4000	55	Clear			117
		E	U	175	8.25	5.00	26433	MVR175/U/CP	M57	4		6000H/ 10000V	11700H/ 13600V	7900H/ 8800V	4000	65	Clear, Consumer Pack			117
		E	U	175	8.25	5.00	47761	MVR175/C/U	M57	12		6000H/ 10000V	11900H/ 12900V	7900H/ 8400V	3900	55	Coated			117
		E	U	175	8.25	5.00	17634	MVR175/SP30/U	M57	12		6000H/ 10000V	10300H/ 12000V	6500H/ 7600V	3000	70	RE730 Phosphor Coating			117
PAR38	E26	E	U	175	5.62		25218	MVR175/PAR38/FL1	M57	6	6500	7500	12000		3800	65	Clear, One-Piece PAR			117
250 Watts																				
ED28	E39	E	U	250	8.25	5.00	42729	MVR250/U	M58	12		6000H/ 10000V	19100H/ 20800V	12400H/ 13500V	4200	60	Clear			117
		E	U	250	8.25	5.00	26434	MVR250/U/CP	M58	4		6000H/ 10000V	19100H/ 20800V	12400H/ 13500V	4200	65	Clear, Consumer Pack			117
		E	U	250	8.25	5.00	42731	MVR250/C/U	M58	12		6000H/ 10000V	18200H/ 19800V	11600H/ 13000V	3900	60	Coated			117
		E	U	250	8.25	5.00	17633	MVR250/SP30/U	M58	12		6000H/ 10000V	16600H/ 18000V	10600H/ 11500V	3000	70	RE730 Phosphor Coating			117
360 Watts																				
ED37	E39	S	U	360	11.50	7.00	13495	MVR360/U/WM/HO	M59/ M165	6		20000	36000	20000	4300	60	Clear, Watt-Miser®	✓	32,49	121
400 Watts																				
ED37	E39	S	U	400	11.50	7.00	43828	MVR400/U	M59	6		15000H/ 20000V	33100H/ 38000V	22100H/ 23500V	4000	60	Clear		49	121
		S	U	400	11.50	7.00	26435	MVR400/U/CP	M59	4		15000H/ 20000V	33100H/ 36000V	22100H/ 23500V	4000	65	Clear, Consumer Pack		49	121
		S	U	400	11.50	7.00	43829	MVR400/C/U	M59	6		15000H/ 20000V	32200H/ 36000V	19300H/ 23000V	3700	60	Coated		49	121
		S	U	400	11.50	7.00	17632	MVR400/SP30/U	M59	6		15000H/ 20000V	28500H/ 31000V	17100H/ 18600V	3000	70	RE730 Phosphor Coating		49	121
ED28	E39	E	U	400	8.25	5.00	18904	MVR400/U/ED28	M59	12		15000H/ 20000V	33100H/ 38000V	22100H/ 23500V	4000	60	Clear, Compact		49	117
		E	U	400	8.25	5.00	19979	MVR400/C/U/ED28	M59	12		15000H/ 20000V	32200H/ 36000V	19300H/ 23000V	4000	60	Coated, Compact		49	117
1000 Watts																				
BT56	E39	S	U	1000	15.37	9.50	41826	MVR1000/U	M47	6		11000H/ 15000V	100280H/ 108000V	79000H/ 86000V	4000	65	Clear		49	121
		S	U	1000	15.37	9.50	41827	MVR1000/C/U	M47	6		11000H/ 15000V	96600H/ 105000V	73000H/ 80000V	3700	65	Coated		49	121
BT37	E39	E	U	1000	11.50	7.00	18205	MVR1000/U/BT37	M47	6		9000H/ 12000V	105000H/ 115000V	82000H/ 90000V	3700	65	Clear, Compact		49	121
High Output and XHO Multi-Vapor® Metal Halide Lamps																				
175 Watts																				
ED28	PosMog	E	HOR	175	8.25	5.00	18105	MVR175/C/HOR	M57	12		10000	14100	7500	3500	70	Coated, Position Oriented Socket			117

For the most up-to-date product information, see www.gelighting.com. To convert inches to millimeters, multiply by 25.4.
All footnotes, warning and caution notices found at the end of this section (page 3-19).