

High Intensity Discharge Lamps

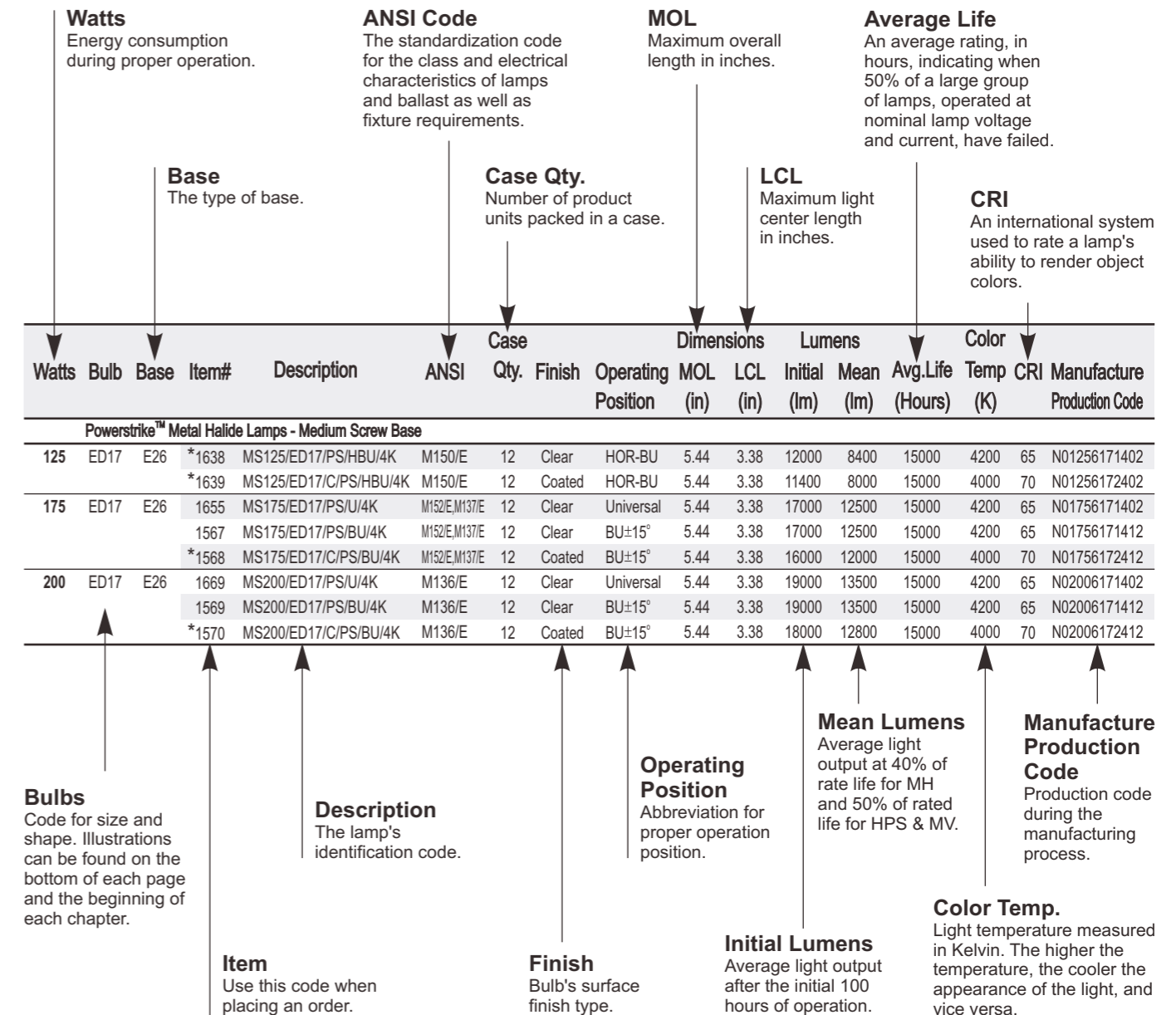


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how to read a table

Watts	Bulb	Base	Item#	Description	ANSI	Case Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial Lumens (lm)	Mean Lumens (lm)	Avg. Life (Hours)	Color Temp (K)	CRI	Manufacture Production Code
Powerstrike™ Metal Halide Lamps - Medium Screw Base																
125	ED17	E26	*1638	MS125/ED17/PS/HBU/4K	M150/E	12	Clear	HOR-BU	5.44	3.38	12000	8400	15000	4200	65	N01256171402
			*1639	MS125/ED17/C/PS/HBU/4K	M150/E	12	Coated	HOR-BU	5.44	3.38	11400	8000	15000	4000	70	N01256172402
175	ED17	E26	1655	MS175/ED17/PS/U/4K	M152/E,M137/E	12	Clear	Universal	5.44	3.38	17000	12500	15000	4200	65	N01756171402
			1567	MS175/ED17/PS/BU/4K	M152/E,M137/E	12	Clear	BU±15°	5.44	3.38	17000	12500	15000	4200	65	N01756171412
			*1568	MS175/ED17/C/PS/BU/4K	M152/E,M137/E	12	Coated	BU±15°	5.44	3.38	16000	12000	15000	4000	70	N01756172412
200	ED17	E26	1669	MS200/ED17/PS/U/4K	M136/E	12	Clear	Universal	5.44	3.38	19000	13500	15000	4200	65	N02006171402
			1569	MS200/ED17/PS/BU/4K	M136/E	12	Clear	BU±15°	5.44	3.38	19000	13500	15000	4200	65	N02006171412
			*1570	MS200/ED17/C/PS/BU/4K	M136/E	12	Coated	BU±15°	5.44	3.38	18000	12800	15000	4000	70	N02006172412



HIGH INTENSITY DISCHARGE LAMPS

The catalog format and related terminology will assist the reader by providing brief description toward understanding of information in this section. The lamp identification is simplified by listing all the lamp families in ascending wattage and followed by alphabetical bulb designation. Tests conducted under controlled conditions on AC circuits with auxiliary equipment provides performance rating which meets current published ANSI specifications.

Typical service conditions may cause the variation of lamp performance against rated values. Ratings and specifications are subject to change without any further notice.

ANSI CODE

ANSI CODE is a unique code developed and assigned by the American National Standards Institute. This code describes the class and electrical characteristics of lamps and ballast as well as fixture requirements. The ANSI CODE consists type of lamps as S=HPS, H=Mercury, M=Metal Halide, L=LPS and followed by ballast number. For metal halide lamps are followed by the fixture requirement (O, E, S, F).

ARC LENGTH

The dimension of the arc discharge measured from one electrode tip to the other is called Arc length. It is useful for optical design of reflectors and effects fixture efficiency as well.

AVERAGE LIFE (HOURS)

Average life is defined as the total operation hours at which 50% of any group of lamps is still under operation (There are exceptions for most High Pressure Sodium and Mercury Vapor lamps, which 65% of the lamps are operating at the end of the life). The average life of a lamp is based upon vertical operation of representative lamps operated under controlled conditions of at least 10 hours per start (Except MH1500 which based on 5 hours per start).

Following list shows the reduced lamp life caused by lamp operating cycles less than 10 hours per start.

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

Line voltage, and all the variations regarding lamp operation conditions such as bulb base or base temperatures could have an affect on lamp life. Regular operation lamp with off time less than 15 minutes will shorten lamp life.

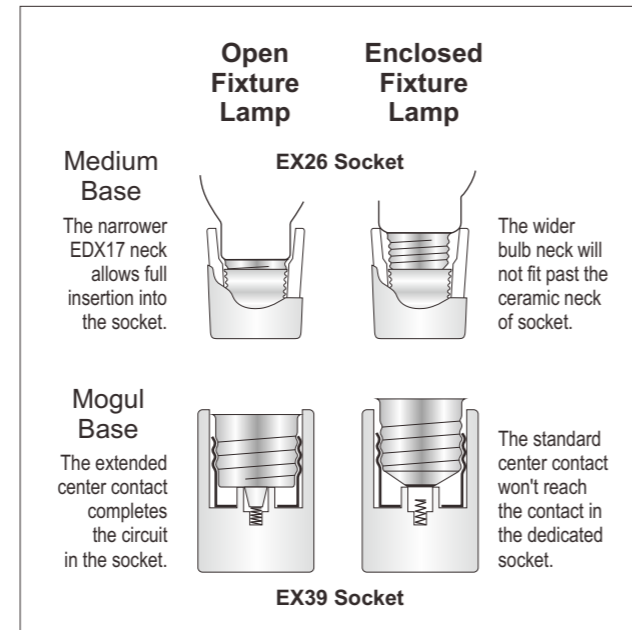
BASE

E26 Medium - Medium (MED) bases are usually used on lamps in E17 bulbs and are limited to 200W maximum.

E39 Mogul - Mogul (MOG) bases are usually used on lamps in ED28 and bigger and are limited to 1500w.

Ex39 Exclusionary Mogul Base - Exclusionary Mogul bases (EX MOG) are bases used on metal halide lamps having shrouded arc tubes, Permitting them to be used in open fixture applications. These bases are compatible with exclusionary or standard mogul sockets.

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



BULB

Glass enclosure contains chemical elements as lighting source. Each bulb description consists of both a letter to indicate bulb shape and number to show the maximum bulb diameter in 1/8 inches increments. For instance, BT37 bulb indicates a blown shape with tubular top, 37/8 of an inch or 4 5/8 inches in diameter.

Plusrite HID bulbs are made of glass designed to resist thermal shock in normal applications. They must be shielded from direct contact with liquids (such as rain) during operation to avoid bulb breakage.

LIGHT CENTER LENGTH (LCL)

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

MAXIMUM OVERALL LENGTH (MOL)

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

WARM UP TIME

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

WATTS

A unit of electrical power which equal to 1 joule per second. Lamps are rated in watts to indicate power consumption.

COLOR RENDERING INDEX (CRI)

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

Applications	CRI Range	Color Rendering Properties
Art Galleries	90-100	Excellent
Banks	70-80	Good
Car Dealerships	70-80	Good
Classrooms	70-80	Good
Grocery Stores	70-90	Good - Very Good
Hospitals	70-90	Good - Very Good
Manufacturing Areas	70-80	Good
Offices	70-80	Good
Parking Lot Lighting	<60-70	Poor
Printing Companies	90-100	Excellent
Restaurants	80-90	Good - Very Good
Retail Stores	80-100	Very Good - Excellent
Roadway Lighting	<60-70	Poor
Security Lighting	70-80	Good
Sporting Arenas	70-80	Good
Warehouses	<60-70	Poor

CORRELATED COLOR TEMPERATURE (CCT)

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

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

Color Temperature	Common Color Description	Typical Applications
2700K - 3400K	Warm; Warm White	Specialty Retailers, Restaurants, Hotel Lobbies, Residential
3500K	Neutral; Neutral White	Grocery Stores & Produce Markets, Retail Stores, Bank Lobbies
4100K	Cool; Cool White	Offices, Manufacturing, Schools, Hospitals
5000K - 6500K	Daylight; Daylight Plus; Full Spectrum	Printers, Paint Studios, Art Galleries, Car Dealerships

HOT RESTRIKE

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

FIXTURE REQUIREMENT

Developed by the American National Standard institute (ANSI), the fixture requirement code describes the type of fixture required for each lamp type.

See lamp warnings for additional information and proper operating instructions.

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

O = Lamps classified as O-type, comply with ANSI Standard C78.387 for a containment testing and may be used in open luminaires.

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

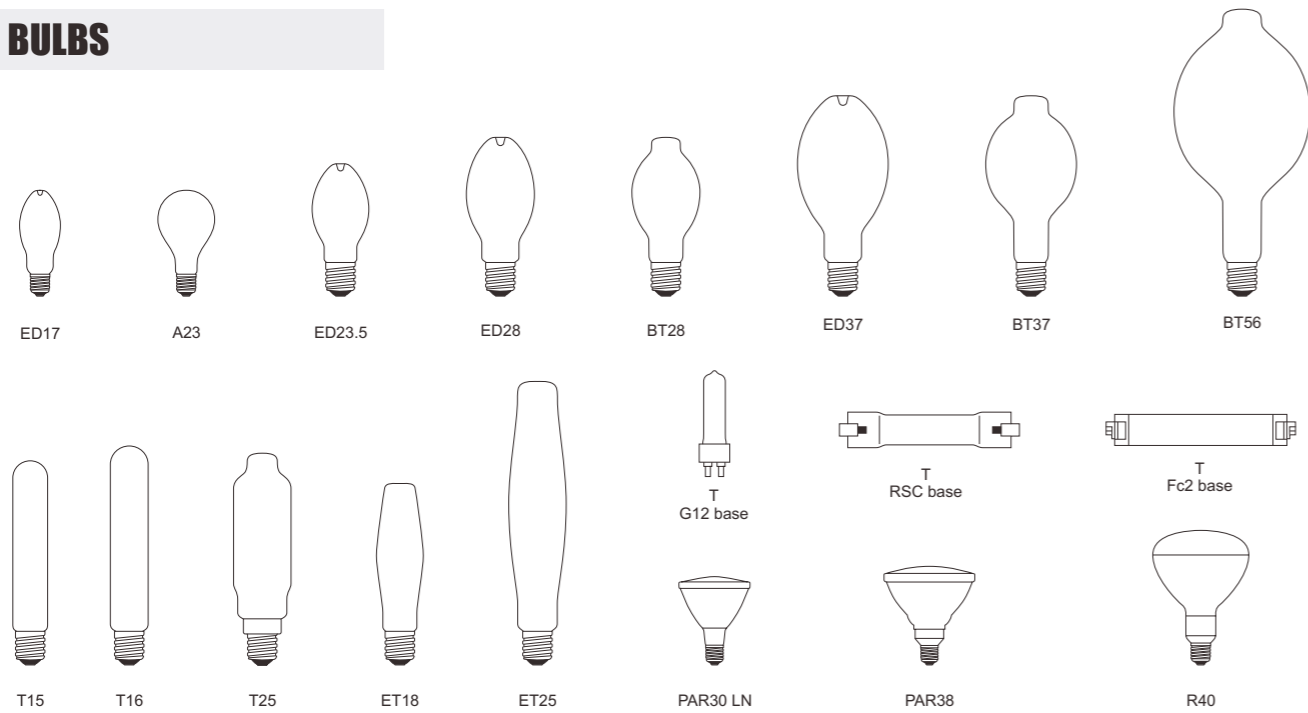
LUMENS (lm)

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

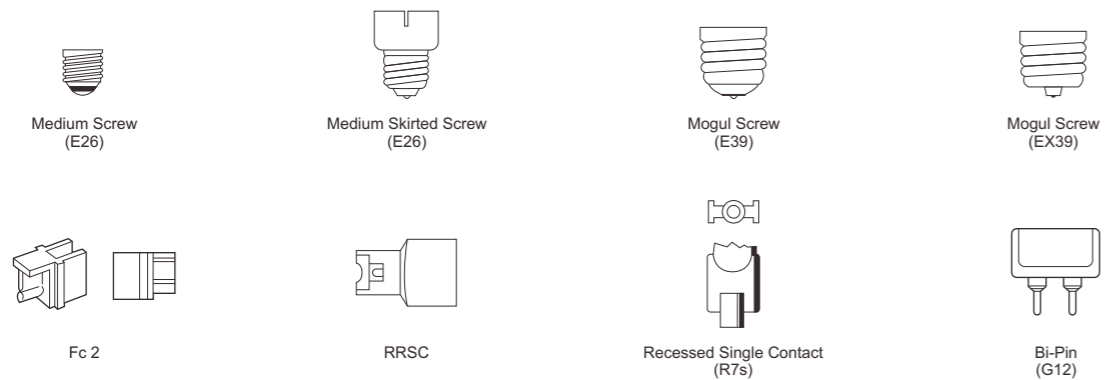
LUMEN DEPRECIATION

The decrease in lumen output of a light source over time. Every lamp type has a unique lumen depreciation curve (sometimes called a lumen maintenance curve) depicting the pattern of decreasing light output.

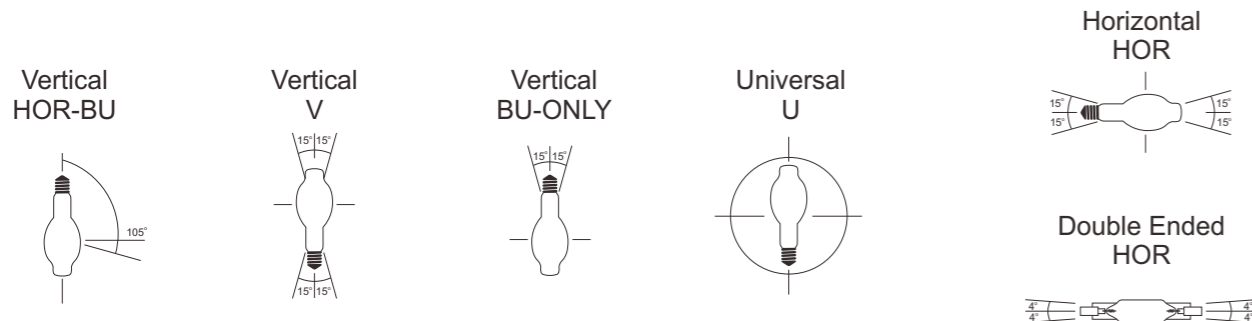
BULBS



BASES



OPERATING POSITIONS



POWERSTRIKE™ METAL HALIDE LAMPS

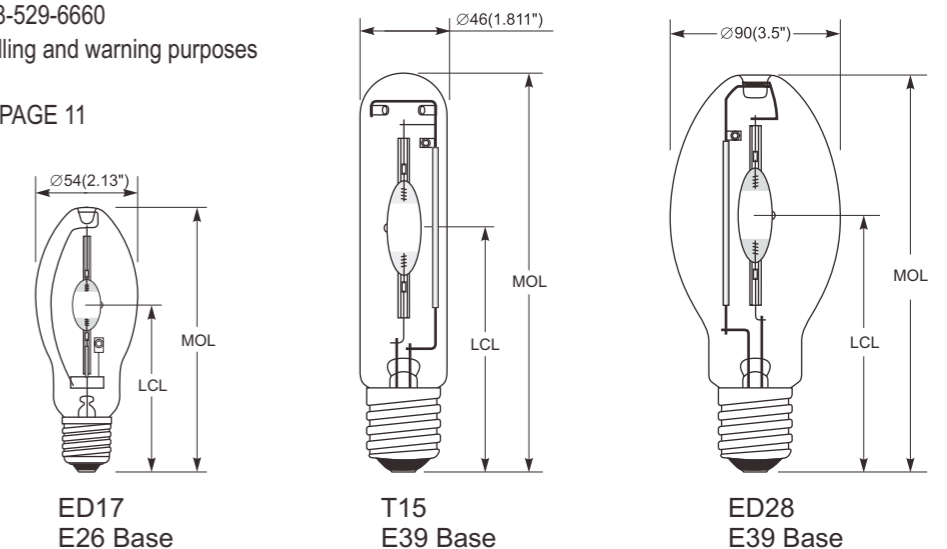
- Pulse Start technology • White light
- Good and stable color rendering as lamps age • Faster hot re-strike
- Excellent lumen maintenance • Enclosed fixture only

Watts	Bulb	Base	Item#	Description	ANSI	Case		Operating Position	Dimensions		Lumens		Color			
						Qty.	Finish		MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI	Manufacture Production Code
Powerstrike™ Metal Halide Lamps - Medium Screw Base																
125	ED17	E26	*1638	MS125/ED17/PS/HBU/4K	M150/E	12	Clear	HOR-BU	5.44	3.38	12000	8400	15000	4200	65	N01256171402
			*1639	MS125/ED17/C/PS/HBU/4K	M150/E	12	Coated	HOR-BU	5.44	3.38	11400	8000	15000	4000	70	N01256172402
175	ED17	E26	1655	MS175/ED17/PS/U/4K	M152/E,M137/E	12	Clear	Universal	5.44	3.38	17000	12500	15000	4200	65	N01756171402
			1567	MS175/ED17/PS/BU/4K	M152/E,M137/E	12	Clear	BU±15°	5.44	3.38	17000	12500	15000	4200	65	N01756171412
			*1568	MS175/ED17/C/PS/BU/4K	M152/E,M137/E	12	Coated	BU±15°	5.44	3.38	16000	12000	15000	4000	70	N01756172412
200	ED17	E26	1669	MS200/ED17/PS/U/4K	M136/E	12	Clear	Universal	5.44	3.38	19000	13500	15000	4200	65	N02006171402
			1569	MS200/ED17/PS/BU/4K	M136/E	12	Clear	BU±15°	5.44	3.38	19000	13500	15000	4200	65	N02006171412
			*1570	MS200/ED17/C/PS/BU/4K	M136/E	12	Coated	BU±15°	5.44	3.38	18000	12800	15000	4000	70	N02006172412
			Powerstrike™ Metal Halide Lamps - Mogul Screw Base													
125	ED28	E39	*1640	MS125/ED28/PS/HBU/4K	M150/E	12	Clear	HOR-BU	8.31	5.00	12000	8400	15000	4200	65	N01259181402
175	ED28	E39	1656	MS175/ED28/PS/U/4K	M152/E,M137/E	12	Clear	Universal	8.31	5.00	17000	12500	15000	4200	65	N01759181402
			1525	MS175/ED28/PS/BU/4K	M152/E,M137/E	12	Clear	BU±15°	8.31	5.00	17000	12500	15000	4200	65	N01759181412
			*1571	MS175/ED28/C/PS/BU/4K	M152/E,M137/E	12	Coated	BU±15°	8.31	5.00	16000	12000	15000	4000	70	N01759182412
			T15	E39	*1572	MS175/T15/PS/H75/4K	M152/E,M137/E	24	Clear	HOR±75°	8.31	5.00	15300	11250	15000	4200
200	ED28	E39	1672	MS200/ED28/PS/U/4K	M136/E	12	Clear	Universal	8.31	5.00	21000	16000	15000	4200	65	N02009181402
			*1671	MS200/ED28/PS/C/U/4K	M136/E	12	Coated	Universal	8.31	5.00	20000	15000	15000	4000	70	N02009182402
			1573	MS200/ED28/PS/BU/4K	M136/E	12	Clear	BU±15°	8.31	5.00	21000	16000	15000	4200	65	N02009181412
			*1574	MS200/ED28/C/PS/BU/4K	M136/E	12	Coated	BU±15°	8.31	5.00	20000	15000	15000	4000	70	N02009182412
			1526	MS200/ED28/PS/V/4K	M136/E	12	Clear	VER±15°	8.31	5.00	21000	16000	15000	4200	65	N02009181422
			*1527	MS200/ED28/C/PS/V/4K	M136/E	12	Coated	VER±15°	8.31	5.00	20000	15000	15000	4000	70	N02009182422
			T15	E39	1528	MS200/T15/PS/H75/4K	M136/E	24	Clear	HOR±75°	8.31	5.00	19000	14500	15000	4200
250	ED28	E39	1575	MS250/ED28/PS/U/4K	M153/E,M138/E	12	Clear	Universal	8.31	5.00	25000	20000	15000	4200	65	N02509181402
			1576	MS250/ED28/PS/BU/4K	M153/E,M138/E	12	Clear	BU±15°	8.31	5.00	25000	20000	15000	4200	65	N02509181412
			*1577	MS250/ED28/C/PS/BU/4K	M153/E,M138/E	12	Coated	BU±15°	8.31	5.00	23000	19000	15000	4000	70	N02509182412
			1529	MS250/ED28/PS/V/4K	M153/E,M138/E	12	Clear	VER±15°	8.31	5.00	25000	20000	15000	4200	65	N02509181422
			*1530	MS250/ED28/C/PS/V/4K	M153/E,M138/E	12	Coated	VER±15°	8.31	5.00	23000	19000	15000	4000	70	N02509182422
			1531	MS250/ED28/PS/H75/4K	M153/E,M138/E	12	Clear	HOR±75°	8.31	5.00	22000	17600	15000	4200	65	N02509181432
T15	E39	1532	MS250/T15/PS/H75/4K	M153/E,M138/E	24	Clear	HOR±75°	9.75	5.75	22000	17600	15000	4200	65	N02509351432	

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* Items only available for special orders

PLEASE SEE BALLAST INFO AT PAGE 11



HIGH INTENSITY DISCHARGE LAMPS

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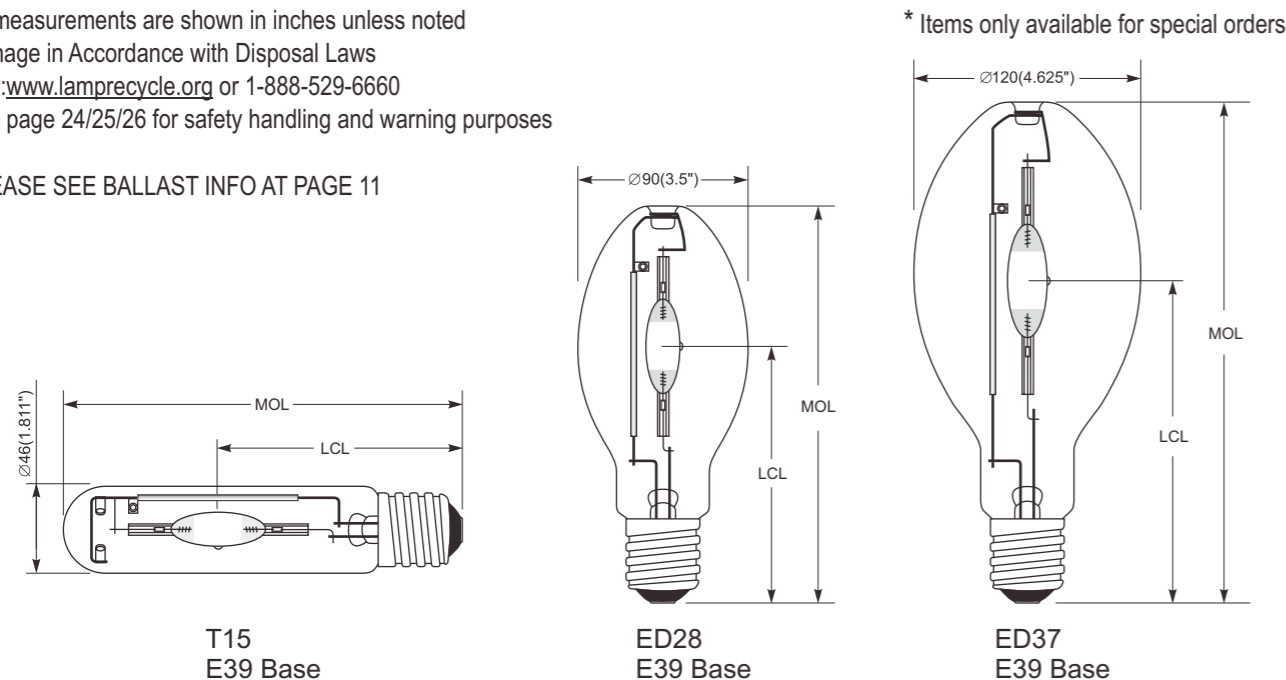
POWERSTRIKE™ METAL HALIDE LAMPS

- Pulse Start technology • White light
- Good and stable color rendering as lamps age • Faster hot re-strike
- Excellent lumen maintenance • Enclosed fixture only

Watts	Bulb	Base	Item#	Description	ANSI	Case		Dimensions			Lumens			Color			Manufacture Production Code	
						Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI			
Powerstrike™ Metal Halide Lamps - Mogul Screw Base																		
320	ED28	E39	1578	MS320/ED28/PS/U/4K	M154/E,M132/E	12	Clear	Universal	8.31	5.00	32000	26000	20000	4200	65	N03209181452		
			*1659	MS320/ED28/C/PS/U/4K	M154/E,M132/E	12	Coated	Universal	8.31	5.00	31000	24800	20000	4000	70	N03209182452		
			*1579	MS320/ED28/PS/HBU/3K	M154/E,M132/E	12	Clear	HOR-BU	8.31	5.00	33000	26000	20000	3200	65	N03209181302		
			*1580	MS320/ED28/C/PS/HBU/3K	M154/E,M132/E	12	Coated	HOR-BU	8.31	5.00	31000	24800	20000	3200	70	N03209182302		
			1581	MS320/ED28/PS/HBU/4K	M154/E,M132/E	12	Clear	HOR-BU	8.31	5.00	32000	26000	20000	4200	65	N03209181402		
			*1582	MS320/ED28/C/PS/HBU/4K	M154/E,M132/E	12	Coated	HOR-BU	8.31	5.00	31000	24800	20000	4000	70	N03209182402		
			1533	MS320/ED28/PS/V/4K	M154/E,M132/E	12	Clear	VER±15°	8.31	5.00	33000	26000	20000	4200	65	N03209181422		
			1534	MS320/ED28/C/PS/V/4K	M154/E,M132/E	12	Coated	VER±15°	8.31	5.00	32000	24800	20000	4000	70	N03209182422		
			1537	MS320/ED28/PS/H75/4K	M154/E,M132/E	12	Clear	HOR±75°	8.31	5.00	30000	22000	20000	4200	65	N03209181432		
			*1538	MS320/ED28/C/PS/H75/4K	M154/E,M132/E	12	Coated	HOR±75°	8.31	5.00	27000	20000	20000	4000	70	N03209182432		
			ED37	E39	1535	MS320/ED37/PS/V/4K	M154/E,M132/E	12	Clear	VER±15°	11.50	7.00	33000	26000	20000	4200	65	N03209171422
			*1536	MS320/ED37/C/PS/V/4K	M154/E,M132/E	12	Coated	VER±15°	11.50	7.00	32000	24800	20000	4000	70	N03209172422		
			T15	E39	1540	MS320/T15/PS/H75/4K/L	M154/E,M132/E	24	Clear	HOR±75°	11.50	7.00	30000	22000	20000	4200	65	N03209351432
			350	ED28	E39	*1583	MS350/ED28/C/PS/BU/3K	M131/E	12	Coated	BU±15°	8.31	5.00	35200	28200	20000	3200	70
1584	MS350/ED28/PS/BU/4K	M131/E				12	Clear	BU±15°	8.31	5.00	37000	29000	20000	4200	65	N03509181412		
*1585	MS350/ED28/C/PS/BU/4K	M131/E				12	Coated	BU±15°	8.31	5.00	35200	28200	20000	4000	70	N03509182412		
1543	MS350/ED28/PS/V/4K	M131/E				12	Clear	VER±15°	8.31	5.00	37000	29600	20000	4200	65	N03509181422		
1544	MS350/ED28/PS/H75/4K	M131/E				12	Clear	HOR±75°	8.31	5.00	33000	25000	20000	4200	65	N03509181432		
ED37	E39	*1586				MS350/ED37/C/PS/BU/3K	M131/E	12	Coated	BU±15°	11.50	7.00	35200	28200	20000	3200	70	N03509172312
*1657	MS350/ED37/PS/U/4K	M131/E				12	Clear	Universal	11.50	7.00	37000	29000	20000	4200	65	N03509171402		
1587	MS350/ED37/PS/BU/4K	M131/E				12	Clear	BU±15°	11.50	7.00	37000	29600	20000	4200	65	N03509171412		
*1588	MS350/ED37/C/PS/BU/4K	M131/E				12	Coated	BU±15°	11.50	7.00	35200	28200	20000	4000	70	N03509172412		
1541	MS350/ED37/PS/V/4K	M131/E				12	Clear	VER±15°	11.50	7.00	37000	29600	20000	4200	65	N03509171422		
*1542	MS350/ED37/C/PS/V/4K	M131/E				12	Coated	VER±15°	11.50	7.00	35200	28200	20000	4000	70	N03509172422		
1545	MS350/ED37/C/PS/H75/4K	M131/E				12	Coated	HOR±75°	11.50	7.00	31000	25000	20000	4000	70	N03509172432		
T15	E39	1546				MS350/T15/PS/H75/4K	M131/E	24	Clear	HOR±75°	11.50	7.00	33000	25000	20000	4000	65	N03509351432

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PLEASE SEE BALLAST INFO AT PAGE 11



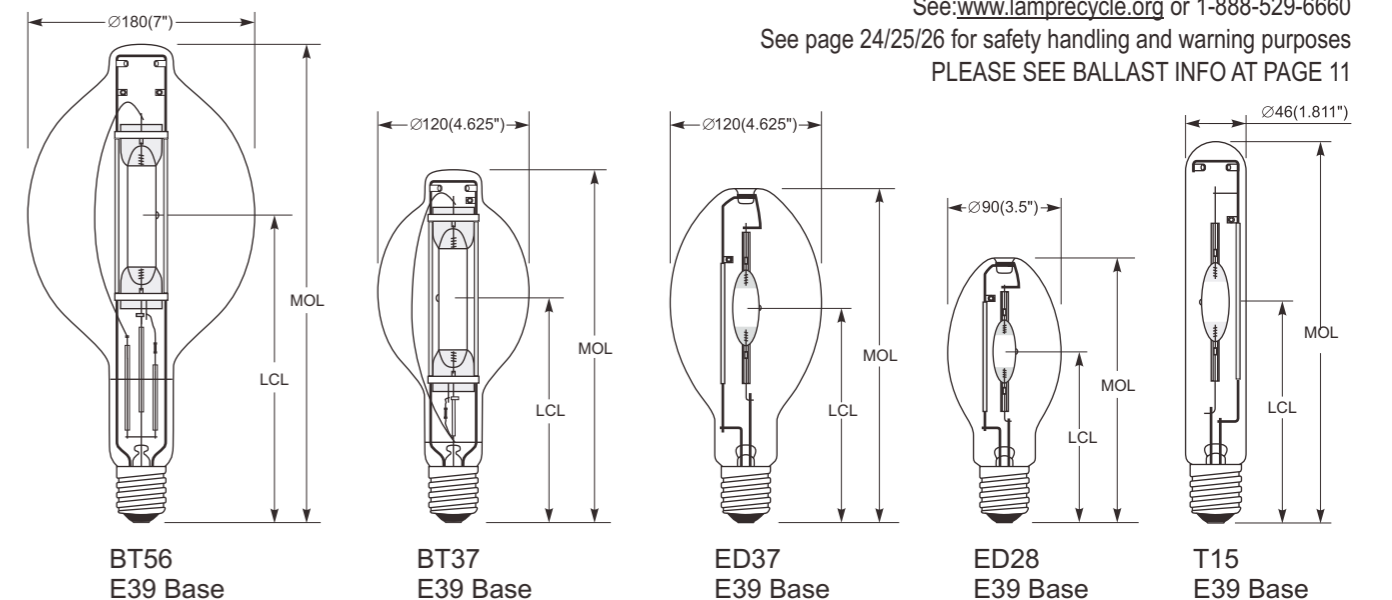
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400	ED28	E39	1589	MS400/ED28/PS/U/4K	M155/E,M135/E	12	Clear	Universal	8.31	5.00	39000	27000	20000	4200	65	N04009181402		
			*1624	MS400/ED28/C/PS/U/4K	M155/E,M135/E	12	Coated	Universal	8.31	5.00	37000	25700	20000	4000	70	N04009182402		
			1590	MS400/ED28/PS/BU/4K	M155/E,M135/E	12	Clear	BU±15°	8.31	5.00	44000	35000	20000	4200	65	N04009181412		
			*1591	MS400/ED28/C/PS/BU/4K	M155/E,M135/E	12	Coated	BU±15°	8.31	5.00	42000	33000	20000	4000	70	N04009182412		
			1547	MS400/ED28/PS/V/4K	M155/E,M135/E	12	Clear	VER±15°	8.31	5.00	44000	35000	20000	4200	65	N04009181422		
			*1548	MS400/ED28/C/PS/V/4K	M155/E,M135/E	12	Coated	VER±15°	8.31	5.00	42000	33000	20000	4000	70	N04009182422		
			1552	MS400/ED28/PS/H75/4K	M155/E,M135/E	12	Clear	HOR±75°	8.31	5.00	40000	32000	20000	4200	65	N04009181432		
			*1553	MS400/ED28/C/PS/H75/4K	M155/E,M135/E	12	Coated	HOR±75°	8.31	5.00	39000	31000	20000	4000	70	N04009182432		
			ED37	E39	1592	MS400/ED37/PS/U/4K	M155/E,M135/E	12	Clear	Universal	11.50	7.00	39000	27000	20000	4200	65	N04009171402
			1593	MS400/ED37/PS/BU/4K	M155/E,M135/E	12	Clear	BU±15°	11.50	7.00	42000	31000	20000	4200	65	N04009171412		
			*1594	MS400/ED37/C/PS/BU/4K	M155/E,M135/E	12	Coated	BU±15°	11.50	7.00	42000	29000	20000	4000	70	N04009172412		
			1549	MS400/ED37/PS/V/4K	M155/E,M135/E	12	Clear	VER±15°	11.50	7.00	42000	31000	20000	4200	65	N04009171422		
			*1625	MS400/ED37/C/PS/V/4K	M155/E,M135/E	12	Coated	VER±15°	11.50	7.00	42000	29000	20000	4000	70	N04009172422		
			1551	MS400/ED37/PS/H75/4K	M155/E,M135/E	12	Clear	HOR±75°	11.50	7.00	40000	32000	20000	4200	65	N04009171432		
*1550	MS400/ED37/C/PS/H75/4K	M155/E,M135/E	12	Coated	HOR±75°	11.50	7.00	39000	31000	20000	4000	70	N04009172432					
T15	E39	*1653	MS400/T15/PS/H75/4K	M155/E,M135/E	24	Clear	HOR±75°	11.50	7.00	39000	31000	20000	4200	65	N04009351432			
450	ED37	E39	*1626	MS450/ED37/PS/V/4K	M144/E	12	Clear	VER±15°	11.50	7.00	50000	40000	20000	4000	68	N04509171422		
			*1627	MS450/ED37/C/PS/V/4K	M144/E	12	Coated	VER±15°	11.50	7.00	47000	37000	20000	3700	70	N04509171422		
750	BT37	E39	1508	MS750/BT37/PS/HBU/4K	M149/E	12	Clear	HOR-BU	11.50	7.00	80000	60000	16000	4200	65	N07509271402		
			*1638	MS750/BT37/C/PS/HBU/4K	M149/E	12	Coated	HOR-BU	11.50	7.00	75000	56000	16000	4000	70	N07509272402		
875	BT37	E39	*1628	MS875/BT37/PS/BU/4K	M166/E	12	Clear	BU±15°	11.50	7.00	100000	80000	20000	4000	68	N08759271412		
			*1629	MS875/BT37/PS/BD/4K	M166/E	12	Clear	BU±15°	11.50	7.00	100000	80000	20000	4000	68	N08759271442		
			*1630	MS875/BT37/PS/HOR/4K	M166/E	12	Clear	HOR±75°	11.50	7.00	95000	76000	12000	4000	68	N08759271432		
1000	BT37	E39	1509	MS1000/BT37/PS/U/4K	M141/E	12	Clear	Universal	11.50	7.00	110000	96000	15000	4200	65	N10009271402		
			BT56	E39	*1598	MS1000/BT56/PS/BU/4K	M141/E	6	Clear	BU±15°	15.38	9.50	110000	86000	10000+	4200	65	N10009261412
			*1599	MS1000/BT56/C/PS/BU/4K	M141/E	6	Coated	BU±15°	15.38	9.50	105000	80000	10000+	4000	70	N10009262412		

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 PLEASE SEE BALLAST INFO AT PAGE 11



HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

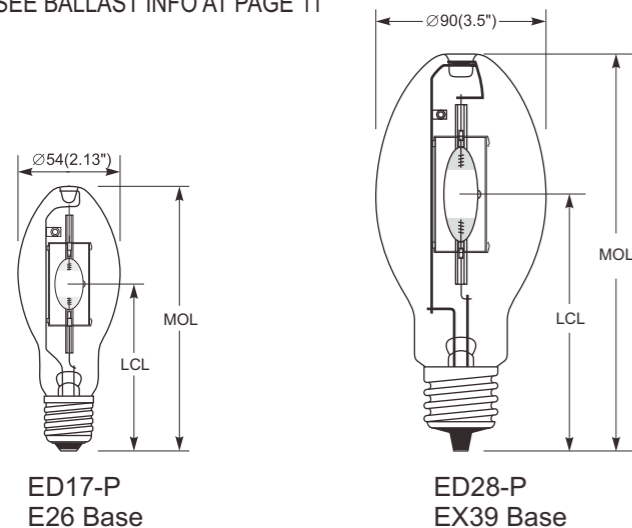
PROTECTED POWERSTRIKE™ METAL HALIDE LAMPS

- Pulse Start technology
- Protected arc tube • UV-block
- Excellent lumen maintenance • Suitable for open fixture

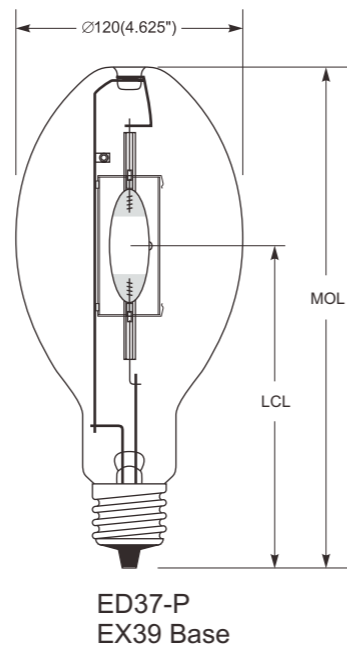
Watts	Bulb	Base	Item#	Description	ANSI	Case		Dimensions		Lumens			Color			Manufacture Production Code
						Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI	
Protected Powerstrike™ Metal Halide Lamps - Medium Screw Base																
125	ED17	E26	*1641	MP125/ED17/PS/BU/4K	M150/O	12	Clear	BU±15°	5.44	3.38	11400	8000	15000	4200	65	N01256471412
			*1642	MP125/ED17/C/PS/BU/4K	M150/O	12	Coated	BU±15°	5.44	3.38	10800	7600	15000	4000	70	N01256472412
175	ED17	E26	*1601	MP175/ED17/PS/BU/3K	M152/O,M137/O	12	Clear	BU±15°	5.44	3.38	17000	12500	15000	3200	65	N01756471312
			*1602	MP175/ED17/C/PS/BU/3K	M152/O,M137/O	12	Coated	BU±15°	5.44	3.38	16000	12000	15000	3200	70	N01756472312
			1603	MP175/ED17/PS/U/4K	M152/O,M137/O	12	Clear	Universal	5.44	3.38	16000	10800	15000	4200	65	N01756471402
			1604	MP175/ED17/PS/BU/4K	M152/O,M137/O	12	Clear	BU±15°	5.44	3.38	17000	12500	15000	4200	65	N01756471412
			*1605	MP175/ED17/C/PS/BU/4K	M152/O,M137/O	12	Coated	BU±15°	5.44	3.38	16000	12000	15000	4000	70	N01756472412
Protected Powerstrike™ Metal Halide Lamps - Mogul Screw Base																
125	ED28	EX39	*1643	MP125/ED28/PS/V/4K	M150/O	12	Clear	VER±15°	8.31	5.00	11400	8000	15000	4200	65	N01259381422
175	ED28	EX39	*1606	MP175/ED28/C/PS/BU/3K	M152/O,M137/O	12	Coated	BU±15°	8.31	5.00	16000	12000	15000	3200	70	N01759382312
			1607	MP175/ED28/PS/BU/4K	M152/O,M137/O	12	Clear	BU±15°	8.31	5.00	17000	12500	15000	4200	65	N01759381412
			1608	MP175/ED28/C/PS/BU/4K	M152/O,M137/O	12	Coated	BU±15°	8.31	5.00	16000	12000	15000	4000	70	N01759382412
200	ED28	EX39	*1609	MP200/ED28/C/PS/BU/3K	M136/O	12	Coated	BU±15°	8.31	5.00	19000	15200	15000	3200	70	N02009382312
			*1556	MP200/ED28/C/PS/V/3K	M136/O	12	Coated	VER±15°	8.31	5.00	19000	15200	15000	3200	70	N02009382322
			*1610	MP200/ED28/PS/BU/4K	M136/O	12	Clear	BU±15°	8.31	5.00	20000	16000	15000	4200	65	N02009381412
			*1611	MP200/ED28/C/PS/BU/4K	M136/O	12	Coated	BU±15°	8.31	5.00	19000	15200	15000	4000	70	N02009382412
			1554	MP200/ED28/PS/V/4K	M136/O	12	Clear	VER±15°	8.31	5.00	20000	16000	15000	4200	65	N02009381422
			*1555	MP200/ED28/C/PS/V/4K	M136/O	12	Coated	VER±15°	8.31	5.00	19000	15200	15000	4000	70	N02009382422
250	ED28	EX39	1557	MP250/ED28/PS/BU/4K	M153/O,M138/O	12	Clear	BU±15°	8.31	5.00	23500	19000	15000	4200	65	N02509381412
			1612	MP250/ED28/C/PS/BU/4K	M153/O,M138/O	12	Coated	BU±15°	8.31	5.00	22500	17000	15000	4000	70	N02509382412
320	ED28	EX39	1613	MP320/ED28/PS/BU/4K	M154/O,M132/O	12	Clear	BU±15°	8.31	5.00	31000	25000	20000	4200	65	N03209381412
			1614	MP320/ED28/C/PS/BU/4K	M154/O,M132/O	12	Coated	BU±15°	8.31	5.00	29000	23000	20000	4000	70	N03209382412
	ED37	EX39	*1617	MP320/ED37/C/PS/BU/3K	M154/O,M132/O	12	Coated	BU±15°	11.50	7.00	29000	23000	20000	3200	70	N03209372312
			1615	MP320/ED37/PS/BU/4K	M154/O,M132/O	12	Clear	BU±15°	11.50	7.00	31000	25000	20000	4200	65	N03209371412
			1616	MP320/ED37/C/PS/BU/4K	M154/O,M132/O	12	Coated	BU±15°	11.50	7.00	29000	23000	20000	4000	70	N03209372412

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PROTECTED POWERSTRIKE™ METAL HALIDE LAMPS

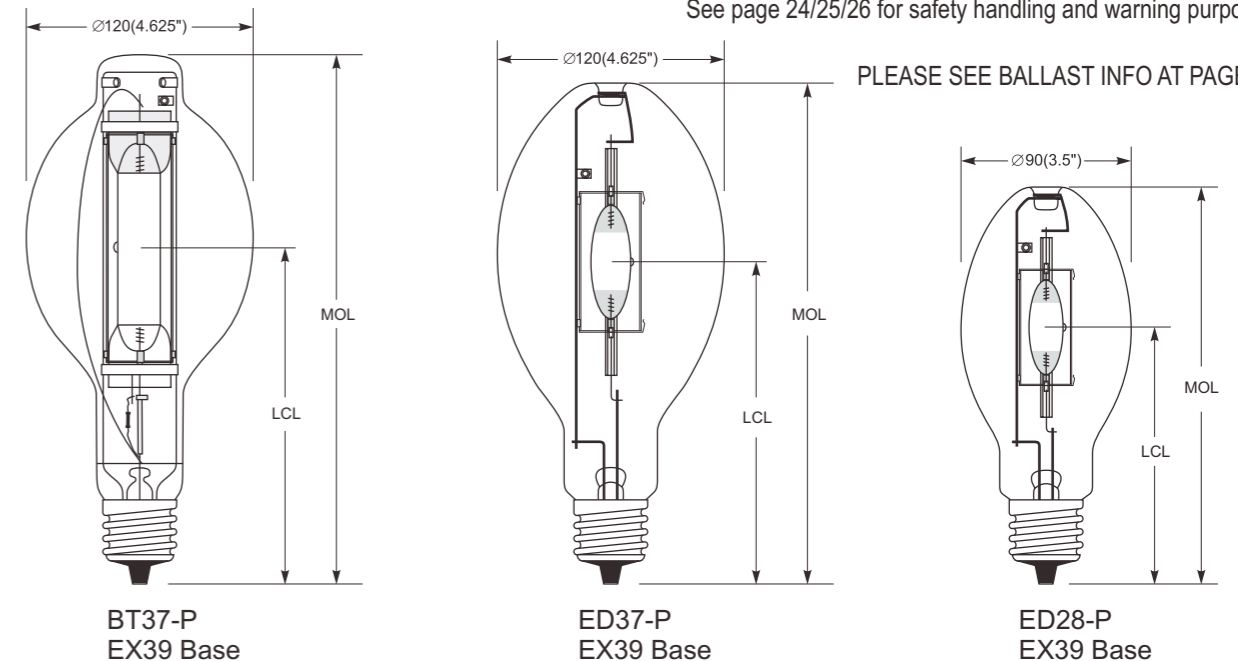
- Pulse Start technology
- Protected arc tube • UV-block
- Excellent lumen maintenance • Suitable for open fixture

Watts	Bulb	Base	Item#	Description	ANSI	Case		Dimensions		Lumens			Color			Manufacture Production Code
						Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI	
Protected Powerstrike™ Metal Halide Lamps - Mogul Screw Base																
350	ED28	EX39	*1649	MP350/ED28/C/PS/BU/3K	M131/O	12	Coated	BU±15°	8.31	5.00	33000	26000	20000	3200	70	N03509382312
			1619	MP350/ED28/PS/BU/4K	M131/O	12	Clear	BU±15°	8.31	5.00	35000	28000	20000	4200	65	N03509381412
			1620	MP350/ED28/C/PS/BU/4K	M131/O	12	Coated	BU±15°	8.31	5.00	33000	26000	20000	4000	70	N03509382412
			1558	MP350/ED28/PS/V/4K	M131/O	12	Clear	VER±15°	8.31	5.00	35000	28000	20000	4200	65	N03509381422
			*1559	MP350/ED28/C/PS/V/4K	M131/O	12	Coated	VER±15°	8.31	5.00	33000	26000	20000	4000	70	N03509382422
	ED37	EX39	*1621	MP350/ED37/C/PS/BU/3K	M131/O	12	Coated	BU±15°	11.50	7.00	33000	26000	20000	3200	70	N03509372312
			*1562	MP350/ED37/C/PS/V/3K	M131/O	12	Coated	VER±15°	11.50	7.00	33000	26000	20000	3200	70	N03509372322
			1622	MP350/ED37/PS/BU/4K	M131/O	12	Clear	BU±15°	11.50	5.00	38000	28000	20000	4200	65	N03509371412
			1623	MP350/ED37/C/PS/BU/4K	M131/O	12	Coated	BU±15°	11.50	7.00	33000	26000	20000	4000	70	N03509372412
			1560	MP350/ED37/PS/V/4K	M131/O	12	Clear	VER±15°	11.50	7.00	35000	28000	20000	4200	65	N03509371422
			*1561	MP350/ED37/C/PS/V/4K	M131/O	12	Coated	VER±15°	11.50	7.00	33000	26000	20000	4000	70	N03509372422
400	ED28	EX39	1565	MP400/ED28/PS/BU/4K	M155/O,M135/O	12	Clear	BU±15°	8.31	5.00	42000	33600	20000+	4200	65	N04009381412
			1566	MP400/ED28/C/PS/BU/4K	M155/O,M135/O	12	Coated	BU±15°	8.31	5.00	40000	32000	20000+	4000	70	N04009382412
	ED37	EX39	1563	MP400/ED37/PS/BU/4K	M155/O,M135/O	12	Clear	BU±15°	11.50	7.00	42000	33600	20000+	4200	65	N04009371412
			1564	MP400/ED37/C/PS/BU/4K	M155/O,M135/O	12	Coated	BU±15°	11.50	7.00	40000	32000	20000+	4000	70	N04009372412
450	ED37	EX39	*1631	MP450/ED37/PS/BU/4K	M144/O	12	Clear	BU±15°	11.50	7.00	47000	37000	20000+	4000	68	N04509371412
			*1632	MP450/ED37/C/PS/BU/4K	M144/O	12	Coated	BU±15°	11.50	7.00	45000	36000	20000+	3700	70	N04509372412
575	BT37	EX39	*1633	MP575/BT37/PS/V/4K	M178/O	12	Clear	VER±15°	11.50	7.00	60000	48000	20000+	4000	68	N05759471422
			*1634	MP575/BT37/C/PS/V/4K	M178/O	12	Coated	VER±15°	11.50	7.00	57000	45000	20000+	3700	70	N05759472422
875	BT37	EX39	*1635	MP875/BT37/PS/BU/4K	M166/O	12	Clear	BU±15°	11.50	7.00	95000	76000	20000+	4000	68	N08759471412
			*1636	MP875/BT37/C/PS/BU/4K	M166/O	12	Coated	BU±15°	11.50	7.00	90000	72000	20000+	3700	70	N08759472412
1000	BT37	EX39	*1637	MP1000/BT37/PS/BU/4K	M141/O	12	Clear	BU±15°	11.50	7.00	105000	80000	20000+	4000	68	N10009471412
	BT56	EX39	1524	MP1000/BT56/PS/BU/4K	M141/O	6	Clear	BU±15°	15.38	9.50	105000	80000	12000+	4200	65	N10009461412

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HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

POWERSTRIKE™ METAL HALIDE BALLAST

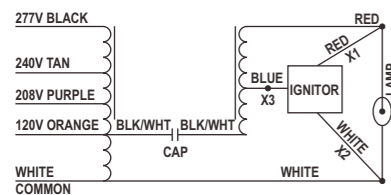
- Magnetic ballasts
- 60Hz

Watts	ANSI	Item#	Description	Case Qty.	Input Voltage	Circuit Type	Input Watts	Max.Line Current	Dimensions A (in)	Dimensions B (in)	Total Wt. (lbs)	Total Cap. (µfd/Vmin)	Cap. Type	Ignitor	Wiring Diag.
125	M150	7206	BAMH125-CWA/V4	1	120/208/240/277	CWA	150	1.4/0.8/0.7/0.6	1.70	3.15	5.4	12/280	OIL	IGN-001	E-V4
		7207	BAMH125-CWA/V3	1	120/277/347	CWA	150	1.25/0.55/0.45	1.70	3.15	5.4	12/280	OIL	IGN-001	B-V3
175	M152	7212	BAPS175-CWA/V4	1	120/208/240/277	CWA	208	1.75/1.0/0.85/0.75	2.63	4.00	8.0	12.5/330	OIL	IGN-002	E-V4
		7213	BAPS175-CWA/V3	1	120/277/347	CWA	208	1.90/0.80/0.65	2.63	4.00	8.0	12.5/331	OIL	IGN-002	B-V3
200	M136	7214	BAPS200-CWA/V4	1	120/208/240/277	CWA	231	1.90/1.1/1.0/0.85	3.00	4.30	4.3	16/300	OIL	IGN-002	E-V4
		7215	BAPS200-CWA/V3	1	120/277/347	CWA	235	2.00/0.85/0.70	2.50	3.90	8.0	16/300	OIL	IGN-002	B-V3
250	M153	7220	BAPS250-CWA/V4	1	120/208/240/277	CWA	285	2.45/1.45/1.25/1.1	2.00	3.50	10.0	16/400	OIL	IGN-002	E-V4
		7221	BAPS250-CWA/V3	1	120/277/347	CWA	288	2.50/1.10/0.90	1.55	3.50	10.0	15/400	OIL	IGN-002	B-V3
320	M132/M154	7222	BAPS320-CWA/V4	1	120/208/240/277	CWA	365	3.1/1.8/1.55/1.35	2.00	4.10	11.5	22/330	OIL	IGN-002	E-V4
		7223	BAPS320-CWA/V3	1	120/277/347	CWA	368	3.20/1.40/1.15	1.90	3.75	10.5	22/330	OIL	IGN-002	B-V3
		7224	BAPS320-HX/V4	1	120/208/240/277	HX-HPF	360	4.80/2.85/2.45/2.1	1.80	3.70	11.0	20/280	OIL	IGN-002	F-V4
		7225	BAPS320-HX/V3	1	120/277/347	HX-HPF	365	5.25/2.25/1.70	1.80	3.90	10.0	20/280	OIL	IGN-002	B1-V3
350	M131	7226	BAPS350-CWA/V4	1	120/208/240/277	CWA	400	3.6/2.10/1.80/1.55	1.92	3.80	11.5	24/330	OIL	IGN-002	E-V4
		7227	BAPS350-CWA/V3	1	120/277/347	CWA	400	3.6/1.55/1.20	1.92	3.80	10.5	24/330	OIL	IGN-002	B-V3
		7228	BAPS350-HX/V4	1	120/208/240/277	HX-HPF	395	5.0/2.55/2.50/2.15	1.80	3.70	11.0	21.5/280	OIL	IGN-002	F-V4
		7229	BAPS350-HX/V3	1	120/277/347	HX-HPF	395	5.10/2.15/1.75	1.80	3.90	10.0	21.5/280	OIL	IGN-002	B1-V3
400	M135/M155	7232	BAPS400-CWA/V4	1	120/208/240/277	CWA	450	4.00/2.25/2.00/1.7	2.00	3.90	10.7	26/330	OIL	IGN-002	E-V4
		7233	BAPS400-CWA/V3	1	120/277/347	CWA	451	4.00/1.75/1.40	2.15	4.00	11.3	26/330	OIL	IGN-002	B-V3
450	M144	7234	BAPS450-CWA/V4	1	120/208/240/277	CWA	506	4.40/2.50/2.20/1.9	2.30	4.20	12.4	32/300	OIL	IGN-002	E-V4
		7235	BAPS450-CWA/V3	1	120/277/347	CWA	507	4.40/1.90/1.50	2.30	4.20	12.4	32/300	OIL	IGN-002	B-V3
575	M178	7236	BAPS575-HX/V4	1	120/208/240/277	HX-HPF	635	8.75/4.70/4.45/3.8	3.25	5.00	18.0	38/330	OIL	IGN-002	F-V4
750	M149	7237	BAPS750-CWA/V4	1	120/208/240/277	CWA	815	6.80/4.0/3.4/3.0	2.30	4.30	18.0	38/330	OIL	IGN-003	E-V4
		7238	BAPS750-CWA/V3	1	120/277/347	CWA	820	6.80/3.0/2.4	2.30	4.30	18.0	24/480	OIL	IGN-003	B-V3
		7239	BAPS750-CWA/V480	1	480/120T	CWA	820	1.70	2.40	4.40	19.0	24/480	OIL	IGN-003	O-V480
1000	M141	7240	BAPS1000-CWA/V4	1	120/208/240/277	CWA	1080	8.95/5.55/4.55/3.95	2.80	4.80	21.0	24/480	OIL	IGN-104	E-V4
		7241	BAPS1000-CWA/V3	1	120/277/347	CWA	1080	8.9/3.90/3.15	2.93	4.95	24.5	24/480	OIL	IGN-104	B-V3
		7242	BAPS1000-CWA/V480	1	480/120T	CWA	1080	2.25	2.82	4.85	21.0	24/480	OIL	IGN-104	O-V480

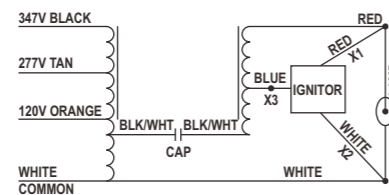


Plusrite's energy-efficient (88%) ballast: compliant with California Title 20 and federal Energy Independence & Security Act of 2007

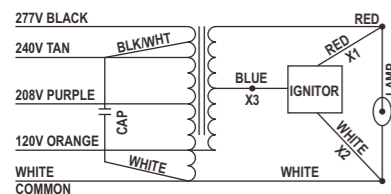
E-V4



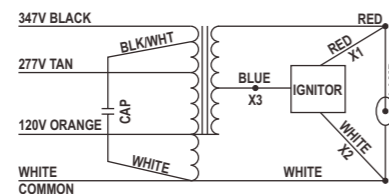
B-V3



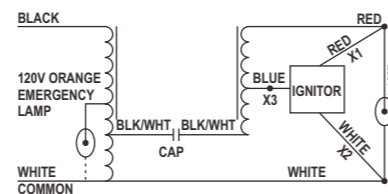
F-V4



B1-V3



O-V480



STANDARD METAL HALIDE LAMPS

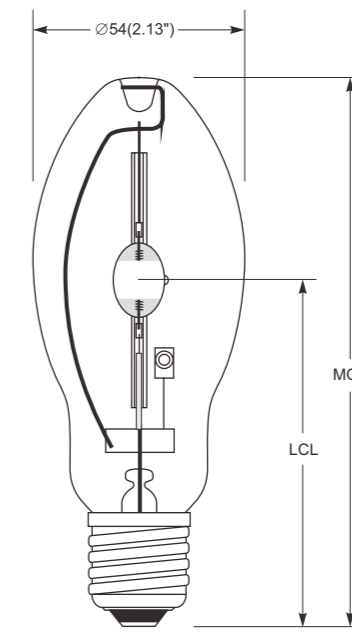
- High efficacy
- Long life
- Full line, 50 - 1500 watts
- Enclosed fixture only

Watts	Bulb	Base	Item#	Description	Case ANSI	Qty.	Finish	Operating Position	Dimensions MOL (in)	Dimensions LCL (in)	Lumens Initial (lm)	Lumens Mean (lm)	Avg. Life (Hours)	Color Temp (K)	CRI	Manufacture Production Code
Metal Halide Lamps - Medium Screw Base																
50	ED17	E26	1000	MH50/ED17/U/4K	M110/E	12	Clear	Universal	5.44	3.38	3400	2200	10000V/7500H	4200	65	M00506171402
			1001	MH50/ED17/C/U/4K	M110/E	12	Coated	Universal	5.44	3.38	3200	2100	10000V/7500H	4000	70	M00506172402
70	ED17	E26	*1069	MH70/ED17/U/3K	M98/E	12	Clear	Universal	5.44	3.38	5600	3600	15000V/10000H	3200	65	M00706171302
			*1070	MH70/ED17/C/U/3K	M98/E	12	Coated	Universal	5.44	3.38	5300	3400	15000V/10000H	3200	70	M00706172302
			1002	MH70/ED17/U/4K	M98/E	12	Clear	Universal	5.44	3.38	5600	3600	15000V/10000H	4200	65	M00706171402
			1003	MH70/ED17/C/U/4K	M98/E	12	Coated	Universal	5.44	3.38	5300	3400	15000V/10000H	4000	70	M00706172402
100	ED17	E26	*1071	MH100/ED17/U/3K	M90/E	12	Clear	Universal	5.44	3.38	9000	5900	15000V/10000H	3200	65	M01006171302
			*1072	MH100/ED17/C/U/3K	M90/E	12	Coated	Universal	5.44	3.38	8500	5500	15000V/10000H	3200	70	M01006172302
			1004	MH100/ED17/U/4K	M90/E	12	Clear	Universal	5.44	3.38	9000	5900	15000V/10000H	4200	65	M01006171402
			1005	MH100/ED17/C/U/4K	M90/E	12	Coated	Universal	5.44	3.38	8500	5500	15000V/10000H	4000	70	M01006172402
150	ED17	E26	1006	MH150/ED17/U/4K	M102/E	12	Clear	Universal	5.44	3.38	14000V/12600H	10500V/9500H	15000V/10000H	4200	65	M01506171402
			1007	MH150/ED17/C/U/4K	M102/E	12	Coated	Universal	5.44	3.38	13300V/12000H	10000V/9000H	15000V/10000H	4000	70	M01506172402
175	ED17	E26	1008	MH175/ED17/U/4K	M57/E	12	Clear	Universal	5.44	3.38	14000	9100	10000V/7500H	4200	65	M01756171402
			1009	MH175/ED17/C/U/4K	M57/E	12	Coated	Universal	5.44	3.38	13300	8600	10000V/7500H	4000	70	M01756172402

* Items only available for special orders

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PLEASE SEE BALLAST INFO AT PAGE 22



ED17
E26 Base

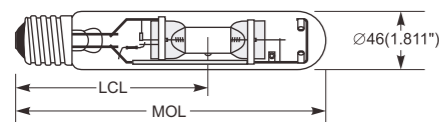
STANDARD METAL HALIDE LAMPS

- High efficacy • Long life
- Full line, 50 - 1500 watts
- Enclosed fixture only

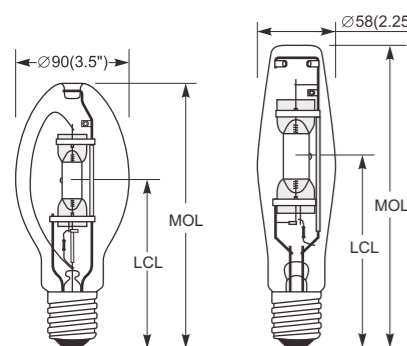
Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens			Color			Manufacture Production Code
					ANSI Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI		
Metal Halide Lamps - Mogul Screw Base																
50	ED28	E39	1010	MH50/ED28/U/4K	M110/E	12	Clear	Universal	8.31	5.00	3400	2000	10000V/7500H	4200	60	M00509181402
70	ED28	E39	1011	MH70/ED28/U/4K	M98/E	12	Clear	Universal	8.31	5.00	5600	4760	15000V/11250H	4200	65	M00709181402
			*1073	MH70/ED28/C/U/4K	M98/E	12	Coated	Universal	8.31	5.00	5300	4200	15000V/11250H	4000	70	M00709182402
100	ED28	E39	1012	MH100/ED28/U/4K	M90/E	12	Clear	Universal	8.31	5.00	9000	7500	15000V/11250H	4200	65	M01009181402
			*1074	MH100/ED28/C/U/4K	M90/E	12	Coated	Universal	8.31	5.00	8500	7100	15000V/11250H	4000	70	M01009182402
150	ED28	E39	1013	MH150/ED28/U/4K	M102/E	12	Clear	Universal	8.31	5.00	14000V/12600H	10500V/9500H	15000V/11250H	4200	65	M01509181402
			*1075	MH150/ED28/C/U/4K	M102/E	12	Coated	Universal	8.31	5.00	13300V/12000H	10000V/9000H	15000V/11250H	4000	70	M01509182402
175	ED28	E39	1014	MH175/ED28/U/4K	M57/E	12	Clear	Universal	8.31	5.00	14000V/12000H	9100	10000V/7500H	4200	65	M01759181402
			1015	MH175/ED28/C/U/4K	M57/E	12	Coated	Universal	8.31	5.00	13600V/11700H	8800	10000V/7500H	3800	70	M01759182402
	T15	E39	1016	MH175/T15/HOR/4K	M57/E	24	Clear	HOR±15°	8.31	5.00	14000	9100	7500	4200	65	M01759351402
250	ED28	E39	1017	MH250/ED28/U/4K	M58/E	12	Clear	Universal	8.31	5.00	22000V/20000H	17000V/13700H	10000V/7500H	4200	65	M02509181402
			1018	MH250/ED28/C/U/4K	M58/E	12	Coated	Universal	8.31	5.00	21500V/19500H	17000V/13000H	10000V/7500H	3800	70	M02509182402
	T15	E39	1019	MH250/T15/HOR/4K	M58/E	24	Clear	HOR±15°	8.31	5.00	20000	14100	10000	4200	65	M02509351402
	ET18	E39	1020	MH250/ET18/HOR/4K	M58/E	24	Clear	HOR±15°	9.65	5.70	20000	13500	10000	4000	65	M02509111402
400	ED28	E39	1022	MH400/ED28/U/4K	M59/E	12	Clear	Universal	8.31	5.00	36000V/32000H	23500V/20500H	20000V/15000H	4200	65	M04009181402
			1023	MH400/ED28/C/U/4K	M59/E	12	Coated	Universal	8.31	5.00	34000	22000	20000V/15000H	3800	70	M04009182402
	ED37	E39	1024	MH400/ED37/U/4K	M59/E	12	Clear	Universal	11.50	7.00	36000V/32000H	23500V/20500H	20000V/15000H	4200	65	M04009171402
			1025	MH400/ED37/C/U/4K	M59/E	12	Coated	Universal	11.50	7.00	34000	22000	20000	3800	70	M04009172402
	BT37	E39	*2414	MS400/BT37/HOR/4K	M59/E	12	Clear	HOR±15°	11.50	7.00	36000	23500	20000	3800	70	M04009271412
	T15	E39	1026	MH400/T15/HOR/4K	M59/E	24	Clear	HOR±15°	9.75	5.75	36000	23500	15000	4200	65	M04009351402
	ET18	E39	1027	MH400/ET18/HOR/4K	M59/E	24	Clear	HOR±15°	9.65	5.70	33000	21500	15000	4200	65	M04009111402
1000	BT37	E39	1028	MH1000/BT37/U/4K	M47/E	12	Clear	Universal	11.50	7.00	110000V/107800H	93500V/86300H	15000V/9000H	4200	65	M10009271402
	BT56	E39	1029	MH1000/BT56/U/4K	M47/E	6	Clear	Universal	15.38	9.50	110000V/107800H	93500V/86300H	15000V/9000H	4200	65	M10009261402
			*1076	MH1000/BT56/C/U/4K	M47/E	6	Coated	Universal	15.38	9.50	107000V/101600H	80000	15000V/9000H	3900	70	M10009262402
1500	BT56	E39	1030	MH1500/BT56/U/4K	M48/E	6	Clear	Universal	15.38	9.50	167000V/155000H	140000V/127400H	3000	4200	65	M15009261402

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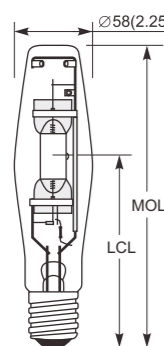
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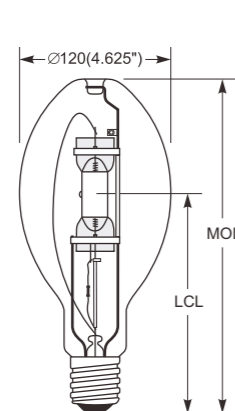
T15
E39 Base



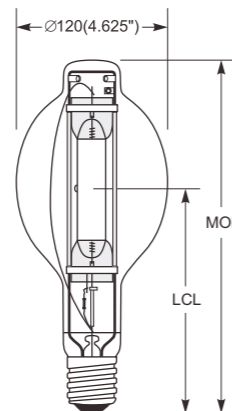
ED28
E39 Base



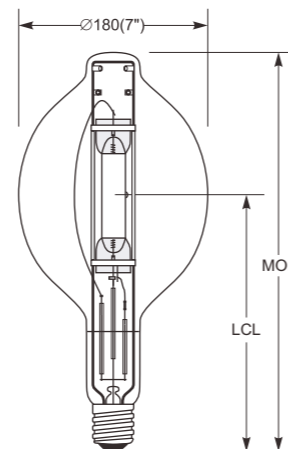
ET18
E39 Base



ED37
E39 Base



BT37
E39 Base



BT56
E39 Base

PROTECTED METAL HALIDE LAMPS

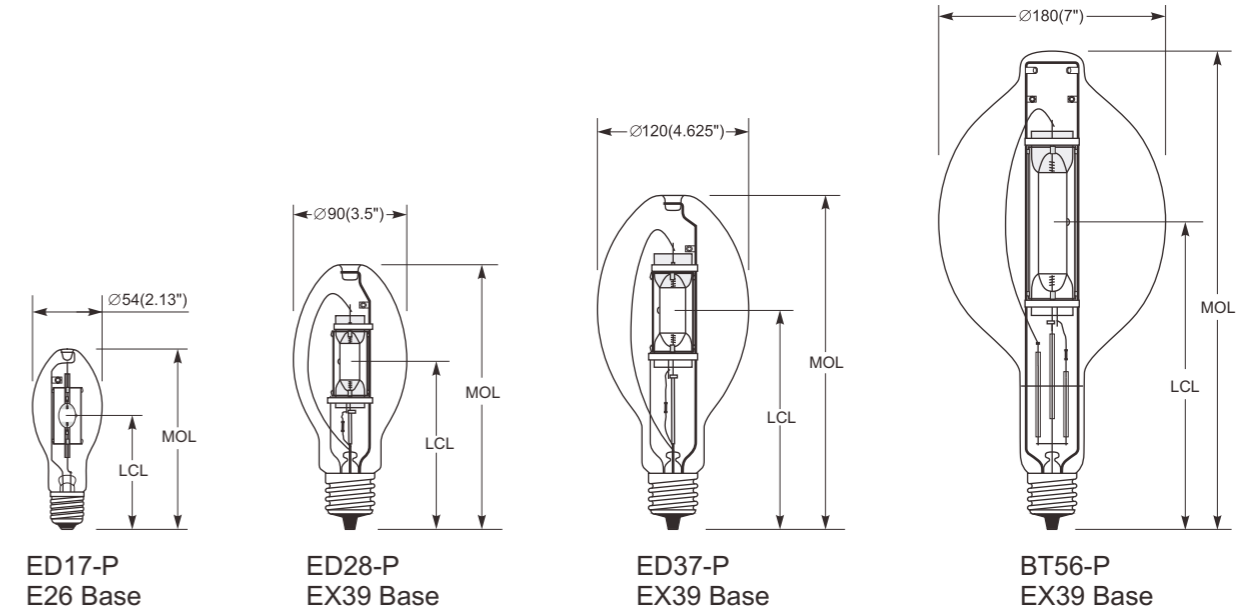
- Protected arc tube • UV-block
- High efficacy • Long life
- Suitable for open fixture

Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens			Color			Manufacture Production Code
					ANSI Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI		
Protected Metal Halide Lamps - Medium Screw Base																
50	ED17	E26	1031	MP50/ED17/U/4K	M110/O	12	Clear	Universal	5.44	3.38	3200V/2900H	2100V/1900H	15000V/10000H	4200	65	M00506471402
			1032	MP50/ED17/C/U/4K	M110/O	12	Coated	Universal	5.44	3.38	3000V/2700H	2000V/1800H	15000V/10000H	3900	70	M00506472402
70	ED17	E26	1033	MP70/ED17/U/4K	M98/O	12	Clear	Universal	5.44	3.38	5300V/4800H	3400V/3100H	15000V/10000H	4200	65	M00706471402
			1034	MP70/ED17/C/U/4K	M98/O	12	Coated	Universal	5.44	3.38	5000V/4500H	3300V/3000H	15000V/10000H	3900	70	M00706472402
100	ED17	E26	1035	MP100/ED17/U/4K	M90/O	12	Clear	Universal	5.44	3.38	8500V/7700H	5500V/5000H	15000V/10000H	4200	65	M01006471402
			1036	MP100/ED17/C/U/4K	M90/O	12	Coated	Universal	5.44	3.38	8100V/7300H	5300V/4800H	15000V/10000H	3900	70	M01006472402
150	ED17	E26	1037	MP150/ED17/U/4K	M102/O	12	Clear	Universal	5.44	3.38	13300V/12000H	10000V/9000H	15000V/10000H	4200	65	M01506471402
			1038	MP150/ED17/C/U/4K	M102/O	12	Coated	Universal	5.44	3.38	12600V/11300H	9500V/8500H	15000V/10000H	3900	70	M01506472402
175	ED17	E26	1039	MP175/ED17/BU/4K	M57/O	12	Clear	BU±15°	5.44	3.38	14400V/10200H	9300	10000V/7500H	4200	65	M01756471402
			*1077	MP175/ED17/C/BU/4K	M57/O	12	Coated	BU±15°	5.44	3.38	12800V/7800H	8400	10000V/7500H	3900	70	M01756472402
Protected Metal Halide Lamps - Mogul Screw Base																
175	ED28	EX39	1040	MP175/ED28/BU/4K	M57/O	12	Clear	BU±15°	8.31	5.00	14400	10200	10000	4200	65	M01759481402
			*1078	MP175/ED28/C/BU/4K	M57/O	12	Coated	BU±15°	8.31	5.00	12800	7800	10000	3900	70	M01759482402
250	ED28	EX39	1041	MP250/ED28/BU/4K	M58/O	12	Clear	BU±15°	8.31	5.00	23000	17000	10000	4200	65	M02509481402
			*1079	MP250/ED28/C/BU/4K	M58/O	12	Coated	BU±15°	8.31	5.00	20000	14300	10000	3900	70	M02509482402
400	ED37	EX39	1042	MP400/ED37/BU/4K	M59/O	12	Clear	BU±15°	11.50	7.00	40000	26000	20000	4200	65	M04009471402
			*1080	MP400/ED37/C/BU/4K	M59/O	12	Coated	BU±15°	11.50	7.00	38500	25000	20000	3900	70	M04009472402
1000	BT37	EX39	1043	MP1000/BT37/BU/4K	M47/O	12	Clear	BU±15°	11.50	7.00	107000	85500	12000	4200	60	M10009471402
	BT56	EX39	1044	MP1000/BT56/BU/4K	M47/O	6	Clear	BU±15°	15.38	9.50	100000	80000	12000	4200	60	M10009461402

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HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

STANDARD METAL HALIDE LAMPS

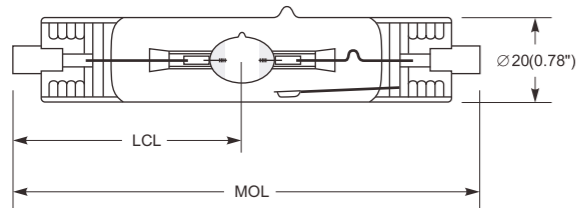
- High efficacy • Long life
- Full line, 50 - 1500 watts
- Enclosed fixture only

Watts	Bulb	Base	Item#	Description	ANSI	Case		Dimensions		Lumens	Avg.Life (Hours)	Color		Manufacture Production Code
						Qty.	Finish	MOL (in)	LCL (in)			Temp (K)	CRI	
Metal Halide Lamps - Double Ended														
70	T6	RX7s	1045	MHDE70/UVS/3K	M85/E	12	Clear	4.62	2.25	5500	12000	3200	65	M00707570302
			1046	MHDE70/UVS/4K	M85/E	12	Clear	4.62	2.25	5500	12000	4200	60	M00707570402
			*1081	MHDE70/UVS/5K	M85/E	12	Clear	4.62	2.25	4600	12000	5200	70	M00707570502
100	T6	RX7s	*1082	MHDE100/UVS/3K	M90/E	12	Clear	4.62	2.25	8500	12000	3200	65	M01007570302
			1066	MHDE100/UVS/4K	M90/E	12	Clear	4.62	2.25	8500	12000	4200	60	M01007570402
			*1083	MHDE100/UVS/5K	M90/E	12	Clear	4.62	2.25	8000	12000	5200	70	M01007570502
150	T7	RX7s	1047	MHDE150/UVS/3K	M81/E	12	Clear	5.35	2.60	13500	12000	3200	65	M01507570302
			1048	MHDE150/UVS/4K	M81/E	12	Clear	5.35	2.60	13500	12000	4200	60	M01507570402
			*1084	MHDE150/UVS/5K	M81/E	12	Clear	5.35	2.60	10000	12000	5200	70	M01507570502
Metal Halide Lamps - Double Ended														
250	T9.5	Fc2	*1085	MHDE250/UVS/4K	M80/E	12	Clear	6.42	3.20	20000	10000	4200	60	M02507620402
400	T9.5	Fc2	*1086	MHDE400/UVS/4K	M59/E	12	Clear	8.11	4.10	28000	10000	4200	60	M04007620402
Metal Halide Lamps - Enclosed Rated														
70	T7.5	G12	*1087	MH70/G12/UVS/3K	M85/E	12	Clear	3.54	2.20	6000	9000	3200	65	M00701263102
			1049	MH70/G12/UVS/4K	M85/E	12	Clear	3.54	2.20	6000	9000	4200	65	M00701264102
100	T7.5	G12	*1088	MH100/G12/UVS/3K	M90/E	12	Clear	3.93	2.20	9000	9000	3200	65	M01001263102
			1050	MH100/G12/UVS/4K	M90/E	12	Clear	3.93	2.20	9000	9000	4200	65	M01001264102
150	T7.5	G12	*1089	MH150/G12/UVS/3K	M81/E	12	Clear	3.93	2.20	14000	9000	3200	65	M01501263102
			1051	MH150/G12/UVS/4K	M81/E	12	Clear	3.93	2.20	14000	9000	4200	65	M01501264102

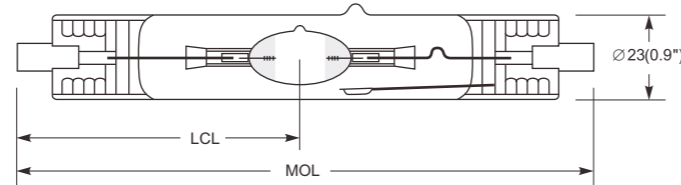
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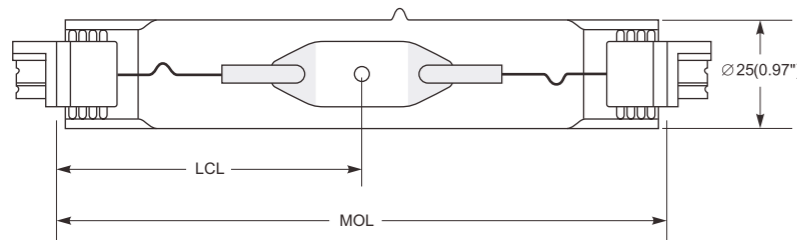


T6 Rx7s Base
70W

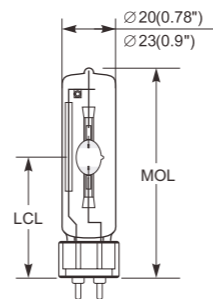


T7 Rx7s Base
150W

Lamp Code Suffix Designation
 /UVS=UV-absorbing quartz glass



T9.5 Fc2 Base
250W/400W



G12 Base

METAL HALIDE ENERGY SAVER LAMPS

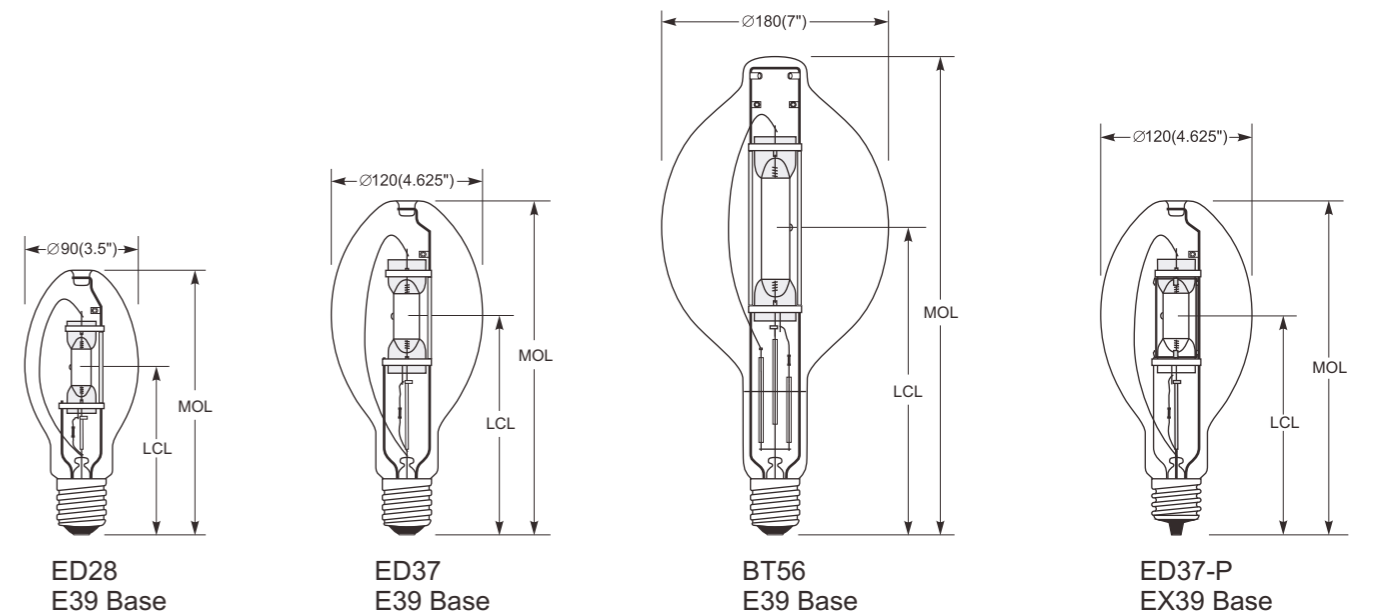
- High efficacy
- Retrofit energy saving lamp
- Long life

Watts	Bulb	Base	Item#	Description	ANSI	Case		Dimensions		Lumens		Color		Manufacture Production Code		
						Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)		Temp (K)	CRI
Protected Metal Halide Lamps - Medium Screw Base																
150	ED28	E39	*1145	MS150/ED28/ES/U/4K	M57/E,M107/E	12	Clear	Universal	8.31	5.00	13500	8800	10000	4200	65	M01509181412
360	ED28	E39	1150	MS360/ED28/ES/U/4K	M59/E,M165/S	12	Clear	Universal	8.31	5.00	36000	23500	20000	4200	65	M03609181412
			ED37	E39	1021	MS360/ED37/ES/U/4K	M59/E,M165/S	12	Clear	Universal	11.50	7.00	36000	23500	20000	4200
950	BT56	E39	*1146	MP360/ED37/ES/BU/4K	M59/O,M165/O	12	Clear	BU±15°	11.50	7.00	35000	23500	20000	4200	65	M03609371412
			*1147	MS950/BT56/ES/U/4K	M47/E,M176/E	6	Clear	Universal	15.38	9.50	100000	80000	18000	4200	65	M09509261412

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COLOR METAL HALIDE LAMPS

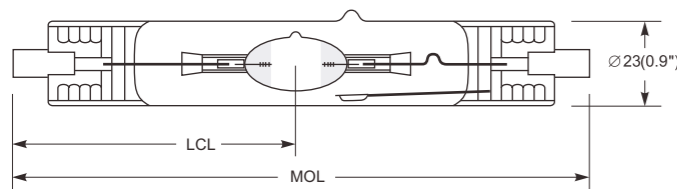
- Consistent color, no color filler or gels required for fixture
- Available in three colors: red, green, blue
- Enclosed fixture only

Watts	Bulb	Base	Item#	Description	ANSI	Case Qty.	Finish	Dominant Wavelength (nm)	Dimensions MOL (in)	LCL (in)	Avg.Life (Hours)	Manufacture Production Code
Color Metal Halide Lamps - Mogul Screw Base												
175	ED28	E39	*1090	MH175/ED28/BU/BDX	M57/E	12	Clear	450	8.31	5.00	5000	Y01759181102
			*1091	MH175/ED28/BU/GDX	M57/E	12	Clear	535	8.31	5.00	5000	Y01759182102
			*1092	MH175/ED28/BU/RDX	M57/E	12	Clear	590	8.31	5.00	5000	Y01759183102
250	ED28	E39	*1093	MH250/ED28/BU/BDX	M58/E	12	Clear	450	8.31	5.00	5000	Y02509181102
			*1094	MH250/ED28/BU/GDX	M58/E	12	Clear	535	8.31	5.00	5000	Y02509182102
			*1095	MH250/ED28/BU/RDX	M58/E	12	Clear	590	8.31	5.00	5000	Y02509183102
400	ED37	E39	1052	MH400/ED37/BU/BDX	M59/E	12	Clear	450	11.50	7.00	5000	Y04009171102
			1053	MH400/ED37/BU/GDX	M59/E	12	Clear	535	11.50	7.00	5000	Y04009172102
			1054	MH400/ED37/BU/RDX	M59/E	12	Clear	590	11.50	7.00	5000	Y04009173102
1000	BT56	E39	1055	MH1000/BT56/BU/BDX	M47/E	6	Clear	450	15.38	9.50	5000	Y10009261102
			1056	MH1000/BT56/BU/GDX	M47/E	6	Clear	535	15.38	9.50	5000	Y10009262102
			1057	MH1000/BT56/BU/RDX	M47/E	6	Clear	590	15.38	9.50	5000	Y10009263102
Color Metal Halide Lamps - Double Ended												
70	T6	RX7s	*1096	MHDE70/UVS/BDX	M85/E	12	Clear	450	5.35	2.60	5000	Y00707571102
			*1097	MHDE70/UVS/GDX	M85/E	12	Clear	535	5.35	2.60	5000	Y00707572102
			*1098	MHDE70/UVS/RDX	M85/E	12	Clear	590	5.35	2.60	5000	Y00707573102
150	T7	RX7s	*1099	MHDE150/UVS/BDX	M81/E	12	Clear	450	5.35	2.60	5000	Y01507571102
			*1100	MHDE150/UVS/GDX	M81/E	12	Clear	535	5.35	2.60	5000	Y01507572102
			*1101	MHDE150/UVS/RDX	M81/E	12	Clear	590	5.35	2.60	5000	Y01507573102

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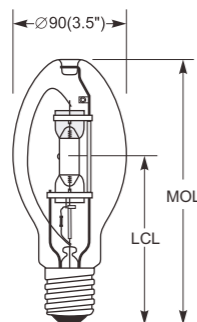
PLEASE SEE BALLAST INFO AT PAGE 22



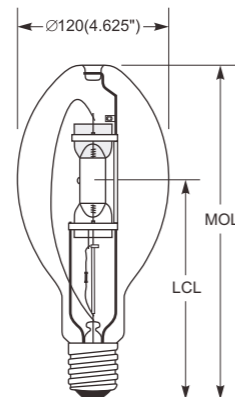
T6/T7 RX7s Base
70W/150W

Annotation

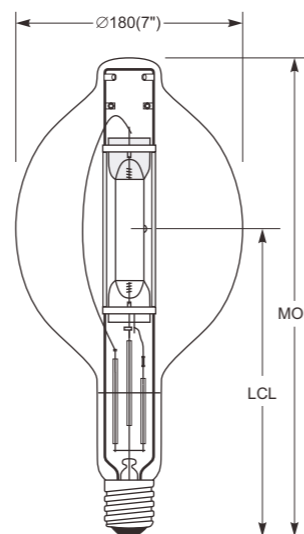
- BDX=Blue
- GDX=Green
- RDX=Red



ED28
E39 Base



ED37
E39 Base



BT56
E39 Base

REFLECTOR METAL HALIDE LAMPS

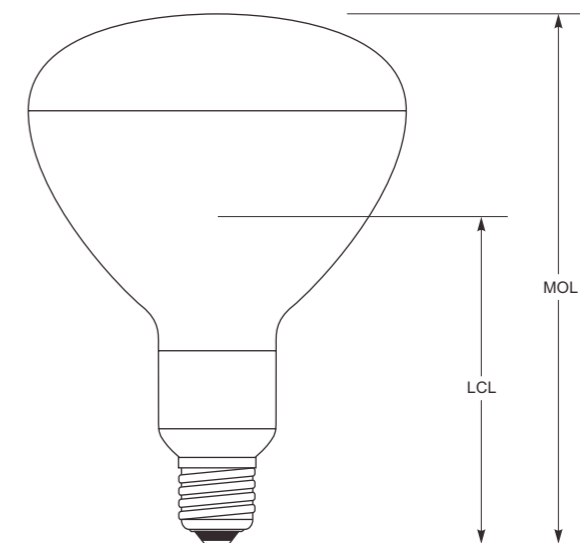
- Available in R40 shape
- Long life
- Enclosed fixture only

Watts	Bulb	Base	Item#	Description	ANSI	Case Qty.	CBCP (cd)	Dimensions MOL (in)	Avg.Life (Hours)	Color Temp (K)	CRI	Manufacture Production Code
Reflector Metal Halide Lamps - R40												
70	R40	E26	*1102	MH70/R40/U/15°	M98	12	60000	7.00	10000	4000	65	R00706844502
			1058	MH70/R40/U/70°	M98	12	2300	7.00	10000	4000	65	R00706844702
100	R40	E26	*1103	MH100/R40/U/15°	M90	12	80000	7.00	10000	4000	65	R01006844502
			1059	MH100/R40/U/70°	M90	12	3300	7.00	10000	4000	65	R01006844702
150	R40	E26	*1104	MH150/R40/U/15°	M102	12	89000	7.00	10000	4000	65	R01506844502
			*1105	MH150/R40/U/70°	M102	12	5200	7.00	10000	4000	65	R01506844702
175	R40	E26	*1106	MH175/R40/U/15°	M57	12	95000	7.00	10000	4000	65	R01756844502
			1060	MH175/R40/U/70°	M57	12	6500	7.00	10000	4000	65	R01756844702

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R40
E26 Base

PAR METAL HALIDE LAMPS

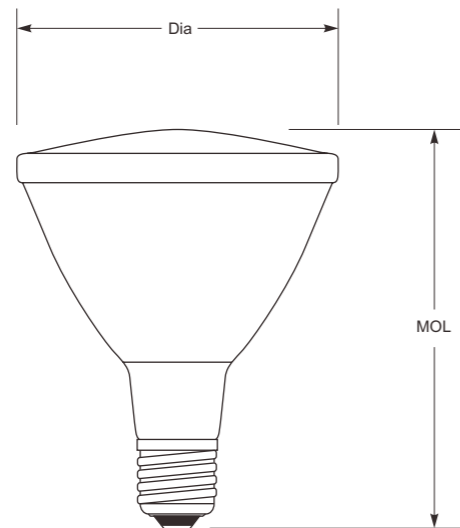
- UV-Block coating on outer bulb • Designed with spot and flood beam
- High efficacy • Indoor use only. For outdoor use, specific fixtures are required
- Suitable for open fixture

Watts	Bulb	Base	Item#	Description	ANSI	Case Qty.	Dimensions MOL (in) Dia (in)	Approx Lumens (lm)	Beam Angle	Beam Spread	Avg.Life (Hours)	Color Temp (K)	CRI	Manufacture Production Code
PAR Metal Halide Lamps - PAR30 Long Neck														
50	PAR30 LN	E26	*1107	MP50/PAR30LN/SP/3K	M110/O	12	4.50 3.70	2200	10°	Spot	6000	3500	65	R00507701302
			*1108	MP50/PAR30LN/NFL/3K	M110/O	12	4.50 3.70	2200	25°	N.Flood	6000	3500	65	R00507702302
			*1109	MP50/PAR30LN/FL/3K	M110/O	12	4.50 3.70	2200	50°	Flood	6000	3500	65	R00507703302
			*1110	MP50/PAR30LN/SP/4K	M110/O	12	4.50 3.70	2300	10°	Spot	6000	4200	65	R00507701402
			*1111	MP50/PAR30LN/NFL/4K	M110/O	12	4.50 3.70	2300	25°	N.Flood	6000	4200	65	R00507702402
			*1112	MP50/PAR30LN/FL/4K	M110/O	12	4.50 3.70	2300	50°	Flood	6000	4200	65	R00507703402
70	PAR30 LN	E26	*1113	MP70/PAR30LN/SP/3K	M98/O	12	4.50 3.70	3200	10°	Spot	6000	3500	65	R00707701302
			*1114	MP70/PAR30LN/NFL/3K	M98/O	12	4.50 3.70	3200	25°	N.Flood	6000	3500	65	R00707702302
			1067	MP70/PAR30LN/FL/3K	M98/O	12	4.50 3.70	3200	50°	Flood	6000	3500	65	R00707703302
			*1115	MP70/PAR30LN/SP/4K	M98/O	12	4.50 3.70	3400	10°	Spot	6000	4200	65	R00707701402
			*1116	MP70/PAR30LN/NFL/4K	M98/O	12	4.50 3.70	3400	25°	N.Flood	6000	4200	65	R00707702402
			1068	MP70/PAR30LN/FL/4K	M98/O	12	4.50 3.70	3400	50°	Flood	6000	4200	65	R00707703402

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PAR30 Long Neck
E26 Base

PAR METAL HALIDE LAMPS

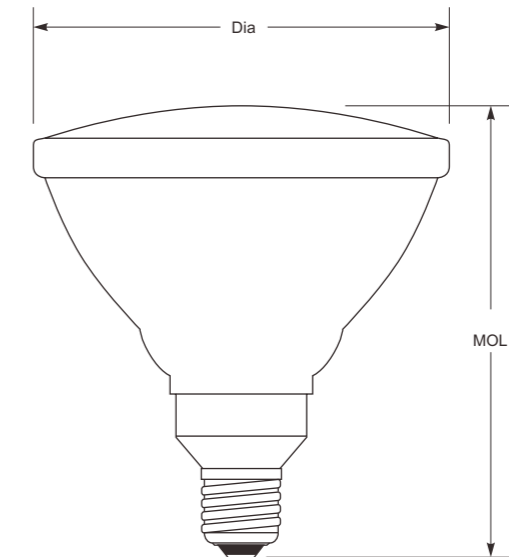
- UV-Block coating on outer bulb • Designed with spot and flood beam
- High efficacy • Indoor use only. For outdoor use, specific fixtures are required
- Suitable for open fixture

Watts	Bulb	Base	Item#	Description	ANSI	Case Qty.	Dimensions MOL (in) Dia (in)	Approx Initial Lumens (lm)	Beam Angle	Beam Spread	Avg.Life (Hours)	Color Temp (K)	CRI	Manufacture Production Code
PAR Metal Halide Lamps - PAR38														
70	PAR38	E26	*1117	MP70/PAR38/U/SP/3K	M98/O	12	5.30 4.70	2700	20°	Spot	6000	3500	65	R00707781302
			1061	MP70/PAR38/U/FL/3K	M98/O	12	5.30 4.70	2610	60°	Flood	6000	3500	65	R00707782302
			*1118	MP70/PAR38/U/SP/4K	M98/O	12	5.30 4.70	2800	20°	Spot	6000	4200	65	R00707781402
			1062	MP70/PAR38/U/FL/4K	M98/O	12	5.30 4.70	3000	60°	Flood	6000	4200	65	R00707782402
100	PAR38	E26	*1119	MP100/PAR38/U/SP/3K	M90/O	12	5.30 4.70	5800	20°	Spot	6000	3500	65	R01007781302
			1063	MP100/PAR38/U/FL/3K	M90/O	12	5.30 4.70	4350	60°	Flood	6000	3500	65	R01007782302
			1064	MP100/PAR38/U/SP/4K	M90/O	12	5.30 4.70	6100	20°	Spot	6000	4200	65	R01007781402
			1065	MP100/PAR38/U/FL/4K	M90/O	12	5.30 4.70	4575	60°	Flood	6000	4200	65	R01007782402
150	PAR38	E26	*1120	MP150/PAR38/U/SP/3K	M102/O	12	5.30 4.70	7200	20°	Spot	6000	3500	65	R01507781302
			*1121	MP150/PAR38/U/FL/3K	M102/O	12	5.30 4.70	5400	60°	Flood	6000	3500	65	R01507782302
			*1122	MP150/PAR38/U/SP/4K	M102/O	12	5.30 4.70	8000	20°	Spot	6000	4200	65	R01507781402
			*1123	MP150/PAR38/U/FL/4K	M102/O	12	5.30 4.70	6000	60°	Flood	6000	4200	65	R01507782402

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PAR-38
E26 Base

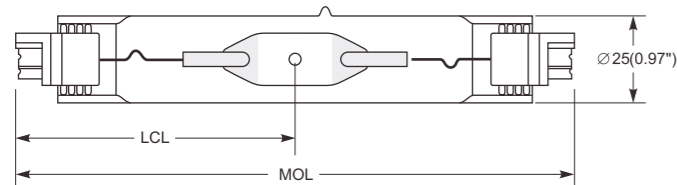
METAL HALIDE LAMPS FOR AQUARIUM

- Color temperature from 10,000K to 20,000K
- Enclosed fixture only

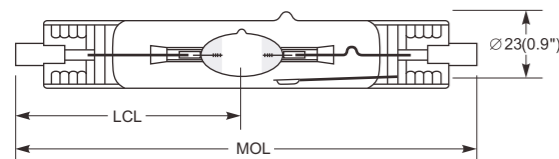
Watts	Bulb	Base	Item#	Description	ANSI	Case Qty.	Finish	Dimensions MOL (in) Dia (in)	Approx Initial Lumens (lm)	Avg. Life (Hours)	Color Temp (K) CRI	Manufacture Production Code
Metal Halide Lamps for Aquarium												
70	T6	RX7s	*1140	MHDE70/UVS/10K	M85/E	12	Clear	4.60 2.20	3100	6000	10000 75	M00707571102
			*1141	MHDE70/UVS/20K	M85/E	12	Clear	4.60 2.20	3100	6000	20000 75	M00707571202
150	T7	RX7s	*1142	MHDE150/UVS/10K	M81/E	12	Clear	5.35 2.60	7000	6000	10000 85	M01507571102
			*1143	MHDE150/UVS/14K	M81/E	12	Clear	5.35 2.60	7000	6000	14000 65	M01507571142
			*1144	MHDE150/UVS/20K	M81/E	12	Clear	5.35 2.60	7000	6000	20000 75	M01507571202
175	T15	E39	2400	MH175/T15/HOR/10K	M57/E	24	Clear	8.31 5.00	7500	6000	10000 85	M01759351102
			2401	MH175/T15/HOR/14K	M57/E	24	Clear	8.31 5.00	7500	6000	14000+ --	M01759351142
			2402	MH175/T15/HOR/20K	M57/E	24	Clear	8.31 5.00	7500	6000	20000+ --	M01759351202
250	T9.5	Fc2	*2409	MHDE250/UVS/10K	M80/E	12	Clear	6.40 3.20	11000	6000	10000 85	M02507621102
			*2410	MHDE250/UVS/14K	M80/E	12	Clear	6.40 3.20	11000	6000	14000 65	M02507621142
			*2411	MHDE250/UVS/20K	M80/E	12	Clear	6.40 3.20	11000	6000	20000 75	M02507621202
	T15	E39	2403	MH250/T15/HOR/10K	M58/E	24	Clear	8.31 5.00	10500	8000	10000 85	M02509351102
			*2404	MH250/T15/HOR/14K	M58/E	24	Clear	8.31 5.00	10500	8000	14000+ --	M02509351142
			*2405	MH250/T15/HOR/20K	M58/E	24	Clear	8.31 5.00	10500	8000	20000+ --	M02509351202
400	T15	E39	*2406	MH400/T15/HOR/10K	M59/E	24	Clear	9.75 5.75	18500	8000	10000 85	M04009351102
			2407	MH400/T15/HOR/14K	M59/E	24	Clear	9.75 5.75	18500	8000	14000+ --	M04009351142
			*2408	MH400/T15/HOR/20K	M59/E	24	Clear	9.75 5.75	18500	8000	20000+ --	M04009351202
	ET18	E39	*2412	MH400/ET18/HOR/10K	M59/E	24	Clear	9.65 5.70	18500	8000	10000 85	M04009111102
1000	TT64	E39	*2413	MH1000/TT64/HOR/10K	M47/E	12	Clear	15.06 8.75	46000	3000	10000 85	M10009141102

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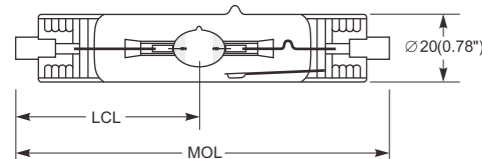
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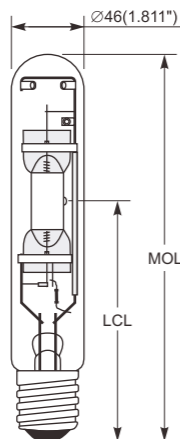
T9.5 Fc2 Base
250W



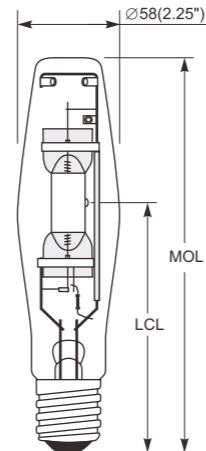
T7 RX7s Base
150W



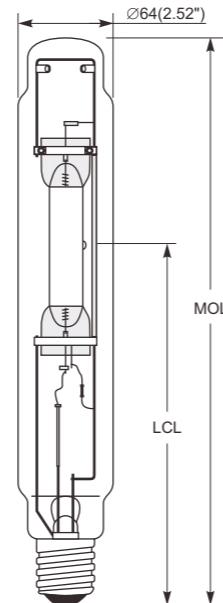
T6 RX7s Base
70W



T15
E39 Base



ET18
E39 Base



TT64
E39 Base

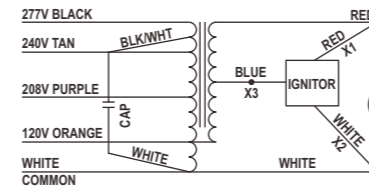
STANDARD METAL HALIDE BALLAST

- Magnetic ballasts
- 60Hz

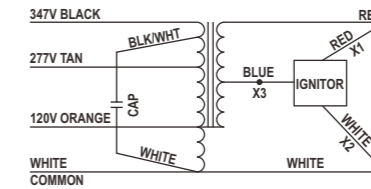
Watts	ANSI	Item#	Description	Case Qty.	Input Voltage	Circuit Type	Input Watts	Max. Line Current	Dimensions A (in) B (in)	Total Wt. (lbs)	Total Cap. (µfd/Vmin)	Cap. Type	Wiring Ignitor Diag.
50	M110	7200	BAMH50-HX/V4	1	120/208/240/277	HX-HPF	68	1.2/0.65/0.6/0.5	1.05 2.45	3.5	6/280	OIL	IGN-001 F-V4
		7201	BAMH50-HX/V3	1	120/277/347	HX-HPF	72	1.2/0.5/0.4	1.05 2.45	3.3	6/280	OIL	IGN-001 B1-V3
70	M98	7202	BAMH70-HX/V4	1	120/208/240/277	HX-HPF	88	1.65/0.95/0.8/0.7	1.45 2.85	4.6	8/280	OIL	IGN-001 F-V4
		7203	BAMH70-HX/V3	1	120/277/347	HX-HPF	90	1.7/0.7/0.6	1.45 2.85	4.9	8/280	OIL	IGN-001 B1-V3
100	M90	7204	BAMH100-HX/V4	1	120/208/240/277	HX-HPF	125	2.6/1.5/1.3/1.15	1.70 3.10	5.3	12/280	OIL	IGN-001 F-V4
		7205	BAMH100-HX/V3	1	120/277/347	HX-HPF	126	2.6/1.5/0.9	1.70 3.10	5.3	12/280	OIL	IGN-001 B1-V3
150	M102	7208	BAMH150-HX/V4	1	120/208/240/277	HX-HPF	185	3.5/2.5/1.75/1.55	2.25 3.90	7.1	16/280	OIL	IGN-001 F-V4
		7209	BAMH150-HX/V3	1	120/277/347	HX-HPF	185	3.65/1.55/1.25	2.25 3.90	7.1	16/280	OIL	IGN-001 B1-V3
175	M57	7210	BAMH175-CWA/V4	1	120/208/240/277	CWA	215	1.85/1.10/0.90/0.8	2.40 3.80	7.0	10/400	OIL	M1-V4
		7211	BAMH175-CWA/V3	1	120/277/347	CWA	210	1.85/0.80/0.65	2.40 3.80	7.0	10/400	OIL	M1-V3
250	M58	7216	BAMH250-CWA/V4	1	120/208/240/277	CWA	290	2.6/1.50/1.30/1.15	1.46 3.30	8.3	15/400	OIL	M1-V4
		7217	BAMH250-CWA/V4S	1	120/208/240/277	CWA	291	2.6/1.45/1.30/1.10	2.80 4.20	8.5	15/360	OIL	M1-V4
		7218	BAMH250-CWA/V3	1	120/277/347	CWA	293	2.50/1.10/0.90	2.80 4.20	8.5	15/360	OIL	M1-V3
		7219	BAMH250-CWA/V3S	1	120/277/347	CWA	289	2.50/1.10/0.90	1.65 3.30	9.3	15/360	OIL	M1-V3
400	M59	7230	BAMH400-CWA/V4	1	120/208/240/277	CWA	455	3.95/2.3/2.00/1.75	2.00 3.90	10.7	24/260	OIL	M1-V4
		7231	BAMH400-CWA/V3	1	120/277/347	CWA	455	4.00/1.75/1.40	2.15 3.90	11.4	24/360	OIL	M1-V3
1000	M47	7243	BAMH1000-CWA/V4	1	120/208/240/277	CWA	1080	9.00/5.20/4.50/3.9	2.80 4.80	20.5	24/480	OIL	M1-V4
		7244	BAMH1000-CWA/V3	1	120/277/347	CWA	1080	9.00/3.90/3.15	2.90 4.95	21.5	24/480	OIL	M1-V3
		7245	BAMH1000-CWA/V480	1	480/120T	CWA	1080	2.30	2.82 4.85	21.0	24/480	OIL	N-V480
1500	M48	7247	BAMH1500-CWA/V4	1	120/208/240/277	CWA	1625	13.4/7.75/6.70/5.8	4.10 6.10	31.0	32/525	OIL	M1-V4



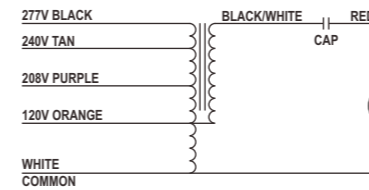
F-V4



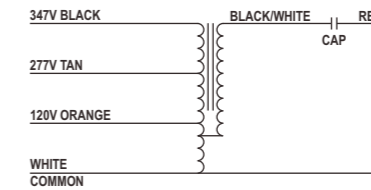
B1-V3



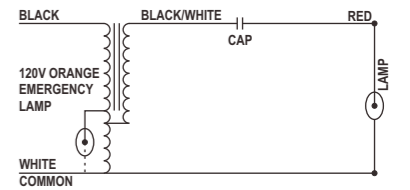
M1-V4



M1-V3



N-V480



METAL HALIDE LAMPS RETROFIT FOR HPS BALLAST

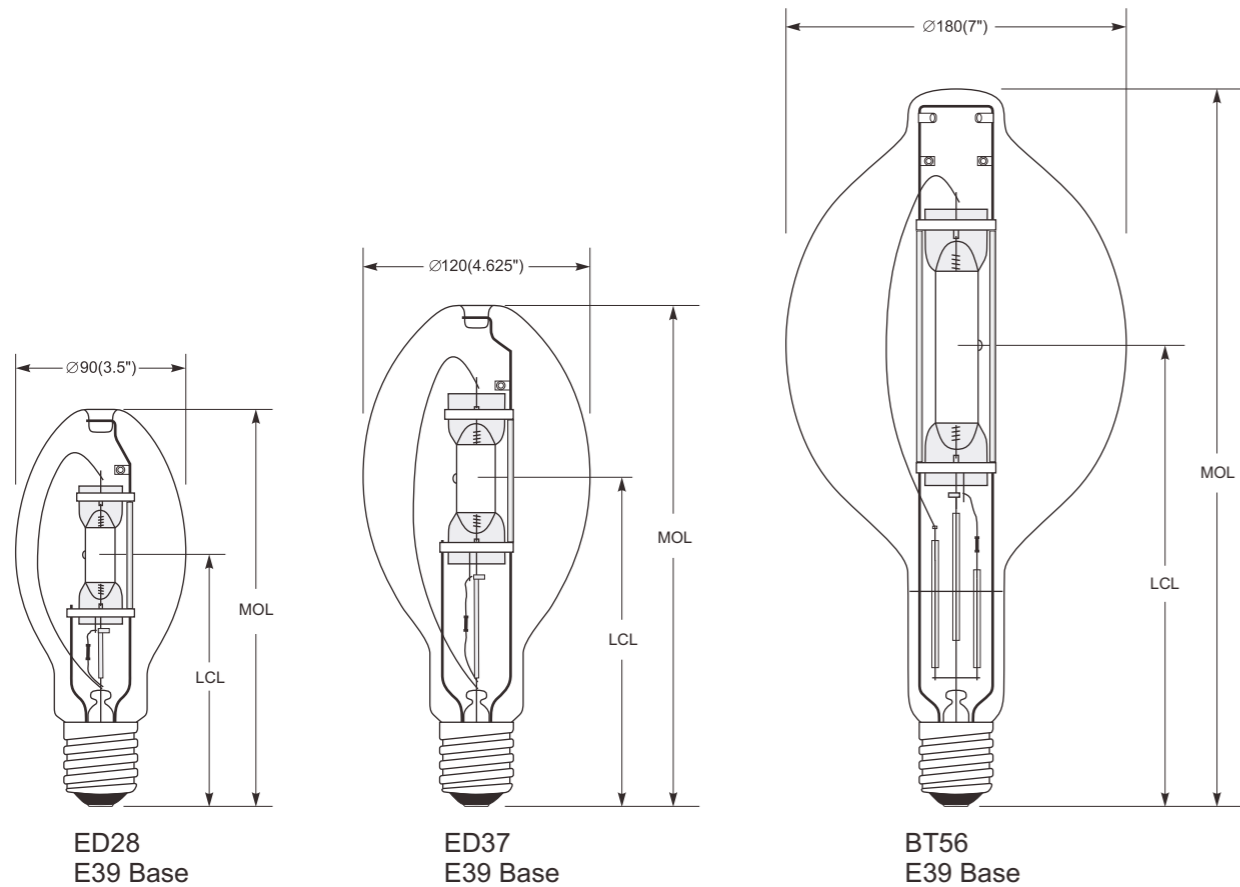
- Work with HPS ballasts
- Good CRI
- Enclosed glass fixtures only

Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens			Color		Manufacture Production Code	
					ANSI	Qty.	Finish	Operating Position	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)		CRI
Metal Halide Lamps Retrofit for HPS Ballast - Mogul Screw Base																
250	ED28	E39	*1124	MH250/U/ED28/LU	S50/E	12	Clear	Universal	8.31	5.00	19100V/16700H	14300V/12400H	10000V/7500H	4200	65	M02509181422
			*1125	MH250/C/U/ED28/LU	S50/E	12	Coated	Universal	8.31	5.00	18100V/16600H	13600V/11800H	10000V/7500H	4000	70	M02509182422
400	ED28	E39	*1126	MH400/U/ED28/LU	S51/E	12	Clear	Universal	8.31	5.00	36600V/32700H	27300V/24400H	20000V/15000H	4200	65	M04009181422
			*1127	MH400/C/U/ED28/LU	S51/E	12	Coated	Universal	8.31	5.00	34800V/31800H	25900V/25200H	20000V/15000H	4000	70	M04009182422
	ED37	E39	*1128	MH400/U/ED37/LU	S51/E	12	Clear	Universal	11.50	7.00	36600V/32700H	27300V/24400H	20000V/15000H	4200	65	M04009171422
			*1129	MH400/C/U/ED37/LU	S51/E	12	Coated	Universal	11.50	7.00	34800V/31800H	25900V/23200H	20000V/15000H	4000	70	M04009172422
1000	BT56	E39	*1130	MH1000/U/BT56/LU	S52/E	6	Clear	Universal	15.38	9.50	110200V/105500H	85500V/81700H	12000V/9000H	4200	65	M10009261422
			*1131	MH1000/C/U/BT56/LU	S52/E	6	Coated	Universal	15.38	9.50	104700V/100200H	81200V/77800H	12000V/9000H	3800	70	M10009262422

* Items only available for special orders

All measurements are shown in inches unless noted
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 See: www.lamprecycle.org or 1-888-529-6660
 See page 24/25/26 for safety handling and warning purposes

PLEASE SEE BALLAST INFO AT PAGE 33



R ⚠ WARNING

Enclosed fixture rated METAL HALIDE LAMP

ULTRAVIOLET RADIATION EXPOSURE:

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

1. Metal Halide lamps are constructed of an outer glass jacket and internal arc tube made of quartz. The arc tube operates under high pressure and temperatures as high as 1000°C (1832°F). The arc tube and outer jacket may unexpectedly rupture due to internal causes or external factors such as system malfunction or misapplication, creating a risk of personal injury, property damage, burns and fire. To reduce this risk the following instructions must be adhered to.
2. Do not operate lamps in excess of rated voltages of the ballast as this will increase lamp pressure and the possibility of shattering.
3. This lamp must be used only with proper circuit and auxiliary equipment and suitable ballast.
4. This lamp must be operated with a suitable fixture, ballast and igniter, which have an ANSI designation identical to the ANSI designation this catalog.
5. Do not use this lamp in a fixture designed for less than the rated lamp wattage.
6. Failure to comply may result in poor lamp performance and possible personal injury or property damages for which the manufacturer will not be held responsible.
7. Do not scratch glass of bulb or subject this lamp to undue pressure as either may cause lamp to break. Replace scratched, cracked, broken or damaged bulbs immediately.
8. The lamp should be screwed firmly, but not forcibly, into the socket to reduce the possibility of loosening due to vibration. Use of excessive force may result in lamp breakage.
9. Do not touch hot lamps with fingers, skin or any flammable material. Lamps may remain hot after being turned off.
10. This lamp must be shielded from direct contact with rain, sleet, snow and other liquids to reduce the possibility of breakage. This lamp may implode if broken. Use eye protection and gloves when handling this lamp.
11. The fixture for Metal Halide lamps must be enclosed. Enclosures must be made of suitable materials capable of withstanding the discharge of hot quartz, arc tube or glass particles up to 1000°C (1832°F). The manufacturer has identified only tempered glass as suitable lens or diffuser material. End users should contact the fixture manufacturer to determine if a particular enclosure is suitable.
12. In an continuously operating system (24 hours/day, 7 days/week), turn lamps off once per week for at least 1 hour. Failure to comply increases the risk of rupture.
13. When operating this lamp, the base temperature should not exceed 210°C (410°F) for Mogul base and 190°C (374°F) for Medium base, the outer envelope should not exceed 400°C (752°F). The recommended ambient temperature limit for this lamp is -40°C (-40°F) minimum; 40°C (104°F) maximum.
14. Do not use this lamp in a location subject to vibration or shock, unless an adequate vibration-proof fixture is used.
15. Do not use this lamp in a corrosive atmosphere unless an adequate corrosion resistant-fixture is used.
16. Replace lamp at or before the end of its rated life. Allowing lamps to burn until they fail may increase the risk of inner arc tube rupture.
17. Electrically insulate any metal support in contact with glass to reduce the possibility of decomposition of the glass.
18. Do not look directly at the lamp during operation to avoid eye inflammation from short wave ultraviolet radiation.
19. Do not paint the lamp to prevent its overheating or breakage.
20. Do not use this lamp in an ignitable atmosphere (for example gasoline, inflammable spray, thinner, lacquer, dust, etc.) to prevent a fire or explosion unless an adequate fixture is used.
21. Do not use this lamp in a powdery or dusty atmosphere in order to eliminate the overheating of the lamp unless an adequate fixture is used.
22. The radiation from this lamp may cause colored objects to fade unless an adequate fixture is used.
23. Follow all instructions in the manufacturer's catalog or on the individual box or instruction sheet.

HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

R

⚠ WARNING

Open fixture rated METAL HALIDE LAMP

ULTRAVIOLET RADIATION EXPOSURE:

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

- 1.This lamp is intended for use in open fixtures since it contains a special shield which was designed to contain a ruptured arc tube and thereby minimize the resultant risks of personal injury, property damage, burns and fire. In applications where an additional measure of safety is desired, an enclosed fixture may be used with a lens/diffuser material able to contain hot lamp fragments (up to 2192°F, 1200°C for a ceramic arc tube and 2012°F, 1100°C for quartz). If you are uncertain, contact your fixture manufacturer.
- 2.Metal Halide lamps are constructed of an outer glass jacket and internal arc tube made of quartz. The arc tube operates under high pressure and temperatures as high as 1000°C (1832°F). The arc tube and outer jacket may unexpectedly rupture due to internal causes or external factors such as system malfunction or misapplication, creating a risk of personal injury, property damage, burns and fire. To reduce this risk the following instructions must be adhered to.
- 3.Do not operate lamps in excess of rated voltages of the ballast as this will increase lamp pressure and the possibility of shattering.
- 4.This lamp must be used only with proper circuit and auxiliary equipment and suitable ballast.
- 5.This lamp must be operated with a suitable fixture, ballast and igniter, which have an ANSI designation identical to the ANSI designation in this catalog.
- 6.Do not use this lamp in a fixture designed for less than the rated lamp wattage.
- 7.Failure to comply may result in poor lamp performance and possible personal injury or property damages for which the manufacturer will not be held responsible.
- 8.Do not scratch the glass of bulb or subject this lamp to undue pressure as either may cause the lamp to break. Replace scratched, cracked, broken or damaged bulbs immediately.
- 9.The lamp should be screwed firmly, but not forcibly, into the socket to reduce the possibility of loosening due to vibration. Use of excessive force may result in lamp breakage.
- 10.Do not touch hot lamps with fingers, skin or any flammable material. Lamps may remain hot after being turned off.
- 11.This lamp must be shielded from direct contact with rain, sleet, snow and other liquids to reduce the possibility of breakage. This lamp may implode if broken. Use eye protection and gloves when handling this lamp.
- 12.In an continuously operating system (24 hours/day, 7 days/week), turn lamps off once per week for at least 1 hour. Failure to comply increases the risk of rupture.
- 13.When operating this lamp, the base temperature should not exceed 210°C (410°F) for Mogul base and 190°C (374°F) for Medium base, the outer envelope should not exceed 400°C (752°F). The recommended ambient temperature limit for this lamp is -40°C (-40°F) minimum; 40°C (104°F) maximum.
- 14.Do not use this lamp in a location subject to vibration or shock, unless an adequate vibration-proof fixture is used.
- 15.Do not use this lamp in a corrosive atmosphere unless an adequate corrosion resistant-fixture is used.
- 16.Replace lamp at or before the end of its rated life. Allowing lamps to burn until they fail may increase the risk of inner arc tube rupture.
- 17.Electrically insulate any metal support in contact with glass to reduce the possibility of decomposition of the glass.
- 18.Do not look directly at the lamp during operation to avoid eye inflammation from short wave ultraviolet radiation.
- 19.Do not paint the lamp to prevent its overheating or breakage.
- 20.Do not use this lamp in an ignitable atmosphere (for example gasoline, inflammable spray, thinner, lacquer, dust, etc.) to prevent a fire or explosion unless an adequate fixture is used.
- 21.Do not use this lamp in a powdery or dusty atmosphere in order to eliminate the overheating of the lamp unless an adequate fixture is used.
- 22.The radiation from this lamp may cause colored objects to fade unless an adequate fixture is used.
- 23.Follow all instructions in the manufacturer's catalog or on the individual box or instruction sheet.

R

⚠ WARNING

Open/Enclosed fixture rated METAL HALIDE LAMP

ULTRAVIOLET RADIATION EXPOSURE:

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

- 1.Only operate lamp in an enclosed fixture with a lens/diffuser material able to contain hot lamp fragments (up to 2012°F, 1100°C). If you are uncertain, contact your fixture manufacturer. When operated within 15° of vertical, this lamp may be operated in an open fixture PROVIDED THE INSTALLATION IS NOT NEAR PEOPLE OR FLAMMABLE OR COMBUSTIBLE MATERIAL.
- 2.Metal Halide lamps are constructed of an outer glass jacket and internal arc tube made of quartz. The arc tube operates under high pressure and temperatures as high as 1000°C (1832°F). The arc tube and outer jacket may unexpectedly rupture due to internal causes or external factors such as system malfunction or misapplication, creating a risk of personal injury, property damage, burns and fire. To reduce this risk the following instructions must be adhered to.
- 3.Do not operate lamps in excess of rated voltages of the ballast as this will increase lamp pressure and the possibility of shattering.
- 4.This lamp must be used only with proper circuit and auxiliary equipment and suitable ballast.
- 5.This lamp must be operated with a suitable fixture, ballast and igniter, which have an ANSI designation identical to the ANSI designation in this catalog.
- 6.Do not use this lamp in a fixture designed for less than the rated lamp wattage.
- 7.Failure to comply may result in poor lamp performance and possible personal injury or property damages for which the manufacturer will not be held responsible.
- 8.Do not scratch the glass of bulb or subject this lamp to undue pressure as either may cause the lamp to break. Replace scratched, cracked, broken or damaged bulbs immediately.
- 9.The lamp should be screwed firmly, but not forcibly, into the socket to reduce the possibility of loosening due to vibration. Use of excessive force may result in lamp breakage.
- 10.Do not touch hot lamps with fingers, skin or any flammable material. Lamps may remain hot after being turned off.
- 11.This lamp must be shielded from direct contact with rain, sleet, snow and other liquids to reduce the possibility of breakage. This lamp may implode if broken. Use eye protection and gloves when handling this lamp.
- 12.In an continuously operating system (24 hours/day, 7 days/week), turn lamps off once per week for at least 1 hour. Failure to comply increases the risk of rupture.
- 13.When operating this lamp, the base temperature should not exceed 210°C (410°F) for Mogul base and 190°C (374°F) for Medium base, the outer envelope should not exceed 400°C (752°F). The recommended ambient temperature limit for this lamp is -40°C (-40°F) minimum; 40°C (104°F) maximum.
- 14.Do not use this lamp in a location subject to vibration or shock, unless an adequate vibration-proof fixture is used.
- 15.Do not use this lamp in a corrosive atmosphere unless an adequate corrosion resistant-fixture is used.
- 16.Replace lamp at or before the end of its rated life. Allowing lamps to burn until they fail may increase the risk of inner arc tube rupture.
- 17.Electrically insulate any metal support in contact with glass to reduce the possibility of decomposition of the glass.
- 18.Do not look directly at the lamp during operation to avoid eye inflammation from short wave ultraviolet radiation.
- 19.Do not paint the lamp to prevent its overheating or breakage.
- 20.Do not use this lamp in an ignitable atmosphere (for example gasoline, inflammable spray, thinner, lacquer, dust, etc.) to prevent a fire or explosion unless an adequate fixture is used.
- 21.Do not use this lamp in a powdery or dusty atmosphere in order to eliminate the overheating of the lamp unless an adequate fixture is used.
- 22.The radiation from this lamp may cause colored objects to fade unless an adequate fixture is used.
- 23.Follow all instructions in the manufacturer's catalog or on the individual box or instruction sheet.

HIGH PRESSURE SODIUM LAMPS

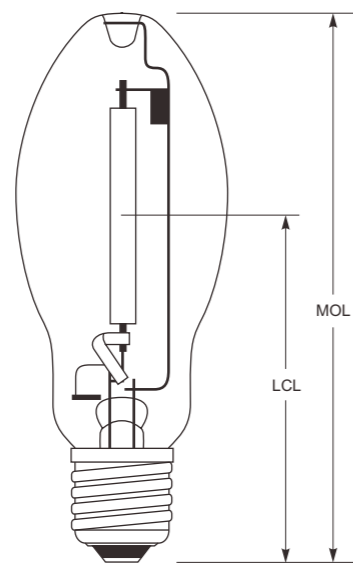
- Universal burning position
- High efficacy/low operating cost
- Long life - 24,000+ hours

Watts	Bulb	Base	Item#	Description	Case		Dimensions		Lumens			Color			Manufacture Production Code
					ANSI	Qty.	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI		
High Pressure Sodium Lamps - Medium Screw Base															
35	ED17	E26	2000	LU35/ED17	S76	12	Clear	5.43	3.43	2250	2050	16000+	2000	22	L00356271202
			*2016	LU35/D/ED17	S76	12	Diffuse	5.43	3.43	2100	1935	16000+	2000	22	L00356273202
50	ED17	E26	2001	LU50/ED17	S68	12	Clear	5.43	3.43	4000	3600	24000+	2000	22	L00506271202
			*2017	LU50/D/ED17	S68	12	Diffuse	5.43	3.43	3700	3420	24000+	2000	22	L00506273202
70	ED17	E26	2002	LU70/ED17	S62	12	Clear	5.43	3.43	6300	5350	24000+	2000	22	L00706271202
			*2018	LU70/D/ED17	S62	12	Diffuse	5.43	3.43	5800	4900	24000+	2000	22	L00706273202
100	ED17	E26	2003	LU100/ED17	S54	12	Clear	5.43	3.43	9500	8000	24000+	2000	22	L01006271202
			*2019	LU100/D/ED17	S54	12	Diffuse	5.43	3.43	8800	7500	24000+	2000	22	L01006273202
150	ED17	E26	2004	LU150/ED17	S55	12	Clear	5.43	3.43	15800	13400	24000+	2000	22	L01506271202
			*2020	LU150/D/ED17	S55	12	Diffuse	5.43	3.43	14500	12300	24000+	2000	22	L01506273202

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 Manage in Accordance with Disposal Laws
 See: www.lamprecycle.org or 1-888-529-6660
 See page 34 for safety handling and warning purposes

* Items only available for special orders

PLEASE SEE BALLAST INFO AT PAGE 33



ED17
E26 Base

HIGH PRESSURE SODIUM LAMPS

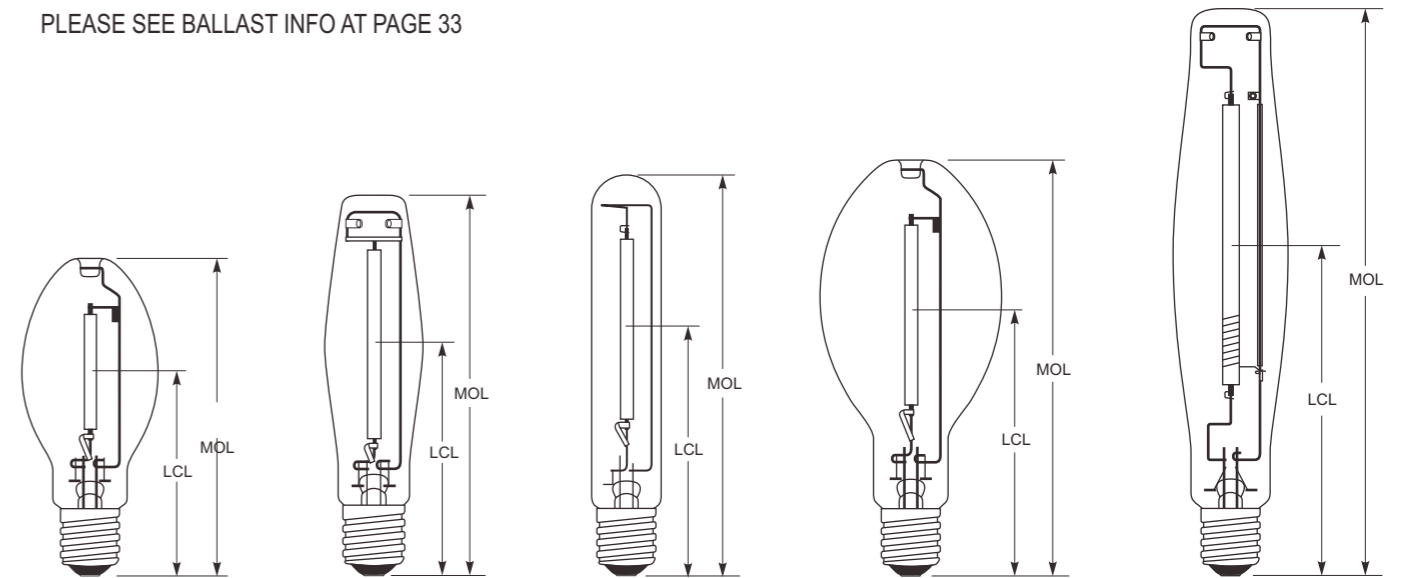
- Universal burning position
- High efficacy/low operating cost
- Long life - 24,000+ hours

Watts	Bulb	Base	Item#	Description	Case		Dimensions		Lumens			Color			Manufacture Production Code
					ANSI	Qty.	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI		
High Pressure Sodium Lamps - Mogul Screw Base															
50	ED23.5	E39	*2021	LU50/ED23.5	S68	12	Clear	7.75	5.00	4000	3600	24000+	2000	22	L00509131202
			*2022	LU50/D/ED23.5	S68	12	Diffuse	7.75	5.00	3700	3420	24000+	2000	22	L00509133202
70	ED23.5	E39	2005	LU70/ED23.5	S62	12	Clear	7.75	5.00	6300	5500	24000+	2000	22	L00709131202
			*2023	LU70/D/ED23.5	S62	12	Diffuse	7.75	5.00	5500	4900	24000+	2000	22	L00709133202
100	ED23.5	E39	2006	LU100/ED23.5	S54	12	Clear	7.75	5.00	9500	8000	24000+	2000	22	L01009131202
			*2024	LU100/D/ED23.5	S54	12	Diffuse	7.75	5.00	8800	7500	24000+	2000	22	L01009133202
150	ED23.5	E39	2007	LU150/55/ED23.5	S55	12	Clear	7.75	5.00	16000	13800	24000+	2000	22	L01509131202
			*2025	LU150/55/D/ED23.5	S55	12	Diffuse	7.75	5.00	14000	12500	24000+	2000	22	L01509133202
	ED28	E39	*2026	LU150/100/ED28	S56	12	Clear	8.31	5.00	15700	14100	24000+	2000	22	L01509181202
200	ET18	E39	2015	LU200/ET18	S66	24	Clear	9.65	5.70	22000	19800	24000+	2000	22	L02009111202
250	ET18	E39	2009	LU250/ET18	S50	24	Clear	9.65	5.70	29000	26100	24000+	2000	22	L02509111202
			*2027	LU250/D/ED28	S50	12	Diffuse	9.00	5.00	26000	23400	24000+	2000	22	L02509183202
310	ET18	E39	*2028	LU310/ET18	S67	24	Clear	9.65	5.70	37000	33300	24000+	2000	22	L03109111202
400	ET18	E39	2010	LU400/ET18	S51	24	Clear	9.65	5.70	50000	45000	24000+	2000	22	L04009111202
			*2029	LU400/D/ED37	S51	12	Diffuse	11.31	7.00	47500	40000	24000+	2000	22	L04009173202
600	T15	E39	2011	LU600/T15	S106	24	Clear	11.06	6.62	90000	81000	24000+	2000	22	L06009351202
750	BT37	E39	*2030	LU750/BT37	S111	12	Clear	11.06	6.62	105000	94500	24000+	2000	22	L07509271202
1000	ET25	E39	2012	LU1000/ET25	S52	12	Clear	15.06	8.75	130000	124000	24000+	2000	22	L10009151202
			2013	LU1000/ED37	S52	12	Clear	11.50	7.00	127000	115000	20000+	2000	22	L10009171202

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PLEASE SEE BALLAST INFO AT PAGE 33



ED23.5 • ED28
E39 Base

ET18
E39 Base

T15
E39 Base

ED37
E39 Base

ET25
E39 Base

HIGH PRESSURE SODIUM ECO LAMPS (TCPL COMPLIANT)

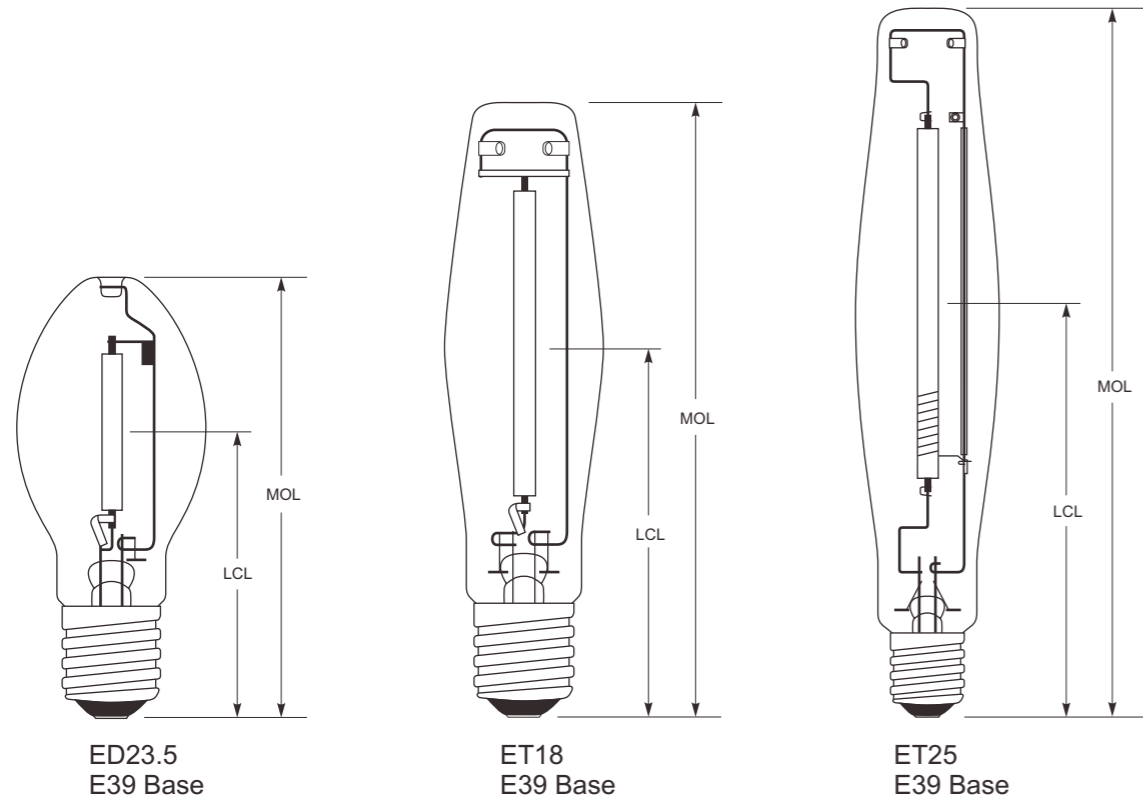
- High efficacy
- Long life - 24,000+ hours
- Lead-free base • Less mercury

Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens			Color		
					ANSI	Qty.	Finish	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI	Manufacture Production Code
High Pressure Sodium ECO Lamps - Mogul Base															
70	ED23.5	E39	2044	LU70/ED23.5/ECO	S62	12	Clear	7.75	5.00	6300	5500	24000+	2000	22	L00709131212
100	ED23.5	E39	2045	LU100/ED23.5/ECO	S54	12	Clear	7.75	5.00	9500	8000	24000+	2000	22	L01009131212
150	ED23.5	E39	2046	LU150/ED23.5/ECO	S55	12	Clear	7.75	5.00	16000	13800	24000+	2000	22	L01509131212
200	ET18	E39	2049	LU200/ET18/ECO	S66	24	Clear	9.65	5.70	22000	19800	24000+	2000	22	L02009111212
250	ET18	E39	2047	LU250/ET18/ECO	S50	24	Clear	9.65	5.70	29000	26100	24000+	2000	22	L02509111212
400	ET18	E39	2048	LU400/ET18/ECO	S51	24	Clear	9.65	5.70	50000	45000	24000+	2000	22	L04009111212
1000	ET25	E39	2050	LU1000/ET25/ECO	S52	12	Clear	15.06	8.75	130000	124000	24000+	2000	22	L10009151212

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PLEASE SEE BALLAST INFO AT PAGE 33



STANDBY HIGH PRESSURE SODIUM LAMPS

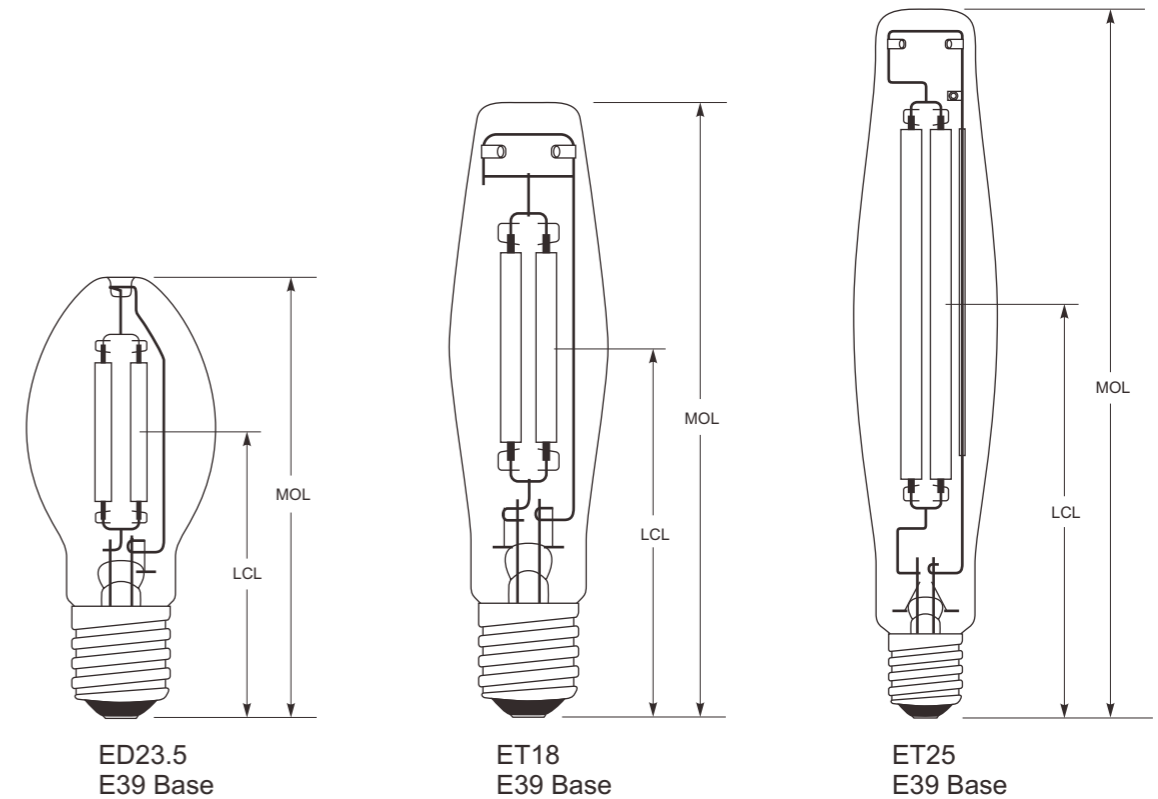
- Dual arc tubes
- Superior life hours
- High efficacy

Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens			Color		
					ANSI	Qty.	Finish	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI	Manufacture Production Code
Standby High Pressure Sodium Lamps - Long Life															
70	ED23.5	E39	*2031	LU70/E/SB	S62	12	Clear	7.75	5.00	6050	4950	40000	2000	22	L00709131212
100	ED23.5	E39	*2032	LU100/E/SB	S54	12	Clear	7.75	5.00	9500	7600	40000	2000	22	L01009131212
150	ED23.5	E39	*2033	LU150/E/SB	S55	12	Clear	7.75	5.00	15700	12100	40000	2000	22	L01509131212
200	ET18	E39	*2034	LU200/E/SB	S66	24	Clear	9.65	5.70	21500	18000	40000	2000	22	L02009111212
250	ET18	E39	*2035	LU250/E/SB	S50	24	Clear	9.65	5.70	27500	23200	40000	2000	22	L02509111212
400	ET18	E39	*2036	LU400/E/SB	S51	24	Clear	9.65	5.70	47500	40000	40000	2000	22	L04009111212
1000	ET25	E39	*2037	LU1000/E/SB	S52	12	Clear	15.06	8.75	127000	115000	40000	2000	22	L10009151212

* Items only available for special orders

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PLEASE SEE BALLAST INFO AT PAGE 33



HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

RETROFIT MERCURY-BALLASTED SODIUM LAMPS

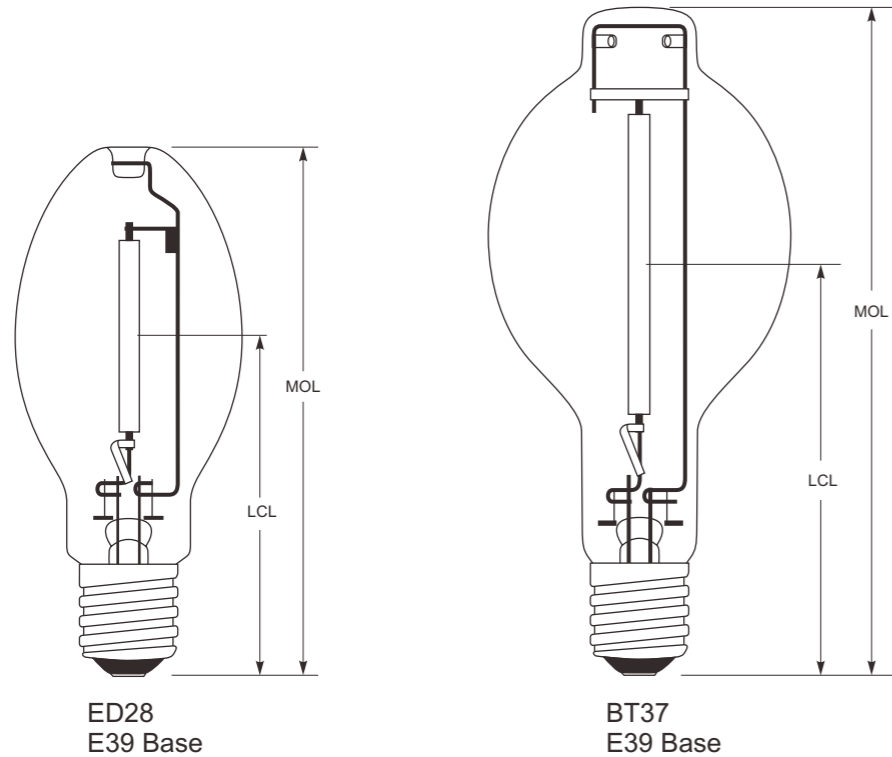
- Work with MV ballasts
- Long life
- Universal burning position

Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens			Color			Manufacture Production Code
					ANSI	Qty.	Finish	MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI		
High Pressure Sodium Lamps - Mercury Retrofit																
150	ED28	E39	*2038	LU150/ED28/Retro	H39	12	Clear	9.00	5.00	11800	10600	24000	1900	20	L01509181202	
215	ED28	E39	*2039	LU215/ED28/Retro	H37	12	Clear	9.00	5.00	20000	17000	16000	1900	20	L02159181202	
360	BT37	E39	*2014	LU360/BT37/Retro	H33	12	Clear	11.31	7.00	36500	32800	16000	2100	20	L03609271202	

* Items only available for special orders

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PLEASE SEE BALLAST INFO AT PAGE 33



RETROFIT METAL HALIDE-BALLASTED SODIUM LAMPS

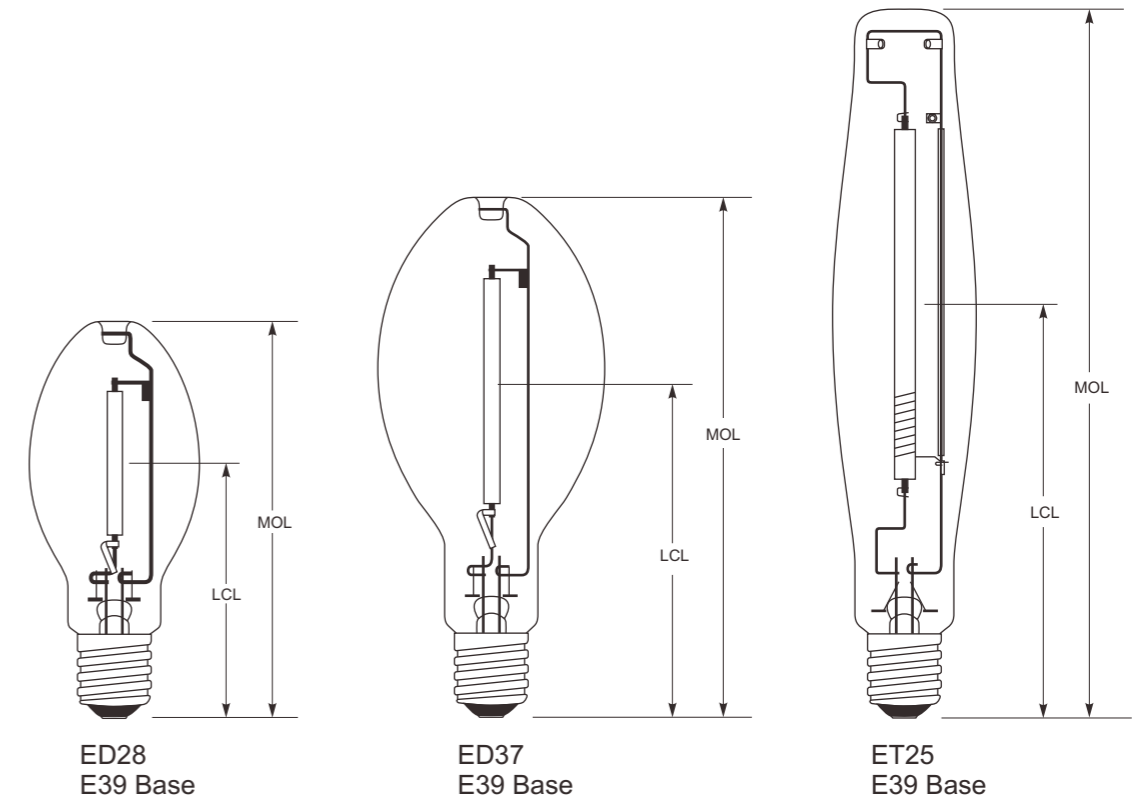
- Work with MH ballasts
- Long life
- High efficacy

Watts	Bulb	Base	Item#	Description	Case			Dimensions		Lumens (lm)	Avg.Life (Hours)	Color		Manufacture Production Code
					ANSI	Qty.	Finish	MOL (in)	LCL (in)			Temp (K)	CRI	
High Pressure Sodium Lamps - Metal Halide Retrofit														
220	ED28	E39	*2052	LU220/ED28/Retro	M58	12	Clear	9.00	5.00	17000	24000	1900	20	L02209181202
360	ED37	E39	*2053	LU360/ED37/Retro	M59	12	Clear	11.31	7.00	32000	16000	1900	20	L03609171202
940	ET25	E39	*2054	LU940/ET25/Retro	M47	12	Clear	15.06	8.75	91000	16000	2100	20	L09409151202

* Items only available for special orders

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 See page 34 for safety handling and warning purposes

PLEASE SEE BALLAST INFO AT PAGE 33



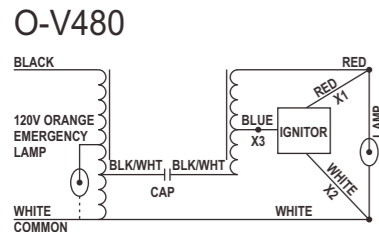
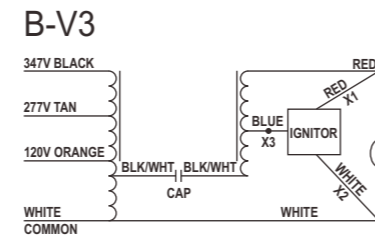
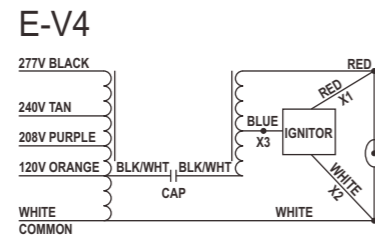
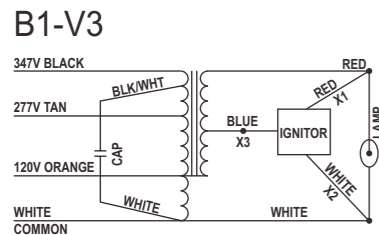
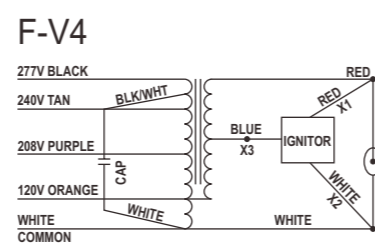
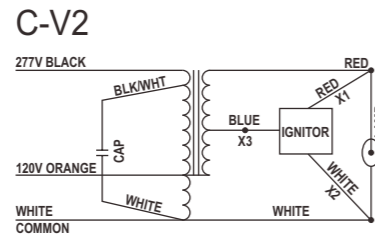
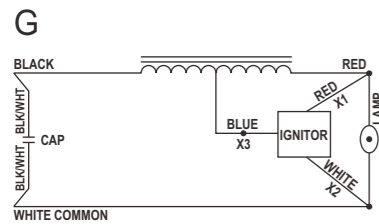
HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

STANDARD HIGH PRESSURE SODIUM BALLAST

- Magnetic ballasts
- 60Hz

Watts	ANSI	Item#	Description	Case Qty.	Input Voltage	Circuit Type	Input Watts	Max.Line Current	Dimensions A (in)	Dimensions B (in)	Total Wt. (lbs)	Total Cap. (µfd/Vmin)	Cap. Type	Ignitor	Wiring Diag.
35	S76	7248	BALU35-R/V120	1	120	R-HPF	45	0.65	0.90	2.15	2.0	16/330	N/A	IGN-101	G
50	S68	7249	BALU50-HX/V2	1	120/277	HX-HPF	66	1.00/0.45	1.00	2.40	3.6	5/280	OIL	IGN-101	C-V2
70	S62	7250	BALU70-HX/V4	1	120/208/240/277	HX-HPF	90	1.5/0.85/0.75/0.65	1.50	2.95	4.6	7/280	OIL	IGN-101	F-V4
		7251	BALU70-HX/V3	1	120/277/347	HX-HPF	91	1.50/0.65/0.55	1.10	2.13	4.4	9/330	OIL	IGN-101	B1-V3
100	S54	7252	BALU100-HX/V4	1	120/208/240/277	HX-HPF	126	2.10/1.20/1.05/0.9	2.00	3.45	5.9	10/280	OIL	IGN-101	F-V4
		7253	BALU100-HX/V3	1	120/277/347	HX-HPF	127	1.85/0.85/0.65	2.32	3.70	8.0	9/290	OIL	IGN-101	B1-V3
150	S55	7254	BALU150-HX/V4	1	120/208/240/277	HX-HPF	188	2.8/1.60/1.40/1.25	2.50	3.80	7.4	14/280	OIL	IGN-101	F-V4
		7255	BALU150-HX/V3	1	120/277/347	HX-HPF	195	3.15/1.30/1.1	2.50	3.95	8.0	13.5/290	OIL	IGN-101	B1-V3
200	S66	7256	BALU200-CWA/V4	1	120/240	CWA	230	2.05/1.05	1.33	3.00	10.0	28/240	OIL	IGN-102	E-V4
250	S50	7257	BALU250-CWA/V4	1	120/208/240/277	CWA	295	2.50/1.45/1.25/1.1	1.80	3.60	11.0	35/240	OIL	IGN-102	E-V4
		7258	BALU250-CWA/V3	1	120/277/347	CWA	295	2.70/1.15/0.95	1.80	3.60	11.0	35/240	OIL	IGN-102	B-V3
400	S51	7259	BALU400-CWA/V4	1	120/208/240/277	CWA	460	3.80/2.20/1.90/1.7	2.30	4.20	14.0	55/240	OIL	IGN-102	E-V4
		7260	BALU400-CWA/V3	1	120/277/347	CWA	460	3.80/1.70/1.30	2.30	4.20	14.0	55/240	OIL	IGN-102	B-V3
		7261	BALU400-CWA/V480	1	480/120T	CWA	464	1.00	2.60	4.45	15.0	55/240	OIL	IGN-102	O-V480
600	S106	7262	BALU600-CWA/V4	1	120/208/240/277	CWA	695	5.85/3.25/2.95/2.55	3.40	5.40	24.5	59/300	OIL	IGN-103	E-V4
1000	S52	7263	BALU1000-CWA/V4	1	120/208/240/277	CWA	1100	9.50/5.50/4.75/4.20	3.75	5.90	27.0	26/525	OIL	IGN-104	E-V4
		7264	BALU1000-CWA/V3	1	120/277/347	CWA	1065	8.95/3.90/3.15	3.80	6.00	28.0	26/480	OIL	IGN-104	B-V3
		7265	BALU1000-CWA/V480	1	480/120T	CWA	1100	2.30	3.90	5.90	28.8	26/525	OIL	IGN-104	O-V480



ULTRAVIOLET RADIATION EXPOSURE:

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

1. This lamp is intended for use in open fixtures since it contains a special shield which was designed to contain a ruptured arc tube and thereby minimize the resultant risks of personal injury, property damage, burns and fire. In applications where an additional measure of safety is desired, an enclosed fixture may be used with a lens/diffuser material able to contain hot lamp fragments (up to 2192°F, 1200°C for a ceramic arc tube and 2012°F, 1100°C for quartz). If you are uncertain, contact your fixture manufacturer.
2. Metal Halide lamps are constructed of an outer glass jacket and internal arc tube made of quartz. The arc tube operates under high pressure and temperatures as high as 1000°C (1832°F). The arc tube and outer jacket may unexpectedly rupture due to internal causes or external factors such as system malfunction or misapplication, creating a risk of personal injury, property damage, burns and fire. To reduce this risk the following instructions must be adhered to.
3. Do not operate lamps in excess of rated voltages of the ballast as this will increase lamp pressure and the possibility of shattering.
4. This lamp must be used only with proper circuit and auxiliary equipment and suitable ballast.
5. This lamp must be operated with a suitable fixture, ballast and igniter, which have an ANSI designation identical to the ANSI designation in this catalog.
6. Do not use this lamp in a fixture designed for less than the rated lamp wattage.
7. Failure to comply may result in poor lamp performance and possible personal injury or property damages for which the manufacturer will not be held responsible.
8. Do not scratch the glass of bulb or subject this lamp to undue pressure as either may cause the lamp to break. Replace scratched, cracked, broken or damaged bulbs immediately.
9. The lamp should be screwed firmly, but not forcibly, into the socket to reduce the possibility of loosening due to vibration. Use of excessive force may result in lamp breakage.
10. Do not touch hot lamps with fingers, skin or any flammable material. Lamps may remain hot after being turned off.
11. This lamp must be shielded from direct contact with rain, sleet, snow and other liquids to reduce the possibility of breakage. This lamp may implode if broken. Use eye protection and gloves when handling this lamp.
12. In an continuously operating system (24 hours/day, 7 days/week), turn lamps off once per week for at least 1 hour. Failure to comply increases the risk of rupture.
13. When operating this lamp, the base temperature should not exceed 210°C (410°F) for Mogul base and 190°C (374°F) for Medium base, the outer envelope should not exceed 400°C (752°F). The recommended ambient temperature limit for this lamp is -40°C (-40°F) minimum; 40°C (104°F) maximum.
14. Do not use this lamp in a location subject to vibration or shock, unless an adequate vibration-proof fixture is used.
15. Do not use this lamp in a corrosive atmosphere unless an adequate corrosion resistant-fixture is used.
16. Replace lamp at or before the end of its rated life. Allowing lamps to burn until they fail may increase the risk of inner arc tube rupture.
17. Electrically insulate any metal support in contact with glass to reduce the possibility of decomposition of the glass.
18. Do not look directly at the lamp during operation to avoid eye inflammation from short wave ultraviolet radiation.
19. Do not paint the lamp to prevent its overheating or breakage.
20. Do not use this lamp in an ignitable atmosphere (for example gasoline, inflammable spray, thinner, lacquer, dust, etc.) to prevent a fire or explosion unless an adequate fixture is used.
21. Do not use this lamp in a powdery or dusty atmosphere in order to eliminate the overheating of the lamp unless an adequate fixture is used.
22. The radiation from this lamp may cause colored objects to fade unless an adequate fixture is used.
23. Follow all instructions in the manufacturer's catalog or on the individual box or instruction sheet.

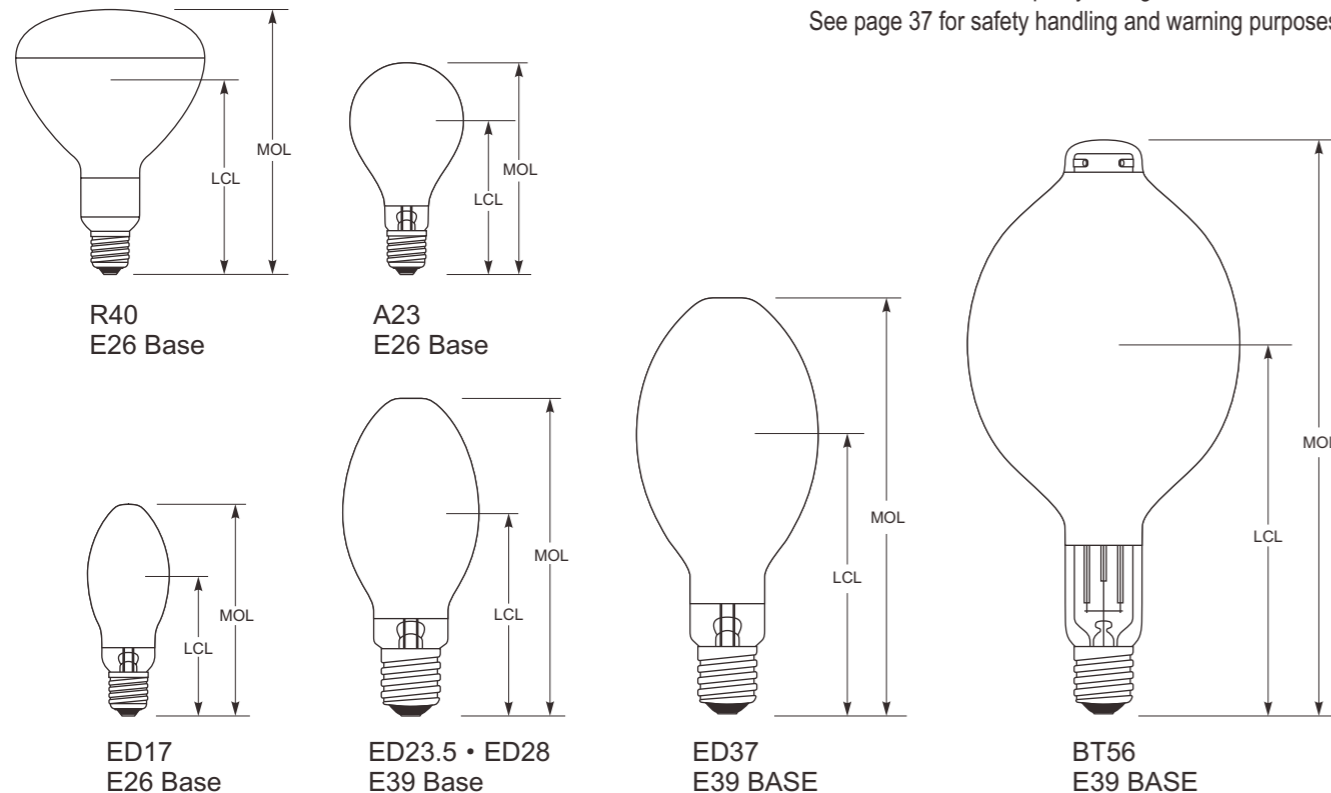
MERCURY LAMPS

- Long life: 24,000+ hours
- High efficacy/low operating cost

Watts	Bulb	Base	Item#	Description	Generic Description	Case ANSI Qty.	Finish	Dimensions		Lumens		Color			Manufacture Production Code	
								MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI		
Mercury Vapor Lamps																
50	ED17	E26	*2312	MV50/DX/46/ED17	H46DL-40-50/DX	H46	12	Deluxe Coated	5.43	3.50	1580	1300	24000+	3900	50	V00506174402
75	ED17	E26	2300	MV75/DX/43/ED17	H43AV-75/DX	H43	12	Deluxe Coated	5.43	3.50	2700	2250	24000+	3900	50	V00756174402
80	ED17	E26	2311	MV80/DX/ED17	--	H43	12	Deluxe Coated	5.43	3.50	2700	2250	24000+	3900	50	V00806174402
	A23	E26	2309	MV80/DX/A23	--	H43	12	Deluxe Coated	5.43	3.50	2700	2250	24000+	3900	50	V00806634402
100	ED17	E26	2301	MV100/DX/38/ED17	H38AV-100/DX	H38	12	Deluxe Coated	5.43	3.50	4000	3560	24000+	3900	50	V01006174402
	A23	E26	2302	MV100/DX/38/A23	H38MP-100/DX	H38	12	Deluxe Coated	5.43	3.50	4000	3400	24000+	3800	50	V01006634402
	ED23.5	E39	*2313	MV100/DX/38/ED23.5	H38JA-100/DX	H38	12	Deluxe Coated	7.50	5.00	4000	3000	24000+	3900	50	V01009134402
	R40	E26	*2314	MV100/DX/38/R40	H38BP-100/DX	H38	12	Deluxe Coated	7.00	--	2450	2050	24000+	3900	50	V01006444402
175	ED28	E26	*2315	MV175/DX/39/ED28/MED	--	H39	12	Deluxe Coated	8.25	5.00	7800	6800	24000+	3900	50	V01756184402
	E39	2303	MV175/DX/39/ED28	H39KC-175/DX	H39	12	Deluxe Coated	8.25	5.00	7800	6800	24000+	3900	50	V01759184402	
			*2316	MV175/39/ED28	H39KB-175	H39	12	Clear	8.25	5.00	7800	6800	24000+	6000	20	V01759181402
	R40	E26	*2317	MV175/DX/39/R40/FL	H39BP-175/DX	H39	12	Deluxe Coated	7.00	--	5700	4350	24000+	3900	50	V01756744402
250	ED28	E39	2304	MV250/DX/37/ED28	H37KC-250/DX	H37	12	Deluxe Coated	8.25	5.00	11200	10800	24000+	3900	50	V02509184402
			*2318	MV250/37/ED28	H37KB-250	H37	12	Clear	8.25	5.00	11200	10800	24000+	6000	20	V02509181402
400	ED28	E39	2305	MV400/DX/33/ED28	H33KC-400/DX	H33	12	Deluxe Coated	8.25	5.00	22600	14400	24000+	3900	50	V04009184402
	ED37	E39	2306	MV400/DX/33/ED37	H33GL-400/DX	H33	12	Deluxe Coated	11.31	7.00	22600	14400	24000+	3900	50	V04009174402
			*2319	MV400/33/ED37	H33CD-400	H33	12	Clear	11.31	7.00	22600	14400	24000+	6000	20	V04009171402
1000	BT56	E39	2310	MV1000/DX/36/BT56	H36GW-1000/DX	H36	6	Deluxe Coated	15.38	9.50	58000	48500	24000+	3900	50	V10009264402
			*2320	MV1000/36/BT56	H36GV-1000	H36	6	Clear	15.38	9.50	58000	48500	24000+	6000	20	V10009261402

* Items only available for special orders

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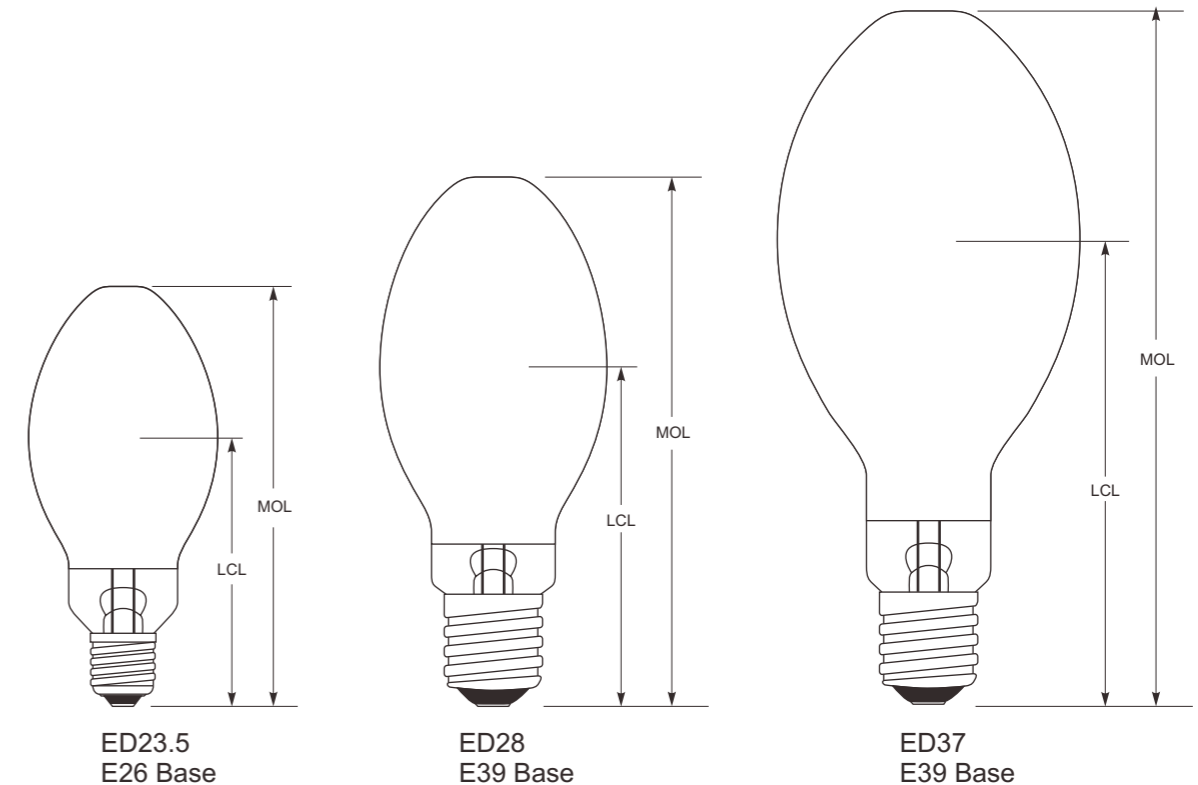
SELF-BALLASTED MERCURY LAMPS

- Retrofit incandescent sockets
- Long life
- High efficacy

Watts	Bulb	Base	Item#	Description	Case Voltage (V)	Case Qty.	Finish	Dimensions		Lumens		Color			Manufacture Production Code
								MOL (in)	LCL (in)	Initial (lm)	Mean (lm)	Avg.Life (Hours)	Temp (K)	CRI	
Self-Ballasted Mercury Vapor Lamps															
100	ED23.5	E26	*2321	MV100/DX/SB/ED23.5	120	12	Deluxe Coated	7.75	5.00	1000	700	10000	3200	50	V01006134302
160	ED23.5	E26	2307	MV160/DX/SB/ED23.5	120	12	Deluxe Coated	7.75	5.00	2300	1500	10000	3200	50	V01606134302
250	ED28	E26	*2322	MV250/DX/SB/ED28/MED	120	12	Deluxe Coated	8.50	5.18	5000	3700	10000	3200	50	V02506184302
250	ED28	E39	2308	MV250/DX/SB/ED28	120	12	Deluxe Coated	8.50	5.18	5000	3700	10000	3200	50	V02509184312
450	ED37	E39	*2323	MV450/DX/SB/ED37	120	12	Deluxe Coated	11.46	7.28	10000	9100	10000	3200	50	V04509174302

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HIGH INTENSITY DISCHARGE LAMPS

HIGH INTENSITY DISCHARGE LAMPS

