

HIGH INTENSITY DISCHARGE LAMPS



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HOW TO READ AN HID LAMP TABLE

BULB

Designations indicate shape and size. Illustrations can be found on page 104 and at the top of each page.

BASE

Indicates base type. Full base descriptions and illustrations can be found on page 104.

PRODUCT CODE

Abbreviated product description can also be used for ordering. A key to abbreviations can be found on page 113.

PACKAGE QUANTITY

Indicates minimum sell quantity and smallest shipping carton.

AVERAGE LIFE

Average rated life expressed in hours.

ANSI CODE

The specific electrical characteristics of a lamp.

MOL

Indicates maximum overall length in inches.

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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ProLume. Protected Metal Halide

50 WATT

ED17	Med.	108266	3,13,14,19	MP50/U/MED/PS	Clear	1/12	M110/O	3300	2100	10000	5.45"	4000	65
		60505	3,13,14,19	MP50/C/U/MED/PS	Coated	1/12	M110/O	3200	2000	10000	5.45"	3700	70

70 WATT

ED17	Med.	108268	3,13,14,19	MP70/U/MED/PS	Clear	1/12	M98/O	5300	3400	12000	5.45"	4000	65
		60508	3,13,14,19	MP70/C/U/MED/PS	Coated	1/12	M98/O	5000	3300	12000	5.45"	3700	70

WATTS

Indicates the power consumed by the lamp during operation.

PRODUCT NUMBER

Use this number when placing an order.

FOOTNOTES & SYMBOLS

Related footnotes can be found on page 111.

DESCRIPTION

Bulb finish and other important information.

INITIAL LUMENS

The lamp's average light output after the initial 100 hours of operation.

MEAN LUMENS

The lamp's average light output at 40% of rated life.

COLOR TEMP.

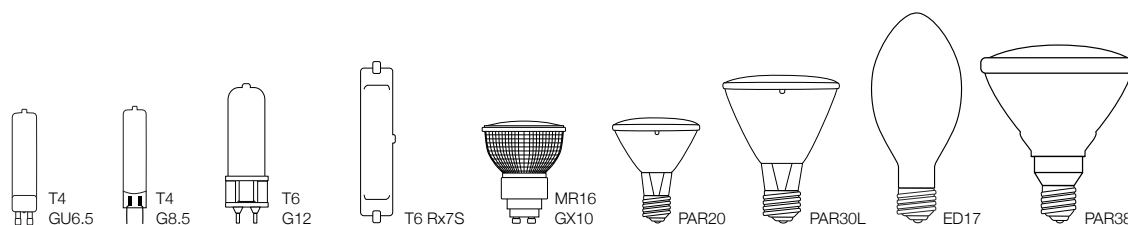
A term used to describe the color of a light source and is expressed in degrees "Kelvin" (K).

CRI

An international scale from 0 to 100 that indicates the relative color rendering value of a light source. The color rendering index expresses the degree to which colors will look "natural" under a given light source.

HID LAMPS

Metal Halide

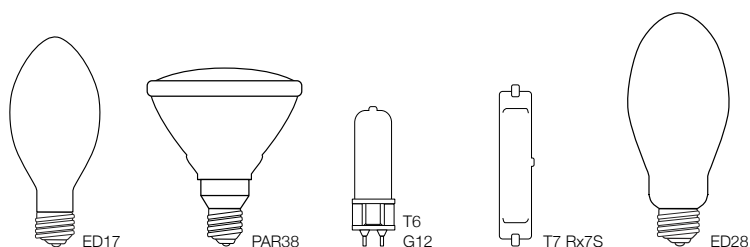


Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
ProLume. Ceramic Discharge Metal Halide													
20 WATT													
T4	GU6.5	67010	1,11,18	CDM20/TC/830/GU6.5	Clear	1/24	C156/E	1750	1320	12000	2.44"	3000	85+
	G8.5	67012	1,11,18	CDM20/TC/830	Clear	1/24	C156/E	1750	1320	12000	3.35"	3000	85+
T6	G12	67013	1,11,18	CDM20/T6/830	Clear	1/12	C156/E	1750	1320	12000	3.98"	3000	85+
MR16	GX10	67020	3,11,18	CDM20/MR16NFL/830/GX10	Narrow Flood	1/12	C156/O	1200	780	12000	2.56"	3000	85+
PAR20 Med.		67021	3,11,18	CDM20/P20/SP/830	Spot	1/24	C156/O	1200	900	10000	3.74"	3000	85+
		67022	3,11,18	CDM20/P20/FL /830	Flood	1/24	C156/O	1200	900	10000	3.74"	3000	85+
39 WATT													
T4	GU6.5	67011	1,11,18	CDM35/TC/830/GU6.5	Clear	1/24	C130/E M130/E	3100	2325	12000	2.44"	3000	80+
	G8.5	67006	1,11,18	CDM35/TC/830	Clear	1/24	C130/E M130/E	3300	2550	12000	3.35"	3000	80+
T6	G12	67002	1,11,18	CDM35/T6/830	Clear	1/12	C130/E M130/E	3400	2550	12000	3.94"	3000	80+
	Rx7S	67016	X 1,11,18	CDM35/TD/830	Clear	1/12	C130/E M130/E	3100	2350	12000	4.69"	3000	80+
PAR20 Med.		67023	3,11,18	CDM35/P20/SP/830	Spot	1/24	C130/O M130/O	2100	1575	10000	3.74"	3000	80+
		67000	3,11,18	CDM35/P20/FL/830	Flood	1/24	C130/O M130/O	2100	1575	10000	3.74"	3000	80+
PAR30L Med.		67001	3,11,18	CDM35/P30L/FL/830	Flood	1/6	C130/O M130/O	2200	1650	10000	4.88"	3000	80+
70 WATT													
ED17	Med.	281295	X 1,6,11	MHC70UMED/4K/M	Clear Major	1/12	M98/E M143/E	5900	4130	20000	5.44"	4000	92
T4	G8.5	67007	1,11,18	CDM70/TC/830	Clear	1/24	C/M98/E C/M139/E	6700	5200	12000	3.35"	3000	85+
T6	G12	67004	1,11,18	CDM70/T6/830	Clear	1/12	C/M98/E C/M139/E	6700	5300	12000	3.94"	3000	85+
		67014	1,11,18	CDM70/T6/942	Clear	1/12	C/M98/E C/M139/E	6600	5100	12000	3.94"	4200	90+
	Rx7S	67017	1,11,18	CDM70/TD/830	Clear	1/12	M85/E C/M139/E	6500	4875	12000	4.33"	3000	85+
PAR30L Med.		67003	1,11,18	CDM70/P30L/FL/830	Flood	1/6	C/M98/E C/M139/E	4850	3640	10000	4.88"	3000	85+
		67024	1,11,18	CDM70/P30L/SP/830	Spot	1/6	C/M98/E C/M139/E	4850	3640	10000	4.88"	3000	85+
		67026	1,11,18	CDM70/P30L/FL/942	Flood	1/6	C/M98/E C/M139/E	4300	3225	10000	4.88"	4200	90+
		67025	X 1,11,18	CDM70/P30L/SP/942	Spot	1/6	C/M98/E C/M139/E	4300	3200	10000	4.88"	4200	90+
PAR38 Med.		67028	1,11,18	CDM70/P38/FL/830	Flood	1/6	C/M98/E C/M139/E	4800	3600	10000	5.64"	3000	85+
		67027	1,11,18	CDM70/P38/SP/830	Spot	1/6	C/M98/E C/M139/E	4800	3600	10000	5.64"	3000	85+
		67029	1,11,18	CDM70/P38/FL/942	Flood	1/12	C/M98/E C/M139/E	4500	3375	10000	5.64"	4200	90+
ED17	Med.	67008	3,11,18	CDM70/U/830/MED	Clear	1/12	C/M98/O C/M139/O	6200	4960	16000	5.64"	3000	85+

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

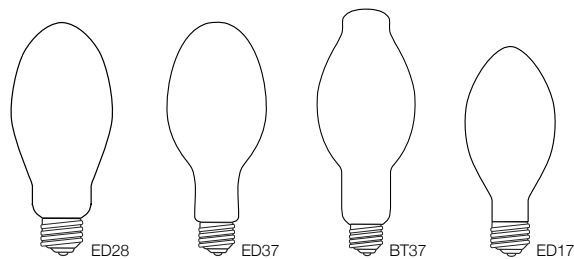
HID LAMPS

Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
ProLume Ceramic Discharge Metal Halide continued													
100 WATT													
ED17	Med.	281352	1,6,11	MHC100UMED/4K/M	Clear Major	1/12	M90/E M140/E	9000	6750	20000	5.44"	4000	92
PAR38	Med.	45681	3,11	CDM100/P38/FL/830/M	Flood Major	1/6	M90/O M140/O	6500	4550	10000	5.31"	3000	81
		45680	3,11	CDM100/P38/SP/830/M	Spot Major	1/6	M90/O M140/O	6500	4550	10000	5.31"	3000	81
150 WATT													
ED17	Med.	67009	1,11,18	CDM150/U/830/MED	Clear	1/12	C/M102/E C/M142/E	14000	11200	16000	5.31"	3000	85+
T6	G12	67005	1,11,26,18	CDM150/T6/830	Clear	1/60	C/M102/E C/M142/E	14000	10500	12000	3.94"	3000	85+
		67015	1,11,26,18	CDM150/T6/942	Clear	1/60	C/M102/E C/M142/E	13000	9750	12000	3.94"	4200	93+
ProLume Pulse Start Metal Halide													
50 WATT													
ED17	Med.	108228	1,12,13,18	MH50/U/MED/PS	Clear	1/12	M110/E	3400	2200	10000	5.45"	4000	65
		108232	X 1,12,13,18	MH50/C/U/MED/PS	Coated	1/12	M110/E	3300	2100	10000	5.45"	3700	70
70 WATT													
ED17	Med.	108246	1,12,13,18	MH70/U/MED/PS	Clear	1/12	M98/E	5600	3700	15000	5.45"	4000	65
		108248	1,12,13,18	MH70/C/U/MED/PS	Coated	1/12	M98/E	5300	3400	15000	5.45"	3700	70
100 WATT													
ED17	Med.	108254	1,12,13,18	MH100/U/MED/PS	Clear	1/12	M90/E	9000	5900	15000	5.45"	4000	65
		108256	1,12,13,18	MH100/C/U/MED/PS	Coated	1/12	M90/E	8500	5500	15000	5.45"	3700	70
ED28	Mog.	60003	1,12,13,18	MH100/U/MOG/PS	Clear	1/12	M90/E	9000	5900	15000	8.25"	4000	65
125 WATT													
ED17	Med.	60007	1,12,13,14,18	MH125/HBU/MED/PS	Horizontal Base Up	1/12	M150/E	12000	8400	15000	5.45"	4000	65
150 WATT													
ED17	Med.	108258	1,12,13,18	MH150/U/MED/PS	Clear	1/12	M102/E	14000	10500	15000	5.45"	4000	65
ED28	Mog.	108305	1,4,12,13,14,18	MH150/U/PS	Clear	1/12	M102/E	14000	10500	15000	8.25"	4000	65
175 WATT													
ED17	Med.	60002	1,4,12,13,14,18	MH175/BU/MED/PS	Clear Base Up	1/12	M152/E M137/E	17500	14000	15000	5.45"	4000	65
ED28	Mog.	108274	1,4,12,13,16,18	MH175/BU/PS	Clear Base Up	1/12	M152/E M137/E	17500	14000	15000	8.25"	4000	65
		60008	1,12,13,14,18	MH175/HBU/PS	Horizontal Base Up	1/12	M152/E M137/E	15000	10700	15000	8.25"	4000	65
200 WATT													
ED28	Mog.	108284	1,4,12,13,14,18	MH200/BU/PS	Clear Base Up	1/12	M136/E	21000	16800	15000	8.25"	4000	65
		60006	X 1,4,12,13,14,18	MH200/C/BU/PS	Coated Base Up	1/12	M136/E	20000	16000	15000	8.25"	3700	70

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.



HID LAMPS

Metal Halide

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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ProLume Pulse Start Metal Halide continued

250 WATT

ED28	Mog.	108276	1,4,12,13,14,18	MH250/BU/PS	Clear Base Up	1/12	M153/E M138/E	25000	20000	15000	8.25"	4000	65
		60005	1,4,12,13,14,18	MH250/C/BU/PS	Coated Base Up	1/12	M153/E M138/E	23800	19000	15000	8.25"	3700	70
		60009	1,12,13,14,18	MH250/HBU/PS	Horizontal Base Up	1/12	M153/E M138/E	21000	15000	15000	8.25"	4000	65

320 WATT

ED28	Mog.	108278	1,4,6,12,13,14,18	MH320/BU/PS	Clear Base Up	1/12	M154/E M132/E	33000	26000	20000	8.25"	4000	65
		60004	X 1,4,6,12,13,14,18	MH320/C/BU/PS	Coated Base Up	1/12	M154/E M132/E	31000	25000	20000	8.25"	3700	70
		60010	1,12,13,14,18	MH320/HBU/PS	Clear Horizontal Base Up	1/12	M154/E M132/E	31000	23000	15000	8.25"	4000	65

350 WATT

ED37	Mog.	108291	1,4,6,12,13,14,18	MH350/BU/PS	Clear Base Up	1/6	M131/E	37000	29000	20000	11.50"	4000	65
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400 WATT

ED28	Mog.	60012	1,6,12,13,18	MH400/U/ED28/PS	Clear	1/12	M155/E M135/E	39000	33000	20000	8.25"	4000	65
ED37	Mog.	60011	1,6,12,13,18	MH400/U/PS	Clear	1/6	M155/E M135/E	39000	35000	20000	11.50"	4000	65
		108280	1,4,5,6,12,13,14,18	MH400/BU/PS	Clear Base Up	1/6	M155/E M135/E	44000	35000	20000	11.50"	4000	65

750 WATT

ED37	Mog.	60016	1,12,13,18	MH750/HBU/PS	Clear Horizontal Base Up	1/6	M149/E	75000	55000	10000	11.50"	4000	65
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875 WATT

BT37	Mog.	60014	1,12,13,18	MH875/U/PS	Clear	1/6	M166/E	96000	82500	15000	11.50"	4000	65
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1000 WATT

BT37	Mog.	60015	1,12,13,18	MH1000/U/PS	Clear	1/6	M141/E	110000	96000	15000	11.50"	4000	65
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ProLume Protected Metal Halide

50 WATT

ED17	Med.	108266	3,12,13,18	MP50/U/MED/PS	Clear	1/12	M110/O	3300	2100	10000	5.45"	4000	65
		60505	3,12,13,18	MP50/C/U/MED/PS	Coated	1/12	M110/O	3200	2000	10000	5.45"	3700	70

70 WATT

ED17	Med.	108268	3,12,13,18	MP70/U/MED/PS	Clear	1/12	M98/O	5300	3400	12000	5.45"	4000	65
		60508	3,12,13,18	MP70/C/U/MED/PS	Coated	1/12	M98/O	5000	3300	12000	5.45"	3700	70

100 WATT

ED17	Med.	108270	3,12,13,18	MP100/U/MED/PS	Clear	1/12	M90/O	8500	5500	15000	5.45"	4000	65
		60507	3,12,13,18	MP100/C/U/MED/PS	Coated	1/12	M90/O	8100	5300	15000	5.45"	3700	70

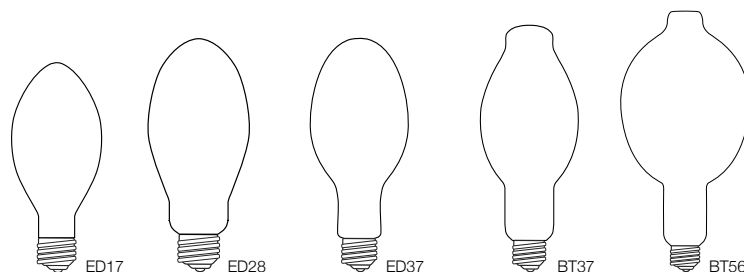
150 WATT

ED17	Med.	108272	3,12,13,18	MP150/U/MED/PS	Clear	1/12	M102/O	13300	10000	15000	5.45"	4000	65
		60503	3,12,13,18	MP150/C/U/MED/PS	Coated	1/12	M102/O	12600	9500	15000	5.45"	3700	70

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

HID LAMPS

Metal Halide

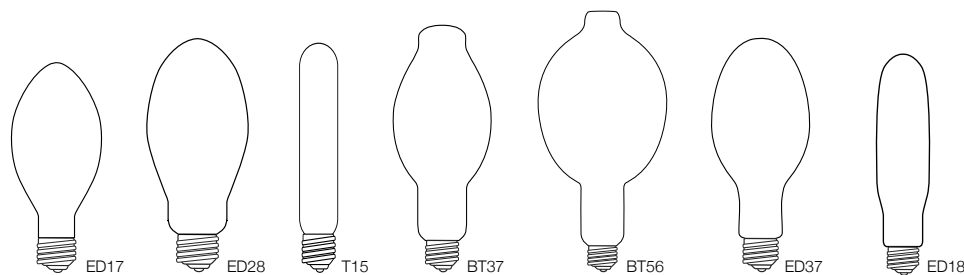


Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
ProLume. Protected Metal Halide continued													
175 WATT													
ED17	Med.	108282	3,12,13	MP175/U/MED	Clear	1/12	M57/O	14000	9100	10000	5.45"	4000	65
		90402	X 3,12,13,14,25	MP175/U/MED/CSTF	Clear CoverShield®	1/12	M57/O	14000	9100	10000	5.45"	4000	65
ED28	EX39	108286	3,12,14,16	MP175/BU	Clear Base Up	1/12	M57/O	14000	9100	10000	8.25"	4000	65
		90400	X 3,12,13,14,25	MP175/BU/CSTF	Clear Base Up CoverShield®	1/12	M57/O	14000	9100	10000	8.25"	4000	65
200 WATT													
ED28	EX39	60511	3,12,13,14,16,18	MP200/BU/PS	Clear Base Up	1/12	M136/O	20000	16000	15000	8.25"	4000	65
		60509	X 3,12,13,14,16,18	MP200/C/BU/PS	Coated Base Up	1/12	M136/O	19000	15200	15000	8.25"	3700	70
250 WATT													
ED28	EX39	108288	3,12,14,16	MP250/BU	Clear Base Up	1/12	M58/O	21800	14200	10000	8.25"	4000	65
		60710	3,12,14,16	MP250/C/BU	Coated Base Up	1/12	M58/O	20000	13000	10000	8.25"	3700	70
		108298	3,12,13,14,16,18	MP250/BU/PS	Clear Base Up	1/12	M153/O M138/O	23800	19000	15000	8.25"	4000	65
		60510	3,12,13,14,16,18	MP250/C/BU/PS	Coated Base Up	1/12	M153/O M138/O	22600	17600	15000	8.25"	3700	70
		90401	X 3,12,13,14,25	MP250/BU/CSTF	Clear Base Up CoverShield®	1/12	M58/O	21800	14200	10000	8.25"	4000	65
320 WATT													
ED28	EX39	108290	3,4,6,12,13,14,18	MP320/BU/PS	Clear Base Up	1/12	M154/O M132/O	31000	25000	20000	8.25"	4000	65
360 WATT													
ED37	EX39	108292	\$ 3,6,7,12,14,16,24	MP360/BU/ES	Clear Base Up Energy Saver	1/6	M165/O M59/O	36000	23500	20000	11.50"	4000	65
400 WATT													
ED37	EX39	108294	3,6,12,14,16	MP400/BU	Clear Base Up	1/6	M59/O	36000	23500	20000	11.50"	4000	65
		60700	3,6,12,14,16	MP400/C/BU	Coated Base Up	1/6	M59/O	34000	22000	20000	11.50"	3700	70
		108296	3,4,5,6,12,13,14,18	MP400/BU/PS	Clear Base Up	1/6	M155/O M135/O	41000	33000	20000	11.50"	4000	65
		60502	3,6,12,14,16,25	MP400/BU/CSTF	Clear Base Up CoverShield®	1/6	M59/O	36000	23500	20000	11.50"	4000	65
450 WATT													
ED37	EX39	60512	X 3,6,12,13,14,18	MP450/BU/PS	Clear Base Up	1/6	M144/O	47000	35000	20000	11.50"	4000	65
575 WATT													
BT37	EX39	60513	X 3,6,12,13,14,18	MP575/BU/PS	Clear Base Up	1/6	M178/O	60000	45000	20000	11.50"	4000	65
750 WATT													
BT37	EX39	60501	3,4,12,14,18	MP750/BU/PS	Clear Base Up	1/6	M149/O	72000	52000	10000	11.50"	4000	65
875 WATT													
BT37	EX39	60514	3,6,12,13,14,18	MP875/BU/PS	Clear Base Up	1/6	M166/O	95000	72000	20000	11.50"	4000	65
1000 WATT													
BT56	EX39	60720	3,12,13,14,18	MP1000/BU	Clear Base Up	1/6	M47/O	110000	88000	10000	15.40"	4000	65

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

HID LAMPS

Metal Halide

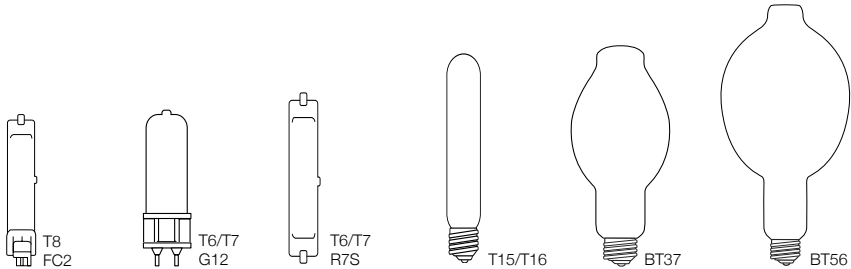


Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
ProLume. Standard Metal Halide													
100 WATT													
ED17	Med.	64818	1,12,16,20,21	MH100UMED/M	Clear Major	1/20	M90/E	8500	4675	12000	5.43"	4000	65
175 WATT													
ED17	Med.	108262	1,12,16,20,21	MH175/U/MED	Clear	1/12	M57/E	15000	9100	10000	5.45"	4000	65
		108264	1,12,16,20,21	MH175/C/U/MED	Coated	1/12	M57/E	14800	8600	10000	5.45"	3700	70
ED28	Mog.	108200	1,12,16,20,21	MH175/U	Clear	1/12	M57/E	15200	9100	10000	8.25"	4000	65
		108202	1,12,16,20,21	MH175/C/U	Coated	1/12	M57/E	14800	8600	10000	8.25"	3700	70
250 WATT													
ED28	Mog.	108204	1,12,16,20,21	MH250/U	Clear	1/12	M58/E	21000	13700	10000	8.25"	4000	65
		108206	1,12,16,20,21	MH250/C/U	Coated	1/12	M58/E	20000	13000	10000	8.25"	3700	70
ED28	Mog.	108604	1,12,16,20,21,25	MH250/U/CSTF	Clear CoverShield®	1/12	M58/E	21000	13700	10000	8.25"	4000	65
	POMB	60303	X 1,8,12,16,18	MH250/HOR	Clear Horizontal	1/12	M58/E	23000	15000	10000	8.25"	4000	65
		60302	X 1,8,12,16,18	MH250/C/HOR	Coated Horizontal	1/12	M58/E	22000	14300	10000	8.25"	3700	70
T15	Mog.	108220	1,12,16,20,21	MH250/HBU/T15	Clear Horizontal Base Up	1/12	M58/E	21000	14500	10000	8.30"	4000	65
360 WATT													
ED37	Mog.	108212	\$ 1,6,7,8,12,14,16,24	MH360/BU/ES	Clear Base Up Energy Saver	1/6	M165/E M59/E	36000	23000	20000	11.50"	4000	65
400 WATT													
BT37	Mog.	64450	1,6,12,15	MS400/BU	Clear Base Up Major	1/6	M59/E	42000	27000	20000	11.50"	4000	65
ED18	Mog.	108218	1,6,12,15	MH400/HBU/ED18	Clear Horizontal Base Up	1/12	M59/E	36000	23000	20000	9.75"	4000	65
ED28	Mog.	108216	1,6,12,16,20,21	MH400/U/ED28	Clear	1/12	M59/E	36000	23000	20000	8.25"	4000	65
		60201	1,6,12,16,20,21	MH400/C/U/ED28	Coated	1/12	M59/E	34000	22000	20000	8.25"	3700	70
ED37	Mog.	108208	1,6,12,16,20,21	MH400/U	Clear	1/6	M59/E	36000	23000	20000	11.50"	4000	65
		108210	1,6,12,16,20,21	MH400/C/U	Coated	1/6	M59/E	34000	22000	20000	11.50"	3700	70
		108600	1,6,12,16,20,21,25	MH400/U/CSTF	Clear CoverShield®	1/6	M59/E	36000	23000	20000	11.50"	4000	65
	POMB	60301	X 1,6,8,12,16,18	MH400/C/HOR	Coated Horizontal	1/6	M59/E	36800	23900	20000	11.50"	3700	70
1000 WATT													
BT37	Mog.	108226	1,12,16,20,21,18	MH1000/U/BT37	Clear	1/6	M47/E	110000	71000	12000	11.50"	4000	65
BT56	Mog.	108222	1,12,16,20,21,18	MH1000/U	Clear	1/6	M47/E	110000	71000	12000	15.40"	4000	65
1500 WATT													
BT56	Mog.	837405	1,12,15	MH1500/HBU	Clear Base Up/ Horizontal Major	1/6	M48/E	165000	140000	3000	15.40"	3900	65
		108214	1,12,14,18	MH1500/BU	Clear Base Up	1/6	M48/E	161000	136000	3000	15.40"	3400	65

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

HID LAMPS

Metal Halide



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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ProLume® Single Ended Metal Halide

70 WATT

T6	G12	108434	1,2,11,12,18,23	MH70SE/UVS/3K	Clear UV-Stop	1/24	M85/E	5600	3600	10000	4.30"	3200	70
		108428	1,2,11,12,18,23	MH70SE/UVS/4K	Clear UV-Stop	1/24	M85/E	5600	3600	10000	4.30"	4200	70

150 WATT

T7	G12	108430	1,2,11,12,18,23	MH150SE/UVS/3K	Clear UV-Stop	1/24	M81/E	14000	10500	10000	4.30"	3200	65
		108432	1,2,11,12,18,23	MH150SE/UVS/4K	Clear UV-Stop	1/24	M81/E	14000	10500	10000	4.30"	4200	65

ProLume® Double Ended Metal Halide

70 WATT

T6	R7S	108402	1,2,12,18,23	MH70DE/UVS/3K	Clear UV-Stop	1/24	M85/E	5600	3400	10000	4.65"	3000	70
		108400	1,2,12,18,23	MH70DE/UVS/4K	Clear UV-Stop	1/24	M85/E	5600	3600	10000	4.65"	4000	70

100 WATT

T7	R7S	108408	X 1,2,12,18,23	MH100DE/UVS/3K	Clear UV-Stop	1/24	M91/E	8000	4680	10000	4.65"	3000	70
		108406	X 1,2,12,18,23	MH100DE/UVS/4K	Clear UV-Stop	1/24	M91/E	8000	5200	10000	4.65"	4000	70

150 WATT

T7	R7S	108412	X 1,2,12,18,23	MH150DE/UVS/3K	Clear UV-Stop	1/24	M81/E	12000	8400	10000	5.37"	3000	70
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250 WATT

T8	FC2	108414	1,12,18,23	MH250DE/4K	Clear	1/24	M80/E	20000	13000	8000	6.42"	4200	70
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ProLume® Color Metal Halide

150 WATT

T7	R7S	108422	X 1,2,12,18,23	MH150DE/UVS/BDX	Blue UV-Stop	1/24	M81/E	-	-	8000	3.37"	-	-
		108424	X 1,2,12,18,23	MH150DE/UVS/GDX	Green UV-Stop	1/24	M81/E	-	-	8000	3.37"	-	-
		108426	X 1,2,12,18,23	MH150DE/UVS/MDX	Magenta UV-Stop	1/24	M81/E	-	-	8000	3.37"	-	-

400 WATT

BT37	Mog.	61001	X 1,13,17,21,19	MH400/BU/BDX	Blue	1/6	M59/E	-	-	5000	11.50"	-	-
		61002	X 1,13,17,21,19	MH400/BU/GDX	Green	1/6	M59/E	-	-	5000	11.50"	-	-

1000 WATT

BT56	Mog.	61004	X 1,12,16,20,18	MH1000/BU/BDX	Blue	1/6	M47/E	-	-	5000	15.37"	-	-
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ProLume® Aquarium Metal Halide

150 WATT

T7	R7S	108420	X 1,2,12,18	MH150DE/UVS/10K	Clear UV-Stop	1/24	M81/E	9000	-	8000	5.37"	10000	80
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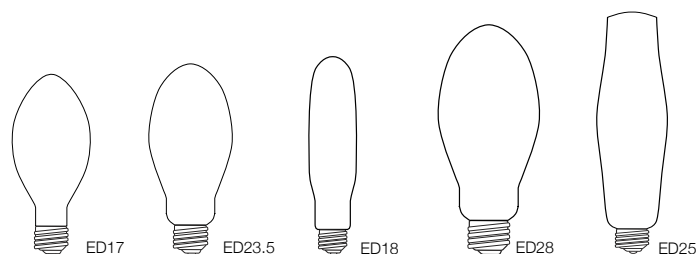
400 WATT

T15	Mog.	108416	1,12,18	MH400/U/T15/10K	Clear	1/12	M59/E	25000	-	10000	9.76"	10000	90
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HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

HID LAMPS

High Pressure Sodium

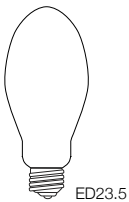


Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
ProLume. High Pressure Sodium													
35 WATT													
ED17	Med.	108102	10,13,15	LU35/MED/ECO	Clear	1/12	S76	2200	1980	24000	5.45"	2000	20
		108103	X 10,13,15	LU35/MED/D	Diffused	1/12	S76	2000	1800	24000	5.45"	2000	20
50 WATT													
ED17	Med.	108104	10,13,15	LU50/MED/ECO	Clear	1/12	S68	3800	3420	24000	5.45"	2000	20
		108105	X 10,13,15	LU50/MED/D	Diffused	1/12	S68	3400	3060	24000	5.45"	2000	20
ED23.5	Mog.	208120	10,13,15	LU50/ECO	Clear	1/12	S68	3800	3420	24000	7.75"	2000	20
		208121	X 10,13,15	LU50/D	Diffused	1/12	S68	3400	3060	24000	7.75"	2000	20
70 WATT													
ED17	Med.	108106	10,13,15	LU70/MED/ECO	Clear	1/12	S62	6000	5400	24000	5.45"	2000	20
ED23.5	Mog.	208122	10,13,15	LU70/ECO	Clear	1/12	S62	6000	5400	24000	7.75"	2000	20
		208123	X 10,13,15	LU70/D	Diffused	1/12	S62	5500	4950	24000	7.75"	2000	20
100 WATT													
ED17	Med.	108108	10,13,15	LU100/MED/ECO	Clear	1/12	S54	9000	8100	24000	5.45"	2000	20
		108109	X 10,13,15	LU100/MED/D	Diffused	1/12	S54	8100	7290	24000	5.45"	2000	20
ED23.5	Mog.	208124	10,13,15	LU100/ECO	Clear	1/12	S54	9000	8100	24000	7.75"	2000	20
		208125	X 10,13,15	LU100/D	Diffused	1/12	S54	8100	7290	24000	7.75"	2000	20
150 WATT													
ED17	Med.	108110	10,13,15	LU150/MED/ECO	Clear	1/12	S55	15000	13500	24000	5.45"	2000	20
		108111	X 10,13,15	LU150/MED/D	Diffused	1/12	S55	13500	12150	24000	5.45"	2000	20
ED23.5	Mog.	208126	10,13,15	LU150/ECO	Clear	1/12	S55	15000	13500	24000	7.75"	2000	20
ED28	Mog.	64002	10,13,15	LU150/100/ECO	Clear	1/12	S55	15000	13500	24000	8.98"	2000	20
200 WATT													
ED18	Mog.	208128	10,13,15	LU200/S66/ECO	Clear	1/12	S66	22000	19800	24000	9.75"	2000	20
250 WATT													
ED18	Mog.	208130	10,13,15	LU250/ECO	Clear	1/12	S50	28000	25200	24000	9.75"	2000	20
400 WATT													
ED18	Mog.	208132	10,13,15	LU400/ECO	Clear	1/12	S51	48000	43200	24000	9.75"	2000	20
1000 WATT													
ED25	Mog.	279547	10,13,15	LU1000/ECO	Clear	1/6	S52	130000	117000	24000	15.08"	2000	20

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

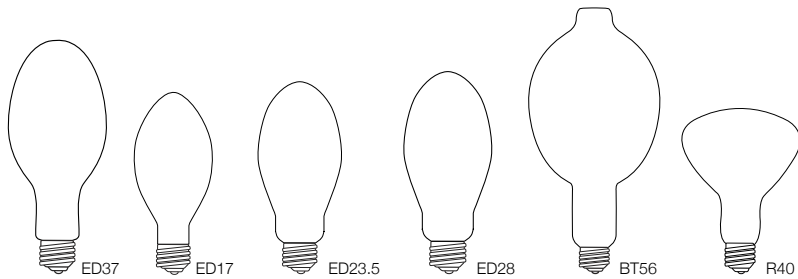
HID LAMPS

High Pressure Sodium



Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
ProLume High Pressure Sodium Non-Cycling													
70 WATT													
ED23.5 Mog.		64500	† 10,13,15	LU70/NC	Clear Non-Cycling	1/12	S62	6300	5670	20000	7.75"	2000	>20
100 WATT													
ED23.5 Mog.		64502	† 10,13,15	LU100/NC	Clear Non-Cycling	1/12	S54	10500	9500	20000	7.75"	2000	>20
150 WATT													
ED23.5 Mog.		64504	† 10,13,15	LU150/NC	Clear Non-Cycling	1/12	S55	16000	14400	20000	7.75"	2000	>20
250 WATT													
ED23.5 Mog.		64506	† 10,13,15	LU250/NC	Clear Non-Cycling	1/12	S50	32000	28800	20000	9.75"	2000	>20
ProLume High Pressure Sodium Stand-By													
70 WATT													
ED23.5 Mog.		64501	† 10,13,15	LU70/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S62	6000	5670	48000	7.75"	2000	>20
100 WATT													
ED23.5 Mog.		64503	† 10,13,15	LU100/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S54	9600	8600	48000	7.75"	2000	>20
150 WATT													
ED23.5 Mog.		208402	† 10,13,15	LU150/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S55	15000	13500	48000	7.75"	2000	20
200 WATT													
ED23.5 Mog.		64505	† 10,13,15	LU200/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S66	22000	19800	48000	9.75"	2100	>20
250 WATT													
ED23.5 Mog.		64507	† 10,13,15	LU250/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S50	28000	25200	48000	9.75"	2000	>20
400 WATT													
ED23.5 Mog		208400	10,13,15	LU400/SBY/LL	Clear Stand-by Twin Arc Tube	1/12	S51	48000	43200	48000	9.75"	2000	20
		64508	† 10,13,15	LU400/NC	Clear Stand-by Twin Arc Tube	1/12	S51	53500	48000	20000	9.75"	2000	>20

HID lamp symbols, footnotes and abbreviations are located on pages 111-114.



HID LAMPS

Mercury Vapor

Bulb	Base	Product Number	Footnotes	Product Code	Description	Pkg. Qty.	ANSI	Initial Lumens	Mean Lumens	Avg. Life	MOL	Color Temp.	CRI
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ProLume. Mercury Vapor

50 WATT

ED17	Med.	108302	17,19,21	MV50DX	Deluxe White	1/12	H46	1600	1280	6000	5.45"	4000	45
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75 WATT

ED17	Med.	108304	17,21	MV75DX	Deluxe White	1/12	H43	2700	2250	12000	5.45"	4000	45
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100 WATT

ED17	Med.	108306	17,21	MV100DX	Deluxe White	1/12	H38	4600	3600	24000	5.45"	4000	45
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ED23.5	Mog.	108308	17,21	MV100DXMOG	Deluxe White	1/12	H38	4600	3600	24000	7.50"	4000	45
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175 WATT

ED28	Mog.	108332	21	MV175CL	Clear	1/12	H39	7800	7250	24000	8.50"	5800	25
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		108310	17,21	MV175DX	Deluxe White	1/12	H39	8500	6900	24000	8.50"	4000	45
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250 WATT

ED28	Mog.	108334	21	MV250CL	Clear	1/12	H37	12800	10535	24000	8.50"	5800	25
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		108312	17,21	MV250DX	Deluxe White	1/12	H37	13500	11100	24000	8.50"	4000	45
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400 WATT

ED37	Mog.	108336	21	MV400CL	Clear	1/6	H33	22000	18900	24000	10.38"	5800	25
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		108314	17,21	MV400DX	Deluxe White	1/6	H33	23000	19100	24000	10.38"	4000	45
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1000 WATT

BT56	Mog.	869331	9,17,21	MV1000DX	Deluxe White Major	1/6	H36	58000	48500	24000	15.38"	4000	45
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ProLume. Mercury Vapor Reflector

100 WATT

R40	Med.	108350	17	MV100DX/R40	Deluxe White Reflector	1/12	H38	2450	2000	16000	6.89"	5800	45
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175 WATT

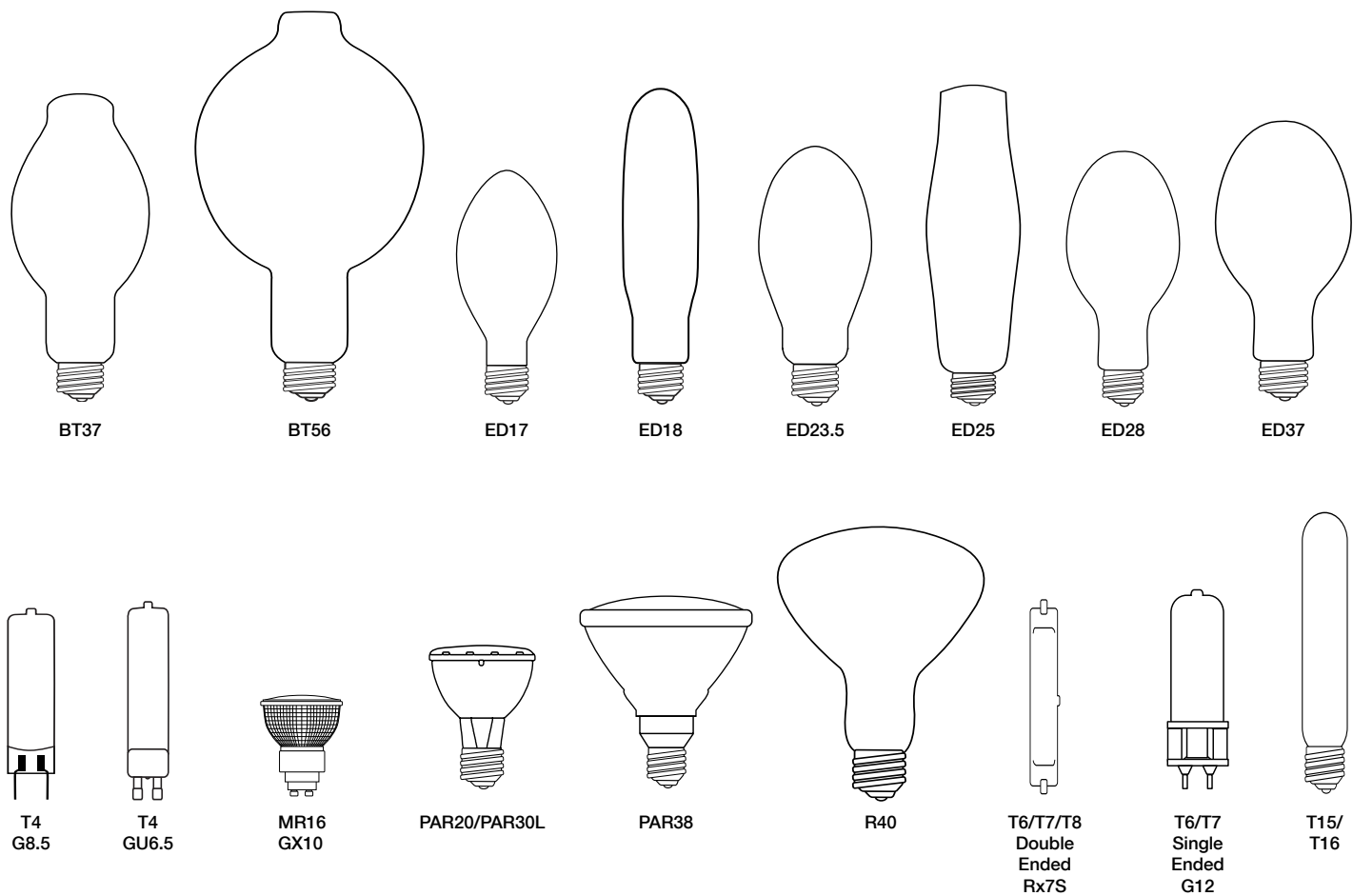
R40	Med.	108356	17	MV175DX/R40	Deluxe White Reflector	1/12	H39	6200	4900	24000	6.89"	5800	45
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HID lamp symbols, footnotes and abbreviations are located on pages 111-114.

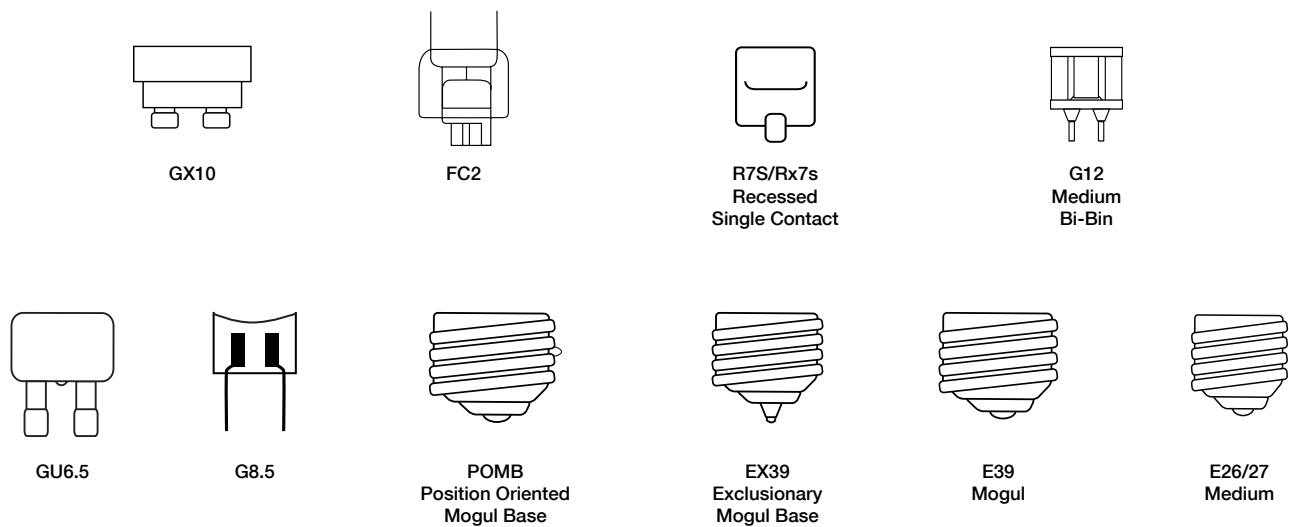
HID LAMPS

Bulb and Base Identification Guide

Bulb Shapes



Base Types



HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
CDM	CMH®	MasterColor®	Powerball®	
CDM20/MR16NFL/830/GX10	CMH20/MR16/830/FL	-	-	C156
CDM20/P20/FL/830	CMH20/PAR20/FL	-	-	C156
CDM20/P20/SP/830	CMH20/PAR20/SP	-	-	C156
CDM20/T6/830	CMH20/T/U/G12	-	-	C156/E
CDM20/TC/830	CMH20/TC/U/830/G8.5	-	MC20TC/U/G8.5/830	C156/E
CDM20/TC/830/GU6.5	CMH20/TC/U/830/GU6.5	-	-	C/M-130/E
CDM35/P20/SP/830	CMH39/PAR20/830/SP10	CDM35/PAR20/M/SP3K	MCP39PAR20/U/830/SP	C/M-130/O
CDM35/P20/FL/830	CMH39/PAR20/830/FL30	CDM35/PAR20/M/FL3K	MCP39PAR20/U/830/FL	C/M-130/O
CDM35/P30L/SP/830/M	CMH39/PAR30L/830/SP10	CDM35/PAR30L/M/SP	MCP39PAR30LN/U/830/SP	C/M-130/O
CDM35/P30L/FL/830	CMH39/PAR30L/830/FL25	CDM35/PAR30L/M/FL	MCP39PAR30LN/U/830/FL	C/M-130/O
CDM35/T6/830	CMH39/T/U/830/G12	CDM35/T6/830	MC39T6/U/G12/830	C/M-130/E
CDM35/TC/830	CMH39/TC/U/830/G8.5	CDM35/TC/830	MC39TC/U/G8.5/830	C/M-130/E
CDM35/TC/830/GU6.5	-	CDM35/TC/830/GU6.5	-	C/M-130/E
CDM35/TD/830	-	CDM70/TD/830	-	C/M-130/E
CDM70/P30L/SP/830	CMH70/PAR30L/830/SP15	CDM70/PAR30L/M/SP	MCP70PAR30LN/U/830/SP	C/M-98/O C/M-139/O
CDM70/P30L/FL/830	CMH70/PAR30L/830/FL40	CDM70/PAR30L/M/FL	MCP70PAR30LN/U/830/FL	C/M-98/O C/M-139/O
CDM70/P30L/SP/942	-	CDM70/PAR30L/M/SP/4K	-	C/M-98/O C/M-139/O
CDM70/P30L/FL/942	-	CDM70/PAR30L/M/FL/4K	-	C/M-98/O C/M-139/O
CDM70/P38/SP/830	CMH70/PAR38/830/SP15	CDM70/PAR38/M/SP	-	C/M-98/O C/M-139/O
CDM70/P38/FL/830	CMH70/PAR38/830/FL25	CDM70/PAR38/M/FL	-	C/M-98/O C/M-139/O
CDM70/P38/FL/942	-	CDM70/PAR38/M/FL/4K	-	C/M-98/O C/M-139/O
CDM70/T6/830	-	CDM70/T6/830	-	C/M-98/E C/M-139/E
CDM70/T6/942	-	CDM70/T6/942	-	C/M-98/E C/M-139/E
CDM70/TC/830	CMH70/TC/U/830/G8.5	CDM70/TC/830	MC70TC/U/G8.5/830	C/M-98/E C/M-139/E
CDM70/TD/830	CMH70/TD/830/RX7s	CDM70/TD/830	MC70T6/DE/830	M85/E C/M-139/E
CDM70/U/830/MED	CMH70/C/U/830/MED/O	MHC70/C/U/M/3K/ALTO	MCP70/C/U/MED/830	C/M-98/E C/M-139/E
CDM100/P38/FL/830/M	CMH100/PAR38/830/FL25	CDM100/PAR38/FL/3K/ALTO	MCP100PAR38/U/FL/830/ECO	M90/O M140/O
CDM100/P38/SP/830/M	CMH100/PAR38/830/SP15	CDM100/PAR38/SP/3K/ALTO	MCP100PAR38/U/SP/830/ECO	M90/O M140/O
CDM150/T6/830	CMH150/T/U/830/G12	CDM150/T6/830	MC150T6/U/G12/830	C/M-102/E C/M-142/E
CDM150/T6/942	CMH150/T/U/942/G12	CDM150/T6/942	MC150T6/U/G12/942	C/M-102/E C/M-142/E
CDM150/TD/830	CMH150/TD/830/Rs7s	CDM150/TD/830	MC150T6/DE/830	M81/E C/M-102/E C/M-142/E
CDM150/U/830/MED	CHM150/U/830/MED/O	MHC150/U/MP/3K/ALTO	MCP150/U/MED/830	C/M-102/E C/M-142/E

HID LAMPS

Cross Reference Guide

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
Metal Halide	Multi-Vapor®	Metal Halide	Metalarc®	
MH50/U/MED/PS	MXR50/U/MED/O	MH50/U/M	MP50/U/MED	M110/E
MH50/C/U/MED/PS	MXR50/C/U/MED	MH50/C/U/M	MP50/C/U/MED	M110/E
MH70/U/MED/PS	MXR70/U/MED	-	MP70/U/MED	M98/E
MH70/C/U/MED/PS	MXR70/C/U/MED	-	MP70/C/U/MED	M98/E
MH70DE/UVS/3K	ARC70/TD/UVS/730	CDM70/TD/830	HQI-DE70/WDX	M85/E
MH70DE/UVS/4K	ARC70/TD/UVS/743	MHN70/TD/840	HQI-DE70/NDX	M85/E
MH70SE/UVS/3K	CMH70/T/U/830/G12	CDM70/T6/830	-	M85/E
MH70SE/UVS/4K	CMH70/T/U/943/G12	CDM70/T6/942	-	M85/E
MH100/U/MED/PS	MXR100/U/MED	-	MP100/U/MED	M90/E
MH100/C/U/MED/PS	MXR100/C/U/MED	-	MP100/C/U/MED	M90/E
MH100/U/MOG/PS	-	-	-	M90/E
MH125/HBU/MED/PS	-	-	-	M150/E
MH150/U/MED/PS	MXR150/U/MED	MP150/U/MED	-	M102/E
MH150/U/PS	-	-	-	M102/E
MH150DE/UVS/10K	-	-	-	M81/E
MH150DE/UVS/3K	ARC150/TD/UVS/730	MHN150/TD/840	HQI-DE150/WDX	M81/E
MH150DE/UVS/4K	ARC150/TD/UVS/742	-	HQI-DE150/NDX	M81/E
MH150DE/UVS/BDX	-	-	-	M81/E
MH150DE/UVS/GDX	-	-	-	M81/E
MH150SE/UVS/3K	ARC150T/U/830G12	-	-	M81/E
MH150SE/UVS/4K	ARC150T/U/840G12	-	HQI-SE150/NDX	M81/E
MH175/BU/PS	MVR175/VBU/PA	MS175/BU/PS	MS175/PS/BU-ONLY	M152/E-M137/E
MH175/BU/MED/PS	MVR175/VBU/MED/PA	MS175/BU/PS	MS175/PS/BU	M152/E-M137/E
MH175/HBU/PS	MVR175/VBU/PA	-	-	M152/E-M137/E
MH175/U	MVR175/U	MH175/U	M175/U	M57/E
MH175/U/MED	MVR175/U/MED	MH175/U/M	M175/U/MED	M57/E
MH175/C/U	MVR175/C/U	MH175/C/U	M175/C/U	M57/E
MH175/C/U/MED	MVR175/C/U/MED	MH175/C/U/M	M175/C/U/MED	M57/E
MH200/BU/PS	-	-	MS200/PS/BU-ONLY/BT28	M136/E
MH200/C/BU/PS	-	-	MS200/C/PS/BU/BU-ONLY/BT28	M136/E
MH250/HBU/T15	-	-	-	M58/E
MH250/HBU/PS	MVR250/VBU/PA	MS250/BU/PS	MP250/PS/BU-ONLY	M153/E-M138/E
MH250/BU/PS	MVR250/VBU/PA	MS250/BU/PS	MP250/PS/BU-ONLY	M153/E-M138/E
MH250/C/BU/PS	MVR250/C/VBU/PA	-	MP250/C/PS/BU-ONLY	M153/E-M138/E
MH250/C/U	MVR250/C/U	MS250/C/U	M250/C/U	M58/E
MH250/U	MVR250/U	MH250/U	M250/U	M58/E

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
Metal Halide	Multi-Vapor®	Metal Halide	Metalarc®	
MH250DE/4K	-	-	-	M80/E
MH320/VBU/PS	MVR320/VBU/HO/PA	MS320/BU/PS	MS320/PS/BU	M154/E-M132/E
MH320/HBU/PS	MVR320/HOR/PA	MS320/PS/U	M320/PS/BU-HOR	M154/E-M132/E
MH320/BU/PS	MVR320/VBU/XHO/PS	MS320/U/PS	MP320/350/PS/BU-ONLY/BT28	M154/E-M132/E
MH320/C/BU/PS	MVR320/C/VBU/XHO/PS	MS320/C/U/PS	MS320/C/PS/BU-HOR	M154/E-M132/E
MH350/BU/PS	MVR350/VBU/XHO/PA	MS350/BU/PS	MP350/400/PS/BU-ONLY	M131/E
MH360/BU/ES	MVR360/VBU/WM/HO	-	-	M165/E-M59/E
MH400/BU/PS	MVR400/VBU/HO/PA	MS400/BU/PS	MS400/PS/BU-ONLY	M155/E-M135/E
MH400/BU/LU	MVR400/VBR/R	-	-	S51/E
MH400/HBU/ED18	-	-	-	M59/E
MH400/U	MVR400/U	MH400/U	M400/U	M59/E
MH400/U/ED28	MVR400/U/ED28	MH400/U/ED28	M400/U/BT28	M59/E
MH400/U/ED28/PS	MVR400/HOR/ED28/PA	-	M400/PS/U/BT28	M155/E-M135/E
MH400/U/PS	MVR400/HOR/PA	MS400/HOR/PS	M400/PS/U	M155/E-M135/E
MH400/U/T15/10K	-	-	-	M59/E
MH400/C/U	MVR400/C/U	MH400/C/U	M400/C/U	M59/E
MH400/C/U/ED28	MVR400/C/U/ED28	MH400/U/ED28	M400/C/U/BT28	M59/E
MH450/BU/PS	-	-	-	M144/E
MH875/U/PS	-	-	-	M166/E
MH1000/U	MVR1000/U	MH1000/U	M1000/U	M47/E
MH1000/U/PS	MVR1000/U/BT37/PA	M1000/PS/U/BT37	MS1000/BU/BT37/PS	M141/E
MH1000/U/BT37	MVR1000/U/BT37	M1000/U/BT37	MH1000/U/BT37	M47/E
MH1500/BU	MVR1500/HBU	MH1500/U	M1500/BU-HOR	M48/E
MP50/C/U/MED/PS	MXR50/C/U/MED/O	-	MP50/C/U/MED	M110/O
MP50/U/MED/PS	MXR50/U/MED/O	-	MP50/U/MED	M110/O
MP70/C/U/MED/PS	MXR70/C/U/MED/O	-	MP70/C/U/MED	M98/O
MP100/U/MED/PS	MXR100/U/MED/O	-	MP100/U/MED	M90/O
MP150/U/MED/PS	MXR150/U/MED/O	-	MP150/U/MED	M102/O
MP150/C/U/MED/PS	MXR150/C/U/MED/O	MP150/C/U/MED	-	M102/O
MP175/BU	MPR175/VBU/O	MP175/BU	MP175/BU-ONLY	M57/O
MP175/BU/PS	MPR175/VBU/O	MP175/BU	MP175/BU-ONLY	M152/O-M137/O
MP175/U/MED	-	-	MP175/BU-ONLY/MED	M57/O
MP200/BU/PS	-	-	-	M136/O
MP200/C/BU/PS	-	-	-	M136/O
MP250/BU	MPR250/VBU/O	MP250/BU	MP250/BU-ONLY	M58/O
MP250/BU/PS	-	-	MP250/PS/BU-ONLY	M153/O-M138/O
MP250/C/BU	MPR250/C/VBU/O	-	MP250/C/BU-ONLY	M58/O
MP250/C/BU/PS	-	-	MP250/C/PS/BU-ONLY	M153/O-M138/O

HID LAMPS

Cross Reference Guide

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
Metal Halide	Multi-Vapor®	Metal Halide	Metalarc®	
MP320/BU/PS	MPR320/VBU/XHO/PA	MP320/BU/PS	MP320/350/PS/BU-ONLY/BT28	M154/O-M132/O
MP320/C/BU/PS	MPR320/C/VBU/XHO/PA	MP320/C/BU/PS	MP320/350/C/PS/BU-ONLY/BT28	M154/O-M132/O
MP360/BU/ES	MPR360/VBU/WM/HO/O	MP360/BU/EW	MSP360/SS/BU-ONLY	M59/O or M165/O
MP400/BU	MVT400/VBU	MHT400/U	MPT400/BU	M59/O
MP400/BU/PS	-	-	-	M155/O-M135/O
MP400/C/BU	MVT400/C/VBU	MHT400/C/U	MPT400/C/BU	M155/O-M135/O
MP450/BU/PS	-	-	-	M144/O
MP575/BU/PS	-	-	-	M178/O
MP750/BU/PS	-	-	MP750/BU/PS	M149/O
MP875/BU/PS	-	-	-	M166/O
MP1000/BU	MPR1000/VBU/O	MP1000/BU	MP100/BU-ONLY	M47/O
H.P.S.	Lucalox™	Ceramalux®	Lumalux®	
LU35/MED/ECO	LU35/MED	C35S76/M	LU35/MED	S76
LU50/ECO	LU50	C50S68/ALTO	LU50/ECO	S68
LU50/MED/ECO	LU50/MED	C50S68/M	LU50/MED	S68
LU70/ECO	LU70	C70S62/ALTO	LU70/D	S62
LU70/MED/ECO	LU70/MED	C70S62/M	LU70/MED	S62
LU100/ECO	LU100/D	C100S54/ALTO	LU100/D	S54
LU100/MED/ECO	LU100/MED	C100S54/M	LU100/MED	S54
LU150/ECO	LU150/55/D	C150S55/M	LU150/55/D	S55
LU150/100/ECO	LU150/100	C150S56/ALTO	LU150/100	S56
LU150/MED/ECO	LU150/MED	C150S55/D/M	LU150/55/MED	S55
LU150/SBY/LL	LU150/55/SBY/XL	C150S55/2	LU150/55/SBY	S55
LU200/S66/ECO	LU200	C200S66/ALTO	LU200/ECO	S66
LU250/ECO	LU250/D	C200S50/ALTO	LU250/D	S50
LU400/ECO	LU400/D	C400S51/D/ALTO	LU400/D	S51
LU400/SBY/LL	LU400/SBY/XL	C400S51/2	LU400/SBY	S51
LU1000/ECO	LU1000	C1000S52/ALTO	LU1000	S52
Mercury Vapor				
MV1000DX	HR1000DX36	M36GW-1000/DX	H36GW-1000/DX	H36
MV100DX	HM100DX38/MED	H38MP-100/DX	H38AV-100/DX	H38
MV100DX/R40	HR100RDXFL38	H38BP-100/DX	H38BP-100/DX	H38
MV100DXMOG	HR100DX38	H38JA-100/DX	H38JA-100/DX	H38
MV175CL	HR174A39	H39KB-175	H39KB-175	H39

HALCO	G.E.	PHILIPS	OSRAM/SYLVANIA	ANSI
Mercury Vapor				
MV175DX	HR175DX39	H39KC-175/DX	H39KC-175/DX	H39
MV175DX/R40	HR175RDXFL39	H39BP-175/DX	H39BP-175/DX	H39
MV250CL	HR250A37	H37KB-250	H37KB-250	H37
MV250DX	HR250DX37	H37KC250/DX	H37KC-250/DX	H37
MV400CL	HR400A33	H33CD-400	H33CD-400	H33
MV400DX	HR400DX33	H33GL-400/DX	H33GL-400/DX	H33
MV50DX	HR40/50DX45-46	H46DL-40-50/DX	H45/46DL-40/50/DX	H46
MV75DX	HR75DX43	H43AV-75/DX	H43AV-75/DX	H43

- CMH, Multi-Vapor and Lucalox are registered trademarks of General Electric.
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- PowerBall, Metalarc, and Lumalux are registered trademarks of Osram/Sylvania.

HID LAMPS

General Information and Warning Notices

Metal Halide and Mercury Vapor Lamp Warning:

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

Fixture Requirements-Lamp Enclosure Type

HID lamps have fixture requirements that have to be followed. The following codes identify the appropriate fixture for a particular lamp.

O = Open or Enclosed Fixtures **E** = Enclosed Fixtures Only

Use in Enclosed Fixtures

"Enclosed" fixture means a fixture properly enclosed and designed to contain fragments of hot glass (up to 1100°C) per UL Standard #1598.

If uncertain, contact the fixture manufacturer for more details.

Use in Open Fixtures

For lamps operated in the vertical position $\pm 15^\circ$ that are not designed for "Enclosed Fixtures Only" may be used in either open or enclosed fixtures depending on the environment and application. For instance, if the lamp is positioned by flammable material or in an unoccupied area for extended periods, an enclosed fixture which can contain fragments of hot quartz or glass is recommended.

Protection of Bulbs from Moisture

The outer glass envelope of HID lamps are made of heat-resistant glass, designed to have both strength and thermal-shock-resistant characteristics appropriate for standard applications in typical luminaires. Nevertheless, it is necessary to provide shielding for lamps to avoid bulb breakage that may result from direct contact with liquids during operation.

Metal Halide Lamps

Fixture lens/diffuser material must be able to hold fragments of hot glass (up to 1100°C). If you do not know whether or not the fixture can safely withstand an arc tube rupture, contact fixture manufacturer. In continuously operating systems (24/7), turn lamps off once per week for 15 minutes. **FAILURE TO DO SO INCREASES THE RISK OF RUPTURE.** Fixture should be relamped at or before the lamp's end of rated life. Light output diminishes while energy consumption and risk of rupture increase.

High Pressure Sodium Lamps

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

Mercury Lamps

Fixture lens/diffuser material must be capable of containing fragments of hot glass (up to 1100°C). If you do not know whether your fixture can withstand an arc tube rupture, contact your fixture manufacturer. Relamp fixtures at or before the end of rated life; beyond rated life, light output diminishes while energy consumption and risk of rupture increases. Mercury lamps are not position-sensitive and may be operated in any burning position.

Starting Characteristics

When power is applied, full light does not occur instantaneously, there is a time delay for the lamp to reach 90% total light output.

The delay time for Metal Halide is approximately 2-5 minutes, 3-4 minutes for High Pressure Sodium and 5-7 minutes for Mercury Vapor.

Lumens Listed are Reference Lumens

The rated average lamp lumen is obtained under controlled laboratory conditions in a set burning position. Initial Reference Lumens refer to the lamp lumen output after burning for 100 hours. Mean Reference Lumens refer to the lamp lumen output at the mean lumen point during lamp life. The mean lumen point occurs at 50% rated life for HPS and Mercury Vapor lamps, and at 40% rated life for Metal Halide lamps.

Rated Life

Values based on laboratory tests of a large quantity of representative lamps under controlled conditions, including operation at 10 hours per start on ballasts having specific electrical characteristics. Individual or groups of lamps may vary from the Rated Life given. Lamp operating conditions may also influence life. Where Rated Life is less than 24,000 hours, it is a MEDIAN value or life expectancy; the total operating time at which, under normal operating conditions, 50% of any group of originally installed lamps is expected to be still burning. At burning cycles shorter than 10 hours per start, the median life will shorten as follows:

5 hours start- approximate life of 75% of rating

2 ½ hours start - approximate life of 56% of rating

1 ¼ hours start - approximate life of 42% of rating

HID Color

The color temperature and CRI listed in the tables are for reference purposes only. All HID lamps display some amount of lamp-to-lamp color variation and shift over life. These characteristics may increase depending on choice of fixture, ballast, burning position and ambient conditions. Color difference may be greater than normal during the first 100 hours of burning.

SYMBOLS

†	New product introduced within the past year.
\$	Energy saving product.
X	Product will be discontinued when inventory is depleted.

FOOTNOTES

1	Lamps classified as E-type are used ONLY in suitably enclosed luminaires. See lamp warning.
2	UV-Stop Quartz filtered design.
3	Lamps classified as O-type comply with ANSI standard C78.387 for containment testing and may be used in open luminaires. See lamp warning.
4	When operated on ballasts having a sustaining voltage less than 270 Volts, lamp life may be significantly reduced.
5	Lamps may be operated on ANSI M135 (400W) compliant ballasts.
6	20,000 average rated life based on 10 hrs/start. 30,000 average rated life based on 12 hrs/start.
7	Operates at 360 watts on 400 watt M59 ballast or M165 ballast.
8	Horizontally oriented lamps require a position oriented mogul (POM) socket to accept position oriented mogul base.
9	H34 and H36 lamps are not interchangeable.
10	Follow fixture manufacturer's recommendations regarding proximity of ballast to lamp.
11	Supply voltage must be held to ± 5 volts of rated supply voltage.
12	Color characteristics may vary somewhat from one lamp to another. Time should be allowed for lamp to stabilize in color when it is turned on for the first time or if for any reason its operating position is changed. This may require several hours of operation, with more than one start. Lamp color and output may change temporarily if the lamp is subjected to excess vibration or shock. Lamp color characteristics may change after long accumulated operating time.
13	Use with 4000 Volt pulse-rated sockets only.

HID LAMPS

Symbols, Footnotes and Abbreviations

FOOTNOTES

14	Performance may not be satisfactory unless operated within specified operating positions.
15	For use in fixtures that do not redirect a substantial portion of the energy toward the arc tube; otherwise very early failure is anticipated.
16	Requires ballast that is designed to operate all popular brands of Metal Halide lamps. 1000W types will operate from H36 conventional lag type ballast for Mercury Vapor lamps at ambient temperatures of 50°F or higher. 1000W types must not be operated at 1500W or higher.
17	It is a characteristic of phosphor-coated vapor lamps to require a few hundred hours of operation to gradually reach normal characteristic color. New lamps may have a slight pink appearance during this initial operation period.
18	This product contains less than 120 nCi of Kr-85.
19	For 40W operation use H45 ballast.
20	Rated average life: vertical $\pm 15^\circ$. Other positions 75% of rated life.
21	In general, horizontal lumens will be 5-10% lower than the vertical lumen values.
22	Use electrical ballast, peak lead ballast or system that can shut itself off if ballast overheating occurs.
23	Lamp will operate at 400 watts when used on a linear reactor ballast.
24	Do not operate in aviaries or around fowl or small animals.
25	This lamp meets ANSI specifications for T6 tube size as defined by ANSI C78.43-2007; nominal diameter for this item is 0.75" with a maximum diameter of 1". Halco 150W lamps have an outer glass diameter of 0.87" to increase arc tube reliability. Please ensure fixture dimensions prior to ordering.

ABBREVIATIONS

/3K	Suffix used to indicate Color Temperature of 3500K.
/4K	Suffix used to indicate Color Temperature of 4000K or 4200K.
/10K	Suffix used to indicate Color Temperature of 10,000K.
/BDX	Suffix used to indicate a Blue ProLume® Metal Halide lamp.
BU	Code abbreviation for Base Up Operating lamps.
C	Code abbreviation for lamps with a Coated finish.
CDM	Code abbreviation for Ceramic Metal Halide.
CL	Code abbreviation for lamps with a Clear finish.
/CS	Suffix used to indicate CoverShield® safety coated lamps.
/CSTF	Suffix used to indicate CoverShield® safety coated lamps.
/D	Suffix used to indicate Diffused lamps.
DE	Code abbreviation for Double Ended Metal Halide lamps.
DX	Code abbreviation for ProLume® Deluxe White Mercury Vapor lamps.
/ES	Suffix used to indicate an Energy Saving Metal Halide lamp.
/FL	Suffix used to indicate Flood lamps.
/GDX	Suffix used to indicate a Green ProLume® Metal Halide lamp.
/HBU	Suffix used to indicate Horizontal to Base Up Metal Halide lamps.
/HOR	Suffix used to indicate Horizontal Metal Halide lamps.
/LL	Suffix used to indicate lamps with a Long Life.
LU	Code abbreviation for High Pressure Sodium lamps.
/LU	Suffix used to indicate High Pressure Sodium to Metal Halide retrofit lamp.

HID LAMPS

Symbols, Footnotes and Abbreviations

ABBREVIATIONS

/M	Suffix used to indicate Major brand HID lamps (GE, Philips, Osram/Sylvania).
/MDX	Suffix used to indicate a Magenta ProLume® Metal Halide lamp.
MED	Code abbreviation for Medium base type (E26/27).
MH	Code abbreviation for Metal Halide lamps.
MHC	Code abbreviation for Ceramic Metal Halide lamps.
MV	Code abbreviation for Mercury Vapor lamps.
/MOG	Suffix used to indicate a Mogul base lamp.
MP	Code abbreviation for Protected Metal Halide lamps suitable for open fixture applications.
NC	Suffix used to indicate Non-Cycling High Pressure Sodium lamps.
NFL	Code abbreviation for Narrow Flood lamps.
/SBY	Suffix used to indicate Stand-By Twin Arc Tube lamps.
SE	Code abbreviation for Single Ended Metal Halide lamps.
/SP	Suffix used to indicate Spot lamps.
TC	Code abbreviation for T4 CDM lamps.
U	Code abbreviation for Universal Metal Halide lamps.
/UVS	Suffix used to indicate UV-Stop lamps.