

High Intensity Discharge Lamps

Lamp Watts	Bulb	Base	Product Number 046677-	Ordering Code	ANSI Code/ Ballast Ref.	Pkg. Qty. ●	Description (Operating Position — Universal, unless otherwise indicated)	L.C.L. (In.)	M.O.L. (In.)	Rated Avg. Life Hrs.(351)	Approximate Lumens(352):		CRI	CCT (K)
											Initial	Mean(353)		
Metal Halide Lamps, continued Enclosed Luminaires Only.														
250	ED-28	Mog.	27484-5	MH250/U	M58	12	*G, & St. Ltg., Clear (372)(377)(393)	5	8 ⁵ / ₁₆	10,000	20,500	13,500	65	4000
			29169-0	MH250/C/U	M58	12	*G, & St. Ltg., Phos. Coated (372)(377)(393)	N/A	8 ⁵ / ₁₆	10,000	19,475	12,500	70	3700
			31137-3	MH250/3K/BU	M58	12	*G, BU ± 15° Phos. Coated (372)(374)(377)	N/A	8 ¹ / ₄	10,000	18,000	11,300	70	3200
	POMB	28652-6	MS250/HOR	M58	12	*G, S, Hor. ± 45° Clear (372)(374)(377)	5	8 ¹ / ₄	10,000	23,000	13,800	65	4300	
		28654-2	MS250/C/HOR	M58	12	*G, Hor. ± 45° Phos. Coated (372)(374)(377)	N/A	8 ¹ / ₄	10,000	21,850	12,700	70	3800	
	T-15	Mog.	33382-3	MH250/T15	M58	12	*G, Clear, (372)(374)(377)(385)	5 ³ / ₄	9 ¹ / ₄	10,000	21,000	16,800	65	4000
400	ED-28	Mog.	27862-2	MH400/U/ED28	M59	12	*G, Clear (372)(377)(385)(393)	5	8 ⁵ / ₁₆	20,000	36,000	24,000	65	4000
			24673-6	MS400/BU/ED28	M59	12	*G, Clear (372)(374)(377) Base Up ± 15°	5	8 ⁵ / ₁₆	20,000	40,000	26,000	65	4000
	ED-37	POMB	28655-9	MS400/HOR	M59	6	*G, S, Hor. ± 45° Clear (372)(374)(377)	7	11 ¹ / ₂	20,000	40,000	25,000	65	4300
	POMB†	26446-5	MS400/HOR/5K	M59	6	*G, S, Hor. ± 45° Clear (372)(374)(377)	7	11 ¹ / ₂	20,000	40,000	32,000	65	5000	
	POMB	28656-7	MS400/C/HOR	M59	6	*G, Hor. ± 45° Phos. Coated (372)(374)(377)	N/A	11 ¹ / ₂	20,000	38,000	23,500	70	4100	
	ED-37	Mog.	34415-0	MH400/U	M59	6	*G, & St. Ltg., Clear (372)(377)(385)(393)◆	7	11 ¹ / ₂	20,000	36,000	24,000	65	4000
			34416-8	MH400/C/U	M59	6	*G, & St. Ltg., Phos. Coated (372)(377)(385)(393)◆	N/A	11 ¹ / ₂	20,000	34,200	22,300	70	3700
			31285-0	MH400/3K/U	M59	6	*G Phos. Coated (372)(377)(385)◆	N/A	11 ¹ / ₂	20,000	33,000	20,800	70	3200
			30170-5	MS400/BU	M59	6	*High Efficacy, Base Up ± 15° Clear (372)(374)(377)◆	7	11 ¹ / ₂	20,000	40,000	26,500	65	4000
			30172-1	MS400/C/BU	M59	6	*High Efficacy, Base Up ± 15° Phos. Coat. (372)(374)(377)◆	N/A	11 ¹ / ₂	20,000	38,000	24,300	70	3700
			31135-7	MS400/3K/BU	M59	6	*G, BU ± 15° Phos. Coated (372)(374)(377)◆	N/A	11 ¹ / ₂	20,000	36,000	22,700	70	3200
	T-15	Mog. □	23127-4	MH400/T15	M59	12	*G, Clear (372)(377)(385)	5 ³ / ₄	9 ¹ / ₄	10,000	36,000	23,000	65	4000
1000	BT-37	Mog.	32150-5	MH1000/U/BT37	M47	6	*G, Clear, (359)(372)(377)(385)(393)	7	11 ¹ / ₂	10,000	110,000	71,500	65	3700
	BT-56	Mog.	29826-5	MH1000/U	M47	6	*G, & St. Ltg. Clear (372)(377)(385)(393)◆	9 ¹ / ₂	15%	12,000	110,000	71,000	65	3700
			29827-3	MH1000/C/U	M47	6	*G, & St. Ltg. Phos. Coated (372)(377)(385)(393)◆	N/A	15%	12,000	104,500	65,800	70	3400
			25093-6	MS1000/BU	M47	6	*High Efficiency, Base Up ± 15° Clear (372)(374)(377)◆	9 ¹ / ₂	15%	10,000	120,000	78,000	65	3700
			25130-6	MS1000/BD	M47	6	*High Efficiency, Base Down ± 15° Clear (372)(374)(377)◆	9 ¹ / ₂	15%	10,000	120,000	78,000	65	3700
			25137-1	MS1000/C/BU	M47	6	*High Efficiency, Base Up ± 15° Phos. Coated(372)(374)(377)◆	N/A	15%	10,000	115,000	72,500	70	3400
1500	BT-56	Mog.	23028-4	MH1500/BU	M48	6	*G, & St. Ltg. Base Up to Hor. (359)(372)(374)(375)(377)	9 ¹ / ₂	15%	3000(1)	165,000	132,000	65	3700
			23020-1	MH1500/BD	M48	6	*G, & St. Ltg. Base Down to Hor. (359)(372)(374)(375)(377)	9 ¹ / ₂	15%	3000(1)	165,000	132,000	65	3700

□ Exclusive Philips Product
Footnotes located on page 84

POMB - Position Oriented Mogul Base
† New Since Last Printing

◆ Open luminaire if operated vertically ± 15°.

(1) Primarily used for sports-lighting applications at 3-5 hours per start with arc tube in other than vertical position. In vertical position, and at 10 or more hours per start, lamp life is extended to 6000 hours.

HID LAMPS

High Intensity Discharge Lamps

Metal Halide Lamps

General information:

- White light source offers improved color rendition over HPS and all dimmable down to 50%.

Explanation of suffix in ordering code (No suffix = Clear, mogul base):

- /C Coated
- /M Medium Base
- /MP Protected

Burning Position:

- /U Universal
- /BU Base up $\pm 15^\circ$ unless specified otherwise
- /BD Base down $\pm 15^\circ$ unless specified otherwise
- /HOR Horizontal

Descriptive symbols for Metal Halide Lamps:

- MH Metal Halide
- PS Pulse Start
- MS High-Output Metal Halide
- MHT Safety Lifeguard Metal Halide

Lamp illustrations:



Lamp Watts	Bulb	Base	Product Number 046677-	Ordering Code	ANSI Code/ Ballast Ref.	Pkg. Qty.	Description (Operating Position — Universal, unless otherwise indicated)	L.C.L. (In.)	M.O.L. (In.)	Rated Avg. Life Hrs.(351)	Approximate Lumens (352):			CCT (K)
											Initial	Mean (353)	CRI	

Pulse Start Metal Halide Lamps

Enclosed Luminaires Only.

Pulse Start Metal Halide is Designed for Operation on Only Approved Ballasts with Metal Halide Pulse Igniters. It Offers:

- Quicker Start/Restrike (2 Minute Start/4 Minute Restrike Vs. 4 Minute Start/15 Minute Restrike for Standard Metal Halide Lamps)
- Longer Life (15,000–20,000+ Hours)
- Improved Lumen Maintenance (20%) Increase
- Increased Efficacy (up to 110 LPW)

175	ED-28	Mog.	27662-6	MS175/BU/PS	M137	12	*G, BU $\pm 15^\circ$ (372)(374)(391) Pulse-Start	5	8 $\frac{1}{4}$	15,000	16,000	11,200	65	3900
250	ED-28	Mog.	27661-8	MS250/BU/PS	M138	12	*G, BU $\pm 15^\circ$ (372)(374)(391) Pulse-Start	N/A	8 $\frac{1}{4}$	15,000	23,800	16,600	65	4000
320	ED-28	Mog. †	24738-7	MS320/BU/PS	M132	12	*G, Clear (372)(374)(391) BU $\pm 15^\circ$ Pulse-Start	5	8 $\frac{5}{16}$	20,000	31,400	21,900	65	4300
			29182-3	MS320/C/BU/PS	M132	12	*G, Phos. Coated (372)(374)(391) BU $\pm 15^\circ$ Pulse-Start	N/A	8 $\frac{5}{16}$	20,000	29,800	20,300	70	4000
400	ED-37	Mog. †	27816-8	MS400/BU/PS	M135/M128	12	*G, Clear (372)(374)(391) Base Up $\pm 15^\circ$ Pulse-Start	7	11 $\frac{1}{2}$	20,000	44,000	31,000	65	4200
			28362-2	MS400/C/BU/PS	M135/M128	12	*G, Phos. Coated (372)(374)(391) Base Up $\pm 15^\circ$ Pulse-Start	7	11 $\frac{1}{2}$	20,000	41,600	29,120	70	3700
1000	BT-37	Mog.† □	36019-8	MS1000/BU/BT37/PS	M141	6	*G, Clear (372)(374)(391) Base Up $\pm 15^\circ$ Pulse-Start	7	11 $\frac{1}{2}$	12,000	120,000	96,000	65	3800

Metal Halide Lamps Enclosed Luminaires Only.

150	ED-17	Med.	35462-1	MH150/U/M	M107	12	*G, Clear(372)(400)	3 $\frac{7}{16}$	5 $\frac{7}{16}$	10,000	12,500	8500	65	3700
			35463-9	MH150/C/U/M	M107	12	*G, Phos. Coated(372)(400)	N/A	5 $\frac{7}{16}$	10,000	12,000	7900	65	3400
175	ED-17	Med.	31358-5	MH175/U/M	M57	12	*G, Clear(372)(377)(385)(393)	3 $\frac{7}{16}$	5 $\frac{7}{16}$	10,000	13,500	9100	65	4000
			31359-3	MH175/C/U/M	M57	12	*G, Phos. Coated (372)(377)(385)	N/A	5 $\frac{7}{16}$	10,000	13,000	8380	65	3700
			ED-28	Mog.	28733-4	MH175/U	M57	12	*G, & St. Ltg., Clear (372)(377)(385)(393)	5	8 $\frac{5}{16}$	10,000	13,500	8775
	28728-4	MH175/C/U			M57	12	*G, & St. Ltg., Phos. Coated (372)(377)(385)(393)	N/A	8 $\frac{5}{16}$	10,000	13,000	8200	70	3700
	31287-6	MH175/3K/BU			M57	12	*G, BU $\pm 15^\circ$ Phos. Coated (372)(374)(377)	N/A	8 $\frac{1}{4}$	10,000	12,000	7560	70	3200
	24725-4	MS175/BU			M57	12	*G, BU $\pm 15^\circ$ (372)(374)(377)	5	8 $\frac{1}{4}$	10,000	15,000	9400	65	4300
	POMB	28649-2	MS175/HOR	M57	12	*G, Hor. $\pm 45^\circ$ Clear (372)(374)(377)	5	8 $\frac{1}{4}$	10,000	15,000	9000	65	4300	
POMB	28650-0	MS175/C/HOR	M57	12	*G, Hor. $\pm 45^\circ$ Phos. Coated (372)(374)(377)	N/A	8 $\frac{1}{4}$	10,000	14,500	8400	70	4100		

□ Exclusive Philips Product

Footnotes located on page 84

POMB - Position Oriented Mogul Base

† New Since Last Printing

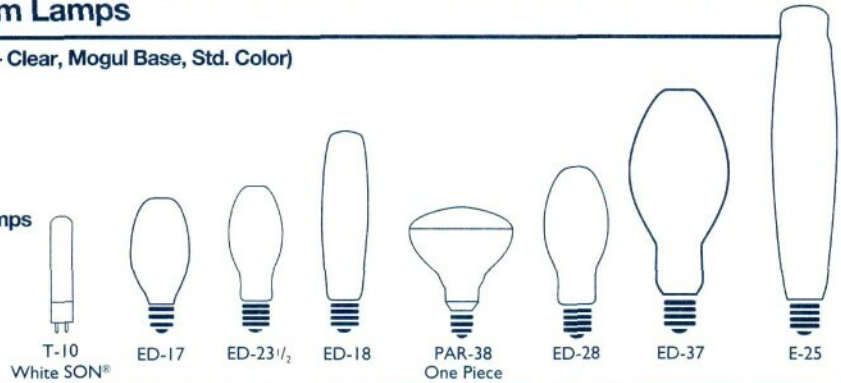
Ceramalux™ High Pressure Sodium Lamps

Explanation of suffix in ordering code. (No suffix — Clear, Mogul Base, Std. Color)

- /C Comfort Color
- /D Diffuse Coated
- /LV Low Volt
- /M Medium Base
- Operating Position — Universal

Descriptive Symbols for High Pressure Sodium Lamps

- G General Lighting
- W Wide Beam
- EW Econ-o-watt®
- S Street Lighting
- VV Very Wide Beam



ALTO® PLUS High Pressure Sodium Lamps—TCLP Compliant

featuring Prompter™ End-of-Life Indicator

TCLP Compliant ALTO PLUS HPS Lamps clearly indicate need for replacement.

- Now 30,000 hours life
- Color change to bluish white is a cue to change the lamp
- Non-cycling end of life operation
- ALTO Lamp Technology passes EPA's TCLP test for non-hazardous waste

Lamp Watts	Bulb	Base	Product Number 046677-	Ordering Code	ANSI Code/ Ballast	Pkg. Qty. •	Description (Operating Position — Universal, unless otherwise indicated)	L.C.L. (In.)	M.O.L. (In.)	Rated Avg. Life Hrs.(351)	Approximate Lumens (352):		CRI	CCT(K)
											Initial	Mean (353)		
70	ED-23½ Mog. ✦ □	52V	36919-9	C70S62/ ALTO/PLUS	S62LG-70	12	*G (360)(373)(376)(399)	5	7¼	30,000+ (354)	6300	5670	21	2100
100	ED-23½ Mog. □	55V	29318-3	C100S54/ ALTO/PLUS	S54SB-100	12	*G (360)(373)(376)(399)	5	7¼	30,000+ (354)	9500	8550	21	2100
150	ED-23½ Mog. □	55V	29319-1	C150S55/ ALTO/PLUS	S55SC-150	12	*G (360)(373)(376)(399)	5	7¼	30,000+ (354)	16,000	14,400	21	2100
200	ED-18 Mog. ✦ □	100V	36920-7	C200S66/ ALTO/PLUS	S66MN-200	12	*G, S (360)(373)(376)	5¼	9¼	30,000+ (354)	22,000	19,800	21	2100
250	ED-18 Mog. □	100V	27664-2	C250S50/ ALTO/PLUS	S50VA-250	12	*G (360)(373)(376)(399)	5¼	9¼	30,000+ (354)	28,500	25,600	21	2100
400	ED-18 Mog. □	100V	27667-5	C400S51/ ALTO/PLUS	S51WA-400	12	*G (360)(373)(376)(399)	5¼	9¼	30,000+ (354)	50,000	45,000	21	2100
1000	ED-25 Mog. □	250V	36018-0	C1000S52/ ALTO/PLUS	S52XB-1000	6	*G, S (359)(360)(362)(373)(376)	8¼	15½	30,000+ (354)	140,000	126,000	21	2100

ALTO® High Pressure Sodium Lamps—TCLP Compliant

- Standard HPS now available in ALTO
- ALTO Lamp Technology passes EPA's TCLP test for non-hazardous waste

50	ED-23½ Mog. † □	52V	36867-0	C50S68/ALTO	S68MS-50	12	G, S (360)(373)(376)	5	7¼	24,000+	4000	3600	21	2100
70	ED-23½ Mog. † □	52V	36869-6	C70S62/ALTO	S62ME-70	12	G, S (360)(373)(376)	5	7¼	24,000+	6300	5670	21	2100
100	ED-23½ Mog. † □	55V	36872-0	C100S54/ALTO	S54SB-100	12	G, S (360)(373)(376)	5	7¼	24,000+	9500	8550	21	2100
150	ED-23½ Mog. † □	55V	36874-6	C150S55/ALTO	S55SC-150	12	G, S (360)(370)(373)(376)	5	7¼	24,000+	16,000	14,400	21	2100
150	ED-28 Mog. † □	100V	36876-1	C150S56/ALTO	S56SD-150	12	G, S (360)(370)(373)(376)	5	8½	24,000+	16,000	14,400	21	2100
200	ED-18 Mog. † □	100V	36877-9	C200S66/ALTO	S66MN-200	12	G, S (360)(373)(376)	5¼	9¼	24,000+	22,000	19,800	21	2100
250	ED-18 Mog. † □	100V	36879-5	C250S50/ALTO	S50VA-250	12	G, S (360)(373)(376)	5¼	9¼	24,000+	28,500	25,600	21	2100
400	ED-18 Mog. † □	100V	36881-1	C400S51/ALTO	S51WA-400	12	G, S (360)(373)(376)	5¼	9¼	24,000+	50,000	45,000	21	2100
1000	E-25 Mog. † □	250V	36883-7	C1000S52/ALTO	S52XB-1000	6	G, S (359)(360)(362)(373)(376)	8¼	15½	24,000+	140,000	126,000	21	2100

† New Since Last Printing

Footnotes located on page 84

□ Features ALTO® Lamp Tech.

□ Exclusive Philips Product

✦ Available Second Quarter, 2000