

# Standard Metal Halide

STANDARD METAL HALIDE LIGHTING SYSTEMS

## Venture is Metal Halide



### The Best Lamps

Venture offers the widest range of standard metal halide products, including North American and European style lamps. With over twenty years of experience, Venture's high quality lamps are used worldwide.

This section provides complete data for North American medium and mogul base 175W, 250W, 400W and 1000W standard (probe start) metal halide lamps.

### For the most complete product listings

and most current up-to-date information, visit us on-line at [www.venturelighting.com](http://www.venturelighting.com)

### The Right Ballast

Venture Lighting Power Systems Group has manufacturing facilities around the globe. Venture designs and manufactures a wide selection of Opti-Wave® ballasts, an integral part of Venture's Uni-Form® pulse start metal halide lighting systems. We also offer reactor, high reactance autotransformer (HX-HPF), CWA and CWI ballasts. Products available in single, dual, tri and quad tap ballasts to cover the lighting voltages of 120V, 208V, 240V, 277V, 347V and 480V.

All ballast specifications are in compliance with North American and international safety, performance and design standards, including U.L., CSA and ANSI. In Europe, all products carry the CE mark, and many of our products carry approval marks, including ENEC, Kitemark and VDE.

### Features:

- Vacuum impregnation for cooler operation of optimized insulation system
- UL Temp Codes equal to or better than the competition
- User-friendly installation - Color coded wires as well as printed labels on the wires make for easy installing - just follow the diagram on each ballast
- The core size to meet your application - same sizes as competitors in the same ballast type
- Dry capacitors rated up to 100° C
- Flexibility: Order kits, prewired ballasts, brackets - all in the configuration that you need
- Thermally protected ballasts available for most pulse start metal halide ballasts

# Lamps

STANDARD METAL HALIDE LIGHTING SYSTEMS

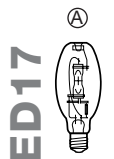
## Standard Metal Halide Lamps

Watts	Lamp Description	Product No.	ANSI Code	Initial Lumens	Lumens Per Watt	Mean Lumens	Avg. Life Hours	CCT (K)	CRI	Finish	Operation Position	Fig.	Case Qty	Luminaire Rating
175	MH 175W/U	88791	M57/E	14000	80	9100	10000	4000	65	Clear	U	B	12	Enclosed
175	MH 175W/C/U	96627	M57/E	13300	76	8600	10000	3700	70	Coated	U	B	12	Enclosed
175	MH 175W/U/5K	79881	M57/E	12000	69	7800	7500	5000	75	Clear	U	B	12	Enclosed
175	MH 175W/U/MED	15556	M57/E	14000	80	9100	10000	4000	65	Clear	U	A	12	Enclosed
175	MH 175W/C/U/MED	63187	M57/E	13300	76	8600	10000	3700	70	Coated	U	A	12	Enclosed
175	MH 175W/U/T15	40335	M57/E	14000	80	9100	10000	4000	65	Clear	U	K	12	Enclosed
175	MH 175W/U/T15/10K	70136	M57/E	-	-	-	8000	10000	65	Clear	U	K	12	Enclosed
175	MS 175W/BU	55087	M57/E	15000	86	9800	10000	4000	65	Clear	BU±15°	B	12	Enclosed
175	MS 175W/C/BU/3K	20981	M57/E	13600	78	8800	10000	3200	70	Coated	BU±15°	B	12	Enclosed
175	MS 175W/BU/MED	70310	M57/E	15000	86	9800	10000	4000	65	Clear	BU±15°	A	12	Enclosed
175	MS 175W/C/BU/MED/3K	52522	M57/E	13600	78	8800	10000	3200	70	Coated	BU±15°	A	12	Enclosed
175	MS 175W/HOR*	57330	M57/E	15000	86	9800	10000	4000	65	Clear	HOR±45°	F	12	Enclosed
175	MPI 175W/BU	32519	M57/O	14000	80	9100	10000	4000	65	Clear	BU±15°	C	12	Open
250	MH 250W/U	63052	M58/E	21000	84	13700	10000	4000	65	Clear	U	B	12	Enclosed
250	MH 250W/C/U	61290	M58/E	20000	80	13000	10000	3700	70	Coated	U	B	12	Enclosed
250	MH 250W/U/5K	27252	M58/E	19000	76	12400	7500	5000	75	Clear	U	B	12	Enclosed
250	MH 250W/U/T15	33479	M58/E	21000	84	13700	10000	4000	65	Clear	U	K	12	Enclosed
250	MH 250W/U/T15/10K	63897	M58/E	-	-	-	8000	10000	65	Clear	U	K	12	Enclosed
250	MS 250W/BU	36297	M58/E	23000	92	15000	10000	4000	65	Clear	BU±15°	B	12	Enclosed
250	MS 250W/C/BU/3K	18477	M58/E	20000	80	13000	10000	3200	70	Coated	BU±15°	B	12	Enclosed
250	MS 250W/HOR*	94883	M58/E	23000	92	15000	10000	4000	65	Clear	HOR±45°	F	12	Enclosed
250	MS 250W/HOR/T15*	88353	M58/E	23000	92	15000	10000	4000	65	Clear	HOR±45°	N	12	Enclosed
250	MS 250W/HOR/T15/3K*	54843	M58/E	21000	84	13700	10000	3200	65	Clear	HOR±45°	N	12	Enclosed
250	MPI 250W/BU	60722	M58/O	21800	87	14200	10000	4000	65	Clear	BU±15°	C	12	Open
250	MPI 250W/C/BU	60723	M58/O	20700	83	13500	10000	3700	70	Coated	BU±15°	C	12	Open

\* Permitted rotation about horizontal lamp axis ±15°.

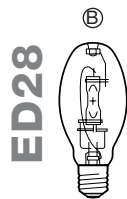
\*\* Limited quantity available

### Lamps



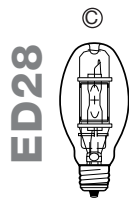
**ED17**

Dia. = 2 1/8" (54mm)  
MOL = 5 7/16" (138mm)  
LCL = 3 3/8" (86mm)  
Base = E26



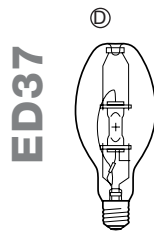
**ED28**

Dia. = 3 1/2" (90mm)  
MOL = 8 5/16" (211mm)  
LCL = 5" (127mm)  
Base = E39



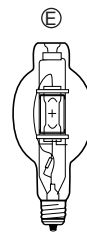
**ED28**

Dia. = 3 1/2" (90mm)  
MOL = 8 5/16" (211mm)  
LCL = 5" (127mm)  
Base = EX39



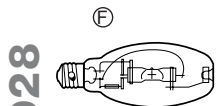
**ED37**

Dia. = 4 5/8" (120mm)  
MOL = 11 1/2" (292mm)  
LCL = 7" (178mm)  
Base = E39



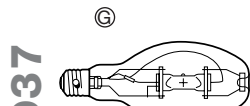
**BT37**

Dia. = 4 5/8" (120mm)  
MOL = 11 1/2" (292mm)  
LCL = 7" (178mm)  
Base = EX39



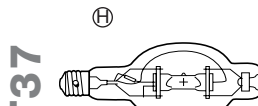
**ED28**

Dia. = 3 1/2" (90mm)  
MOL = 8 5/16" (211mm)  
LCL = 5" (127mm)  
Base = EP39 (POMB)



**ED37**

Dia. = 4 5/8" (120mm)  
MOL = 11 1/2" (292mm)  
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**BT37**

Dia. = 4 5/8" (120mm)  
MOL = 11 1/2" (292mm)  
LCL = 7" (178mm)  
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# Lamps

STANDARD METAL HALIDE LIGHTING SYSTEMS

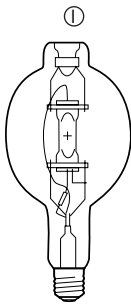
## Standard Metal Halide Lamps

Watts	Lamp Description	Product No.	ANSI Code	Initial Lumens	Lumens Per Watt	Mean Lumens	Avg. Life Hours	CCT (K)	CRI	Finish	Operation Position	Fig.	Case Qty	Luminaire Rating
400	MH 400W/U	18520	M59/E	36000	90	23000	20000	4000	65	Clear	U	D	6	Enclosed
400	MH 400W/C/U	83545	M59/E	34000	85	22000	20000	3700	70	Coated	U	D	6	Enclosed
400	MH 400W/U/5K	36813	M59/E	32500	81	21000	15000	5000	75	Clear	U	D	6	Enclosed
400	MH 400W/U/ED28	57540	M59/E	36000	90	23000	20000	4000	65	Clear	U	B	12	Enclosed
400	MH 400W/C/U/ED28	20753	M59/E	34000	85	22000	20000	3700	70	Coated	U	B	12	Enclosed
400	MH 400W/U/ED28/10K	27540	M59/E	-	-	-	8000	10000	65	Clear	U	B	12	Enclosed
400	MH 400W/U/T15	55422	M59/E	36000	90	23000	15000	4000	65	Clear	U	L	12	Enclosed
400	MPI 400W/BU/HO	95527	M59/O	38000	100	24000	20000	4000	65	Clear	BU±15°	E	6	Open
400	MPI 400W/C/BU/HO	26091	M59/O	36100	95	23000	20000	3700	70	Coated	BU±15°	E	6	Open
400	MS 400W/BU/ED28	40013	M59/E	40000	100	26000	20000	4000	65	Clear	BU±15°	B	12	Enclosed
400	MS 400W/HOR*	40509	M59/E	40000	100	26000	20000	4000	65	Clear	HOR±45°	G	6	Enclosed
400	MS 400W/C/HOR*	64648	M59/E	38000	95	24000	20000	3700	70	Coated	HOR±45°	G	6	Enclosed
400	MS 400W/HOR/ED28*	21929	M59/E	40000	100	26000	20000	4000	65	Clear	HOR±45°	F	12	Enclosed
400	MS 400W/C/HOR/ED28*	24573	M59/E	38000	95	24000	20000	3700	70	Coated	HOR±45°	F	12	Enclosed
400	MS 400W/HOR/T15*	55100	M59/E	40000	100	26000	15000	4000	65	Clear	HOR±45°	O	12	Enclosed
400	MS 400W/HOR/T15/3K*	32225	M59/E	38000	95	24000	15000	3200	65	Clear	HOR±45°	O	12	Enclosed
1000	MH 1000W/U	72051	M47/E	110000	110	71000	12000	4000	65	Clear	U	I	6	Enclosed
1000	MH 1000W/C/U	88460	M47/E	105000	105	68000	12000	3700	70	Coated	U	I	6	Enclosed
1000	MH 1000W/U/5K	35914	M47/E	80000	80	52000	9000	5000	75	Clear	U	I	6	Enclosed
1000	MH 1000W/U/BT37	15332	M47/E	110000	110	71000	12000	4000	65	Clear	U	J	6	Enclosed
1000	MS 1000W/BU	89113	M47/E	115000	115	74000	12000	4000	65	Clear	BU±15°	I	6	Enclosed
1000	MS 1000W/C/BU	59982	M47/E	110000	110	71000	12000	3700	70	Coated	BU±15°	I	6	Enclosed
1000	MS 1000W/BU/BT37	13090	M47/E	115000	115	74000	12000	4000	65	Clear	BU±15°	J	6	Enclosed
1000	MS 1000W/HOR/BT37/3K*	53702	M47/E	115000	115	86000	12000	3400	70	Clear	HOR±45°	H	6	Enclosed
1000	MS 1000W/HOR/SPORT 60*	47503	M47/E	115000	115	86000	12000	3400	70	Clear	HOR±60°	M	6	Enclosed

\* Permitted rotation about horizontal lamp axis ±15°.

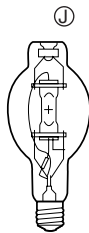
### Lamps

#### BT56



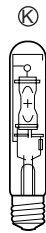
Dia. = 7" (180mm)  
MOL = 15 3/8" (391mm)  
LCL = 9 1/2" (241mm)  
Base = E39

#### BT37



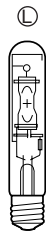
Dia. = 4 5/8" (120mm)  
MOL = 11 1/2" (292mm)  
LCL = 7" (178mm)  
Base = E39

#### T15



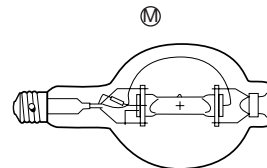
Dia. = 1 7/8" (46mm)  
MOL = 8 3/8" (211mm)  
LCL = 5" (127mm)  
Base = E39

#### T15



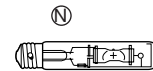
Dia. = 1 7/8" (46mm)  
MOL = 9 3/8" (248mm)  
LCL = 5 3/8" (146mm)  
Base = E39

#### BT56



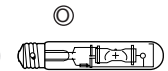
Dia. = 7" (180mm)  
MOL = 15 3/8" (391mm)  
LCL = 9 1/2" (241mm)  
Base = EP39 (POMB)

#### T15



Dia. = 1 7/8" (46mm)  
MOL = 8 3/8" (211mm)  
LCL = 5" (127mm)  
Base = EP39 (POMB)

#### T15



Dia. = 1 7/8" (46mm)  
MOL = 9 3/8" (248mm)  
LCL = 5 3/8" (146mm)  
Base = EP39 (POMB)

# Ballasts

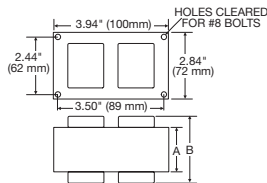
STANDARD METAL HALIDE LIGHTING SYSTEMS

## Standard Metal Halide 60 Hz Ballasts

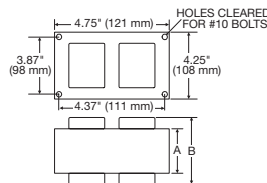
Watts	Input Voltage	Product No.	ANSI Code	Circuit Type	Input Watts	Max. Line Current	UL Coil Rise Code	Wiring Diag.	Fig.	Dimensions A (in)	B (in)	Total Wt. (lbs)	Capacitor (µfd/Vmin)	Cap. Fig.	Cap. Type	Ign. Fig.
175	120/208/240/277	V90D6111	M57	CWA	210	1.8/1.1/0.9/0.8	C/D/D/C	H	1	2.22	3.60	6.8	10/400	A11	Dry	N/A
175	120/277/347	V90J6111	M57	CWA	210	1.8/0.8/0.65	B/B/C	M	1	2.22	3.60	6.8	10/400	A11	Dry	N/A
175	480	V90Y6111T	M57	CWA	211	0.45	B	V1	1	2.22	3.60	6.8	10/400	A11	Dry	N/A
175	120	V90B6112	M57	CWA	206	1.8	C	B	1	2.40	3.80	6.6	10/400	A11	Dry	N/A
175	120/240	V90E6150	M57	CWI	225	1.9/0.95	B/B	W	1	2.65	4.13	9	9/520	B5	Oil	N/A
175	208/120T	V90P6150T	M57	CWI	226	1.1	C	O	1	2.65	4.13	9	9/520	B5	Oil	N/A
175	600	V90Z6150	M57	CWI	226	0.4	D	O	1	2.65	4.13	9	9/520	B5	Oil	N/A
250	120/208/240/277	V90D6211	M58	CWA	291	2.6/1.45/ 1.3/1.1	B/A/C/B	H	1	2.8	4.2	8.5	15/360	A12	Dry	N/A
250	120/277/347	V90J6211	M58	CWA	293	2.5/1.1/0.9	A/D/C	M	1	2.8	4.2	8.5	15/360	A12	Dry	N/A
250	480	V90Y6211	M58	CWA	288	0.6	D	V1	1	3	4.4	9.1	15/360	A12	Dry	N/A
250	120/208/240/277	V90D6212	M58	CWA	289	2.5/1.45/1.25/1.1	B/B/B/B	H	2	1.65	3.25	9.30	15/400	A12	Dry	N/A
250	120/277/347	V90J6212	M58	CWA	289	2.5/1.1/0.9	A/A/A	M	2	1.65	3.30	9.30	15/360	A12	Dry	N/A
250	480/120T	V90Y6212T	M58	CWA	295	0.63	B	V1	2	1.55	3.35	8.80	15/400	A12	Dry	N/A
250	120/240	V90E6250	M58	CWI	303	2.6/1.3	A/A	W	2	2.16	3.75	14	12/480	B8	Oil	N/A
250	208/120T	V90P6250T	M58	CWI	303	1.5	A	P	2	2.16	3.75	14	12/480	B8	Oil	N/A
250	600	V90Z6250	M58	CWI	303	0.5	D	O	2	2.16	3.75	14	12/480	B8	Oil	N/A

Ballasts

① CWA- 3x4 Core



② CWA/CWI- 4x4 Core



Options

Add Suffix for Options:  
 C - With Capacitor (Standard)  
 K - With Capacitor and Bracket Kit  
 B - With Welded Bracket, No Cap

Ballast Bracket and Kit Figures are located on Page #104

Capacitor and Ignitor Figures are located on Page #103

Wiring Diagrams are located on Page #76

# Ballasts

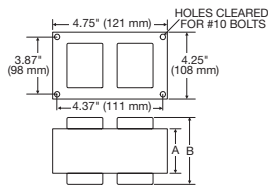
STANDARD METAL HALIDE LIGHTING SYSTEMS

## Standard Metal Halide 60 Hz Ballasts

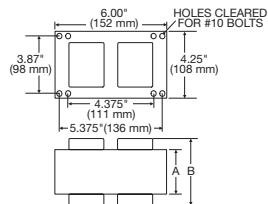
Watts	Input Voltage	Product No.	ANSI Code	Circuit Type	Input Watts	Max. Line Current	UL Coil Rise Code	Wiring Diag.	Fig.	Dimensions A (in)	B (in)	Total Wt. (lbs)	Capacitor (µfd/Vmin)	Cap. Fig.	Cap. Type	Ign. Fig.
400	120/208/240/277	V90D6413	M59	CWA	455	4/2.3/2/1.75	D/D/E/E	H	1	2	3.9	10.7	24/360	A13	Dry	N/A
400	120/277/347	V90J6413	M59	CWA	455	4/1.75/1.4	C/E/E	M	1	2.15	3.9	11.4	24/360	A13	Dry	N/A
400	480/120T	V90Y6413T	M59	CWA	457	1	E	V1	1	2.15	4.1	11.5	24/360	A13	Dry	N/A
400	120/208/240/277	V90D6412	M59	CWA	452	3.5/2.0/1.75/1.5	C/D/D/D	H	1	2	3.9	11.7	24/360	B13	Dry	N/A
400	120/240	V90E6450	M59	CWI	475	4.05/2.05	B/B	W	1	3.5	5.5	21	19.5/520	B12	Oil	N/A
400	208/120T	V90P6450T	M59	CWI	475	2.35	C	P	1	3.5	5.5	21	19.5/520	B12	Oil	N/A
400	600	V90Z6450	M59	CWI	475	0.8	C	O	1	3.5	5.5	21	19.5/520	B12	Oil	N/A
1000	120/208/240/277	V90D6514	M47	CWA	1080	9/5.2/4.5/3.9	D/A/A/A	H	2	2.8	4.80	21	24/480	B12	Oil	N/A
1000	120/277/347	V90J6514	M47	CWA	1080	9/3.9/3.15	D/B/A	M	2	2.9	4.95	21.5	24/480	B12	Oil	N/A
1000	480/120T	V90Y6514T	M47	CWA	1080	2.25	C	V1	2	2.82	4.85	21	24/480	B12	Oil	N/A
1000	120/240	V90E6550	M47	CWI	1100	10/5	F/F	W	2	4.5	6	31	24/480	B12	Oil	N/A
1000	208	V90P6550T	M47	CWI	1100	5.7	C	P	2	4.5	6	31	24/480	B12	Oil	N/A
1000	600	V90Z6550	M47	CWI	1100	2	B	O	2	4.5	6	31	24/480	B12	Oil	N/A
1500	120/208/240/277	V90D6612	M48	CWA	1590	13.4/7.75/6.7/5.8	G/E/E/E	H	2	4.1	6.1	31	32/525	B14	Oil	N/A
1500	480	V90Y6612T	M48	CWA	1590	3.4	E	V1	2	4.2	6.2	31	32/525	B14	Oil	N/A
1650	120/208/240	V90C6910	M112	CWA	1760	16/9.25/8	F/D/C	D	2	4.5	6.55	32.1	(2X) 32/570	B9	Oil	N/A
1650	277/347/480	V90AA6910	M112	CWA	1760	7/5.6/4	E/F/H	J	2	4.5	6.6	32.1	(2X) 32/570	B9	Oil	N/A
2000	480	V90Y6810	M134	CWA	2140	4.5	E	A	2	6	8.2	44	44/510	B10	Oil	G/Max Dist. 12ft

Ballasts

① CWA/CWI - 4x4 Core



② CWA/CWI - 4x6 Core



Options

Add Suffix for Options:

- C - With Capacitor (Standard)
- K - With Capacitor and Bracket Kit
- B - With Welded Bracket, No Cap

Ballast Bracket and Kit Figures are located on Page #104

Capacitor and Ignitor Figures are located on Page #103

Wiring Diagrams are located on Page #76

# Wiring Diagrams

## Introduction

Wiring diagrams for all Venture® standard metal halide ballast products are provided on this page. The ballast data tables indicate the reference letter corresponding to the correct

diagram for each ballast product. Refer to the table for the required ballast before referencing any diagram.

The wiring diagram is the blueprint for the ballast circuitry, including the input supply voltage and grounding methods. A ground

connection must be made to all ballasts to avoid shock hazard, personal injury or damage to the luminaire or installation. Ballast installations and groundings should be made in accordance with all applicable government codes and regulations where required.

