

# Areamaster™ 250/400 Integrally Ballasted Floodlights

## 100 W to 400 W HID

For hazardous and marine locations.

### NEC:

Class I, Division 2, Groups A, B, C, D  
Class I, Zone 2, AEx nR, Groups IIA, IIB, IIC

### CEC:

Class I, Division 2, Groups A, B, C, D  
Class I, Zone 2, Ex nR, Groups IIA, IIB, IIC  
Class II, Division 1 and 2, Groups E, F, G  
Class III

### NEC/CEC:

Wet locations  
Marine outside type (salt water)  
IP66

## Applications

- Powerful, efficient weatherproof lighting for medium and large areas such as:
  - Pulp and paper mills
  - Processing plants
  - Chemical plants
  - Oil refineries
  - Foundries
  - Storage areas
  - Waste and sewage treatment
  - Parking garages
  - Other areas where dust, water, dirt and rough usage are a problem

## Features

- Compact in size, attractively styled contemporary design, rugged and dependable.
- Easy to install and service.
- A wide range of ballasts and voltages are available for both domestic and export applications.
- Integral ballast.
- One-piece housing.
- One-piece lens cover. Secured by four 1/4" Dia. captive stainless steel slotted hex-head bolts.
- Thermal shock and impact resistant glass lens.
- Heavy duty, high temperature silicone rubber gasket, firmly seated.
- Heavy duty mogul-base porcelain socket with heavy gauge brass, nickel-plated, double lamp-grip screw shell and springloaded center contact.
- Compound parabolic, double segment, finished aluminum reflector for optimum efficiency.
- Mounting choice:
  - (1) Yoke mount, zinc plated steel yoke with architectural bronze polyester finish
  - (2) Pole mount, built-in slip-fitter, for internal wiring, adjustable laterally and vertically, slip fits 50.8 mm (2.00") thru 63.5 mm (2.50") pipe, architectural bronze polyester finish available for use in CEC governed locations
- Cool operating temperatures translate into long luminaire life.

## Standard Materials

- Ballast housing and lens door: copperfree (4/10 of 1% max.) aluminum
- Gasket: silicone rubber
- Socket: heavy duty porcelain with heavy gauge brass shell
- Reflector: finished aluminum
- Yoke mount: zinc plated steel
- Bolts: stainless steel

## Standard Finishes

- Ballast housing, lens cover, yoke and pole mount: architectural bronze polyester
- Socket: nickel-plated

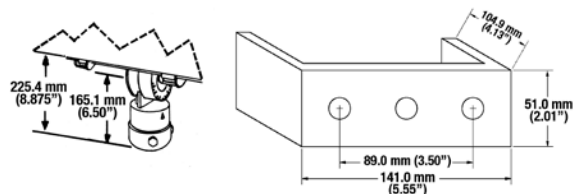
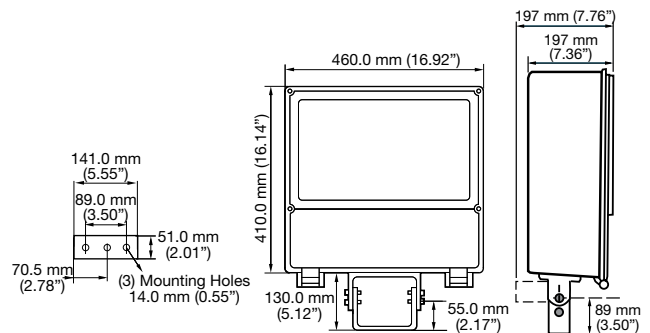
## Options

- For Division 2 rating, add suffix **-I2**. ①
- For AEx nR version with terminal blocks, add suffix **-Z2**. (NEC)
- For Ex nR version with terminal blocks, add suffix **-Z**. (CEC)



## Dimensions in Millimeters (Inches)

Fixture E.P.A. = 1.90 sq ft.



## NEC/CEC Certifications and Compliances

- Areamaster 250/400
  - Wet locations
  - Marine outside type (salt water)
  - UL Standard: UL 1598, 1598A, 844
  - UL Listed: E10794
  - CSA Standards: C22.2 No. 25, C22.2 No. 94, C22.2 No. 97, C22.2 No. 137
  - CSA Approval: LR25248
- Zone 2 Areamaster 250/400
  - UL Standard: UL 1598, 1598A, 60079-0, 60079-15
  - UL Listed: E10794
  - CSA Standards: E79-0, E79-15
  - CSA Approval: LR25428
  - Index of Protection: IP66

① If blank for NEC applications, luminaire is rated for Ordinary Locations. For CEC applications, a blank suffix designates Hazardous Locations. See ratings above.

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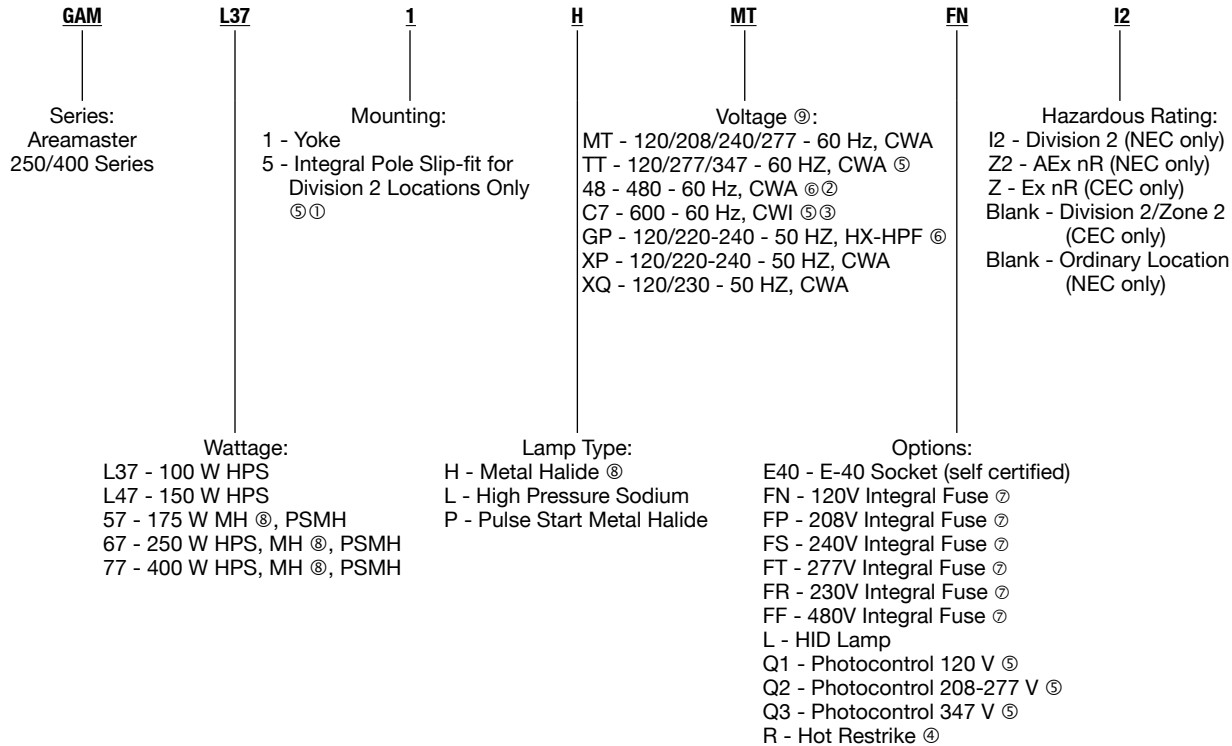
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Order using catalog numbering guide below or select catalog number from tables on following pages.

## Catalog Numbering Guide For Areamaster 250/400 Floodlights



HID/FLOODLIGHT: NEC/CEC ENCLOSED AND GASKETED

APPLETON™

Lamp Type	Lamp Watts	Voltage Suffixes						
		C7	GP	48	MT	TT	XP	XQ
HPS	100	X	X	X	X	X	X	—
HPS	150	X	X	X	X	X	X	—
HPS	250	X	—	X	X	X	X	X
HPS	400	X	—	X	X	X	X	X
PSMH	175	—	—	X	X	X	—	—
PSMH	250	—	—	X	X	X	—	X
PSMH	400	—	—	X	X	X	—	X
MH ⑥	175	X	—	—	X	X	—	—
MH ⑥	250	X	—	—	X	X	—	—
MH ⑥	400	X	—	—	X	X	X	—

Voltages:

**MT** - 120/208/240/277 - 60 Hz, CWA

**TT** - 120/277/347 - 60 HZ, CWA

**48** - 480 - 60 Hz, CWA

**48** - 480 - 60 Hz, CWA

**C7** - 600 - 60 Hz, CWI

**GP** - 120/220-240 - 50 HZ, HX-HPF

**XP** - 120/220-240 - 50 HZ, CWA

**XQ** - 120/230 - 50 HZ, CWA

① Slip-fit for 2" to 2-1/2" pole top tenons.

② For CEC 480 V, 60 Hz, consult factory.

③ Not for available for PSMH versions.

④ For NEC, "Hot Restrike" option available for 100 W through 150 W HPS only. For CEC, "Hot Restrike" option available for up to 400 W.

⑤ Certified to meet the Canadian Electrical Code (CEC) only.

⑥ Certified to meet the National Electrical Code (NEC) only.

⑦ Optional fusing is available for use with NEC Rated products.

⑧ Mercury vapor and metal halide luminaires are not available for purchase within the United States. Please check with your countries governing legislation regarding allowable lamp types before ordering.

⑨ Other voltages available. Please contact your local sales representative.

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**“T” Numbers**

Watts	Lamp Type	Supply Wire Temp. °C (°F)	Ambient Temp. °C (°F)	NEC/CEC	CEC	NEC/CEC
				Class I, Division 2, Groups A, B, C, D	Class II, Division 1 and 2, Groups E, F, G	Class I, Zone 2
100	HPS	75 (167)	40 (104)	T3	T3B	T4
		90 (194)	55 (131)	T2D	—	T4
		105 (221)	65 (149)	T2C	—	T3
150	HPS	90 (194)	40 (104)	T2C	T3B	T4
		105 (221)	55 (131)	T2B	—	T3
		125 (257)	65 (149)	T2B	—	T3
250	HPS	75 (167)	40 (104)	350 °C (662 °F)	T3B	T3
		90 (194)	55 (131)	350 °C (662 °F)	—	T3
		105 (221)	65 (149)	T1	—	T3
400	HPS	105 (221)	40 (104)	T1	T3B	T3
		125 (257)	50 (122)	—	—	T3
175	PSMH	90 (194)	40 (104)	T2	T3B	T3
		105 (221)	55 (131)	325 °C (617 °F)	—	T3
		125 (257)	65 (149)	325 °C (617 °F)	—	T3
250	PSMH	85 (185)	40 (104)	325 °C (617 °F)	T3B	T3
		105 (221)	55 (131)	325 °C (617 °F)	—	T3
		110 (230)	65 (149)	—	—	T3
400	PSMH	105 (221)	40 (104)	325 °C (617 °F)	T3B	T3
		125 (257)	55 (131)	325 °C (617 °F)	—	T3
175	MH ①	90 (194)	40 (104)	T2	120 °C (248 °F)	T4
		105 (221)	55 (131)	325 °C (617 °F)	120 °C (248 °F)	T3
		110 (230)	65 (149)	325 °C (617 °F)	120 °C (248 °F)	T3
250	MH ①	85 (185)	40 (104)	325 °C (617 °F)	120 °C (248 °F)	T3
		105 (221)	55 (131)	350 °C (662 °F)	120 °C (248 °F)	T3
		110 (230)	65 (149)	350 °C (662 °F)	120 °C (248 °F)	T3
400	MH ①	105 (221)	40 (104)	325 °C (617 °F)	120 °C (248 °F)	T3

**“T” Numbers Represent the Maximum Lamp Temperature for Class I, Division 2 Locations and Maximum Surface Temperature Under Dust Blanket for Class II, Division 1 Locations.**

“T” Number	T1	350	325	T2	T2A	T2B	T2C	T2D	T3	T3A	T3B	T3C	T4	T4A	T5	T6
Temp. Range (°C)	351-450	326-350	301-325	281-300	261-280	231-260	216-230	201-215	181-200	166-180	161-165	136-160	121-135	101-120	86-100	85
Temp. Range (°F)	664-842	619-662	574-617	538-572	502-536	448-500	421-446	394-419	358-392	331-356	322-329	277-320	250-275	214-248	187-212	185

**“T” Numbers Represent the Maximum Surface Temperature for Luminaires with AEx nA nR, AEx nR or Ex nR rating**

“T” Number	T1	T2	T3	T4	T5	T6
Temp. Range (°C)	301-450	201-300	136-200	101-135	86-100	85
Temp. Range (°F)	547-842	394-572	277-392	214-275	187-212	185

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**NEC/CEC:**  
Wet locations  
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IP66

Lamp	Weight kg (lb)	Volume dm <sup>3</sup> (in <sup>3</sup> )
<b>High Pressure Sodium</b>		
100 W HPS	12.9 (28.4)	62.5 (3814)
150 W HPS	12.9 (28.4)	62.5 (3814)
250 W HPS	14.3 (31.5)	62.5 (3814)
400 W HPS	16.0 (35.3)	62.5 (3814)
<b>Pulse Start Metal Halide</b>		
175 W PSMH	12.9 (28.4)	62.5 (3814)
250 W PSMH	14.3 (31.5)	62.5 (3814)
400 W PSMH	16.0 (35.3)	62.5 (3814)
<b>Metal Halide ①</b>		
175 W MH	12.9 (28.4)	62.5 (3814)
250 W MH	14.3 (31.5)	62.5 (3814)
400 W MH	16.0 (35.3)	62.5 (3814)

HID/FLOODLIGHT: NEC/CEC ENCLOSED AND GASKETED

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	Description	Catalog Numbers
<p><b>Crossarm Mounting Bracket</b></p> 	<p>Has 180° horizontal adjustment — degree marked. Facilitates mounting floodlight to crossarm or other flat surface, or to G-AM-8-WB. Includes floodlight yoke bolts. Malleable iron, zinc plated, chromate sealed, architectural bronze polyester finish.</p>	<p><b>G-AM-8-CA</b></p>
<p><b>Pipe or Wall Mount Bracket</b></p> 	<p>Used with G-AM-8-CA. Clamps to 1" to 2-1/2" pipe, vertical or horizontal, or mounts on flat surfaces. Includes U-bolt and crossarm bracket bolts. Malleable iron, zinc plated, chromate sealed, with architectural bronze polyester finish.</p>	<p><b>G-AM-8-WB</b></p>
<p><b>Poletop Slip-Fitter</b></p>  	<p>Slip-fits 1-1/2" or 2" pipe size poletop tenons. Includes floodlight yoke bolts, 3 locking bolts, and cord grip. Body is malleable iron-zinc plated, chromate sealed, with cast aluminum cap. Assembly has architectural bronze polyester finish.</p>	<p><b>G-SF20</b></p>
<p><b>Vandal Shield</b></p> 	<p>UV stabilized polycarbonate, with installation hardware and instructions.</p>	<p><b>G-AM-6-VS</b></p>
<p><b>Top Visor</b></p> 	<p>Easy to install with hardware supplied. Aluminum, with architectural bronze polyester finish.</p>	<p><b>G-AM-6-V</b></p>
<p><b>Wall Bracket</b></p> 	<p>Wall mounting bracket for floodlights with 50.8 mm (2 in) slip-fitter, or will mount G-PB Series brackets with floodlights</p>	<p><b>G-PWB-1</b></p>

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HID/FLOODLIGHT: NEC/CEC ENCLOSED AND GASKETED

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Line Voltage	Frequency	Type of Ballast	Starting Amps	Operating Amps	Total Watts
<b>100 Watt High Pressure Sodium</b>					
120	60	HX-HPF	1.30	1.15	130
208	60	HX-HPF	0.76	0.67	130
240	60	HX-HPF	0.66	0.60	130
277	60	HX-HPF	0.60	0.52	130
347	60	HX-HPF	0.45	0.39	130
480	60	HX-HPF	0.33	0.31	135
120	50	HX-HPF	0.90	1.20	130
220	50	HX-HPF	0.50	0.65	130
240	50	HX-HPF	0.45	0.60	130
<b>150 Watt High Pressure Sodium</b>					
120	60	HX-HPF	2.00	1.70	188
208	60	HX-HPF	1.15	0.95	188
240	60	HX-HPF	1.00	0.85	188
277	60	HX-HPF	0.85	0.72	188
347	60	HX-HPF	0.52	0.56	188
480	60	HX-HPF	0.50	0.47	189
120	50	HX-HPF	1.50	1.60	188
220	50	HX-HPF	0.85	0.90	188
240	50	HX-HPF	0.75	0.80	188
<b>250 Watt High Pressure Sodium</b>					
120	60	CWA	2.00	2.50	295
277	60	CWA	0.85	1.10	295
347	60	CWA	0.60	0.93	295
480	60	CWA	0.40	0.65	295
120	50	CWA	1.85	2.75	300
230	50	CWA	0.95	1.44	300
<b>400 Watt High Pressure Sodium</b>					
120	60	CWA	3.30	3.80	465
208	60	CWA	1.80	2.20	465
347	60	CWA	1.00	1.32	464
480	60	CWA	0.80	1.00	465
120	50	CWA	3.70	4.00	465
230	50	CWA	1.85	2.00	465
<b>175 Watt Pulse Start Metal Halide</b>					
120	60	CWA	1.20	1.83	196
208	60	CWA	0.70	1.03	196
240	60	CWA	0.60	0.93	196
480	60	CWA	0.15	0.45	196

Line Voltage	Frequency	Type of Ballast	Starting Amps	Operating Amps	Total Watts
<b>250 Watt Pulse Start Metal Halide</b>					
120	60	CWA	2.00	2.30	278
208	60	CWA	1.10	1.40	278
240	60	CWA	1.00	1.20	278
277	60	CWA	0.80	1.00	278
347	60	CWA	0.62	0.90	278
480	60	CWA	0.30	0.65	288
<b>400 Watt Pulse Start Metal Halide</b>					
120	60	CWA	3.10	4.00	436
208	60	CWA	1.70	2.30	436
240	60	CWA	1.50	2.00	436
277	60	CWA	1.30	1.75	436
347	60	CWA	1.30	1.75	436
480	60	CWA	0.80	0.93	435
<b>175 Watt Metal Halide ①</b>					
120	60	CWA	1.30	1.80	213
208	60	CWA	0.75	1.10	213
240	60	CWA	0.65	0.90	213
277	60	CWA	0.55	0.80	213
347	60	CWA	0.50	0.65	210
480	60	CWA	0.35	0.45	213
120	50	CWA	1.70	1.90	210
<b>250 Watt Metal Halide ①</b>					
120	60	CWA	1.20	2.60	295
208	60	CWA	0.65	1.50	295
240	60	CWA	0.60	1.30	295
277	60	CWA	0.50	1.12	295
347	60	CWA	0.80	0.90	295
480	60	CWA	0.30	0.65	298
120	50	CWA	2.00	2.50	285
<b>400 Watt Metal Halide ①</b>					
120	60	CWA	3.25	4.00	458
208	60	CWA	1.90	2.30	458
240	60	CWA	1.65	2.00	458
277	60	CWA	1.40	1.75	458
347	60	CWA	1.20	1.40	460
480	60	CWA	0.85	1.00	462
120	50	CWA	2.70	4.10	480

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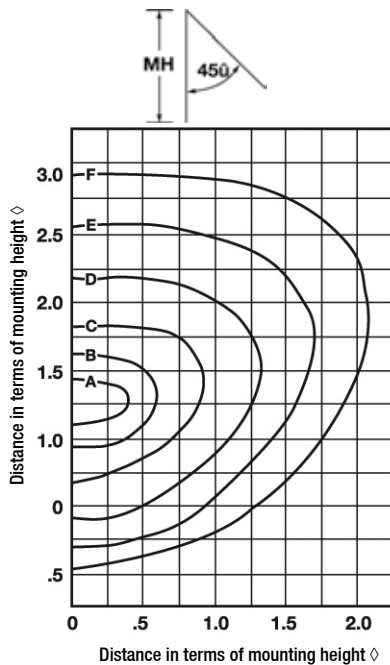
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## Photometric Data

### Typical Footcandle Values ♦



Mtg. Ht. Meters (feet)	Ft. Cdles for Iso-Footcandle Lines					
	A	B	C	D	E	F
<b>400W HPS</b>						
18.3 m (60')	3.27	2.74	1.82	0.92	0.37	0.18
15.2 m (50')	4.74	4.00	2.90	1.37	0.52	0.27
12.2 m (40')	7.65	6.28	4.38	2.27	0.82	0.43
9.1 m (30')	13.10	10.92	7.83	3.47	1.45	0.77
6.1 m (20')	28.22	25.55	17.37	7.28	3.46	1.82

<b>400W MH ①</b>						
18.3 m (60')	2.32	1.66	1.00	0.58	0.33	0.17
15.2 m (50')	3.32	2.32	1.49	0.76	0.48	0.25
12.2 m (40')	5.48	3.62	2.32	1.33	0.75	0.36
9.1 m (30')	9.79	7.80	3.98	2.16	1.33	0.68
6.1 m (20')	17.26	14.60	9.30	5.31	3.15	1.49

For 400W PSMH multiply FC values by 1.29; for 320W PSMH use 0.97.

<b>400W PSMH</b>						
18.3 m (60')	2.60	1.86	1.12	0.65	0.37	0.19
15.2 m (50')	3.72	2.60	1.66	0.85	0.54	0.28
12.2 m (40')	6.14	4.05	2.60	1.49	0.84	0.40
9.1 m (30')	10.96	8.74	4.46	2.42	1.49	0.76
6.1 m (20')	19.33	16.35	10.41	5.94	3.53	1.67

Mtg. Ht. Meters (feet)	Ft. Cdles for Iso-Footcandle Lines					
	A	B	C	D	E	F
<b>250W HPS</b>						
18.3 m (60')	1.96	1.64	1.09	0.55	0.22	0.11
15.2 m (50')	2.84	2.40	1.74	0.82	0.31	0.16
12.2 m (40')	4.58	3.76	2.62	1.36	0.49	0.26
9.1 m (30')	7.85	6.54	4.69	2.08	0.87	0.46
6.1 m (20')	16.90	15.30	10.40	4.36	2.07	1.09

<b>250W MH ①</b>						
18.3 m (60')	1.40	1.00	0.60	0.35	0.20	0.10
15.2 m (50')	2.00	1.40	0.90	0.46	0.29	0.15
12.2 m (40')	3.30	2.18	1.40	0.80	0.45	0.22
9.1 m (30')	5.90	4.70	2.40	1.30	0.80	0.41
6.1 m (20')	10.40	8.80	5.60	3.20	1.90	0.90

For 175W MH lamps, multiply FC values by 0.68. For 175W PSMH Lamps 0.85; for 200W PSMH use 1.03; for 250W PSMH use 1.22.

<b>250W PSMH</b>						
18.3 m (60')	1.90	1.63	0.82	0.48	0.27	0.14
15.2 m (50')	2.72	1.90	1.22	0.63	0.39	0.20
12.2 m (40')	4.48	2.96	1.90	1.09	0.61	0.30
9.1 m (30')	8.00	6.40	3.26	1.76	1.09	0.55
6.1 m (20')	14.40	11.97	7.61	4.35	2.58	1.22

For 175W MH lamps, multiply FC values by 0.68. For 175W PSMH Lamps 0.85; for 200W PSMH use 1.03; for 250W PSMH use 1.22.

♦ i.e., ratio of distance to height. Example: @ 6.1 meter (20 foot) mounting height, 1 means 6.1 meter (20 foot); 2 means 12.2 meter (40 foot), etc.

◆ Photometric charts available on request.

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