

# Lumenmaster 400™ Low Bay HID Prismatic Luminaires

Integrally Ballasted. 400 W, 250 W HPS; 320 W, 400 W PSMH. 400 W MH 

Suitable for use in damp locations

## Applications

- Energy-efficient, low-glare illumination for manufacturing, storage and other indoor areas where low bay luminaires are required. Can be mounted as low as 8 feet/2.4 meters from work plane.
- Suitable for use in damp locations.
- Operates safely in ambients as high as 104 °F/40 °C
- Applications involving airborne particulates (such as carbon black, pigments, etc.) should be pre-evaluated and approved by Appleton prior to ordering.

## Features

- High efficiency (up to 81.6% with 400 W high pressure sodium lamp) combined with long lamp life, ensures the most economical operation.
- Two-to-one vertical-to-horizontal footcandles provides effective, efficient illumination of vertical surfaces.
- Reflector/refractor optical assembly is computer designed for uniform, wide light distribution with low glare.
- Injection-molded prismatic refractor lens is 100% virgin acrylic. Minimum thickness is 3/16"/4.8 mm.
- A wide range of ballasts and voltages are available for both domestic and export applications.
- Integral ballast.
- Capable of starting and operating the lamp in temperatures as low as -20 °F/-28.9 °C for pulse start metal halide lamps, -40 °F/-40 °C for high pressure sodium lamps.
- Mogul base sockets with spring loaded center contact and heavy gauge screw shell with double lamp grips to prevent lamps from loosening due to vibration.
- Installation is quick and easy:
  - (1) mount junction box to 3/4"/4.8 mm conduit
  - (2) slide ballast onto junction box
  - (3) make connections
  - (4) install lamp
  - (5) snap reflector in place

## Standard Materials

- Gasket: silicone rubber
- Reflector: aluminum
- Ballast: finned, copperfree (4/10 of 1% max.) aluminum
- Sockets: heavy duty porcelain
- Screws: brass

## Standard Finishes

- Reflector: natural finish
- Ballast: white powder coated polyester
- Sockets: nickel plated center contact
- Screws: nickel plated

## Options

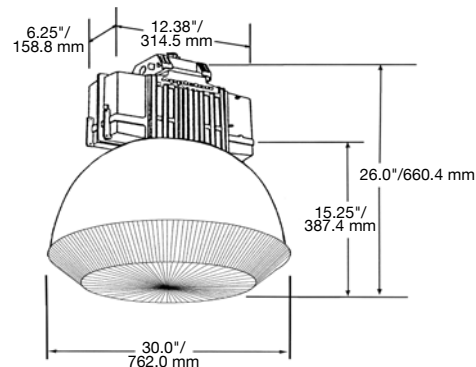
- Units are available with a pre-wired sensor circuit for automatically lighting an auxiliary safety lamp in case a power dip or lamp failure extinguishes the HID lamp.

## Certifications and Compliances

- UL Listed: E85142
- UL Standard: 1598
- CSA Certified: LR9349



## Dimensions
















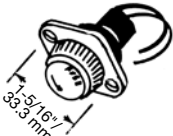
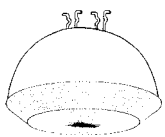

## Related Products

- For power hook, fusing and other suspension accessories, see *Fixture Hanger Accessories* page.

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Pendant Mounting		Catalog Number	
Lamp Type	Voltage	Complete with Reflector/Refractor Assembly and Ballast ①②	Ballast Housing Assembly
<b>For High Pressure Sodium Lamps</b>			
250 W HPS	120/208/240/277 V	G-LM61BL-MT	G-LM611L-MT
250 W HPS	120/277/347 V	G-LM61BL-TT  ④	G-LM611L-TT  ④
250 W HPS	480 V	G-LM61BL-48	G-LM611L-48
400 W HPS	120/208/240/277 V	G-LM71BL-MT	G-LM711L-MT
400 W HPS	120/277/347 V	G-LM71BL-TT  ④	G-LM711L-TT  ④
400 W HPS	480 V	G-LM71BL-48	G-LM711L-48
<b>For Pulse Start Metal Halide Lamps</b>			
320 W PSMH	120/208/240/277 V	G-LM321BP-MT	G-LM3211P-MT
320 W PSMH	120/277/347 V	G-LM321BP-TT  ④	G-LM3211P-TT  ④
320 W PSMH	480 V	G-LM321BP-48	G-LM3211P-48
400 W PSMH	120/208/240/277 V	G-LM71BP-TT  ④	G-LM711P-MT
400 W PSMH	120/277/347 V	G-LM71BP-MT	G-LM711P-TT  ④
400 W PSMH	480 V	G-LM71BP-48	G-LM711P-48
<b>For Metal Halide Lamps </b>			
400 W MH	120/208/240/277 V	G-LM71BH-MT 	G-LM711H-MT 
400 W MH	120/277/347 V	G-LM71BH-TT  ④	G-LM711H-TT  ④
<b>Accessories and Replacement Parts ③</b>			
Type	Description	Catalog Number	
<b>Fuseholder with 9" wire leads</b>			
	Zinc plated.	G-F10	
<b>Safety Cable (not shown)</b>			G-HB7000-SC
<b>Optic Assembly</b>			
	Optic Assembly only.	G-LM30	
<b>Wiring Kit (not shown)</b>			PWK 
Supplied with 3 feet of 16/3 SOOW cable and FHHM-75SS cast safety hook			

① To order fixture complete with lamp, add suffix **-L** to catalog number.

② Add Suffix **-E** to catalog number if provision for quartz emergency lamp is desired (lamp not included). Furnished with socket installed and pre-wired.

③ For power hook, fusing and other suspension accessories, see Fixture Hanger Accessories.

④ Supplied complete with CWA Ballast. For 208, 240, 480 or 600 V CWI applications, change the **-TT** suffix to **-C2**, **-C3**, **-C6** or **-C7** as required. 

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Integrally Ballasted. 400 W, 250 W HPS; 320 W, 400 W PSMH. 400 W MH <sup>CSA</sup>.

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## Electrical Specifications

High Pressure Sodium — All ballasts are C.W.A. type, except 150 W HPS which is HX–Auto							
Line Volts	Start	250 W		Total Watts	Start	400 W	
		Oper.	Total Watts			Oper.	Total Watts
120	2.00	2.50	295		3.30	3.80	465
208	1.20	1.50	295		1.80	2.20	465
240	1.00	1.30	295		1.60	1.90	465
277	.85	1.10	295		1.40	1.70	465
347 <sup>CSA</sup>	0.60	0.93	295		1.00	1.32	465
480	.40	.65	295		.80	1.00	465

Pulse Start Metal Halide — Super C.W.A. Ballast Amps							
Line Volts	Start	320 W		Total Watts	Start	400 W	
		Oper.	Total Watts			Oper.	Total Watts
120	2.60	3.25	368		3.50	4.00	454
208	1.50	1.90	368		2.00	2.30	454
240	1.30	1.65	368		1.75	2.00	454
277	1.15	1.40	368		1.50	1.75	454
347 <sup>CSA</sup>	0.70	1.10	368		1.10	1.35	454
480	.60	.80	368		.90	1.00	454

Metal Halide <sup>CSA</sup> — C.W.A. Ballast Amps							
Line Volts	Start	320 W		Total Watts	Start	400 W	
		Oper.	Total Watts			Oper.	Total Watts
120	3.25	4.0	458		3.25	4.0	458
208	1.9	2.3	458		1.9	2.3	458
240	1.65	2.0	458		1.65	2.0	458
277	1.4	1.75	458		1.4	1.75	458
347	1.20	1.40	458		1.20	1.40	458

## Luminaire Performance <sup>①</sup>

Distribution	250 Watt		320 Watt		400 Watt	
	Effic.	S./M.H. <sup>②</sup>	Effic.	S./M.H. <sup>②</sup>	Effic.	S./M.H. <sup>②</sup>
<b>High Pressure Sodium</b>						
Wide	81.7%	2.0:1	—	—	81.6%	2.0:1
<b>Pulse Start Metal Halide</b>						
Wide	—	—	63.7%	2.3:1	63.2%	2.3:1
<b>Metal Halide <sup>CSA</sup></b>						
Wide	—	—	—	—	81.4%	1.7:1

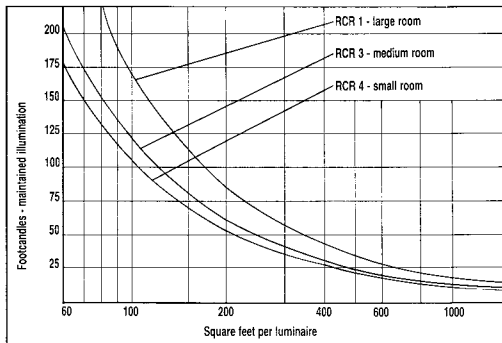
<sup>CSA</sup> CSA Certified only.

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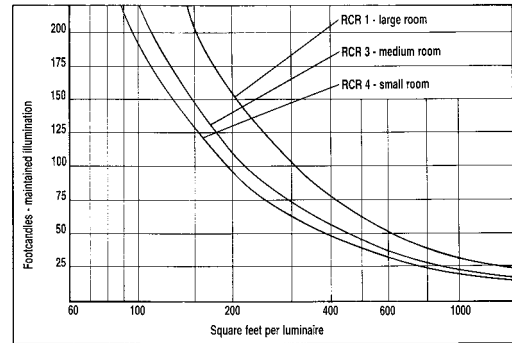
## Integrally Ballasted. Quick Estimate Illumination Charts \*

Integrally Ballasted. 400 W, 250 W HPS; 320 W, 400 W PSMH. 400 W MH 

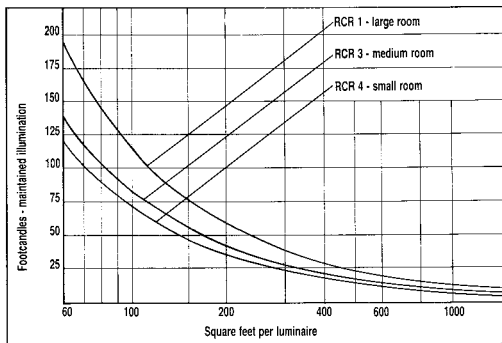
250 Watt High Pressure Sodium



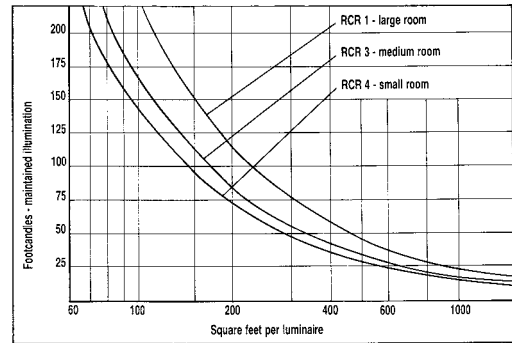
400 Watt High Pressure Sodium



320 Watt Pulse Start Metal Halide



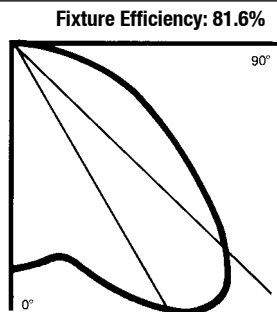
400 Watt Pulse Start Metal Halide



### How to use Quick-Estimate Illumination Chart

1. Refer to "Quick-Estimate Illumination Chart" for the lamp type and wattage to be used.
2. Determine "room size" of area to be lighted. "Small Room" is 2500 Sq. Ft./232.3 Sq. M. or less. "Medium Room" is 2500 Sq. Ft./232.3 Sq. M. thru 10,000 Sq. Ft./929.0 Sq. M. "Large Room" is 10,000 Sq. Ft./929.0 Sq. M. or more.
3. Find level of light (footcandles) required in vertical column of figures at left of chart. Then follow horizontal line (real or interpolated) to right until it intersects with "Arc" of selected "room size." Come directly down from point of intersection to horizontal line of number "Square Feet Per Luminaire." The resulting number (real or interpolated) is the "number of square feet" one Appleton will illuminate to the selected average maintained footcandle level when mounted in conjunction with other units in the high bay installation.
4. Divide number of total square feet in project by "number of square feet per luminaire" to get number of units required.
5. Take square root of resulting "number of square feet per luminaire" number to determine spacing between units.

### Candlepower Distribution of 400 W HPS Luminaire — Closed Bottom Acrylic — All data based on clear, mogul base lamp




Zone	Candlepower	Zone	Candlepower
5	7861	95	667
15	7806	105	328
25	9774	115	184
35	11404	125	82
45	10612	135	32
55	7257	145	20
65	4998	155	0
75	3214	165	0
85	1625	175	0

\* Photometric charts available on request. Consult your local sales representative for pulse start metal halide.

① Consult your local sales representative for performance with 400 W mercury vapor lamps.

② S./M.H.: Spacing to Mounting Height.









 CSA Certified only.

# Fixture Hanger Accessories

Baymaster, Lumenmaster, Super-Baymaster

LIGHTING: GENERAL LIGHTING – AREA – LOW BAY

Lighting

		Catalog Number			
		Voltage	Fits Hubbell Plug No.	Pendant	Feed-Thru
<b>GHPHP Pendant with one 3/4"/19.1 mm hub, GHPHT with two 3/4"/19.1 mm hubs</b>					
<i>Furnished with assembled FS box, EFHM safety lock, receptacle and steel cover. Supports 200 lbs/90.7 kgs.</i>					
 <p>GHPHP</p>	 <p>GHPHT</p>	120	L5-15P	<b>GHPHP12</b>	<b>GHPHT12</b>
		208, 240	L6-15P	<b>GHPHP24</b>	<b>GHPHT24</b>
		277	L7-15P	<b>GHPHP27</b>	<b>GHPHT27</b>
		480	L8-20P	<b>GHPHP48</b>	<b>GHPHT48</b>
		Voltage	Fits Hubbell Receptacle No.	Cord Length Ft/M	Catalog Number
<b>Matching Cord Sets for above Receptacle Hangers</b>					
	120	L5-15R	2/6	<b>G-HCPL-2-12</b>	
			3/9	<b>G-HCPL-3-12</b>	
			4/1.2	<b>G-HCPL-4-12</b>	
	208, 240	L6-15R	2/6	<b>G-HCPL-2-24</b>	
			3/9	<b>G-HCPL-3-24</b>	
			4/1.2	<b>G-HCPL-4-24</b>	
	277	L7-15R	2/6	<b>G-HCPL-2-27</b>	
			3/9	<b>G-HCPL-3-27</b>	
			4/1.2	<b>G-HCPL-4-27</b>	
	480	L8-20R	2/6	<b>G-HCPL-2-48</b>	
			3/9	<b>G-HCPL-3-48</b>	
			4/1.2	<b>G-HCPL-4-48</b>	
		Size (Inches)	Length (A) Inch/Millimeters	Support Wt. Lbs/Kgs	Catalog Number
<b>FH—Hanger Loops With 5/8"/16.0 mm wire opening</b>					
 <p>FHLM</p>	 <p>FHLF</p>	<b>FHLM—Male</b>		350/158.8	<b>FHLM-50</b>
		1/2	3.88/98.6		
		3/4	4.13/104.9		
		<b>FHLF—Female</b>			
		1/2	3.25/82.6		
		3/4	3.25/82.6		
<b>FH—Hanger Hooks With 5/8"/16.0 mm wire opening, 3/8"/19.1 mm jaw opening</b>					
 <p>FHHM</p>	 <p>FHFF</p>	<b>FHHM—Male</b>		200/90.7	<b>FHHM-50</b>
		1/2	3.88/98.6		
		3/4	4.13/104.9		
		<b>FHFF—Female</b>			
		1/2	3.25/82.6		
		3/4	3.25/82.6		
<b>Fuse and Cartridge — Cartridges are furnished complete with two 10"/254 mm-long high temperature wire leads and 600 Volt fuse</b>					
	6 Amp	<b>G-F6</b>			
	10 Amp	<b>G-F10</b>			
	20 Amp	<b>G-F20</b>			
	30 Amp	<b>G-F30</b>			