

Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

NEC/CEC: Class I, Division 2, Groups A, B, C, D | Class I, Zone 2, AEx nA IIC | Class II, Division 1, Group E, F, G | Class II, Division 2, Group F, G | Class III | Type 3R, 4, 4X | IP66/67 | Simultaneous Exposure | Suitable for Use in Wet Locations | Marine Outside Type (Salt Water)

Applications

- Enclosed and gasketed fixtures suitable for use in:
 - Marine and wet locations
 - A wide range of industrial, chemical processing and other areas where flammable gases and vapors are present
 - Areas of low clearance or low ceiling heights
 - Non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust, corrosive atmosphere or high ambient temperatures are encountered
- Typical applications include:
 - Pulp and paper mills
 - Processing plants
 - Chemical plants
 - Oil refineries
 - Foundries
 - Manufacturing plants
 - Storage areas
 - Waste and sewage treatment
 - Parking garages
 - Other areas where dust, water, dirt and rough usage are a problem



Features

- Compact light weight low profile design is suited for low mounting heights.
- Modular design allows scores of fixture component combinations to meet installation needs. Uses same mounting hoods as Mercmaster III.
- Fixture housing and mounting hoods are copperfree cast aluminum with baked epoxy finish. All exposed hardware is stainless steel.
- Accommodates a wide range of voltages.
- Ambient temperatures:
 - 150 W to 175 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
 - 250 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 350 W equivalent: -40 °C to +50 °C (-40 °F to +122 °F)
 - 400 W equivalent: -40 °C to +55 °C (-40 °F to +131 °F)
- Electrical: 120-277 Vac, 50/60 Hz; 347-480 Vac, 50/60 Hz, Volts +/- 10%.
- Pole terminal block: 1 x 8-24 AWG; 1 x 0.75 to 6 mm² (0.0012 to 0.0093 in²).
- Hinge has high lip for added safety during installation and servicing. Hinge and bolt construction assures 360° compression at all points on driver housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- All Mercmaster mounting hoods have provision for easy field installation of fuses in fixtures (see Fixture Unit — Electrical Specification).
- NPT and metric threads standard.
- NEMA Type V light distribution is standard.
 - Type V distribution is required in areas where sufficient, evenly distributed light is necessary. It produces a circular distribution that has the same intensity at all angles.
- NEMA Type I light distribution is available as an option for select NEC/CEC certified fixtures.
 - Type I distribution is the perfect lighting for walkways, Type I distribution is perfect for lighting walkways, catwalks or anyplace where a narrow beam of light is required.

Standard Materials

- Mounting hoods and bodies: cast copperfree (4/10 of 1% max.) aluminum
- All hardware and catch assemblies: stainless steel
- Globe: polycarbonate

Standard Finishes

- Mounting hoods, bodies and guards: baked gray epoxy-clad finish, electrostatically applied for complete uniform protection

NEC/CEC Certifications and Compliances

- UL Standard: UL 50; UL 844; UL 1598; UL 1598A; UL 8750
- CSA Standard: C22.2 No 0; C22.2 No. 0.4; C22.2 No. 0.5; C22.2 No. 94; C22.2 No. 60529; C22.2 No. 137; C22.2 No. 250.0; C22.2 No. 60079; E60079-15
- ANSI/UL Standards: 60079-0; 60079-15
- ANSI/IEC Standards: 60529
- cCSAus Certified: 2531848

DesignLights™ Consortium (for the following models)

- MLEDN15
- MLEDN17
- MLEDN25
- MLEDN35
- MLEDN40

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Illustrated Features

LED Luminaires | NEC/CEC Certified | Hazardous Location



Heatsink

Reliable heat transfer via the cast, epoxy powder coat aluminum body. Provides maximum heat dissipation from the LED assembly to the outside environment.



Driver Assembly

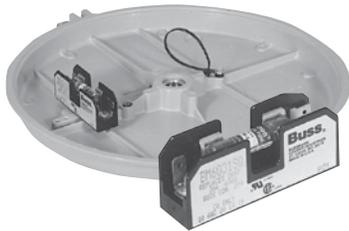
Utilizing non-sparking components avoiding the ignition of gases or vapors that may be present (nA).

Modular Plug between LED and driver.



LED Chamber

Protected by polycarbonate lens, allows for easy maintenance access.



Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24AWG, 0.75 to 6 mm² (0.0012 to 0.0093 in²).

Epoxy Finish

Driver housing, hoods and guards are copperfree aluminum with epoxy powder coat finish.

Electrical Protection

Ground wire provided to bond mounting hood to driver housing.

Safety

Rounded heatsink edges prevent possible injury during installation.



Cooler Operating Cone Hood

Larger sloped surface sheds dusts, dirt and combustible fibers providing better heat dissipation.

Fuses ①

Two screws secure fuse kit to mounting boss in any Mercmaster mounting hood. Fuse included.

Mounting Hood and Globe Gaskets

Silicone rubber gaskets seals out moisture, dirt and dust. Stays flexible, withstands high temperatures. Closure design assures uniform gasket compression.



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.

Stainless Steel Latch Assembly

Captive, stainless steel latch assembly bolt and nut closes securely, resists attack of corrosive atmospheres. Swing-away design simplifies servicing.



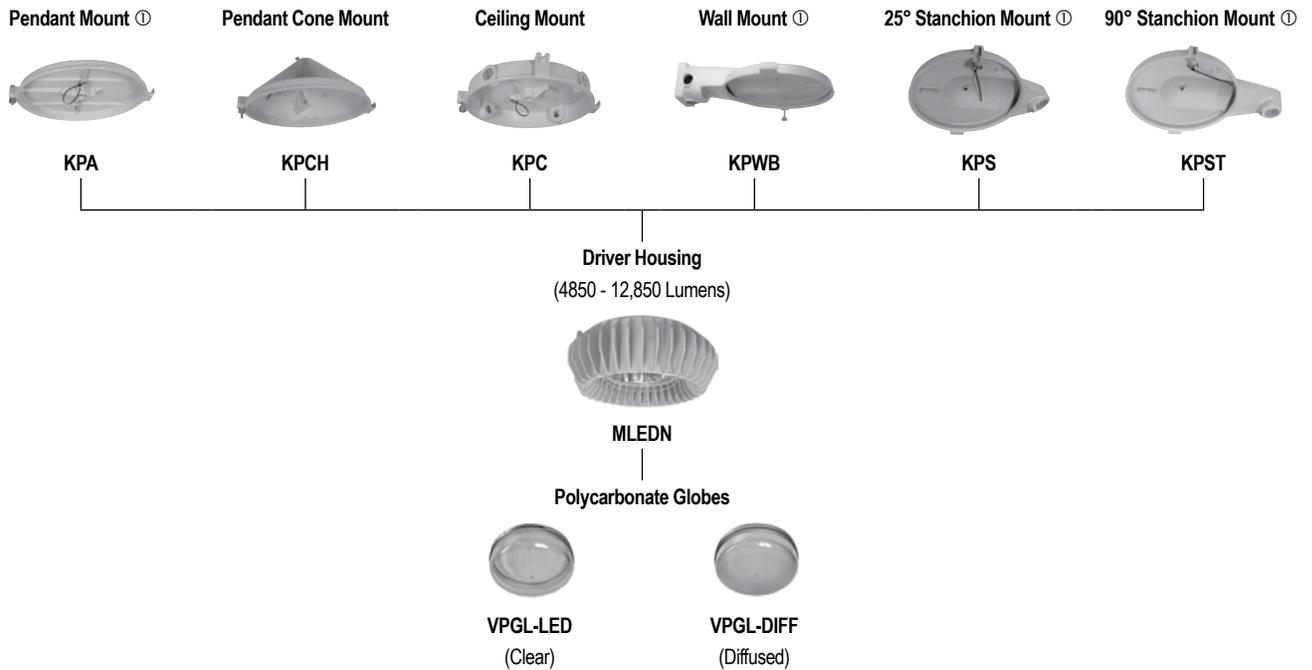
① Fuses are available on the NEC/CEC versions only.

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Family Tree — Mercmaster™ LED Luminaires



LED Luminaires | NEC/CEC Certified | Hazardous Location

① Mounting hood with a 120 V or 208-277 V factory installed photocell is available.

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Fixture Unit — Driver Housing

	Lumen Level	LED Wattage	Light Level Equivalent	NEMA Type	Voltage	Catalog Number	Fuse Kit Suffix
	5650	61/64 W	150 W HPS	Type V	120-277 Vac, 50/60 Hz	MLEDN15P5BU	F3
	5650	74/88 W	175 W PSMH	Type V	120-277 Vac, 50/60 Hz	MLEDN17P5BU	F3
	5650	70/69 W	175 W PSMH	Type I	120-277 Vac, 50/60 Hz	MLEDN17P1BU	F3
	5650	92/96 W	250 W HPS/PSMH	Type V	120-277 Vac, 50/60 Hz	MLEDN25P5BU	F3
	5650	102/103 W	350 W PSMH	Type V	347-480 Vac, 50/60 Hz	MLEDN35P5BH	F3
	5650	127/128 W	400 W HPS/PSMH	Type V	120-277 Vac, 50/60 Hz	MLEDN40P5BU	F3

Mounting Hoods

	Description	Hub Size	Catalog Number
Pendant		3/4	KPA-75
		1	KPA-100
Pendant Cone		3/4	KPCH-75
		1	KPCH-100
Ceiling		3/4	KPC-75
		1	KPC-100
Wall		3/4	KPWB-75
		1	KPWB-100
25° Stanchion		1-1/4	KPS-125
		1-1/2	KPS-150
90° Stanchion		1-1/4	KPST-125
		1-1/2	KPST-150

LED Luminaires | NEC/CEC Certified | Hazardous Location

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Accessories and Replacement Parts

	Description	Catalog Number
Globes and Gaskets		
	Clear Globe	VPGL-LED
	Diffused Globe	VPGL-DIFF
	Globe Gasket — Silicone Rubber	KRF-GK
LED Array		
	150 Watt LED Array Assembly, Type V, White LED's	MLEDN15A5W
	175 Watt LED Array Assembly, Type I, White LED's	MLEDN17A1W
	175 Watt LED Array Assembly, Type V, White LED's	MLEDN17A5W
	250 Watt LED Array Assembly, Type V, White LED's	MLEDN25A5W
	350 Watt LED Array Assembly, Type V, White LED's	MLEDN35A5W
	400 Watt LED Array Assembly, Type V, White LED's	MLEDN40A5W
Drivers		
	120-277 V Driver (up to 250 W only)	MLEDNDBU
	347-480 V Driver (up to 350 W only)	MLEDNDBH
	120-277 V Driver (400 W only)	MLEDNDBU40

Luminaire Weights

Description	Weight kg (lb)
Fixture Unit (Driver Housing)	8.8 (19.4)
Pendant Mounting Hood	1.0 (2.25)
Pendant Cone Mounting Hood	1.1 (2.50)
Ceiling Mounting Hood	1.4 (3.00)
Wall Mounting Hood	1.8 (4.00)
25° Stanchion Mounting Hood	1.5 (3.25)
90° Stanchion Mounting Hood	1.7 (3.75)

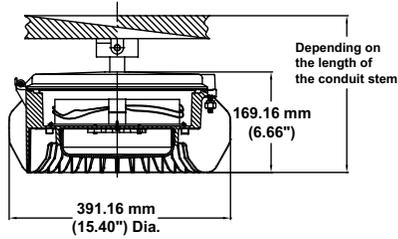
Mercmaster™ LED Series Luminaires

Enclosed and Gasketed Fixtures

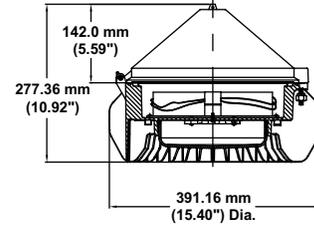
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Dimensions in Millimeters (Inches)

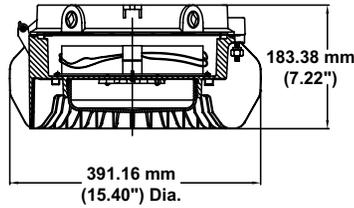
Pendant Mount



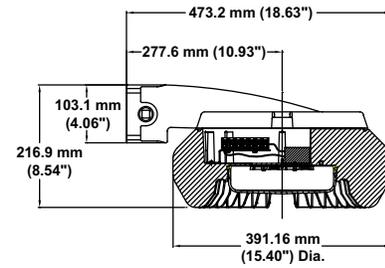
Pendant Cone Mount



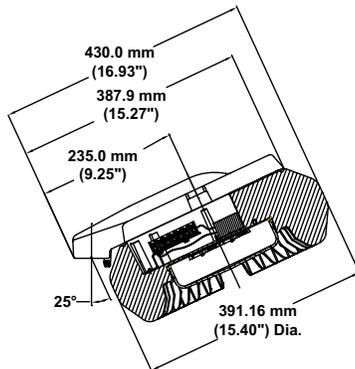
Ceiling Mount



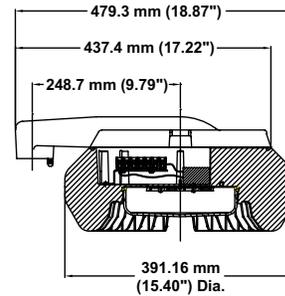
Wall Mount



25° Stanchion Mount



90° Stanchion Mount



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Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN15P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

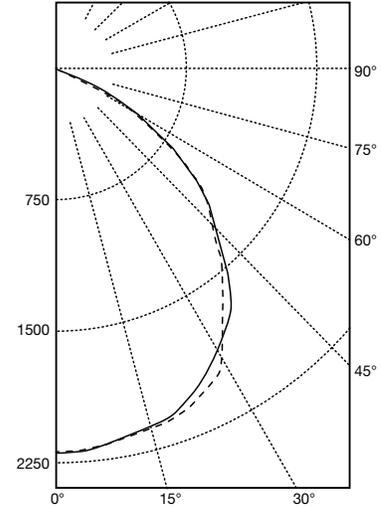
	0.0	22.5	45.0	67.5	90.0	Flux
0	2208	2208	2208	2208	2208	
5	2202	2195	2197	2195	2202	209
15	2137	2131	2127	2131	2137	603
25	2045	2003	1977	2003	2045	926
35	1669	1658	1735	1658	1669	1051
45	1252	1282	1297	1282	1252	988
55	836	850	838	850	834	746
65	276	307	333	307	276	298
75	16	12	11	12	16	22
85	2	1	1	1	2	2
90	1	0	0	0	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	1738	35.8
0-40	2789	57.5
0-60	4523	93.3
0-90	4844	99.9

CIE Type - Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



LED Luminaires | NEC/CEC Certified | Hazardous Location

REPORT NUMBER: **MLEDN17P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

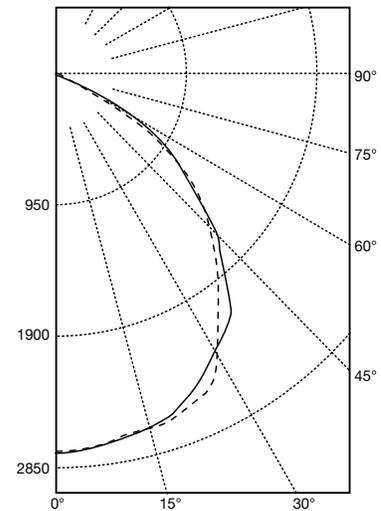
	0.0	22.5	45.0	67.5	90.0	Flux
0	2739	2739	2739	2739	2739	
5	2724	2724	2725	2724	2724	259
15	2660	2658	2655	2658	2660	752
25	2553	2508	2462	2508	2553	1156
35	2069	2062	2201	2062	2069	1312
45	1580	1614	1655	1614	1580	1243
55	1047	1093	1046	1093	1047	943
65	353	380	391	380	353	378
75	19	15	16	15	19	28
85	2	1	1	1	2	2
90	1	0	0	0	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	2167	35.7
0-40	3478	57.2
0-60	5664	93.2
0-90	6072	99.9

CIE Type - Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



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Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN17P1BU (NEMA Type I)**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

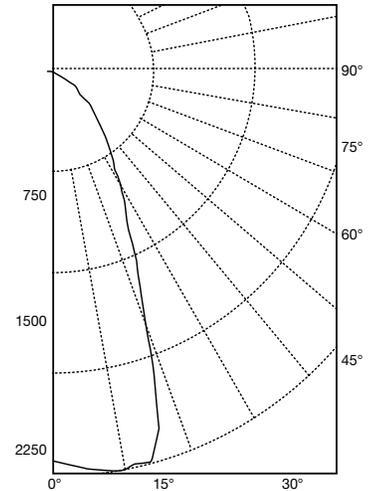
Zone	Lumen
0-10	546.35
10-20	1546.51
20-30	1410.19
30-40	1071.42
40-50	791.23
50-60	524.94
60-70	261.82
70-80	44.42
80-90	3.81

CIE Type - Direct

Plane	Spacing Criteria
0-Deg	90-Deg
0.84	0.84

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-20	2092.86	33.70
0-30	3503.05	56.50
0-40	4574.48	73.70
0-60	5890.65	94.90
0-80	6196.88	99.90
0-90	6200.69	99.90



LED Luminaires | NEC/CEC Certified | Hazardous Location

REPORT NUMBER: **MLEDN250P5BU ①**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

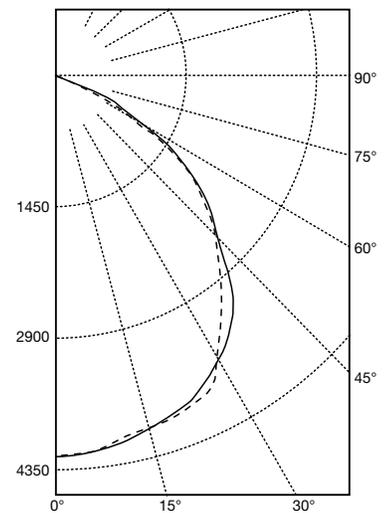
	0.0	22.5	45.0	67.5	90.0	Flux
0	4206	4206	4206	4206	4206	
5	4170	4182	4177	4182	4170	397
15	4035	4046	4038	4046	4035	1145
25	3913	3888	3829	3888	3913	1784
35	3211	3233	3380	3233	3211	2046
45	2484	2524	2532	2524	2484	1942
55	1710	1763	1708	1763	1710	1530
65	682	564	606	564	682	568
75	20	18	17	18	20	31
85	2	1	1	1	2	2
90	1	1	0	1	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3326	35.2
0-40	5372	56.8
0-60	8844	93.5
0-90	9445	99.9

CIE Type - Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.2	1.2



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Photometric Data — DATA SHOWN IS ABSOLUTE

REPORT NUMBER: **MLEDN35P5BH** ①

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

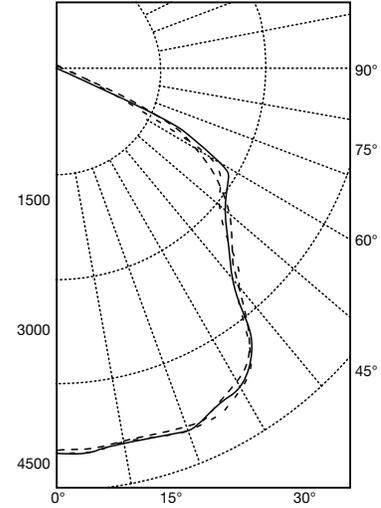
	0.0	22.5	45.0	67.5	90.0	Flux
0	4439	4439	4439	4439	4439	
5	4425	4417	4445	4432	4447	421
15	4356	4368	4410	4404	4418	1249
25	4356	4331	4394	4395	4357	20166
35	3912	3930	4045	4107	3826	2440
45	2929	2883	2866	2874	2929	2248
55	2277	2256	2296	2438	2394	2085
65	1105	893	843	957	825	927
75	20	25	22	26	22	38
85	2	2	2	4	3	4
90	1	1	1	2	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	3686	32.3
0-40	6126	53.6
0-60	10460	91.5
0-90	11428	100.0

CIE Type - Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.4	1.4



REPORT NUMBER: **MLEDN40P5BU**

Lamps: Mercmaster LED, Class I, Division 2, Polycarbonate Optic

Candela Distribution

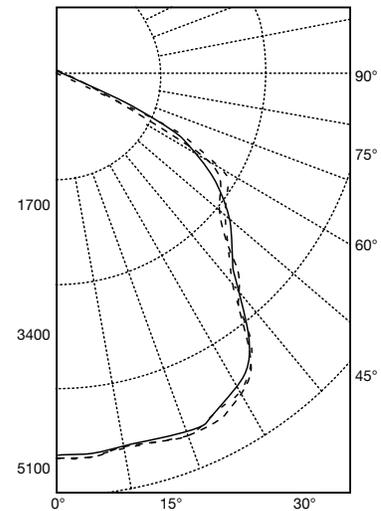
	0.0	22.5	45.0	67.5	90.0	Flux
0	4958	4958	4958	4958	4958	
5	4976	4983	4949	4956	4941	472
15	4943	4934	4907	4921	4913	1400
25	4884	4920	4869	4900	4980	2263
35	4466	4590	4430	4410	4468	2738
45	3215	3213	3269	3286	3160	2525
55	2592	2635	2578	2612	2617	2330
65	833	1145	1070	1020	922	1067
75	30	32	29	33	32	55
85	40	5	3	3	3	5
90	1	2	1	1	1	

Zonal Lumen Summary

Zone	Lumens	% Fixture
0-30	4135	32.2
0-40	6873	53.5
0-60	11728	91.2
0-90	12855	100.0

CIE Type - Direct

Plane	Spacing Criteria
0-Deg	90-Deg
1.4	1.4



LED Luminaires | NEC/CEC Certified | Hazardous Location

① Lamp type is not certified for use in ATEX/IEC governed locations.