

Mercmaster™ III Low Profile Compact Fluorescent Luminaires

Enclosed and Gasketed. For Hazardous and Wet Locations

Compact Fluorescent listed for simultaneous exposure to combustible dusts and flammable gases or vapors.

NEC/CEC:

Class I, Division 2, Groups A, B, C, D
Class I, Zone 2, AEx nA nR IIC (Z2)
Class II, Division 1 and 2, Groups E, F, G
Class III

NEC/CEC:

Simultaneous Exposure (Class I, Division 2/
Class II, Division 1)
Fixtures Outside Type (Salt Water)
Type 4X
IP66

CEC:

Class I, Zone 2, Ex nR IIC (Z)

Applications

- Enclosed and gasketed fixtures suitable for use in marine and wet locations, and in a wide range of industrial, chemical processing and other areas where flammable gases and vapors or combustible dusts are present under conditions defined by the National Electrical Code as Class I, Division 2; Class II, Division 1 and 2; and Class III. The method of protection for the Zone 2 Mercmaster is AEx nA nR – Restricted Breathing/Nonsparking.
- For use in areas of low clearance, low ceiling heights or where fixture weights must be minimized.
- Suited for use in non-hazardous locations where severe weather conditions, excessive moisture, dirt, dust or corrosive atmospheres are present.
- Typical applications include oil refineries, pulp and paper mills, chemical plants, food-processing areas, inspection facilities, foundries, power plants, storage areas, waste and sewage treatment, parking garages, and other areas where dust, water, dirt and rough usage are a problem.

Features

- Energy-efficient, compact fluorescent light sources possess superior lamp efficiency.
- Fluorescent provides long lamp life, thereby reducing relamping costs.
- “Instant on” nature of this electronically ballasted fluorescent eliminates the possibility of an extended blackout due to a momentary power dip.
- High efficacies (up to 75 lumens per Watt) offer a desirable low-glare/instant-on alternative to low wattage HID sources.
- High output under widely varying conditions: Greater than 90% of rated lumens in ambient temperatures from -5 °C to +54 °C (+23 °F to +130 °F).
- Excellent color rendering (82 CRI) makes it the best choice for food processing and inspection facilities.
- A wide variety of lamp wattages: 26 W, 32 W, 42 W, 52 W, 64 W, 84 W.
- Electronic ballast permits low operating costs with power factor greater than 99%. Also allows flicker-free starting.
- Cold weather starting to a minimum temperature of -18 °C (0 °F).
- Fixtures are available for operation from an external 125 Vdc source.
- Compact, light-weight low profile design creates ease of installation and maintenance.
- Modular design, with multiple mounting hoods, optics and reflectors, permits a wide array of fixtures to meet installation and lighting needs.
- Body gaskets and optic gaskets are high temperature silicone O-Rings that provide superior sealing.
- Mounting hoods have a high hinge for added safety during installation and servicing.
- Choice of heat-resistant prismatic glass refractor (NEMA I, III or V), heat-resistant clear globes, color globes or polymeric refractors (NEMA II, III, IV or V). (Polymeric refractors are not listed for Zone 2.)



Pendant Mount Fixture
with Glass Globe

Ceiling Mount Fixture with
Prismatic Glass Refractor

Standard Materials

- Standard dome or 30° angle reflectors: highly reflective fiberglass reinforced white polyester to provide strength, corrosion resistance and excellent photometrics
- Fixture housing, mounting hoods, and guards: die-cast, copperfree (4/10 of 1% max.) aluminum with epoxy finish for corrosion resistance
- Exposed hardware: stainless steel. Latch assemblies have stainless steel bolt and captive nut; reflectors and guards attach with stainless steel screws threading into stainless steel inserts
- Globes and glass refractors: heat-resistant prismatic glass
- Polymeric refractor: spun aluminum refractor and a lens made of an engineered thermoplastic

Standard Finishes

- Epoxy powder coat finish electrostatically applied for complete, uniform surface protection

Options

- Fuse can be field installed. Kits include fuse block, wire connectors and screws for attachment to mounting hood.
 - Fixtures with fuses do not comply with UL 1598A for marine listing
 - Canadian Electrical Code does NOT allow fusing in hazardous locations
- Guards with gray epoxy painted to match fixtures, supplied with stainless steel screws. Add suffix **-G**.
- Reflectors are available as standard dome and 30° angle polyester. Order separately.

NEC/CEC Certifications and Compliances

- UL Standard: UL 1598, UL 1598A, UL 844, UL 60079-0, UL 60079-15
- UL Listed: E10444
- CSA Standard: C22.2 No. 250, C22.2 No. 137, CAN E60079-0, CAN E60079-15
- CSA Certified: 025428

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Illustrated Features



Globe Chamber

Completely sealed from the ballast housing and outside vapors/air (nA nR).

Epoxy Finish

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

Photocell

Installs through knock-out in mounting hoods except cone and ceiling mount. Provides continuous on-off dusk-to-dawn control. Not for use in hazardous (classified) areas. Hazardous location rated photocells also available. See Accessories page.



Vented Reflectors

Reflectors are thick, tough fiberglass-reinforced white polyester, vented for cooler operation. Quickly attach with furnished stainless steel screws.

Terminal Blocks (Zone 2)

A seven-point terminal block is provided to facilitate wiring. Terminal block accommodates wire size ranging from #8 to #24 AWG.

Stainless Steel Inserts

Ballast bodies have stainless steel threaded inserts to receive stainless steel screws for reflectors and guard. Prevents "freezing", allowing guards and reflectors to be easily removed and replaced at any time, without damage to the housing.

Prismatic Glass Globes and Refractors

Heat-resistant globes and glass refractors and polymeric refractors thread directly into ballast housing and seal against a high temperature silicone rubber gasket. (Polymeric refractors are not listed for Zone 2 areas.)



Ballast Assembly

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

Hood/Ballast Gasket

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

Electrical Protection

Ground wire provided to bond mounting hood to ballast housing.



Cooler Operating Cone Hood

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



Fuses

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



"Safety" High Hinge

Extra-high hinge provides additional protection against accidental ballast 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.

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

Catalog Numbering Guide For Zone 2 Mercmaster III Compact Fluorescent Luminaires

<p>ML</p> <p>Series: ML - Mercmaster III Low Profile</p>	<p>A</p> <p>Mounting Hood: A - Pendant (Rigid or Flexible) C - Ceiling D - Pendant Cone R - 90° Stanchion S - 25° Stanchion W - Wall</p>	<p>F</p> <p>Lamp Type: F - Fluorescent</p>	<p>84</p> <p>Wattage: 26 - One 26 Watt PL-T 32 - One 32 Watt PL-T 42 - One 42 Watt PL-T 52 - Two 26 Watt PL-T 57 - One 57 Watt PL-T ③ 64 - Two 32 Watt PL-T 84 - Two 42 Watt PL-T 114 - Two 57 Watt PL-T ④</p>	<p>2</p> <p>Hub Size: 2 - 3/4" NPT 3 - 1" NPT 4 - 1-1/4" NPT Stanchion 5 - 1-1/2" NPT Stanchion</p>	<p>G2</p> <p>Optical Assembly: ① G2 - VPGL2HR Globe (not for 57, 114 Watt) G4 - VPGL4HR Globe (57, 114 Watt only) ④ J1 - NEMA I Glass Refractor J3 - NEMA III Glass Refractor J5 - NEMA V Glass Refractor P2 - NEMA II Polymeric Refractor P3 - NEMA III Polymeric Refractor P4 - NEMA IV Polymeric Refractor P5 - NEMA V Polymeric Refractor</p>	<p>G</p> <p>Guard Options: G - Cast Guard (Glass Refractor and Globe only) N - No Guard</p>	<p>BU</p> <p>Voltage: BU - 120 to 277 V, 50/60 Hz and 125 Vdc A5 - 347 V, 60 Hz ④</p>	<p>L</p> <p>Lamp Options: L - Lamp(s) included Blank - Lamp(s) excluded</p>	<p>Z2</p> <p>Suffix: DP - Safety Cable SC - Safety Chain Z2 - Zone 2 Suffix (Required for AEx nA nR rating) C - Safety Cable ④ F - Fused Mtg. Hood ③④ (Non-Haz. Loc. only) P - Non-Haz. Photocell (Specify Voltage) ④ Q - Division 2 Haz. Photocell (Specify Voltage) ④ T - Terminal Blocks ④ V - Vibration Protection ④ X - Appledapter ② Mounting Hood Adapter ④ Z - Zone 2 suffix (required for Ex nR) ④</p>
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① Polymeric refractors suitable for Class II, Groups F and G; NEMA 4X; and Marine Type Electric Fixture Outside Type (Salt Water) only.

Reflectors ordered separately (for use with globe fixtures only): Standard Dome: KR2-ST 30-degree Angle: KR2-AN

② Appledapter is available for use with the pendant, ceiling and angled stanchion mounting only.

③ Canadian Electrical Code (CEC) does NOT allow fusing in hazardous locations.

④ Certified to meet the Canadian Electrical Code (CEC) only.

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High Power Factor Electronic Ballast (Min. P.F. 99%), PL-T Lamps.

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Appleton

FLUORESCENT/AREA: NEC/CEC ENCLOSED AND GASKETED

Lamp Watts	Hub Size (Inches)	With Globe ①④	Catalog Numbers ②③	
			With Type V 8" Glass Refractor ①④⑤	With Type V Polymeric Refractor ⑥
25° Stanchion				
1 x 26 W	3/4	MLSF264G2N	MLSF264J5N	MLSF264P5N
	1	MLSF265G2N	MLSF265J5N	MLSF265P5N
1 x 32 W	3/4	MLSF324G2N	MLSF324J5N	MLSF324P5N
	1	MLSF325G2N	MLSF325J5N	MLSF325P5N
1 x 42 W	3/4	MLSF424G2N	MLSF424J5N	MLSF424P5N
	1	MLSF425G2N	MLSF425J5N	MLSF425P5N
2 x 26 W	3/4	MLSF524G2N	MLSF524J5N	MLSF524P5N
	1	MLSF525G2N	MLSF525J5N	MLSF525P5N
1 x 57 W	3/4	MLSF574G4N ⑦	MLSF574J4N ⑦	MLSF574P4N ⑦
	1	MLSF575G4N ⑦	MLSF575J4N ⑦	MLSF575P4N ⑦
2 x 32 W	3/4	MLSF644G2N	MLSF644J5N	MLSF644P5N
	1	MLSF645G2N	MLSF645J5N	MLSF645P5N
2 x 42 W	3/4	MLSF844G2N	MLSF844J5N	MLSF844P5N
	1	MLSF845G2N	MLSF845J5N	MLSF845P5N
2 x 57 W	3/4	MLSF1144G4N ⑦	MLSF1144J4N ⑦	MLSF1144P4N ⑦
	1	MLSF1145G4N ⑦	MLSF1145J4N ⑦	MLSF1145P4N ⑦
90° Stanchion				
1 x 26 W	3/4	MLRF264G2N	MLRF264J5N	MLRF264P5N
	1	MLRF265G2N	MLRF265J5N	MLRF265P5N
1 x 32 W	3/4	MLRF324G2N	MLRF324J5N	MLRF324P5N
	1	MLRF325G2N	MLRF325J5N	MLRF325P5N
1 x 42 W	3/4	MLRF424G2N	MLRF424J5N	MLRF424P5N
	1	MLRF425G2N	MLRF425J5N	MLRF425P5N
2 x 26 W	3/4	MLRF524G2N	MLRF524J5N	MLRF524P5N
	1	MLRF525G2N	MLRF525J5N	MLRF525P5N
1 x 57 W	3/4	MLRF574G4N ⑦	MLRF574J4N ⑦	MLRF574P4N ⑦
	1	MLRF575G4N ⑦	MLRF575J4N ⑦	MLRF575P4N ⑦
2 x 32 W	3/4	MLRF644G2N	MLRF644J5N	MLRF644P5N
	1	MLRF645G2N	MLRF645J5N	MLRF645P5N
2 x 42 W	3/4	MLRF844G2N	MLRF844J5N	MLRF844P5N
	1	MLRF845G2N	MLRF845J5N	MLRF845P5N
2 x 57 W	3/4	MLRF1144G4N ⑦	MLRF1144J4N ⑦	MLRF1144P4N ⑦
	1	MLRF1145G4N ⑦	MLRF1145J4N ⑦	MLRF1145P4N ⑦



Shown with Glass Globe



Shown with Polymeric Refractor

- ① For fixtures with guard, substitute **G** for **N** before adding voltage suffix.
- ② Add voltage suffix **-BU** for 120 through 277 V, 50/60 Hz and 125 Vdc. Add voltage suffix **-A5** for 347 V, 60 Hz.
- ③ Add **L** after voltage suffix to include lamp.
- ④ Add **Z2** suffix for factory-sealed non-sparking/restricted breathing protection (Aex nA nR).
- ⑤ To order fixture with NEMA Type I or III glass refractor, change **J5** to **J1** or **J3** respectively.
- ⑥ To order fixture with NEMA Type II, III, or IV polymeric refractor, change **P5** to **P2**, **P3** or **P4** respectively. Polymeric refractor fixtures are UL Listed and CSA Certified for Class II, Division 1 and 2, Groups F and G; Class III; Marine Outdoor Salt Water (UL1598A); NEMA 4X and CSA Type 4X.
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Line Voltage	Type of Ballast	Starting and Operating Amps	Total Watts
26 Watt PL-T Fluorescent			
120	Electronic	.250	28
277	Electronic	.110	28
347	Electronic	.080	27
32 Watt PL-T Fluorescent			
120	Electronic	.300	36
277	Electronic	.130	36
347	Electronic	.150	36
42 Watt PL-T Fluorescent			
120	Electronic	.410	48
277	Electronic	.180	48
347	Electronic	.140	43
52 Watt PL-T Fluorescent			
120	Electronic	.460	56
277	Electronic	.220	56
347	Electronic	.170	54
57 Watt PL-T Fluorescent ①			
120	Electronic	.480	58
277	Electronic	.210	57
347	Electronic	.180	61
64 Watt PL-T Fluorescent			
120	Electronic	.580	69
277	Electronic	.260	69
347	Electronic	.190	66
84 Watt PL-T Fluorescent			
120	Electronic	.760	91
277	Electronic	.320	91
347	Electronic	.280	86
114 Watt PL-T Fluorescent ①			
120	Electronic	.960	116
277	Electronic	.420	114
347	Electronic	.360	122

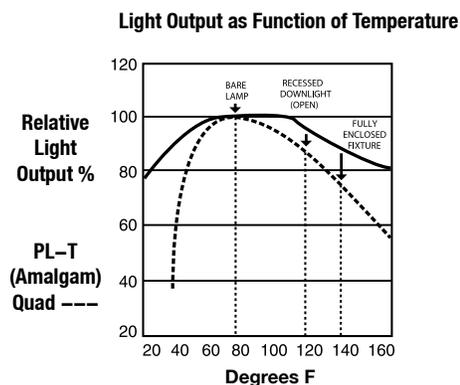
Fuse catalog number: MLF2 (1 required for 120 V or 277 V) – 2-Amp fuse, time delay.
Minimum starting temperature: -18 °C (0 °F).

Energy Efficiency and Lamp Life Comparison

Lamp Type	Watts	Lumens	Rated Average Life (Hours)
Incandescent	100	1750	750
Incandescent	150	2880	750
Incandescent	200 (PS-25, PS-30)	3710	750
Incandescent	200 (A-23)	4010	750
PL-T Fluorescent	26	1800	10,000
PL-T Fluorescent	32	2400	10,000
PL-T Fluorescent	42	3200	10,000
PL-T Fluorescent	52	3600	10,000
PL-T Fluorescent	57 ①	4300	12,000
PL-T Fluorescent	64	4800	10,000
PL-T Fluorescent	84	6400	10,000
PL-T Fluorescent	114 ①	8600	12,000

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Lumen Output Comparison



High lumen output of the amalgam technology lamp vs. the reduced light output at variable temperatures from a typical compact fluorescent lamp.

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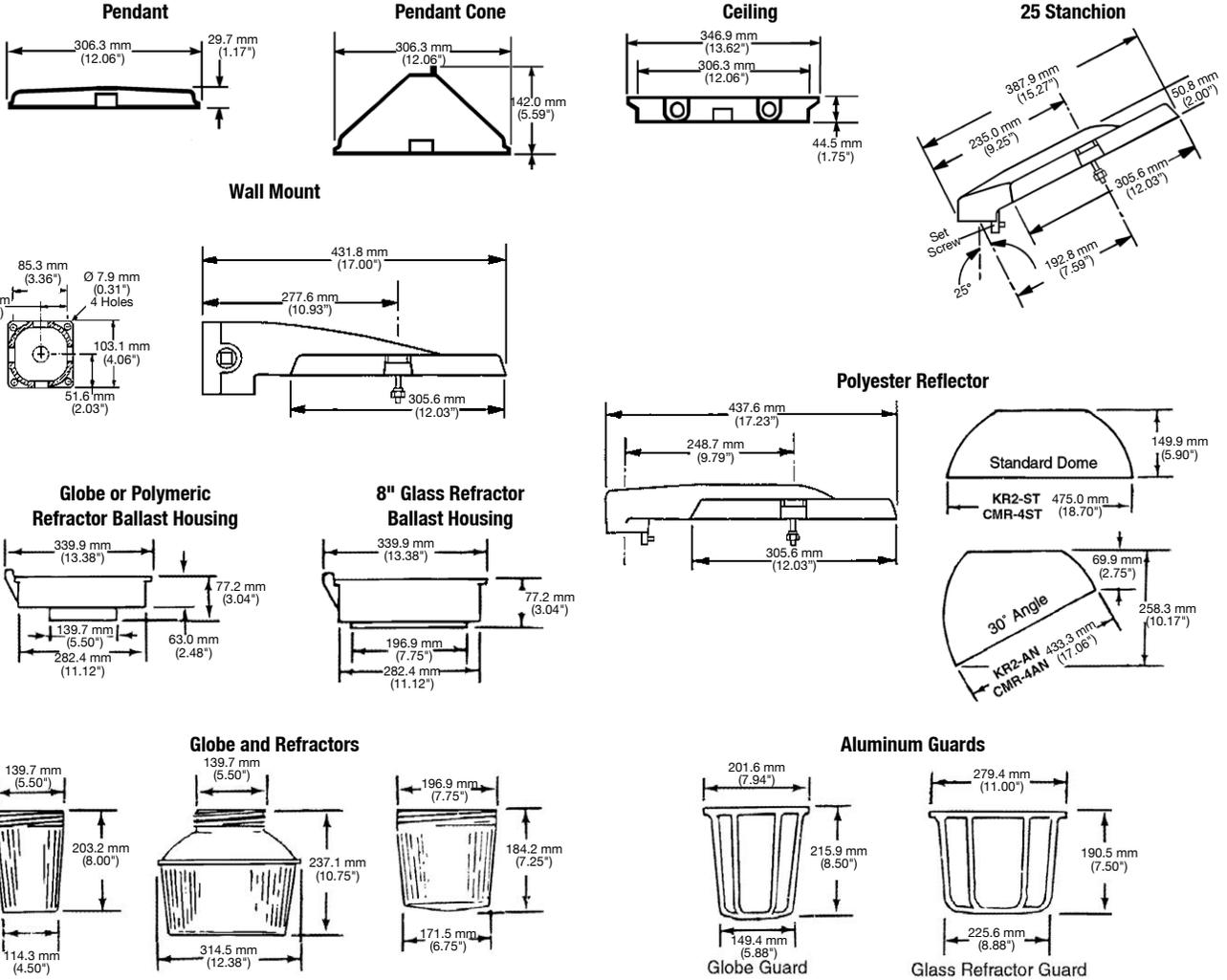
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Dimensions in Millimeters (Inches)



Accessory Weights ①

Ballast Housings and Mounting Hoods	Wt. Kgs (Lbs)	Refractors, Globe, Guards and Reflectors	Wt. Kgs (Lbs)
Pendant	1.0 (2.20)	8" Glass Refractor	2.4 (5.29)
Pendant Cone	1.1 (2.43)	Glass Globe	1.7 (3.75)
Ceiling	1.4 (3.09)	Glass Globe — 57/114 W ③	3.8 (8.38)
Wall Mount	1.8 (3.97)	Polymeric Refractor ②	1.1 (2.43)
25° Stanchion	1.5 (3.31)	Glass Refractor Guard	0.5 (1.10)
90° Stanchion	1.7 (3.75)	Globe Guard	0.5 (1.10)
Globe/Polymeric Refractor Housing	2.5 (5.51)	Globe Guard — 57/114 W ③	0.9 (1.98)
Glass Refractor Housing	2.9 (6.39)	Standard Dome	1.1 (2.43)
		30° Angle	1.1 (2.43)
		Exit Sign ②	2.3 (5.07)

① Weights are approximate.

② Not listed for Class I, Zone 2 areas.

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