

# Industrial HB LED Multilens Bulkhead Luminaires

Enclosed and Gasketed Fixtures

Ordinary Locations

NEC/CEC: Type 3R, 4, 4X; IP66 | IP67; Simultaneous Exposure; Suitable for Use in Wet Locations; Marine Outside Type (Salt Water) ‡†

IECEE CB: IK08

Markings: CE | UKCA

## Applications

- Enclosed and gasketed fixtures suitable for use in:
  - A wide range of harsh industrial environments
  - Marine and wet locations
  - Wall mounted luminaire suitable for areas of low clearance, low ceiling heights or where fixture weights must be minimized.
- Typical applications include:
  - Walkways/catwalks/stairwells
  - Grain elevators
  - Tunnels
  - Pipe racks
  - Processing areas
  - Hydrogen and Biofuels plants
  - LNG (Liquid Natural Gas) plants

## Features

- Compact light weight design
- Choice of color temperature (CCT): 5000K cool white, 4000K neutral white, 3000K warm white, or 1800K high pressure sodium (70 CRI min), yellow amber.
- Customize to the application requirements with two different globe options: diffused polycarbonate, clear glass.
- Two light output levels for retrofit of HID fixtures up to 250W:

Nominal Lumens ①	HID Equivalent	Model
4200	70-100W	IMLTCL3
6800	175-250W	IMLTCL7

① Nominal Lumen value. Detailed lumen information is provided in tables.

- Hinge has high lip for added safety during installation and servicing.
- Hinge and bolt construction assures 360° compression at all points on fixture housing gasket for positive sealing. Swing away design of captive bolt and nut simplifies servicing.
- Rugged housing with superior thermal design translates to long luminaire life.
- Reliable heat transfer via the cast, epoxy powder coat aluminum housing (heatsink). Provides maximum heat dissipation from the LED assembly to the outside environment.
- Mounting Hood and Globe Gaskets are silicone rubber to seal out moisture, dirt and dust; stays flexible and withstands extreme temperatures. Closure design assures uniform gasket compression.
- Standard 6 kV surge protection.
- Voltages:
  - DU: 100-277 Vac or 125-300 Vdc
  - D2: 24-48 Vdc
- Ambient Temperature:
  - Standard: -40 °C to +65 °C (-40 °F to +149 °F)
  - Cold temperature option: -50 °C to +65 °C (-58 °F to +149 °F)
- Heavy duty, high temperature silicone rubber gaskets.
- Reported L70:

+25 °C (+77 °F)	Reported	> 60000
	Calculated	> 200000
+65 °C (+149 °F)	Reported	> 60000
	Calculated	> 200000

- Spring-loaded screw-type terminal block can accept 0.14 - 6 mm<sup>2</sup> (26 - 10 AWG) wire.
- Field replaceable lens, LED driver.
- Photometric data and electronic drawings available upon request.



## Warranty ②

- 5 year standard warranty.

## Controls

- Dimming:
  - Industrial HB LED Multilens Bulkhead offers a two-wire, 0-10V variable dimming input port for controlling the light output:
    - Standard operating temperature models: from 10% to 100% of the rated lumen output.
    - Cold temperature option models: from 0% to 100% of the rated lumen output.
    - 24-48 Vdc models: from 0 to 100% of the rated lumen output.
- Group Lighting Controls:
  - Simplify installation of energy saving lighting controls.
    - Control up to 10 luminaires over a distance of 60 meters (200 ft) with Industrial Mercmaster™ Connect LED integrated dimming controller.
    - Daisy chain the luminaires on the same circuit breaker by wiring the 0-10V dimming leads to the Connected luminaire. Enable the Industrial Mercmaster Connect's advanced capabilities to extend daylight harvesting (adjustable output), motion sensing (up to 12 meters [40 ft]) and scheduling features (up to 4 times period per day) with the group of lights.
    - Optionally commission and monitor the group of lights remotely via our Plantweb Insight™ Connected Lighting App.

## Options

- Globe guard available, purchase separately.
- Safety cable available, purchase separately.
- M20 reducer available, purchase separately.

## Standard Materials

- Mounting hoods and driver housing: cast copperfree (4/10 of 1% max.) aluminum
- Globe: polycarbonate or glass
- Gaskets: silicone rubber
- All hardware and catch assemblies: stainless steel
- Globe guard: stainless steel wire

## Standard Finishes

- Mounting hoods and driver housing: gray epoxy powder coat finish, electrostatically applied for complete uniform protection

## NEC/CEC Certifications and Compliances

- UL Standard: UL 1598; UL 8750
- CSA Standard: C22.2 No. 250.0-08; C22.2 No. 250.13-17
- NEMA/ANSI/IEC Standard: 60529
- cCSAus: 164460, Certificate Number: 70129363

† May be subject to revision.

‡ Use of fuse voids Marine Outside Type (Salt Water) rating.

② For warranty details go to [www.appleton.emerson.com](http://www.appleton.emerson.com).

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## IECEE CB Certificates and Compliances

- IEC 60598-1, IEC 60598-2-1
- IECEE CB Certificates: 64460-80075816
- Photobiological Safety, IEC 62778 and IEC 62471

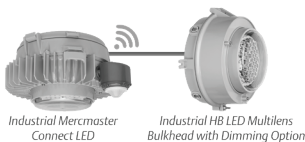
## Related Products

- HB LED Multilens Bulkhead Luminaires
- Mercmaster Connect LED Luminaires
- Industrial Mercmaster Connect LED Luminaires

## CE and UKCA Marking

- Safety: EN 60598-1, EN 60598-2-1, and EN 60598-2-5
- EMC: EN 61547, 61000-6-4, 61000-3-2; CISPR 15

## Illustrated Features



### Group Lighting Controls:

Control up to 10 luminaires over a distance of 60 meters (200 ft) with Industrial Mercmaster Connect LED integrated dimming controller by daisy chaining the dimming leads from the group of lights.



### Latch Assembly and Hinge:

Captive, stainless steel latch assembly (bolt and nut) closes securely while providing resistance to corrosive atmospheres. Swing-away design simplifies wiring and installation. Extra high hinge provides additional protection against accidental driver housing disengagement during installation or maintenance.



### Field Replaceable Parts:

Replacement glass and polycarbonate globes and drivers available — allowing for easy maintenance.



### Safety Cable (optional):

Safety cable is slipped around the housing through retention points that are casted in. Safety cable has built in loops combined with a locking carabiner to allow for a quick and secure installation.

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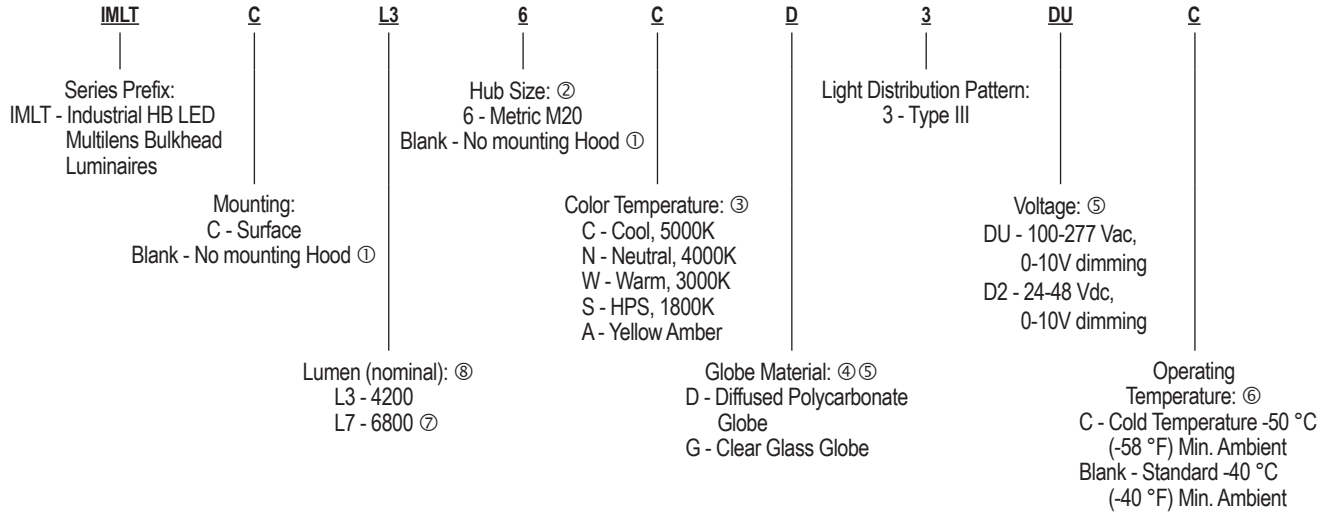
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## Order Using Catalog Numbering Guide — Industrial HB LED Multilens Bulkhead Luminaires



① Select this option if ordering mounting hood KPCM20MLT separately.

② The luminaire includes (5) 3/4"NPT hub and (1) M20 reducer. It ships with the driver housing and the bulkhead mount hood individually packaged.

③ Other CCT options available upon request. Contact your local sales representative for more information.

④ Guards for the globes are ordered separately. See the Accessories for more information.

⑤ Luminaires have 0-10V variable dimming input providing 10% to 100% dimming curve for DU voltage models at standard temperature and 0% to 100% dimming curve for D2 voltage or cold temperature models.

⑥ Cold temperature option is available for use with 120-277 Vac.

⑦ IMLTCL7 120-277 Vac models go up to +60 °C (+140 °F) ambient. IMLTCL7 24-48 Vdc models go up to +65 °C (+149 °F) ambient.

⑧ For lumen output information, see Lumen Output (Efficacy) Table.

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## Lumen Output (Efficacy) ①

Model	HID Equivalency	Light Distribution Pattern	CCT (Correlated Color Temperature)	CRI (Color Rendering Index)	Lumen Output	Efficacy (lm/W)	CCT	CRI	Lumen Output	Efficacy (lm/W)	CCT	CRI	Lumen Output	Efficacy (lm/W)
<b>Diffused Polycarbonate Globe</b>														
IMLTCL3	70-100W	Type III	3000K	80	3300	106	4000K	80	3500	113	5000K	70	3900	126
IMLTCL7	175-250W	Type III	3000K	80	5600	110	4000K	80	5800	114	5000K	70	6300	124
IMLTCL3	70-100W	Type III	1800K	70	2800	82	Amber	N/A	2500	74				
IMLTCL7	175-250W	Type III	1800K	70	4900	98	Amber	N/A	4300	86				
<b>Clear Glass Globe</b>														
IMLTCL3	70-100W	Type III	3000K	80	3500	113	4000K	80	3700	119	5000K	70	4200	135
IMLTCL7	175-250W	Type III	3000K	80	6000	118	4000K	80	6200	122	5000K	70	6800	133
IMLTCL3	70-100W	Type III	1800K	70	3000	88	Amber	N/A	2600	76				
IMLTCL7	175-250W	Type III	1800K	70	5300	106	Amber	N/A	4700	94				

## Electrical Specifications ①

Model	Operating Temperature	Voltage	Max. Input Power (Watts)	Max. Input Current (Amps)	Power Factor (PF)	Total Harmonic Distortion (THD)
IMLTCL3		100 Vac	32	0.32	>0.9	< 20%
		277 Vac	32	0.12		
	-40 °C to +65 °C (-40 °F to +149 °F)	125 Vdc	32	0.25	N/A	N/A
		300 Vdc	32	0.10		
		24 Vdc	27	1.20	N/A	N/A
		48 Vdc	27	0.60		
	-50 °C to +65 °C (-58 °F to +149 °F)	24 Vdc	27	1.20	N/A	N/A
		48 Vdc	27	0.60		
		120 Vac	32	0.32	>0.9	< 20%
		277 Vac	32	0.12		
IMLTCL7	-40 °C to +60 °C (-40 °F to +140 °F)	100 Vac	53	0.52	>0.9	< 20%
		277 Vac	53	0.19		
		125 Vdc	53	0.41	N/A	N/A
		300 Vdc	53	0.17		
	-40 °C to +65 °C (-40 °F to +149 °F)	24 Vdc	46	1.87	N/A	N/A
		48 Vdc	46	0.92		
	-50 °C to +60 °C (-58 °F to +140 °F)	24 Vdc	46	1.87	N/A	N/A
		48 Vdc	46	0.92		
	-50 °C to +65 °C (-58 °F to +149 °F)	120 Vac	53	0.52	>0.9	< 20%
		277 Vac	53	0.19		

① All values are typical (tolerance +/-10%).

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## Effective Projected Area Calculations for Outdoor Luminaires

Luminaire	Effective Projected Area (EPA) = FPA*DC ft <sup>2</sup>
IMLTC	0.91



## Accessories and Replacement Parts

Description	Weight in kg (lbs)	Catalog Number
<b>Surface — Five Hubs, Four Close-Up Plugs</b>		
 M20	1.4 (3.0)	KPC-M20-MLT
<b>Globes</b>		
 Diffused Globe — Polycarbonate	0.2 (0.5)	VPGL-DIFF
Clear Globe — Glass	0.8 (1.7)	VPGL-GLASS
<b>Adapter</b>		
 3/4" NPT to M20 Reducer	0.09 (0.2)	737DT2M25
<b>Guard</b>		
 Globe Guard — Stainless Steel	0.2 (0.4)	MGU1
<b>Safety Cable</b>		
 Safety Cable — Stainless Steel	0.2 (0.4)	LEDSC

## Replacement Drivers

Model	Ambient Temperature	Voltage	Driver Wattage	CCT (Correlated Color Temperature)	Constant Current Settings	Catalog Number
IMLTCL3	-40 °C to +65 °C (-40 °F to +149 °F)	DU	50 Watt	ALL	500mA	APMS050C135UD50
		D2				APMZ050C130DC50
	-50 °C to +65 °C (-58 °F to +149 °F)	DU	50 Watt	ALL	500mA	APMZ050L135UD50
		D2				APMZ050C130DC50
IMLTCL7	-40 °C to +60 °C (-40 °F to +140 °F)	DU	50 Watt	ALL	825mA	APMS050C135UD82
		D2				APMZ050C130DC82
	-50 °C to +60 °C (-58 °F to +140 °F)	DU	50 Watt	ALL	825mA	APMZ050L135UD82
		D2				APMZ050C130DC82

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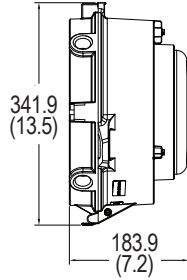
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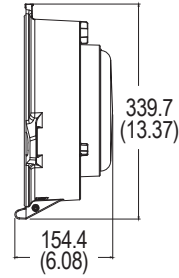
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## Dimensions in Millimeters (Inches)

### Bulkhead Mount



### Driver Housing



## Luminaire Weights

Description	Weight in kg (lbs)
Driver Housing	4.6 (10.10)
Bulkhead	6.0 (13.23)

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## Photometric Data — DATA SHOWN IS ABSOLUTE

**Type III, Clear Glass, 5000K CCT, 3500 Lumens**

REPORT NUMBER: IMLTL3CG3DU

Luminaire Lumens 4431

**Type III, Diffused Polycarbonate, 5000K CCT, 3500 Lumens**

REPORT NUMBER: IMLTL3CD3DU

Luminaire Lumens 4078

**POLAR CANDELA DISTRIBUTION**



Maximum Candela = 3116.4 Located At Horizontal Angle = 52.5, Vertical Angle = 62.5  
 # 1 - Vertical Plane Through Horizontal Angles (52.5 - 232.5) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (62.5) (Through Max. Cd.)

**POLAR CANDELA DISTRIBUTION**



Maximum Candela = 2411.15 Located At Horizontal Angle = 52.5, Vertical Angle = 62.5  
 # 1 - Vertical Plane Through Horizontal Angles (52.5 - 232.5) (Through Max. Cd.)  
 # 2 - Horizontal Cone Through Vertical Angle (62.5) (Through Max. Cd.)

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