



COMPACT SIZE – INTRODUCTION & LOGIC



Luminaire w/Glass Refractor and Guard



Luminaire w/Flat Lens



Wall Mount w/VZRF8PR Pathway Reflector

Expanded wattage range RANGE
14W, 17W, 20W, 25W, 40W, 45W, 50W

Class I, Div. 2, Groups A,B,C,D
Class I, Zone 2, Groups IIC,IIB,IIA
Class II, Div. 1 & 2, Groups E,F,G
Class III
Suitable for wet locations
Marine Rated (US only)
NEMA 3, 4X



Certified - File LR11713

CERTILITE® LED**FEATURES-SPECIFICATIONS Applications**

CERTILITE® MBL LED fixtures are designed for installations where moisture, dirt, dust, corrosion and vibration may be present, or NEMA 3 and 4X areas where wind, water, snow or high ambients can be expected. They can be used in locations made hazardous by the presence of flammable vapors or gases or combustible dusts as defined by the NEC.

Typical applications can low ceiling areas in manufacturing plants, and certain chemical and petrochemical processing facilities, sewage treatment plants, off-shore and dockside installations, garages and storage facilities.

Compliances

- UL-8750 for LED lighting; UL 1598A
- UL Marine type lighting fixtures
UL-844 Standard for lighting fixtures for hazardous locations, Class I, Division 2; Class II, Divisions 1 and 2; Class III
- CSA C22.2 no. 137-M1981 electric luminaries for use in hazardous locations
- Enclosed and gasketed
- NEMA 3, 4X

Materials

- Ballast tank, splice box and guards (MBAG, VMAG) corrosion resistant copper-free aluminum alloy
- Baked powder epoxy/polyester finish, electrostatically applied for complete, uniform corrosion protection
- All external hardware - stainless steel
- Reflectors - Polyester reinforced fiberglass

Non-Glass Polycarbonate 8" Flat Lens or Spin-top



Patented Design

**LED Luminaire Features and Standards**

- Compact in Size with Traditional Industrial Appearance and Suitability
- Wide variety of optics including globes, globes with reflectors, all-glass refractors, and spin-top refractors
- Optional Mounting arrangements including Pendant, Wall, Ceiling, and Stanchion
- MBL LED Housings can be retrofitted to existing MB splice boxes; upgrade from Fluorescent or HID
- Energy Savings – Less than 50 Watts of Power; 25 Watts for MBL2230
- Long Life up to 100,000+ maintenance free hours to 70% initial lumens
- Crisp White Light for Excellent Color Rendering - Chromaticity 5000°K (CCT); 70 CRI

* LM-xx are Illumination Engineering Society Standards designed to promote uniformity in testing procedures among test labs and manufacturers. For more information go to www.ies.org

Catalog Number Logic**Housing Series****LED Wattage^①**

14 - 14W	22 - 22W	45 - 45W
17 - 17W	25 - 25W	50 - 50W
20 - 20W	40 - 40W	

Voltage

05 - 480VAC ^③
15 - 347VAC ^③
27 - 12-24VDC
30 - 120-277VAC (20-40W only)
34 - 120-250VDC (20, 25, 40W only)

Mounting Style

A – Pendant
X – Ceiling
B – Wall
D – Stanchion 25°

Entry

2 – 3/4" NPT (A, X, B)
3 – 1" NPT (A, X, B)
4 – 1-1/4" NPT (D only)
5 – 1-1/2" NPT (D only)
8 – M20 4 hub (X only)

- Ambient suitability -40°C to 40°C (to 55°C for 14W to 22W)
- Instant on – Including after power interruption
- "World Voltage" 120-277VAC 50/60Hz
- Solder-LESS LED Board Connections – Vibration Resistant
- Dual Drivers 40W, 45W, 50W – Redundant Systems (built-in backup), or for additional energy savings half of MBL4530 can be turned off^①
- LM80-08* Measurement of lumen maintenance for LED light sources
- LM79-08* Certified "Absolute" Photometry, including Chromaticity Color for Solid State Lighting
- L70 Values - Industry Nomenclature for Hours of use to 70% of Initial Lumens (TM-21+ Cal.)

Guard
N – No Guard
G – Guard

Optic

GL – Globe (MBG)
R5 – Type 5 Glass Refractor
S8 – 8" Spin-top Type V Refractor
S5 – 12" Spin-top V Refractor
P5 – 12" Poly Spin-top V Refractor
GF – 8" Glass Flat Lens ^②
PF – 8" Polycarbonate Flat Lens ^②

Options

CP – Component Pack (housing, mount, Optic, Guard if selected)
AN – Assembled Fixture (components as selected)

^① 14W - 25W use single driver

^② 14W - 25W only for 8" flat lens

^③ Single step-down transformer feeds driver(s)



COMPACT SIZE – RATINGS, SPECIAL AIMING ANGLES

ORDERING INFORMATION AND AMBIENT SUITABILITY					C1D2 OPTIC ONLY		ABCD W/ REFLECTOR		C2D1 OPTIC ONLY		EFG W/REFLECTOR	
CATALOG NO.	WEIGHT LBS./KG	WATTS	VOLTAGE	AMPS	40°C	55°C	40°C	55°C	40°C	55°C	40°C	55°C
MBL1427	10.00 / 4.54	14	12-24VDC	1.17-0.58	T5	T4A	T4	T3B	T4A	T4A	T4A	T4A
MBL1430		14	120-250VDC	0.12-0.05								
MBL1727		17	12-24VDC	1.42-0.71	T5	T5	T5	T5	T4	T4	T4	T4
MBL1730		17	120-250VDC	0.14-0.06								
MBL2027		20	12-24VDC	1.67-0.83	T5	T5	T5	T5	T4	T4	T4	T4
MBL2030		20	120-250VDC	0.17-0.07								
MBL2227		22	12-24VDC	1.83-0.92	T4A	T4	T4A	T4	T4	T4	T4	T4
MBL2230		22	120-250VDC	0.18-0.08								
MBL2527		25	12-24VDC	2.08-1.04	T5	T5	T5	T5	T4	T4	T4	T4
MBL2530		25	120-250VDC	0.21-0.09								
MBL4027	15.5 / 7.03	40	12-24VDC	3.33-1.67	T5	-	T5	-	T4	-	T4	-
MBL4030		40	120-250VDC	0.33-0.14								
MBL4527		45	12-24VDC	3.75-1.88	T4A	-	T4A	-	T4	-	T4	-
MBL4530		45	120-250VDC	0.38-0.16								
MBL5027		50	12-24VDC	4.17-2.08	T5	-	T5	-	T4	-	T4	-
MBL5030		50	120-250VDC	0.42-0.18								

① Driver THD<20%, Powerfactor 99% @ 120V; Line Regulation 2%; Load regulation 5%; Protected against Over-voltage and Over-current.

② Weights are shown are MBL tank only.

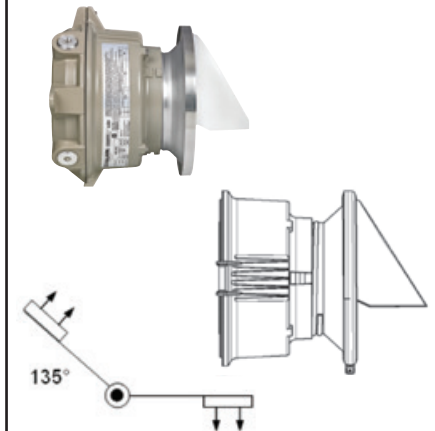
③ TM-21 based values require very long duration testing. The TM-21/L70 "official reported" value is at least 10,000 hours testing (at time of printing) at 1000mA to 1500mA drive current, depending on LED chip utilized - "Reported L70" is a factor of test duration. KILLARK's MBL series utilizes lower 350mA or 700mA maximum drive current - "calculated" values by the major chip vendors utilized predict L70 life up to 278,000+ hours even at 1000mA.

④ Use 75°C minimum supply wire @ 40°C; use 90°C supply wire @ 55°C.

TOTAL LUMEN OUTPUT					
WATTAGE	MBL + MBG	MBL + VMR	MBL + VZRXF8	L70	
				TM-21③	CALCULATED
14	910	800*	980*	60100	270000
17	1650	1485*	2040*	72600	278000
20	1785	1570*	2009*	60100	270000
22	1365	1201*	1427*	60100	270000
25	2485	2236*	3186*	72600	278000
40	3625	3821	-	60100	270000
45	2940	2955	-	60100	270000
50	5824*	6139	-	72600	278000

Extra high lumen per watt LED's

* Values indicated are estimates; LM-79 Absolute Photometry testing is in progress.

Special Aiming Angles
Wall Mount MBL with Pathway Reflector

14W-25W MBL Housings with 8" Flat Spin-Top Lens may be aimed from 135° to 0° with or without the VZRF8PF Pathway Reflector. Pathway Reflector must NOT be aimed upwards in a Class II (Dust) environment, or where any contaminant may be collected. Applications include tunnels, lighting dark spots around ceiling piping or pathways near handrails.