



BPO LIGHTING
Hazardous Area Lighting

HLL J



Class 1 Division 2

Key Features

- | | |
|------------------|---|
| FEATURES: | Linear (Rugged)
High lm/W
Push to test & LED Charging Indicators
3 Mounting Styles |
| OPTIONS: | 2' & 4' Body Lengths
Emergency Back-Up |

Compliance

UL 844 Hazardous Locations
Class I Division 2 Groups A, B, C, D
Class II Division 1 Groups E, F, G
Class II Division 2 Groups F, G
Class III
UL 1598 Suitable for Wet Locations
UL 1598A Marine Saltwater
UL 924 Emergency Lighting Equipment
UL 8750 Light Emitting Diode (LED) Equipment for use in Lighting Product
IP66
IP67
IK10

1200 hours Salt Spray
ABS
3G
Ex II 2GD
Ex db eb mb IIC T6/T5 Gb
Ex tb IIIC T80°C/T95°C Db IP66
Ex db eb mb IIC T6/T5 Gb
Ex tb IIIC T80°C/T95°C Db IP66
DLC

Applications

Oil and Gas

Petroleum production and refining
Petroleum loading, storage, transportation and retail
Confined spaces with vapor accumulation
LNG and LPG handling
Oil tanker and shipping vessels
Fuel system testing facilities

Power Plants

Coal-fired power plants, including coal handling and storage areas
Gas-fired power plants with fuel storage
Nuclear power facilities in hazardous auxiliary areas
Biomass or waste-to-energy plants with combustible dust risks

Industrial

Industrials Storage Facility
Paper mills, Sawmills and lumber yards
Loading Docks Platforms
Manufacturing plants for heavy industrial goods
Warehouses handling flammable materials

Waste Treatment

Wastewater Treatment Plants
Pumping Stations
Solid waste processing and incineration facilities
Sewage treatment with methane gas risks
Hazardous waste Recycling Centers

Mining

Operations and service
Underground mining tunnels with gas accumulation

Chemical Industry

Chemical production, processing facilities and storage
Solvent handling and mixing areas
Chemical research labs with flammable substances

Ocean, marine and aerospace

Ocean platform operation facilities and structure
Marine & Saltwater Environments
Aerospace clean room and production
Ocean vessel operations
Shipyards and dry docks
Aircraft hangars with fuel vapors

Metal treatment

Paint facilities
Steel and aluminum factories
Metal smelting, foundry and fabrication
Welding and cutting areas with gas risks

Military and Defense

Ammunition storage and handling
Fuel depots and refueling stations
Explosives manufacturing
Vehicle maintenance bays in hazardous zones

Food alcohol and Agriculture industry

Flour and fine particle production and storage
Food and distilling production
Grain storage elevators and silos
Breweries and fermentation tanks
Feed mills with dust risks
Fertilizer production and storage

Pharmaceutical Industry

Drug manufacturing and solvent handling
Clean rooms with volatile compounds
Pill coating and drying areas
Research and development labs

Other high humidity, high dust, high temperature and vapor locations

Specifications

Wattage	20W	30W	40W	50W	60W
Body	R2			R4	

OPTICAL

Lumen Output	2730 lm	4012 lm	5067 lm	7024 lm	8381lm
Lumens Per Watt	136.5 lm/W				
Color Temperature: CCT	5000K (standard), 2700-5000K options				
CRI (Color Rendering Index)	>80				
Beam Angle	120°				
Dimming	0-10V dimming				

ENVIRONMENTAL

Ambient Operating Temperature	-40°C to +50°C				
Temperature Code	T6		T5		

MECHANICAL

Housing Material	SUS 304 Stainless steel				
Lens Diffuser	Transparent fiberglass-reinforced polycarbonate (standard) Diffuse fiberglass-reinforced polycarbonate Option				
Hardware	Aluminum Alloy				
Gasket	Waterproof Silicone Rubber				
Fixture Color	Milky White, Epoxy Powder Coating				
Mounting	Ceiling, Rope, Pole Mount				
Cable Entry	Standard: 4 x NPT 3/4" (Side x 1 open, Side x3 with stopping plugs) W/EM: 3x NPT 3/4" (Side x 1 open, Side x2 with stopping plugs) x self testing button				
Warranty	5 Year Standard Warranty (Battery Back Up: 3 Year)				

ELECTRICAL

Lifespan	50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations				
Input Voltage	120-277VAC				
Input Frequency	50/60Hz				
Power Factor	> 0.9				
THD AC 120V	1.29%	1.56%	1.38%	1.47%	1.89%
THD AC 277V	4.01%	4.37%	3.92%	3.24%	5.31%
Input Current	0.17/0.08A	0.26/0.12A	0.34/0.15A	0.42/0.19A	0.5/0.22A
Driver Efficiency	≥ 90%				
Surge Protection	4kV				

EMERGENCY

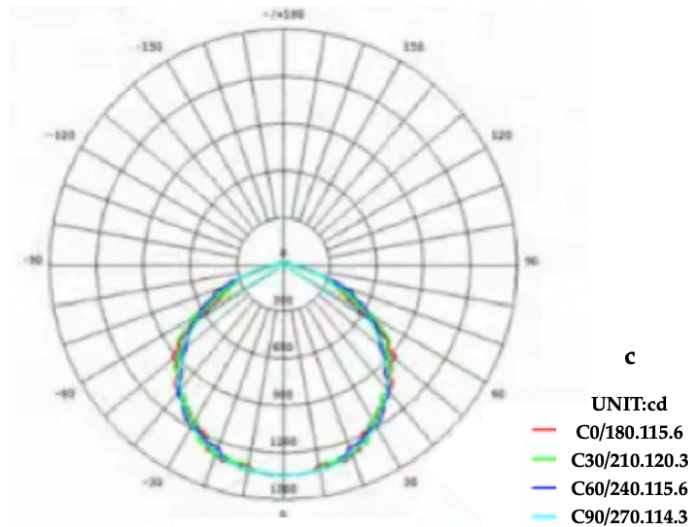
Emergency Time	1.5 Hour
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Ordering Logic

ORDER EXAMPLE: HLL J EX 50W JR4 D 5K 120

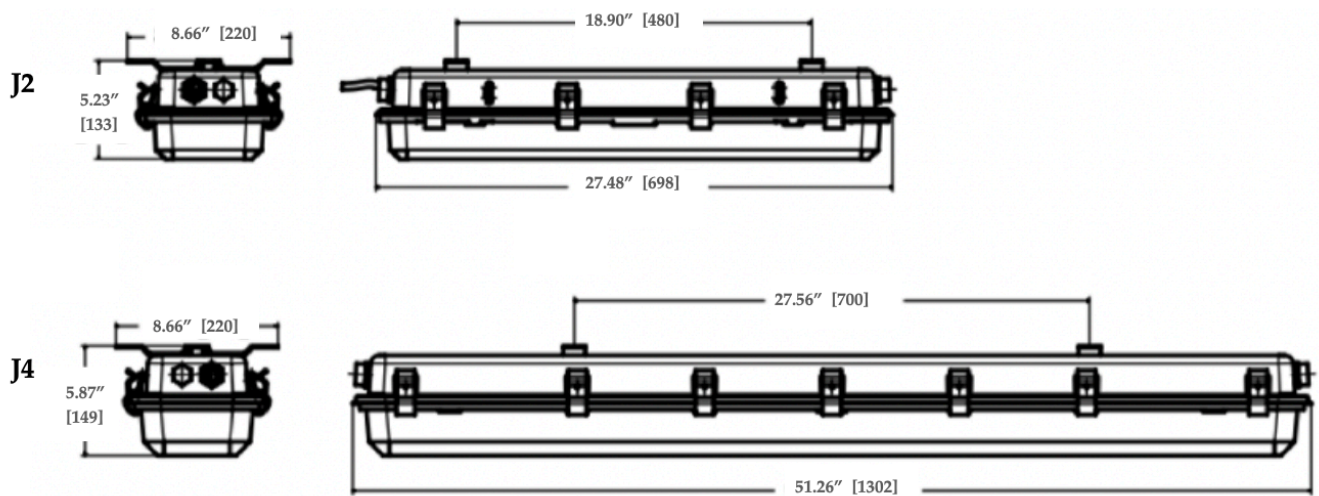
(1) Product	(2) Product Category	(3) Wattage	(4) Shape Series	(5) Dimming
HLL J	EX - Explosion Proof	20W (2,730 lm) 30W (4,012 lm) 40W (5,067 lm) 50W (7,024 lm) 60W (8,381 lm)	JR2 - 2' (20/30/40W) JR4 - 4' (50/60W)	D - Dimmable N - Non-Dimmable
(6) Kelvin	(7) Beam Angle	(8) Voltage	(9) Optional	
3K - 3000 K 4K - 4000 K 5K - 5000 K (S)	120 - 120° (S)	Blank - U 100-277 HV - 480	Blank - Without Emergency Function EM - Emergency Back Up	

Photometric



Average Beam Angle (50%):116.4 DEG

Product Dimensions

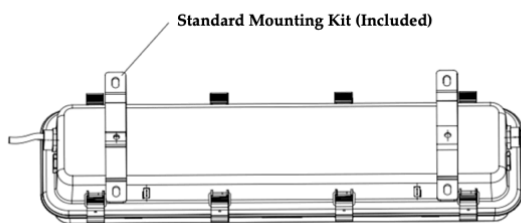


Packaging Information

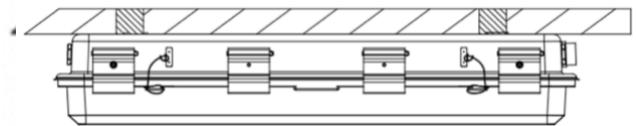
	R2	R4
Fixture Dimensions	See Product Dimensions Drawing	See Product Dimensions Drawing
Package Dimensions	32.28 x 10.63 x 7.87 IN (820 x 270 x 200 MM)	55.91 x 10.63 x 7.87 IN (1420 x 270 x 200 MM)
Net Fixture Weight	11.6 lb (5.27 kg) 14.33 lb (6.5 kg) w/EM	19.67 lb (8.92 kg) 22.49 lb (10.2 kg) w/EM
Gross Weight	14.44 lb (6.55 kg) 16.38 lb (7.43 kg) w/EM	24.69 lb (11.2 kg) 25.44 lb (11.54 kg) w/EM

Mounting Methods

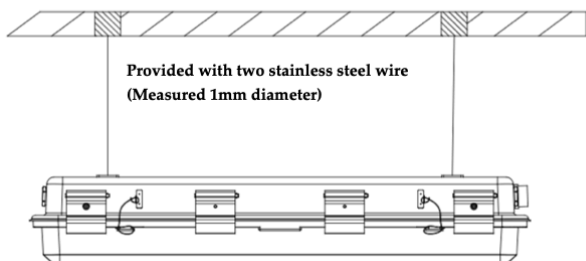
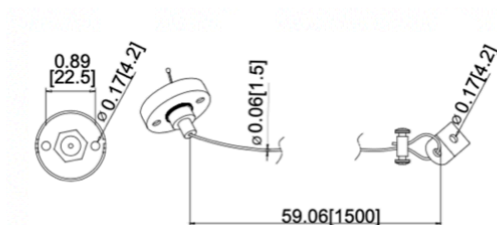
Option 1: Ceiling Mounting



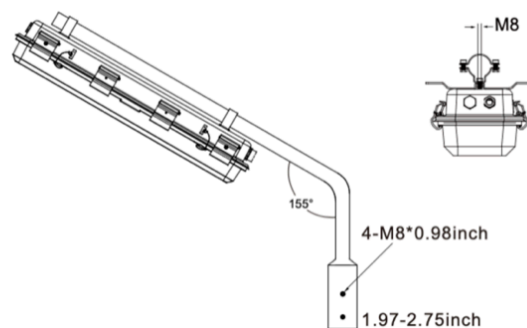
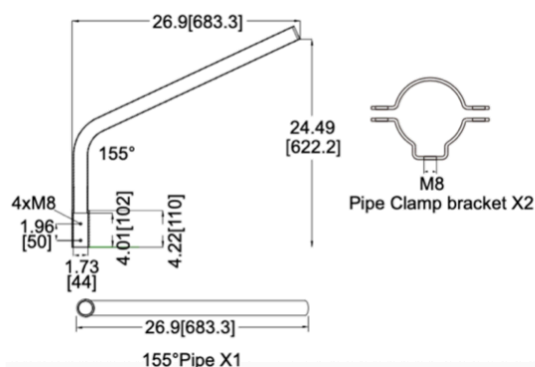
Provided with two stainless steel mounting
Kits welded at the back of Housing



Option 2: Rope Mounting



Option 3: Pole Mounting

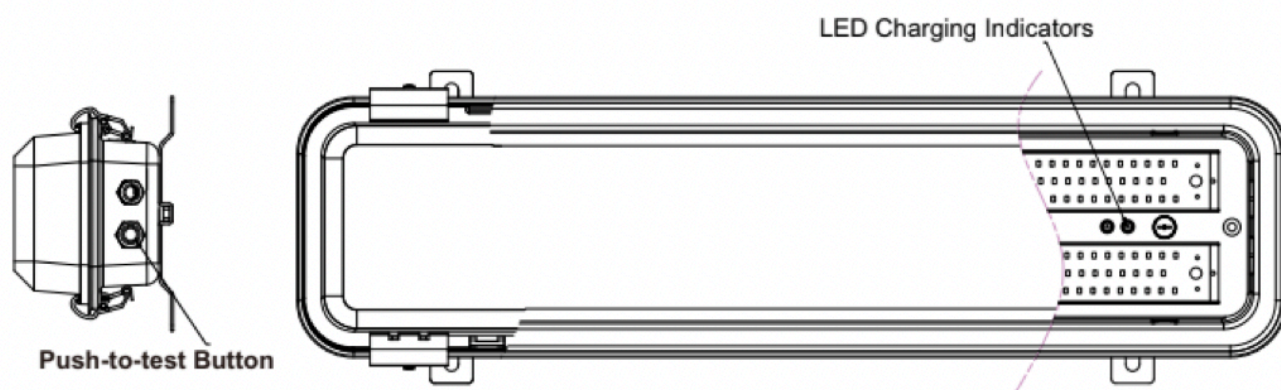


EM Driver Specification Features - EM-15W-HL

CAUTION: Sealed unit. Battery not replaceable. Replace entire unit when necessary

Model	Input Rating				Emergency Output Rating	
	Vac	Hz	Max.mA	Max.W	Vdc	Constant Wattage, W
EM-15W-HL	120-277	50/60	100	7	25-55	15

Model	Charge Time, Hours	Emergency Run Time, Min	Response Time, mS	Rated Ambient Range, °C	Battery Life Expectancy
EM-15W-HL	24	90	< 550	0~60	5 Years



Indicator Information

Operate Mode		LED Features	YELLOW LED (State LED)	Green LED (Indicate LED)
Charge Mode	Charging			Flash 0.2HZ (5S/time)
	Fully charged			ON
Discharge Mode	Discharge			Flash 1HZ (1S/time)
	Discharge cut-off			OFF
Battery disconnect			Flash 2HZ (0.5S/time)	
LED Lamp disconnect			Flash 2HZ (0.5S/time)	
Battery under voltage			Flash 1HZ (1S/time)	
Battery over voltage			Flash 1HZ (1S/time)	
Function test beginning (once a month)				Flash 2HZ (0.5S/time), flash 5 times
Under function test				Flash 1HZ (1S/time)
Function test failed			Flash 0.5HZ (2S/time)	
Discharge duration test beginning (once a year)				Flash 2HZ (0.5S/time), flash 7 times
Under discharge duration test				Flash 1HZ (1S/time)
Discharge duration test failed			Flash 0.5HZ (2S/time)	