



**Class 1 Division 2**



## Key Features

- |                  |                                                                                             |
|------------------|---------------------------------------------------------------------------------------------|
| <b>FEATURES:</b> | Linear (Rugged)<br>High lm/W<br>Push to test & LED Charging Indicators<br>3 Mounting Styles |
| <b>OPTIONS:</b>  | 2' & 4' Body Lengths<br>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 LED Safety  
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 select versions

# Applications

## Oil and Gas

Petroleum production and refining  
Petroleum loading, storage, transportation and retail  
Confined spaces with vapor accumulation  
LNG and LPG handling  
Oil tankers 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

Industrial storage facilities  
Paper mills, sawmills and lumber yards  
Loading dock 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 areas  
Underground mining tunnels with gas accumulation

## Chemical Industry

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

## Ocean, Marine and Aerospace

Offshore platform operation facilities and structures  
Marine and saltwater environments  
Aerospace clean rooms and production areas  
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:<br>CCT      | <b>Standard:</b> 5000K<br><b>Options:</b> 2700K - 5000K |         |         |         |        |
| CRI (Color<br>Rendering Index) | >80                                                     |         |         |         |        |
| Beam Angle                     | 120°                                                    |         |         |         |        |
| Dimming                        | 0-10V dimming                                           |         |         |         |        |

## ENVIRONMENTAL

|                                  |                |  |    |  |  |
|----------------------------------|----------------|--|----|--|--|
| Ambient Operating<br>Temperature | -40°C to +50°C |  |    |  |  |
| Temperature Code                 | T6             |  | T5 |  |  |

## MECHANICAL

|                  |                                                                                                                                                                           |  |  |  |  |
|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|
| Housing Material | SUS 304 Stainless steel                                                                                                                                                   |  |  |  |  |
| Lens Diffuser    | Transparent fiberglass-reinforced polycarbonate (standard)<br>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      | <b>Standard:</b> 4 x NPT 3/4" (Side x 1 open, Side x3 with stopping plugs)<br><b>W/EM:</b> 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 |

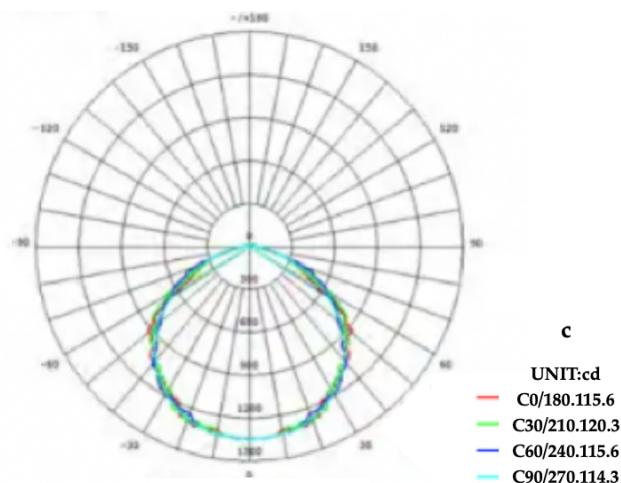
## Ordering Logic

ORDER EXAMPLE: HLL J EX 50W JR4 D 50 D120

| (1) Product     | (2) Product Category      | (3) Wattage    | (4) Shape Series                       | (5) CCT         |
|-----------------|---------------------------|----------------|----------------------------------------|-----------------|
| HLL J           | EX - Explosion Proof      | 10W (0 lm)     | JR2 - 20/30/40W                        | 30 - 3000 K     |
|                 |                           | 20W (2,730 lm) | JR4 - 50/60W                           | 40 - 4000 K     |
|                 |                           | 30W (4,012 lm) |                                        | 50 - 5000 K (S) |
|                 |                           | 40W (5,067 lm) |                                        |                 |
|                 |                           | 50W (7,024 lm) |                                        |                 |
|                 |                           | 60W (8,381 lm) |                                        |                 |
| (6) Beam Angle  | (7) Voltage               |                | (8) Led Driver                         |                 |
| D120 - 120° (S) | Blank - 120-277V          |                | Blank - Without Emergency Function (S) |                 |
|                 | HV - 200-480V or 277-480V |                | EM - Emergency Back Up                 |                 |

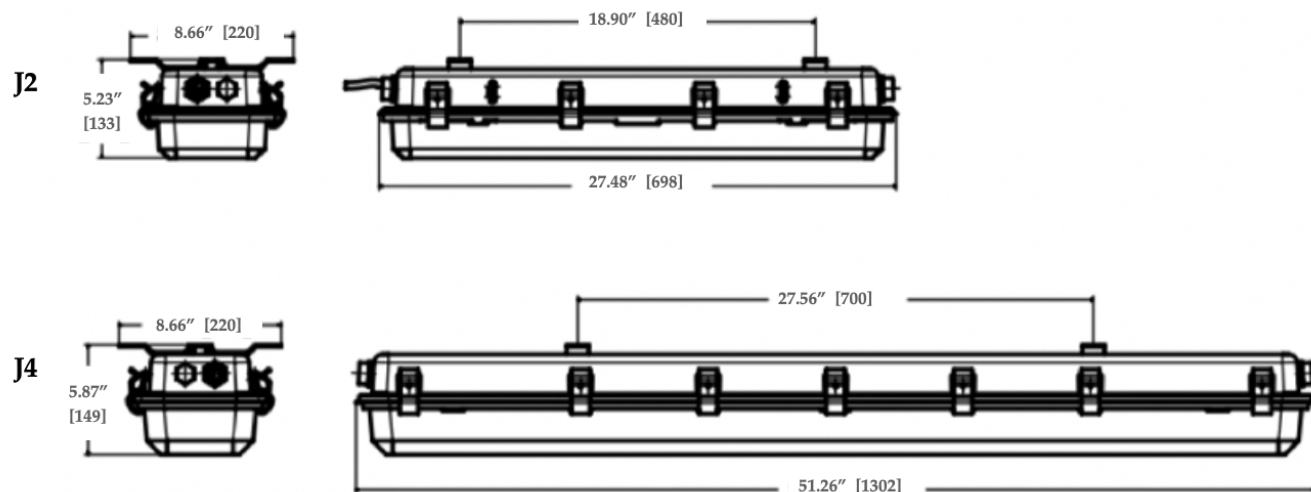
(S) Standard

## Photometric



Average Beam Angle (50%):116.4 DEG

# Product Dimensions

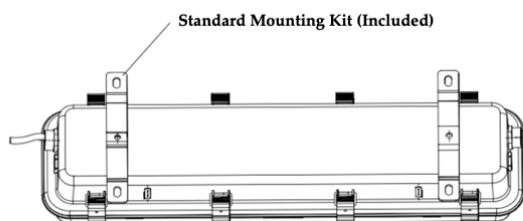


# Packaging Information

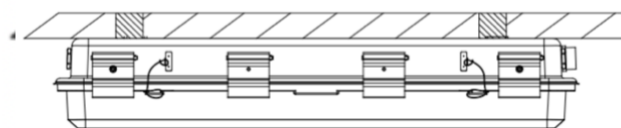
|                    | R2                                                 | R4                                                  |
|--------------------|----------------------------------------------------|-----------------------------------------------------|
| Fixture Dimensions | See Product Dimensions Drawing                     | See Product Dimensions Drawing                      |
| Package Dimensions | 32.28" x 10.63" x 7.87"<br>(820mm x 270mm x 200mm) | 55.91" x 10.63" x 7.87"<br>(1420mm x 270mm x 200mm) |
| 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

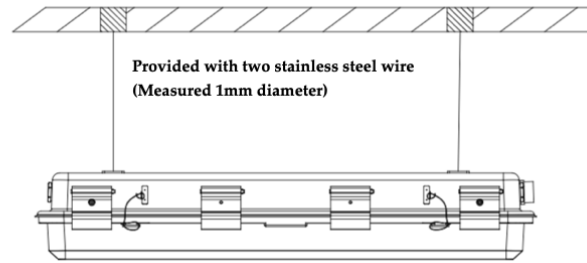
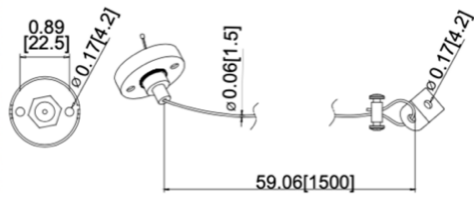
## Option 1: Ceiling Mounting



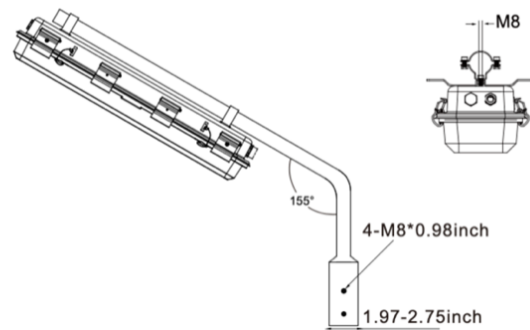
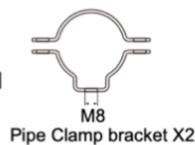
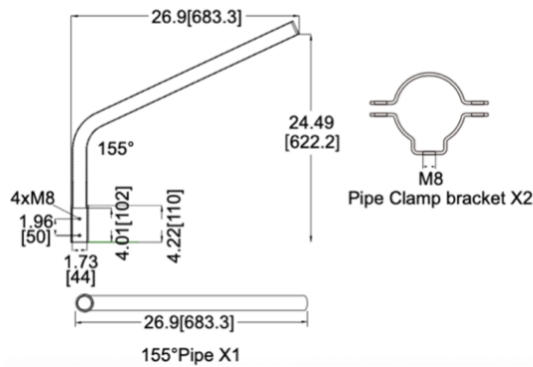
Provided with two stainless steel mounting  
Kits welded at the back of Housing



Option 2: Rope Mounting



Option 3: Pole Mounting

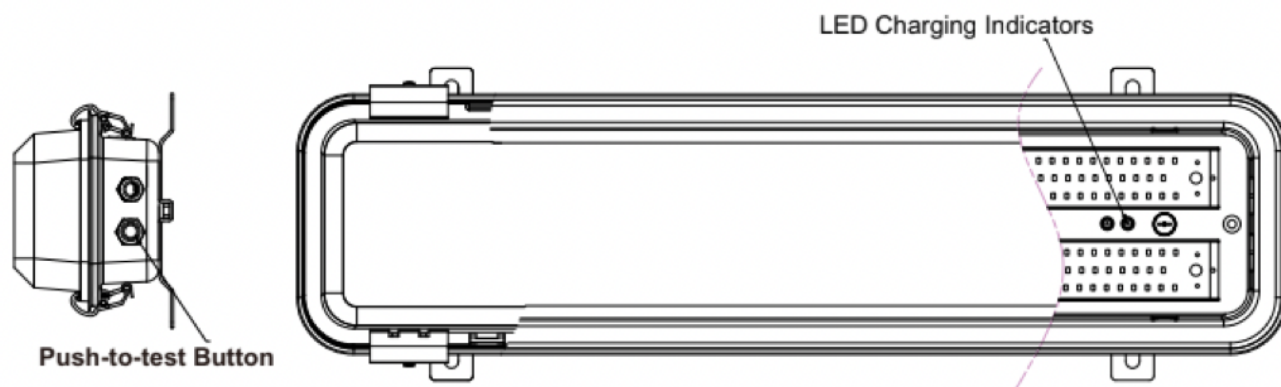


## EM Driver Specification Features - EM-15W-HL

*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

| LED Features                                    |                   | YELLOW LED (State LED) | Green LED (Indicate LED)             |
|-------------------------------------------------|-------------------|------------------------|--------------------------------------|
| Operate Mode                                    |                   |                        |                                      |
| 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)  |                                      |