# R Series Explosion Proof Linear Light

## **Product Description:**

The EX-R series linear vapor tight is designed for use in hazardous locations that feature the presence of flammable gases, vapors, or liquids during normal facility operations. The combination of the style and design of new LED technology with the ruggedness and durability of a hazardous location fixture makes it ideal for retrofit of existing HPS/MH and offers higher efficacy for energy savings, lower maintenance costs and quicker paybacks. The optional battery backup system provides a minimum of 90 minutes operation after AC power is lost during an emergency. It operates with 120 or 277V dual voltage.

## **Certifications:**

- •UL844– Hazardous Locations Class I, Division 2, Groups A, B, C, D Class II, Division 2, Groups F, G Class III
- •UL 1598 Luminaires
- UL 8750 Light Emitting Diode (LED) Equipment for use in Lighting Product
- UL924 Emergency Lighting Equipment
- DLC 5.1
- ABS
- IP66/IP67
  IK10
  1200 hours Salt spray
- •ATEX Marking:
- 😥 II 2GD

Ex db eb mb IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP66

•IECEx Marking:

Ex db eb mb IIC T6/T5 Gb Ex tb IIIC T80°C/T95°C Db IP66

### Features:

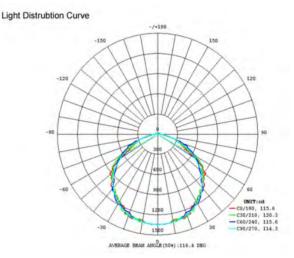
- •UV stabilized, impact-resistant fiberglass reinforced polycarbonate lens.
- Available in two and four foot lengths.
- Ceiling, rope and pole mount
- Suitable for dead end, through feed\* or single-ended "T" wiring
- Maximum total wattage for interconnection is 150 W
- Operating ambient: -40°C to +50°C
- T-rating of T5 / T6
- Replaceable LED light strip
- Optional emergency battery back-up (self-contained min. 90 minute with Push-to-test button and LED charging indicators)

# **Applications:**

- Locations requiring continuous and consistent light levels.
- Marine applications, such as engine rooms, decks and walkways.
- Pulp and paper production facilities.
- Water/wastewater treatment facilities.
- Petrochemical facilities.



## Photometric:



# Ordering Information:

| Ex | -30W | R2 | Ν | 50 | D120 | С | Х | XX |
|----|------|----|---|----|------|---|---|----|
| 1  | 2    | 3  | 4 | 5  | 6    | 7 | 8 | 9  |

| 1. Model Series       | 2. Wattage                                   | 3. House Length          | 4. For All Luminaires                  | 5. Color Temp.                      |
|-----------------------|--|--------------------------|--|-------------------------------------|
| Explosion-proof Light | -30: 30W<br>-40: 40W<br>-50: 50W<br>-60: 60W | R2: 2 feet<br>R4: 4 feet | N: 0-10V Dimming<br>AC120-277V 50/60Hz | 27: 2700K<br>40: 4000K<br>50: 5000K |

| 6. Beam Angle | 7. Mounting Means                                  | 8. Lens Type*                          | 9. Emergency Back Up*      |
|---------------|--|--|----------------------------|
| D120: 120°    | C: Ceiling mount<br>R: Rope mount<br>P: Pole mount | Blank=Transparent PC<br>F = Diffuse PC | Blank=w/o EM<br>EM = w/ EM |

\*: Suffix not within nomenclature as per UL Certification, for marketing purpose only

## Warranty:

- 3-Year Standard Warranty for Battery Backup and 5-Year Standard Warranty for Fixture
- 50,000-hour LED lifespan based on IES LM-80 results and TM-21 calculations



## **Technical Parameter:**

Note: All values are typical (tolerance +/- 10%)

#### Electrical

| Specif              | ication         | Ex-30WR2   | Ex-40WR2   | Ex-50WR4   | Ex-60WR4  |  |  |
|---------------------|-----------------|------------|--|------------|-----------|--|--|
| Rated I             | Rated Power 30W |            | 40W  | 50W        | 60W       |  |  |
| Input V             | oltage          | AC120-277V | AC120-277V   |            |           |  |  |
| Input F             | requency        | 50/60Hz    |  |            |           |  |  |
| Input C             | urrent          | 0.62/0.21A | 0.62/0.21A   | 0.62/0.21A | 1.0/0.38A |  |  |
| THD                 | AC120V          | 1.56%      | 1.38%  | 1.47%      | 1.89%     |  |  |
| טחו                 | AC277V          | 4.37%      | 3.92%  | 3.24%      | 5.31%     |  |  |
| Power               | Factor          | >0.9       |  |            |           |  |  |
| Driver Efficiency ≥ |                 | ≥90%       | ≥90%   |            |           |  |  |
| Dimmir              | ıg              |            | Driver includes dimming control wiring for 0-10V dimming systems<br>Requires separate 0-10V DC dimming circuit |            |           |  |  |
| Surge I             | Protection      | 4kV        |  |            |           |  |  |

#### Optical

| Specification                        | Ex-30WR2          | Ex-40WR2      | Ex-50WR4 | Ex-60WR4 |  |
|--------------------------------------|-------------------|---------------|----------|----------|--|
| Lumen Output                         | 4012Im            | 4012lm 5067lm |          | 8381lm   |  |
| Lumens Per Watt*                     | 136.5Im/W         |               |          |          |  |
| Beam Angle                           | 120°              |               |          |          |  |
| Correlated Color<br>Temperature(CCT) | 2700K/4000K/5000K |               |          |          |  |
| Color Rendering Index<br>(CRI)       | Ra=83             | Ra=84         | Ra=84    | Ra=85    |  |

## **Technical Parameter:**

Note: All values are typical (tolerance +/- 10%)

#### Mechanical

| Specification    | Ex-30WR2   | Ex-40WR2   | Ex-50WR4 | Ex-60WR4 |  |
|------------------|--|--|----------|----------|--|
| Housing Material | SUS 304 stainles   | SUS 304 stainless steel  |          |          |  |
| Lens Material    | •  | Transparent fiberglass-reinforcedpolycarbonate (standard)<br>Diffuse fiberglass-reinforcedpolycarbonate (optional) |          |          |  |
| Gasket           | Silicone Rubber  | Silicone Rubber  |          |          |  |
| Latches/Clips    | Aluminum alloy   |  |          |          |  |
| Color            | Milky White  |  |          |          |  |
| Finish           | Epoxy powder coating   |  |          |          |  |
| Protection       | IP66/IP67/IK10/3G  | IP66/IP67/IK10/3G Vibration/1200hrs salt spray   |          |          |  |
| Mounting         | Ceiling, rope, and pole mount  |  |          |          |  |
| Cable entries    | Standard: 4 x NPT3/4 (Side x1 open, Side x3 with stopping plugs)<br>W/EM: 3 x NPT3/4(Side x1 open, Side x2 with stopping plugs)<br>x self testing button |  |          |          |  |

#### Temperature performance data:

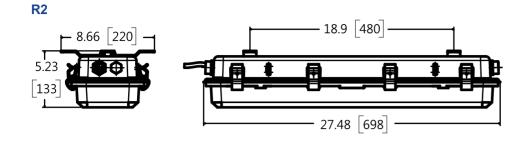
| Luminaire Model | Rated Ambient Temperature Range | Operating Temperature (T Code) |
|-----------------|---------------------------------|--------------------------------|
| Ex-30WR2        | -40°C to 50°C                   | 80 C (T6)                      |
| Ex-40WR2        | -40°C to 50°C                   | 100 C (T5)                     |
| Ex-50WR4        | -40°C to 50°C                   | 100 C (T5)                     |
| Ex-60WR4        | -40°C to 50°C                   | 100 C (T5)                     |

# **Packing Information:**

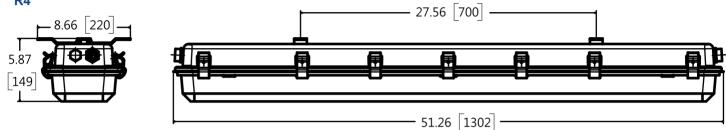
| Model        | Net weight<br>Ibs. (kg.) | Gross weight<br>Ibs. (kg.) | Carton Dimensions (L×W×H)<br>inch.(cm.) |
|--------------|--------------------------|----------------------------|---|
| 2 foot       | 11.6(5.27)               | 14.33(6.5)                 | 32.28x10.24x7.48(82x26x19)              |
| 2 foot w/ EM | 14.33(6.5)               | 16.38(7.43)                | 32.28x10.24x7.48(82x26x19)              |
| 4 foot       | 19.67(8.92)              | 23.15(10.5)                | 55.91x10.24x7.48(142x26x19)             |
| 4 foot w/ EM | 22.49(10.2)              | 25.44(11.54)               | 55.91x10.24x7.48(142x26x19)             |



## **Dimension:**



**R4** 



# Mounting:

\*Mounting screws not provided \*\* Ordered separately, field installed

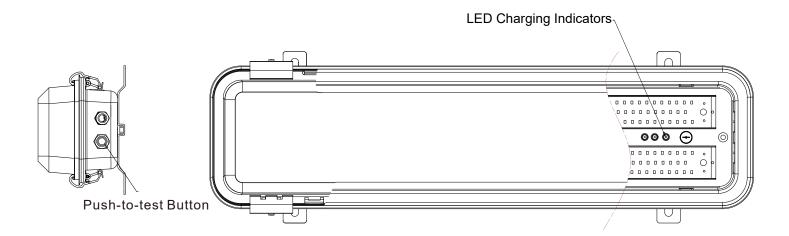
| Options          | Description   | Kit(inch[mm])  | Installed     |
|------------------|---|--|---------------|
| Ceiling<br>Mount | Provided with two stainless<br>steel mounting kits welded<br>at the back of Housing | Standard Mounting Kit (Included)   |               |
| Rope<br>Mount    | Provided with two stainless<br>steel wire. Measured 1 mm<br>diameter.               | 0.89<br>122.51<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>10<br>1  |               |
| Pole<br>Mount    | (1) 155° Pipe<br>(2) Pipe Clamp bracket   | 4xM8<br>1.96<br>1.73<br>144]<br>26.9[683.3]<br>1.75°<br>1.75°<br>1.73<br>24.49<br>1.55°<br>1.75°<br>1.73<br>1.44]<br>26.9[683.3]<br>1.96<br>1.73<br>1.73<br>1.73<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.75°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55°<br>1.55° | 4-M8*0.98inch |

## **EM DRIVER SPECIFICATION FEATURES - EM-15W-HL:**

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

| Model     | Input Rating |       |       |       | Emerge<br>Output F | ency<br>Rating         |
|-----------|--------------|-------|-------|-------|--------------------|------------------------|
|           | Vac          | Hz    | Max.A | Max.W | Vdc                | Constant<br>Wattage, W |
| EM-15W-HL | 120-277      | 50/60 | 0.15  | 9     | 42-50              | 15                     |

| Model     | Charge Time, | Emergency     | Use         | Rated Ambient | Battery Life |
|-----------|--------------|---------------|-------------|---------------|--------------|
|           | Hours        | Run Time, Min | Environment | Range, °C     | Expectancy   |
| EM-15W-HL | 24           | 90            | Damp        | -10~60        | 5 Years      |



| LED Indicator State | Representation  |
|---------------------|---|
| Green Light On      | Battery charging capacity is more than 80% or fully charged                                     |
| Red Light On        | Battery charging capacity is less than or equal to 80%  |
| Yellow Light On     | 1. Product failure.<br>2. Battery charging or discharging capacity is less than or equal to 20% |