R Series

Explosion Proof Linear Light

VENAS

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 1, Groups E, F, G
  Class II, Division 2, Groups F, G
  Class III
- UL 1598 - Luminaires
- UL 1598A
- 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

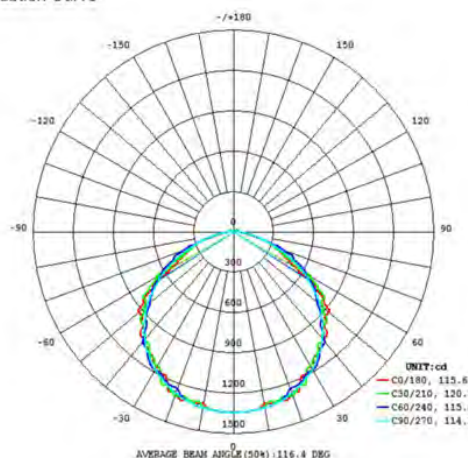 Ex tb IIIC T80°C/T95°C Db IP66

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:

Light Distrubtion Curve

UNIT:cd
— C0/180, 115.6
— C30/210, 120.3
— C60/240, 115.6
— C90/270, 114.3

AVERAGE BEAM ANGLE (50*):116.4 DEG

Ordering Information:

Ex	-30W	R2	N	50	D120	C	X	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	-20: 20W -30: 30W -40: 40W -50: 50W -60: 60W	R2: 2 feet R4: 4 feet	N: 0-10V Dimming AC120-277V 50/60Hz	27: 2700K 40: 4000K 50: 5000K

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

VENAS

Technical Parameter:

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

Electrical

Specification		Ex-20WR2	Ex-30WR2	Ex-40WR2	Ex-50WR4	Ex-60WR4
Rated Power		20W	30W	40W	50W	60W
Input Voltage		AC120-277V				
Input Frequency		50/60Hz				
Input Current		0.17/0.08A	0.26/0.12A	0.34/0.15A	0.42/0.19A	0.5/0.22A
THD	AC120V	1.29%	1.56%	1.38%	1.47%	1.89%
	AC277V	4.01%	4.37%	3.92%	3.24%	5.31%
Power Factor		> 0.9				
Driver Efficiency		≥ 90%				
Dimming		Driver includes dimming control wiring for 0-10V dimming systems Requires separate 0-10V DC dimming circuit				
Surge Protection		4kV				

Optical

Specification	Ex-20WR2	Ex-30WR2	Ex-40WR2	Ex-50WR4	Ex-60WR4
Lumen Output	2730lm	4012lm	5067lm	7024lm	8381lm
Lumens Per Watt*	136.5lm/W				
Beam Angle	120°				
Correlated Color Temperature(CCT)	2700K/4000K/5000K				
Color Rendering Index (CRI)	Ra=83	Ra=83	Ra=84	Ra=84	Ra=85

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Technical Parameter:

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Mechanical

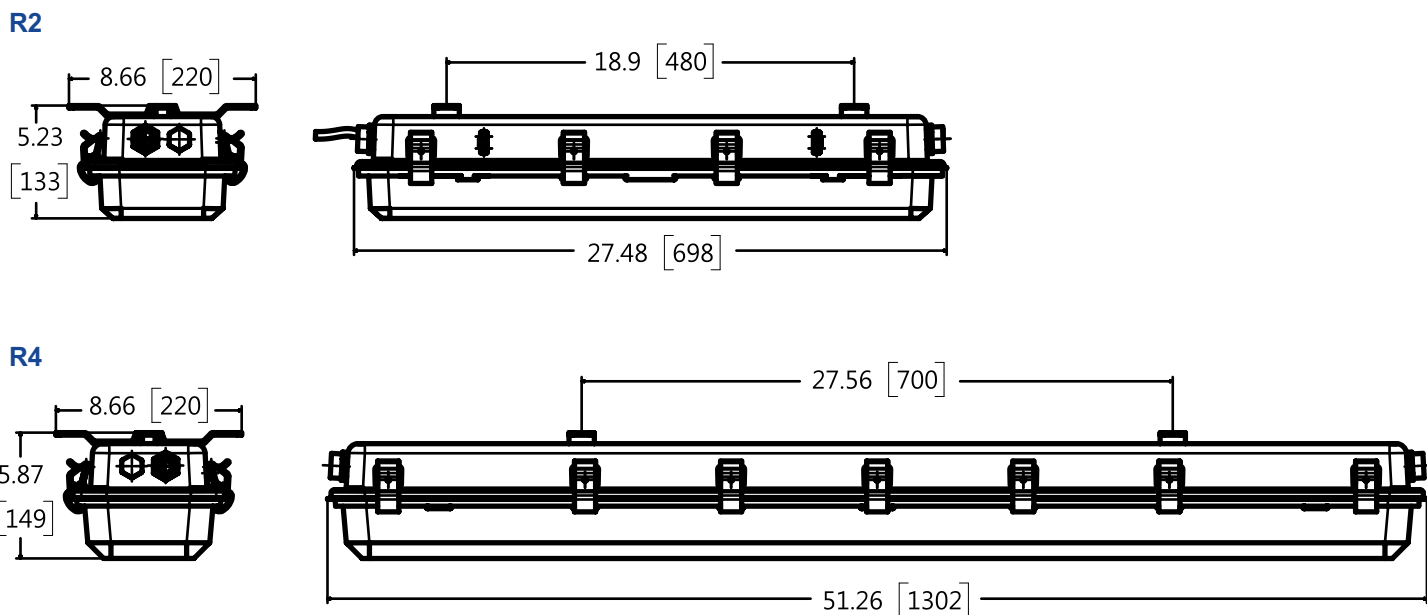| Specification	Ex-20WR2	Ex-30WR2	Ex-40WR2	Ex-50WR4	Ex-60WR4
Housing Material	SUS 304 stainless steel				
Lens Material	Transparent fiberglass-reinforcedpolycarbonate (standard) Diffuse fiberglass-reinforcedpolycarbonate (optional)				
Gasket	Silicone Rubber				
Latches/Clips	Aluminum alloy				
Color	Milky White				
Finish	Epoxy powder coating				
Protection	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) W/EM: 3 x NPT3/4(Side x1 open, Side x2 with stopping plugs) x self testing button				

Temperature performance data:

Luminaire Model	Rated Ambient Temperature Range	Operating Temperature (T Code)
Ex-20WR4	-40°C to 50°C	80 C (T6)
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 lbs. (kg.)	Gross weight lbs. (kg.)	Carton Dimensions (L×W×H) inch.(cm.)
2 foot	11.6(5.27)	14.44(6.55)	32.28x10.63x7.87(82x27x20)
2 foot w/ EM	14.33(6.5)	16.38(7.43)	32.28x10.63x7.87(82x27x20)
4 foot	19.67(8.92)	24.69(11.2)	55.91x10.63x7.87(142x27x20)
4 foot w/ EM	22.49(10.2)	25.44(11.54)	55.91x10.63x7.87(142x27x20))

Dimension:

R2

8.66 [220]

18.9 [480]

5.23 [133]

27.48 [698]

R4

8.66 [220]

27.56 [700]

5.87 [149]

51.26 [1302]

Mounting:

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

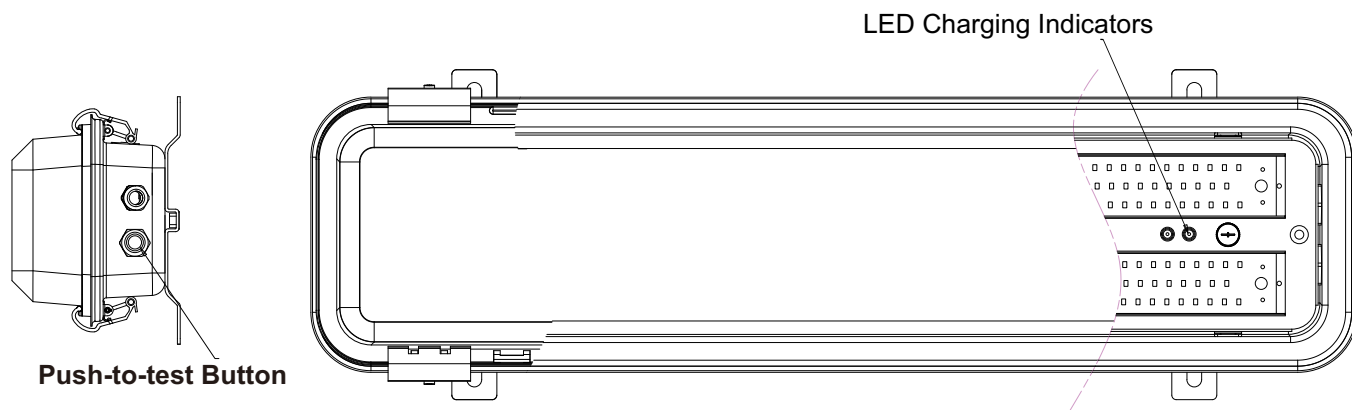| Options	Description	Kit(inch[mm])	Installed
Ceiling Mount	Provided with two stainless steel mounting kits welded at the back of Housing	Standard Mounting Kit (Included)	
Rope Mount	Provided with two stainless steel wire. Measured 1 mm diameter.	0.89 [22.5] ∅0.17[4.2] ∅0.06[1.5] ∅0.17[4.2] 59.06[1500]	
Pole Mount	(1) 155° Pipe (2) Pipe Clamp bracket	26.9[683.3] 24.49 [622.2] 155° M8 Pipe Clamp bracket X2 4xM8 1.96 [50] 4.01[102] 4.22[110] 1.73 [44] 26.9[683.3] 155°Pipe X1	M8 155° 4-M8*0.98inch 1.97-2.75inch

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

LED Charging Indicators

Push-to-test Button

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)	