

LL48 Ex Linear LED

Product Introduction

LL48 Liner LED luminaires are designed to withstand the harshest conditions within Zone 2 IIC gas environments, providing ideal solutions for a wide range of applications.

LL48 Liner LED offering provides the same durability and reliability of a traditional fluorescent light, coupled with the low cost of ownership and energy efficiency of Crouse-Hinds LED technology. High-performance LEDs and a solid-state electronic driver provide light where you need it, at a fraction of the operating costs of HID lighting technologies.

Suitable for Zone 2 Ex-gas and Zone 21/22 Ex-dust hazardous area, such as heavy industrial, chemical, petrochemical or pharmaceutical facilities, platforms, shipyard, electric power, loading docks, wastewater treatment, paper mill.



Product Features

- **High Efficient & Energy saving**

High efficiency drivers and Philips LUXEON series LED chips provide reliable low cost operation, total efficient Lumen output over than 7750Lm, energy saving up to 42%.

Model	Nominal Lumens	Wattage	Equivalent HID Luminaire	Energy Savings
LL48	7750	<75W	2x58W	up to 42%

- **Superb Safety & Reliability; Robust Construction, Maintenance Free**

- Copper free aluminum housing, tempered & impact resistant glass lens.(clear glass & fog glass)
- IP66 Protection.
- Ex-nA design, suitable for Zone 2 & Zone 21/Zone 22 bothe gas and dust Ex-Hazardous area.

- **Perfect Temperature and Optical Performance for Wide Application**

- T- Rating: T5@55°C / T6@40°C
- Permissible temp. range:
 - 40°C to +40°C/ -40°C to +55°C(Non-EM)
 - 25°C to +40°C/ -25°C to +55°C(EM)
- Standard product cool white 5700K LED

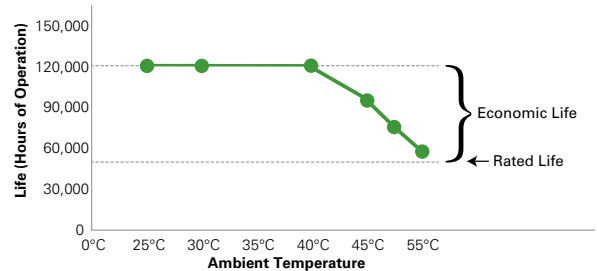
- **Compact design suitable for low head room application.**

- **Lead-free and environment-friendly.**

- **Green LED Indicator(LL48 Em):**

- LED light will remain at the "On" status when battery is under normal operation condition.
- Green LED will begin to flash indicating when the battery is being discharged.
- LED will shut down when problem occurs in the main power, when the battery cannot be charged, or when the charging process is complete.

- **LED System Lifetime (Rated Versus Economic Life):**



Economic life can range anywhere between 60,000 to 120,000 hours, or 7 to 14 years of maintenance-free operation.

- **Fixture Life and Years of Maintenance-free Operation**

Ambient Temperature	Fixture Life (Hours)	No. of Years at 24 Hours Usage	No. of Years at 12 Hours Usage
25°C	120,000	14	28
30°C	120,000	14	28
40°C	120,000	14	28
45°C	95,000	11	22
50°C	75,000	9	18
55°C	60,000	7	14

- **LL48 Liner LED Benefits:**

- Instant illumination and restrrike
- Better visibility with crisp, white light
- Cold temperature operation / no warm-up required
- Redundancy in drivers with multiple series circuits connected to each driver to avoid complete loss of illumination
- Easy installation - compact modular fixture attaches onto existing
- Energy-efficient technology - up to 42% energy savings over HID fixtures
- Provides up to 60,000 hours rated life and up to 120,000 hours of economic life - eliminates need for frequent lamp replacement
- Contains no mercury or other hazardous substances
- Shock- and vibration-resistant solid-state luminaires have no filaments or glass components that could break - greatly reduces the risk of premature failure
- Dark sky compliant
- 5 year fixture warranty

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Technical Data

Marking acc. to ATEX	⊕ II 3G Ex nA IIC T... Gc ⊕ II 2D Ex tb IIIC T80°C Db
Marking acc. to IECEx	Ex nA IIC T... Gc Ex tb IIIC T80°C Db
EMC compliance	EN55015:2006+A1:2007+A2:2000; EN61000-3-2:2006+A1:2009+A2:2009; EN61000-3-3:2008; EN61000-6-2:2005; EN61547:2009
LED light source	PHILIPS LUMILEDS Luxeon series LED chips
Permissible ambient temp	-40°C ~ +40°C / -40°C ~ +55°C (Non-EM) -25°C ~ +40°C / -25°C ~ +55°C (EM)
Voltage input	AC 100V - 240V, 50Hz / 60Hz (Non-Em) AC 220V - 240V, 50Hz / 60Hz (Em)
THD	<20% @100V~240V AC
Power factor	≥0.9
Insulation class	I
System power	< 75W (Non-Em) / < 60W (Em)
Color temperature	5700K(CRI 70)
Light angle	100°
Degree of protection	IP66
Cable entry	1xM20 or 1x1/2" NPT, w/ 1ea metal stopping plug
Dimension	1041mm x 200mm x 100mm
Net weight	11kg (Non-EM)/13kg (EM)
Connection terminal	L, N, PE (Non-EM)/ L1, L, N, PE (EM); Solid: 1.5-6mm ² , Flexible: 2.5-4mm ²
Battery	5.0Ah 12V NC battery
Battery operation temp	Charge: 0°C~50°C / discharge -25°C~55°C
Rated emergency operation duration	EM1 3hours / EM2 2hours
Emergency lumen out put	EM1 Single line 35% EM2 Single line 50%

Ordering Logic

Lighting Fixture

LL48 Product Series & LED Qty	5L Lumen Output	757/ LED Color Temperature	F Glass	1M Entry	EM1 Emergency Duration	S886 Suffix
Linear LED	5L= 5000Lm EM- Fog	757= 70 CRI & CCT 5700K	F=Fog glass	1M=M20	Default=Non Emergency	Default=1 entry
≥48pcs LED	6L= 6000Lm EM- Clear		C=Clear glass	1N=1/2"NPT	EM1=3hours	S886=2 entries
chips	7L= 7000Lm Non-Em-Fog				EM2=2hours	
	8L= 8000Lm Non-Em-Clear					

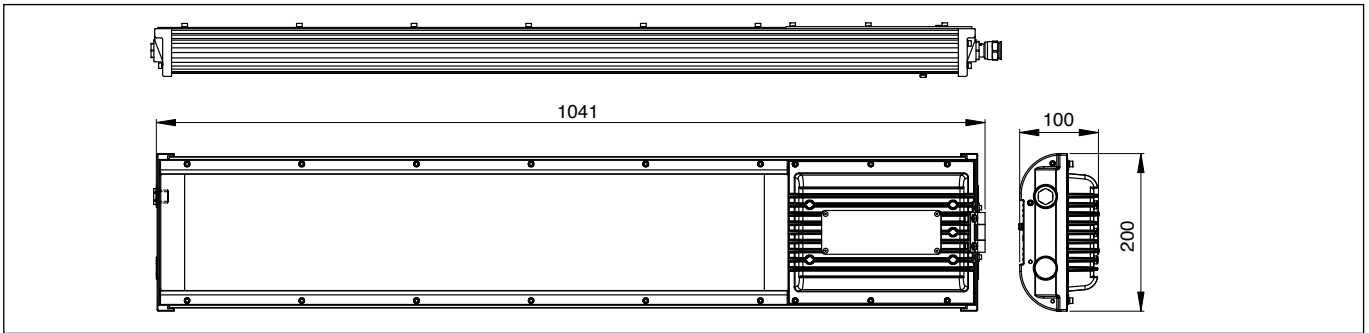
Mounting Accessories

Ordering Code	Description	Product Material
CHR11100	Ceiling mounting bracket	SS 304
CHR11101	Ceiling mounting bracket	Znic plated Steel
CHR11074	Wall mounting bracket	SS 304
CHR11075	Wall mounting bracket	Znic plated Steel
CHR11077	Ø42 pipe clamp for pole mount	SS 304
CHR11078	Ø42 pipe clamp for pole mount	Znic plated Steel
CHR11080	Ø51 pipe clamp for pole mount	SS 304
CHR11081	Ø51 pipe clamp for pole mount	Znic plated Steel

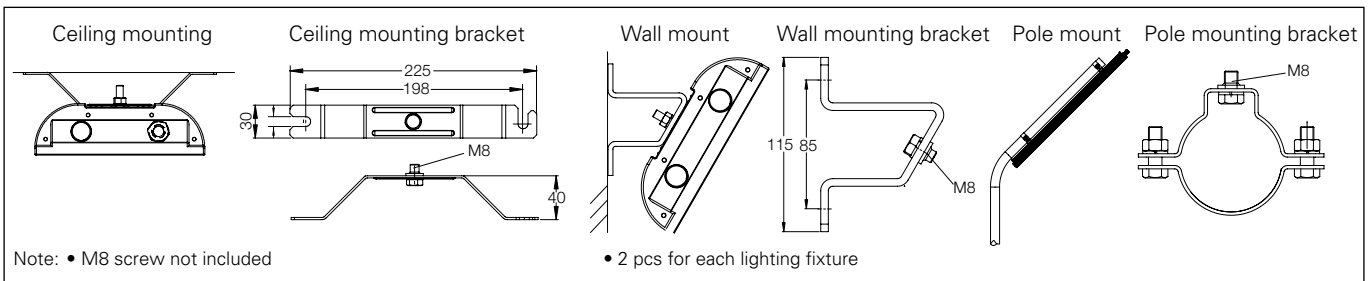
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Mounting and Dimension

Fixture Size



Mounting Accessories



Polar Curve

