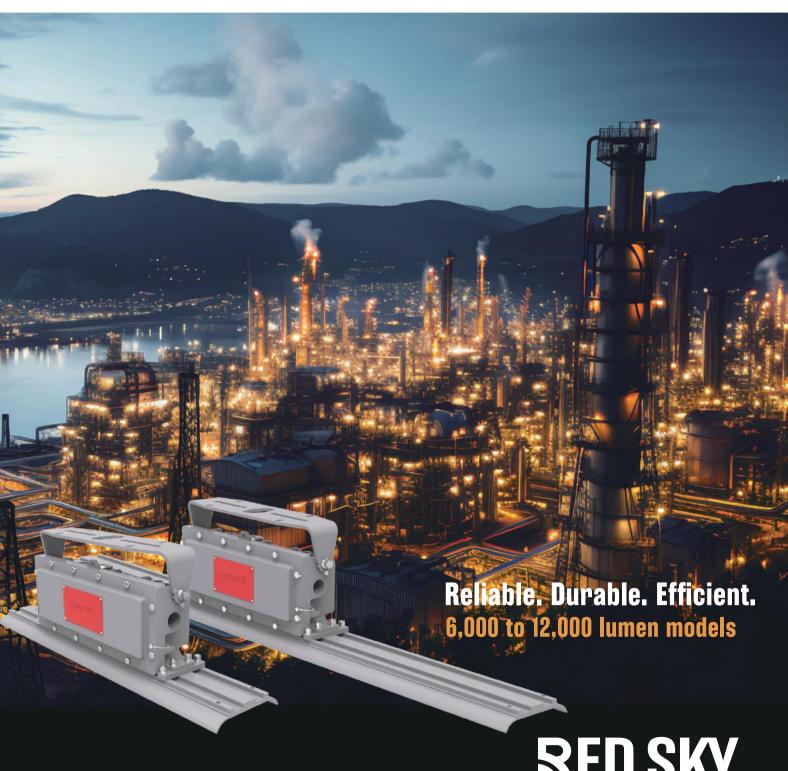
# LINEAR EMERGENCY SERIES

# LED LIGHTING FOR HARSH AND HAZARDOUS AREAS

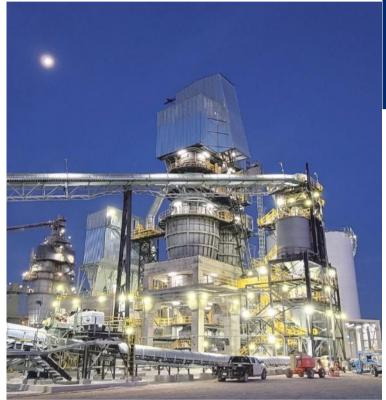


REDSKY
SERIOUSLY SAFE LIGHTS™

#### **ABOUT RED SKY LIGHTING**

# PIONEERING INDUSTRIAL ILLUMINATION FOR HARSH & HAZARDOUS CONDITIONS

- A leading manufacturer of premium LED lights for demanding work conditions
- Headquartered in California, products assembled in the USA
- Servicing global clients across 4 continents in metal processing, oil & gas, marine, manufacturing
- Renowned for quality, dependability, client care and uncompromising safety standards



### WHY CHOOSE RED SKY

#### **♦ SERIOUSLY SAFE LIGHTS**

- · Rigorously tested in our professional labs
- · Surpassing industry certifications and safety protocols
- Crafted with highest grade components for maximum durability

#### **N** FAST DELIVERY

- · Majority of orders delivered within 14 days
- · Same day shipping for products in stock
- · Real-time order tracking for full transparency

#### **NOTICE** NOTICES

- · Team of experts for seamless support
- · Energy audit services, lighting simulation services
- · Hassle-free return policy and management

#### **NOTION S** SUSTAINABLE SOLUTIONS

- · High luminous efficacy LEDs for energy savings
- · Conscious product design
- · Recyclable materials for products and packaging



## **\*\* FEATURES**



- Best-in-class system efficacy -Up to 137 Lm/W
- Charge time 24h, Emergency run time 90 mins, Rated load 12W in emergency mode
- Wide ambient temp.range from 0°C to +50°C (32°F ~ +122°F)
- Safe and reliable heat transfer Offering a T-rating of T4(CID2)/T6(CIID1)
- Instant on/off operation
- Shock-and vibration-resistant Durable LEDs with solder -less board connection
- All exposed fasteners with quality stainless steel 316
- UV stable and impact resistant clear or diffused PC lens
- Slim and compact design

# **RATINGS**

Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G Class II Division 2, Groups F, G Class III Class I, Zone 2, Group IIC Zone 21, Group IIIC IP66 IK08 (PC) Salt Spray 720 hrs (ISO 9227)

# **CERTIFICATIONS**

UL 844 CSA C22.2 No. 137-18 CSA C22.2 No. 25-17 UL 924 CSA C22.2 No. 141-15 FCC Part 15, Subpart B

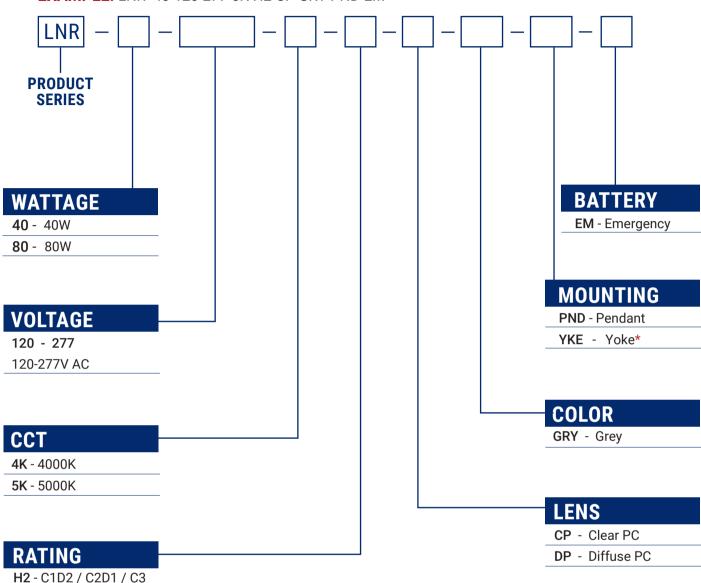
# **TECHNICAL PARAMETERS**

Specification	LNR-EM-40	LNR-EM-80
	<b>Electrical Parameters</b>	
Power	40W	80W
Rated Input Current	0.371A@120V AC, 0.161A@277V AC	0.741A@120V AC, 0.321A@277V AC
Voltage/Frequency	120-277V AC	50/60Hz
Power Factor	≥0.9	0
THD	<209	%
L70	118,000 hrs@	122°F
Surge Protection	L/N-FG 2KV,	L-N 1KV
Supply Wire	12-18AWG, Ra	ated 90°C
Charge Time	24 hor	urs
Emergency Run Time	90mi	ns
Battery	LiFePo	04
Warranty	LEDs:10 Years, Driver:7 Y	ears, Battery:3 Years
	Optical Parameters	
Lumen Output*	6,183Lm	11,486Lm
Lumen Output (EM)*	2,736	Lm
Lumen Efficacy*	137Ln	n/w
Available Beam Angle	110	O°
Correlated Color Temperature (CCT)	4000K/5	5000K
Color Rendering In	Ra>	70
	Mechanical Parameters	
Housing Material	Marine Grade A	Aluminium
Hardware	Stainless st	eel 316
Lens Material	Polycarbo	nate
Mounting Options	Pendant, Yoke, C	Chain, Pole
Product Weight	16.5lbs/7.5kg	18.3lbs/8.3kg
Product Weight	18.6lbs/8.6kg	20.4lbs/9.4kg
Cable Entry	(3) 3/4" N	PT
Product Dimensions(L×W×H)	23.6×5.0×6.8in(600×127×173 mm)	47.2×5.0×6.8in(1200×127×173 mm)
Product Dimensions(L×W×H)	26.6×7.1×9.1in(675×180×230 mm)	50.2×7.1×9.1in(1275×180×230 mm)
	<b>Environmental Parameters</b>	
Ambient Operating Temperature	32°F~+122°F(0	0°C~+50°C)
T-Code Rating	CID2-T4 / C	CIID1-T6
Ambient Operating Humidity	10%~909	% RH
EPA wind rating (FT2/m2)	1.463/0.140	1.972/0.180

<sup>\*</sup> Value calculated based on 5000K and Clear PC, varies to differrent spec.

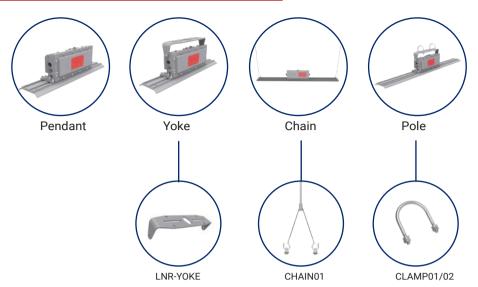
# **NORDERING INFORMATION**

**EXAMPLE:** LNR -40-120-277-5K-H2-CP-GRY-PND-EM



<sup>\*</sup> LNR-YOKE Pre-installed as standard

# **MOUNTING ACCESSORIES**



Mounting Method	PN	Description	MPN Code
Yoke	LNR-YOKE	Yoke Mount, SUS304, Powder-Coated Grey RAL 7037	309050042
Chain	CHAIN01	Chain Hang Kit, SUS304	309050071
D-I-	CLAMP01	Pipe Clamp Kit for Round Pole 1-7/8 inch OD (48 mm), SUS304	309050047
Pole	CLAMP02	Pipe Clamp Kit for Round Pole 2-3/8 inch OD (60 mm), SUS304	309050046

# **NOTHER ACCESSORIES**



SFCB03

PN	Description	MPN Code
SFCB03	Safety Cable Kit, SS304	309050049
SP3	Surge Protector, 100-277V	310010029

# REPLACEMENT PARTS (ORDERED SEPARATELY)

Part Number	Description	MPN Code
LNR-40-100-277-Driver	Replacement Driver Kit for LNR-40-120-277-EM Fixtures	303010057
LNR-80-100-277-Driver	Replacement Driver Kit for LNR-80-120-277-EM Fixtures	303010058
LNR-EM Driver	Replacement Emergency Backup Driver Kit (Battery included) for LNR-EM Fixtures	303010107
LNR-*-EM Battery	Replacement Battery for LNR-*-EM	303040004
CP004-A-01	Replacement Clear PC Lens for LNR2, LNR EM, LLP, LNH	303030012
DP004-A-01	Replacement Diffuse PC Lens for LNR2, LNR EM, LLP, LNH	303030013

# **TUMEN TABLE**

PN	Wattage (W)	ССТ	Beam	Lens	Lumen Output (Lm)	Efficiency (Lm/W)
	V	oltage 12	0-277V A			
LNR-40-120-277-5K-H2-CP-GRY-PND-EM	40	5000K	110	Clear PC	5,517	140
LNR-40-120-277-5K-H2-DP-GRY-PND-EM	40	5000K	110	Diffuse PC	5,441	137
LNR-80-120-277-5K-H2-CP-GRY-PND-EM	80	5000K	110	Clear PC	11,834	149
LNR-80-120-277-5K-H2-DP-GRY-PND-EM	80	5000K	110	Diffuse PC	10,740	136
		Emerge	ncy Mode			
LNR-40-120-277-5K-H2-CP-GRY-PND-EM	15	5000K	110	Clear PC	2,625	175
LNR-40-120-277-5K-H2-DP-GRY-PND-EM	15	5000K	110	Diffuse PC	2,284	152
LNR-80-120-277-5K-H2-CP-GRY-PND-EM	15	5000K	110	Clear PC	2,736	182
LNR-80-120-277-5K-H2-DP-GRY-PND-EM	15	5000K	110	Diffuse PC	2,453	164

For additional information, please contact your sales representative.

# **A DIRECT RETROFIT FROM HID TO LED**

The LNR EM series LED is easy to retrofit in the same configuration as your existing HID luminaires. For example, a 80-watt Linear Emergency (LNR-80-EM) delivers virtually the same illumination as its equivalent 250 watt Metal Halide luminaire while providing 80% reduction in energy costs and up to 120,000 hours of continuous operation.

MODELS	Lumen Output (Lm)	MH Equivalent (W)	HPS Equivalent (W)
LNR-40-EM	5,533	150	150
LNR-80-EM	11,548	250	310

# THE RIGHT BEAM PATTERN FOR YOUR APPLICATION

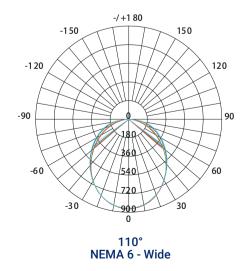
RSL optic package is engineered to deliver maximum footcandles efficiently where you need them, without wasted light or overspill.

RSL offers complimentary lighting design services for our products using industry-leading AGI32 software, tailored for projects of all sizes in harsh and hazardous locations. We assist you in determining the number of fixtures needed, the types of lights to use, their optimal placement, and how to maximize energy savings—all within budget.

Simply fill out the form ( https://dev.redskylighting.com/lighting-design ) with a few key details, request a layout, and we'll bring your ideas to life within 2-5 business days.

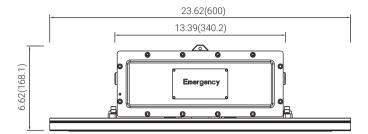
Beam	NEMA/IESNA Type	Beam Description	Beam Projection Distance
30°	NEMA 3	Medium Narrow	
60°	NEMA 4	Medium	
90°	NEMA 5	Medium Wide	
120°	NEMA 6	Wide	<b>→</b>
T1	Туре І	Asymmetric distributions, well suited for narrow areas, such as Conveyor belts, Aisleways, Catwalks, Loading docks and Tunnels.	
T2	Type II	Asymmetric distributions, well suited for narrow areas, such as roadways, paths and driveways.	
Т3	Type III	Asymmetric distributions, well suited for site / area perimeters, wide roadways, and open areas.	
T5	NEMA 7 Type V (Square)	Very Wide: symmetrical pattern with excellent uniformity for large, open areas.	

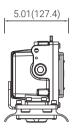
## **NPHOTOMETRIC**

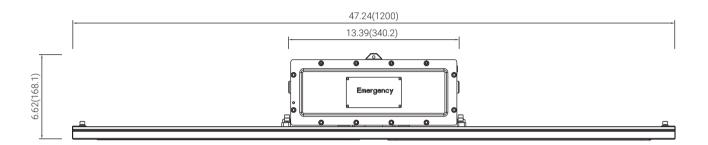




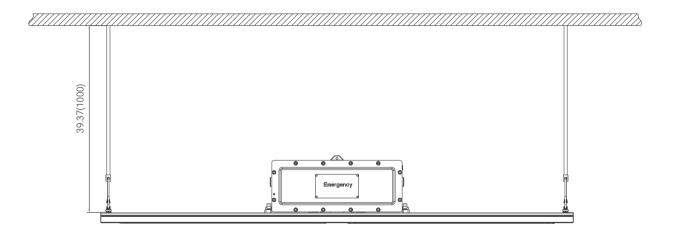
unit: in(mm)







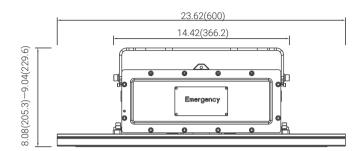
**Pendant** 

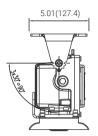


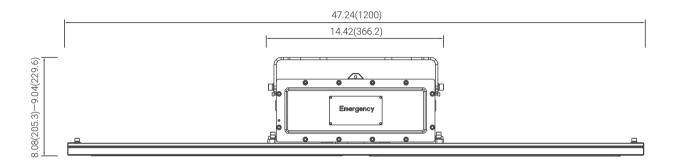
Chain



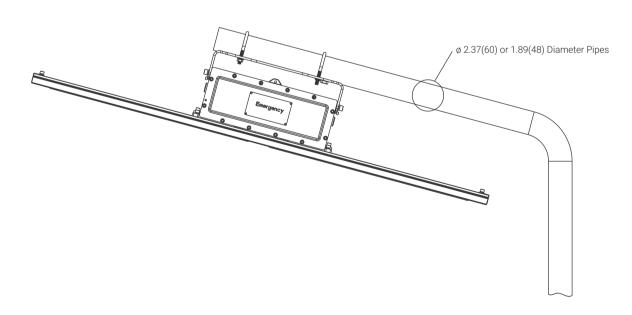
unit: in(mm)







Yoke



# **NAZARDOUS LOCATION LIGHTING BASICS**

#### Atmosphere Groups ■ Output Description: Output Descriptio

### **№** Temperature Classification

Substance	Hazard Class	Division Groups	Zone Groups	Max. Surface Temperatures	NE C
Acetylene		Group A	IIC	450°C(842°F)	
Hydrogen	Class I	Group B	IIC	300°C(572°F)	
Ethylene	Flammable	Group C	IIB	280°C(536°F)	Т
Propane	Gases	Group D	IIA	260°C(500°F)	Т
Methane		Group D	IIA <sup>2</sup>	230°C(446°F)	Т
		·	IIIC <sup>3</sup>	215°C(419°F)	Т
Combustible Metal Dusts	Class II	Group E <sup>1</sup>		200°C(392°F)	
Combustible Carbonaceous Dust	Combustible	Group F	IIIB <sup>3</sup>	180°C(256°F)	Т
Combustible Dusts not in Group E or F (Flour, Grain, Wood, Plastics, Chemicals)	Dusts	Group G	IIIB <sup>3</sup>	165°C(329°F)	T
(1.00.) 0.0, 1.000, 1.00	Class III Fibers			160°C(320°F)	1
Combustible Fibers and Flyings	and Flyings	Not Applicable	IIIA <sup>3</sup>	135°C(275°F)	
Note 1: Group E is applicable to Class II, D	ivision 1 only.			120°C(248°F)	1
Note 2: Methane is a Group IIA Gas for no	Note 2: Methane is a Group IIA Gas for non-mining applications. 100°C(212°F)				
Note 3: Group IIIA, IIIB and IIIC have not been adopted by the Canadian Electrical Code. 85°C(185°F)					

Max. Surface Temperatures	NEC®500 CEC®	NEC®500/IEC- Group II
450°C(842°F)	T1	T1
300°C(572°F)	T2	11
280°C(536°F)	T2A	
260°C(500°F)	T2B	T2
230°C(446°F)	T2C	12
215°C(419°F)	T2D	
200°C(392°F)	T3	
180°C(256°F)	T3A	Т3
165°C(329°F)	T3B	
160°C(320°F)	T3C	
135°C(275°F)	T4	Τ4
120°C(248°F)	T4A	T4
100°C(212°F)	T5	T5
85°C(185°F)	T6	T6

#### Classification of Divisions and Zones

Hazard Level	Division Scheme	Zone Scheme	Definitions
Continuous Hazard	Division 1	Zone 0 / Zone 20	A place in which an explosive atmosphere is continually present
Intermittent Hazard		Zone 1 / Zone 21	A place in which an explosive atmosphere is likely to occur in normal operation
Hazard Under Abnormal Conditions	Division 2	Zone 2 / Zone 22	A place in which an explosive atmosphere is not likely to occur in normal operation, but may occur for short periods

#### **№ IP Codes**

1st No.	Solid Objects
0	No protection
1	Objects greater than 50mm
2	Objects greater than 12.5mm
3	Objects greater than 2.5mm
4	Objects greater than 1mm
5	Dust protected
6	Dust proof
2nd No.	Liquids
0	No protection
1	Vertically dripping
2	Dripping up to 15°
3	Limited spraying
4	Splashing from all directions
5	Hosing jets from all directions
6	Strong hosing jets from all directions
7	Temporary immersion
8	Continuous immersion

### ■ IK Ratings

IK Code	Level of Protection Achieved
IK00	Not protected
IK01	Protected against 0.14 joules impact
IK02	Protected against 0.2 joules impact
IK03	Protected against 0.35 joules impact
IK04	Protected against 0.5 joules impact
IK05	Protected against 0.7 joules impact
IK06	Protected against 1 joules impact
IK07	Protected against 2 joules impact
IK08	Protected against 5 joules impact
IK09	Protected against 10 joules impact
IK10	Protected against 20 joules impact

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