LINEAR EMERGENCY SERIES

LED LIGHTING FOR HAZARDOUS AREAS

RED SKY
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

FAST DELIVERY

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

TOP-NOTCH SERVICES

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

SUSTAINABLE SOLUTIONS

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

LINEAR EMERGENCY SERIES

LLLINOIS,USA

FEATURES

- Best-in-class system efficacy -Up to 150 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
Electrical Parameters		
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	≥0.90	
THD	<20%	
L70	120,000 hrs@122°F	
Surge Protection	L/N-FG 2KV，L-N 1KV	
Supply Wire	12-18AWG，Rated 90°C	
Charge Time	24 hours	
Emergency Run Time	90mins	
Battery	$LiFePO_4$	
Warranty	LEDs:10 Years, Driver:7 Years, Battery:3 Years	
Optical Parameters		
Lumen Output*	5,857Lm	12,291Lm
Lumen Output (EM)*	2,778Lm	2,822Lm
Lumen Efficacy*	150Lm/w	
Available Beam Angle	110°	
Correlated Color Temperature (CCT)	4000K/5000K	
Color Rendering In	80 CRI	
Mechanical Parameters		
Housing Material	Marine Grade Aluminium	
Hardware	Stainless steel 316	
Lens Material	Polycarbonate	
Mounting Options	Pendant, Yoke, Chain, Pole	
Product Weight	16.5lbs/7.5kg	18.3lbs/8.3kg
Package Weight	18.6lbs/8.6kg	20.4lbs/9.4kg
Cable Entry	(3) 3/4" NPT	
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)
Package Dimensions(L×W×H)	26.6×7.1×9.1in(675×180×230 mm)	50.2×7.1×9.1in(1275×180×230 mm)
Environmental Parameters		
Ambient Operating Temperature	32°F~+122°F(0°C~+50°C)	
T-Code Rating	CID2-T4 / CIID1-T6	
Ambient Operating Humidity	10%～90% RH	
EPA wind rating (FT2/m2)	1.463/0.140	1.972/0.180

* Value calculated based on 5000K, 80 CRI and Clear PC ,varies to differrent spec.
70 CRI & 90 CRI optional, DLC available with 70 CRI only.

ORDERING INFORMATION

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

PRODUCT SERIES

WATTAGE
40 - 40W
80 - 80W

VOLTAGE
120 - 277
120-277V AC

CCT
4K - 4000K
5K - 5000K

RATING
H2 - C1D2 / C2D1 / C3

CRI
BLANK - 80 CRI Standard
CRI70 - 70 CRI
CRI90 - 90 CRI*

BATTERY
EM - Emergency

MOUNTING
PND - Pendant
YKE - Yoke**

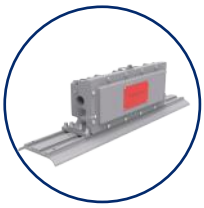
COLOR
GRY - Grey

LENS
CP - Clear PC
DP - Diffuse PC

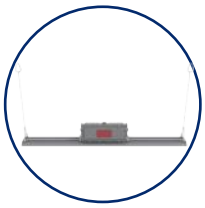
* CRI 90 option – expect longer lead time.

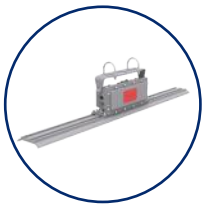
** LNR-YOKE Pre-installed as standard.

MOUNTING ACCESSORIES

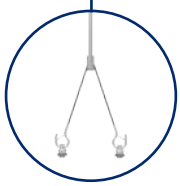

Pendant


Yoke


Chain


Pole


LNR-YOKE


CHAIN01


CLAMP01/02

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
Pole	CLAMP01	Pipe Clamp Kit for Round Pole 1-7/8 inch OD (48 mm), SUS304	309050047
	CLAMP02	Pipe Clamp Kit for Round Pole 2-3/8 inch OD (60 mm), SUS304	309050046

OTHER 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

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	5,857	150	150
LNR-80-EM	12,291	250	310

LUMEN TABLE

PN	Wattage (W)	CCT	CRI	Beam	Lens	Lumen Output (Lm)	Efficiency (Lm/W)
Voltage 100-277VAC 80 CRI • STANDARD							
LNR-40-120-277-5K-H2-CP-GRY-PND-EM	40	5000K	80	110°	Clear PC	5,857	148
LNR-40-120-277-5K-H2-DP-GRY-PND-EM	40	5000K	80	110°	Diffuse PC	5,060	127
LNR-80-120-277-5K-H2-CP-GRY-PND-EM	80	5000K	80	110°	Clear PC	12,291	150
LNR-80-120-277-5K-H2-DP-GRY-PND-EM	80	5000K	80	110°	Diffuse PC	9,988	126
Emergrncy Mode: Voltage 100-277VAC 80 CRI • STANDARD							
LNR-40-120-277-5K-H2-CP-GRY-PND-EM	15	5000K	80	110°	Clear PC	2,778	189
LNR-40-120-277-5K-H2-DP-GRY-PND-EM	15	5000K	80	110°	Diffuse PC	2,124	141
LNR-80-120-277-5K-H2-CP-GRY-PND-EM	15	5000K	80	110°	Clear PC	2,822	191
LNR-80-120-277-5K-H2-DP-GRY-PND-EM	15	5000K	80	110°	Diffuse PC	2,281	153
Voltage 100-277VAC 70 CRI							
LNR-40-120-277-5K-H2-CP-GRY-PND-EM CRI70	40	5000K	70	110°	Clear Glass	5,517	140
LNR-40-120-277-5K-H2-DP-GRY-PND-EM CRI70	40	5000K	70	110°	Clear Glass	5,441	137
LNR-80-120-277-5K-H2-CP-GRY-PND-EM CRI70	80	5000K	70	110°	Clear Glass	11,834	149
LNR-80-120-277-5K-H2-DP-GRY-PND-EM CRI70	80	5000K	70	110°	Diffuse Glass	10,740	136
Emergrncy Mode: Voltage 100-277VAC 70 CRI							
LNR-40-120-277-5K-H2-CP-GRY-PND-EM CRI70	15	5000K	70	110°	Clear PC	2,625	175
LNR-40-120-277-5K-H2-DP-GRY-PND-EM CRI70	15	5000K	70	110°	Diffuse PC	2,284	152
LNR-80-120-277-5K-H2-CP-GRY-PND-EM CRI70	15	5000K	70	110°	Clear PC	2,736	182
LNR-80-120-277-5K-H2-DP-GRY-PND-EM CRI70	15	5000K	70	110°	Diffuse PC	2,453	164
Voltage 100-277VAC 90 CRI							
LNR-40-120-277-5K-H2-CP-GRY-PND-EM CRI90	40	5000K	90	110°	Clear Glass	4,894	124
LNR-40-120-277-5K-H2-DP-GRY-PND-EM CRI90	40	5000K	90	110°	Clear Glass	4,826	122
LNR-80-120-277-5K-H2-CP-GRY-PND-EM CRI90	80	5000K	90	110°	Clear Glass	10,497	132
LNR-80-120-277-5K-H2-DP-GRY-PND-EM CRI90	80	5000K	90	110°	Diffuse Glass	9,526	121
Emergrncy Mode: Voltage 100-277VAC 90 CRI							
LNR-40-120-277-5K-H2-CP-GRY-PND-EM CRI90	15	5000K	90	110°	Clear PC	2,328	155
LNR-40-120-277-5K-H2-DP-GRY-PND-EM CRI90	15	5000K	90	110°	Diffuse PC	2,026	135
LNR-80-120-277-5K-H2-CP-GRY-PND-EM CRI90	15	5000K	90	110°	Clear PC	2,427	161
LNR-80-120-277-5K-H2-DP-GRY-PND-EM CRI90	15	5000K	90	110°	Diffuse PC	2,176	145

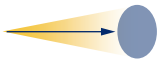
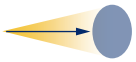
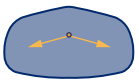
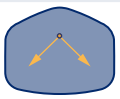
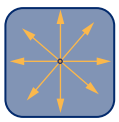
347–480Vac models deliver the same lumen output as the 120–277Vac models.
This table only lists part of the model lumen parameters, if you need other model parameters, please contact our sales.

THE RIGHT BEAM PATTERN FOR YOUR APPLICATION

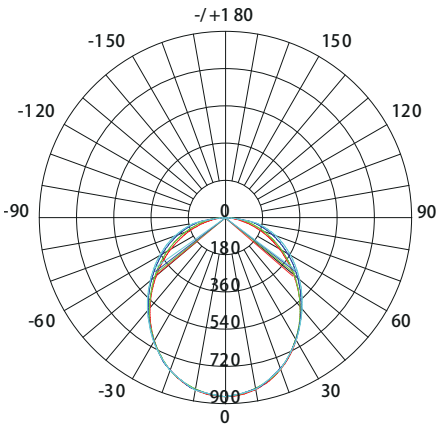
RSL optic package is engineered to deliver maximum footcandles efficiently where you need them, without wasted light or overspill.

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	
T1	Type I	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.	
T3	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.	

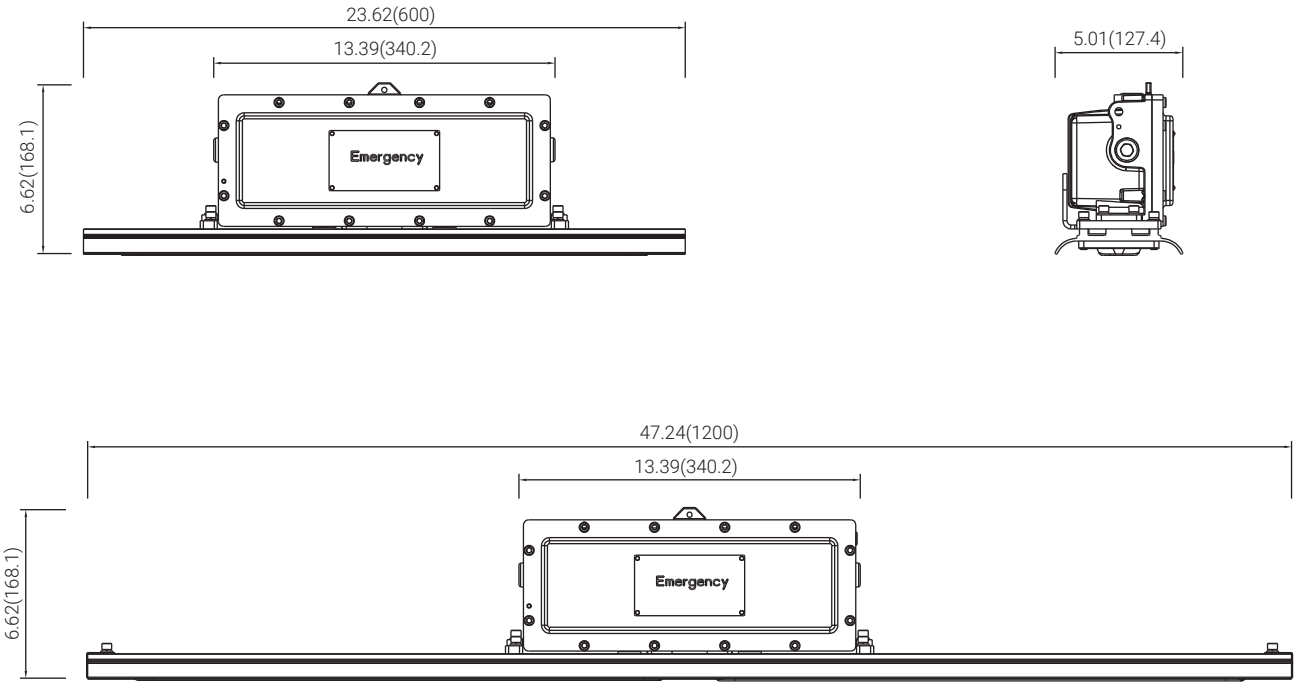
PHOTOMETRIC



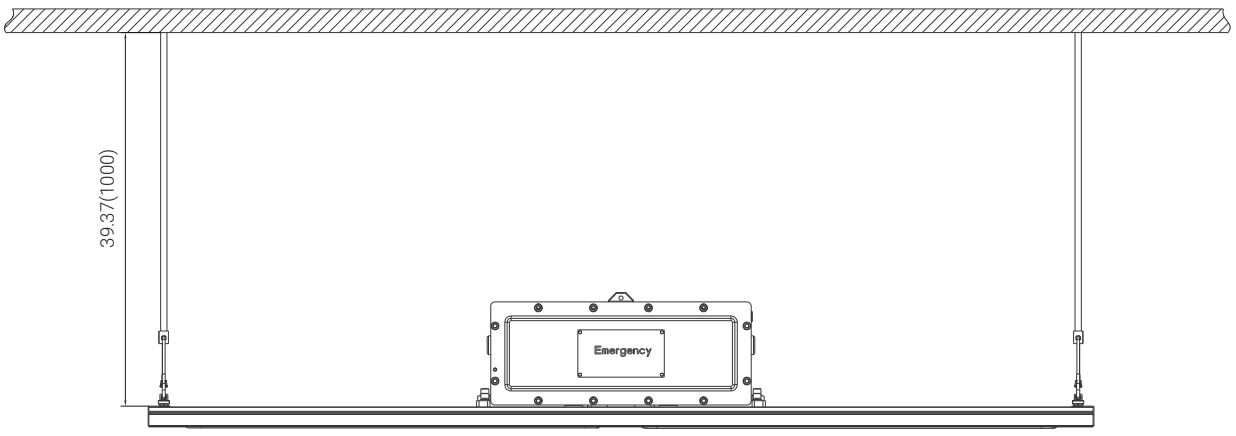
110°
NEMA 6 - Wide

DIMENSIONS

unit: in(mm)



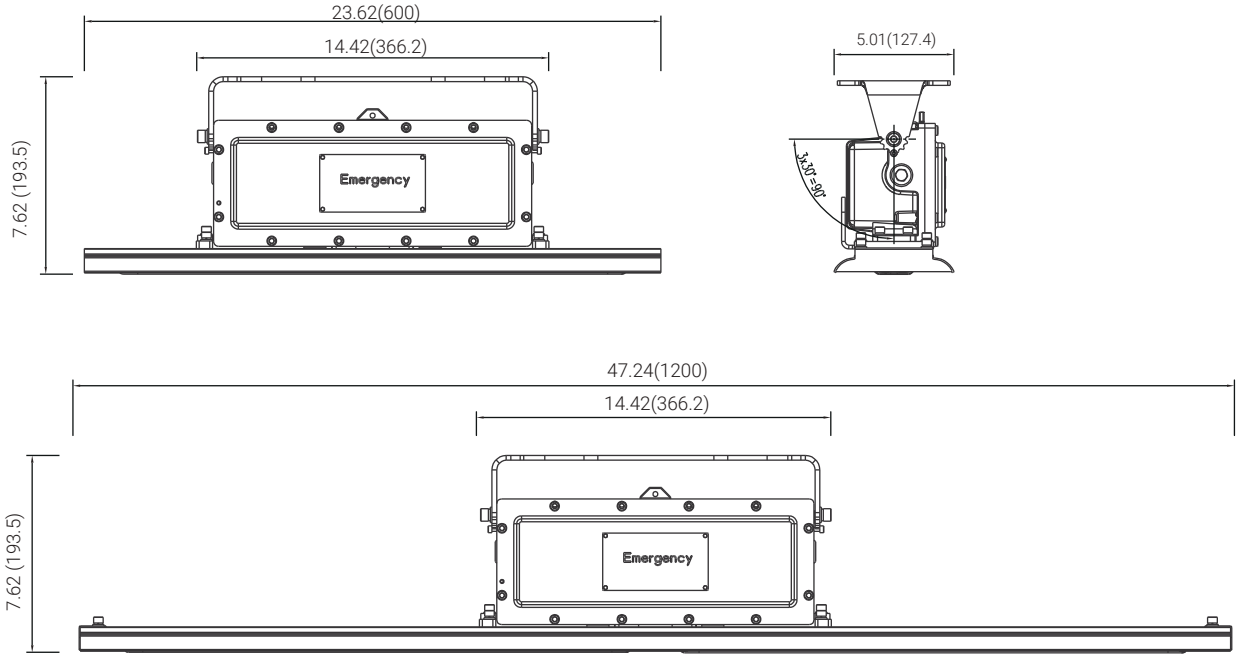
Pendant



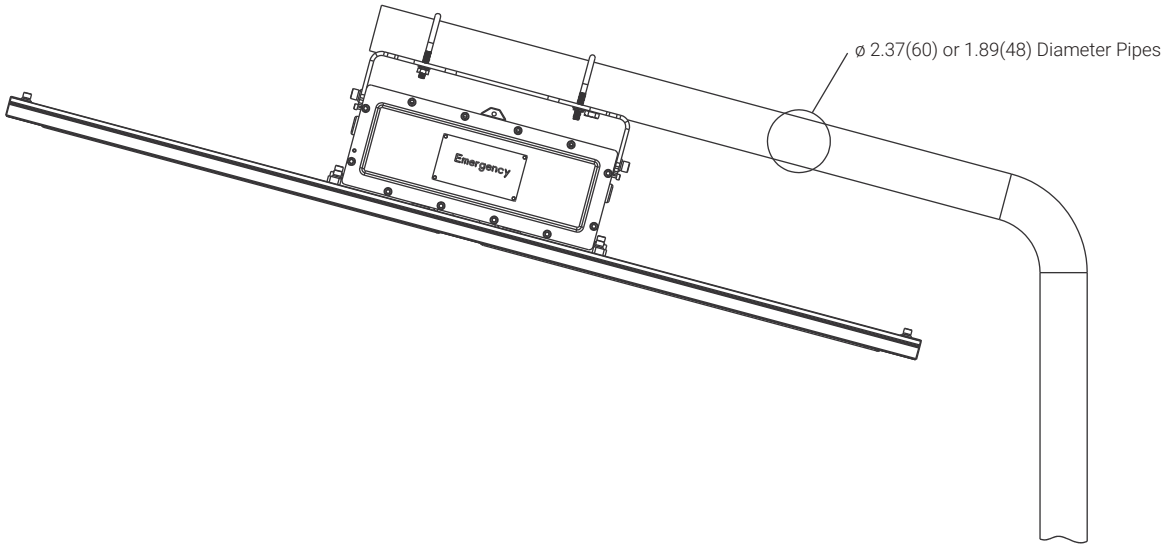
Chain

DIMENSIONS

unit: in(mm)



Yoke



Pole

HAZARDOUS LOCATION LIGHTING BASICS

Atmosphere Groups

Substance	Hazard Class	Division Groups	Zone Groups
Acetylene	Class I Flammable Gases	Group A	IIC
Hydrogen		Group B	IIC
Ethylene		Group C	IIB
Propane		Group D	IIA
Methane		Group D	IIA[2]
Combustible Metal Dusts	Class II Combustible Dusts	Group E[1]	IIIC[3]
Combustible Carbonaceous Dust		Group F	IIIB[3]
Combustible Dusts not in Group E or F (Flour, Grain, Wood, Plastics, Chemicals)		Group G	IIIB[3]
Combustible Fibers and Flyings	Class III Fibers and Flyings	Not Applicable	IIIA[3]

Note 1: Group E is applicable to Class II, Division 1 only.

Note 2: Methane is a Group IIA Gas for non-mining applications.

Note 3: Group IIIA, IIIB and IIIC have not been adopted by the Canadian Electrical Code.

Temperature Classification

Max. Surface Temperatures	NEC®500 CEC®	NEC®500/IEC-Group II
450°C(842°F)	T1	T1
300°C(572°F)	T2	
280°C(536°F)	T2A	T2
260°C(500°F)	T2B	
230°C(446°F)	T2C	
215°C(419°F)	T2D	
200°C(392°F)	T3	T3
180°C(256°F)	T3A	
165°C(329°F)	T3B	
160°C(320°F)	T3C	
135°C(275°F)	T4	T4
120°C(248°F)	T4A	
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
9	Steam-jet cleaning

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

RED SKY
SERIOUSLY SAFE LIGHTS™

1(262) 456-5002
contact@redskylighting.com
www.redskylighting.com

RED SKY LIGHTING LLC
9370 Pittsburgh Ave Rancho
Cucamonga, CA 91730, USA

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