

# 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 <sup>2</sup>
Combustible Metal Dusts	Class II Combustible Dusts	Group E <sup>1</sup>	IIIC <sup>3</sup>
Combustible Carbonaceous Dust		Group F	IIIB <sup>3</sup>
Combustible Dusts not in Group E or F (Flour, Grain, Wood, Plastics, Chemicals)		Group G	IIIB <sup>3</sup>
Combustible Fibers and Flyings	Class III Fibers and Flyings	Not Applicable	IIIA <sup>3</sup>

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(842)	T1	T1
300(572)	T2	
280(536)	T2A	T2
260(500)	T2B	
230(446)	T2C	
215(419)	T2D	
200(392)	T3	T3
180(256)	T3A	
165(329)	T3B	
160(320)	T3C	
135(275)	T4	T4
120(248)	T4A	
100(212)	T5	T5
85(185)	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
IK11	Protected against 40 joules impact



HAZLOC & HIGH TEMP

RED SKY  
SERIOUSLY SAFE LIGHTS™

## LED LUMINAIRES FOR HAZARDOUS ENVIRONMENTS

### BLOCK MINI SERIES H1 / BLM H1

Compact, Precision Optics, Versatile Mounting  
Area & Low Bay



Wattage: 21W/40W/50W/60W  
Lumens (Lm): 4,220/6,499/7,179/8,514  
Warranty: LEDs: 10 Years, Driver: 7 Years

### BLOCK SERIES H1 / BLK2 H1

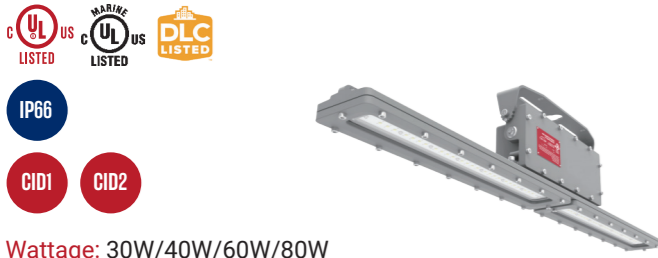
Rugged, Field-proven, Medium Output  
High Bay & Flood



Wattage: 80W/100W/120W/150W  
Lumens (Lm): 12,320/14,162/17,680/21,227  
Warranty: LEDs: 10 Years, Driver: 7 Years

### LINEAR TUFF SERIES / LNT2

Rugged, Versatile Mounting, High-Efficacy  
Linear



Wattage: 30W/40W/60W/80W  
Lumens (Lm): 4,608/6,192/8,670/10,810  
Warranty: LEDs: 10 Years, Driver: 7 Years

### LINEAR TUFF EMERGENCY SERIES / LNT EM

Explosion-Proof, Emergency, Hazardous Location  
Linear



Wattage: 80W  
Lumens (Lm): 10,057  
Warranty: LEDs: 10 Years, Driver: 7 Years, Battery: 5 Years

### BLOCK MINI SERIES H2 / BLM H2

Compact, Precision Optics, Versatile Mounting  
Area & Low Bay



Wattage: 21W/40W/50W/60W  
Lumens (Lm): 4,220/6,499/7,179/8,514  
Warranty: LEDs: 10 Years, Driver: 7 Years

### BLOCK SERIES H2 / BLK2 H2

Rugged, Field-proven, Medium Output  
High Bay & Flood



Wattage: 80W/100W/120W/150W  
Lumens (Lm): 12,320/14,162/17,680/21,227  
Warranty: LEDs: 10 Years, Driver: 7 Years

### LINEAR SERIES / LNR2

2ft & 4ft, Rugged, Versatile Mounting  
Linear



Wattage: 30W/40W/60W/80W  
Lumens (Lm): 4,426/5,795/9,185/12,026  
Warranty: LEDs: 10 Years, Driver: 7 Years

### LINEAR EMERGENCY SERIES / LNR EM

Slim, Durable, Emergency Lighting  
Linear



Wattage: 40W/80W  
Lumens (Lm): 6,183/11,486  
Warranty: LEDs: 10 Years, Driver: 7 Years, Battery: 3 Years

## LED LUMINAIRES FOR HAZARDOUS ENVIRONMENTS

### ROUND SERIES / RND2

Universal Top, Versatile Mounting, Retrofit-friendly  
Low Bay & Area



Wattage: 35W/40W/45W/55W/60W/65W  
Lumens (Lm): 5,295/6,366/6,751/8,789/10,154/10,758  
Warranty: LEDs: 10 Years, Driver: 7 Years

### MODULAR MAX SERIES / MDX

Lightweight, Ultra-efficient, High Output  
High Bay & Flood



Wattage: 90W/120W/190W/260W/310W/380W/440W  
Lumens (Lm): 16,467/21,037/32,082/40,632/50,554/62,902/72,190  
Warranty: Standard: 7 Years, Extended: 10 Years

### ROUND MAX SERIES / RDX

Universal Top, Versatile Mounting, Retrofit-friendly  
High Bay & Area



Wattage: 80W/120W/150W/200W  
Lumens (Lm): 12,720/19,320/23,850/29,600  
Warranty: LEDs: 10 Years, Driver: 7 Years

## LED LUMINAIRES FOR HIGH-TEMPERATURE ENVIRONMENTS

### MODULAR HOT SERIES / MDH

Extreme-Heat Resistant, Reliable Output  
70°C High bay

Operating Temperature:  
-40°F to + 158°F (-40°C to + 70°C) - Glass  
-40°F to + 149°F (-40°C to + 65°C) - PC



Wattage: 200W/400W/600W/800W  
Lumens (Lm): 30,521/57,516/87,595/114,598  
Warranty: 5 Years

### HIGH BAY HOT SERIES / HBH

Rugged, Corrosion-Proof, Long-Life  
80°C High bay

Operating Temperature:  
-40°F to + 176°F (-40°C to + 80°C)



Wattage: 150W  
Lumens (Lm): 22,158 (110°), 19,970 (60°)  
Warranty: Standard: 3 Years; Extended: 5 Years



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

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

**RED SKY**  
SERIOUSLY SAFE LIGHTS™  
Rev.1.4 08/25