reddot winner 2024
lighting design

MODULAR MAX SERIES

LED LIGHTING FOR HARSH AND HAZARDOUS AREAS
FLOOD & HIGHBAY



Reliable. Durable. Efficient.

15,000 to 70,000 lumen models

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



MODULAR MAX SERIES



The Modular Max Series packs powerful performance with a high lumen output of up to 70,000 lumens and excellent luminous efficacy of up to 180lm/W. This is achieved while maintaining a lightweight and compact design, making it over 25% lighter than comparable C1D2/C2D1 floodlights.

Certified for C1D2/C2D1 hazardous locations, the Modular Max Series withstands even the harshest environments. Its craftsmanship and rigorous testing ensure optimal performance under extreme conditions, maintaining high output from -49°F to +149°F (-45°C to +65°C). An outstanding thermal design and robust quality provide durable operation.

Versatile, intelligent design allows equal use as a floodlight or high bay solution. Unique product structure design simplifies installation and manufacturing. The light housing utilizes recyclable metal alloys, supporting sustainability. Additional accessories reduce light pollution, Red Sky Lighting is committed to responsible, efficient, and eco-friendly solutions. The Modular Max Series delivers unprecedented performance for demanding industrial applications.



FEATURES



Compact and Light-Weight Design

Offering 15,000-70,000 Lm Wide Range Selection

Safe and Reliable Heat Transfer, Can be Used in High/Low Ambient Temperatures

-49°F to +149°F for 15,000 - 40,000 Lm
-49°F to +131°F for 50,000 - 70,000 Lm

Easy Installation

Easy Wiring, More Room for Wiring

Warranty

Standard: 7 Years
Extended: 10 years

RATINGS

Class I Division 2, Groups A, B, C, D
Class II Division 1 Group E, F, G
Class II Division 2, Groups F, G
Class III
Simultaneous Presence
Class I, Zone 2, Group IIC
Zone 20, 21 & 22

UL 1598 Wet Locations
UL 1598A Marine Outside Type (Salt Water)
IP66/67, NEMA 4X
IK08
3G Vibration (ANSI C136.31)
Salt Spray 720 hrs (ISO 9227)

CERTIFICATIONS

UL844
UL1598
UL1598A
CSA C22.2 No. 250.0
CSA C22.2 No. 137
DLC (Pending)
Dark Sky Compliance (Pending)
FCC 47 CFR Part 15 Subpart B

TECHNICAL PARAMETERS

Specification	MDX-15L	MDX-20L	MDX-30L	MDX-40L	MDX-50L	MDX-60L	MDX-70L
Electrical Parameters							
Power	90W	120W	190W	260W	310W	380W	440W
Rated Input Current(120V AC) Rated Input Current(277V AC) Rated Input Current(347V AC) Rated Input Current(480V AC)	0.833A 0.361A 0.288A 0.208A	1.111A 0.481A 0.384A 0.278A	1.759A 0.762A 0.608A 0.440A	2.407A 1.043A 0.833A 0.602A	2.870A 1.244A 0.993A 0.718A	3.519A 1.524A 1.217A 0.880A	4.074A 1.765A 1.409A 1.019A
Voltage/Frequency	100-277V AC, 347-480V AC 50/60Hz						
Power Factor	>0.90						
THD	<20%						
L70	230,000 hrs@149°F				230,000 hrs@131°F		
Dimming	0-10V, Range 10% - 100%						
Surge Protection*	10KV/5KA						
Supply Wire	12-18AWG, Rated 90°C min					12-17AWG, Rated 90°C min	
Warranty	Standard: 7 Years, Extended: 10 years						
Optical Parameters							
Lumen Output**	16,467Lm	21,037Lm	32,082Lm	40,632Lm	50,554Lm	62,902Lm	72,190Lm
Lumen Efficacy**	180Lm/W						
Available Beam Angle	30° / 60° / 90° / 120° / T2 / T3 / T5						
Correlated Color Temperature (CCT)	2700K / 4000K / 5000K						
Color Rendering Index (CRI)	Ra>70						
Mechanical Parameters							
Housing Material	Copper-free (< 0.4%) die-cast aluminum						
Hardware	Stainless steel 316						
Lens Material	Tempered Glass						
Mounting Options	Pendant, Straight Yoke, Angled Yoke, Chain, Stanchion						
Product Weight	21.8lbs / 9.9kg				36.3lbs / 16.5kg		
Package Weigh	4.6lbs / 2.1kg				7.1lbs / 3.2kg		
Cable Entry	(5) 3/4" NPT						
Product Dimensions(L×W×H)	14.1×9.8×7.4 in (357×250×189 mm)			19.9×14.1×7.4 in (505×357×189 mm)			
Package Dimensions(L×W×H)	19.7×13.4×11.8 in (500×340×300 mm)			23.6×19.7×11.8 in (600×500×300 mm)			
Environmental Parameters							
Corrosion Resistance	Salt Spray 720 hrs (ISO 9227)						
Vibration Resistance	3G (ANSI C136.31)						
Ambient Operating Temperature	-49°F ~ +149°F (-45°C ~ 65°C)			-49°F ~ +131°F (-45°C ~ 55°C)			
T-Code Rating	CID2 – T3C, C2D1 – T4						
EPA wind rating (FT2)	1.753 (Yoke), 1.888 (Stanchion)				2.864 (Yoke), 2.999 (Stanchion)		

* Surge protector included as standard configuration

** Value calculated based on 5000K and 90°, varies to different spec.

ORDERING INFORMATION

EXAMPLE: MDX-20L-100-277-5K-120-H2-CG-GRY-AYK

MDX – 20L – 100-277 – 5K – 120 – H2 – CG – GRY – AYK

PRODUCT SERIES

LUMEN LEVEL

- **15L** - 15,000Lm
- **20L** - 20,000Lm
- **30L** - 30,000Lm
- **40L** - 40,000Lm
- **50L** - 50,000Lm
- **60L** - 60,000Lm
- **70L** - 70,000Lm

VOLTAGE

- **100 - 277**
  100-277V AC
- **347 - 480**
  347-480V AC

CCT

- **27K** - 2700K**
- **4K** - 4000K
- **5K** - 5000K

BEAM

- **30** - 30° (NEMA 3 - Medium Narrow)
- **60** - 60° (NEMA 4 - Medium)
- **90** - 90° (NEMA 5 - Medium Wide)
- **120** - 120° (NEMA 6 - Wide)
- **T2** - Type II
- **T3** - Type III
- **T5** - Type V (NEMA 7 - Very Wide)

RATING

- **H2** - C1D2 / C2D1 / C3
- **HS** - UL1598/A***

LENS

- **CG** - Clear Glass

COLOR

- **GRY** - Grey

MOUNTING

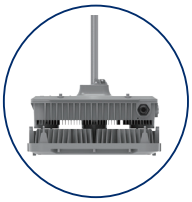
- **PND** - Pendant
- **SYK** - Straight Yoke*
- **AYK** - Angled Yoke*

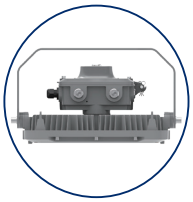
* YOKE Pre-installed, no need to order YOKE separately.

** Expect longer lead-time.

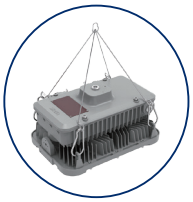
*** Harsh ver. only: Pre-installed 5 Pin NEMA Socket Receptacle allows for easy attachment of photocell (purchase separately) or other smart lighting device. Dimming capable at 100-480Vac. Ships with shorting cap.

MOUNTING ACCESSORIES


Pendant


Straight Yoke

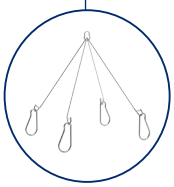

Angled Yoke

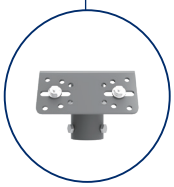

Chain


Stanchion


MDX-S YOKE S
MDX-S YOKE D


MDX-A YOKE S
MDX-A YOKE D


CHAIN02

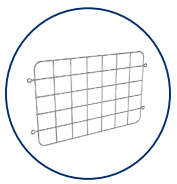

STAN01

Mounting Method	PN	Description	MPN Code
Straight Yoke	MDX–S YOKE S	Straight YOKE, 0-90° adjustable, SUS304 powder coated, RAL7037, only available with 15L/20L/30L/40L	310010114
	MDX–S YOKE D	Straight YOKE, 0-90° adjustable, SUS304 powder coated, RAL7037, only available with 50L/60L/70L	310010116
Angled Yoke	MDX–A YOKE S	45°Angled YOKE, 0-90° adjustable, SUS304 powder coated, RAL7037, only available with 15L/20L/30L/40L	310010115
	MDX–A YOKE D	45°Angled YOKE, 0-90° adjustable, SUS304 powder coated, RAL7037, only available with 50L/60L/70L	310010117
Chain	CHAIN02	CHAIN HANG KIT, 4pcs×3ft,SUS304	309050358
Stanchion	STAN01*	Slip–Fit Stanchion Mount Kit for Φ2" (2 3/8" OD) Poles NPT-threaded, SUS304 powder coated, RAL7037, only available with 15L/20L/30L/40L	309050300

* Requires A Straight Yoke

OTHER ACCESSORIES


HOOK02


MDX-WG


SFCB01


MDX-VISO

PN	Description	MPN Code
HOOK02	M10 Hook with ¾" NPT threads (SUS316)	309050331
MDX–SWG	Wire Guard for glass lens, only available with 15L/20L/30L/40L	309050360
MDX–DWG	Wire Guard for glass lens, only available with 50L/60L/70L	309050361
SFCB01	3ft Safety Cable Kit, SUS304	106060018
MDX–VISO	Visor, AL6061 powder coated, RAL7037	309050359
GLCO-03	3ft Cord (SOOW 14AWG*3, 105°C, 600V) with cable gland, for C1D2 and non-hazardous only	204020003
GLCO-10	10ft Cord (SOOW 14AWG*3, 105°C, 600V) with cable gland, for C1D2 and non-hazardous only	204020004

REPLACEMENT DRIVER KITS (ORDERED SEPARATELY)

Part Number	Description	MPN Code
MDX-15L-100-277-Driver	Replacement driver kit for MDX-15L-100-277 Fixtures	303010001
MDX-15L-347-480-Driver	Replacement driver kit for MDX-15L-347-480 Fixtures	303010002
MDX-20L-100-277-Driver	Replacement driver kit for MDX-20L-100-277 Fixtures	303010003
MDX-20L-347-480-Driver	Replacement driver kit for MDX-20L-347-480 Fixtures	303010004
MDX-30L-100-277-Driver	Replacement driver kit for MDX-30L-100-277 Fixtures	303010005
MDX-30L-347-480-Driver	Replacement driver kit for MDX-30L-347-480 Fixtures	303010006
MDX-40L-100-277-Driver	Replacement driver kit for MDX-40L-100-277 Fixtures	303010007
MDX-40L-347-480-Driver	Replacement driver kit for MDX-40L-347-480 Fixtures	303010008
MDX-50L-100-277-Driver	Replacement driver kit for MDX-50L-100-277 Fixtures	303010009
MDX-50L-347-480-Driver	Replacement driver kit for MDX-50L-347-480 Fixtures	303010010
MDX-60L-100-277-Driver	Replacement driver kit for MDX-60L-100-277 Fixtures	303010011
MDX-60L-347-480-Driver	Replacement driver kit for MDX-60L-347-480 Fixtures	303010012
MDX-70L-100-277-Driver	Replacement driver kit for MDX-70L-100-277 Fixtures	303010013
MDX-70L-347-480-Driver	Replacement driver kit for MDX-70L-347-480 Fixtures	303010014

LUMEN TABLE

Part Number	Rated Power	CCT	Beam Angle	Lens	Lumen Output (Lm)	Efficiency (Lm/W)
Voltage 100-277V AC						
MDX-15L-100-277-5K-30-H2-CG-GRY-PND	90W	5000K	30°	Clear Glass	16,079	176
MDX-15L-100-277-5K-60-H2-CG-GRY-PND	90W	5000K	60°	Clear Glass	16,124	177
MDX-15L-100-277-5K-90-H2-CG-GRY-PND	90W	5000K	90°	Clear Glass	16,467	180
MDX-15L-100-277-5K-120-H2-CG-GRY-PND	90W	5000K	120°	Clear Glass	15,965	175
MDX-15L-100-277-5K-T2-H2-CG-GRY-PND	90W	5000K	T2	Clear Glass	15,000	165
MDX-15L-100-277-5K-T3-H2-CG-GRY-PND	90W	5000K	T3	Clear Glass	15,707	172
MDX-15L-100-277-5K-T5-H2-CG-GRY-PND	90W	5000K	T5	Clear Glass	14,384	157
MDX-20L-100-277-5K-30-H2-CG-GRY-PND	120W	5000K	30°	Clear Glass	20,632	174
MDX-20L-100-277-5K-60-H2-CG-GRY-PND	120W	5000K	60°	Clear Glass	20,585	174
MDX-20L-100-277-5K-90-H2-CG-GRY-PND	120W	5000K	90°	Clear Glass	21,037	177
MDX-20L-100-277-5K-120-H2-CG-GRY-PND	120W	5000K	120°	Clear Glass	20,460	173
MDX-20L-100-277-5K-T2-H2-CG-GRY-PND	120W	5000K	T2	Clear Glass	19,149	161
MDX-20L-100-277-5K-T3-H2-CG-GRY-PND	120W	5000K	T3	Clear Glass	20,021	169
MDX-20L-100-277-5K-T5-H2-CG-GRY-PND	120W	5000K	T5	Clear Glass	18,244	154
MDX-30L-100-277-5K-30-H2-CG-GRY-PND	190W	5000K	30°	Clear Glass	31,463	166
MDX-30L-100-277-5K-60-H2-CG-GRY-PND	190W	5000K	60°	Clear Glass	31,586	166
MDX-30L-100-277-5K-90-H2-CG-GRY-PND	190W	5000K	90°	Clear Glass	32,082	169
MDX-30L-100-277-5K-120-H2-CG-GRY-PND	190W	5000K	120°	Clear Glass	31,305	165
MDX-30L-100-277-5K-T2-H2-CG-GRY-PND	190W	5000K	T2	Clear Glass	29,275	154
MDX-30L-100-277-5K-T3-H2-CG-GRY-PND	190W	5000K	T3	Clear Glass	30,617	161
MDX-30L-100-277-5K-T5-H2-CG-GRY-PND	190W	5000K	T5	Clear Glass	27,970	147
MDX-40L-100-277-5K-30-H2-CG-GRY-PND	260W	5000K	30°	Clear Glass	39,904	159
MDX-40L-100-277-5K-60-H2-CG-GRY-PND	260W	5000K	60°	Clear Glass	40,085	160
MDX-40L-100-277-5K-90-H2-CG-GRY-PND	260W	5000K	90°	Clear Glass	40,632	162
MDX-40L-100-277-5K-120-H2-CG-GRY-PND	260W	5000K	120°	Clear Glass	39,864	159
MDX-40L-100-277-5K-T2-H2-CG-GRY-PND	260W	5000K	T2	Clear Glass	38,008	147
MDX-40L-100-277-5K-T3-H2-CG-GRY-PND	260W	5000K	T3	Clear Glass	39,521	153
MDX-40L-100-277-5K-T5-H2-CG-GRY-PND	260W	5000K	T5	Clear Glass	36,295	141
MDX-50L-100-277-5K-30-H2-CG-GRY-PND	310W	5000K	30°	Clear Glass	50,142	176
MDX-50L-100-277-5K-60-H2-CG-GRY-PND	310W	5000K	60°	Clear Glass	49,712	174
MDX-50L-100-277-5K-90-H2-CG-GRY-PND	310W	5000K	90°	Clear Glass	50,554	177
MDX-50L-100-277-5K-120-H2-CG-GRY-PND	310W	5000K	120°	Clear Glass	49,486	173
MDX-50L-100-277-5K-T2-H2-CG-GRY-PND	310W	5000K	T2	Clear Glass	46,072	162
MDX-50L-100-277-5K-T3-H2-CG-GRY-PND	310W	5000K	T3	Clear Glass	48,348	170
MDX-50L-100-277-5K-T5-H2-CG-GRY-PND	310W	5000K	T5	Clear Glass	44,020	154
MDX-60L-100-277-5K-30-H2-CG-GRY-PND	380W	5000K	30°	Clear Glass	62,368	176
MDX-60L-100-277-5K-60-H2-CG-GRY-PND	380W	5000K	60°	Clear Glass	61,877	176
MDX-60L-100-277-5K-90-H2-CG-GRY-PND	380W	5000K	90°	Clear Glass	62,902	179
MDX-60L-100-277-5K-120-H2-CG-GRY-PND	380W	5000K	120°	Clear Glass	60,933	172
MDX-60L-100-277-5K-T2-H2-CG-GRY-PND	380W	5000K	T2	Clear Glass	56,637	161
MDX-60L-100-277-5K-T3-H2-CG-GRY-PND	380W	5000K	T3	Clear Glass	59,504	169
MDX-60L-100-277-5K-T5-H2-CG-GRY-PND	380W	5000K	T5	Clear Glass	54,596	155
MDX-70L-100-277-5K-30-H2-CG-GRY-PND	440W	5000K	30°	Clear Glass	71,035	172
MDX-70L-100-277-5K-60-H2-CG-GRY-PND	440W	5000K	60°	Clear Glass	70,889	172
MDX-70L-100-277-5K-90-H2-CG-GRY-PND	440W	5000K	90°	Clear Glass	72,190	175
MDX-70L-100-277-5K-120-H2-CG-GRY-PND	440W	5000K	120°	Clear Glass	69,987	170
MDX-70L-100-277-5K-T2-H2-CG-GRY-PND	440W	5000K	T2	Clear Glass	65,473	159
MDX-70L-100-277-5K-T3-H2-CG-GRY-PND	440W	5000K	T3	Clear Glass	68,076	165
MDX-70L-100-277-5K-T5-H2-CG-GRY-PND	440W	5000K	T5	Clear Glass	62,659	152

A DIRECT RETROFIT FROM HID TO LED

The MDX series LED is easy to retrofit in the same configuration as your existing HID luminaires. For example, a 90-watt Modular Max Floodlight (MDX-15L) delivers virtually the same illumination as its equivalent 400 watt HPS luminaire while providing 80% reduction in energy costs and up to 230,000 hours of continuous operation.

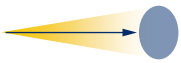
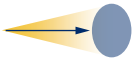
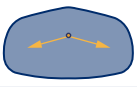
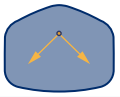
MODELS	Lumen Output (Lm)	MH Equivalent (W)	HPS Equivalent (W)
MDX-15L	15,000—16,467	350~400	400
MDX-20L	19,149—21,037	450	
MDX-30L	29,275—32,082	750	600
MDX-40L	38,008—40,632	1000	750
MDX-50L	46,072—50,554	1000~1500	1000
MDX-60L	56,637—62,902	1500+	N.A
MDX-70L	65,473—72,190		N.A

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.

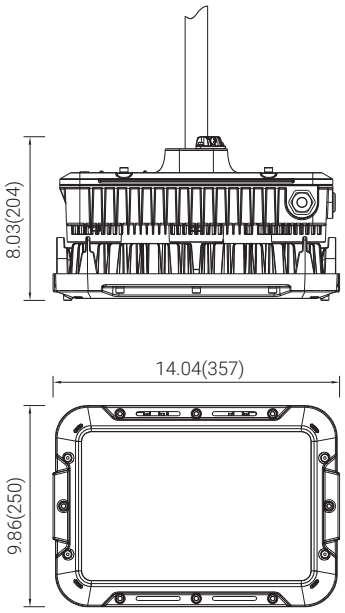
RSL offers complimentary lighting design services for our products using industry-leading AGI32 software, tailored for projects of all sizes in harsh and hazardous locations. We assist you in determining the number of fixtures needed, the types of lights to use, their optimal placement, and how to maximize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

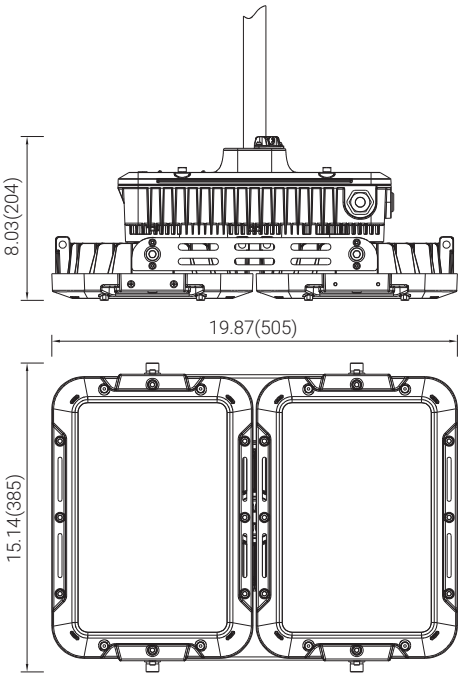
Beam	NEMA/IESNA Type	Beam Description	Beam Projection Distance
30°	NEMA 3	Medium Narrow	
60°	NEMA 4	Medium	
90°	NEMA 5	Medium Wide	
120°	NEMA 6	Wide	
T2	Type II	Asymmetric distributions, well suited for narrow areas, such as roadways, paths and driveways.	
T3	Type III	Asymmetric distributions, well suited 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.	

DIMENSIONS

unit: in(mm)

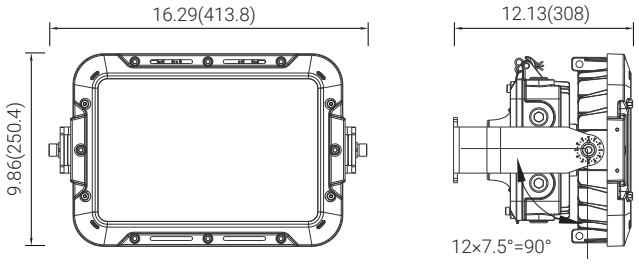


For 15L/20L/30L/40L

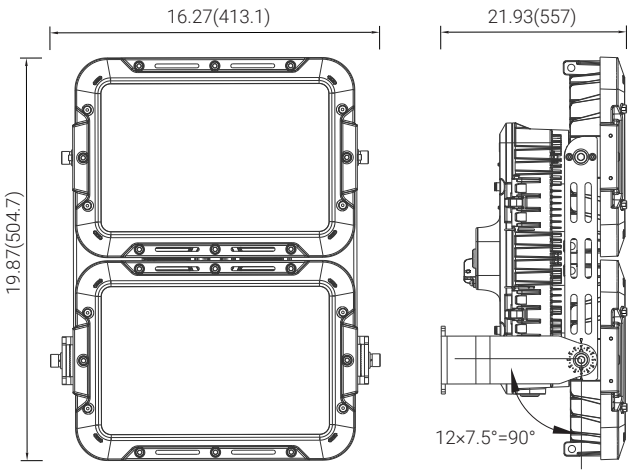


For 50L/60L/70L

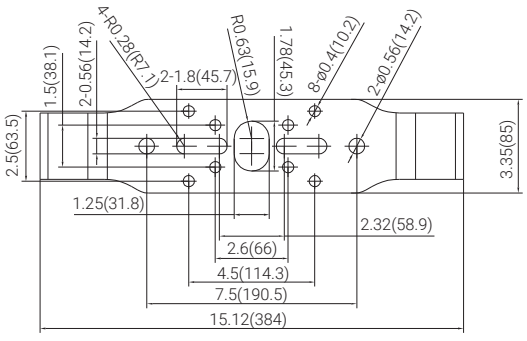
Pendant



For 15L/20L/30L/40L



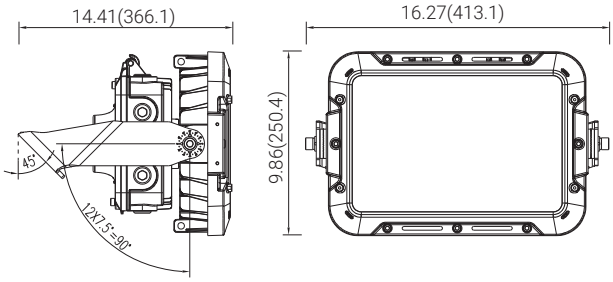
For 50L/60L/70L



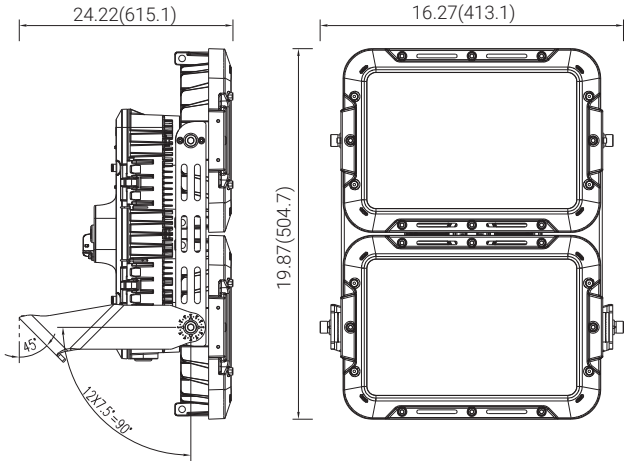
Straight Yoke

DIMENSIONS

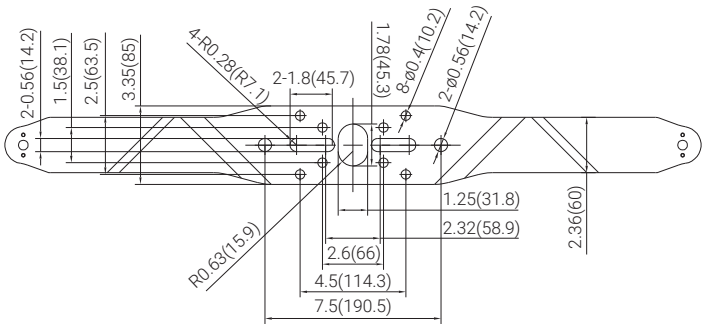
unit: in(mm)



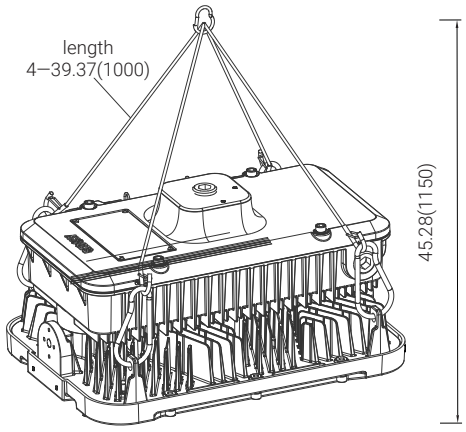
For 15L/20L/30L/40L



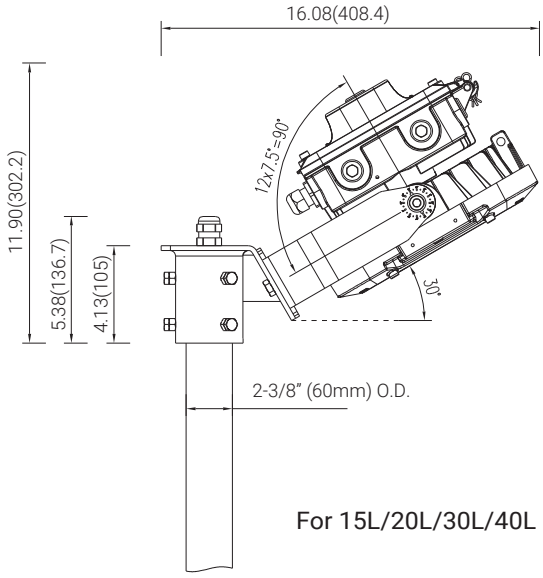
For 50L/60L/70L



Angled Yoke



Chain



For 15L/20L/30L/40L

Stanchion

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™

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Disclaimer

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