

# BLOCK SERIES X1

HAZARDOUS LOCATION LED LUMINAIRE



**Reliable. Durable. Efficient.**  
**2,400 to 19,000 lumen models**

**RED SKY**  
SERIOUSLY SAFE LIGHTS™

# PIONEERING INDUSTRIAL ILLUMINATION FOR HARSH & HAZARDOUS CONDITIONS

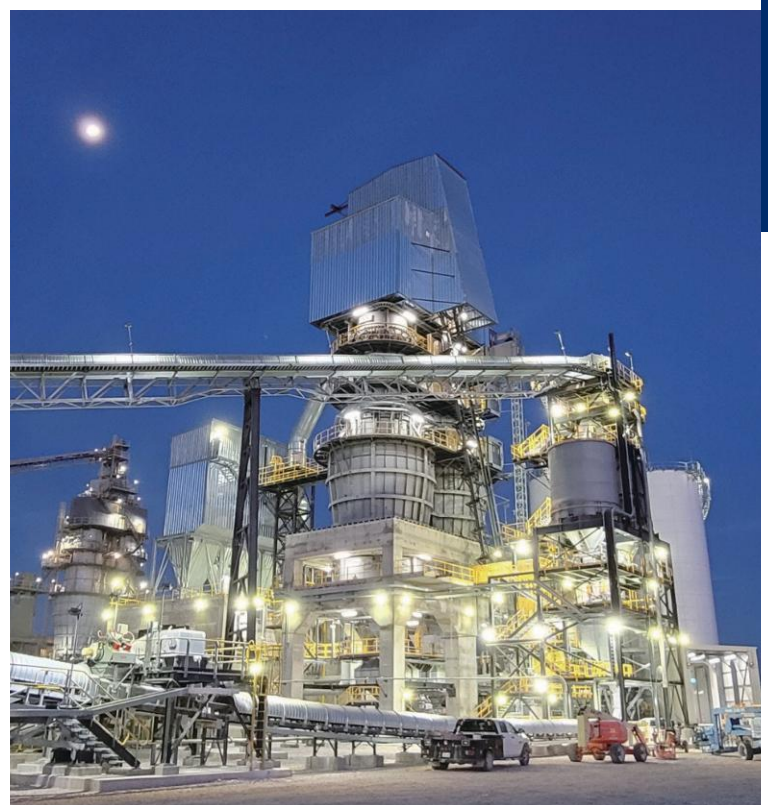
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A leading manufacturer of premium LED lights for demanding work conditions

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

### ❧ TOP-NOTCH SERVICES

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

### ❧ FAST DELIVERY

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

### ❧ SUSTAINABLE SOLUTIONS

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



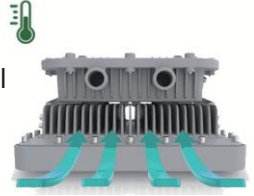
# BLOCK SERIES

## FEATURES



### Excellent Heat Dissipation

Self-contained LED and Driver compartment with external air-flow fins provide exceptional heat dissipation to ensure long lifespan



### Easy and Through Wiring

Built-in wiring compartment with NPT 3/4" entries and A quick-access WAGO 5-pole lever connector that allows for easy connection. (1mm<sup>2</sup>-4mm<sup>2</sup>)



## RATINGS

- Zone 1&2
- Zone 21&22
- IP66
- IK08
- Salt Spray 720 hrs (ISO 9227)

## CERTIFICATIONS

- ATEX**
- II 2G Ex d IIB T5 Gb
- II 2D Ex tb IIIC (T 95°C Max) Db, IP 66
- CE LVD/EMC**

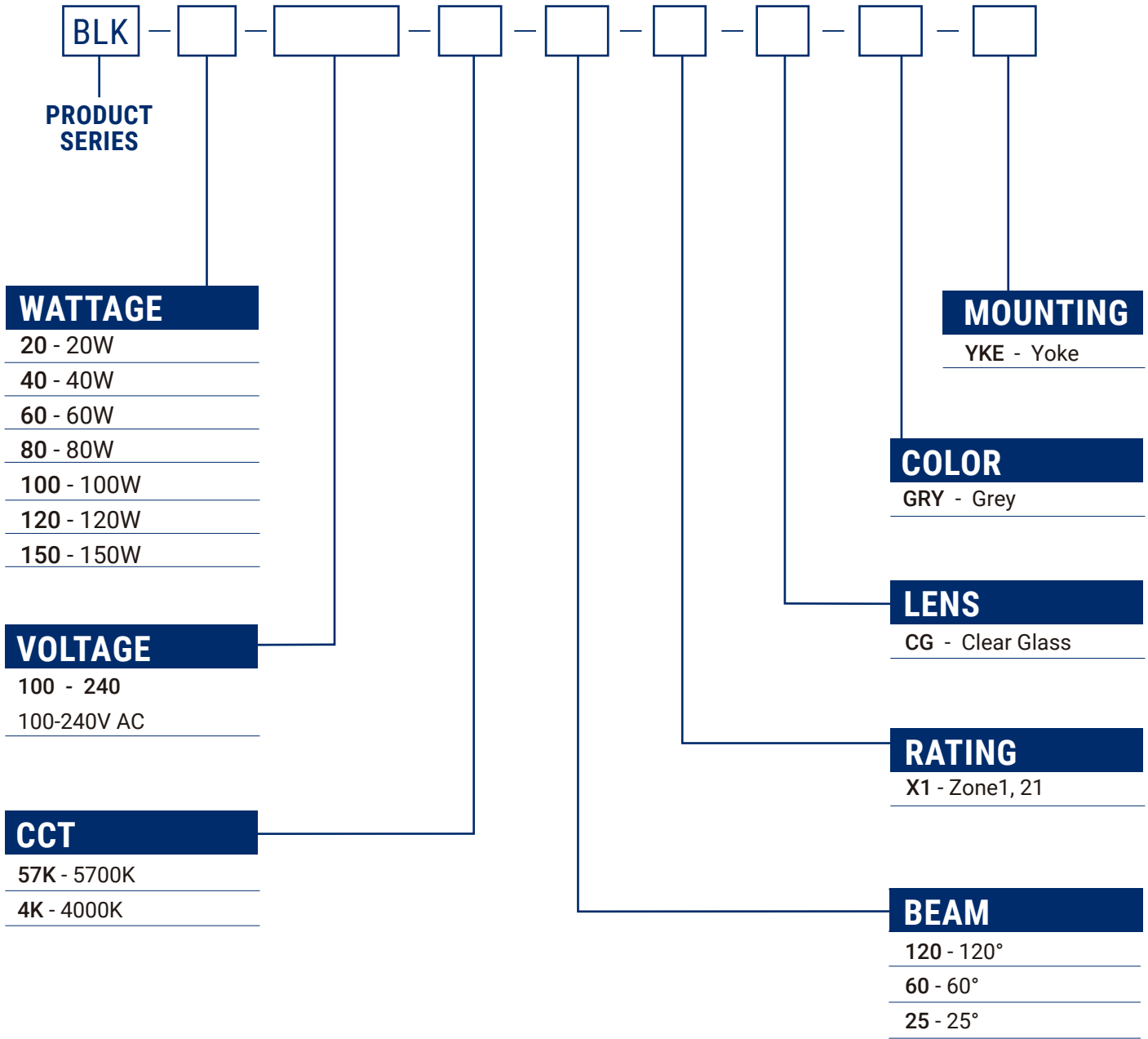
# TECHNICAL PARAMETERS

| Specification                      | BLK-X1-20                                       | BLK-X1-40 | BLK-X1-60 | BLK-X1-80                                   | BLK-X1-100 | BLK-X1-120 | BLK-X1-150 |
|------------------------------------|---|-----------|-----------|---|------------|------------|------------|
| <b>Electrical Parameters</b>       |   |           |           |   |            |            |            |
| Power                              | 20W   | 40W       | 60W       | 80W   | 100W       | 120W       | 150W       |
| Rated Input Current (220V AC)      | 0.101A  | 0.202A    | 0.303A    | 0.404A                                      | 0.505A     | 0.606A     | 0.758A     |
| Voltage/Frequency                  | 100-240V AC, 50/60Hz                            |           |           |   |            |            |            |
| Power Factor                       | ≥0.90   |           |           |   |            |            |            |
| THD                                | <20%  |           |           |   |            |            |            |
| L70                                | 440,000 hrs@50°C                                |           |           | 450,000 hrs@50°C                            |            |            |            |
| Surge Protection                   | L/N-FG 2KV, L-N 1KV                             |           |           | L/N-FG 4KV, L-N 2KV                         |            |            |            |
| Supply Wire                        | 1mm <sup>2</sup> -4mm <sup>2</sup> , Rated 90°C |           |           |   |            |            |            |
| Warranty                           | 5 Years   |           |           |   |            |            |            |
| <b>Optical Parameters</b>          |   |           |           |   |            |            |            |
| Lumen Output*                      | 2,399Lm   | 5,046Lm   | 7,010Lm   | 11,629Lm                                    | 14,082Lm   | 17,642Lm   | 20,924Lm   |
| Lumen Efficacy*                    | 120Lm/W   |           |           | 130Lm/W                                     |            |            |            |
| Available Beam Angle               | 25° / 60° / 120°                                |           |           |   |            |            |            |
| Correlated Color Temperature (CCT) | 4000K/5700K                                     |           |           |   |            |            |            |
| Color Rendering Index (CRI)        | Ra>70   |           |           |   |            |            |            |
| <b>Mechanical Parameters</b>       |   |           |           |   |            |            |            |
| Housing Material                   | Marine Grade Aluminium                          |           |           |   |            |            |            |
| Hardware                           | Stainless steel 316                             |           |           |   |            |            |            |
| Lens Material                      | Tempered Glass                                  |           |           |   |            |            |            |
| Mounting Options                   | Yoke, Stanchion                                 |           |           |   |            |            |            |
| Product Weight                     | 10.1lbs/4.6kg                                   |           |           | 33.3lbs/15.1kg                              |            |            |            |
| Package Weight                     | 12.2lbs/5.6kg                                   |           |           | 35.4lbs/16.1kg                              |            |            |            |
| Cable Entry                        | (1) 3/4" NPT                                    |           |           | (2) 3/4" NPT                                |            |            |            |
| Product Dimensions(L×W×H)          | 9.6×8×5.6in (243×203×141mm)                     |           |           | 13.2×11×6.6in (336×279×168mm)               |            |            |            |
| Package Dimensions(L×W×H)          | 15×14.2×10.2in (380×360×260mm)                  |           |           | 16.1×14.6×9.1in (410×370×230mm)             |            |            |            |
| <b>Environmental Parameters</b>    |   |           |           |   |            |            |            |
| Ambient Operating Temperature      | -30°C ~ +50°C                                   |           |           |   |            |            |            |
| T-Code Ratin                       | Gas – T5, Dust – 95°C                           |           |           |   |            |            |            |
| EPA wind rating (FT2/m2)           | 0.968/0.090 (Yoke), 0.988/0.092 (Stanchion)     |           |           | 1.715/0.160 (Yoke), 1.735/0.161 (Stanchion) |            |            |            |

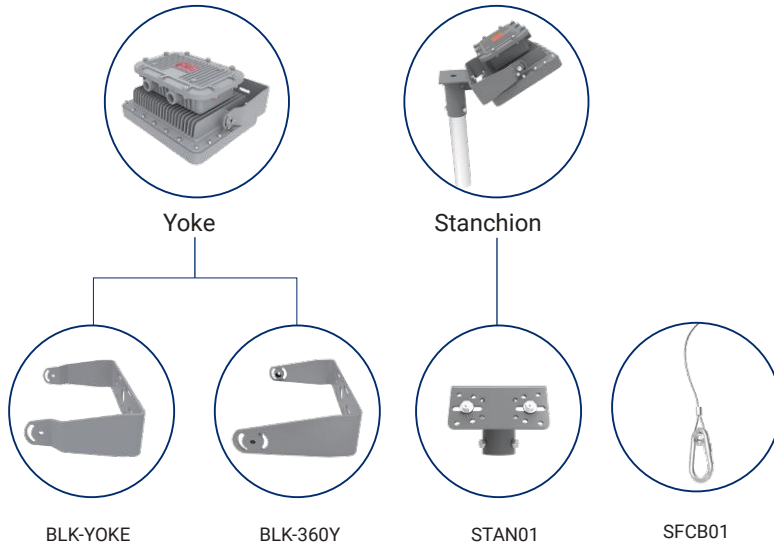
\* Value calculated based on 5700K and clear glass ,varies to different spec.

# ORDERING INFORMATION

EXAMPLE: BLK-80-100-240-57K-120-X1-CG-GRY-YKE



# MOUNTING ACCESSORIES



| Mounting  | PN       | Description  | MPN Code  |
|-----------|----------|--|-----------|
| Yoke      | BLK-YOKE | Yoke Mount, SUS304, Powder-Coated Grey RAL 7037  | 210010013 |
|           | BLK-360Y | 360-Degree Rotation Yoke Mount, SUS304, Powder-Coated Grey RAL 7037  | 210010082 |
| Stanchion | STAN01*  | Slip-Fit Stanchion Mount Kit for $\Phi$ 2 inch (2-3/8 inch OD, 60mm OD) Poles, Non-Threaded, SUS304, Powder-Coated Grey RAL 7037 | 210010031 |
|           | SFCB01   | Safety Cable Kit, SUS304   | 210010086 |

\* Requires A Yoke Mount

## **REPLACEMENT PARTS (ORDERED SEPARATELY)**

| Part Number       | Description                                      | MPN Code  |
|-------------------|--|-----------|
| BLK-X1-20-Driver  | Replacement Driver Kit for BLK-X1-20 Fixtures    | 303010078 |
| BLK-X1-40-Driver  | Replacement Driver Kit for BLK-X1-40 Fixtures    | 303010079 |
| BLK-X1-60-Driver  | Replacement Driver Kit for BLK-X1-60 Fixtures    | 303010080 |
| BLK-X1-80-Driver  | Replacement Driver Kit for BLK-X1-80 Fixtures    | 303010081 |
| BLK-X1-100-Driver | Replacement Driver Kit for BLK-X1-100 Fixtures   | 303010082 |
| BLK-X1-120-Driver | Replacement Driver Kit for BLK-X1-120 Fixtures   | 303010083 |
| BLK-X1-150-Driver | Replacement Driver Kit for BLK-X1-150 Fixtures   | 303010084 |
| CG009-A-01        | Replacement Clear Glass Lens for BLK X1 20W-60W  | 303030024 |
| CG009-B-01        | Replacement Clear Glass Lens for BLK X1 80W-150W | 303030025 |

## **LUMEN TABLE**

| Part Number                           | Wattage (W) | CCT   | Beam | Lens        | Lumen Output (Lm) | Efficiency (Lm/W) |
|---------------------------------------|-------------|-------|------|-------------|-------------------|-------------------|
| <b>Voltage 100-240VAC</b>             |             |       |      |             |                   |                   |
| BLK-20-100-240-57K-120-X1-CG-GRY-YKE  | 20          | 5700K | 120° | Clear Glass | 2,399             | 116               |
| BLK-40-100-240-57K-120-X1-CG-GRY-YKE  | 40          | 5700K | 120° | Clear Glass | 5,046             | 129               |
| BLK-60-100-240-57K-120-X1-CG-GRY-YKE  | 60          | 5700K | 120° | Clear Glass | 7,010             | 119               |
| BLK-80-100-240-57K-120-X1-CG-GRY-YKE  | 80          | 5700K | 120° | Clear Glass | 11,629            | 143               |
| BLK-100-100-240-57K-120-X1-CG-GRY-YKE | 100         | 5700K | 120° | Clear Glass | 14,082            | 139               |
| BLK-120-100-240-57K-120-X1-CG-GRY-YKE | 120         | 5700K | 120° | Clear Glass | 17,642            | 147               |
| BLK-150-100-240-57K-120-X1-CG-GRY-YKE | 150         | 5700K | 120° | Clear Glass | 20,924            | 142               |

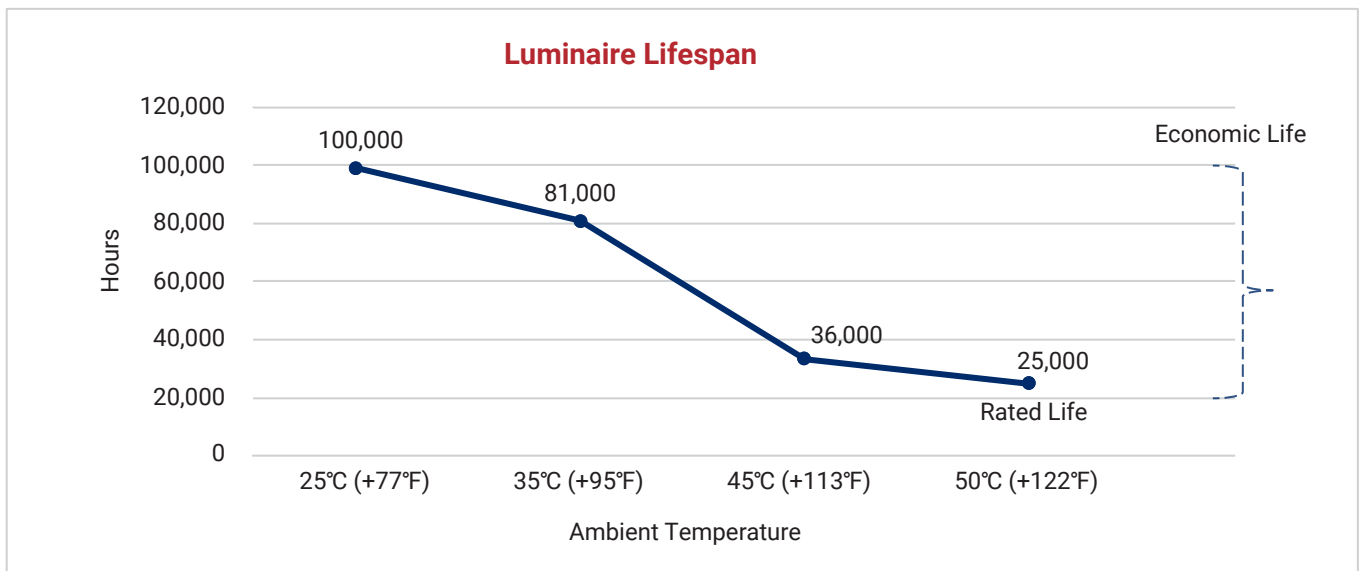
This table lists only selected lumen packages. For additional model parameters, please contact our sales team.  
 Note: LXX# = nominal lumens. Verify lumen package before ordering.

# LUMEN MAINTENANCE

| Hours<br>Ambient | 0    | 15,000 | 30,000 | 45,000 | 60,000 | 75,000 | 90,000 | 100,000 | 150,000 |
|------------------|------|--------|--------|--------|--------|--------|--------|---------|---------|
| 25°C             | 100% | 99%    | 98%    | 97%    | 95%    | 94%    | 93%    | 93%     | 89%     |
| 35°C             | 100% | 99%    | 98%    | 97%    | 95%    | 94%    | 93%    | 93%     | 89%     |
| 45°C             | 100% | 99%    | 98%    | 97%    | 95%    | 94%    | 93%    | 93%     | 89%     |
| 50°C             | 100% | 99%    | 98%    | 97%    | 95%    | 94%    | 93%    | 93%     | 89%     |

# LUMINAIRE LIFESPAN

| Ambient Temperature | Luminaire Lifespan (Hours) | Rated Service Life - Years (24/7 Operation) | Rated Service Life - Years (12/7 Operation) |
|---------------------|----------------------------|---|---|
| 25°C (+77°F)        | 100,000                    | 11  | 23  |
| 35°C (+95°F)        | 81,000                     | 9   | 18  |
| 45°C (+113°F)       | 36,000                     | 4   | 8   |
| 50°C (+122°F)       | 25,000                     | 3   | 6   |



Information shown for reference only and may vary by configuration.

# A DIRECT RETROFIT FROM HID TO LED

The BLK X1 series LED is easy to retrofit in the same configuration as your existing HID luminaires. For example, a 150-watt Block (BLK-150-X1) delivers virtually the same illumination as its equivalent 400 watt MH luminaire while providing 75% reduction in energy costs and up to 140,000 hours of continuous operation.



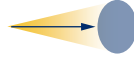




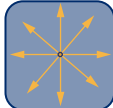
| MODELS     | Lumen Output (Lm) | MH Equivalent (W) | HPS Equivalent (W) |
|------------|-------------------|-------------------|--------------------|
| BLK-20-X1  | 2,399             | 70                | 100                |
| BLK-40-X1  | 5,046             | 100               | 150                |
| BLK-60-X1  | 7,010             | 150               | 150                |
| BLK-80-X1  | 11,629            | 200               | 250                |
| BLK-100-X1 | 14,082            | 250               | 310                |
| BLK-120-X1 | 17,642            | 350               | 400                |
| BLK-150-X1 | 20,924            | 400               | 400                |

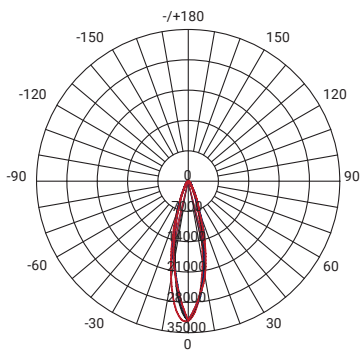
# THE RIGHT BEAM PATTERN FOR YOUR APPLICATION

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

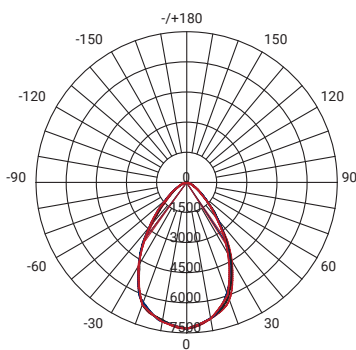
RSL offers complimentary lighting design services for our products using industry-leading AGI32 software, tailored for projects of all sizes in harsh and hazardous locations. We assist you in determining the number of fixtures needed, the types of lights to use, their optimal placement, and how to maximize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

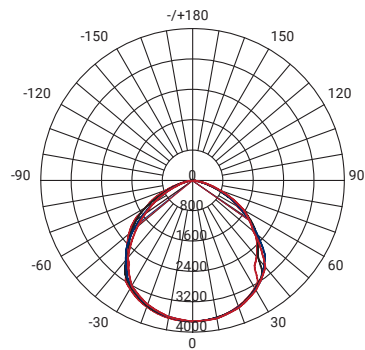
| Beam | NEMA/IESNA Type           | Beam Description  | Beam Projection Distance  |
|------|---------------------------|---|---|
| 30°  | NEMA 3                    | Medium Narrow   |  |
| 60°  | NEMA 4                    | Medium  |  |
| 90°  | NEMA 5                    | Medium Wide   |  |
| 120° | 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<br>Type V (Square) | Very Wide: symmetrical pattern with excellent uniformity for large, open areas.   |  |



25°



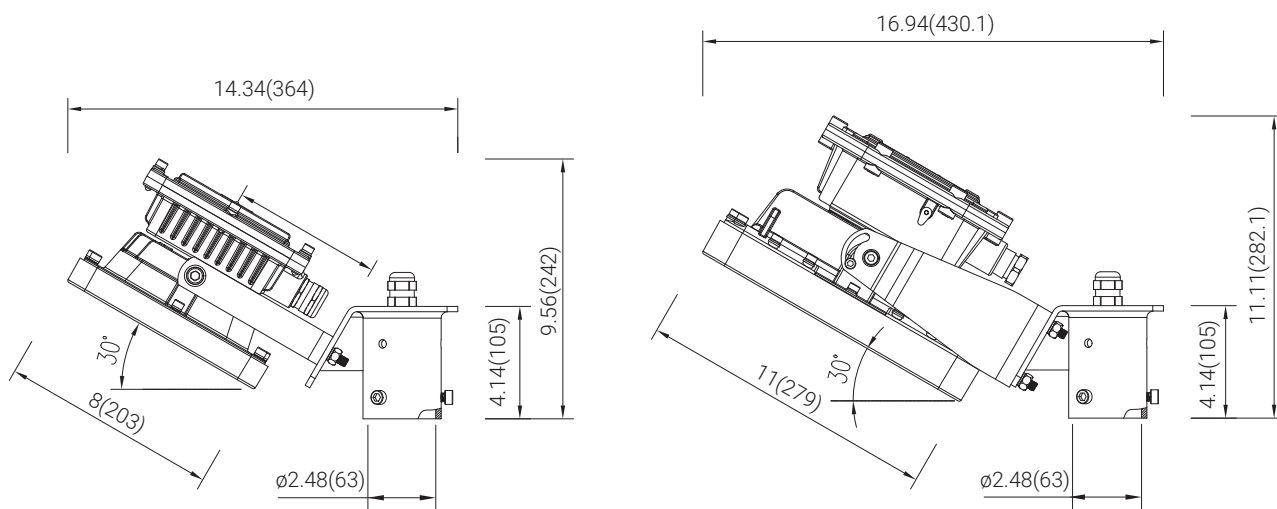
60°



120°

## DIMENSIONS

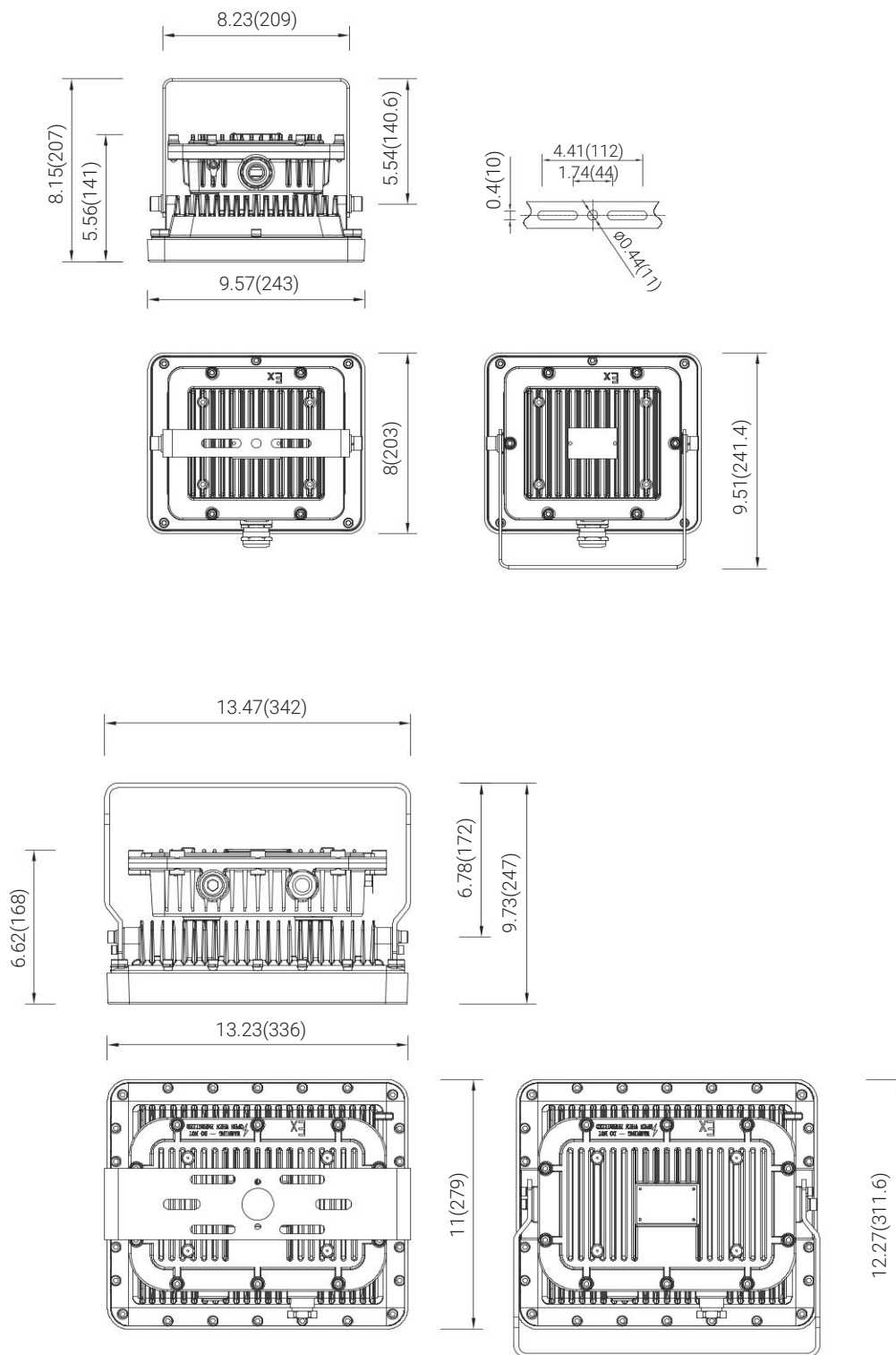
unit: in(mm)



Stanchion

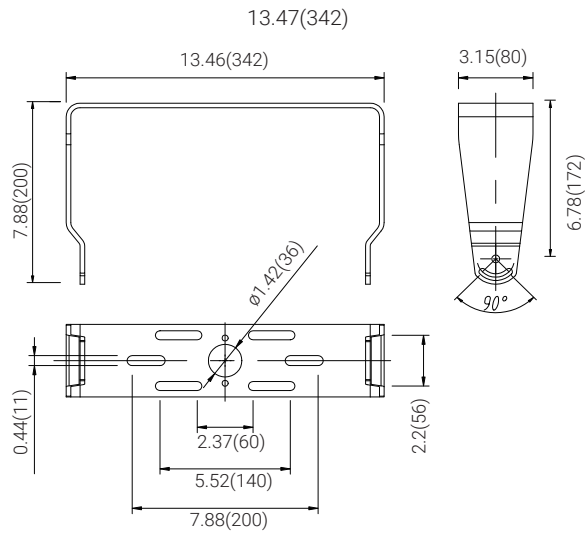
# DIMENSIONS

unit: in(mm)

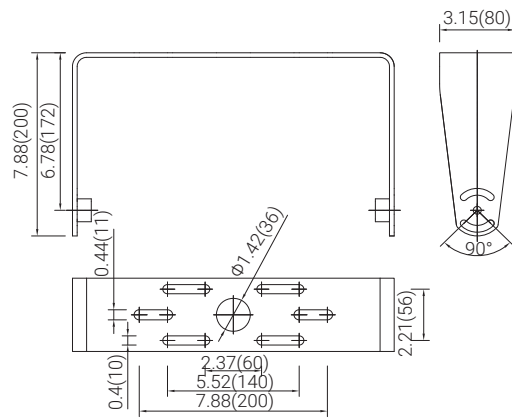


Yoke

unit: in(mm)



**BLK-YOKE**



**YOKE-360Y**

# HAZARDOUS LOCATION LIGHTING BASICS

## Atmosphere Groups

## Temperature Classification

| Substance  | Hazard Class                     | Division Groups                 | Zone Groups       | Max. Surface Temperatures | NEC® 500 CEC® | NEC® 505/IEC-Group II |
|--|----------------------------------|---------------------------------|-------------------|---------------------------|---------------|-----------------------|
| Acetylene  | Class I<br>Flammable<br>Gases    | Group A                         | IIC               | 450°C(842°F)              | T1            | T1                    |
| Hydrogen   |                                  | Group B                         | IIC               | 300°C(572°F)              | T2            |                       |
| Ethylene   |                                  | Group C                         | IIB               | 280°C(536°F)              | T2A           | T2                    |
| Propane  |                                  | Group D                         | IIA               | 260°C(500°F)              | T2B           |                       |
| Methane  |                                  | Group D                         | IIA <sup>2</sup>  | 230°C(446°F)              | T2C           |                       |
| Combustible Metal Dusts  | Class II<br>Combustible<br>Dusts | Group E <sup>1</sup>            | IIIC <sup>3</sup> | 215°C(419°F)              | T2D           | T3                    |
| Combustible Carbonaceous Dust  |                                  | Group F                         | IIIB <sup>3</sup> | 200°C(392°F)              | T3            |                       |
| Combustible Dusts not in Group E or F<br>(Flour, Grain, Wood, Plastics, Chemicals) |                                  | Group G                         | IIIB <sup>3</sup> | 180°C(256°F)              | T3A           |                       |
| Combustible Fibers and Flyings   |                                  | Class III Fibers<br>and Flyings | Not Applicable    | IIIA <sup>3</sup>         | 165°C(329°F)  |                       |
|  |                                  |                                 |                   | 160°C(320°F)              | T3C           | T4                    |
|  |                                  |                                 |                   | 135°C(275°F)              | T4            |                       |
|  |                                  |                                 |                   | 120°C(248°F)              | T4A           |                       |
|  |                                  |                                 |                   | 100°C(212°F)              | T5            | T5                    |
|  |                                  |                                 |                   | 85°C(185°F)               | T6            | T6                    |

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.

## 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   |



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**Disclaimer**

All product information is subject to change without notice.  
Please contact Red Sky Lighting or your sales representative for the most up-to-date specifications.

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