

CIRCLE MAX SERIES

Hazardous Location Lighting

Purpose-built for extreme-duty environments, these feature-rich fixtures deliver durability, precision optics, and broad application flexibility across food processing, industrial, chemical, oil and gas spaces.

Compliance

NEC/CEC Standard

UL 844 Hazardous Locations

Class I Division 2, Groups A, B, C, D

Class II Division 1, Groups E, F, G

Class II Division 2, Groups F, G

Class III

Class I, Zone 2, Group IIC

CSA C22.2 No.137

CSA C22.2 No.141

CSA C22.2 No.250.0:21

UL 924

UL 1598 Wet Locations

UL 1598A Marine Outside Type (Saltwater)

UL 8750 LED Safety

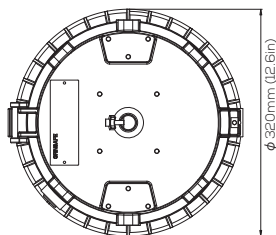
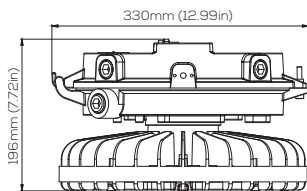
ABS

FCC

IP66/67 | IK09 | 5G | NEMA4X

Dimensions

unit: mm(in)



Technical Data

Electrical

Rated Power	80W / 100W / 150W / 200W
Input Voltage	120-277V, 347-480VAC
Input Frequency	50/60Hz
Power Factor	> 0.95
Driver Efficiency	≥ 90%
DC output Ripple & Noise	<200mVP-P

Optical

Lumen Output	13,600lm ~ 32,000lm
Luminous Efficacy (Lumens per Watt)	170 lm/W
Beam Angle	T1 / T3 / 110°
Color Temperature (CCT)	4000K 5000K
CRI	Ra>70

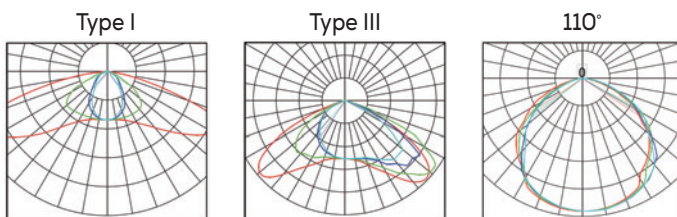
Environmental

Ambient Operating Temperature	-40°C~+65°C (80W / 100W / 150W) -40°C~+60°C (200W)
Ambient Operating Humidity	10%~90% RH
Atmospheric pressure	86~106KPa

Technical

Lens Material	Glass / PC / Drop lens
Mounting Options	Pendant / Ceiling / Wall mount / Stanchion / U-Bracket
Gland's Spec	3/4" NPT, 1-1/2" NPT
Net Weight	8kg (17.64 lbs)

Beam Distribution

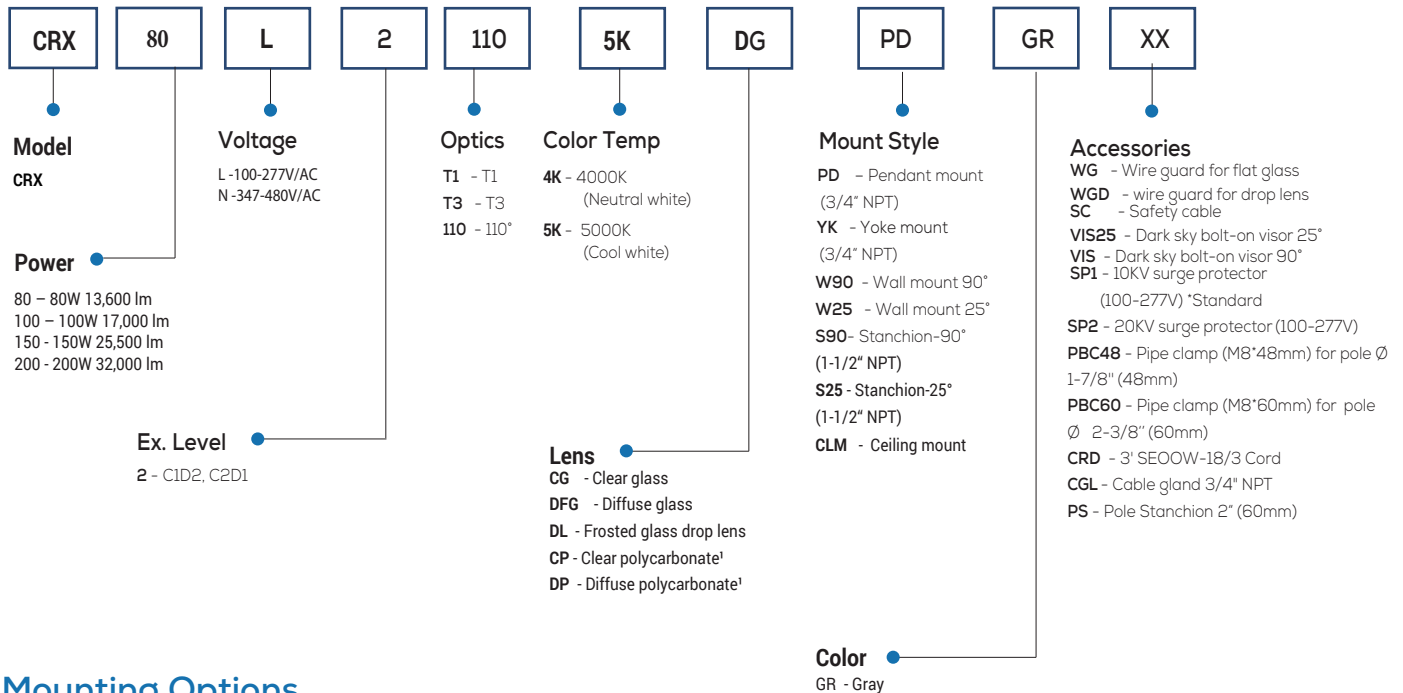


Warranty

10 year limited system warranty

Lumen Maintenance: L70 > 150,000 hours @ 25°C

Ordering Information and Mounting Accessories



Mounting Options



PD
Pendant mount
3/4" NPT



YK
Yoke mount
3/4" NPT



W90
Wall mount 90°
3/4" NPT



W25
Wall mount 25°
3/4" NPT



S90
Stanchion mount
90°, 1-1/2"NPT



S25
Stanchion mount 25°,
1-1/2"NPT



CLM
Ceiling Mount

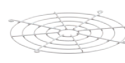
Accessories



YK
Yoke mount
3/4" NPT



CLM
Ceiling mount kit 1 pair



WG
Bolt-on wire guard
for Flat Glass



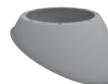
WGD
Bolt-on wire guard
for Drop Lens



PBC48
Pipe clamp
(M8*48mm)
for pole Ø 1-7/8"



PBC60
Pipe clamp
(M8*60mm)
for pole Ø 2-3/8"



VIS25
Dark sky bolt-on visor
25°
(Spinning aluminium)



VIS
Dark sky bolt-on visor
90°
(Spinning aluminium)



CGL
Cable gland
3/4" NPT
Suitable for CID2



CRD
3' SE00W-18/3 Cord
(Factory installed)



SC
Stainless steel
safety cable
Ø8 (4mm)



PS
Pole Stanchion
2-3/8" (60mm)



SP1
Surge Protector
10KV (100-277V)
*Standard



SP2
Surge Protector
20KV (100-277V)

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		Zone1 / Zone 21	A place in which an explosive atmosphere is likely to occur in normal operation
Hazard Under Abnormal Conditions	Division 2	Zone2 / Zone 22	A place in which an explosive atmosphere is not likely to occur in normal operation, but may occur for short periods

Hazardous Atmosphere Category

Explosive atmosphere	Typical Hazard Material	Hazard Class	Division Group	NEC 505 / CEC 18
Gases, vapors, and liquids	A: Acetylene B: Hydrogen, etc. C: Ether, etc. D: Hydrocarbons, fuels, solvents, etc.	Class I	Group A Group B Group C Group D	IIC IIC or IIB+H2 IIB IIA
Dusts	E: Metal dusts (conductive and explosive) F: Carbon dusts (some are conductive, and all are explosive) G: Flour, starch, grain, combustible plastic or chemical dust (explosive)	Class II	Group E Group F Group G	IIIC IIIC IIIB
Fibers and flyings	Textiles, wood-working, etc. (easily ignitable, but not likely to be explosive)	Class III	Not Applicable	IIIA

IP Codes

Solid Objects	Liquids
0 - No protection	0 - No special protection
1 - Objects > 50mm diameter	1 - Vertically dripping water
2 - Objects > 12.5mm diameter	2 - Vertically dripping water when enclosure tilted by 15°
3 - Objects > 2.5mm diameter	3 - Sprayed water up to 60°
4 - Objects > 1.0mm diameter	4 - Sprayed water from all directions
5 - Dust protected	5 - Water jets
6 - Dust tight	6 - Powerful water jets
	7 - Temporary submersion to a depth of 1m
	8 - Extended submersion to a depth of >1m

IK Codes

IK Code	Impact energy, J
IK01	0.14
IK02	0.2
IK03	0.35
IK04	0.5
IK05	0.7
IK06	1
IK07	2
IK08	5
IK09	10
IK10	20
IK11	50

Temperature Classification

Marking	NEC500 CEC	NEC 505 IEC-GROUP II
450°C	T1	T1
300°C	T2	
280°C	T2A	
260°C	T2B	T2
230°C	T2C	
215°C	T2D	
200°C	T3	
180°C	T3A	
165°C	T3B	T3
160°C	T3C	
135°C	T4	
120°C	T4A	T4
100°C	T5	T5
85°C	T6	T6

Zone classification and Equipment protection level (EPL)

Gas Zones	Definition	ATEX Category	EPL	Required Protection
Methane	Mines with methane and dust. Equipment remains energised in explosive atmosphere	M1	Ma	Two Faults
Methane	Mines with methane and dust. Equipment is de-energised in explosive atmosphere	M2	Mb	Severe Normal Operation
Zone 0	Explosive atmosphere present continuously or for long periods, frequently	1G	Ga	Two Faults
Zone 1	Explosive atmosphere is likely to occur under normal conditions, occasionally	2G	Gb	One Fault
Zone 2	Explosive atmosphere is unlikely to occur under normal conditions, short periods	3G	Gc	Normal Operation
Dust Zones	Definition	ATEX Category	EPL	Required Protection
Zone 20	Explosive atmosphere present continuously or for long periods, frequently	1D	Da	Two Faults
Zone 21	Explosive atmosphere is likely to occur under normal conditions, occasionally	2D	Db	One Fault
Zone 22	Explosive atmosphere is unlikely to occur under normal conditions, short periods	3D	Dc	Normal Operation