

Rectangle Mini H1 Series

LED Explosion Proof Lighting

Rectangle Mini Series LED explosion-proof lighting is specifically engineered for installation in environments where flammable gases, vapors, or dust are present in quantities that pose a risk of explosion or fire. Built to endure shock and vibration, it delivers reliable performance even in the most hazardous conditions.

Compliance

NEC/CEC Standard

UL 844 Hazardous Locations

Class I Division 1, Groups B, C, D

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 1, Group IIB+H2

Class I, Zone 2, Group IIC

CSA C22.2 No.137

CSA C22.2 No.250.0:21

UL 1598 Wet Locations

UL 1598A Marine Outside Type (Salt Water)

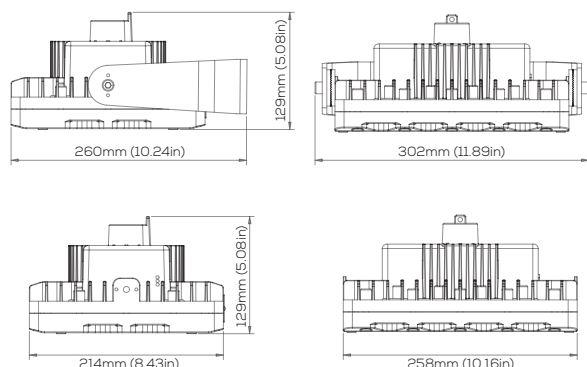
UL 8750 LED Safety

FCC

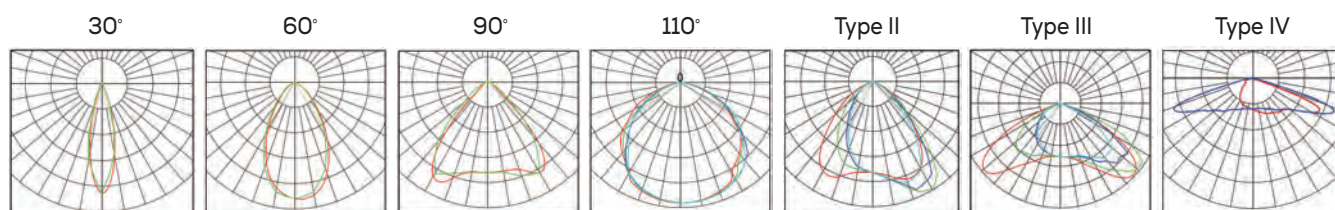
IP66/67 | IK09 | 5G | NEMA 4X

Dimensions

unit: mm(in)



Beam Distribution



Technical Data

Electrical

Rated Power	20W / 40W / 60W
Input Voltage	100-277, 347-480V/AC
Input Frequency	50/60Hz
Power Factor	> 0.95
Driver Efficiency	~ 90%
DC output Ripple & Noise	< 200mVP-P

Optical

Lumen Output	3200lm ~ 9600lm
Luminous Efficiency (Lumens per Watt)	160 lm/W
Beam Angle	30° / 60° / 90° / 110° / T2 / T3 / T4
Correlated Color Temperature (CCT)	3000K 4000K 5000K
CRI	Ra>70

Environmental

Ambient Operating Temperature	-40°C ~ +65°C
Ambient Operating Humidity	10%~90% RH
Atmospheric pressure	86~106KPa

Technical

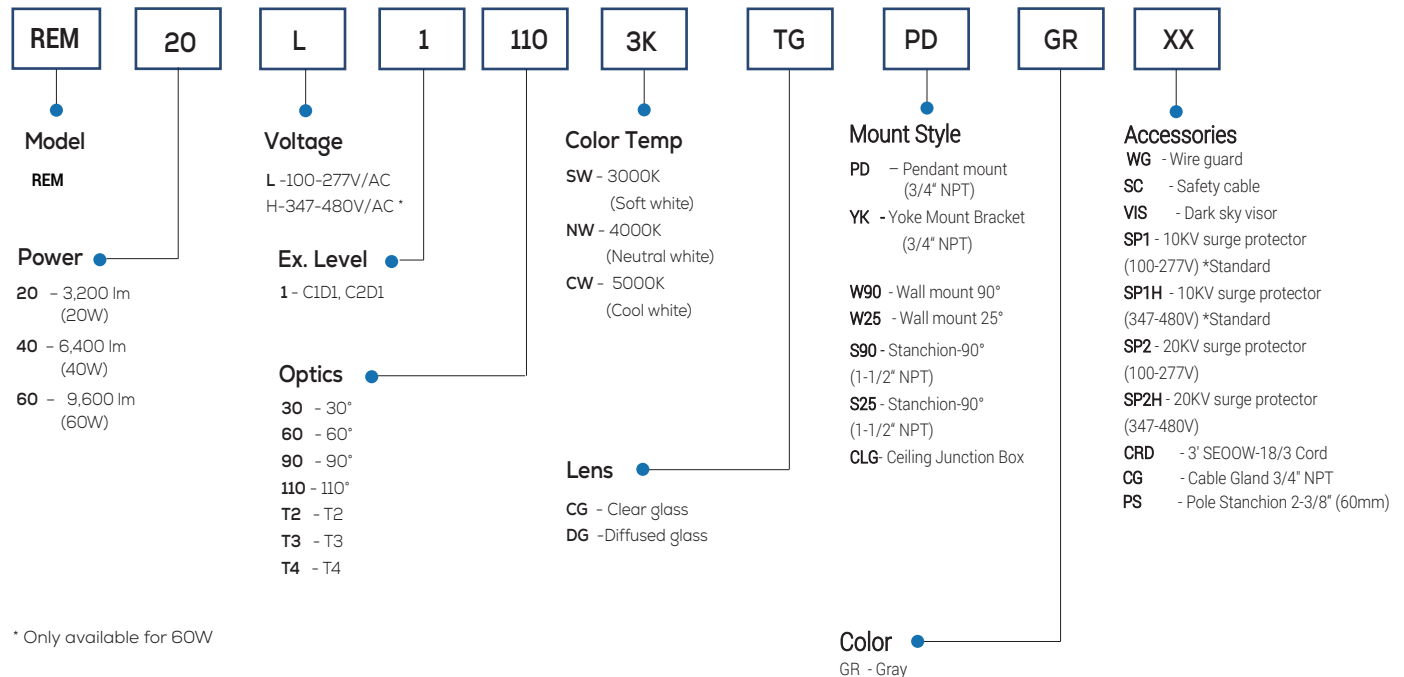
Lens Material	Tempered glass
Mounting Options	Pendant / Ceiling / Wall mount / Stanchion
Cabling	1m leads standard (L/N/G, Dim+, Dim-) Special request for various length
Cable Entries	3/4" NPT, 1-1/2" NPT
Net Weight	5.2kg (11.5 lbs)

Warranty

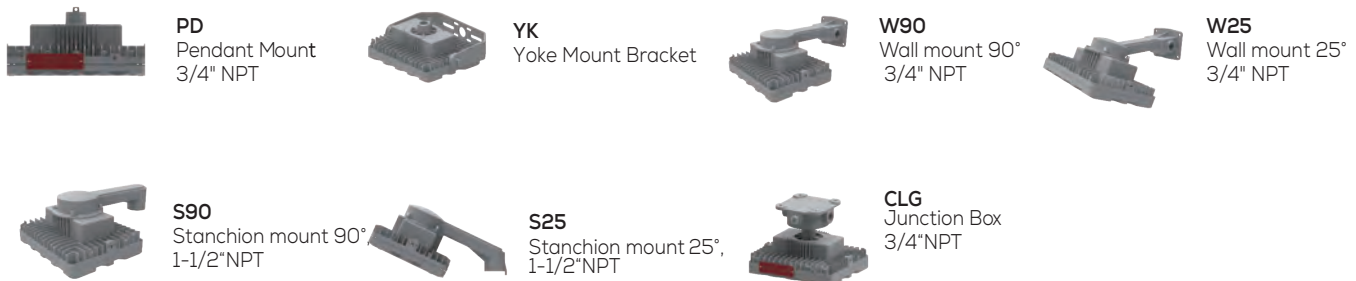
10 year limited system warranty

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

Ordering Information and Mounting Accessories



Mounting Options



Accessories



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