

RECTANGLE H1™ SERIES

LED Explosion Proof Lighting

The Rectangle H1 series is a lightweight, high-performance LED explosion-proof lighting that is specifically engineered for installation in environments where flammable gases, vapors, or dust are present in quantities that pose a potential risk of explosion or fire.

Compliance

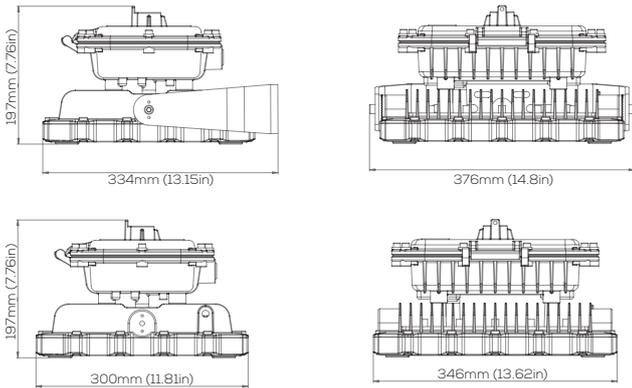
NEC/CEC Standard

UL 844 Hazardous Locations
 Class I Division 1, Groups 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
 Class I, Zone 2, Group IIC

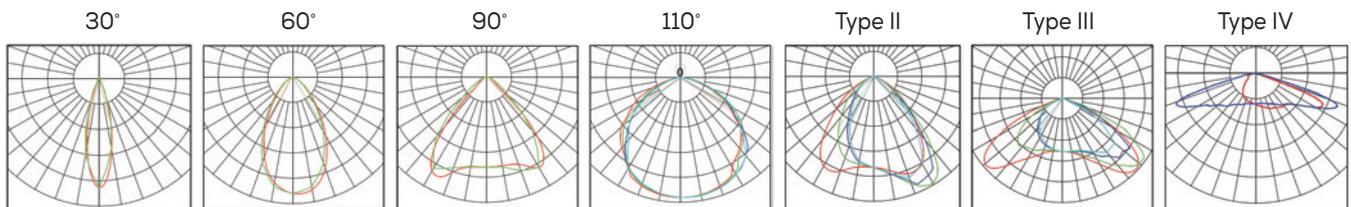
CSA C22.2 No.137
 CSA C22.2 No. 250.0:21
 UL 1598 Wet Locations
 UL 1598A Marine Outside Type (Salt Water)
 UL 8750 LED Safety
 Paint Spray Booth
 FCC
 IP66/67 | IK09 | 5G | NEMA 4X

Dimensions

unit: mm(in)



Beam Distribution



Technical Data

Electrical	
Rated Power	80W / 100W / 150W / 200W
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	12800lm ~ 32000lm
Luminous Efficacy (Lumens per Watt)	160 - 170 lm/W
Beam Angle	30° / 60° / 90° / 110° / T2 / T3 / T4
Correlated Color Temperature (CCT)	Amber 2700K 3000K 4000K 5000K
CRI	Ra>70

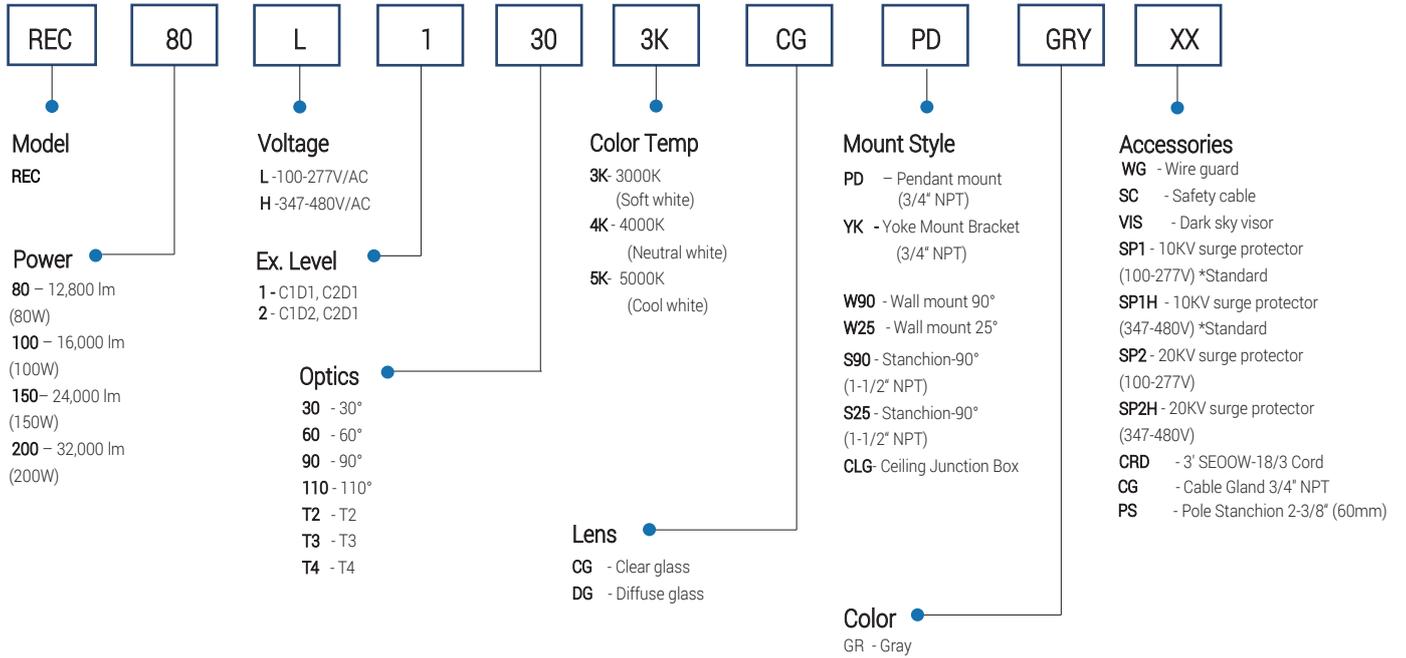
Environmental	
Ambient Operating Temperature	-40°C~+65°C (80W 100W 150W) -40°C~+60°C (200W)
Ambient Operating Humidity	10%-90% RH
Atmospheric pressure	86~106kPa

Technical	
Lens Material	Tempered glass
Mounting Options	Pendant / Ceiling / Wall mount / Stanchion / U-Bracket
Cable Entries	3/4" NPT, 1-1/4" NPT, 1-1/2" NPT
Net Weight	11.5kg (25.35 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		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

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