



Explosion Protection by SUREALL



To Be SURE  
To Be ALL



SUREALL TECHNOLOGY LIMITED

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## Product Catalogue

Explosion Protected LED Luminaires  
for Use in Hazardous Locations



SUREALL TECHNOLOGY LIMITED





# Profile

SUREALL Technology Limited is a prestigious company manufacturing products including EXPLOSION-PROOF luminaires, electrical apparatus, pipe fittings, heating-ventilation-air conditioning(HAVC), serving explosion-proof solutions in petroleum, petrochemical, maritime, infrastructure industry on shore and offshore, specializing in products R&D, manufacturing, sales for explosion-proof luminaires and HVAC for 15 years with efforts of specialized and trained professional staff with extensive expertise and experience.

Dedicated to offer safe, durable and cost-effective explosion-proof luminaires and HVAC, SUREALL insist on continuous technology innovation and lead in the state-of-the-art explosion-proof technology, the R&D department concentrate in research, develop and design the different products subject to different markets need including IECEx, EU, NEC500 standard through adopting CAD and 3D design software. Most products are certified by IECEx, ATEX, UL, CSA and broad products portfolio could meet different requirements in different project sites in diversified climate and hazardous environment all over the world.



## Sales



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Aiming to create an international brand, SUREALL have been presented in more than 20 countries with excellent professional reputation and have involved many international oil exploitation, oil refinery, petrochemical, chemical, maritime, pharmaceutical and military plants in different industries. Besides, SUREALL have been making efforts to develop the global market and gaining stronger brand recognition, and we sincerely invite any interested parties to join us to create a new global brand.

*Choose SUREALL, Sure for All!*



# CONTENT

General Information for Luminaires for Use in Hazardous Locations 01/54

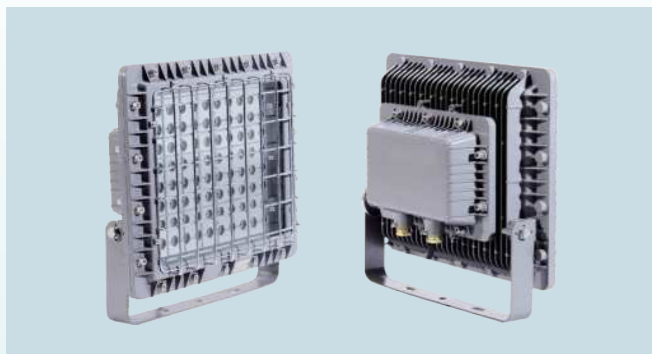
## Part 1- LED High Bay Luminaires in Hazardous Locations

1. SHB Series (Class I, Division 1) 05/58 Max. Power: 240W  
 2. SHB-II Series (Class I, Division 2) 09/58 Max. Power: 200W

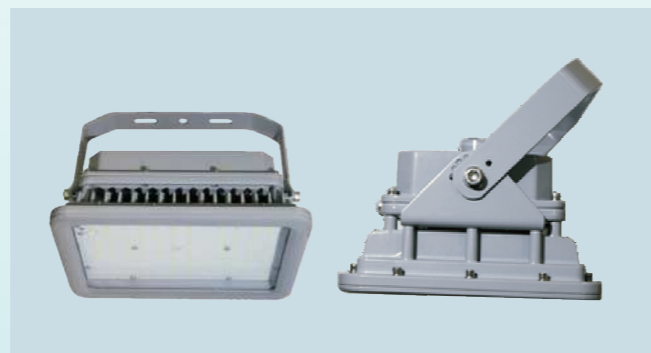


## Part 2- LED Floodlight in Hazardous Locations

3. SHF-I Series (Class I, Division 1) 14/58 Max. Power: 160W  
 4. SHF-IA Series (Class I, Division 1) 17/58 Max. Power: 180W

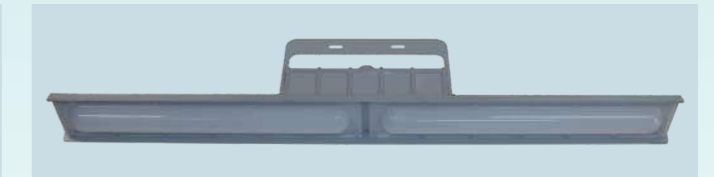


5. SHF-II Series (Class I, Division 2) 20/58 Max. Power: 180W  
 6. SHF-IIA Series (Class I, Division 2) 23/58 Max. Power: 200W



## Part 3- LED Linear Luminaires in Hazardous Locations

7. SLL-I Series (Class I, Division 1) 26/58 Max. Power: 80W  
 8. SLL-II Series (Class I, Division 2) 29/58 Max. Power: 60W



9. SLS Series (Class I, Division 2) 32/58 Max. Power: 80W  
 10. SLe Series (Class I, Division 2) 35/58 Max. Power: 60W



## Part 4- LED Low Bay/Area Luminaires in Hazardous Locations

11. SMB Series (Class I, Division 1) 39/58 Max. Power: 80W  
 12. SLB Series (Class I, Division 1) 44/58 Max. Power: 40W



13. SVM Series (Class I, Division 2) 47/58 Max. Power: 200W  
 14. SCP Series (Class I, Division 2) 50/58 Max. Power: 150W



## Part 5- LED Emergency Luminaires in Hazardous Locations

15. SEG Series LED Emergency Luminaires 53/58  
 16. SES Series LED Exit Signs Luminaires 55/58  
 17. SAV Series LED Audio and Visual Luminaires 57/58

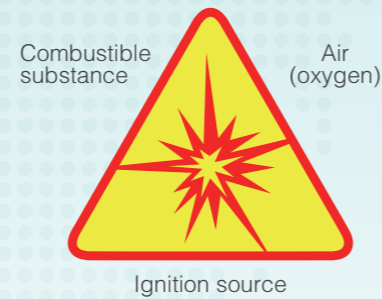


# General information for Luminaires for Use in Hazardous Locations

## 1. Explosion Formation

Explosion takes place in the conditions of the following factors:

- > Combustible substances, such as gas, vapour, mist and dust
- > Air (oxygen)
- > Ignition source

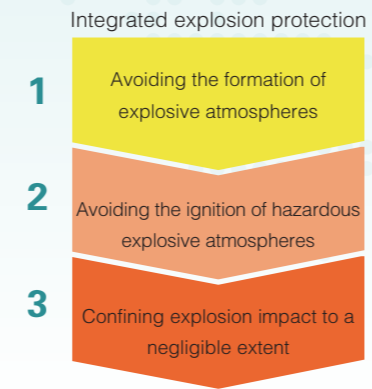


## 2. Explosion Protection

In order to avoid explosions and consequential dangers, the operator must incorporate effective explosion-proof protection precautions.

Measures :

- > Avoiding the formation of explosive atmospheres
- > Avoid the ignition of hazardous explosive atmospheres
- > Confining explosion impact to a negligible extent



## 3. Hazardous Location Classification

Hazardous locations are classified into different Group/Class, Zones/Divisions depending on the composition and presence of a flammable substance, which enables anyone to select the suitable explosion-proof equipments.

### 3.1 Group/Class

Locations	Group		Class
	EU	IEC	US NEC500
methane under mine	Group I	Group I	M
hazardous gas and vapour	Group II	Group II	Class I
hazardous dust		Group III	Class II
hazardous fiber			Class III

### 3.2 Division/Zone

Gas and Vapour			
Presence Frequency	Flammable Substances		
	Present Continuously	Present Intermittently	Present Abnormally
EU/IEC	Zone 0	Zone 1	Zone 2
US NEC500	Division 1		Division 2

Dust and Fiber			
Presence Frequency	Flammable Substances		
	Present Continuously	Present Intermittently	Present Abnormally
EU/IEC	Zone 20	Zone 21	Zone 22
US NEC500	Division 1		Division 2

## 4. Flammable Substances Classification

Flammable substances are classified into different groups depending on the exact flammable substances, which enables anyone to select the suitable explosion-proof equipments.

Gas and Vapour		
Typical Gas and Vapour	EU/IEC	NEC500
Acetylene C <sub>2</sub> H <sub>2</sub>	IIC	Class I/Group A
Hydrogen H <sub>2</sub>	IIB+H2	Class I/Group B
Ethylene C <sub>2</sub> H <sub>4</sub>	IIB	Class I/Group C
Propane C <sub>3</sub> H <sub>8</sub>	IIA	Class I/Group D
Methane CH <sub>4</sub>	I	Mining

Dust and Fiber		
Typical Dust and Fiber	EU/IEC	NEC500
Metal dusts	IIIC	Class II/Group E
Carbonaceous dusts	IIIB	Class II/Group F
Non-conductive dusts	IIIB	Class II/Group G
Fibers and flyings	IIIA	Class III




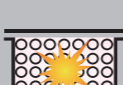
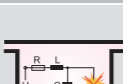



## 5. Explosive Temperature Classification

Explosive temperature is the lowest temperature of a surface of an explosion-proof product at which a flammable substance is able to ignite on it. Explosion-proof products may be classified into different temperature groups.

Marking	EU/IEC	US NEC500
450°C	T1	T1
300°C	T2	T2
280°C		T2A
260°C		T2B
230°C		T2C
215°C		T2D
200°C	T3	T3
180°C		T3A
165°C		T3B
160°C		T3C
135°C	T4	T4
120°C		T4A
100°C	T5	T5
85°C	T6	T6



## 6. Explosion-proof Protection Types

Ex-Mark	Protection Types	Diagram	Illustration
Ex d	Flameproof		The enclosures are constructed so that the internal explosions can not be transmitted to the external atmosphere
Ex e	Increased safety		Prevention to ignition sources, only simple electrical components
Ex p	Pressurized		Electrical parts are purged and pressurized with a protective gas
Ex q	Powder filling		Electrical parts are submerged in a quartz powder
Ex i	Intrinsic safety		Limitation of the energy stored in the electrical circuits
Ex o	Oil immersion		Electrical parts are submerged in oil
Ex m	Encapsulation		Electrical parts are encapsulated in a specific resin
Ex n	"n" protection		No ignition source in normal operation, no sparks, no hot surfaces





## SHB Series LED High Bay Luminaires

Class I, Div.1, Group A, B, C, D Hazardous Locations  
 Class II, Div.1, Group E, F, G UL/cUL Listed  
 Class III, Group E, F, G Wet Locations, Type 4X, IP 66  
 Class I, Zone 1, Zone 2, Ex d IECEx/ATEX



Model	Typical Lumens	Wattage	Lumen/Wattage	Equivalent HID luminaire
SHB-30W	3600	30W	120	70-100W
SHB-50W	6000	50W	120	100-150W
SHB-80W	9600	80W	120	175-250W
SHB-100W	12000	100W	120	320-400W
SHB-120W	14400	120W	120	400W
SHB-150W	18000	150W	120	400-600W
SHB-200W	24000	200W	120	600-750W
SHB-240W	28800	240W	120	750-1000W



### Applications

- For areas with mounting heights of 10-66 feet/3-20m
- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, indoor/outdoor spotlighting, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Classified and hazardous locations

### Features

- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation and maintenance
- Latest LED Technology: Brand-new high efficiency LED exceed 140lm/w, fixture lumen efficiency exceed 115 lm/w
- High Reliability Driver: Meanwell brand driver, high reliability, efficiency exceed 98%, design for harshest environment
- Energy-efficient technology-up to 75% energy savings over HID fixtures
- Excellent Heat Sink Dissipation Performance: Lower LED and driver temperature, longer service life
- Wireless Connection: all mounting modules are wireless connected to junction box, easy installation and maintenance
- Various Mounting Option: 7 types of mounting options, easy wiring
- Operating Ambient Temperature: -40°C ~ +55°C

### Certifications and Compliances

#### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1  
 Ex d IIC T5 Gb -40°C ~ +55°C  
 Ex tb IIIC T100°C Db -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

#### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60598-2-1  
 Ex II 2 G Ex d IIC T5 Gb -40°C ~ +55°C  
 Ex II 2 D Ex tb IIIC T100°C Db -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

#### NEC & CEC Standard

Class I, Div 1, Group A, B, C, D  
 Class II, Div.1, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory-sealed, no external seals required

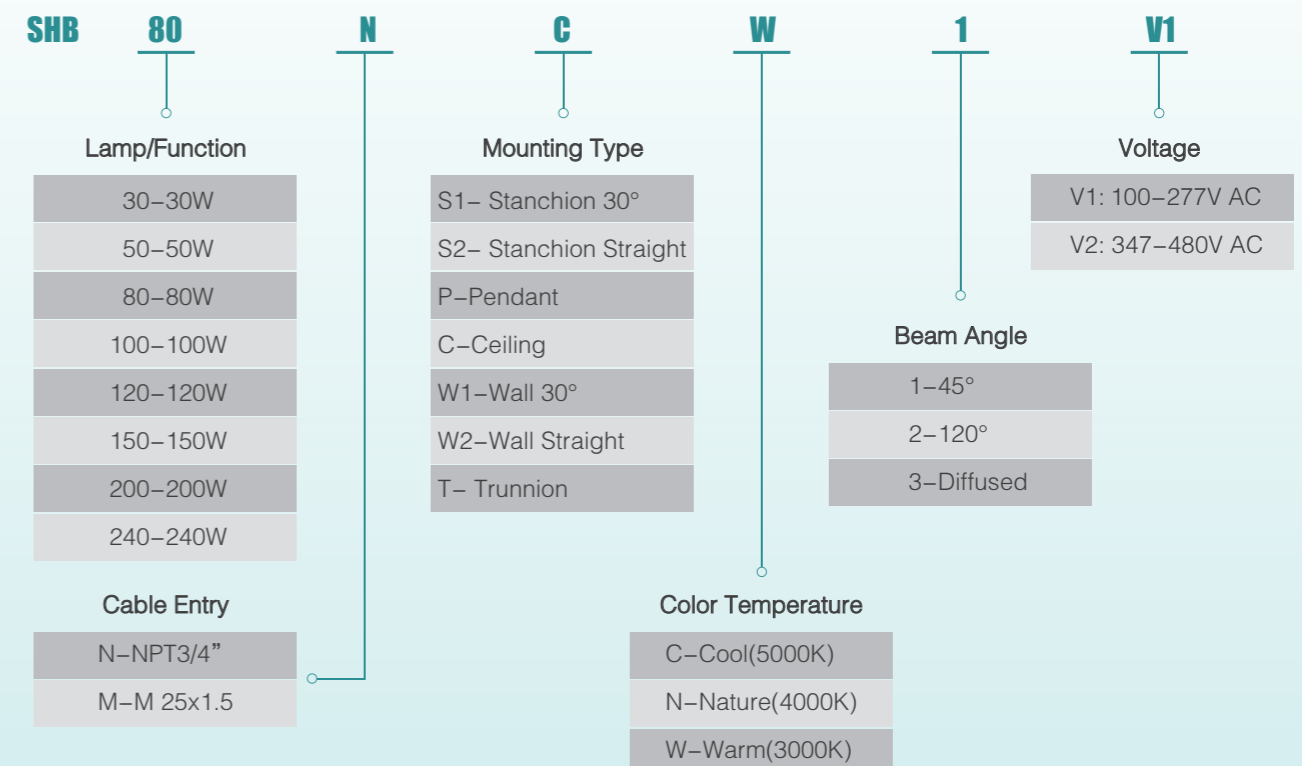
### LED System

- High intensity discrete power emitters
- Standard: cool white (5000K); optional: warm white (3000K); nature white(4000K)
- Brand-new LED chips

### LED Driver

Input Voltage	100-277V AC 50/60Hz,
	347-480V AC 50/60Hz
THD	<20%
Power Factor	0.98 (220V/full load)
Protection	Short Circuit/Over Voltage/Over Heat
	Over Heat/Surge Protection
	Surge Protection
IP	IP66

### Catalogue Numbering System



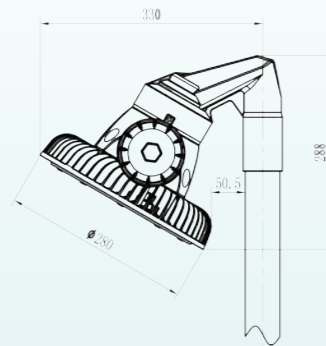


## Technical Datasheet

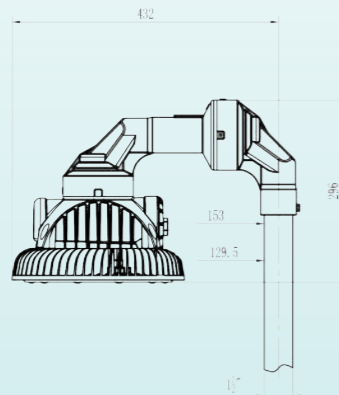
Classification	Class I, Div.1, Group A, B, C, D Class I, Div.1, Group E, F, G Class III Class I, Zone 1, Zone 2, Exd							
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137							
Ex-mark	Ex d IIC T5 Gb Ex tb IIIC T100°C Db							
Rated Voltage	100-277V AC 50/60Hz 347-480V AC 50/60Hz							
Rated Wattage(W)	30W	50W	80W	100W	120W	150W	200W	240W
Luminous Flux(LM)	3600	6000	9600	12000	14400	18000	24000	28800
Color Temperature	5000K / 4000K/ 3000K							
IP Grade	Wet Locations, Type 4X, IP66							
Ambient temperature	-40°C~ +55°C / -40° F ~ +131° F							
Cable Entry	NPT 3/4" or M25X1.5 (adaptor for M20x1.5, NPT 1" , NPT1 1/2" )							
Terminals	terminal blocks ≤2.5mm <sup>2</sup> , cable diameter 10-14mm							
Installation	Stanchion 30° / Stanchion Straight/ Pendant/ Ceiling/ Wall 30° / Wall Straight/ Trunnion							
Beam Angle	45° /120° /Diffused							

## Mounting Options & Dimensions (mm/inch)

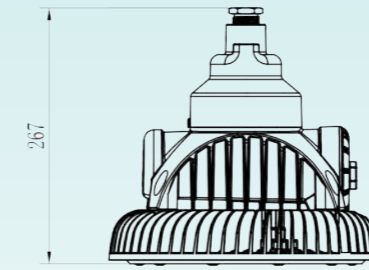
S1: Stanchion 30°



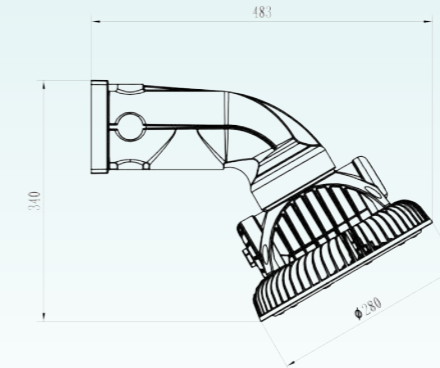
S2: Stanchion Straight



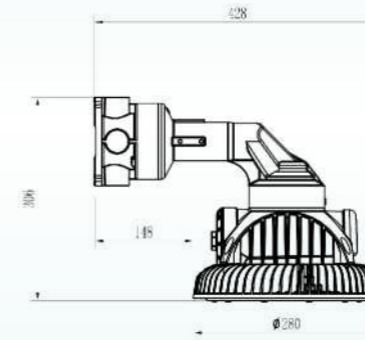
P: Pendant



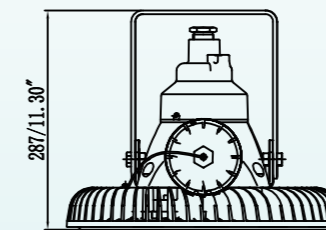
W1: Wall 30°



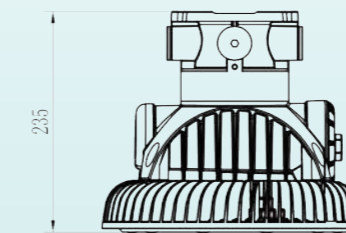
W2: Wall Straight



T: Trunnion



C: Ceiling





## SHB-II Series LED High Bay Luminaires

Class I, Div.2, Group A, B, C, D Hazardous Locations  
 Class II, Div.1, Group E, F, G UL/cUL Listed  
 Class III Wet Locations, Type 4X, IP 66  
 Class I, Zone 2, Ex e IECEx/ATEX



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent HID luminaire
SHB-II-20W	2800	20W	140	70-100W
SHB-II-40W	5600	40W	140	100-150W
SHB-II-60W	8400	60W	140	175-250W
SHB-II-80W	11200	80W	140	320-400W
SHB-II-100W	14000	100W	140	400W
SHB-II-120W	16800	120W	140	400-600W
SHB-II-150W	21000	150W	140	600-750W
SHB-II-200W	28000	200W	140	750-1000W



### Applications

- For areas with mounting heights of 10-50ft (3-15m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, mining, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

### Features

- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation and maintenance
- Latest LED Technology: Cree/Nichia high efficiency LED exceed 160lm/W, fixture lumen efficiency exceed 140 lm/w
- High Reliability Driver: high reliability, efficiency exceed 98%, design for harshest environment
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Excellent Heat Sink Dissipation Performance: Lower LED and driver temperature, longer service life
- Various Mounting Option: 8 types of mounting options, easy wiring.
- Operating Ambient Temperature: -40° C ~ +55° C
- Beam Angel: standard diffused, 40° , 60° ,90° , 120° for option

### International Certifications

#### IEC Standard

IEC60079-0, IEC60079-7, IEC60079-31, IEC60079-2-1  
 Ex e IIC T6 Gc  
 Zone 2; Zone 22  
 IP66

#### EU Standard

EN60079-0, EN60079-7, EN60079-31, EN60079-2-1  
 ⚡ II 3 G Ex e IIC T6 Gc  
 Zone 2; Zone 22  
 IP66

#### NEC & CEC Standard

Class I, Div.2, Group A, B, C, D  
 Class II, Div. 1, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory sealed, no external seals required

### LED System

- High intensity discrete power emitters
- Standard: cool white (5000K); optional: warm white (3000K); nature white(4000K)
- Brand-new LED chips

### LED Driver

Input Voltage	100-277V AC 50/60Hz, 200-480V AC 50/60Hz	
THD	<20%	
Power Factor	0.98 (220V/full load)	
Protection	Short Circuit/Over Voltage/Over Heat	
	Surge Protection	Line to line 4KV Line to earth 10KV
IP	IP66	

### Catalogue Numbering System

SHB-II	20	C	N	W	V	1
Lamp	Mounting Type	Cable Entry	Color Temperature	Voltage	Beam angle	
20-20W	S1: Stanchion 25°	N-NPT3/4"	C-Cool(5000K)	V1:100-277V AC	1-120°	
40-40W	S2: Stanchion Straight	M- M25x1.5	N-Nature(4000K)	V2:200-480V AC	2-90°	
60-60W	C: Ceiling		W-Warm(2700K)		3-60°	
80-80W	P: Pendant				4-40°	
100-100W	T :Trunnion					
120-120W	W1:Wall 25°					
150-150W	W2:Wall Straight					
200-200W	H: Hook Type					

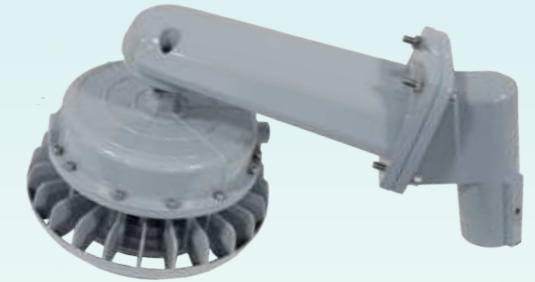
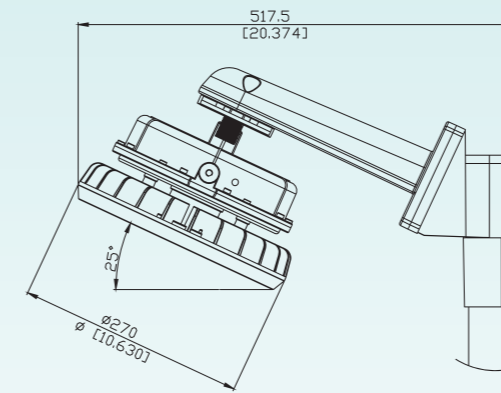


## Technical Datasheet

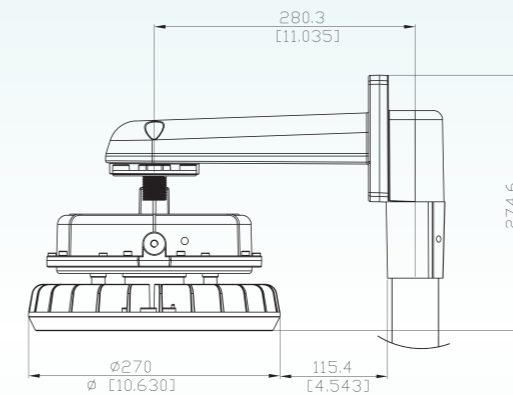
Classification	Class I,Div.2,Group A,B,C,D Class II,Div.1,Group E,F,G Class III Class I, Zone 1,Zone 2,Ex e							
Standards	IEC60079-0, IEC60079-7, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-7, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137							
Ex-mark	Ex e IIC T6 Gc Ex e IIC T80 Gb IP66							
Rated Voltage	AC 100-277V 50/60Hz AC 200-480V 50/60Hz							
Rated Wattage(W)	20W	40W	60W	80W	100W	120W	150W	200W
Luminous Flux(LM)	2800	5600	8400	11200	14000	16800	21000	28000
Color Temperature	2700K-5000K							
IP Grade	Wet Locations, Type 4X, IP66							
Ambient Temperature	-40° C ~ +55° C / -40° F ~ +131° F							
Cable Entry	M25*1.5 or NPT3/4"							
Terminals	Terminals blocks ≤2.5mm <sup>2</sup> , cable diameter 10-14mm							
Installation	Pendant/Trunnion/Hook/Ceiling/Wall 25° /Wall Straight/ Stanchion 25° / Stanchion Straight							
Beam Angle	40° ,60° ,90° ,120°							

## Mounting Options & Dimensions (mm/inch)

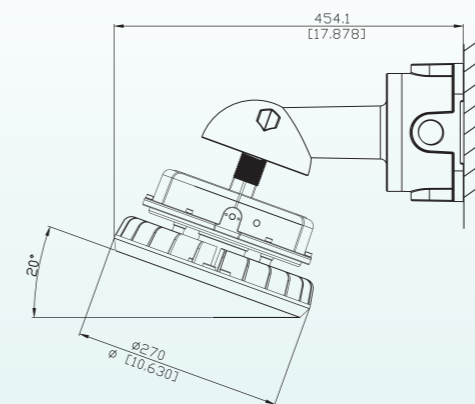
### S1: Stanchion 25° Type



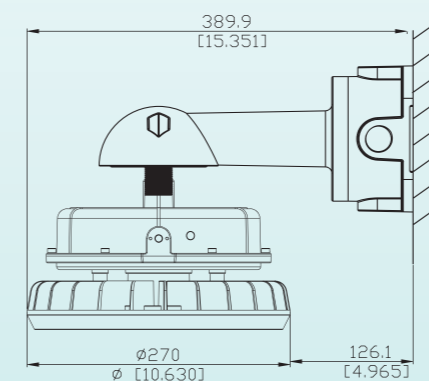
### S2: Stanchion Straight Type



### W1: Wall 25° Type

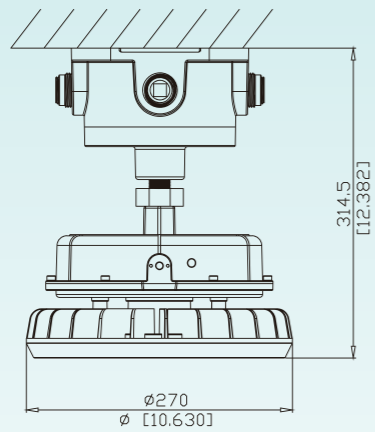


### W2: Wall Straight Type

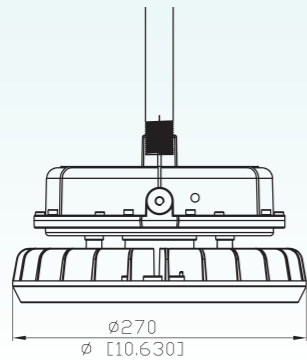




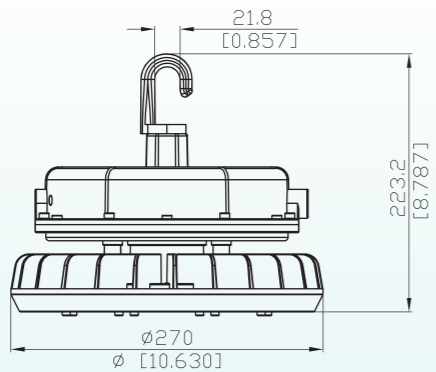
C: Ceiling Type



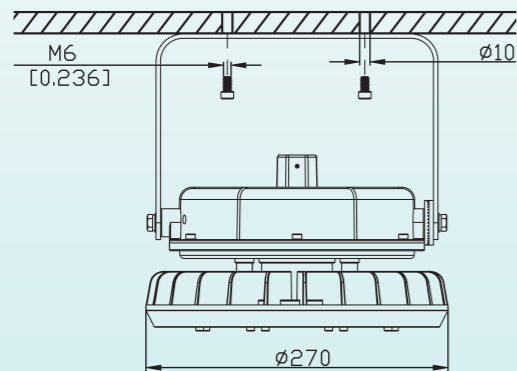
P: Pendant Type



H: Hook type



T: Trunnion Type



### SHF-I Series LED Floodlight

Class I, Div.1, Group A, B, C, D Hazardous Locations  
 Class II, Div.1, Group E, F, G UL/cUL Listed  
 Class III Wet Locations, Type 4X, IP66  
 Class I, Zone 1, Zone 2, Ex d IECEx/ATEX



Model	Typical Lumens	Wattage	Lumen/Wattage	Equivalent HID luminaire
SHF-I-20W	2400	20W	120	70W
SHF-I-40W	4800	40W	120	100W
SHF-I-60W	7200	60W	120	150W
SHF-I-80W	9600	80W	120	175-250W
SHF-I-100W	12000	100W	120	320-400W
SHF-I-120W	14400	120W	120	400W
SHF-I-160W	19200	160W	120	600W



#### Applications

- High lumen output for installation in high mounting heights of 10-44 feet/3-13m
- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

#### Features

- Instant illumination and restrike, better visibility with crisp, white light
- Cold temperature operation / no warm-up required
- Unique dual-chamber structure: Independent chamber for LED module, driver and wiring, high reliability
- Excellent heat sink performance: Lower LED and driver temperature, ensure longest service life
- Latest LED technology: Brand-new high efficiency LED, >140lm/w, fixture lumen efficiency exceed 110lm/w
- High reliability driver: Famous brand driver, high reliability, efficiency >98%, design for harshest environments, redundancy in drivers with multiple series circuits connected to each driver to avoid complete loss of illumination
- Easy maintenance: Open back covers for wiring and replacing driver, no need disassemble whole light, easy wiring and maintenance
- Energy-efficient technology: up to 65% energy savings over HID fixtures
- Provides up to 100,000 hours of life - eliminates need for frequent lamp replacement
- Contains no mercury or other hazardous substance
- Shock and vibration-resistant solid-state luminaires have no filaments or glass components that could break - greatly reduces the risk of premature failure
- Operating ambient temperature: -40°C ~ +55°C
- Custom optics: Providing 30° /45° /60° /120° beam angle, and diffused lens for anti-glare





## Certifications and Compliances

### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1  
 Ex d IIB T6 Gb -40°C ~ +55°C  
 Ex t IIIB T85°C Db -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60598-2-1  
 II 2 G Ex d IIB T6 Gb -40°C ~ +55°C  
 III 2 D Ex t IIIB T85°C Db -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

### NEC & CEC Standard

Class I, Div 1, Group A B C D  
 Class II, Div 1, Group E F G  
 Class III  
 Wet Locations, Type 4X, IP66

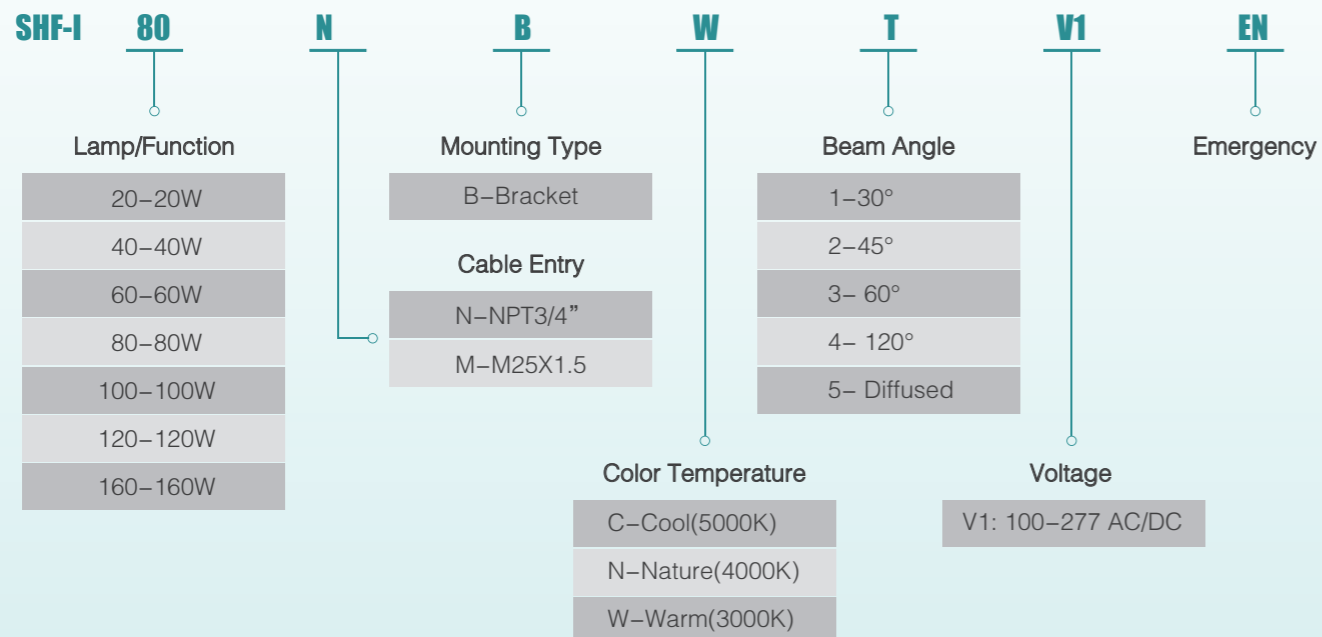
### UL Standard

UL844, UL1598, UL1598A

### CSA Standard

CSA C22.2 No.137

## Catalogue Numbering System



## Standard Materials

- Lamp housing and adaptor die-cast aluminum with epoxy powder coat
- Lens - heat-resistant and impact-resistant tempered glass
- Gaskets - silicone
- External hardware - stainless steel
- Factory-sealed, no external seals required

## LED System

- High intensity discrete power emitters
- Standard color temperature: cool white (5000K); optional: warm white (3000K); nature white (4000K)
- Brand-new LED chips

## LED Driver

Input Voltage	100-277V AC/DC 50/60Hz
THD	<20%
Power Factor	0.98 (220V/full load)
Protection	Short Circuit/Over Voltage/Over Heat
	Surge Protection
IP	IP66

## Technical Datasheet

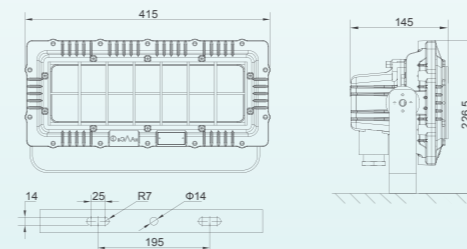
Classification	Class I, Div.1, Group A, B, C, D Class II, Div.1, Group E, F, G Class III Class I, Zone 1, Zone 2, Exd						
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137						
Ex-mark	Ex d IIB T6 Gb Ex t IIIB T85°C Db						
Rated Voltage	100-277V AC/DC 50/60Hz						
Rated Wattage(W)	20W	40W	60W	80W	100W	120W	160W
Luminous Flux(LM)	2400	4800	7200	9600	12000	14400	19200
Color Temperature	5000K / 4000K/ 3000K						
IP Grade	Wet Locations, Type 4X, IP66						
Ambient temperature	-40° C ~ +55° C / -40° F ~ +131° F						
Cable Entry	NPT3/4" or M25X1.5 (adaptor for M20 x 1.5, NPT1" , NPT1 1/2" )						
Terminals	terminal blocks ≤2.5mm², cable diameter 10-14mm						
Installation	Bracket(Possible wall, ceiling, and block mounting with adjustable angle)						
Beam Angle	30° / 45° / 60° / 120° /Diffused						

## Emergency Battery Parameters

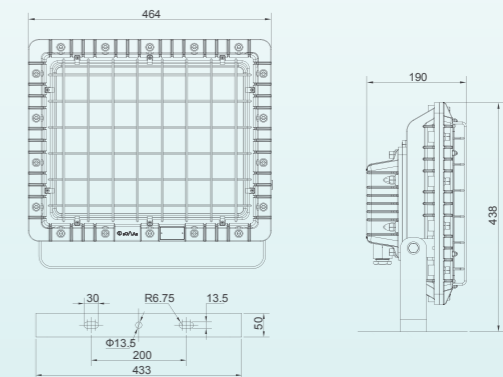
Product Code	Rated Power	Emergency Power	Emergency Duration	Battery Capacity
SHF-I-20W	20W	10W	60 min	12V, 1500 mAH, NI-MH battery
SHF-I-40W	40W	20W	60 min	12V, 1800mAH, NI-MH battery

## Mounting Options & Dimensions (mm)

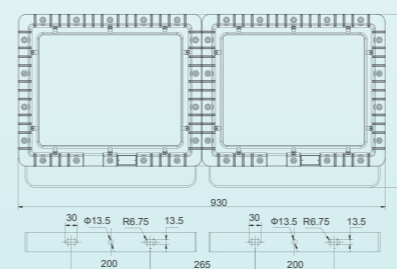
### SHF-I 20/40/60W Bracket



### SHF-I-80/100/120/160W Bracket



### Two-in-one Luminaires Bracket





## SHF-IA Series LED Floodlight

Class I, Div.1, Group A, B, C, D Hazardous Locations  
 Class II, Div.1, Group E, F, G UL/cUL Listed  
 Class III Wet Locations, Type 4X, IP 66  
 Class I, Zone 1, Zone 2, Ex d IECEx/ATEX



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent HID luminaire
SHF-IA-20W	2800	20W	140	70-100W
SHF-IA-40W	5600	40W	140	100-150W
SHF-IA-60W	8400	60W	140	175-250W
SHF-IA-80W	11200	80W	140	320-400W
SHF-IA-100W	14000	100W	140	400W
SHF-IA-120W	16800	120W	140	400-600W
SHF-IA-150W	21000	150W	140	600-750W
SHF-IA-180W	25200	180W	140	750-1000W

### Applications

- For areas with mounting heights of 10-50ft (3-15m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, mining, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

### Features

- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation and maintenance
- Latest LED Technology: Cree/Nichia high efficiency LED exceed 160lm/w, fixture lumen efficiency exceed 140 lm/w
- High Reliability Driver: high reliability, efficiency exceed 98%, design for harshest environment
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Excellent Heat Sink Dissipation Performance: Lower LED and driver temperature, longer service life
- Operating Ambient Temperature: -40° C ~ +55° C
- Beam Angel: standard diffused, 40° , 60° ,90° , 120° for option



### International Certifications

#### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60079-2-1  
 Ex db IIC T6 Gb  
 Zone 1,Zone 2;Zone21, Zone 22  
 IP66

#### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60079-2-1  
 ⚠ II 2 G Ex db IIC T6 Gb  
 Zone 2; Zone 22  
 IP66

#### NEC & CEC Standard

Class I, Div.1, Group A, B, C, D  
 Class II, Div. 1, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory sealed, no external seals required

### LED System

- High intensity discrete power emitters
- Standard: cool white (5000K); optional: warm white (3000K); nature white(4000K)
- Brand-new LED chips

### LED Driver

Input Voltage	100-277V AC 50/60Hz, 200-480V AC 50/60Hz	
THD	<20%	
Power Factor	0.98 (220V/full load)	
Protection	Short Circuit/Over Voltage/Over Heat	
	Surge Protection	Line to line 4KV Line to earth 10KV
IP	IP66	

### Catalogue Numbering System

SHF-IA	20	B	N	W	V	1
Lamp	Mounting Type	Cable Entry	Color Temperature	Voltage	Beam angle	
20-20W	B-Bracket	N-NPT3/4"	C-Cool(5000K)	V1: 100-277V AC	1-120°	
40-40W		M-M25x1.5	N-Nature(4000K)	V2: 200-480V AC	2-90°	
60-60W			W-Warm(2700K)		3-60°	
80-80W					4-40°	
100-100W						
120-120W						
150-150W						
180-180W						



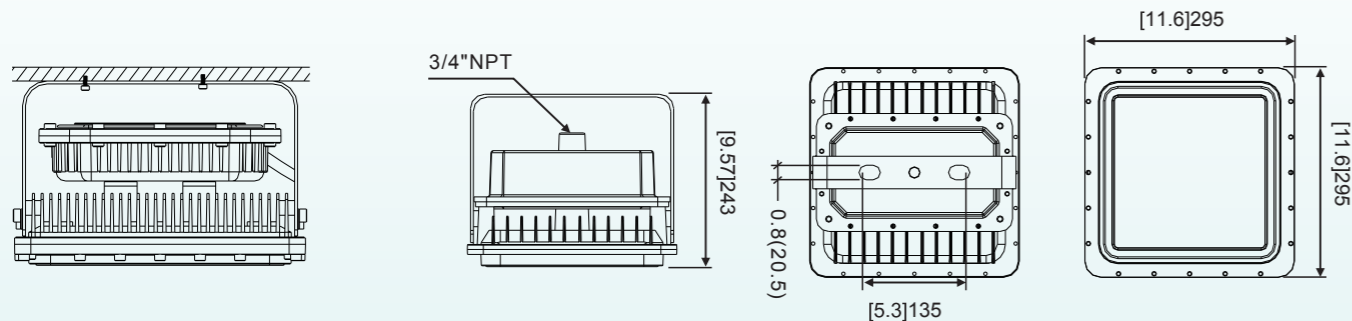
## Technical Datasheet

Classification	Class I, Div. 1, Group A, B, C, D Class II, Div. 1, Group E, F, G Class III Class I, Zone 1, Zone 2, Ex d							
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137							
Ex-mark	Ex db IIC T6 Gb Ex db IIC T80 Gb IP66							
Rated Voltage	AC 100-277V 50/60Hz AC 200-480V 50/60Hz							
Rated Wattage(W)	20W	40W	60W	80W	100W	120W	150W	180W
Luminous Flux(LM)	2800	5600	8400	11200	14000	16800	21000	25200
Color Temperature	2900K-5000K							
IP Grade	Wet Locations, Type 4X, IP66							
Ambient Temperature	-40° C ~ +55° C / -40° F ~ +131° F							
Cable Entry	M25*1.5 or NPT3/4"							
Terminals	Terminals blocks ≤ 2.5mm <sup>2</sup> , cable diameter 10-14mm							
Installation	Bracket							

## Mounting Options & Dimensions (mm/inch)

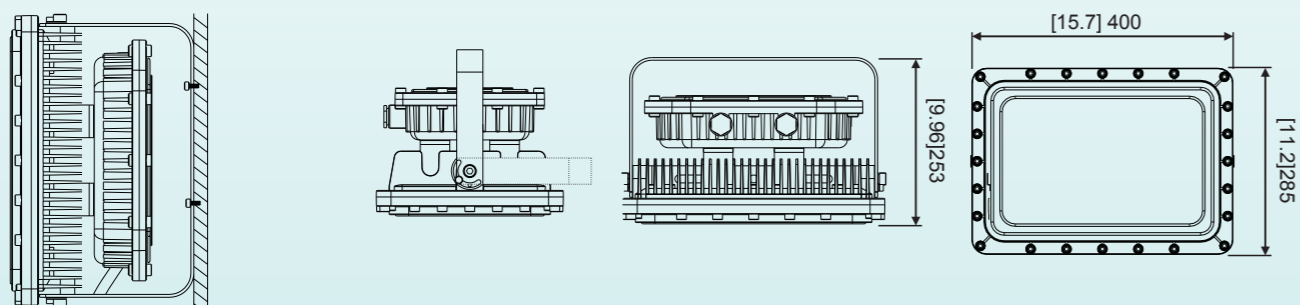
### Ceiling Bracket Mounting

### SHF-IA 20/40/60/80W Bracket



### Wall Bracket Mounting

### SHF-IA 100/120/150/180W Bracket



## SHF-II Series LED Floodlight

Class I, Div.2, Group A, B, C, D	Hazardous Locations
Class I, Div.1, Group E, F, G	UL/cUL Listed
Class III	Wet Locations, Type 4X, IP 66
Class I, Zone 1, Zone 2, Ex e	IECEX/ATEX



Model	Typical Lumens	Wattage	Lumen/Wattage	Equivalent HID luminaire
SHB-II-20W	2400	20W	120	70-100W
SHB-II-30W	3600	30W	120	100-150W
SHB-II-60W	7200	60W	120	320-400W
SHB-II-80W	9600	80W	120	400W
SHB-II-100W	12000	100W	120	400-600W
SHB-II-120W	14400	120W	120	600-750W
SHB-II-150W	18000	150W	120	750W
SHB-II-180W	21600	180W	120	750-1000W

## Applications

- For areas with mounting heights of 50 feet/15m
- Oil and gas refineries, drilling rigs, petrochemical facilities, food and beverage facilities, platforms, loading docks, tunnels, indoor/outdoor spotlighting, outdoor wall and stanchion mounted general area lighting, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist  
Classified and hazardous locations

## Features



- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation and maintenance
- Latest LED Technology: High efficiency LED exceed 135lm/w, fixture lumen efficiency exceed 115 lm/w
- High Reliability Driver: Meanwell brand driver, high reliability, efficiency exceed 98%, design for harshest environment
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Excellent Heat Sink Dissipation Performance: Lower LED and driver temperature, longer service life
- Operating Ambient Temperature: -30° C ~ +50° C
- Beam Angel: 120° for option

## Certifications and Compliances

### IEC Standard

IEC60079-0, IEC60079-7, IEC60079-31, IEC60598-2-1  
 Ex ec IIC T6/T5 Gc  
 Ex tb IIIC T100° C Db  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

### EU Standard

EN60079-0, EN60079-7, EN60079-31, EN60598-2-1  
 II 3 G Ex ec IIC T6/T5 Gc  
 II 2 D Ex tb IIIC T100° C Db  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

### NEC & CEC Standard

Class I, Div 2, Group A, B, C, D  
 Class II, Div 1, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

### UL Standard

UL844, UL1598, UL1598A

### CSA Standard

CSA C22.2 No.137

## Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory sealed, no external seals required

## LED System

- High intensity discrete power emitters
- Standard: cool white (5700K); optional: warm white (2700K); nature white(4000K)
- Brand-new LED chips

## LED Driver

Input Voltage	90–305V AC 50/60Hz	
THD	<10%	
Power Factor	0.98 (220V/full load)	
Protection	Short Circuit/Over Voltage/Over Heat	
	Surge Protection	Line to line 4KV Line to earth 10KV
IP	IP66	

## Technical Datasheet

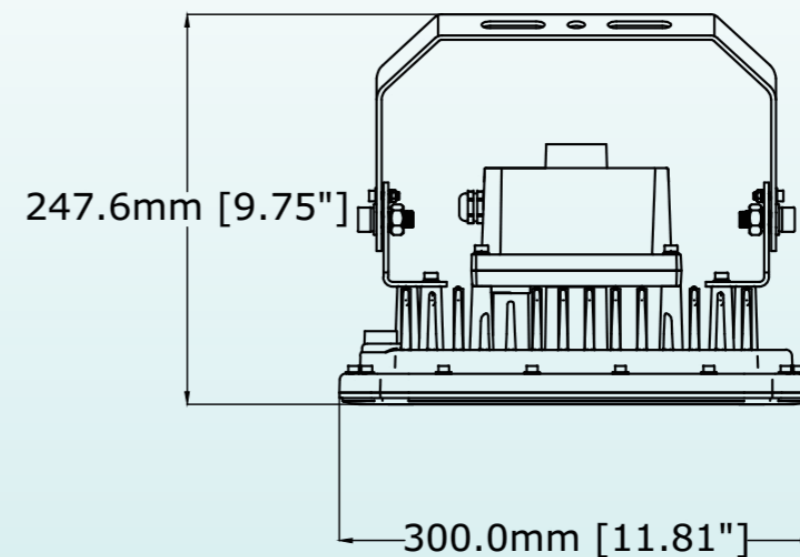
Classification	Class I,Div.2,Group A,B,C,D Class II,Div.1,Group E,F,G Class III Class I,Zone 2,Ex e							
Standards	IEC60079-0, IEC60079-7, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-7, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137							
Ex-mark	Ex e IIC T6/T5 Gc Ex tb IIIC T100° C Db							
Rated Voltage	90–305V AC 50/60Hz							
Rated Wattage(W)	20W	30W	60W	80W	100W	120W	150W	180W
Luminous Flux(LM)	2400	3600	7200	9600	12000	14400	18000	21600
Color Temperature	5000K / 4000K / 3000K							
IP Grade	Wet Locations, Type 4X, IP66							
Ambient temperature	-30° C ~ +50° C / -30° F ~ +119° F							
Cable Entry	NPT 3/4" or M25*1.5							
Terminals	terminal blocks ≤2.5mm <sup>2</sup> , cable diameter 10–14mm							
Installation	Bracket							
Beam Angle	120°							

## Catalogue Numbering System

SHF-II	20	B	C	W	1
Lamp/Function	Mounting Type	Cable Entry	Color Temperature	Beam Angle	
20–20W	Bracket	N–NPT3/4"	C–Cool(5000K)	120°	
30–30W		M–M25x1.5	N–Nature(4000K)		
60–60W			W–Warm(3000K)		
80–80W					
100–100W					
120–120W					
150–150W					
180–180W					

## Mounting Options & Dimensions (mm/inch)

### Bracket





## SHF-IIA Series LED Floodlight

Class I, Div.2, Group A, B, C, D Hazardous Locations  
 Class II, Div.1, Group E, F, G UL/cUL Listed  
 Class III Wet Locations, Type 4X, IP66  
 Class 1,Zone 2,Ex e IECEx/ATEX



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent HID luminaire
SHF-IIA-20W	2800	20W	140	70-100W
SHF-IIA-40W	5600	40W	140	100-150W
SHF-IIA-60W	8400	60W	140	175-250W
SHF-IIA-80W	11200	80W	140	320-400W
SHF-IIA-100W	14000	100W	140	400W
SHF-IIA-120W	16800	120W	140	400-600W
SHF-IIA-150W	21000	150W	140	600-750W
SHF-IIA-200W	28000	200W	140	750-1000W



### Applications

- For areas with mounting heights of 10-50ft (3-15m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, mining, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

### Features

- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation and maintenance
- Latest LED Technology: Cree/Nichia high efficiency LED exceed 160lm/w, fixture lumen efficiency exceed 140 lm/w
- High Reliability Driver: high reliability, efficiency exceed 98%, design for harshest environment
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Excellent Heat Sink Dissipation Performance: Lower LED and driver temperature, longer service life
- Operating Ambient Temperature: -40° C ~ +55° C
- Beam Angel: standard diffused, 40° , 60° ,90° , 120° for option

### International Certifications

#### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60079-2-1  
 Ex e IIC T6 Gc  
 Zone 1,Zone 2;Zone21, Zone 22  
 IP66

#### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60079-2-1  
 Ex II 3 G Ex e IIC T6 Gc  
 Zone 2; Zone 22  
 IP66

#### NEC & CEC Standard

Class I, Div.2, Group A, B, C, D  
 Class II, Div.1, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory sealed, no external seals required

### LED System

- High intensity discrete power emitters
- Standard: cool white (5000K); optional: warm white (3000K); nature white(4000K)
- Brand-new LED chips

### LED Driver

Input Voltage	100-277V AC 50/60Hz,
	200-480V AC 50/60Hz
THD	<20%
Power Factor	0.98 (220V/full load)
Protection	Short Circuit/Over Voltage/Over Heat
	Surge Protection
IP	IP66

### Catalogue Numbering System

SHF-IIA	20	B	N	W	V	1
Lamp	Mounting Type	Cable Entry	Color Temperature	Voltage	Beam angle	
20-20W	B-Bracket	N-NPT3/4"	C-Cool(5000K)	V1:100-277V AC	1-120°	
40-40W		M-M25x1.5	N-Nature(4000K)	V2: 200-480V AC	2-90°	
60-60W			W-Warm(3000K)		3-60°	
80-80W					4-40°	
100-100W						
120-120W						
150-150W						
200-200W						

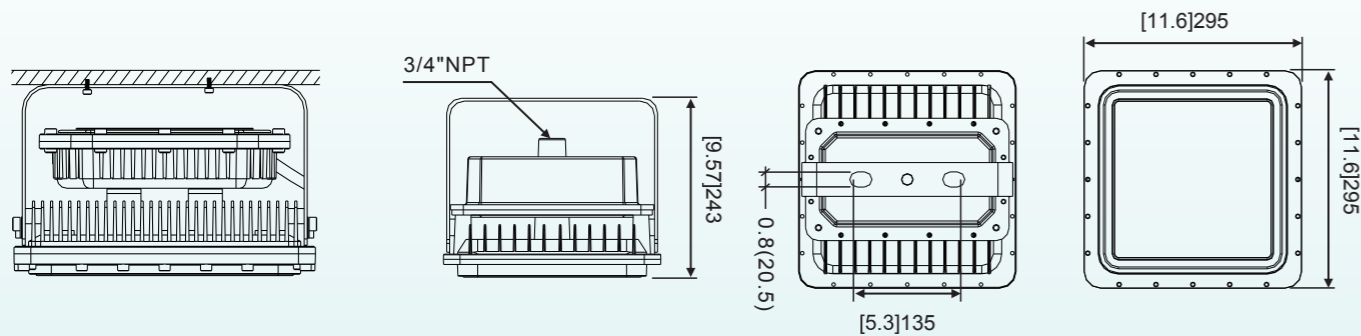
## Technical Datasheet

Classification	Class I,Div.2,Group A,B,C,D Class II,Div.1,Group E,F,G Class III Class I, Zone 1,Zone 2,Ex e							
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137							
Ex-mark	Ex e IIC T6 Gc Ex e IIC T80 Gb IP66							
Rated Voltage	AC 100-277V 50/60Hz AC 200-480V 50/60Hz							
Rated Wattage(W)	20W	40W	60W	80W	100W	120W	150W	200W
Luminous Flux(LM)	2800	5600	8400	11200	14000	16800	21000	28000
Color Temperature	2900K-5000K							
IP Grade	Wet Locations, Type 4X, IP66							
Ambient Temperature	-40° C ~ +55° C / -40° F ~ +131° F							
Cable Entry	M25*1.5 or NPT3/4"							
Terminals	Terminals blocks ≤ 2.5mm <sup>2</sup> , cable diameter 10-14mm							
Installation	Bracket							

## Mounting Options & Dimensions (mm/inch)

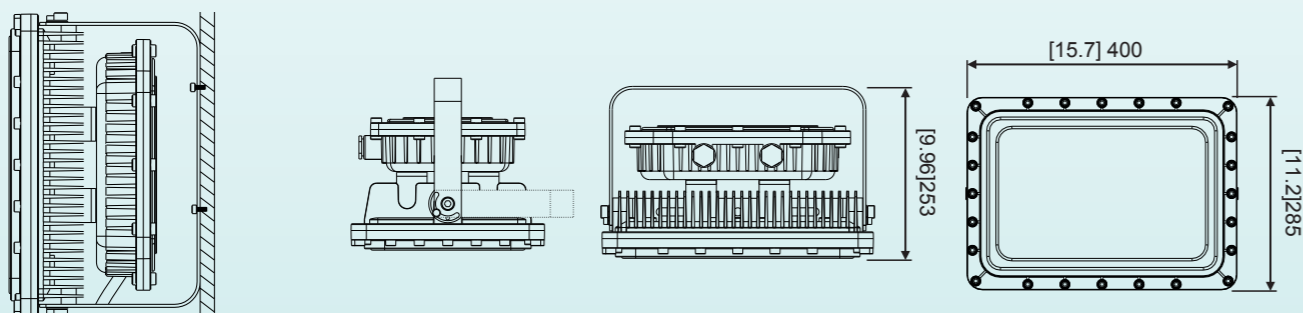
### Ceiling Bracket Mounting

### SHF-IIA 20/40/60/80W Bracket



### Wall Bracket Mounting

### SHF-IIA 100/120/150/200W



## SLL-I Series LED Linear Luminaires

Class I, Div.1, Group A, B, C, D Hazardous Locations  
Class II, Div.1, Group E, F, G UL/cUL Listed  
Class III Wet Locations, Type 4X, IP66  
Class I, Zone 1, Zone 2, Ex d IECEx/ATEX



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent Fluorescent luminaire
SLL-I-30W	4200	30W	140	2x36W
SLL-I-40W	5600	40W	140	3x36W
SLL-I-60W	8400	60W	140	2x58W
SLL-I-80W	11200	80W	140	3x58W



## Applications

- For areas with mounting heights of 10-33ft (3-10m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, mining, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

## Features

- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation and maintenance
- Latest LED Technology: Cree/Nichia high efficiency LED exceed 160lm/w, fixture lumen efficiency exceed 140 lm/w
- High Reliability Driver: high reliability, efficiency exceed 98%, design for harshest environment
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Excellent Heat Sink Dissipation Performance: Lower LED and driver temperature, longer service life
- Rugged, long life, maintenance-free, Ni-MH battery, last for emergency operation time at 10W or 20W LED for 120 minutes or 180 minutes
- Operating Ambient Temperature: -40° C ~ +55° C
- Beam Angel: standard diffused, 120° .




## International Certifications

### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60079-2-1  
Ex db IIC T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60079-2-1  
 II 2 G Ex db IIC T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

### NEC & CEC Standard

Class I, Div.1, Group A, B, C, D  
Class II, Div. 1, Group E, F, G  
Class III  
Wet Locations, Type 4X, IP66

### UL Standard

UL844, UL1598, UL1598A

### CSA Standard

CSA C22.2 No.137

## Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory sealed, no external seals required

## LED System

- High intensity discrete power emitters
- Standard: cool white (5000K); optional: warm white (3000K); nature white(4000K)
- Brand-new LED chips

## LED Driver

Input Voltage	100–277V AC 50/60Hz
	200–480V AC 50/60Hz
THD	<20%
Power Factor	0.98 (220V/full load)
Protection	Short Circuit/Over Voltage/Over Heat
	Surge Protection
IP	IP66

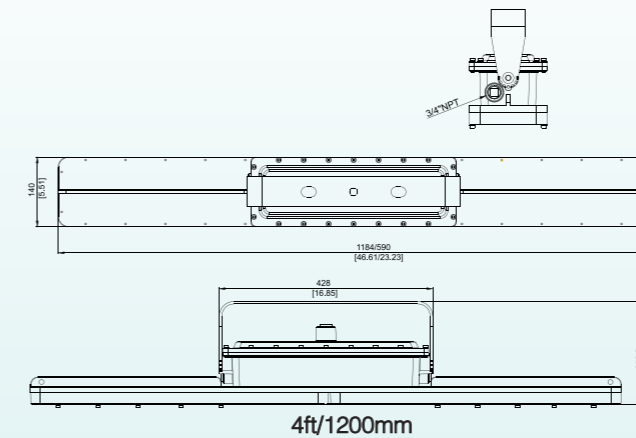
## Technical Datasheet

Classification	Class I, Div.1, Group A,B,C,D Class II, Div.1, Group E,F,G Class III Class I, Zone 1, Zone 2, Ex d			
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137			
Ex-mark	Ex db IIC T6 Gb Ex db IIC T80 Gb IP66			
Rated Voltage	AC 100–277V 50/60Hz			
Rated Wattage(W)	30W	40W	60W	80W
Luminous Flux(LM)	4200	5600	8400	11200
Emergency Duration	120min or 180min			
Battery Specification	Ni-MH battery			
Color Temperature	3000K–5000K			
IP Grade	Wet Locations, Type 4X, IP66			
Ambient Temperature	–40° C ~ +55° C / –40° F ~ +131° F			
Cable Entry	M25*1.5 or NPT3/4" (adaptor for M20x1.5, NPT1" , NPT1 1/2" )			
Terminals	Terminals blocks ≤2.5mm <sup>2</sup> , cable diameter 10–14mm			
Installation	Ceiling Bracket /Wall Bracket			

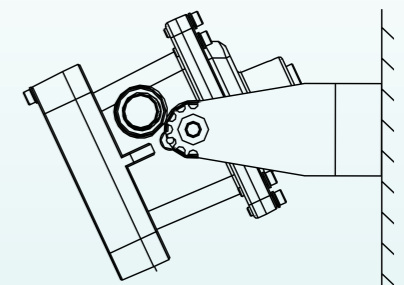
## Catalogue Numbering System

<b>SLL-I</b>	<b>20</b>	<b>C</b>	<b>N</b>	<b>C</b>	<b>E</b>
Lamp	Mounting Type	Cable Entry	Color Temperature	Emergency	
30–30W	C–Ceiling Bracket	N–NPT3/4"	C–Cool(5000K)	EM1:120min	
40–40W	W–Wall Bracket	M–M25x1.5	N–Nature(4000K)	EM2:180min	
60–60W			W–Warm(3000K)		
80–80W					

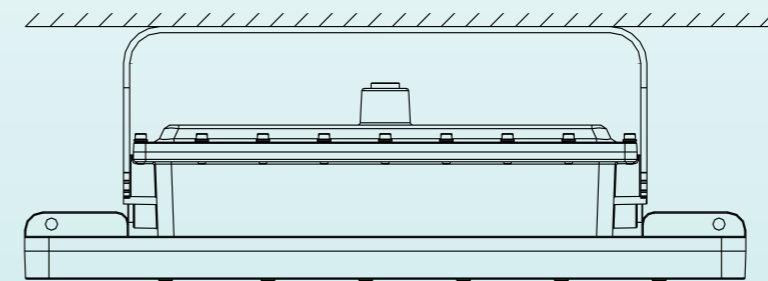
## Mounting Options & Dimensions (mm/inch)



### Wall Bracket Mounting



### Ceiling Bracket Mounting



## SLL-II Series LED Linear Luminaires

Class I, Div.2, Group A, B, C, D	Hazardous Locations
Class II, Div.1, Group E, F, G	UL/cUL Listed
Class III	Wet Locations, Type 4X, IP66
Class I, Zone 2, Ex em	IECEX/ATEX



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent Fluorescent luminaire
SLL-II-20W	2800	20W	140	2x36W
SLL-II-40W	5600	40W	140	3x36W
SLL-II-60W	8400	60W	140	2x58W



### Applications

- For areas with mounting heights of 10–33ft (3–10m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, mining, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

### Features


- The enclosure is made of high strength Fiberglass Reinforced Polyester, which has fine lighting properties with high transmittance and impact resistance.
- Unique seal structure and gasketed housing ensures the great functions of water proof and dust proof in the harshest and corrosive environment.
- Inner explosion-proof electronic ballast and built-in LED driver, short circuit protection.
- Designed standby circuit for the phenomenon of lamp tube aging effect and air leakage.
- The power factor is more than 0.98. Wide range of input voltage.
- LED linear lamp tube, T8 fluorescent lamp tube for option.
- Low cost for maintenance, inner electronic ballast for T8 fluorescent lamp tube, built-in LED driver for LED lamp tube.
- Back-up emergency battery for emergency lighting when necessary. Rugged, long life, maintenance-free, Ni-MH battery, last for emergency operation time at 10W or 20W LED for 120 minutes or 180 minutes.
- Lightweight, compact size and mounting feet ease installation and allow placement in confined area.

### International Certifications

#### IEC Standard

IEC60079-0, IEC60079-7, IEC60079-31, IEC60079-2-1  
Ex em IIC T6 Gc  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### EU Standard

EN60079-0, EN60079-7, EN60079-31, EN60079-2-1  
 II 3 G Ex em IIC T6 Gc  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### NEC & CEC Standard

Class I, Div.2, Group A, B, C, D  
Class II, Div.2, Group E, F, G  
Class III  
Wet Locations, Type 4X, IP66

#### UL Standard warm white (3000K)

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

- Lamp housing and adapter – die cast aluminum with anti-corrosion powder coat
- Lens – heat-resistant and impact-resistant tempered glass
- Gaskets – silicone
- External hardware – carbon steel or stainless steel
- Factory sealed, no external seals required

### LED System

- High intensity discrete power emitters
- Standard: cool white(5000K); Optional: warm white(3000K); nature white(4000K)
- Brand-new LED chips

### LED Driver

Input Voltage	100–277V AC 50/60Hz	
	200–480V AC 50/60Hz	
THD	<20%	
Power Factor	0.98 (220V/full load)	
Protection	Short Circuit/Over Voltage/Over Heat	
	Surge Protection	Line to line 4KV
		Line to earth 10KV
IP	IP66	

### Catalogue Numbering System

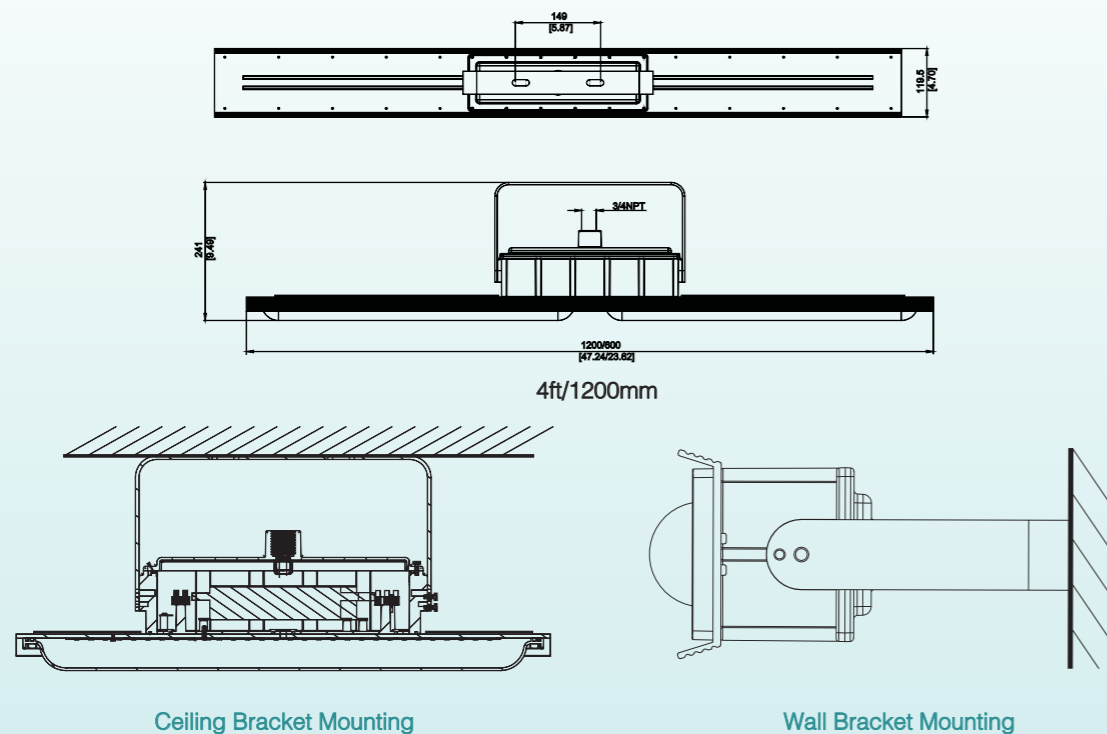
SLL-II	20	C	N	C	V1	V1
Lamp	Mounting Type	Cable Entry	Color Temperature	Voltage	Emergency	
20–20W	C–Ceiling Bracket	N–NPT3/4"	C–Cool(5000K)	V1:AC100–277V	EM1:120min	
40–40W	W–Wall Bracket	M–M25x1.5	N–Nature(4000K)	V2:AC200–480V	EM2:180min	
60–60W			W–Warm(3000K)			



## Technical Datasheet

Classification	Class I, Div.2, Group A, B, C, D Class II, Div.1, Group E, F, G Class III Class I, Zone 2, Ex em		
Standards	IEC60079-0, IEC60079-7, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-7, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137		
Ex-mark	Ex em IIC T6 Gc Ex em IIC T80 Gb IP66		
Rated Voltage	AC 100-277V 50/60Hz AC 200-480V 50/60Hz		
Rated Wattage(W)	20W	40W	60W
Luminous Flux(LM)	2800	5600	8400
Emergency Duration	120min or 180min		
Battery Specification	Ni-MH battery		
Color Temperature	3000K-5000K		
IP Grade	Wet Locations, Type 4X, IP66		
Ambient Temperature	-40° C ~ +55° C / -40° F ~ +131° F		
Cable Entry	M25*1.5 or NPT3/4" (adaptor for M20x1.5, NPT1" , NPT1 1/2" )		
Terminals	Terminals blocks ≤2.5mm <sup>2</sup> , cable diameter 10-14mm		
Installation	Ceiling Bracket /Wall Bracket		

## Mounting Options & Dimensions (mm/inch)



## SLS Series LED Strips Linear Luminaires

Class I, Div.2, Group A, B, C, D	UL/cUL Listed
Class II, Div. 1, Group E, F, G	IECEX/ATEX/CE
Class III	Simultaneous Presence
Class I, Zone 2 Ex db eb mb op is	Wet Locations, Type 4X, IP66



Model	Luminous Flux(LM)	Wattage	LED Strips Number	Lumen/Wattage	Dimensions L(mm) x W(mm) x H(mm)
SLS-1x20W	2800	20W	1	140	733x206x117
SLS-1x30W	4200	30W	1	140	1333x206x117
SLS-2x15W	4200	30W	2	140	733x206x117
SLS-1x40W	5600	40W	1	140	1333x206x117
SLS-2x20W	5600	40W	2	140	1333x206x117
SLS-2x30W	8400	60W	2	140	1333x206x117
SLS-2x40W	11200	80W	2	140	1333x206x117

## Applications

- For areas with mounting heights of 10-33ft (3-10m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

## Features

- The enclosure is made of high strength Fiberglass Reinforced Polyester, high transmittance, UV and impact resistance.
- Polycarbonate transparent diffuser, shock and UV resistant.
- Unique seal structure and gasketed housing ensures the great functions of water proof and dust proof in the harshest and corrosive environment.
- High efficiency resin-bonded LED strips to replace T8 or LED lamp tube to avoid lamp tube aging effect and air leakage.
- Inner built-in explosion-proof LED driver, short circuit protection.
- Inner built-in increased safety terminal blocks.
- Low cost for maintenance for inner LED driver and LED strips.
- Back-up emergency battery (120 minutes or 180 minutes) for emergency lighting when necessary.
- Lightweight, compact size and mounting feet ease installation and allow placement in confined area.

## Standard Materials

- **Body:** Fiberglass reinforced polyester
- **Len:** Poly-carbonate
- **Gaskets:** Latch assembly and elastomer gasket seals against water and dust ingress
- **Bolts and screws:** Stainless steel

## International Certifications

### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-6,  
IEC60079-7, IEC60079-18, IEC60079-25  
Ex db eb mb op is IIC T5/T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

### NEC & CEC Standard

Class I, Div 2, Group A, B, C, D  
Class II, Div.1, Group E, F, G  
Class III  
Wet Locations, Type 4X, IP66

## Technical Datasheet

Classification	Class I, Div 2, Group A, B, C, D Class II, Div.1, Group E, F, G Class III Class I, Zone 2, Ex db eb mb op is						
Standards	IEC60079-0, IEC60079-1, IEC60079-6, IEC60079-7, IEC60079-18, IEC60079-25 EN60079-0, EN60079-1, EN60079-6, EN60079-7, EN60079-18, EN60079-25 UL844, UL1598, UL1598A CSA C22.2 No.137						
Ex-mark	Ex db eb mb op is IIC T5/T6 Gb Ex tb IIIC T95/T80 Gb						
Rated Voltage	AC 100-277V 50/60Hz AC 220-480V 50/60Hz						
Rated Wattage(W)	1x20W	1x30W	2x15W	1x40W	2x20W	2x30W	2x40W
Luminous Flux(LM)	2800	4200	4200	5600	5600	8400	11200
Color Temperature	2700K-5000K						
Emergency Duration	120 min or 180 min						
Battery Specification	Ni-MH battery						
IP Grade	Wet Locations, Type 4X, IP66						
Ambient Temperature	-20° C ~ +40° C / -4° F ~ +104° F						
Cable Entry	M25x1.5 or NPT 3/4"						
Terminals	Terminals blocks ≤ 2.5mm², cable diameter 10-14mm						
Installation	Ceiling / Pendant / Wall / Stanchion						
Beam Angle	120°						

### EU Standard

EN60079-0, EN60079-1, EN60079-6, EN60079-7, EN60079-18,  
EN60079-25  
⚠ II 2 G Ex db eb mb op is IIC T5/T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

### UL Standard

UL844, UL1598, UL1598A

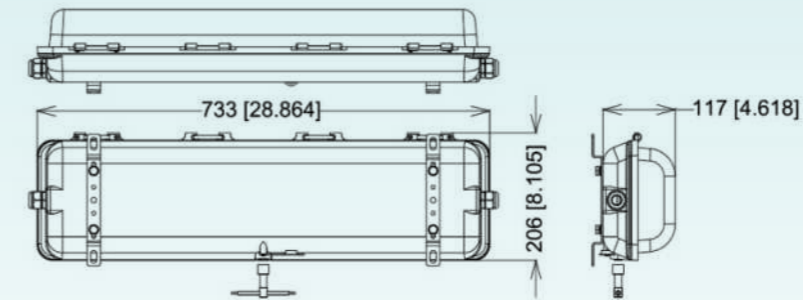
### CSA Standard

CSA C22.2 No.137

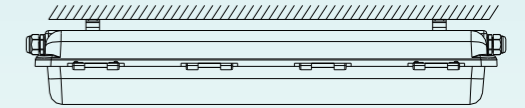
## Mounting Options & Dimensions (mm/Inch)

### Outline Dimensions

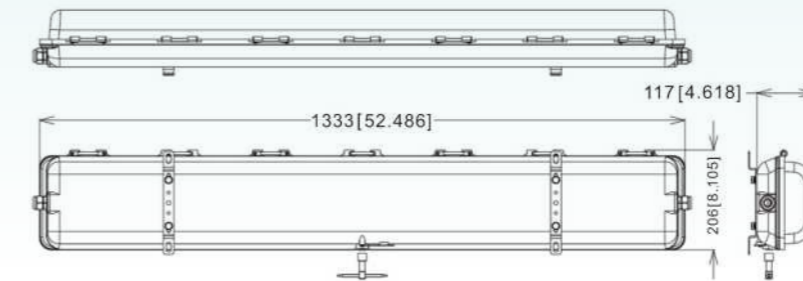
#### Type 1:



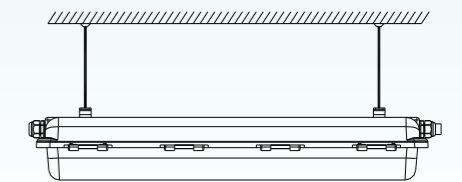
#### C: Ceiling Type



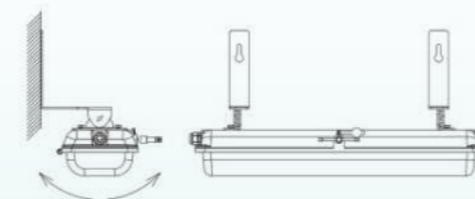
#### Type 1:



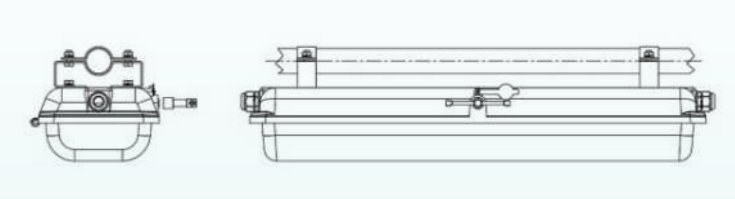
#### P: Pendant Type



#### W: Wall Type



#### S: Stanchion Type



## Catalogue Numbering System

SLS-

1x20

C

M

EM

Lamp

Mounting Type

Cable Entry

Emergency

LED 1x20W;

LED 1x30W;

LED 2x15W;

LED 1x40W;

LED 2x20W;

LED 2x30W;

LED 2x40W

C: Ceiling Type

P: Pendant Type

W: Wall Type

S: Stanchion Type

N: NPT 3/4"

M: M25x1.5

EM1:120min

EM2:180min



## SLe Series LED Linear Luminaires

Class I, Div.2, Group A, B, C, D	Hazardous Locations
Class II, Div.1, Group E, F, G	UL/cUL Listed
Class III	Wet Locations, Type 4X, IP66
Class I,Zone 1,Zone 2,Ex e	IECEX/ATEX



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	If required emergency lighting
SLe-1x18W	1530	1x18W	85	EM1x18W
SLe-2x18W	3060	2x18W	85	EM2x18W
SLe-1x36W	3060	1x36W	85	EM1x36W
SLe-2x36W	6120	1x36W	85	EM2x36W
SLe-LED1x9W	1170	LED1x9W	130	LED EM1x9W
SLe-LED2x9W	2340	LED2x9W	130	LED EM2x9W
SLe-LED1x18W	2340	LED1x18W	130	LED EM1x18W
SLe-LED2x18W	4680	LED2x18W	130	LED EM2x18W

### Applications

- For areas with mounting heights of 10–33ft (3–10m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

### Features

- The enclosure is made of high strength Fiberglass Reinforced Polyester, which has fine lighting properties with high transmittance and impact resistance.
- Unique seal structure and gasketed housing ensures the great functions of water proof and dust proof in the harshest and corrosive environment.
- Inner explosion-proof electronic ballast and built-in LED driver ,short circuit protection.
- Designed standby circuit for the phenomenon of lamp tube aging effect and air leakage.
- The power factor is more than 0.98.Wide range of input voltage.
- LED linear lamp tube,T8 fluorescent lamp tube for option.
- Low cost for maintenance,inner electronic ballast for T8 fluorescent lamp tube,built-in LED driver for LED lamp tube.
- Back-up emergency battery for emergency lighting when necessary. Rugged, long life, maintenance-free, Ni-MH battery, last for emergency operation time at 10W or 20W LED for 120 minutes or 180 minutes.
- Lightweight, compact size and mounting feet ease installation and allow placement in confined area.

### Technical Datasheet

Ex-mark	Ex e d IIC T6 Gb
Rated Voltage	AC 220V 50/60Hz
Rated Wattage(W)	LED: 1x8W; 2x8W; 1x18W; 2x18W T8:1x18W; 2x18W; 1x36W;2x36W
Emergency Duration	120min or 180min
Battery Specification	Ni-MH battery
IP Grade	IP66
Ambient Temperature	-20° C~ +40° C / -4° F~+104° F
Cable Entry	M25*1.5(adaptor for NPT3/4" )
Terminals	Terminals blocks≤2.5mm², cable diameter 10–14mm
Installation	Pendant/Ceiling/Wall 30° / Wall 60° /Chain Hanging/Fence Stanchion/Flange Stanchion

### Certifications and Compliances

#### IEC Standard

IEC60079-0, IEC60079-7, IEC60079-31,IEC60079-2-1  
Ex e d IIC T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### EU Standard

EN60079-0, EN60079-7, EN60079-31,EN60079-2-1  
⚠ II 2 G Ex e d IIC T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### NEC & CEC Standard

Class I, Div 2, Group A, B, C, D  
Class II, Div.1, Group E, F, G  
Class III  
Wet Locations, Type 4X, IP66

#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

- **Body:** Fiberglass reinforced polyester
- **Len:** Poly-carbonate
- **Gaskets:** Latch assembly and elastomer gasket seals against water and dust ingress
- **Bolts and screws:** Stainless steel

### Catalogue Numbering System

SLe- 1x8		C		M	EM
Lamp		Mounting Type		Cable Entry	Emergency
LED1x9W	T8:1x18W	S1:Flange Stanchion Type	D:Chain Hanging Type	M:M25x1.5	E1:120min
LED 2x9W	T8:2x18W	S2:Fence Stanchion Type	W1:Wall 30° Type	N:NPT3/4"	E2:180min
LED 1x18W	T8:1x36W	C:Ceiling Type	W2:Wall 60° Type		
LED 2x18W	T8:2x36W	P:Pendant Type			

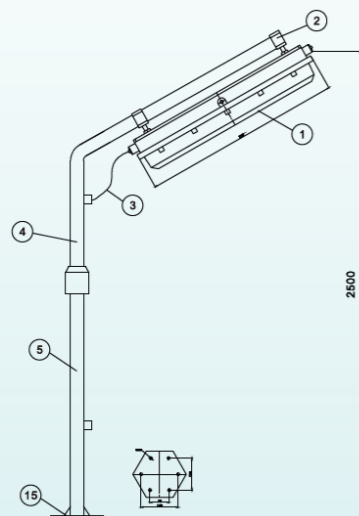
Mounting accessories and sparts

Code	Name	Code	Name
①	Lamp	⑨	Hook
②	Pipe clamp	⑩	Chain
③	Flexible connecting pipe(supplied by user)	⑪	Wall mounting rack
④	Platform bend-rod type	⑫	Hanging bolt
⑤	Platform tube	⑬	Junction box
⑥	Connecting pipe	⑭	U-tube clip(supplied by user)
⑦	Ceiling mounting accesories	⑮	Bottom board
⑧	Ceiling feet	⑯	

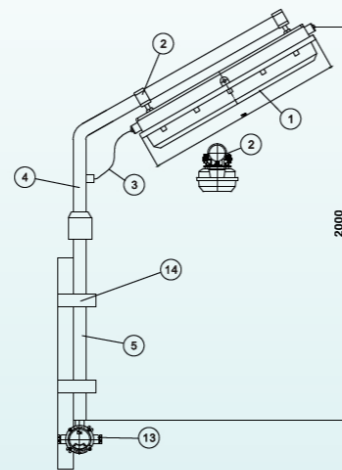
Model	A	B	C	D	E
SLe-LED1x9W SLe-1x18W SLe-LED2x9W SLe-2x18W	750mm/29.5"	594mm/23.4"	148mm/5.8"	216mm/8.5"	122mm/4.8"
SLe-LED1x18W SLe-1x36W SLe-LED2x18W SLe-2x36W	1380mm/54.3"	750mm/29.5"	148mm/5.8"	216mm/8.5"	122mm/4.8"

Mounting Options & Dimensions (mm)

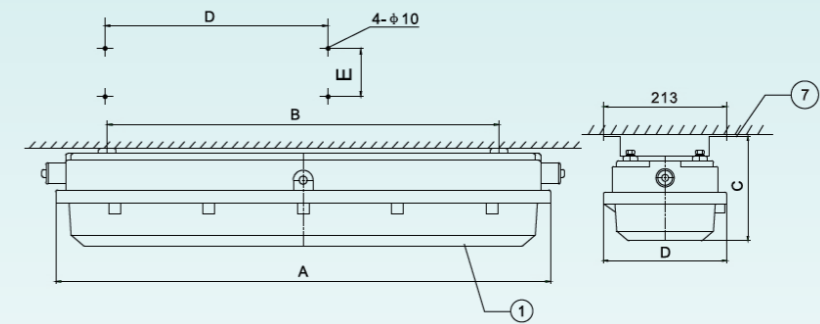
S1: Flange Stanchion Type



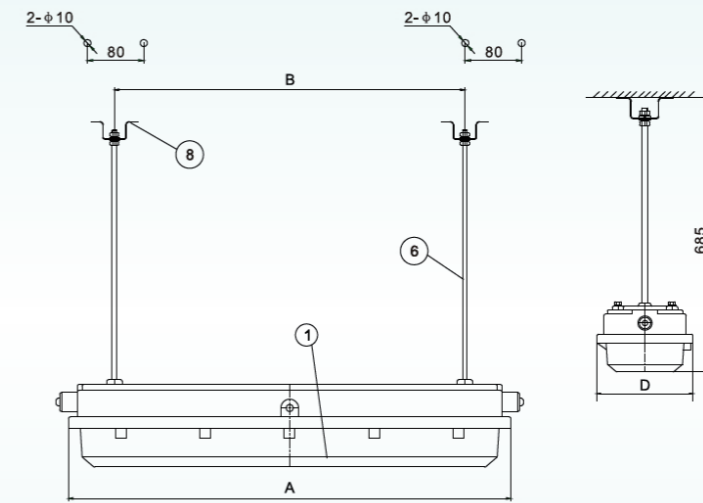
S2: Fence Stanchion Type



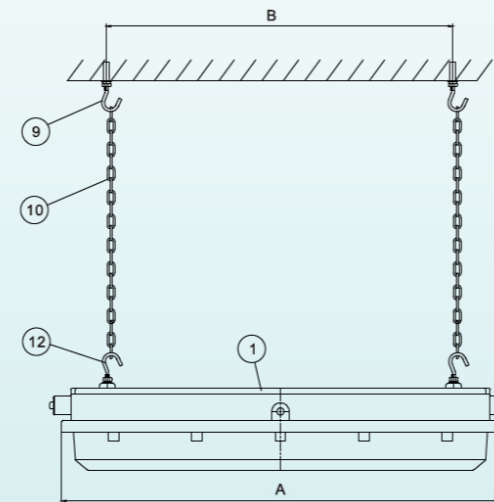
C: Ceiling Type



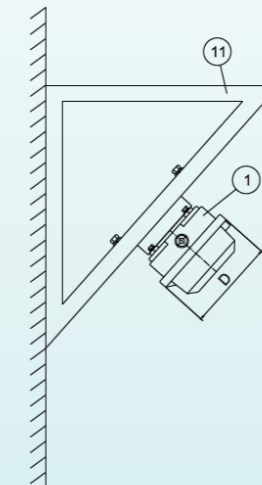
P: Pendant Type



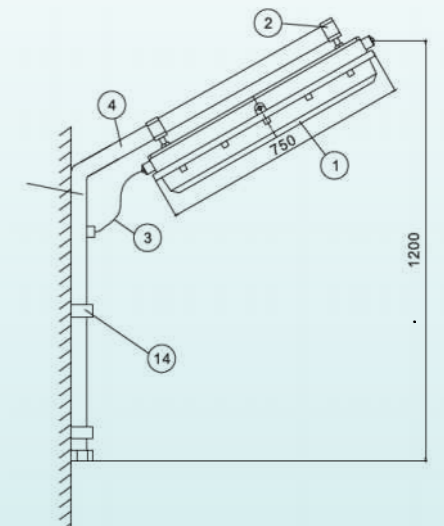
D: Chain Hanging Type



W1: Wall 30° Type



W2: Wall 60° Type





## SMB Series LED Low Bay/Area Luminaires

Class I, Div.1, Group A, B, C, D	Hazardous Locations
Class II, Div.1, Group E, F, G	UL/cUL Listed
Class III	Wet Locations, Type 4X, IP66
Class I, Zone 1, Zone 2, Ex d	IECEX/ATEX



Model	Typical Lumens	Wattage	Lumen/Wattage	Equivalent HID luminaire
SMB-20W	2400	20W	120	50W MH
SMB-30W	3600	30W	120	70W MH
SMB-40W	4800	40W	120	70W MH
SMB-50W	6000	50W	120	100W MH
SMB-60W	7200	60W	120	100W MH
SMB-70W	8400	70W	120	150W MH
SMB-80W	9600	80W	120	150W MH

### Applications

- For areas with mounting heights of 10–33 feet/3–10m
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Heavy industrial, chemical, petrochemical, or pharmaceutical facilities, offshore platforms, shipyards, electric power, loading docks, wastewater treatment plants, paper mills
- Where flammable vapors, gases, ignitable dusts, fibers or flying are present; indoors or outdoors
- Type 4X, marine, wet locations and hose down environments

### Features

- Optimized heat sink: Aluminum housing with air diversion structure removes heat from the LEDs and driver to ensure longer life.
- High reliability driver: Famous brand driver, high reliability, efficiency >98%, design for harshest environments
- Easy maintenance: Open side covers for wiring and replace driver, no need disassemble whole light, easy wiring and maintenance
- Long life: Last to 50,000h rated life or more, 50 times of incandescent bulbs, 8 times of fluorescent lamps
- Multi-protection: Constant current with short-circuit and overvoltage protection
- Emergency: built-in Emergency battery for 20/30w, last to 60 min working when power off
- Beam Angle: Diffused 120° /180°





### Certifications and Compliances

#### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1  
 Ex d IIC T6 Gb -40°C ~ +55°C  
 Ex t IIIB T85°C Db -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

#### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60598-2-1  
 II 2 G Ex d IIC T6 Gb -40°C ~ +55°C  
 III 2 D Ex t IIIB T85°C Db -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

#### NEC & CEC Standard

Class I, Div 1, Group A, B, C, D  
 Class II, Div 2, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

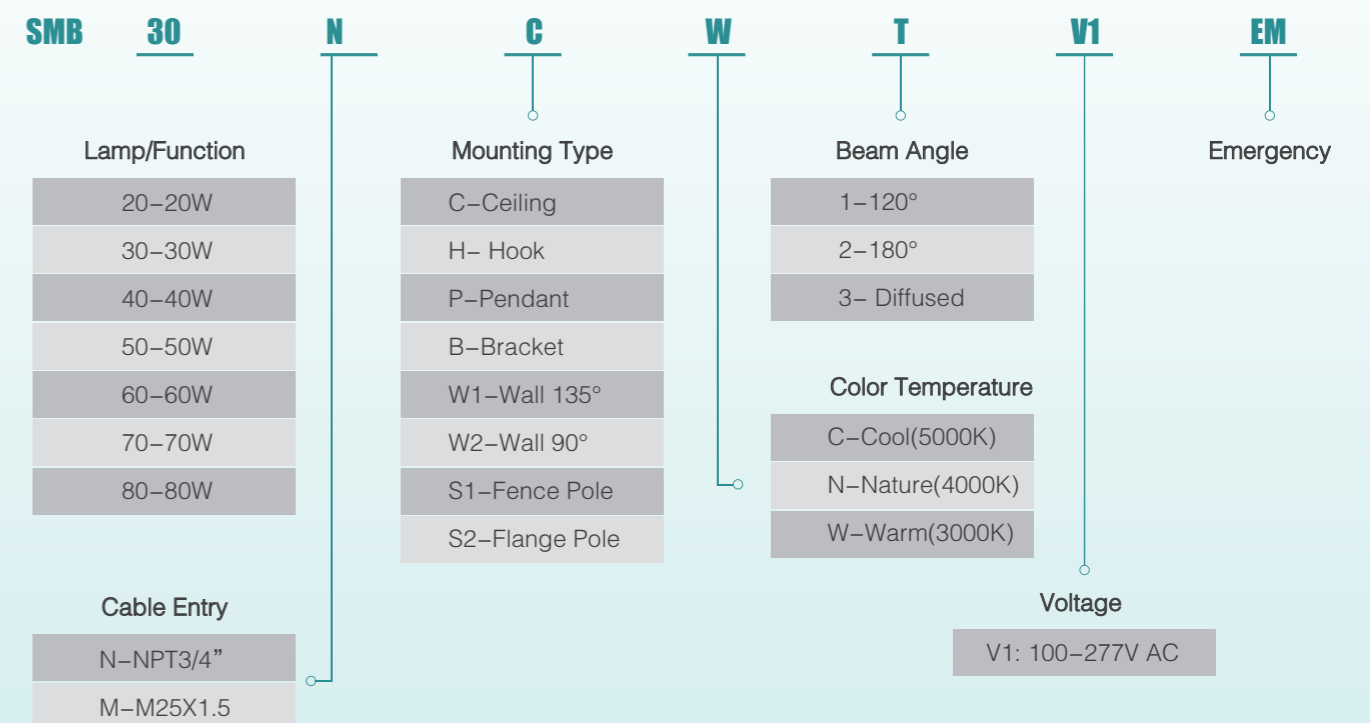
#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Catalogue Numbering System



### Standard Materials

- Housing – copper-free aluminum
- Globe – tempered and impact-resistant glass, heat-and corrosion-proof
- Factory-sealed, no external seals required

### LED System

- Brand-new 20w-40w LED chips
- Standard color temperature: cool white (5000K); optional: warm white (3000K); nature white (4000K)
- Advanced heat sink design ensures LED does not exceed manufacture's temperature ratings across all specified ambient conditions

### LED Driver

Input Voltage	100–277V AC 50/60Hz	
THD	<20%	
Power Factor	0.98 (220V/full load)	
Protection	Short Circuit/Over Voltage/Over Heat	
	Surge Protection	Line to line 4KV Line to earth 10KV
IP	IP66	

## Technical Datasheet

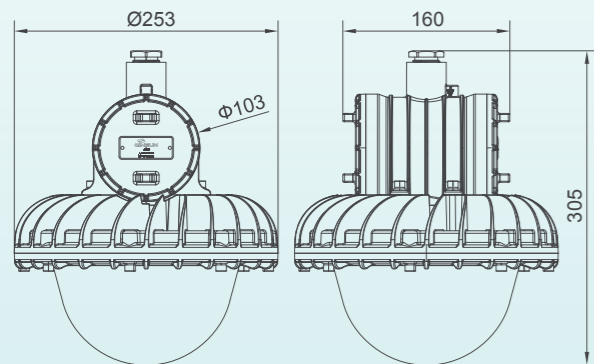
Classification	Class I,Div.2,Group A,B,C,D Class II,Div.1,Group E,F,G Class III Class I, Zone 1,Zone 2,Ex em						
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137						
Ex-mark	Ex d IIC T6 Gb Ex t IIIB T85°C Db						
Rated Voltage	100-277V AC 50/60Hz						
Rated Wattage(W)	20W	30W	40W	50W	60W	70W	80W
Luminous Flux(LM)	2400	3600	4800	6000	7200	8400	9600
Color Temperature	5000K / 4000K/ 3000K						
IP Grade	Wet Locations, Type 4X, IP66						
Ambient temperature	-40°C ~ +55°C / -40° F ~ +131° F						
Cable Entry	NPT3/4" or M25x1.5 (adaptor for M20x1.5,NPT1" ,NPT1 1/2" )						
Terminals	terminal blocks ≤2.5mm <sup>2</sup> , cable diameter 10-14mm						
Installation	Ceiling/Hook/Pendant/Bracket/Wall1/Wall2/Fence Pole/Flange Pole						
Beam Angle	120° /180° /Diffused						

## Emergency Battery Parameters

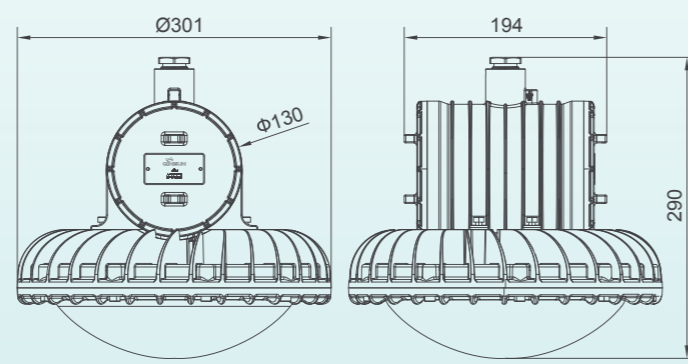
Product Code	Rated Power	Emergency Power	Emergency Duration	Battery Capacity
SMB-20W	20W	10W	60 min	12V, 1500mAH Li
SMB-30W	30W	10W	60 min	12V, 1800mAH Li

## Overall Dimensions (mm)

SMB-20/30/40W

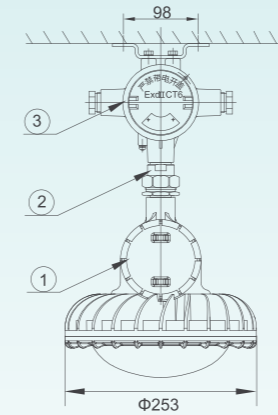


SMB-50/60/70/80W

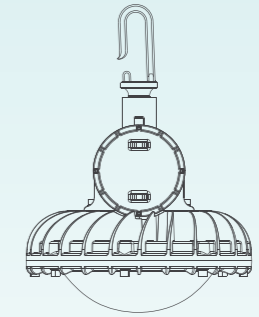


## Mounting Options & Dimensions

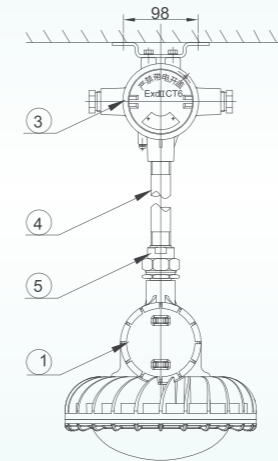
C-Ceiling



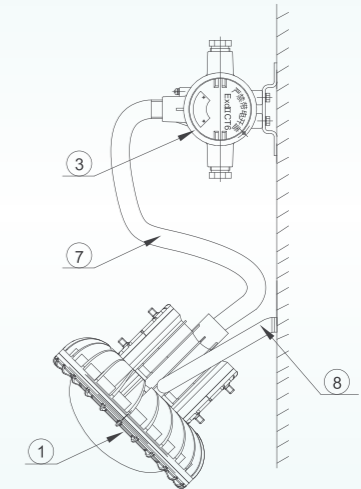
H-Hook



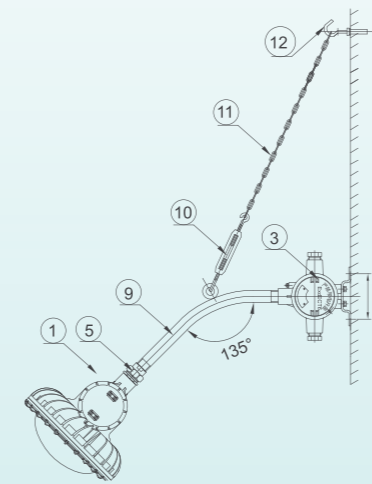
P-Pendant



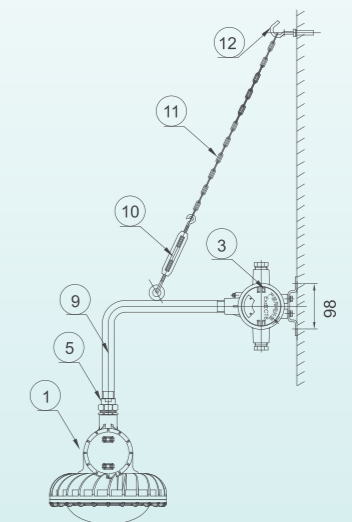
B-Bracket



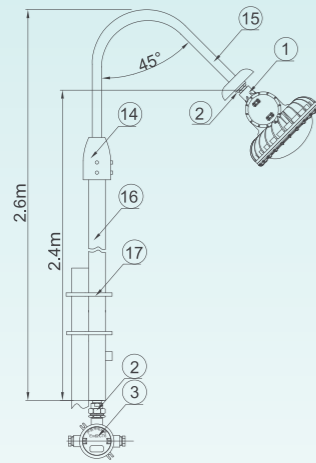
W1-Wall 135°



W2-Wall 90°



S1–Fence Pole



S2–Flange Pole

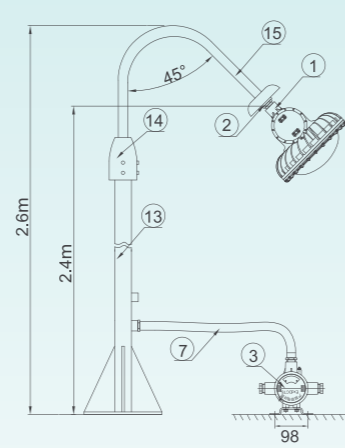


Table of Spare Parts

No.	Item	Remark
①	LED Ex-proof Light Fitting (LED Ex-proof Emergency Light Fitting)	
②	Ex union coupling G3/4" (M) G3/4" (M)	
③	Ex Junction box (IIC/IIB)	
④	Straight Pipe G3/4"	300mm
⑤	Ex union coupling G3/4" (F)	Supplied by user
⑥	G3/4" (M) G3/4" sucker	
⑦	Ex flexible connecting pipe G3/4" both Male	Supplied by user
⑧	Mounting bracket	
⑨	Bent pipe G3/4"	300mm
⑩	CC type rigging screw buckle	
⑪	Chain	450mm
⑫	Expansion screw	
⑬	Upright pole G1 1/2"	Flange type
⑭	Reducer	
⑮	Bent pipe G1"	
⑯	Upright pole G1 1/2"	Flange type
⑰	U type clamp	Supplied by user

## SLB Series LED Low Bay/Area Luminaires

Class I, Div.1, Group A, B, C, D Hazardous Locations  
 Class II, Div.1, Group E, F, G UL/cUL Listed  
 Class III Wet Locations, Type 4X, IP66  
 Class I, Zone 1, Zone 2, Ex d IECEx/ATEX



Model	Typical Lumens	Wattage	Lumen/Wattage	Equivalent HID luminaire
SLB-20W	2400	20W	120	50W
SLB-30W	3600	30W	120	75W
SLB-40W	4800	40W	120	100W

### Applications

- For areas with mounting heights of 10–16 feet/3–5m
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Areas requiring frequent on-and-off of light
- Manufacturing plants, heavy industrial, chemical, petrochemical or pharmaceutical facilities, platforms, loading docks, tunnels, outdoor wall and stanchion mounted general area lighting
- Where flammable vapors, gases, ignitable dusts, fibers or flying are present; indoors or outdoors
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist
- Type 4X, marine, wet locations and hose down environments

### Features

- Instant illumination and re-strike
- Better visibility with crisp, white light
- T6 temperature rating—safely operate in the most hazardous environments
- Cold temperature operation/no warm-up required
- Wireless Connection: all mounting modules are wireless connected to junction box, easy installation and maintenance
- Energy-efficient: up to 85% reduction in energy used
- Provides up to 50,000 hours rated life— eliminates need for frequent lamp replacement
- Contains no mercury or other hazardous substances
- Shock and vibration-resistant solid-state luminaires have no filaments or glass components that could break – greatly reduces the risk of premature failure
- Operating Ambient Temperature: -40°C ~ +55°C







## Certifications and Compliances

### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1  
 Ex d IIC T6 Gb -40°C ~ +55°C  
 Ex tc IIIC T85°C Dc -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

### EU Standard

EN60079-0, EN60079-1, EN60079-31, EN60598-2-1  
 II 2 G Ex d IIC T6 Gb -40°C ~ +55°C  
 III 3 D Ex tc IIIC T85°C Dc -40°C ~ +55°C  
 Zone 1, Zone 2  
 Zone 21, Zone 22  
 IP66

### NEC & CEC Standard

Class I, Div 1, Group A, B, C, D  
 Class II, Div 2, Group E, F, G  
 Class III  
 Wet Locations, Type 4X, IP66

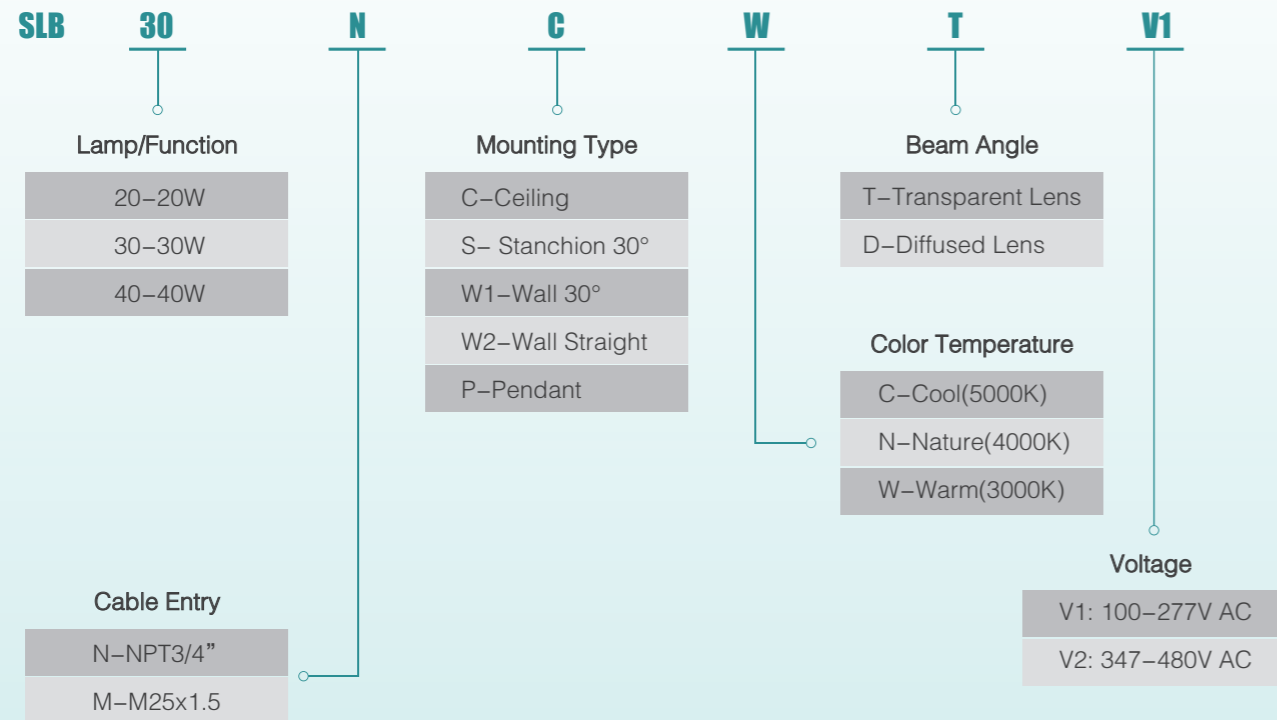
### UL Standard

UL844, UL1598, UL1598A

### CSA Standard

CSA C22.2 No.137

### Catalogue Numbering System



## Standard Materials

- Body, mounting modules and guard – copper-free aluminum with epoxy powder coat
- Globe – heat and impact-resistant glass
- Gaskets – silicone
- External hardware – stainless steel
- Factory-sealed, no external seals required

## LED System

- High brightness light emitting diode (LED) arrays
- Standard color temperature: cool white (5000K); optional: warm white (3000K); nature white(4000K)
- Advanced heat sink design ensures LED does not exceed manufacture's temperature ratings across all specified ambient conditions
- Brand-new LED chips

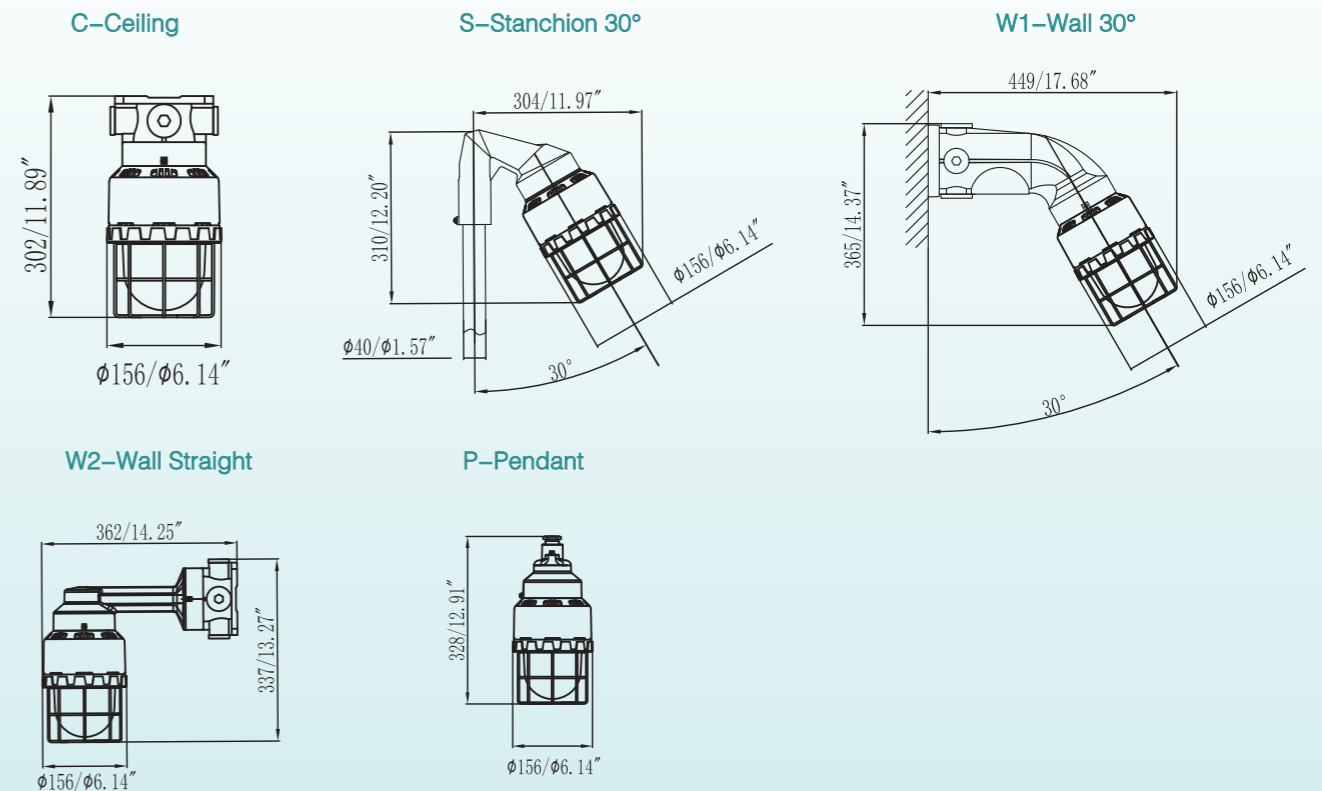
## LED Driver

Input Voltage	100-277V AC 50/60Hz	
	347-480V AC 50/60Hz	
THD	<20%	
Power Factor	0.98 (220V/full load)	
Protection	Short Circuit/Over Voltage/Over Heat	
	Surge Protection	Line to line 4KV
		Line to earth 10KV
IP	IP66	

## Technical Datasheet

Classification	Class I, Div.1, Group A,B,C,D Class II, Div.2, Group E,F,G Class III Class I, Zone 1, Zone 2, Ex d		
Standards	IEC60079-0, IEC60079-1, IEC60079-31, IEC60598-2-1 EN60079-0, EN60079-1, EN60079-31, EN60598-2-1 UL844, UL1598, UL1598A CSA C22.2 No.137		
Ex-mark	Ex d IIC T6 Gb Ex tc IIIC T85°C Dc		
Rated Voltage	100-277V AC 50/60Hz 347-480V AC 50/60Hz		
Rated Wattage(W)	20W	30W	40W
Luminous Flux(LM)	2400	3600	4800
Color Temperature	5000K / 4000K/ 3000K		
IP Grade	Wet Locations, Type 4X, IP66		
Ambient temperature	-40°C ~ +55°C / -40° F ~ +131° F		
Cable Entry	NPT3/4" or M25x1.5 (adaptor for M20x1.5, NPT1" ,NPT1 1/2" )		
Terminals	terminal blocks ≤2.5mm², cable diameter 10-14mm		
Installation	Ceiling/ Stanchion 30° / Wall 30° / Wall Straight/ Pendant		
Beam Angle	Transparent Lens/Diffused Lens		

## Mounting Options & Dimensions (mm/inch)

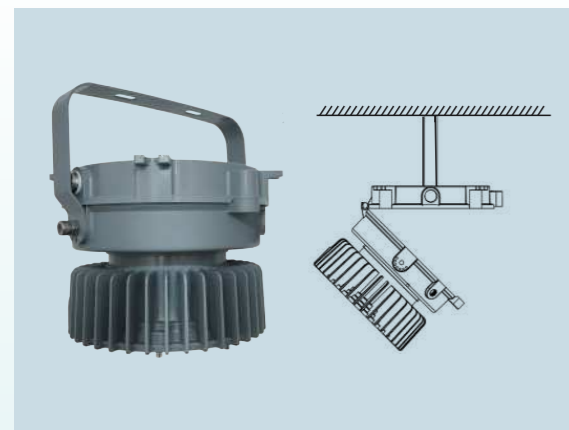


## SVM Series LED High Bay Luminaires

Class I, Div.2, Group A, B, C, D	UL/cUL Listed
Class II, Div. 1, Group E, F, G	IECEX/ATEX/CE
Class III	Simultaneous Presence
Class I, Zone 2, Ex nR	Wet Locations, Type 4X, IP66



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent HID luminaire
SVM-20W	2800	20W	140	70-100W
SVM -40W	5600	40W	140	100-150W
SVM -60W	8400	60W	140	150-175W
SVM -80W	11200	80W	140	250-320W
SVM -100W	14000	100W	140	320-400W
SVM -150W	21000	150W	140	500-750W
SVM -200W	28000	200W	140	750-1000W



### Applications

- For areas with mounting heights of 10-50ft (3-15m)
- Oil and gas refineries, drilling rigs, petrochemical facilities, land-based and offshore rigs, mining, areas include derrick, mast, SCR house, top drive, operator's house, power and pump stations, and where flammable vapors, gases, ignitable dusts, fibers or flying are present
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

### Features

- Instant illumination and restrike, cold temperature operation/no warm-up required
- Independent chamber for LED module, driver and wiring, high reliability and easy installation
- Hinge hanging the housing body ease the maintenance for electrical connection, reduce labor
- Die cast aluminium housing reduce the temperature rise and optimize the heat sink performance
- Unique vertical fins heat sink dissipation structure ease air flow and dust shedding
- Latest LED Technology: Cree/Nichia high efficiency LED exceed 140lm/w, fixture lumen efficiency exceed 140 lm/w
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Various mounting option, easy wiring
- Operating Ambient Temperature: -40° C ~ +55° C
- Beam Angel: standard diffused, 40° , 60° , 90° , 120° for option

### International Certifications

#### IEC Standard

IEC60079-0, IEC60079-15  
Ex nR IIC T5/T6 Gc  
Zone 2; Zone 22  
IP66

#### EU Standard

EN60079-0, EN60079-15  
⚠ II 3 G Ex nR IIC T5/T6 Gc  
Zone 2; Zone 22  
IP66

#### NEC & CEC Standard

Class I, Div.2, Group A, B, C, D  
Class II, Div.1, Group E, F, G  
Class III  
Wet Locations, Type 4X, IP66

#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Standard Materials

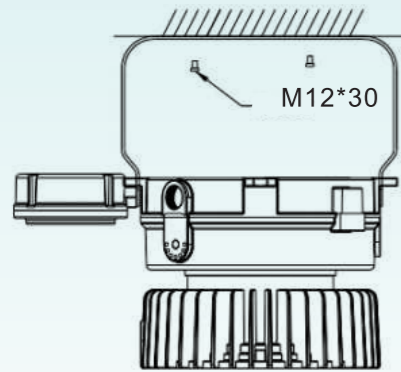
- Housing: Die cast aluminum with anti-corrosion powder coat, grey
- Lens: Heat-resistant and impact-resistant tempered glass
- Gaskets: Silicone

### Technical Datasheet

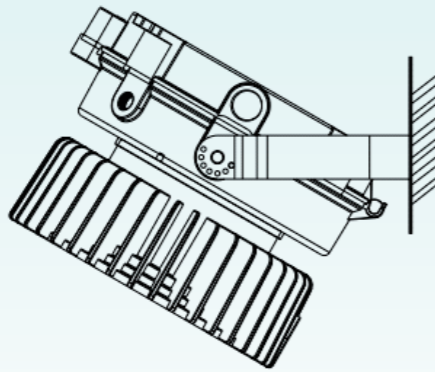
Classification	Class I, Div 2, Group A,B, C, D Class II, Div.1, Group E F G Class III Class I, Zone 2, Ex nR						
Standards	IEC60079-0, IEC60079-15 EN60079-0, EN60079-15 UL844, UL1598, UL1598A CSA C22.2 No.137						
Ex-mark	Ex nR IIC T5/T6 Gc Ex op is tb IIIC T95/T80 Db						
Rated Voltage	AC 100-277V 50/60Hz AC 220-480V 50/60Hz DC 12-36V						
Rated Wattage(W)	20W	40W	60W	80W	100W	150W	200W
Luminous Flux(LM)	2800	5600	8400	11200	14000	21000	28000
Color Temperature	2700K-5000K						
IP Grade	Wet Locations, Type 4X, IP66						
Ambient Temperature	-40° C ~ +55° C / -40° F ~ +131° F						
Cable Entry	M25x1.5 or NPT 3/4"						
Terminals	Terminals blocks ≤2.5mm <sup>2</sup> , cable diameter 10-14mm						
Installation	Ceiling / Wall / Pendant						
Beam Angle	40° , 60° , 90° , 120°						

## Mounting Options & Dimensions (mm/inch)

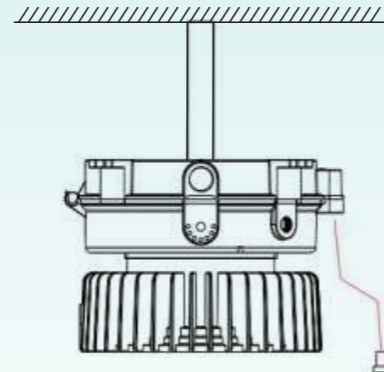
C: Ceiling Type



W: Wall Type



P: Pendant Type



## Catalogue Numbering System

SVM-	1x20	C	N	W	V	1
Lamp	Mounting Type	Cable Entry	Color Temperature	Voltage	Beam angle	
20-20W;	C: Ceiling	N-NPT 3/4"	C-Cool(5000K)	V1:100-277V AC	1-120°	
40-40W;	P: Pendant	M-M25x1.5	N-Nature(4000K)	V2:200-480V AC	2-90°	
60-60W;	W1: Wall 30°		W-Warm(2700K)	V3:12-36V DC	3-60°	
80-80W ;					4-40°	
100-100W;						
150-150W;						
200-200W						

## SCP Series LED Canopy Luminaires

Class I, Div.2, Group A, B, C, D    UL/cUL Listed  
 Class II, Div. 1, Group E, F, G    IECEx/ATEX/CE  
 Class III    Simultaneous Presence  
 Class I, Zone 2, Ex eb op is    Wet Locations, Type 4X, IP66



Model	Luminous Flux(LM)	Wattage	Lumen/Wattage	Equivalent HID luminaire
SCP-40W	4800	40W	120	100-150W
SCP-60W	7200	60W	120	175-250W
SCP-80W	9600	80W	120	250-320W
SCP-100W	12000	100W	120	320-400W
SCP-120W	14400	120W	120	400-600W
SCP-150W	18000	150W	120	600-750W



## Applications

- For areas with mounting heights of 10-50ft (3-15m)
- Gas station canopy, CNG fueling station canopy, industrial fueling station canopy, truck stops, low-medium bay canopy
- Locations requiring continuous and consistent light levels in extreme ambient temperatures
- Where extremely corrosive, wet, dusty, hot and/or cold conditions exist; Type 4X, marine, wet locations and hose-down environments
- Classified and hazardous locations

## Features

- Flat panel structure, high intensity aluminium alloy housing
- Clear and commercial shape, lightweight ease for installation and maintenance.
- Die cast aluminium housing reduce the temperature rise
- Unique vertical fins at two sides optimize the heat sink performance
- Latest LED Technology: Cree/Nichia high efficiency LED exceed 140lm/w, fixture lumen efficiency exceed 140 lm/w
- Energy-efficient technology: up to 75% energy savings over HID fixtures
- Various mounting option, easy wiring
- Operating Ambient Temperature: -40° C ~ +55° C
- Beam Angel: 120° , 90° , 60° , 40°






## International Certifications

### IEC Standard

IEC60079-0, IEC60079-2, IEC60079-6,  
IEC60079-7, IEC60079-11  
Ex eb op is IIB T5/T6 Gc  
Zone 2; Zone 22  
IP66

### EU Standard

EN60079-0, EN60079-2, EN60079-6,  
EN60079-7, EN60079-11  
 II 2 G Ex eb op is IIB T5/T6 Gc  
Zone 2; Zone 22  
IP66

### NEC & CEC Standard

Class I, Div 2, Group A, B, C, D  
Class II, Div.1, Group E, F, G  
Class III  
Wet Locations, Type 4X, IP66

### UL Standard

UL844, UL1598, UL1598A

### CSA Standard

CSA C22.2 No.137

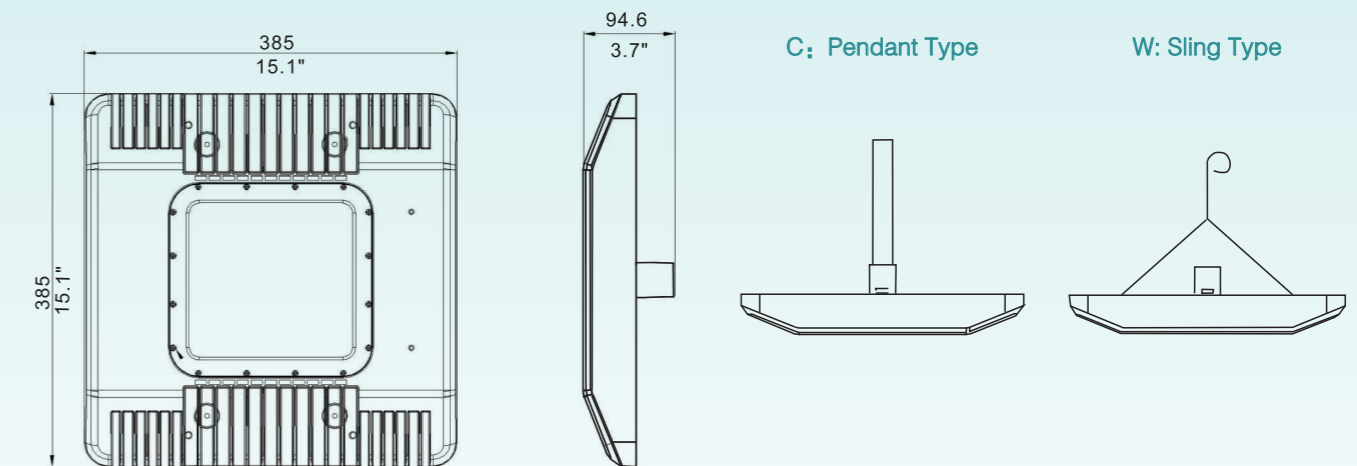
## Standard Materials

- Housing: Die cast aluminum with anti-corrosion powder coat, grey
- Lens: Heat-resistant and impact-resistant tempered glass
- Gaskets: Silicone

## Technical Datasheet

Classification	Class I, Div 2, Group A, B, C, D Class II, Div.1, Group E, F, G Class III Class I, Zone 2, Ex eb op is					
Standards	IEC60079-0, IEC60079-2, IEC60079-6, IEC60079-7, IEC60079-11 EN60079-0, EN60079-2, EN60079-6, EN60079-7, EN60079-11 UL844, UL1598, UL1598A CSA C22.2 No.137					
Ex-mark	Ex eb op is IIB T5/T6 Gc Ex op is tb IIIC T80 Db					
Rated Voltage	AC 100-277V 50/60Hz DC 12-36V					
Rated Wattage(W)	40W	60W	80W	100W	120W	150W
Luminous Flux(LM)	4800	7200	9600	12000	14400	18000
Color Temperature	2700K-5000K					
IP Grade	Wet Locations, Type 4X, IP66					
Ambient Temperature	-40° C ~ +55° C / -40° F ~ +131° F					
Cable Entry	M25x1.5 or NPT 3/4"					
Terminals	Terminals blocks ≤ 2.5mm <sup>2</sup> , cable diameter 10-14mm					
Installation	Pendant / Sling					
Beam Angle	40°, 60°, 90°, 120°					

## Mounting Options & Dimensions (mm/inch)



## Catalogue Numbering System

SCP	1x20	C	N	W	V	1
Lamp	Mounting Type	Cable Entry	Color Temperature	Voltage	Beam angle	
40-40W;	P: Pendant	N-NPT 3/4"	C-Cool(5000K)	V1:100-277V AC	1-120°	
60-60W;	S: Sling	M-M25x1.5	N-Nature(4000K)	V2:12-36V DC	2-90°	
80-80W;			W-Warm(2700K)		3-60°	
100-100W;					4-40°	
120-120W;						
150-150W						

## SEG Series LED Emergency Luminaires

Class I, Div.1, Group A,B,C,D	Hazardous Locations
Class II, Div.1, Group E,F,G	UL/cUL Listed
Class III	Wet Locations, Type 4X,IP66
Class I, Zone 1, Zone 2,Ex d	IECEx/ATEX



### Applications

- In area requiring emergency illumination during failure or interruption of power
- Oil and gas plants, oil terminals, refineries, petrochemical and chemical plants, waste and sewage treatment facilities, food processing facilities, breweries and other industrial manufacturing facilities
- In area where corrosion, vibration, moisture, dirt and fibers
- Classified and hazardous locations where flammable gases or vapors may present due to abnormal, unusual or accidental conditions

### Features

- Metallic and gasketed housing to endure harshest and corrosion environment
- Two assembled LED lamp heads, adjustable to focus light where you need it, resistant to corrosion, impact and water
- Lightweight, compact size and mounting feet ease installation and allow placement in confined area
- Two NPT3/4 drilled hubs and blind plugs to right and left feed
- Rugged, long life, maintenance-free, nickel cadmium battery or Ni-MH battery, last for emergency operation time at 10W LED for 120 minutes or 180 minutes
- Factory-installed self-test, monitoring and diagnostics device to reduce the costly maintenance checks
- Solid battery charger, long-life and reliable, prevent deep discharge by disconnecting luminaires from battery automatically
- Wall mounting and pendant mounting for option

### Technical Datasheet

Ex-mark	Ex d IIB T4 Gb
Rated Voltage	AC 220V 50/60Hz, DC 12/24/36V
Rated Wattage(W)	2x5W LED
Emergency Duration	120min or 180min
Battery Specification	Nickel Cadmium battery or Ni-MH battery
Luminous Flux(Lm)	1400Lm
IP Grade	IP66
Ambient Temperature	-20° C~ +40° C / -4° F~+104° F
Cable Entry	NPT1/2" or NPT3/4" or M25 x 1.5
Terminals	Terminal blocks ≤2.5mm <sup>2</sup> , cable diameter 10-14mm
Installation	Wall / Pendant
Weight	3.2Kg

### Certifications and Compliances

#### IEC Standard

IEC60079-0, IEC60079-1, IEC60079-11  
Ex d IIB T4 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### EU Standard

EN60079-0, EN60079-1, EN60079-11  
⚠ II 2 G Ex d IIB T4 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### NEC & CEC Standard

Clase I, Div 1, Grupo A, B, C, D  
Clase II, Div 1, Grupo E, E, G  
Class III  
Wet Locations, Type 4X, IP66

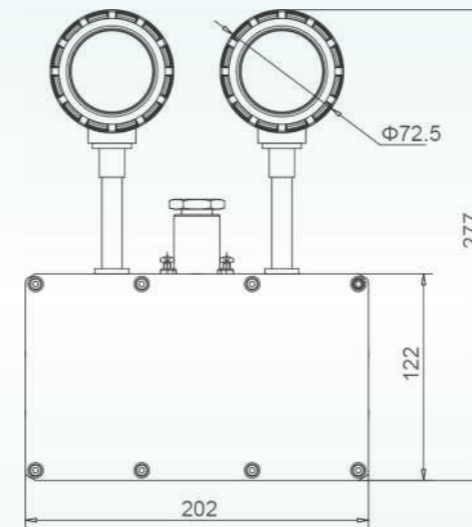
#### UL Standard

UL844, UL1598, UL1598A

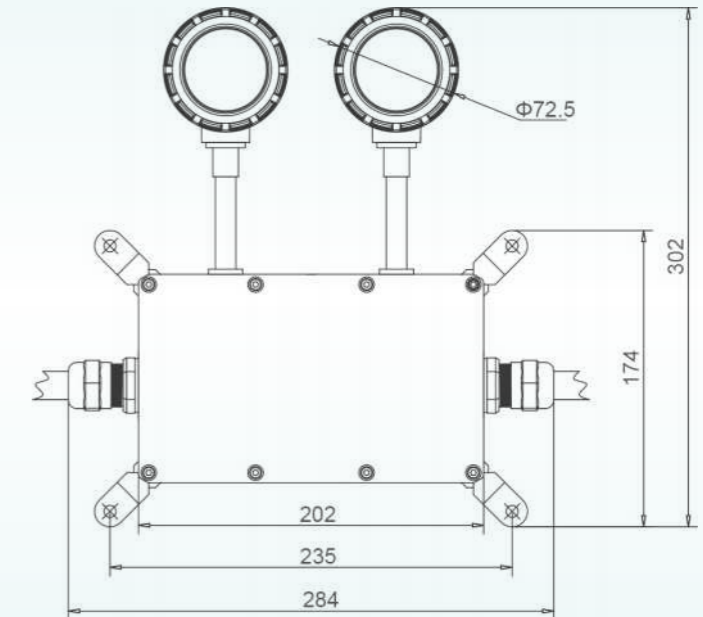
#### CSA Standard

CSA C22.2 No.137

### Mounting Options & Dimensions (mm)



Pendant Type



Wall Type

## SES Series LED Exit Signs Luminaires

Class I, Div.1, Group A, B, C, D	Hazardous Locations
Class II, Div.1, Group E, F, G	UL/cUL Listed
Class III	Wet Locations, Type 4X, IP66
Class I, Zone 1, Zone 2, Ex d	IECEX/ATEX



### Applications

- In area requiring illumination for directional exit signs and distinct, highly visible exit marking
- Classified and hazardous locations where flammable gases, vapors or combustible dust and fibers present

### Features

- Factory-sealed die-cast aluminum housing, to resist to corrosion, impact
- Long life LED lamp with high brightness light for exit direction
- Edge lighting of exit sign panel, made of impact-resistant acrylic, excellent visibility with no guard, easing the cleaning
- "EXIT" legend with alternative wings, right, left, left and right, stand out boldly and clearly, simple modification for any letters and images
- Heavy-duty nickel cadmium battery or Ni-MH battery, emergency lighting at 5W LED for 120min 180min
- Self-test, monitoring and diagnostics device to ease the maintenance
- Ceiling mounting, wall mounting and pendant mounting for option

### Technical Datasheet

Ex-mark	Ex e d IIC T4 Gb
Rated Voltage	AC 90-265V 50/60Hz, DC 12/24/36V
Rated Wattage(W)	5W LED
Emergency Duration	120min or 180min
Battery Specification	Nickel Cadmium battery or Ni-MH battery
IP Grade	IP66
Ambient Temperature	-20° C ~ +40° C / -4° F ~ +104° F
Cable Entry	NPT1/2" or NPT3/4" or M25 x 1.5
Terminals	Wires ≤ 2.5mm <sup>2</sup>
Installation	Wall/Pendant
Weight	2Kg

### Certifications and Compliances

#### IEC Standard

IEC60079-0, IEC60079-1  
Ex e d IIC T4 Gb/DIP A21 TA, T4  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### EU Standard

EN60079-0, EN60079-1  
⚠ II 2 G Ex e d IIC T4 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### NEC & CEC Standard

Class I, Div 1, Group A, B, C, D  
Class II, Div 1, Group E, F, G  
Class III  
Wet Locations, Type 4X  
IP66

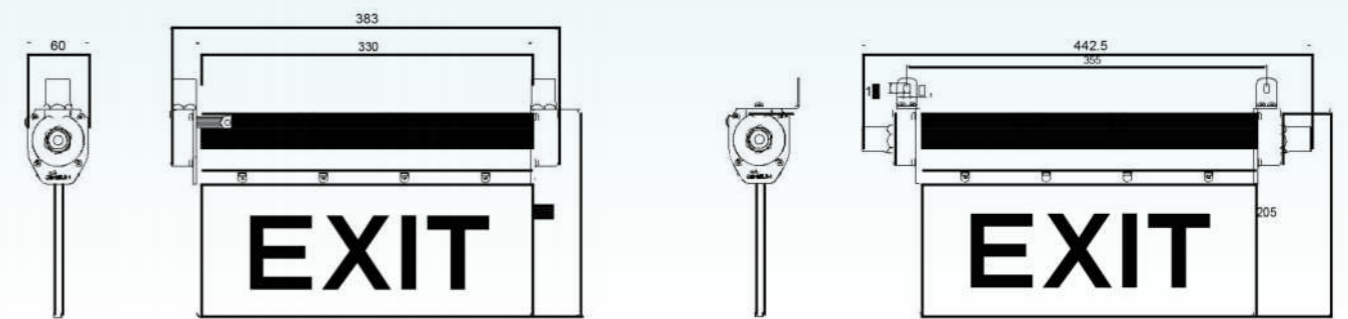
#### UL Standard

UL844, UL1598, UL1598A

#### CSA Standard

CSA C22.2 No.137

### Mounting Options & Dimensions (mm)



Pendant Type

Wall Type

### Panel Designing



A Type



B Type



C Type



D Type



E Type



F Type



## SAV Series Audio and Visual Luminaires

Class I, Div.1, Group A, B, C, D	Hazardous Locations
Class II, Div.1, Group E, F, G	UL/cUL Listed
Class III	Wet Locations, Type 4X, IP66
Class I, Zone 1, Zone 2, Ex d	IECEX/ATEX



### Applications

- In area requiring audio and visual warning when emergency
- Oil and gas plants, oil terminals, refineries, petrochemical and chemical plants, waste and sewage treatment facilities, food processing facilities, breweries and other industrial manufacturing facilities
- In area where corrosion, vibration, moisture, dirt and fibers
- Classified and hazardous locations where flammable gases or vapors may present due to abnormal, unusual or accidental conditions.

### Features

- Audio function with 110–120dB sound intensity, visual function with 45 or 136 times/mins in Red, Green, Yellow colors.
- Audio and visual type, only visual type for option (flash type)
- Customized photocell for option when necessary
- Horizontal mounting type, pendant mounting type for option
- Body: Die-cast aluminum, epoxy coating (grey)
- Len: Shock and temperature resistant borosilicate glass
- Bolts and screws: Stainless steel

### Technical Datasheet



Ex-mark	II 2 G Ex d ib IIC T6 Gb			
	III 2 D Ex td A21 IP66 T80°C			
Rated Voltage	AC 110/220–240/380V 50/60Hz DC/AC 12/24/36V			
Rated Wattage(W)	5W LED			
Flash Frequency(times/min)	A–Audio and Visual type	F–Flash type	L–Low Luminous Intensity type	P–Photocell Low Luminous Intensity type
	136	136	45	45
Sound Intensity	110–120dB			
Ambient Temperature	–20° C ~ +40° C / –4° F ~ +104° F			
Cable Entry	NPT3/4" or M25*1.5			
Terminals	Terminal blocks ≤ 2.5mm <sup>2</sup> , cable diameter 10–14mm			
Installation	Horizontal Type/Ceiling Type / Pendant Type			

### Certifications and Compliances

#### IEC Standard

IEC60079–0, IEC60079–1, IEC60079–11  
Ex d ib IIC T6 Gb  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### EU Standard

EN60079–0, EN60079–1, EN60079–11  
 II 2 G Ex d ib IIC T6 Gb  
 III 2 D Ex td A21 IP66 T80°C  
Zone 1, Zone 2; Zone 21, Zone 22  
IP66

#### NEC & CEC Standard

Clase I, Div 1, Grupo A, B, C, D  
Class II, Div 1, Group E, F, G  
Class III  
Wet Locations, Type 4X  
IP66

#### UL Standard

UL844, UL1598, UL1598A

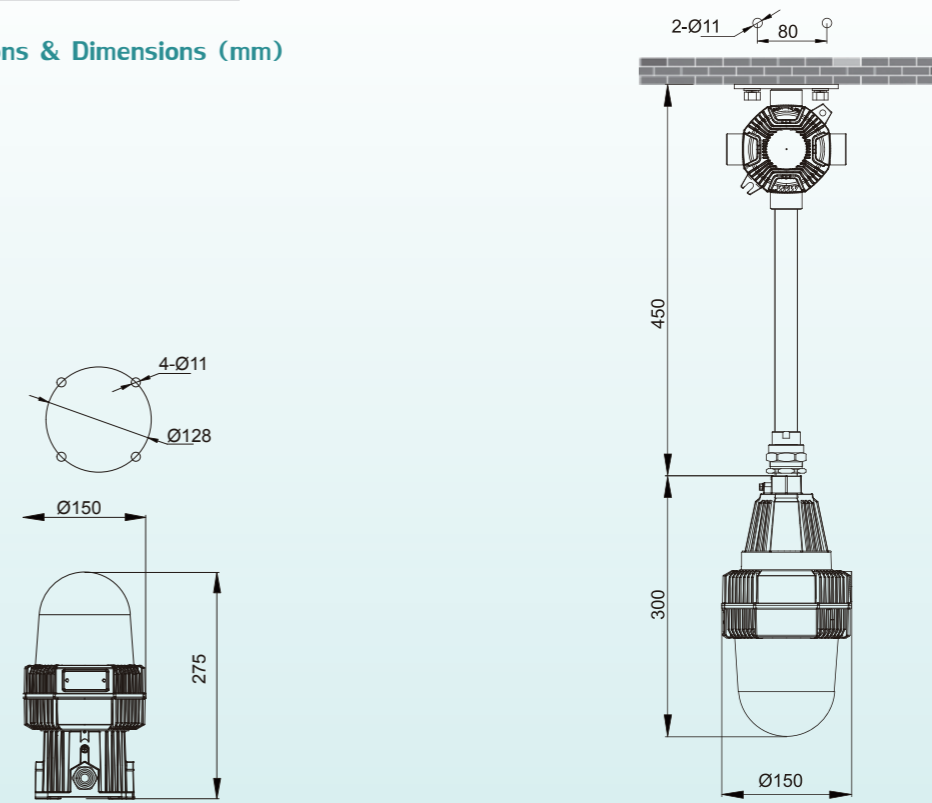
#### CSA Standard

CSA C22.2 No.137

### Catalogue Numbering System

<b>SAV</b>	<b>H</b>	<b>R</b>	<b>C</b>	<b>O</b>
	Alarm Type	Lamp Color	Mounting Type	
	A–Audio and Visual type	R–Red	C–Horizontal /Ceiling Type	0–Without protected guard
	F–Flash type	G–Green	P–Pendant Type	1–With protected guard
	L–Low Luminous Intensity type	Y–Yellow		
	P–Photocell Low Luminous Intensity type			

### Mounting Options & Dimensions (mm)



Horizontal Type/Ceiling Type

Pendant Type