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Continued attention to people in high-risk operations
To provide cutting edge signal, lighting, control products
and solutions worldwide

AVIATION OBSTRUCTION LIGHTS PRODUCT CATALOG



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ABOUT NANHUA

Nanhua Electronics Co.,Ltd. was established in 1990 focusing on research and development of the industrial products for harsh industrial application, concerning people working under high risk condition like ports, mines, metallurgical plants, wind power, tall buildings, vessels, etc. Our engineers frequently visit the application sites in order to research and develop the most reliable industrial signal, lighting and control products.

Nanhua keeps rigorous products R&D and quality control, certified by ISO9001:2015 quality management system. We award more than 77 patents, 135 FAA, ICAO, SABS, CAAC test reports and UL&cUL, SAA, CE certificates issued by world famous third-party laboratory, authoritative and approval.

Nanhua designs and manufactures industrial LED lighting fixtures available for a wide variety of applications, including high vibration, corrosion, hazardous locations, and marine environments. Nanhua LED lighting fixtures had been installed on container cranes worldwide and we are ideally committed to improve crane performance and reduce maintenance costs.

Today, NANHUA products and solutions have been successfully applied to the global ports, mining sites, airports, wind power and other industries. Our company has become an execution standard in part of industrial fields and our products are regarded as a high-performance solution. We will continue to insist the concept of reliable and safe research, to keep exploring the latest technology and to develop new products to help customers solve problems and realize the improvement of customer value.

Application Solution

High-rise Building

Installation Points:

Aviation obstruction lights are used to mark the overall contour of buildings, including the highest points and the extreme edges of the buildings.

Lamps Layering: In vertical direction, installation distance between low intensity aviation light and medium intensity aviation light type B shall not exceed 52m, and installation distance between medium intensity aviation light Type A and high intensity aviation light shall not exceed 105m.

Horizontal Radial: Can refer to setting up the obstruction lights in a distance of about 45m. Obstruction lights on the same building or group of buildings should flash simultaneously.

H<45m Low intensity obstruction lights type B or medium intensity obstruction lights type B shall be installed on the top.

45m≤H<105m Medium intensity obstruction lights type B shall be installed on the top, Low intensity obstruction lights type B shall be installed at intermediate levels.

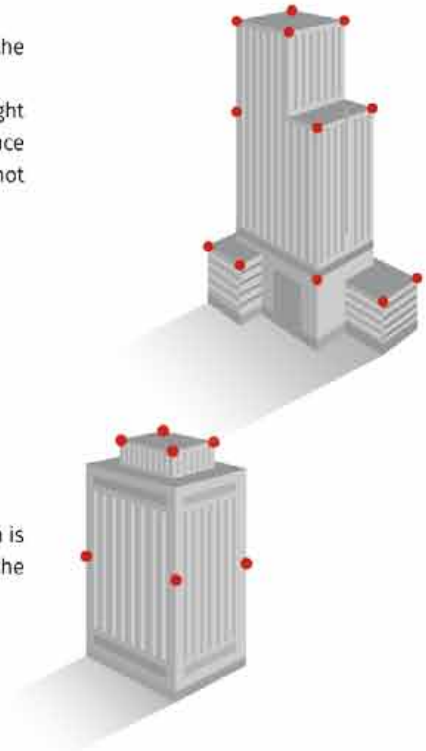
105m≤H<150m Medium intensity obstruction lights type A shall be installed on the top, medium intensity obstruction lights type B shall be installed at intermediate levels.

H≥150m High intensity obstruction lights type A shall be evenly installed on the location which is not exceeding 105m, medium intensity obstruction lights type B shall be installed between the layers of high intensity obstruction lights.

Design Reference Standards:

CAAC standard «MH5001-2019» «MH/T6012-2015»

ICAO «ICAO Annex 14 Volume I-2018»



Lamps Layering: In vertical direction, Installation distance between low intensity aviation light and medium intensity aviation light type B shall not exceeding 52m, and installation distance between medium intensity aviation light Type A and high intensity aviation light shall not exceeding 105m.

The obstruction lights on the same tower should flash simultaneously.

H<45m Low intensity obstruction lights type B or medium intensity obstruction lights type B shall be installed on the top.

45m≤H<105m Medium intensity obstruction lights type B shall be installed on the top and low intensity obstruction lights type B shall be installed at intermediate levels.

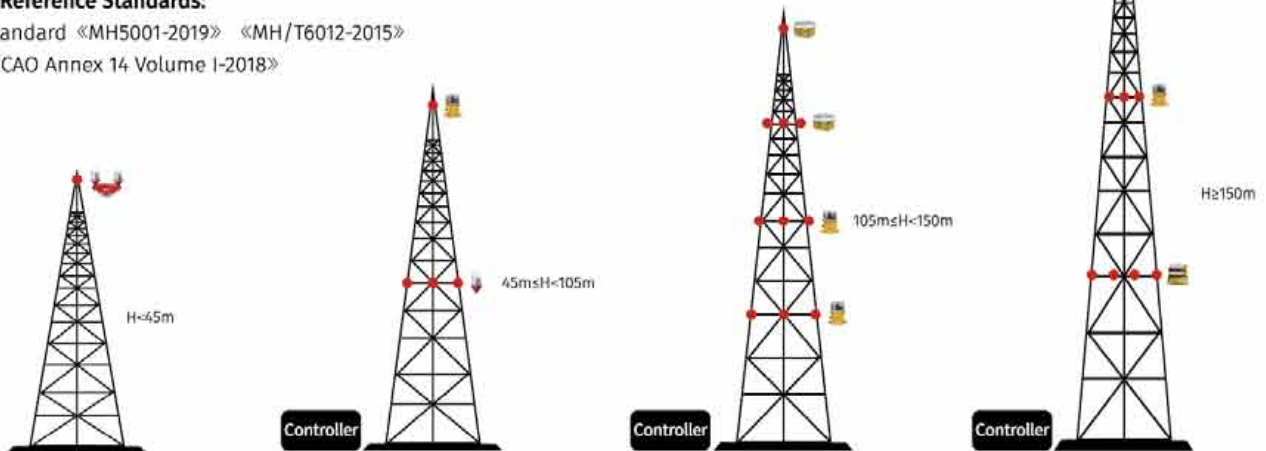
105m≤H<150m Medium intensity obstruction lights type A shall be installed on the top and medium intensity obstruction lights type B shall be installed at intermediate levels.

H≥150m High intensity obstruction lights type A layers shall be spaced at uniform intervals not exceeding 105m, and the medium intensity obstruction lights type B shall be installed between the high intensity obstruction lights stratification.

Design Reference Standards:

CAAC standard «MH5001-2019» «MH/T6012-2015»

ICAO «ICAO Annex 14 Volume I-2018»



Installation Points:

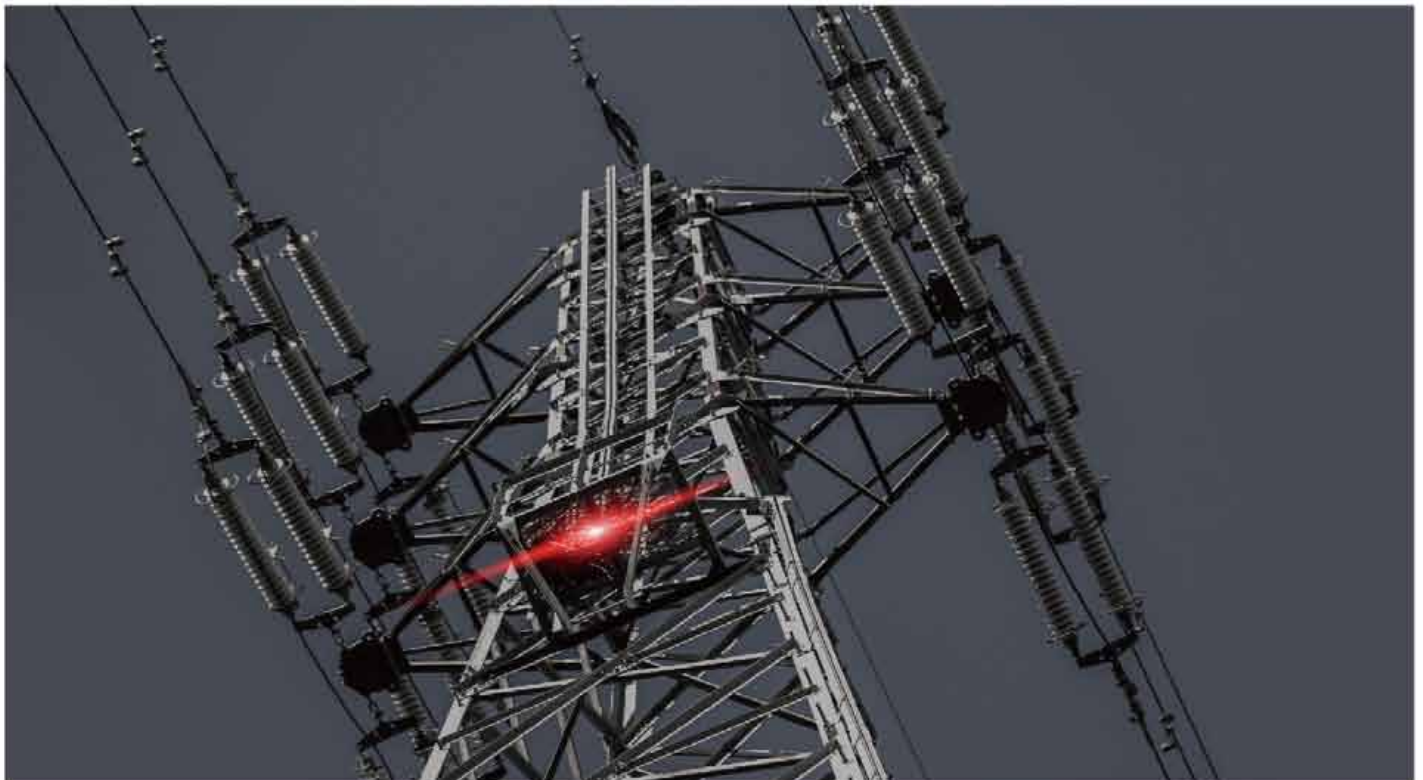
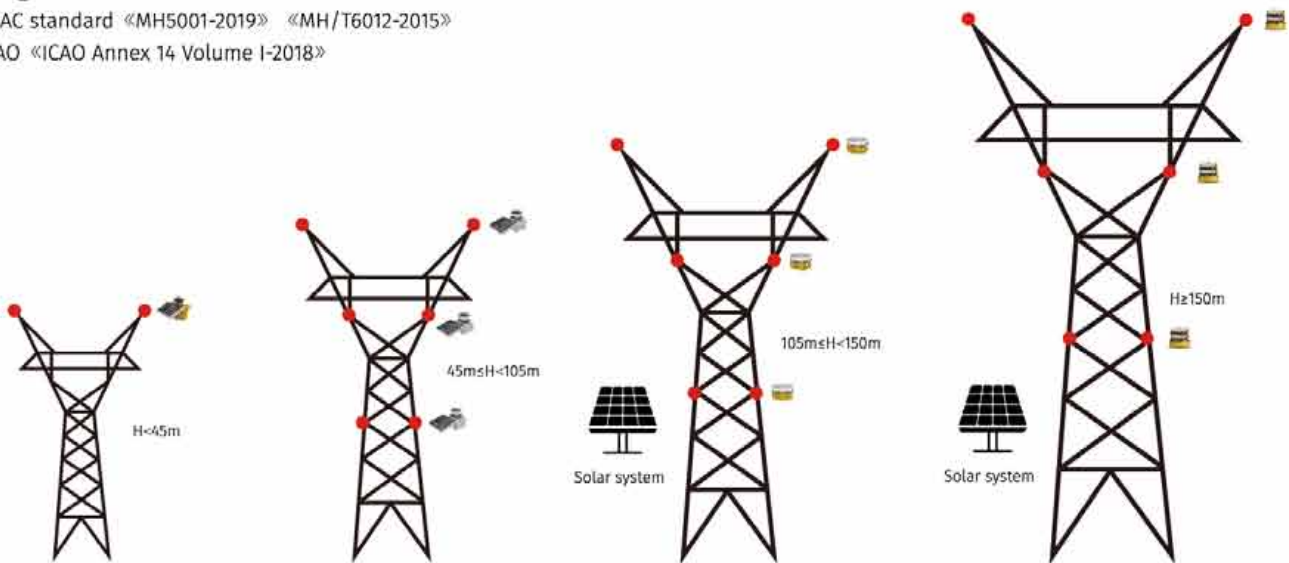
The high voltage transmission tower is generally marked with high intensity obstruction lights type B. Shall be located in 3 levels, at the top of the tower, at the lowest level of the catenary of the wires or cables, at approximately midway between these two levels.

The obstruction lights on the same tower should flash sequentially or flash simultaneously. Airborne warning balls should be installed on overhead cables in equal distance of not exceeding 30m. Solar powered systems are often used as off-line power supplies for obstruction lights.

Design Reference Standards:

CAAC standard «MH5001-2019» «MH/T6012-2015»

ICAO «ICAO Annex 14 Volume I-2018»



Installation Points:

Obstruction lights are used to mark the overall contour of bridges, including the highest points and the extreme edges of the buildings.

Lamps Layering: In vertical direction, Installation distance between low intensity aviation light and medium intensity aviation light type B shall not exceeding 52m, and installation distance between medium intensity aviation light Type A and high intensity aviation light shall not exceeding 105m.

The obstruction lights on the same tower should flash simultaneously.

H<45m Low intensity obstruction lights type B or medium intensity obstruction lights type B shall be installed on the top.

45m≤H<105m The medium intensity obstruction lights type B shall be installed on the top and low intensity obstruction lights type B shall be installed at intermediate levels.

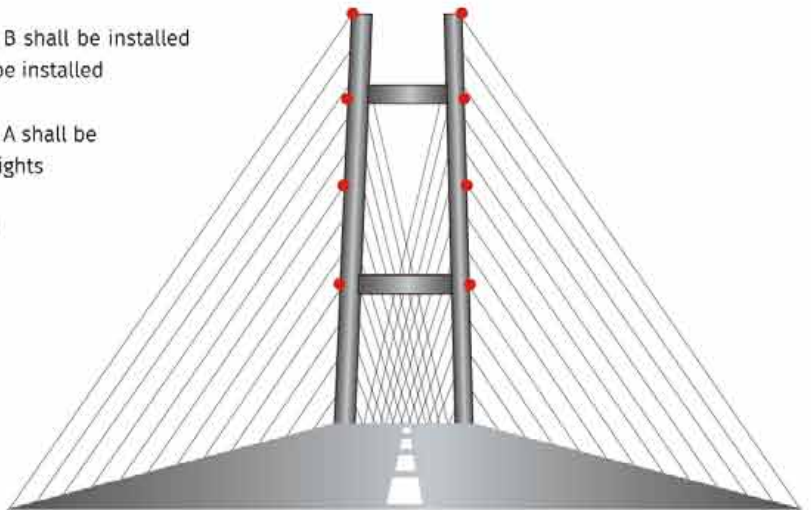
105m≤H<150m The medium intensity obstruction lights type A shall be installed on the top, and the medium intensity obstruction lights type B shall be installed at intermediate levels.

H≥150m High intensity obstruction lights type A layers shall be spaced at uniform intervals not exceeding 105m, and the medium intensity obstruction lights type B shall be installed between the high intensity obstruction lights stratification.

Design Reference Standards:

CAAC standard «MH5001-2019» «MH/T6012-2015»

ICAO «ICAO Annex 14 Volume I-2018»



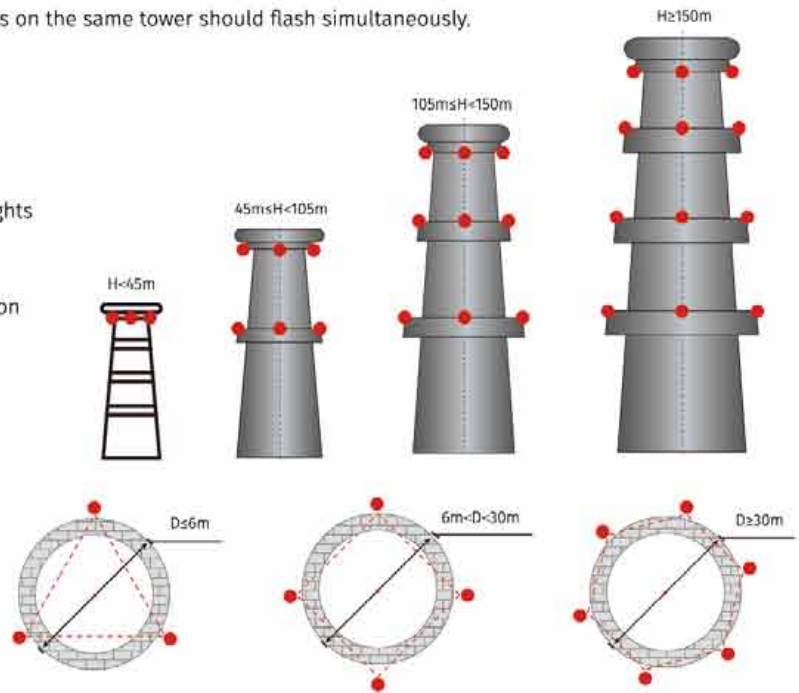
Chimney

Installation Points:

In the case of the particularity of Chimney structure, and the contamination might cause for obstruction lights by the top of chimney. Usually for chimneys not exceeding 150 m, obstruction light shall be installed on location of 1.5 m-3 m down from top, for the chimney over 150m, the obstruction lights shall be installed on location of 7m down from the top.

Lamps Layering: In vertical direction, Installation distance between low intensity aviation light and medium intensity aviation light type B shall not exceeding 52m, and installation distance between medium intensity aviation light Type A and high intensity aviation light shall not exceeding 105m. The obstruction lights on the same tower should flash simultaneously.

- H<45m** Low intensity obstruction lights type B or medium intensity obstruction lights type B shall be installed on the top.
- 45 m≤H<105m** Medium intensity obstruction lights type B shall be installed on the top and low intensity obstruction lights type B shall be installed at intermediate levels.
- 105m≤H<150m** Medium intensity obstruction lights type A shall be installed on the top and medium intensity obstruction lights type B shall be installed at intermediate levels.
- H≥150m** High intensity obstruction lights type A layers shall be spaced at uniform intervals not exceeding 105m, and the medium intensity obstruction lights type B shall be installed between the high intensity obstruction lights stratification.



Design Reference Standards:
 CAAC standard «MH5001-2019» «MH/T6012-2015»
 ICAO «ICAO Annex 14 Volume I-2018»



Schematic diagram of the number of obstruction lights installed on each level.

The number of obstruction lights installed on each level depends on the outer diameter of the chimney. Refer to recommended using quantity on the right figure:

- D≤6m** Each layer shall be set 3 units of obstruction lights.
- 6m<D<30m** Each layer shall be set 4 units of obstruction lights.
- D≥30m** Each layer shall be set 6 units of obstruction lights.

Installation Points:

Two obstruction lights should be installed on the top of nacelle. The spacing between the two wind turbines should be bigger than the width of the rotor blades.

The obstruction lights installed on the same wind turbine should flash simultaneously.

H<45m Low intensity obstruction lights type B or medium intensity obstruction lights type B shall be installed on the top of the nacelle.

45 m≤H<105m Medium intensity obstruction lights type B shall be installed on the top of the nacelle.

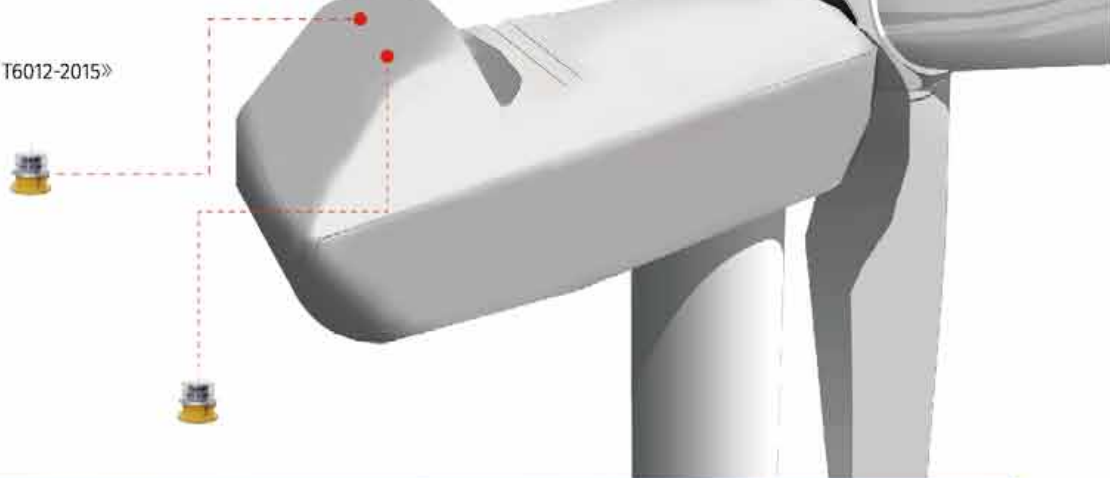
105m≤H<150m Medium intensity obstruction lights type A shall be installed on the top of the nacelle.

H≥150m High intensity obstruction lights type A shall be installed on the top of the nacelle, low intensity obstruction lights type E shall be installed at intermediate levels.

Design Reference Standards:

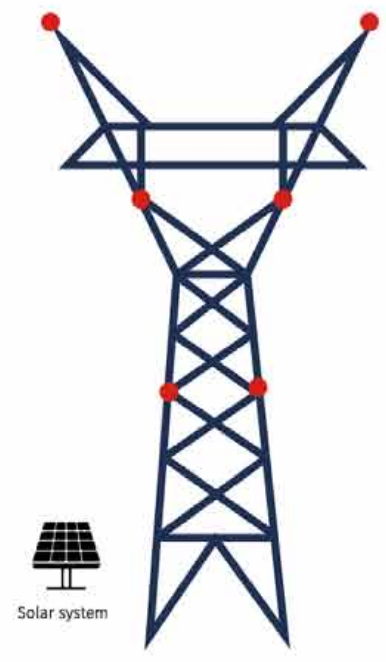
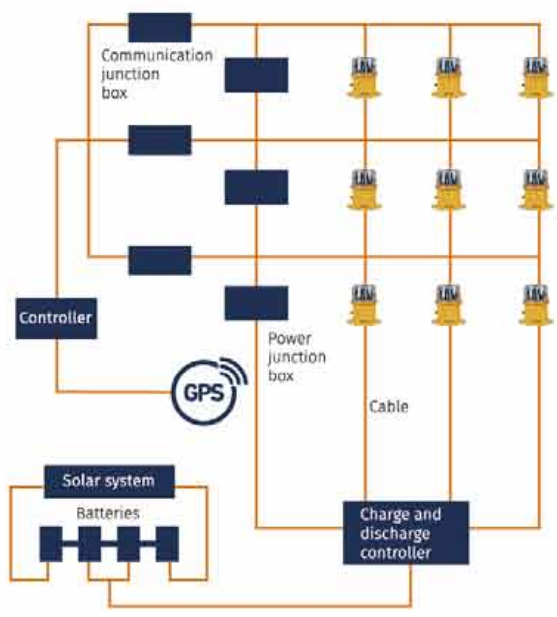
CAAC standard 《MH5001-2019》 《MH/T6012-2015》

ICAO 《ICAO Annex 14 Volume I-2018》



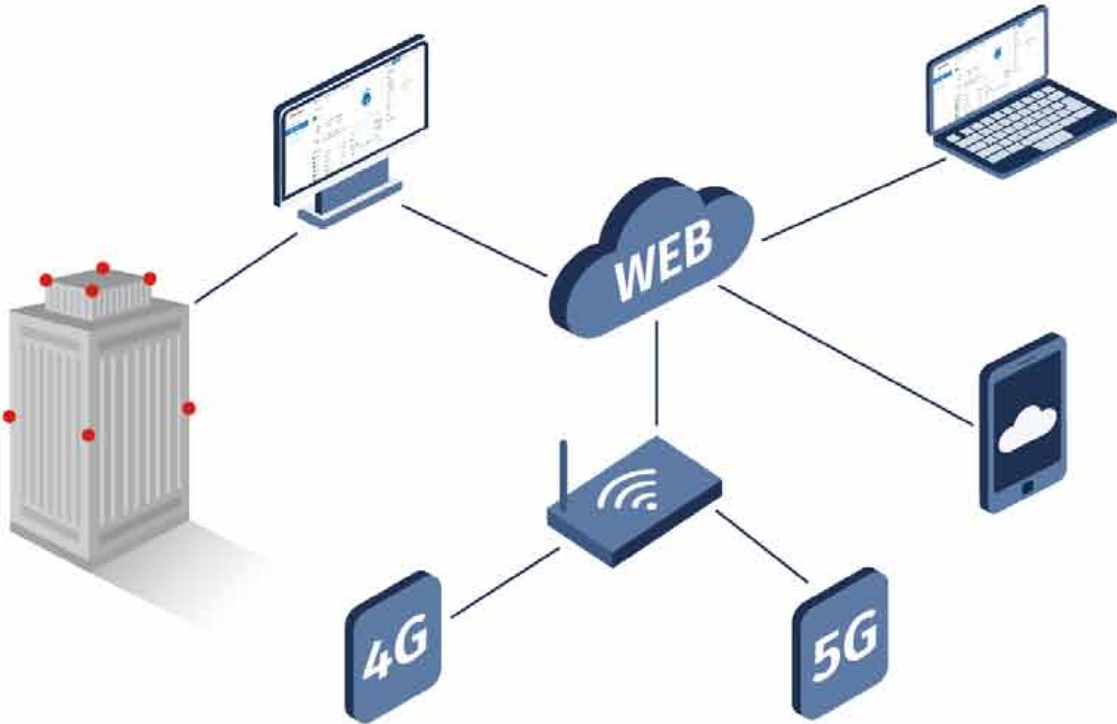
Solar Power Supply System

It is an off-grid power supply system for transmission towers, communication towers, wind turbines, bridges and other places. Adopt clean solar energy and industrial battery energy storage systems to continuously provide working power for aviation obstruction lights. It is necessary to consider the sunshine conditions of the project installation sites, the extreme continuous rainy days, the longitude and latitude etc. As well as the fixing of the solar panel and the protection and installation of the battery.



Intelligent Remote Control System

The intelligent remote control system through the fiber, RS485, GPRS or wifi to set up a large-scale network for monitoring, operation and data acquisition of obstruction lights through the means of the mobile phone, computer etc.



LOW INTENSITY OBSTRUCTION LIGHTS



Low Intensity Obstruction Light Type B LS710



Application

Tower, Chimney, High-rise building, Large bridge
 Large construction machinery, Port machinery,
 Wind turbine.

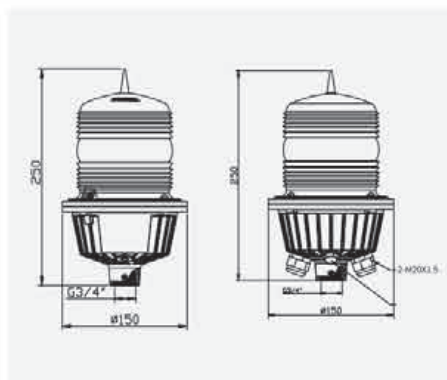
Features

- The optical system uses fresnel lens, high light utilization efficiency and can effectively control the light beam within the required range.
- Based on LED technology, long life, low energy and high efficiency.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
- The base and mounting surface are screwed with G3/4 pipe for easy installation
- The circuit has electromagnetic compatibility and LED constant current drive to extend LED life.
- Fault alarm function.
- With anti-fall device, easy to install and wire.

Flashing or steady burning can switch, flash rate is adjustable.

Mounting dimension

unit: mm



Specifications

Input voltage	AC100V-240V/DC12V/DC24-48V	Signal type	20/30/40/60FPM
Working power frequency	50Hz-60Hz		(Steady burning)
Power consumption	6W	Body material	Aluminum alloy
Light source	LED	Cover material	PC
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	Ambient humidity	10%-95%RH
Photocell on/off level	500Lux	Operating temperature	Ta-40 °C - +70 °C
Intensity	≥32.5cd	IP rate	IP65
Vertical beam spread	≥10°	Wiring method	Bottom M20X1.5
Horizontal beam spread	360°		Cable size 9-14mm
Light color	Red	Body color	Yellow
		Weight	1.0kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»
 ICAO: «ICAO Annex 14 Volume I-2018»

Low Intensity Obstruction Light Type B LS310



Application

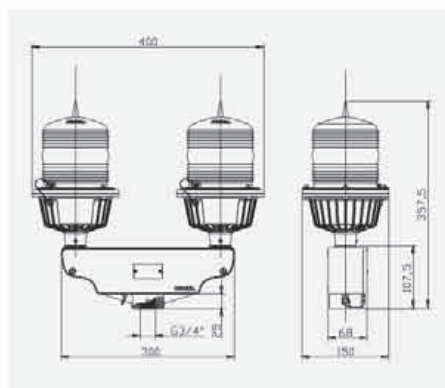
Tower, Chimney, High-rise building, Large bridge
Large construction machinery, Port machinery,
Wind turbine.

Features

- The optical system uses Fresnel lens, high light utilization efficiency and can effectively control the light beam within the required range.
- Based on LED technology, long life, low energy and high efficiency.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
- The base and mounting surface are screwed with G3/4 pipe for easy installation.
- With anti-fall device, easy to install and wire.
- Main-standby lamp fault switching function: when the main lamp is in fault, standby lamp will began operation.
- Photoelectric automatic control function. (can be customized).
- With fault alarm detection and alarm output. (can be customized).
- Stable work, low maintenance costs.

Mounting dimension

unit: mm



Specifications

Input voltage	AC100V-240V/DC48V/DC24V	Flashing duration	150±20ms
Power consumption	6W (Steady burning)	Body material	Aluminum alloy
Light source	LED	Cover material	PC
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	UV resistant rate	UL746C (f1)
Photocell on/off level	500±50Lux	Ambient humidity	10%-95%RH
Intensity	≥32.5cd	Operating temperature	Ta-40 °C - +70 °C
Vertical beam spread	≥10°	IP rate	IP65
Light color	Red	Wiring method	Bottom M20X1.5
Signal type	DC: 30FPM/40FPM/60FPM/(Steady burning) AC: 30FPM/40FPM/50FPM/60FPM	Body color	Yellow
Horizontal beam spread	360°	Weight	4.5 kg.

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»
ICAO: «ICAO Annex 14 Volume I-2018»

Low Intensity Obstruction Light Type A/B LS810



Application

Tower, Chimney, High-rise building, Large bridge
Large construction machinery, Port machinery,
Wind turbine.

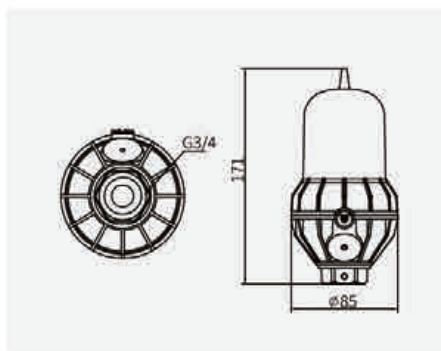
Features

- Based on LED technology, long life, low energy and high efficiency.
 - The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
 - The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
 - The base and mounting surface are screwed with G3/4 pipe for easy installation.
 - The circuit has electromagnetic compatibility and LED constant current drive to extend LED life.
 - Fault alarm function.
 - With anti-fall device, easy to install and wire.
- Flashing or steady burning can switch, flash rate is adjustable.
- Flashing or steady burning can switch, flash rate is adjustable.
 - Stable work, low maintenance costs.



Mounting dimension

unit: mm



Specifications

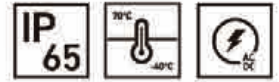
Input voltage	AC110V-AC240V&DC48V/DC12-DC24V	Signal type	30/40/60FPM
Power consumption	4W (Steady burning)		(Steady burning)
Light source	LED	Ambient humidity	10%-95%RH
Electrostatic discharge	MH/T6012-2015 Contact discharge 8kV	Operating temperature	Ta-40 °C - +55 °C
Photocell on/off level	500Lux	IP rate	IP66
Intensity	Type A: ≥10cd Type B: ≥32.5cd	Wiring method	Bottom G3/4
Vertical beam spread	≥10°	Body material	Aluminum alloy
Horizontal beam spread	360°	Cover material	PC
Light color	Red	Body color	Red/Yellow
		Weight	0.3 kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume I-2018»

Low Intensity Obstruction Light LS720



Application

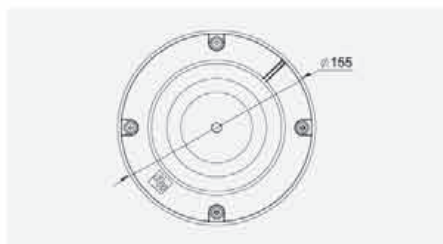
Towers, Chimneys, High-rise buildings, Bridges, Large port machinery, Large construction machinery, Wind turbine.

Features

- Professional optical design, the high-low temperature resistant PC lens is used for ensure the long-term operation and meets the optical requirements.
- Based on LED technology, long life, low energy and high efficiency.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
- The base and mounting surface are screwed with G3/4 pipe for easy installation.
- The circuit has electromagnetic compatibility and LED constant current drive to extend LED life.
- Fault alarm function.
- With anti-fall device, easy to install and wire.
- Flashing or steady burning can switch, flash rate is adjustable.
- Stable work, low maintenance costs.

Mounting dimension

unit: mm



Specifications

Input voltage	AC100V-240V/DC24-48V	Signal type	Steady burning(flashing can be customized)
Power consumption	6W (Steady burning)		
Light source	LED	Color	Red
Lightning surge	IEC61000-4-5 L- L 2kV	Material	Base: Die casting aluminum Housing: PC
	IEC61000-4-5 L- G 4kV		
Electrostatic discharge	IEC61000-4-2 Contact	Ambient humidity	10%-95%RHP
	discharge 8kV		
Photocell on/off level	50-500Lux	Operation temperature	Ta-40℃ ~ +70℃
Intensity	+6° ~ +10° ≥100cd	IP Rate	IP65
	-3° ~ +90° >10cd	Wiring method	G3/4" Suitable for cable diameter 9-14mm
Vertical beam spread	93°	Body color	Yellow
Horizontal degree	360°	Weight	1.0 kg

Design reference standards

CASA: CASA-139

Dual Low Intensity Obstruction Light Type A/B LS810D



Application

Tower, Chimney, High-rise building, Large bridge
 Large construction machinery, Port machinery,
 Wind turbine.

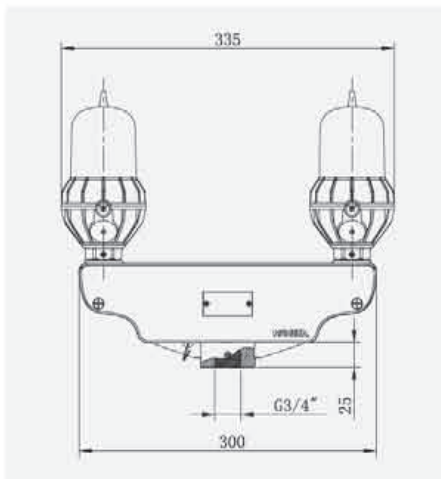
Features

- Based on LED technology, long life, low energy and high efficiency.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
- The base and mounting surface are screwed with G3/4 pipe for easy installation.
- With anti-fall device, easy to install and wire.
- Main-standby lamp fault switching function, when the main lamp is in fault, standby lamp will began operation, safe and reliable.
- Photoelectric automatic control function. (can be customized).
- Fault alarm output function. (can be customized)
- Stable work, low maintenance costs.



Mounting dimension

unit: mm



Specifications

Input voltage	AC110V-240V/DC48V/ DC12V-DC24V	Signal type	30FPM/40FPM/60FPM/ (Steady burning)
Power consumption	4W (Steady burning)	Body material	Aluminum alloy
Light source	LED	Cover material	PC
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	UV resistant rate	UL746C (f1)
Photocell on/off level	500±50Lux	Ambient humidity	10%-95%RH
Intensity	≥32.5cd	Operating temperature	Ta-40 °C - +70 °C
Vertical beam spread	≥10°	IP rate	IP65
Horizontal beam spread	360°	Body color	Red/Yellow
Light color	Red	Weight	2.3 kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»
 ICAO: «ICAO Annex 14 Volume I-2018»

Low Intensity Obstruction Light Type C LS730U



Application

Designed for special vehicles used in airport, excluding "Follow Me" vehicles.

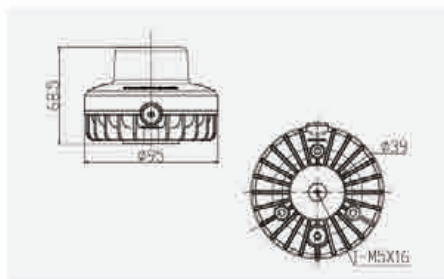
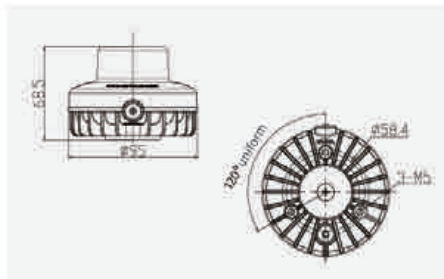
Features

- The optical system uses optical lens, high light utilization efficiency and can effectively control the light beam within the required range.
- Adopt high powered LED, long life, low energy and high efficiency.
- Control circuit use LED constant current drive to extend LED life.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
- Photoelectric automatic control function. (can be customized)
- Convenient installation, Screws fixing and magnetic fixing type optional.
- With vehicle plug.
- Stable work, low maintenance costs.



Mounting dimension

unit: mm



Specification

Input voltage	DC12-24V	Vertical beam spread	≥12°
Power consumption	1.5W (Flashing)	Horizontal beam spread	360°
Light source	LED	Signal type	80FPM
Light color	Yellow, blue	LED lifespan	≥100,000h
Intensity	≥50cd	Photocell on/off level	400±100Lux
Operating temperature	Ta-40°C - +70°C	IP rate	IEC60529 IP65
Ambient humidity	10% - 95% (non-condensing)	Weight	0.5kg
Material	Body: Aluminum alloy, Cover: PC		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume I-2018»

Low Intensity Obstruction Light Type E LS812



Application

Tower, Chimney, High-rise building, Large bridge
Large construction machinery, Port machinery,
Wind turbine.

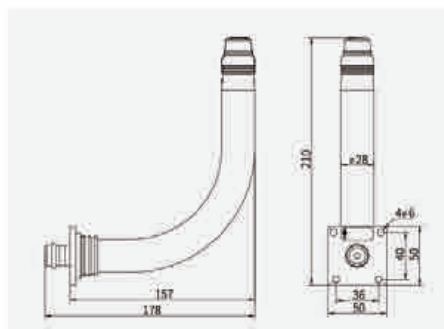
Features

- Professional optical design, the high-low temperature resistant PC lens is used for ensure the long-term operation and meets the optical requirements.
- Based on LED technology, long life, low energy and high efficiency.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The mounting bracket is made of stainless steel 316, with good strength and corrosion resistance.
- The circuit has electromagnetic compatibility and LED constant current drive to extend LED life.
- Stable work, low maintenance costs.



Mounting dimension

unit: mm



Specifications

Input voltage	DC24V	Signal type	Steady burning
Power consumption	Red <5W, Infrared <5W (optional)	Body material	Stainless steel 316
Light source	LED	Housing material	PC
Lightning surge	IEC61000-4-5 L- L 6kV IEC61000-4-5 L-G 6kV	Humidity	10%-95%RH
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	Operating temperature	Ta-40 °C ~ +55 °C
Intensity	≥50cd	IP rate	IP66
Vertical beam spread	10°	Wiring	Lead wire type 15m
Light color	Red	Body color	Yellow
Horizontal beam spread	360°	Weight	0.7 kg (wire excluded)

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume I-2018»

MEDIUM INTENSITY OBSTRUCTION LIGHT



Medium Intensity Obstruction Light Type B LM101



Application

Towers (Telecom, GSM), Smokestacks (heat-engine plant, coking plant, chemical plant etc.), Buildings, Port devise, Construction machinery, Wind turbine.

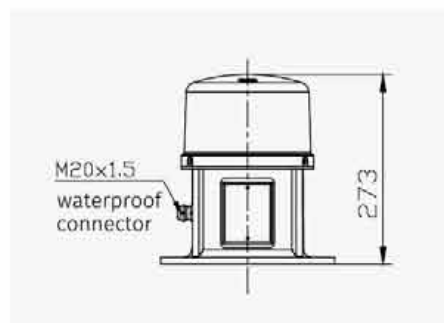
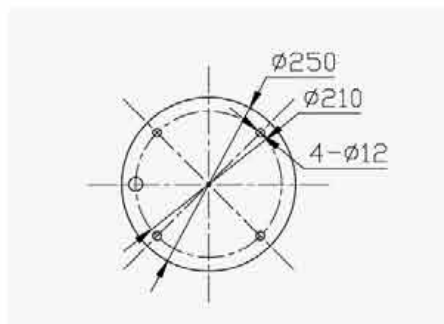
Features

- Based on LED Technology, Optical standardized design.
- Built-in LED protection circuit, stable operation, saving maintenance costs.
- Shockproof and corrosion resistant.
- GPS synchronization can be customized.
- Built-in photocell, can automatic judge the day/night.
- Fault alarm output: Dry contact output



Mounting dimension

unit: mm



Specification

Input voltage	DC48V / AC110-240V (other voltage can be customized)	Light color	Red/White
Power consumption	60W(Steady burning)/30W(40FPM)	LED lifespan	≥100,000h
Light source	High-brightness LED	Ambient humidity	10% - 95% (non-condensing)
Flashing rate	40FPM (other flashing rate can be customized)	Operating temperature	Ta-40 °C - +70 °C
Photocell on/off level	50Lux	IP rate	IP65
Intensity	2000±25%cd	Body material	Aluminum alloy
Vertical beam spread	≥3°	Cover material	PC
Horizontal beam spread	360°	Reflector material	ABS, vacuum plating
		Weight	3.8kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume I-2018»

Dual Medium Intensity Obstruction Light Type B LM212



Application

Towers (Telecom, GSM), Smokestacks (heat-engine plant, coking plant, chemical plant etc.), Buildings, Port devise, Construction machinery, Wind turbine.

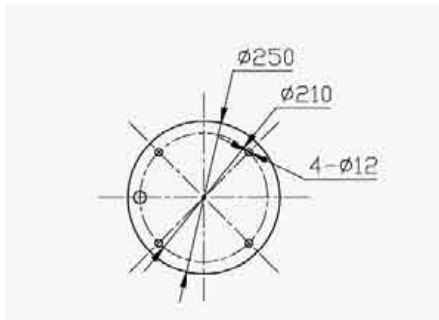
Features

- Based on LED Technology, Optical standardized design.
- Built-in LED protection circuit, stable operation, saving maintenance costs.
- Shockproof and corrosion resistant.
- GPS synchronization can be customized.
- Built-in photocell, can automatic judge the day/night.
- Fault alarm output: Dry contact output.



Mounting dimension

unit: mm



Specification

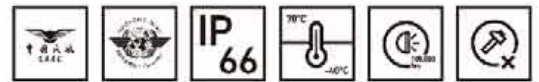
Input voltage	AC100-240V/DC48V	Signal type	Bottom layer working, for backup
Power Consumption	60W(Steady burning) 30W(Flash)	Ambient humidity	10% - 95% (no coagulation)
Lamp source	LED	Operating temperature	Ta-40 °C - +70 °C
Flash rate	40 FPM (customized)	IP Rate	IP65
Photocell on/off level	50Lux	Material	Die casting aluminum
Effective intensity	2000±25%cd	Cover material	PC
Vertical beam spread	≥3°	Reflector material	ABS, Vacuum coating
Horizontal beam spread	360°	Weight	5.5kg
Light Color	Red		
LED Lifespan	≥100,000h		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume I-2018»

Medium Intensity Obstruction Light Type B LM102



Application

Towers (Telecom, GSM), Smokestacks (heat-engine plant, coking plant, chemical plant etc.), Buildings, Port devise, Construction machinery, Wind turbine.

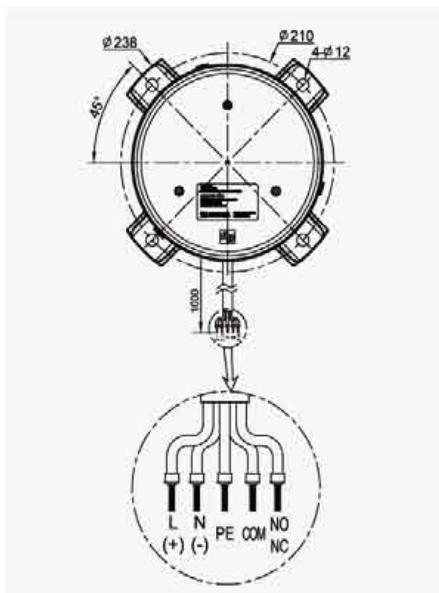
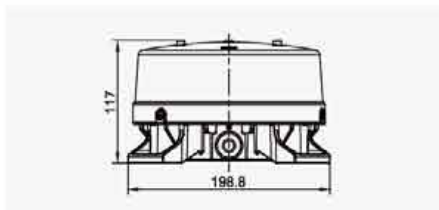
Features

- Based on LED technology and meets optics standard.
- Built-in LED protection circuit and lightning surge protector to ensure reliability in harsh environments
- Cast aluminum base for durability and corrosion resistance.
- The cover is made of high-strength industrial PC material with high strength, anti-solar radiation and good light transmission.
- Lamp cover flammability level: UL94V-0.



Mounting dimension

unit: mm



Specification

Input voltage	DC48V/AC100-240V (others can be customized)	Material	Die casting aluminum/ Cover material: PC
Lamp source	LED	Vertical beam spread	≥3°
Light color	Red/White(Optional)	Horizontal beam spread	360°
Power consumption	32W(Steady burning) 16W(40FPM)	Flash rate	40 FPM (customized)
Effective intensity	2000±25%cd	LED lifespan	≥100,000h
Ambient humidity	10% - 95% (no coagulation)	Photocell on/off level	50Lux
IP rate	IP66	Operating temperature	Ta-40°C - +70°C
		Weight	1.8kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume I-2018»

Medium Intensity Obstruction Light Type B LM100



Application

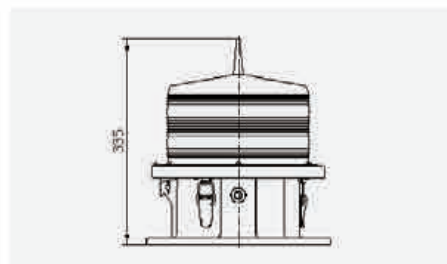
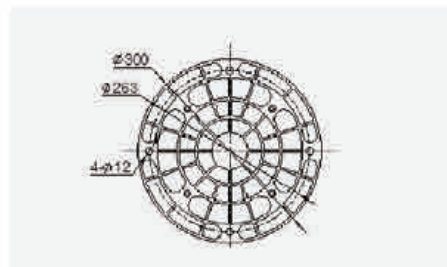
Towers (Telecom, GSM), Smokestacks (heat-engine plant, coking plant, chemical plant etc.), Buildings, Port devise, Construction machinery, Wind turbine.

Features

- Use Fresnel lens, high light utilization efficiency and can effectively control the light beam within the required range.
- Based on LED technology, long life, low energy and high efficiency.
- The cover is made of PC material with anti-bird spike, good impact strength, thermal stability, flame resistance.
- The base is made of aluminum alloy, which is light in weight and good in corrosion resistance.
- The circuit has electromagnetic compatibility and LED constant current drive to extend LED life.
- Waterproof silicon rubber sealed structure.
- Combustibility rating: UL94V-0
- Wind load level: $\geq 67\text{m/s}$.
- Optional function: Photocell/flash rate adjustable.
- Customized function: GPS Synchronization /RS485 Communication.
- Optional accessories: Mounting bracket/power connection cable(length can be customized).

Mounting dimension

unit: mm



Specification

Input voltage	AC110V-AC240V/DC48V	Vertical beam spread	$\geq 3^\circ$
Frequency	50Hz-60Hz	Horizontal beam spread	360°
Power consumption	65W (Steady burning) 30W (at 40FPM)	Intensity	2000cd \pm 25%
Lightning surge	MH6012-2015 L- L 6kV MH6012-2015 L-G 6kV MH6012-2015 Air discharge 8kV MH6012-2015 Contact discharge 6kV	Signal type	20FPM-60FPM, Steady burning (Default 40FPM)
EMC	MH6012-2015	Body material	Aluminum alloy
Photocell on/off level	500Lux \pm 100Lux	Cover material	PC
Light source	LED	Ambient humidity	0%-95%RH
Light color	Red	Operating temperature	Ta-40℃ - +60℃
Body color	Yellow	IP rate	IP65
		Wiring method	M20x1.5 cable gland at side suitable for cable 9-14mm
		Weight	6.5 kg

Design reference standards

- CAAC: 《MH5001-2019》 《MH/T6012-2015》
- ICAO: 《ICAO Annex 14 Volume 1-2018》
- FAA: 《AC150/5345-43J》

Medium Intensity Obstruction Light Type A LM403A



Application

Tower, Chimney, High-rise building, Large bridge
 Large construction machinery, Port machinery,
 Wind turbine.

Features

- Aluminum alloy die-casting shell, surface electrostatic powder sprayed yellow, anti-vibration resistance, corrosion resistance.
- Use UV-resistant, impact-resistant PC lampshade. Flammability level: UL94V-2.
- Open cover and wiring, with automatic power-off device.
- Based on LED technology, long life, low energy and high efficiency.
- Professional EMC design, Anti-electromagnetic interference.
- Wind load level: $\geq 240\text{km/h}$.
- Optional local time-first (time-control) or environmental illumination priority (photocell control) to control the luminous intensity.
- Light color: white at daytime, white or red optional at night time.(white color standby).
- With fault alarm detection and fault alarm output.
- GPS synchronization function (optional).
- Automatically switch between day and night. It can be controlled by local time or photocell.

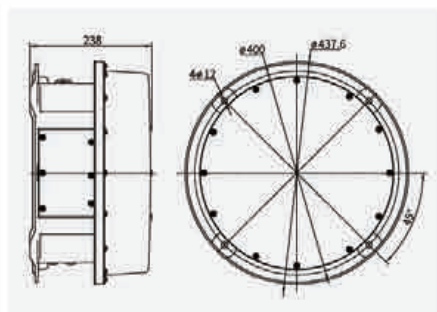


Specification

Input voltage	AC110V/ AC220V /DC48V	Intensity	Daytime/twilight:
Fault alarm	Dry contact (No or NC)		20000±25%cd;
Power consumption	Daytime: 45W(at 40FPM)		Night: 2000±25%cd
Lightning surge	IEC61000-4-5 L-L 3kV	Storage temperature	Ta-40°C - +70°C
	IEC61000-4-5 L-G 6kV	Operating temperature	Ta-40 °C - +55°C
Electrostatic discharge	MH6012-4-2 Contact discharge 8kV	Ambient humidity	0% - 90% RH
Light source	LED		(non condensing)
Signal type	Flashing	IP rate	IP66
Flash rate	Daytime/twilight: 20/30/40 FPM;	Weight	18.2kg
	Night:20/30/40/60FPM, steady	Light color	White or White+Red
	burning(red); (default 40 FPM)	LED lifespan	$\geq 100,000\text{h}$
Flash duration	White color at Daytime/twilight: 95ms;	Horizontal beam spread	360°
	White color at night: 150ms;	Vertical beam spread	$\geq 3^\circ$
	Red color at night: 670ms	On/off level	50-500lux

Mounting dimension

unit: mm

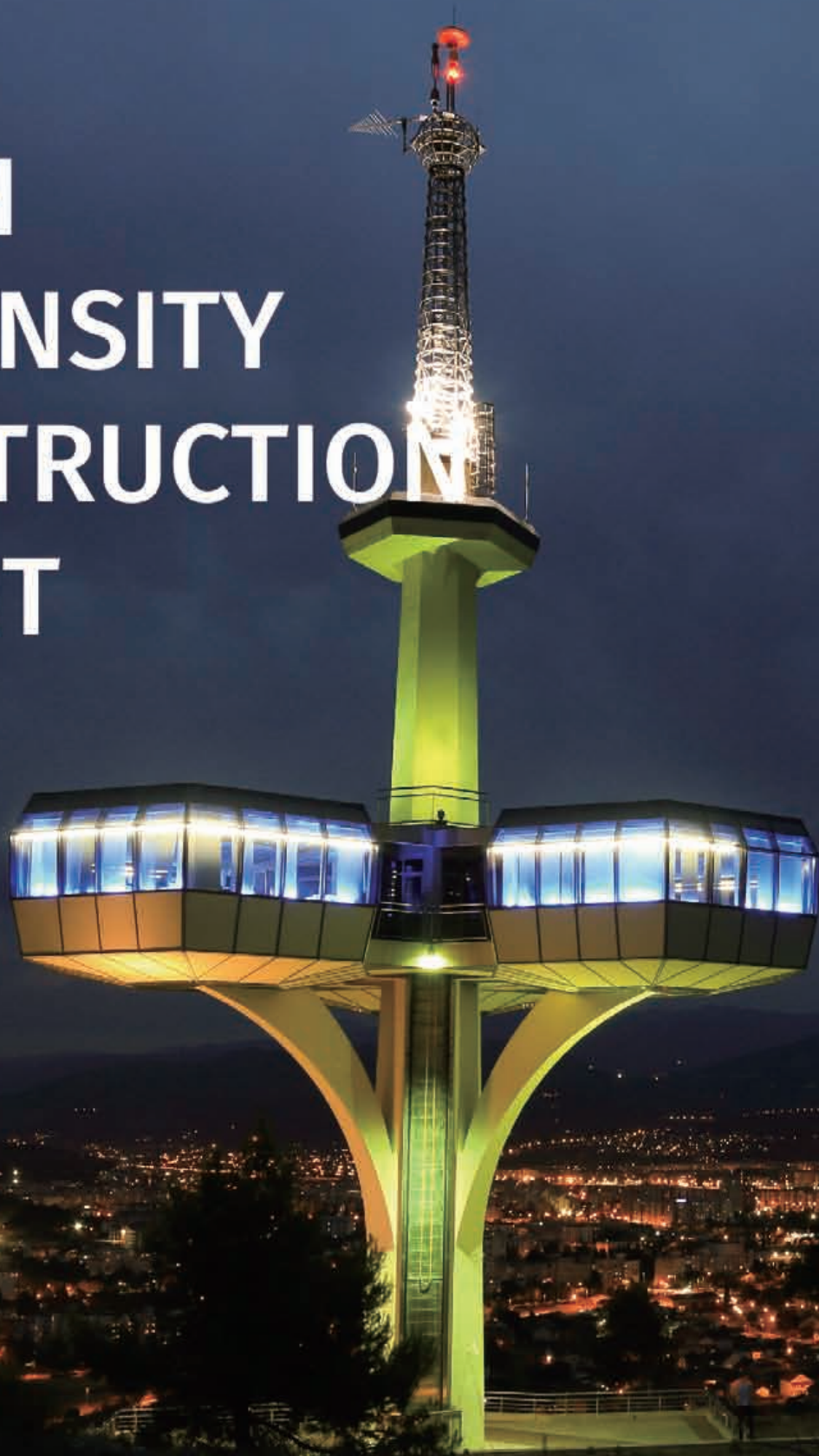


Design reference standards

CAAC: 《MH5001-2019》 《MH/T6012-2015》

ICAO: 《ICAO Annex 14 Volume 1-2018》

HIGH INTENSITY OBSTRUCTION LIGHT



High Intensity Obstruction Light Type A LH88AA



Application

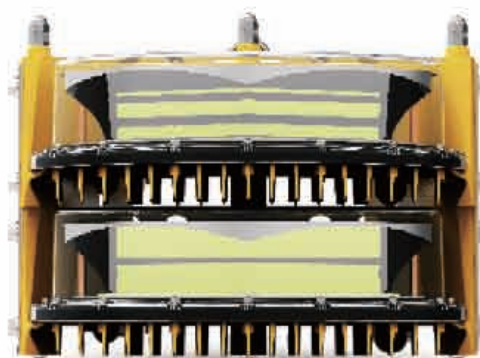
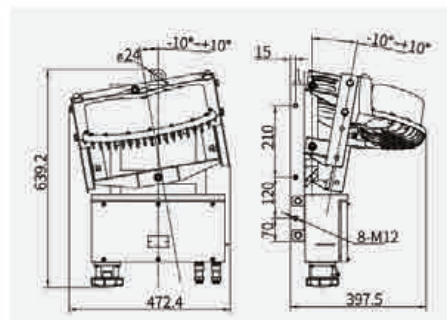
Tower, Chimney, High-rise building, Large bridge
Large construction machinery, Port machinery,
Wind turbine.

Features

- Aluminum alloy die-casting shell, surface electrostatic powder sprayed yellow, anti-vibration resistance, corrosion resistance.
- Use UV-resistant, impact-resistant PC lampshade. Waterproof silicon rubber sealed structure.
- Based on LED technology, long life, low energy and high efficiency.
- Professional EMC Design, Anti-electromagnetic interference.
- Wind load level: $\geq 240\text{km/h}$.
- Optional local time-first (time-control) or environmental illumination priority (photocell control) to control the luminous intensity.
- Lamp with fault alarm detection and alarm output.
- GPS synchronization function (optional).

Mounting dimension

unit: mm



Specification

Input voltage	AC200-240V/ AC100-130V /	Photocell on/off level	Night(<50Lux),
	DC48V(power box)		Dawn(50-500Lux),
	DC48V(light head)		Day time(<500Lux),
Frequency	50-60Hz(AC power box)		Dusk(50-500Lux)
Fault alarm	Dry contact (NO or NC optional)	Operation temperature	Ta-40 °C - +65°C
Average power consumption	With power box,	Ambient humidity	0%-90% RH
	1 layer 85W (daytime)		(Not condensed)
Lightning surge	IEC61000-4-5 L- L 6kV	Storage temperature	Ta-55°C - +70°C
	IEC61000-4-5 L- G 6kV		IP rate
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV		IP65 (power box)
Light source	LED	Weight	6kg (One layer light head)
LED lifespan	$\geq 100,000\text{h}$		7.3kg (Junction box)
Signal type	Flashing		9.2kg (bracket)
Flash rate	40FPM		30kg (AC power box)
Horizontal beam spread	120°		11kg (DC power box)
Vertical beam spread	5°		
Intensity	200,000 \pm 25%cd (ICAO-Type A, Our Model: LH88AA)		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

High Intensity Obstruction Light Type B LH88AB



Application

Transmission Tower, High-rise building.

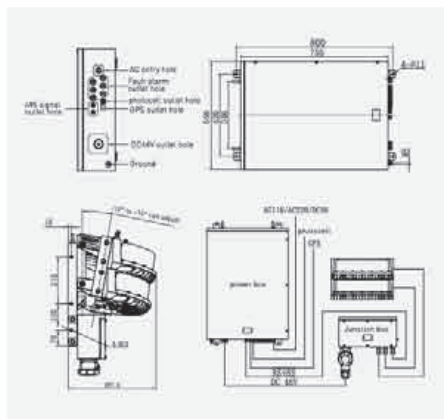
Features

- Aluminum alloy die-casting shell, surface electrostatic powder sprayed yellow, anti-vibration resistance, corrosion resistance.
- Use UV-resistant, impact-resistant PC lampshade. Waterproof silicon rubber sealed structure.
- Based on LED technology, long life, low energy and high efficiency.
- Professional EMC Design, Anti-electromagnetic interference.
- Wind load level: $\geq 240\text{km/h}$.
- Optional local time-first (time-control) or environmental illumination priority (photocell control) to control the luminous intensity.
- Lamp with fault alarm detection and alarm output.
- GPS synchronization function (optional).



Mounting dimension

unit: mm



Specification

Input voltage	AC200-240V/ AC100-130V /	Photocell on/off level	Night (<50Lux),
	DC48V(power box)		Dawn (50-500Lux),
	DC48V(light head)		Day time (<500Lux),
Frequency	50-60Hz(AC power box)		Dusk (50-500Lux)
Fault alarm	Dry contact (NO or NC optional)	Operation temperature	Ta-40 °C - +65°C
Average power consumption	With power box,	Ambient humidity	0%-90% RH
	1 layer 85W (daytime)		(Not condensed)
Lightning surge	IEC61000-4-5 L- L 6kV	Storage temperature	Ta-55°C - +70°C
	IEC61000-4-5 L- G 6kV		IP rate
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV		IP65 (power box)
Light source	LED	Weight	6kg (One layer light head)
LED lifespan	$\geq 100,000\text{h}$		7.3kg (Junction box)
Signal type	Flashing		9.2kg (bracket)
Flash rate	40FPM		30kg (AC power box)
Horizontal beam spread	120°		11kg (DC power box)
Vertical beam spread	5°		
Intensity	100,000 \pm 25% cd (ICAO-Type B, Our Model: LH88AB)		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

High Intensity Obstruction Light Type A LH88FA



Application

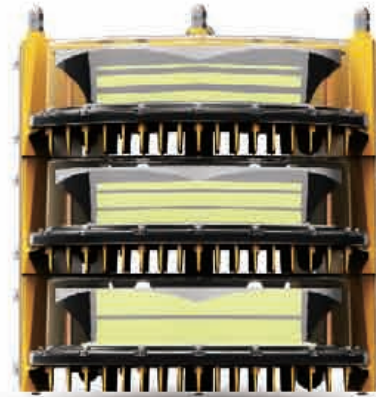
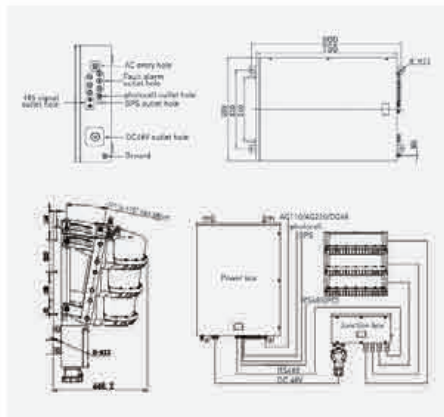
Tower, Chimney, High-rise building, Large bridge
Large construction machinery, Port machinery,
Wind turbine.

Features

- Aluminum alloy die-casting shell, surface electrostatic powder sprayed yellow, anti-vibration resistance, corrosion resistance.
- Use UV-resistant, impact-resistant PC lampshade. Waterproof silicon rubber sealed structure.
- Based on LED technology, long life, low energy and high efficiency.
- Professional EMC Design, Anti-electromagnetic interference.
- Wind load level: $\geq 240\text{km/h}$.
- Optional local time-first (time-control) or environmental illumination priority (photocell control) to control the luminous intensity.
- Lamp with fault alarm detection and alarm output.
- GPS synchronization function (optional).

Mounting dimension

unit: mm



Specification

Input voltage	AC200-240V/ AC100-130V / DC48V(power box)	Photocell on/off level	Night (<50Lux), Dawn (50-500Lux), Day time (<500Lux),
Frequency	50-60Hz(AC power box)	Operation temperature	Dusk (50-500Lux)
Fault alarm	Dry contact (NO or NC optional)	Ambient humidity	Ta-40 °C ~ +65°C
Average power consumption	With power box, 1 layer 85W (daytime)	Storage temperature	0%-90% RH (Not condensed)
Lightning surge	IEC61000-4-5 L- L 6kV IEC61000-4-5 L- G 6kV	IP rate	Ta-55°C ~ +70°C IP66 (light head)
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	Weight	IP65 (power box) 6kg (One layer light head)
Light source	LED	LED lifespan	7.3kg (Junction box)
LED lifespan	$\geq 100,000\text{h}$	Signal type	9.2kg (bracket)
Flash rate	Flashing 40FPM	Flash rate	30kg (AC power box)
Horizontal beam spread	120°	Horizontal beam spread	11kg (DC power box)
Vertical beam spread	5°	Intensity	
Intensity	270000 \pm 25%cd (FAA-Type A, Our model: LH88FA)		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

FAA: «AC150/5345-43J»

High Intensity Obstruction Light Type B LH88FB



Application

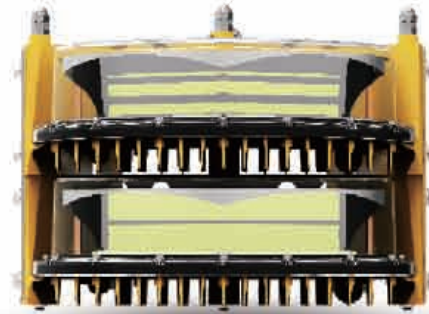
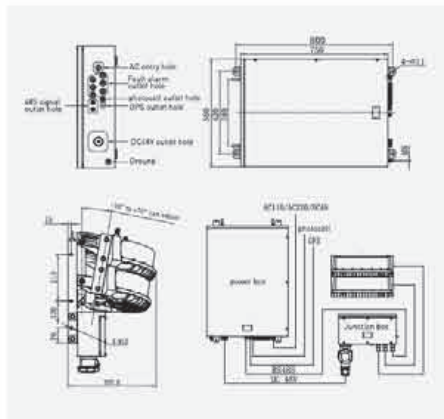
Transmission Tower, High-rise building.

Features

- Aluminum alloy die-casting shell, surface electrostatic powder sprayed yellow, anti-vibration resistance, corrosion resistance.
- Use UV-resistant, impact-resistant PC lampshade. Waterproof silicon rubber sealed structure.
- Based on LED technology, long life, low energy and high efficiency.
- Professional EMC Design, Anti-electromagnetic interference.
- Wind load level: $\geq 240\text{km/h}$.
- Optional local time-first (time-control) or environmental illumination priority (photocell control) to control the luminous intensity.
- Lamp with fault alarm detection and alarm output.
- GPS synchronization function (optional).

Mounting dimension

unit: mm



Specification

Input voltage	AC200-240V/ AC100-130V / DC48V(power box) DC48V(light head)	Photocell on/off level	Night(<50Lux), Dawn(50-500Lux), Day time(<500Lux), Dusk (50-500Lux)
Frequency	50-60Hz(AC power box)	Operation temperature	Ta-40 °C - +65°C
Fault alarm	Dry contact (NO or NC optional)	Ambient humidity	0%-90% RH (Not condensed)
Average power consumption	With power box, 1 layer 85W (daytime)	Storage temperature	Ta-55°C - +70°C
Lightning surge	IEC61000-4-5 L- L 6kV IEC61000-4-5 L- G 6kV	IP rate	IP66 (light head)
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	Weight	IP65 (power box) 6kg (One layer light head) 7.3kg (Junction box) 9.2kg (bracket) 30kg (AC power box) 11kg (DC power box)
Light source	LED		
LED lifespan	$\geq 100,000\text{h}$		
Signal type	Flashing		
Flash rate	40FPM		
Horizontal beam spread	120°		
Vertical beam spread	5°		
Intensity	140000 \pm 25%cd (FAA-Type A, Our model: LH88FB)		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

FAA: «AC150/5345-43J»

SOLAR OBSTRUCTION LIGHT



Solar Low Intensity Obstruction Light LT101



Application

Tower, Large machinery.

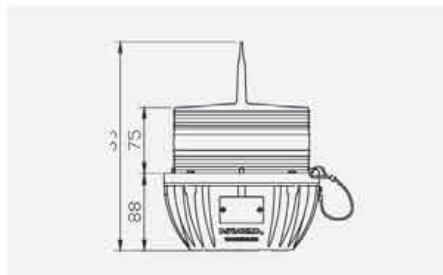
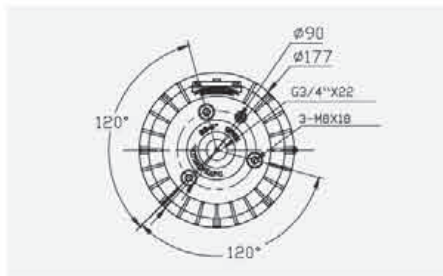
Features

- Based on the LED technology, aviation red.
- The base is made of aluminum alloy, cover is made of PC material, anti-UV, with anti-bird spike.
- Photoelectric automatic control.
- With anti-fall device.
- Built-in common Ni-MH battery, easy to be replaced.
- No RF-radiations, EMC Compliant.
- Anti-vibration and corrosion-resistant.
- Stable work, low maintenance costs.



Mounting dimension

unit: mm



Specification

Solar panel	1.8W	Intensity	≥10cd
Battery capacity	3.6V/8AH (Maintenance-free) NiMH	LED lifespan	≥100.000h
Autonomy	20days	Base material	Aluminum alloy
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	Cover material	PC
Light source	LED	Operating temperature	Ta-30℃~+70℃
Light color	Red	Ambient humidity	10%-95%
Vertical beam spread	≥10°	IP rate	IEC60529 IP65
Horizontal beam spread	360°	UV resistant level	UL746C
Flash rate	60FPM	Weight	2.3kg

Design reference standards

CAAC : «MH5001-2019» «MH/T6012-2015»

ICAO : «ICAO Annex 14 Volume 1-2018»

Solar Low Intensity Obstruction Light LT810A



Application

Tower, Chimney, Tall building, Large bridge,
Large construction machinery, Port
Machinery, Wind turbines

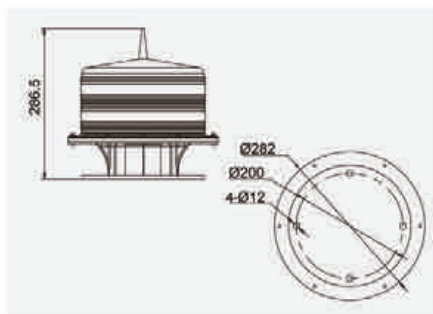
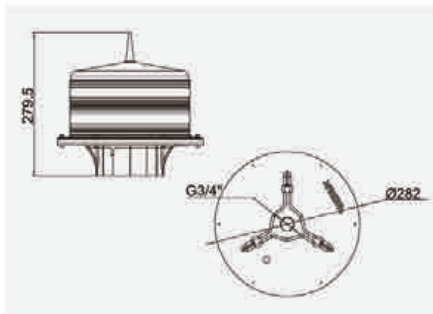
Features

- Working stable, low maintenance cost.
- Anti-vibration, corrosion resistance.
- NI-MH battery, easy for replacement.
- Cover: PC, with bird pike, good impact strength, thermal stability and gloss.
- Flame retardant level: UL94-V0.



Mounting dimension

unit: mm



Specification

Solar panel	4W/5V	Horizontal beam spread	360°
Battery capacity	3.6V/8AH (Maintenance-free) NiMH	Intensity	≥32.5cd
Autonomy	7 days (if the ambient temperature is lower than 0℃ or above 40℃, it will affect the battery discharge)	Flash rate	30FPM
Electrostatic discharge	IEC61000-4-2 Contact discharge 8Kv	Photocell on/off level	70/100Lux(ON/OFF)
Lamp source	LED	Operating temperature	Ta-40℃~+55℃
LED lifespan	≥100,000h	Ambient humidity	10%-95%
Light color	Red	IP rate	IP65
Vertical beam spread	≥10°	UV resistant rate	UL746C (f1)
		Weight	4.6Kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

Solar Low Intensity Obstruction Light LT60



Application

Tower, Large machinery

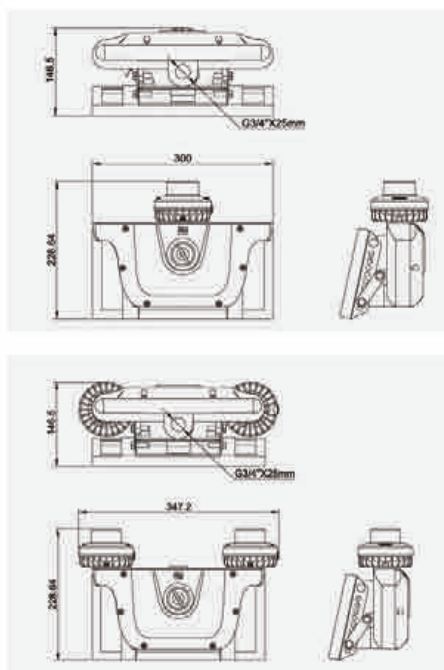
Features

- Aluminum alloy die-cast housing, surface electrostatic powder coating yellow, anti-vibration, corrosion resistance.
- Use UV-resistant, impact-resistant PC cover.
- Waterproof silicone sealing structure.
- LED technology, long life, low energy consumption and high efficiency.
- EMC design, anti-electromagnetic interference.
- Wind resistance level $\geq 240\text{km/h}$.



Mounting dimension

unit: mm



Specification

Solar panel type	Monocrystalline silicon	Signal type	Steady burning
Solar panel	6W/10V		(flash can be customized)
Battery type	Ni-MH battery	Horizontal beam spread	360°
Battery capacity	3.6V/8AH×2	Material	Aluminum alloy
Autonomy	7 days(at 25°C)	Cover material	PC
Lamp source	LED	Ambient humidity	10%-95%RH
Photocell on/off level	50-500Lux	Operating temperature	Ta -40°C ~ +55°C
Intensity	10cd	IP rate	IP65
Vertical beam spread	$\geq 10^\circ$	Exterior color	Yellow
Light color	Red	Weight	3.3 kg/3.5 kg

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»
 ICAO: «ICAO Annex 14 Volume 1-2018»

Solar Medium Intensity Obstruction Light Type B LT864



Application

Tower, Chimney, Tall building, Large bridge,
Large construction machinery, Port
Machinery, Wind turbines.

Features

- Surface electrostatic powder sprayed yellow, anti-vibration, corrosion resistant.
- Use UV-resistant, impact-resistant PC cover; flammability rating: UL94-V0.
- Waterproof silicone sealing structure.
- LED technology, long life, low energy consumption and high efficiency.
- Internally included binding posts, the internal wiring is connected at the factory.
- GPS (Customized).
- Fault switch function (Customized).



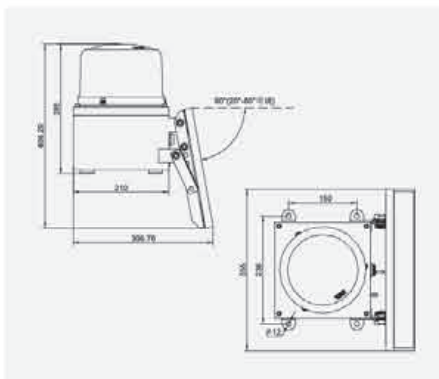
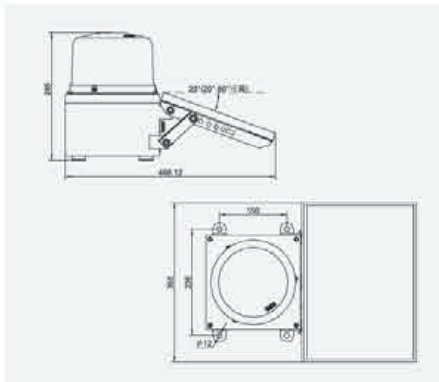
Single



Dual

Mounting dimension

unit: mm



Specification

Solar panel	18V/12W, 12V/12AH lead acid battery	Vertical beam spread	≥3°
Fault switch	bottom layer working, top standby	Signal type	Flash
Power consumption	30W	Flash rate	20FPM
Lighting surge	IEC61000-4-5 L- L 2kV IEC61000-4-5 L-G 4kV	Flash duration	100ms
Electrostatic discharge	IEC61000-4-2 Contact discharge 8kV	Photocell on/off level	50-200Lux
Autonomy	>90 hours (at 25°C)	Storage temperature	Ta-40°C- +70°C
Lamp source	LED	Operating temperature	Ta-40°C - +55°C
LED lifespan	≥100,000h	Ambient humidity	10% - 95% RH
Light color	Red (can be customized)	IP rate	IP65
Intensity	2000±25% cd	Weight	11kg
Horizontal beam spread	360°	Material	base: Aluminum alloy Cover material: PC Chassis: Cold rolled sheet / stainless steel (spray)

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

Ex-proof Low Intensity Obstruction Light LP3



Application

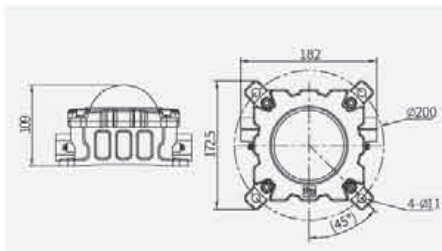
For obstacles with explosion protection requirements.
 Suitable for high corrosion, high salinity areas.
 Zone 1 and Zone 2 for explosive gas environments.
 Suitable for IIA, IIB, IIC gas environment for T1-T6 temperature group.

Features

- Stainless steel 316 housing, anti-corrosion, anti-vibration, IP67 protection, used in harsh outdoor environments.
- Professional photo-metric design, use the high and low temperature resistant PC lens to make sure can be long term usage and meet the optical requirements.
- Tempered glass light cover, operation temperature can be -50°C, with 4J shock resistance, hot and cold upheaval resistance and 5Mpa static pressure qualified features.
- Lamp is using LED light source, design with professional heat simulation software to make the chips' temperature lower than 85°C and make sure the stable light illuminations.
- With Dimming function, can use the PWM or RS485(0-100) stepless adjusted.

Mounting dimension

unit: mm



Specification

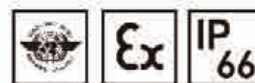
Input voltage	DC24V/AC100V-240V	Cover material	Tempered glass
Power consumption	<5W	Ambient humidity	10%-95%RH
Light source	LED	Operating temperature	Ta-50°C - +60°C
Lightning surge	GD22-2015 L- L 0.5kV	IP rate	IP67
	GD22-2015 L-G 1kV	Corrosion resistant	C5
Electrostatic discharge	GD22-2015 Air discharge 8kV	Wiring method	2-M20X1.5 (should use the appropriate EX cable gland)
	GD22-2015 Contact discharge 6kV		
EMC	GD22-2015		
Intensity	30cd-60cd	Wiring terminal	Suitable for cable
Vertical beam spread	90°		Ø9-Ø14mm ² , and
Light color	Green/Yellow/Blue/Red/White		≤ 2.5mm ² lead wire
Signal type	Steady burning		reliable connected
Horizontal beam spread	360°	Weight	4.3 kg
Housing material	Stainless steel 316		

Design reference standards

CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

Ex-proof Medium Intensity Obstruction Light LP202A



Application

For obstacles with explosion protection requirements.
Suitable for high corrosion, high salinity areas.
Zone 1 and Zone 2 for explosive gas environments.
Suitable for IIA, IIB, IIC gas environment for T1-T6 temperature group.

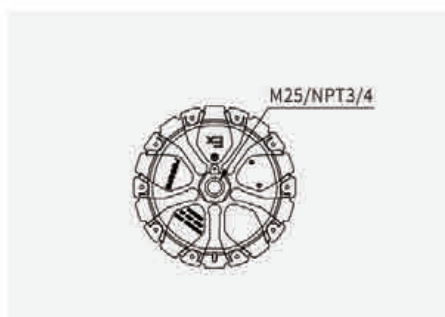
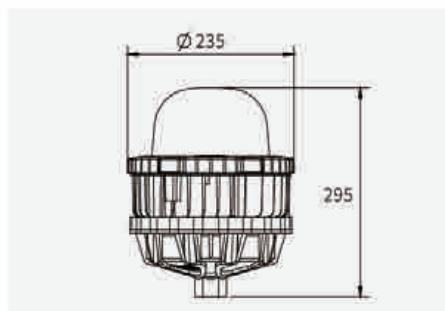
Features

- Aluminum alloy housing.
- Professional optical design, Polycarbonate lens.
- Tempered glass lampshade, impact resistant 4J, resistant to hot and cold.
- Flameproof structure.
- Anti-vibration, high corrosion resistance.
- Constant current circuit design, stable and reliable.




Mounting dimension

unit: mm



Specifications

Input voltage	AC100V-240V/DC24V	Body material	Aluminum alloy
Frequency	50Hz-60Hz	Cover material	Tempered glass
Rated power	30W	Ambient humidity	0%-95%RH
Light source	LED	Operation temperature	Ta-40°C - +60°C
Lightning surge	MH6012 6kV	IP rate	IP66
Electrostatic discharge	MH6012 Air discharge 8kV	Wiring method	M25X1.5
	MH6012 Contact discharge 6kV	Body color	Yellow
EMC	MH6012	Weight	9.2 kg
Intensity	2000cd±25%	Flash rate	40 FPM
Vertical beam spread	≥3°	Horizontal beam spread	360°
Light color	Red		
Marking	Ex d IIC T6 Gb	Ex d IIC T6 Gb	 II 2 G Ex d IIC T6 Gb II 2 D Ex tb IIIC T85 C Db IP66
	Ex tD A21 IP66 T85 C	Ex tb IIIC T85 C Db IP66	

Executive standard

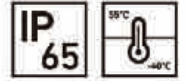
CAAC: «MH5001-2019» «MH/T6012-2015»

ICAO: «ICAO Annex 14 Volume 1-2018»

IEC: «IEC 60079-0:2011» «IEC 60079-1:2014» «IEC 60079-31:2013»

EN: «EN 60079-0:2012» «EN 60079-1:2014» «EN 60079-31:2014»

Obstruction Light Control Cabinet FR10



Application

FR10 controller is used to realize the synchronous flash of obstruction lights. It is mainly used in fault alarm monitoring of obstruction lights, including towers (transmission, telecommunications, microwave, etc.), chimneys (power plants, coking plants, chemical plants, etc.), High-rise buildings, Large bridges, Large port machinery, Large construction machinery and wind turbines etc. Can also be used to control street light.

Features

- Realize the flash simultaneously of obstruction lights.
- With fault indication function, when the obstruction lights are in failure, the controller will turn on the corresponding fault indicator and output the alarm signal.
- Alarm signal is relay contact output, dry contact.
- With automatic / manual switching function, can be switched to manual control mode through manual switch when no photocell control function is needed.
- Main-standby lamp fault switching function: when the main lamp is fault, standby lamp will begin operation.
- External PJ003 photocell control switch, with photocell fault alarm function (optional).
- With GPS synchronization function (optional).

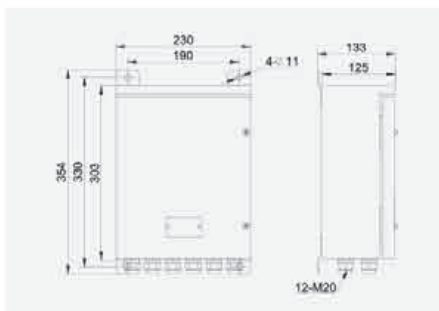
Mounting dimension

unit: mm

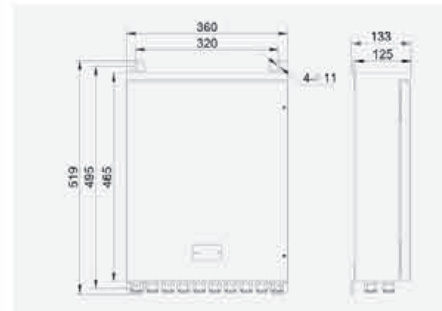


Specifications

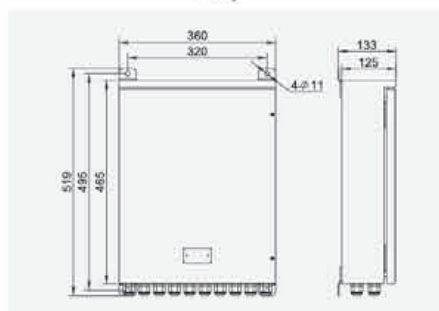
Input voltage	AC100-AC240V	Signal type	steady burning / flash
Output voltage	DC48V	Flash rate	20FPM,30FPM,
Frequency	50Hz-60Hz		40FPM and 60FPM
Maximum load power	240W/480W/720W	Storage temperature	Ta-40°C-+70°C
Lightning surge	IEC61000-4-5 L- L 3kV	Operating temperature	Ta-40°C-+55°C
	IEC61000-4-5 L-G 6kV	Ambient humidity	10% - 95% RH
Electrostatic discharge	IEC61000-4-2	IP rate	IP65
	Contact discharge 8kV	Color	Grey (RAL7038)
Control branches	4-way/8-way/12-way	Material	Cold rolled plate with
Single load power	4W-100W		powder spray (RAL7038)
Alarm output	Dry contact (Relay) output	Weight	13.5 kg (AC) , 10 kg (DC)



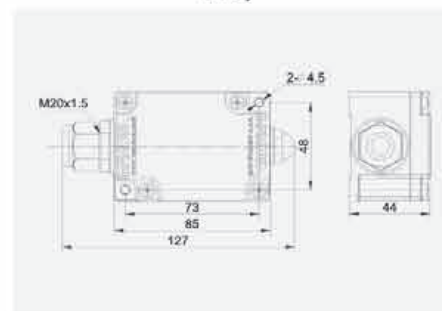
4-way



8-way



12-way



photocell

Smart Control Cabinet FR20



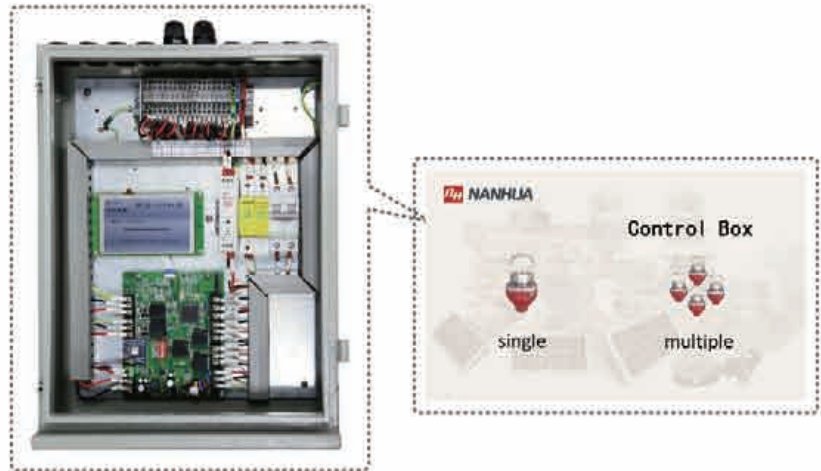
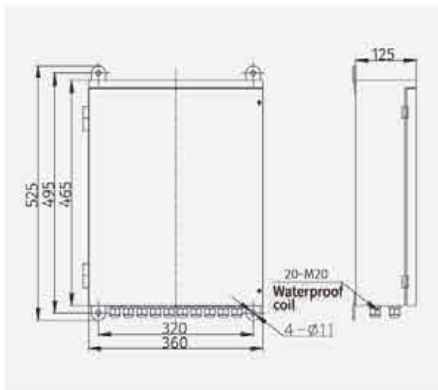
Application

Remote control: ON/OFF, flashing synchronization, flash rate adjust.

Remote monitor: Lights operation status, fault alarm, lights location display.

Mounting dimension

unit: mm



Specifications

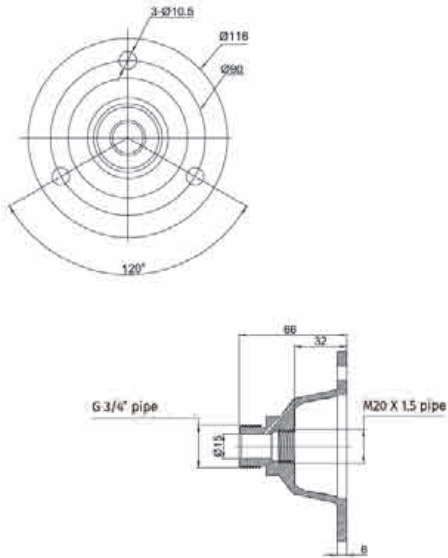
Input voltage	DC48V/AC220V	Operation temperature	Ta-40°C~+65°C
Communication	RS485	Maximum control branches	30 ways
Photocell on/off level	70-100 lux		



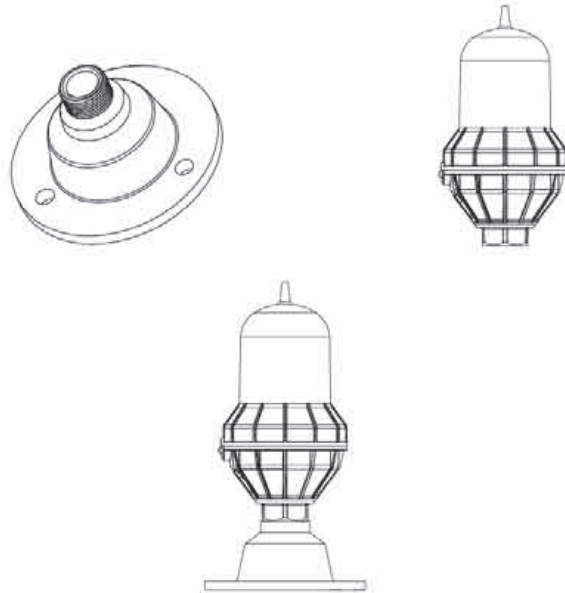
Mounting bracket

PJ0242 AWL flange plate

Installation dimension

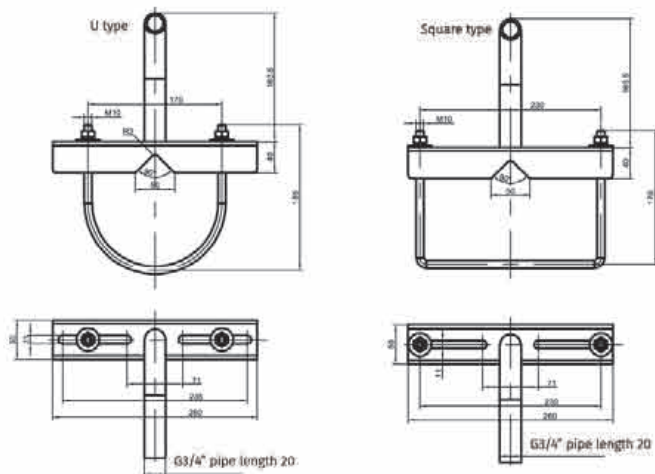


Installation diagram

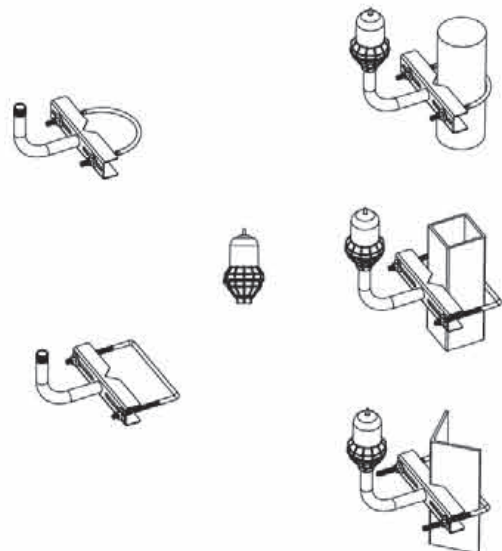


PJ028A AWL mounting bracket

Installation dimension

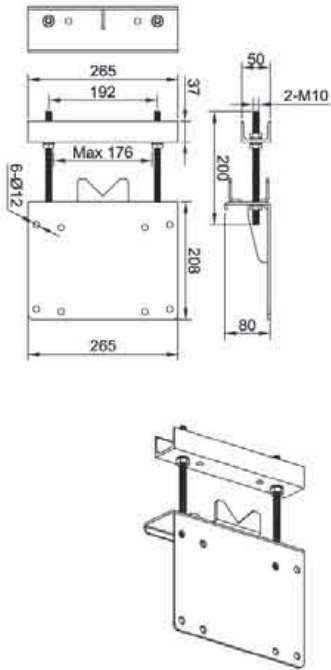


Installation diagram

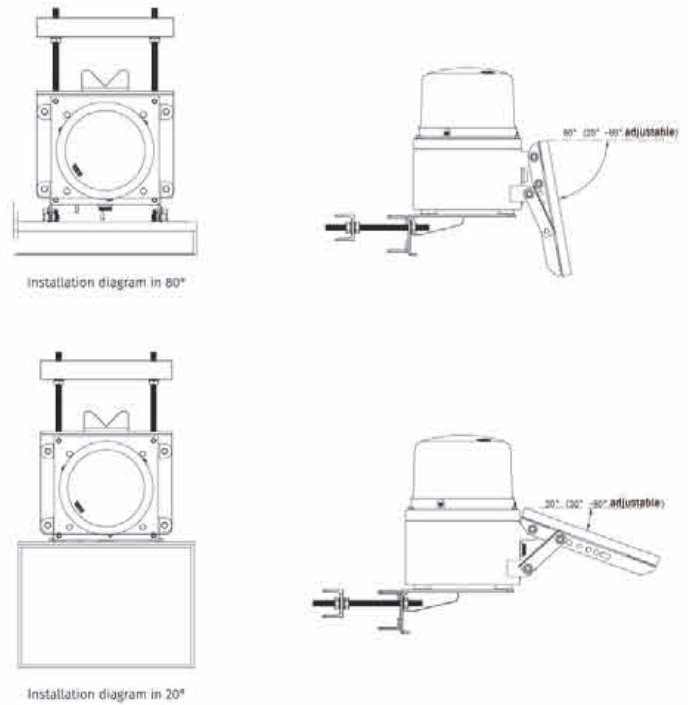


PJ0125 AWL mounting bracket

Installation dimension

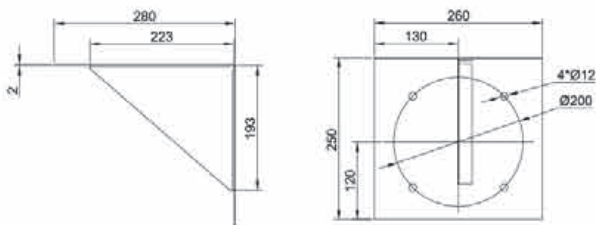


Installation diagram

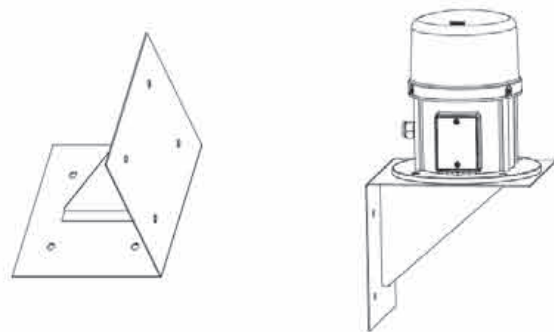


PJ189S AWL mounting bracket

Installation dimension

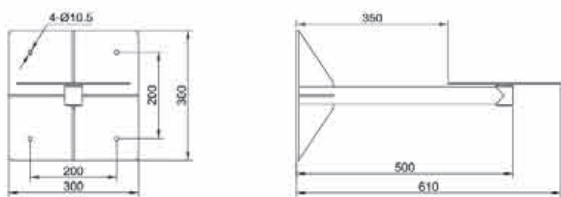


Installation diagram



PJ089S AWL mounting bracket

Installation dimension



Installation diagram

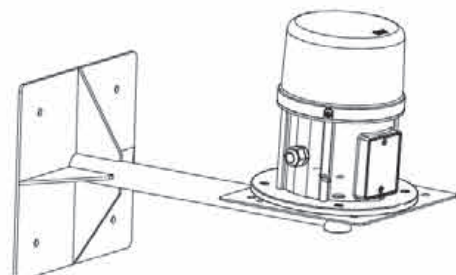


Table 6-1. Characteristics of obstacle lights

1 Light Type	2 Colour	3 Signal type/ (flash rate)	4 Peak intensity (cd) at given Background Luminance (b)			7 Light Distribution Table
			5 Day (Above 500 cd/m ²)	6 Twilight (50-500 cd/m ²)	6 Night (Below 50 cd/m ²)	
Low-intensity, Type A (fixed obstacle)	Red	Fixed	N/A	N/A	10	Table 6-2
Low-intensity, Type B (fixed obstacle)	Red	Fixed	N/A	N/A	32	Table 6-2
Low-intensity, Type C (mobile obstacle)	Yellow/Blue (a)	Flashing (60-90 fpm)	N/A	40	40	Table 6-2
Low-intensity, Type D (follow-me vehicle)	Yellow	Flashing (60-90 fpm)	N/A	200	200	Table 6-2
Low-intensity, Type E	Red	Flashing (c)	N/A	N/A	32	Table 6-2 (Type B)
Medium-intensity, Type A	White	Flashing (20-60 fpm)	20000	20000	2000	Table 6-3
Medium-intensity, Type B	Red	Flashing (20-60 fpm)	N/A	N/A	2000	Table 6-3
Medium-intensity, Type C	Red	Fixed	N/A	N/A	2000	Table 6-3
High-intensity, Type A	White	Flashing (40-60 fpm)	200000	20000	2000	Table 6-3
High-intensity, Type B	White	Flashing (40-60 fpm)	100000	20000	2000	Table 6-3

Table 6-3. Light distribution for medium- and high-intensity obstacle lights according to benchmark intensities of Table 6-1

Benchmark intensity	Minimum requirements					Recommendations				
	Vertical elevation angle (b)			Vertical beam spread (c)		Vertical elevation angle (b)			Vertical beam spread (c)	
	0°		-1°			0°	-1°	-10°		
	Minimum average intensity (a)	Minimum intensity (a)	Minimum intensity (a)	Minimum beam spread	Intensity (a)	Maximum intensity (a)	Maximum intensity (a)	Maximum intensity (a)	Maximum beam spread	Intensity (a)
200000	200000	150000	75000	3°	75000	250000	112500	7500	7°	75000
100000	100000	75000	37500	3°	37500	125000	56250	3750	7°	37500
20000	20000	15000	7500	3°	7500	25000	11250	750	N/A	N/A
2000	2000	1500	750	3°	750	2500	1125	75	N/A	N/A



Table 3 - 4 . Flash Characteristics for Obstruction Lights

Type	Intensity Step	Flash Rate ⁽¹⁾	Flash Duration ⁽²⁾
L - 810	Single	Steady burning	—
L - 810(F)	Single	30 FPM (± 3 FPM)	1/2 to 2/3 of flash period if incandescent lighting ⁽³⁾ , and between 100 and 1333 ms inclusive if other lighting sources.
L - 856	Day & Twilight	40 FPM	Less than 100 ms
L - 856	Night	40 FPM	Between 100 and 250 milliseconds (ms) inclusive
L - 857	Day & Twilight	60 FPM	Less than 100 ms
L - 857	Night	60 FPM	Between 100 and 250 ms inclusive
L - 864	Single	30 FPM (± 3 FPM)	1/2 to 2/3 of flash period if incandescent lighting ⁽³⁾ , and between 100 and 1333 ms inclusive if other lighting sources.
L - 865	Day & Twilight	40 FPM	Less than 100 ms
L - 865	Night	40 FPM	Between 100 and 1000 ms inclusive
L - 866	Day & Twilight	60 FPM	Less than 100 ms
L - 866	Night	60 - FPM	Between 100 and 250 ms inclusive
L - 885	Single	60 FPM	1/2 to 2/3 of flash period if incandescent lighting ⁽³⁾ , and between 100 and 670 ms inclusive if other lighting sources.

NOTES:

- (1) Flash rates have a tolerance of ±5 percent except L810(F) and L-864
- (2) When the effective flash duration is achieved by a group of short flashes, the short flashes must be emitted at a rate of not less than 50 Hz.
- (3) The light intensity during the off period must be less than 10 percent of the peak effective intensity. The off period must be at least 1/3 of the flash period.



Nanhua Electronics Co.,Ltd
T: +86 21 3912 6868
F: +86 21 3912 6868 Ext.808
E: nh@nanhua.com

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