

AVIATION OBSTRUCTION LIGHT



LIGHTING SOLUTION FOR CRANE

- ☑ COMPLIANT WITH ICAO/FAA STANDARD
- ☑ EASY INSTALLATION AND FREE

Catalogue

- I. OB Light Solution For 0~45M Tower
- II. OB Light Solution For 45~100M Tower
- I. Single Low Intensity OB Light
OLA 11L
- II. Double Low Intensity OB Light
OLA 11LD
- III. Single Medium Intensity Light
OLA 15M
- IV. Double Medium Intensity Light OLA 15MD
- V. Control Box
- VI. Installation Accessory

Company Profile

TF E.COM GmbH,

is an innovative and professional manufacturer of LED lighting systems.

We are specialized in the production of intelligent and high-quality LED lighting systems in almost all application areas. Here we use of course on the best materials and AAA before suppliers. All our products are CE compliant and certified. Proven quality is a sign of our responsibility ICAO.

Take your professional range of LED products direct from the manufacturer!

OUR SERVICE

Together strong, together with you, we want to conquer this highly promising market. With our warranty up to 5 years, they are securely set up.

TF E.COM GmbH

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Free
Maintenance



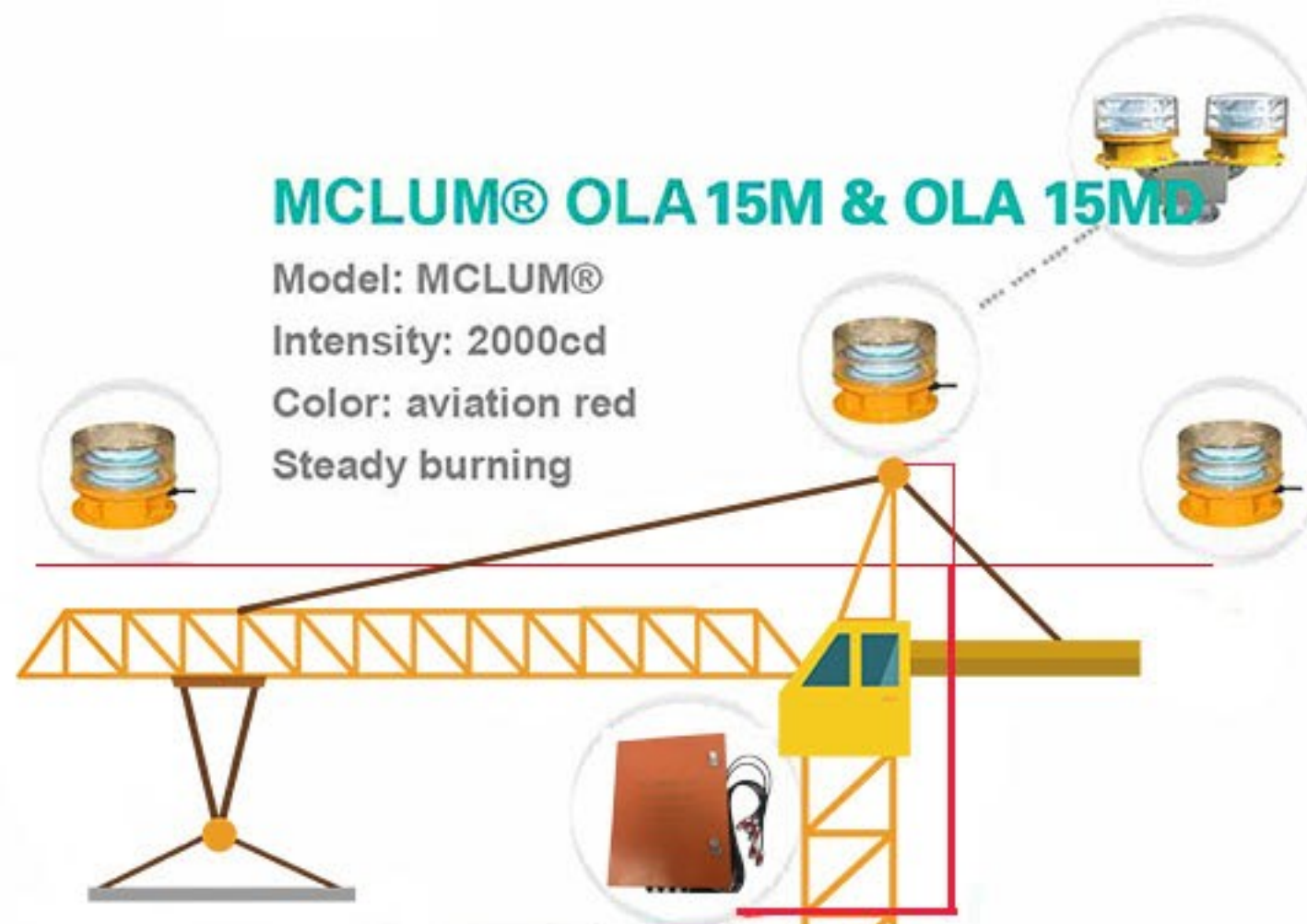
100,000h
Lone lifetime



Waterproof
IP66

MCLUM® OLA 15M & OLA 15MD

Model: MCLUM®
Intensity: 2000cd
Color: aviation red
Steady burning



MCLUM® Control OLA 15 CB
4 ways control box
Synchronize the led lights
Monitor light work status



AVIATION OB LIGHT SYSTEM FOR 45~100M TOWER



Free
Maintenance



100,000h
Lone lifetime



Waterproof
IP66

MCLUM® OLA 11L & OLA 11LL

MCLUM® OLA-S-32
Intensity: 32.5cd
Color: aviation red
Steady burning



MCLUM® Control OLA 11 CB
4 ways control box
Synchronize the led lights
Monitor light work status



AVIATION OB LIGHT SYSTEM FOR 0~45M TOWER

32.5CD Intensity



OLA11L LED+IR OBSTRUCTION LIGHT

ICAO Low-Intensity Type B 32.5cd
FAA L810
Infrared

Low-Intensity Single Light OLA11L

OLA11L all-in-one type light incorporates infrared that makes it completely Night Vision Goggle (NVG) compatible obstruction light.. It is maintenance-free, complying with ICAO and FAA international standards. This light can be used for marking obstacles which pose a threat to aircraft, such as telecom towers, buildings, wind turbines, power transmission towers, airports and general aviation warning purposes.

This light's operation modes: is steady burning. On/Off is controlled by photocell automatically, and faulty alarm outputting if any fails. It is ideal product for the users.

FEATURES:

- All-in-one type aviation obstruction light. Controlling PCB is built into light. NVG complaint infrared (IR) light
- Several LED and lens can reach optical requirements, and reduce light pollution so as to improve light efficiency.
- LED constant current driven to extent LED life time.
- Body materials: Die cast aluminum + PC housing. Aluminum surface is with special spray process. It is light weight and corrosion resistance.
- The light has high altitude anti-dropping device to ensure secure on site during installation.
- Reverse polarity protected (DC Type).
- EMC compliant, No RF-radiations.
- Resistant to shock and vibrations.
- GPS synchronization is available. (Customizing option)

Specification	
Light model	OLA11L
Light source	Cree LED
Intensity	32.5cd
Horizontal Output (degrees)	360
Vertical Output (degrees)	10
LED color	Aviation Red as standard.
Infrared	850nm(>4mW/sr)
LED lifetime	>100,000hours
Operation mode	Steady burning and infrared
Electrical characteristics	
Operating voltage	90-240VAC/12VDC
Power consumption	5W
Driven mode	Constant current
Mechanical characteristics	
Body material	Alluminum
Lens material	PC UV Stabilize
Weight	1.5KG
Dimension	Φ173×220mm
Mounting	G3/4 screw pipe
Working temperature	-40°C ~ +50°C
Humidity	10% ~ 95%
Wind speed	Up to 150mph(240kph)
Waterproof	IP66

Order Instruction

Product Code	Intensity	Output	Voltage	GPS
OLA11L-R-IR-DC	32.5	Aviation Red+Infrared	48VDC	NO
OLA11L-R-IR-DC/AC	32.5	Aviation Red+Infrared	12VDC/90~240VAC	NO
OLA11L-R-IR-DC/AC	32.5	Aviation Red+Infrared	12VDC/90~240VAC	YES

MB001 flange plate

MB002 G3/4' mounting bracket (40~70mm)

The light is able to come with metal connectors. The light is able to come with 1 pcs M18 cable gland for cable entry. And it's also using 3x1mm² cable to connect with female-male waterproof metal connectors.

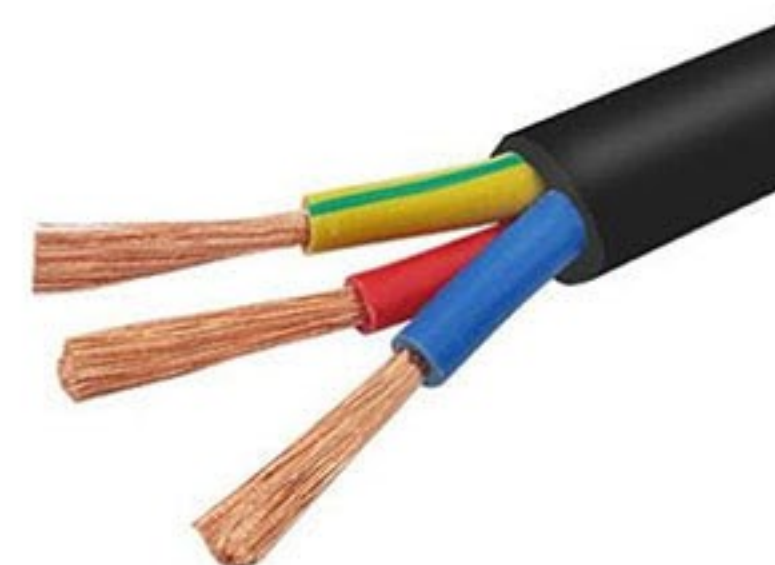
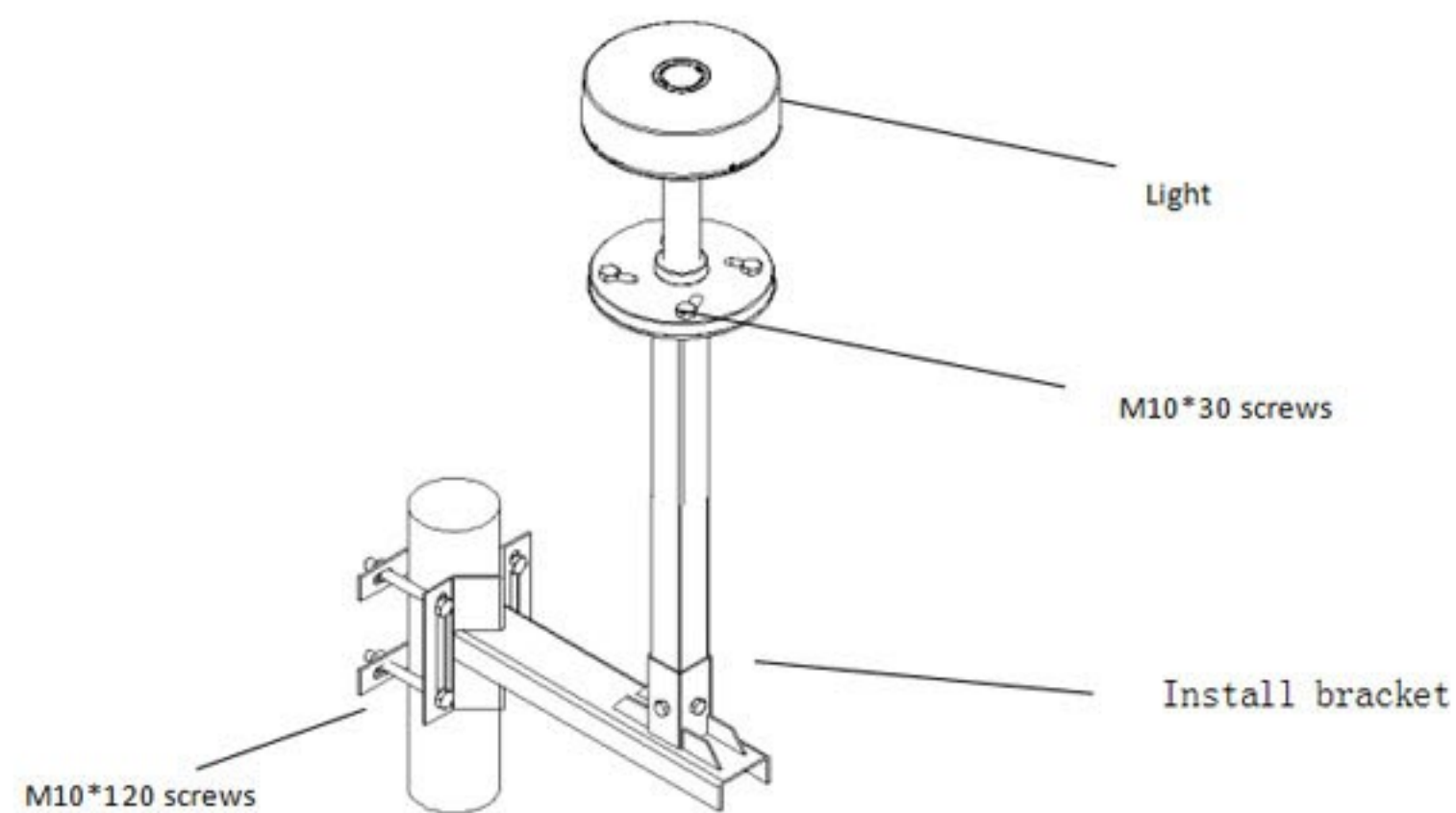


OLA 11L Installation

- ① Installed the light on horizontal surface that have enough strength.(Reference the following picture)
- ② When installation, do not put the photocell to point at the light, especially there are any obstacles.
The photocell box is connecteel to the controller box

Usage

- ① Cable distinguish: The OLA 11L low intensity obstruction light has a meter long with 3 cores cable, in which the cable connected with a smart female-male waterproof connectors, no need any tools and screw-driver to connect other lights. More convenient and less labor cost.
- ② For the fixed accessories or components are used M10 screws and brackets' fixed component are used M8 screws.



32.5CD Intensity



OLA11LD LED+IR OBSTRUCTION LIGHT

ICAO Low-Intensity

Type B 32cd,
FAA L810
Infrared

Low-Intensity Dual Light OLA11LD

OLA11LD double low intensity lights are designed to comply with ICAO Type A & B / FAA requirements. It incorporates infrared that makes it completely Night Vision Goggle (NVG) compatible obstruction light. This model light can be used for marking obstacles below 45 meters above ground, such as telecommunication towers, wind turbines, buildings and other tall structures.

This light's operation modes is steady burning. The operation modes are adjustable by end user. On/Off is controlled by photocell automatically, and faulty alarm outputting if any fails. It is ideal product for the users.

FEATURES:

- All-in-one type aviation obstruction light with mast light and backup. Controlling PCB is built into light. NVG compliant infrared (IR) light together.
- Several LED and lens can reach optical requirements, and reduce light pollution so as to improve light efficiency.
- Built in redundancy controlling PCB – leading light and standby light operation.
- Reverse polarity protected (DC Type).
- EMC compliant, No RF-radiations.
- Resistant to shock and vibrations.
- Available in universal DC: will accept between 12~48 VDC.
- GPS synchronization is available. (Customizing option)

Specification	
Light model	OLA 11LD
Light source	Cree LED
Intensity	32.5cd
Horizontal Output (degrees)	360
Vertical Output (degrees)	10
LED color	Red as standard.
LED lifetime	>100,000hours
Operation mode	Steady burning and infrared
Electrical characteristics	
Operating voltage	90-240VAC/12VDC
Power consumption	5W
Driven mode	Constant current
Mechanical characteristics	
Body material	Aluminum
Lens material	PC UV Stabilize
Weight	3KG
Dimension	458mm×246mm×173mm
Mounting	G3/4 screw pipe
Working temperature	-40°C ~ +50°C
Humidity	10% ~ 95%
Wind speed	Up to 150mph(240kph)
Waterproof	IP66

Order Instruction

Product Code	Intensity	Output	Voltage	GPS
OLA11LD-R-IR-DC	32.5	Aviation Red+Infrared	48VDC	NO
OLA11LD-R-IR-DC/AC	32.5	Aviation Red+Infrared	12VDC/90~240VAC	NO
OLA11LD-R-IR-DC/AC	32.5	Aviation Red+Infrared	12VDC/90~240VAC	YES

MB001 flange plate

MB002 G3/4' mounting bracket (40~70mm)

The light is able to come with 1 pcs M18 cable gland for cable entry. And it's also using 3x1mm² cable to connect with female-male waterproof metal connectors.

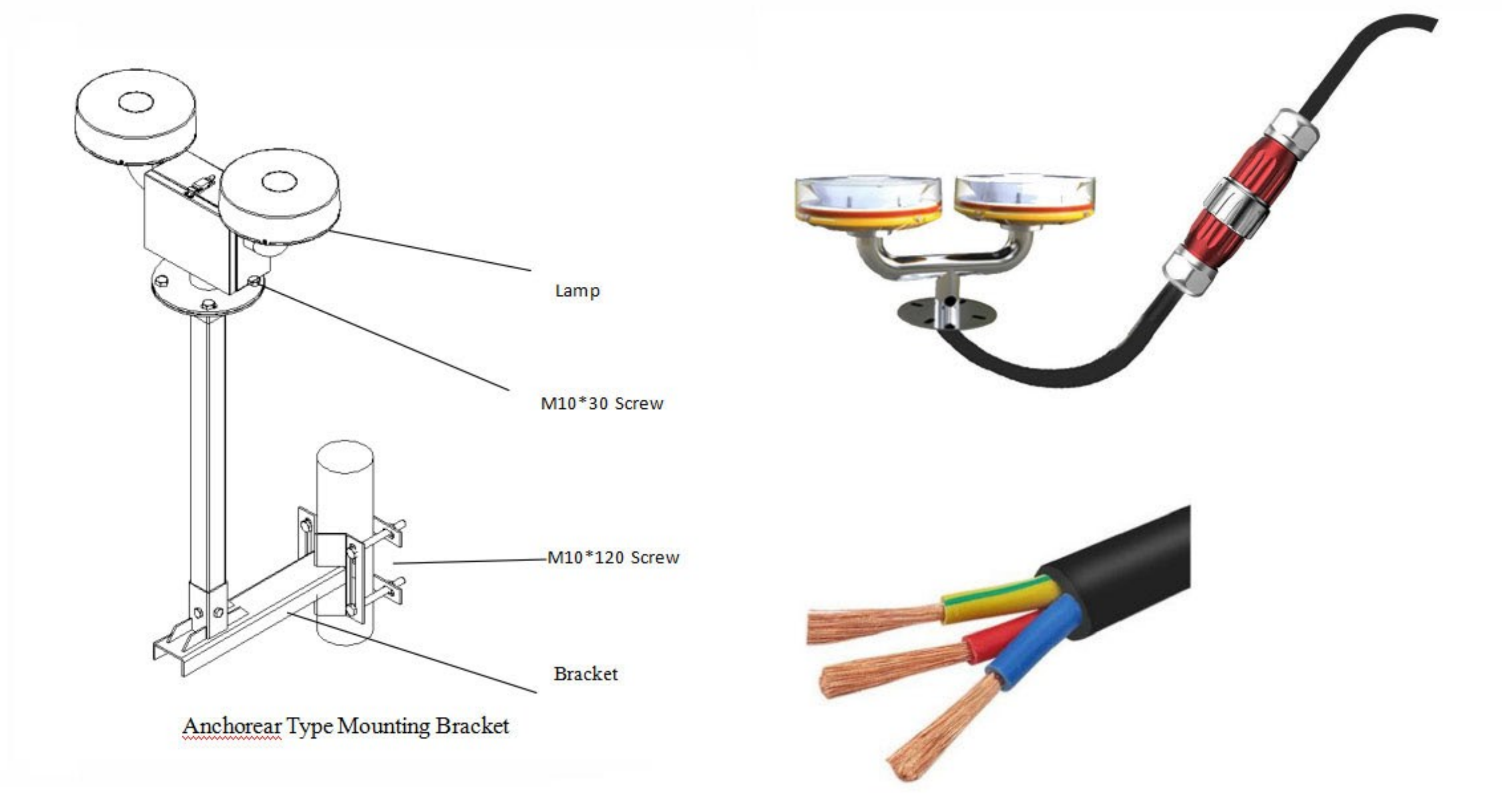


OLA 11LD Installation

- ① Installed the light on horizontal surface that have enough strength.(Reference the following picture)
- ② When installation, do not put the photocell to point at the light, especially there are any obstacles.
The photocell box is connecteel to the controller box

Usage

- ① Cable distinguish: The OLA 11LD low intensity obstruction light has a meter long with 3 cores cable, in which the cable connected with a smart female-male waterproof connectors, no need any tools and screw-driver to connect other lights. More convenient and less labor cost.
- ② For the fixed accessories or components are used M10 screws and brackets' fixed component are used M8 screws.



2000CD Intensity



OLA15M LED+IR OBSTRUCTION LIGHT

ICAO Medium-Intensity Type C 2000cd
FAA L864
Infrared

Medium-Intensity Single Light OLA15M

OLA15M LED obstruction lights can be steady burning.

Photocell or external controller controls wireless synchronization and day/night. It incorporates infrared that makes it completely Night Vision Goggle(NVG) compatible obstruction light. Vibration resistant and operates over a wide temperature range. It is protected against lightning strikes. These series lights can be applying for marking telecom towers, buildings, wind turbines, airport, fencing and other obstacles.

OLA15M is 2000cd red medium intensity light. It is compliant to ICAO and FAA L-864 standard. Utilizing state-of-the-art optical design to achieve the most compact and efficient light.

FEATURES:

- Cree LED, 100,000 hours lifetime. High light efficiency and energy saving.
- A large arc reflector can limit light beam within effective range, reducing light pollution and improving light efficiency.
- Using LED constant current drive technology and aluminum cooling technology so as to maximize LED life.
- Lighthouse is made of PC material. It is able to anti-UV, good at impact strength, thermal stability and flame retardancy.
- High reliability seal design to meet IP66.
- It is with integrated junction box, which is convenient for customer wiring connection.
- Reverse polarity protected (DC Type).
- Option function: light sensor (photocell) for day/light operation
Optional steady burning.
Optional faulty alarm output
Optional GPS Synchronization

Specification	
Light model	OLA15M
Light source	Cree LED
Intensity	2000±25%cd
Horizontal Output (degrees)	360
Vertical Output (degrees)	3
LED color	Red as standard.
LED lifetime	>100,000hours
Operation mode	Steady burning (default) and infrared
Electrical characteristics	
Operating voltage	90~240VAC/DC12V
Power consumption	25W
Driven mode	Constant current
Mechanical characteristics	
Body material	Die casting aluminum
Lens material	PC UV Stabilize
Weight	7.00KG
Dimension	See diagram
Working temperature	-40°C ~ +50°C
Humidity	10% ~ 95%
Wind speed	Up to 150mph(240kph)
Waterproof	IP66

Order Instruction

Product Code	Intensity	Output	Voltage	GPS
OLA15M-R-IR-DC	2000	Aviation Red+Infrared	48VDC	NO
OLA15M-R-IR-DC/AC	2000	Aviation Red+Infrared	12VDC/90~240VAC	NO
OLA15M-R-IR-DC/AC	2000	Aviation Red+Infrared	12VDC/90~240VAC	YES
MB2K mounting bracket				

The light is able to come with 1 pcs M18 cable gland for cable entry. And it's also using 3x1.5mm² cable to connect with female-male waterproof metal connectors.

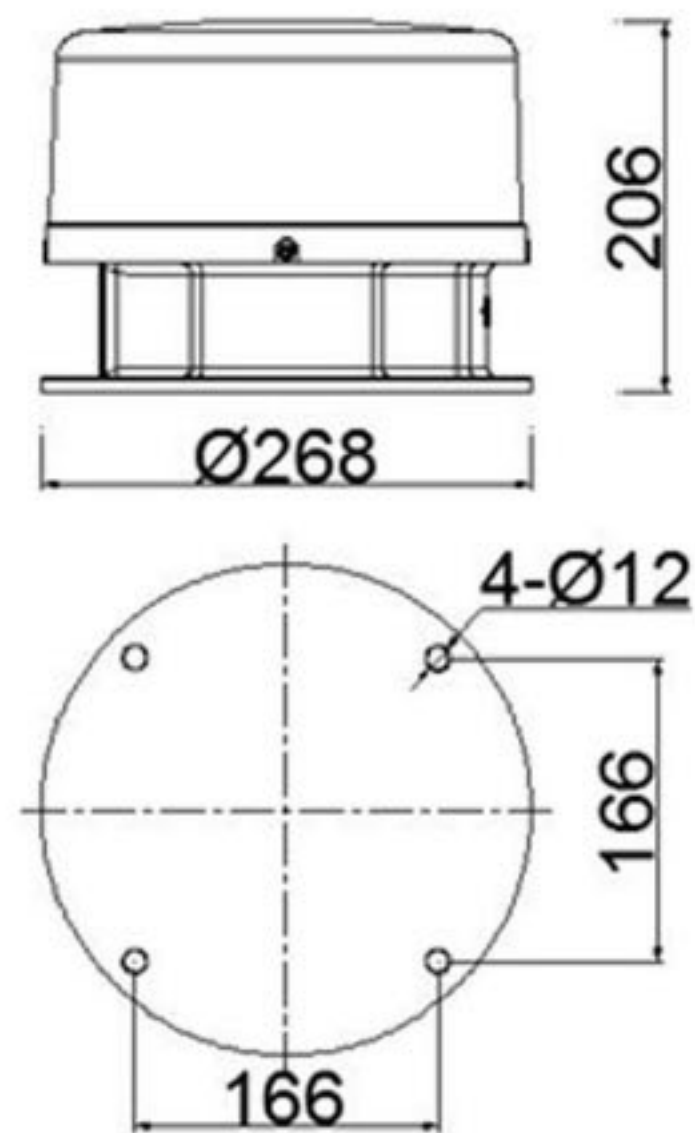


OLA 15M Installation

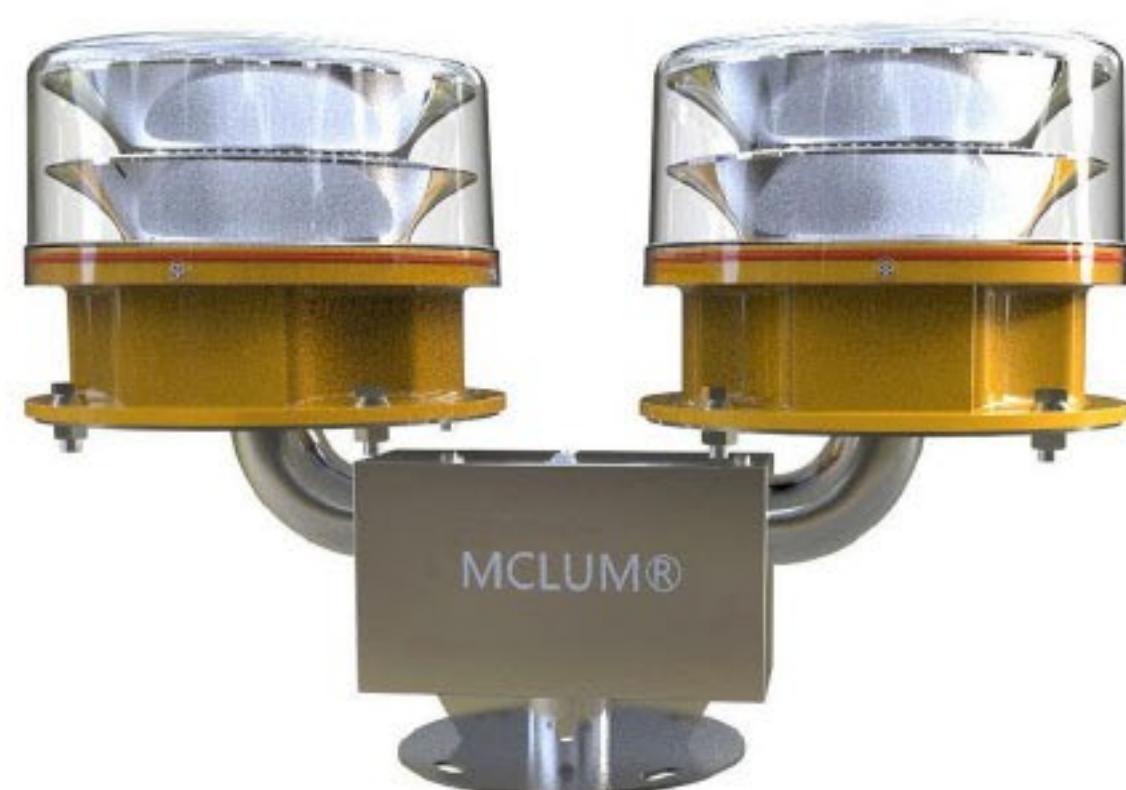
- ① Installed the light on horizontal surface that have enough strength.(Reference the following picture)
- ② When installation, do not put the photocell to point at the light, especially there are any obstacles.
The photocell box is connected with controller box

Usage

- ① Cable distinguish: The OLA 15M medium intensity obstruction light has a meter long with 3 cores cable, in which the cable connected with a smart female-male waterproof connectors, no need any tools and screw-driver to connect other lights. More convenient and less labor cost.
- ② For the fixed accessories or components are used M10 screws and brackets' fixed component are used M8 screws.



2000CD Intensity



LA15MD LED+IR OBSTRUCTION LIGHT

ICAO Medium-Intensity Type C 2000cd
FAA L864
Infrared

Medium-Intensity Single Light OLA15MD

OLA15MD LED obstruction lights can be red steady burning. Photocell or external controller controls wireless synchronization and day/night. It incorporates infrared that makes it completely Night Vision Goggle(NVG) compatible obstruction light. Vibration resistant and operates over a wide temperature range. It is protected against lightning strikes. There series lights can be applying for marking telecom towers, buildings, wind turbines, airport, fencing and other obstacles.

OLA15MD is 2000cd red medium intensity light. It is compliant to ICAO and FAA L-864 standard. Utilizing state-of-the-art optical design to achieve the most compact and efficient light.

FEATURES:

- Cree LED, 100,000 hours lifetime. High light efficiency and energy saving.
- A large arc reflector can limit light beam within effective range, reducing light pollution and improving light efficiency.
- Using LED constant current drive technology and aluminum cooling technology so as to maximize LED life.
- Lighthouse is made of PC material. It is able to anti-UV, good at impact strength, thermal stability and flame retardancy.
- High reliability seal design to meet IP66.
- It is with integrated junction box, which is convenient for customer wiring connection.
- Reverse polarity protected (DC Type).
- Option function: light sensor (photocell) for day/light operation
Optional steady burning.
Optional faulty alarm output
Optional GPS Synchronization

Specification	
Light model	OLA15MD
Light source	Cree LED
Intensity	2000±25%cd
Horizontal Output (degrees)	360
Vertical Output (degrees)	3
LED color	Red as standard.
LED lifetime	>100,000hours
Operation mode	Steady burning (default) and infrared
Electrical characteristics	
Operating voltage	90~240VAC/DC48V
Power consumption	25W
Driven mode	Constant current
Mechanical characteristics	
Body material	Die casting aluminum
Lens material	PC UV Stabilize
Weight	15KG
Dimension	See diagram
Working temperature	-40°C ~ +50°C
Humidity	10% ~ 95%
Wind speed	Up to 150mph(240kph)
Waterproof	IP66

Order Instruction

Product Code	Intensity	Output	Voltage	GPS
OLA15MD-R-IR-DC	2000	Aviation Red+Infrared	48VDC	NO
OLA15MD-R-IR-DC/AC	2000	Aviation Red+Infrared	12VDC/90~240VAC	NO
OLA15MD-R-IR-DC/AC	2000	Aviation Red+Infrared	12VDC/90~240VAC	YES

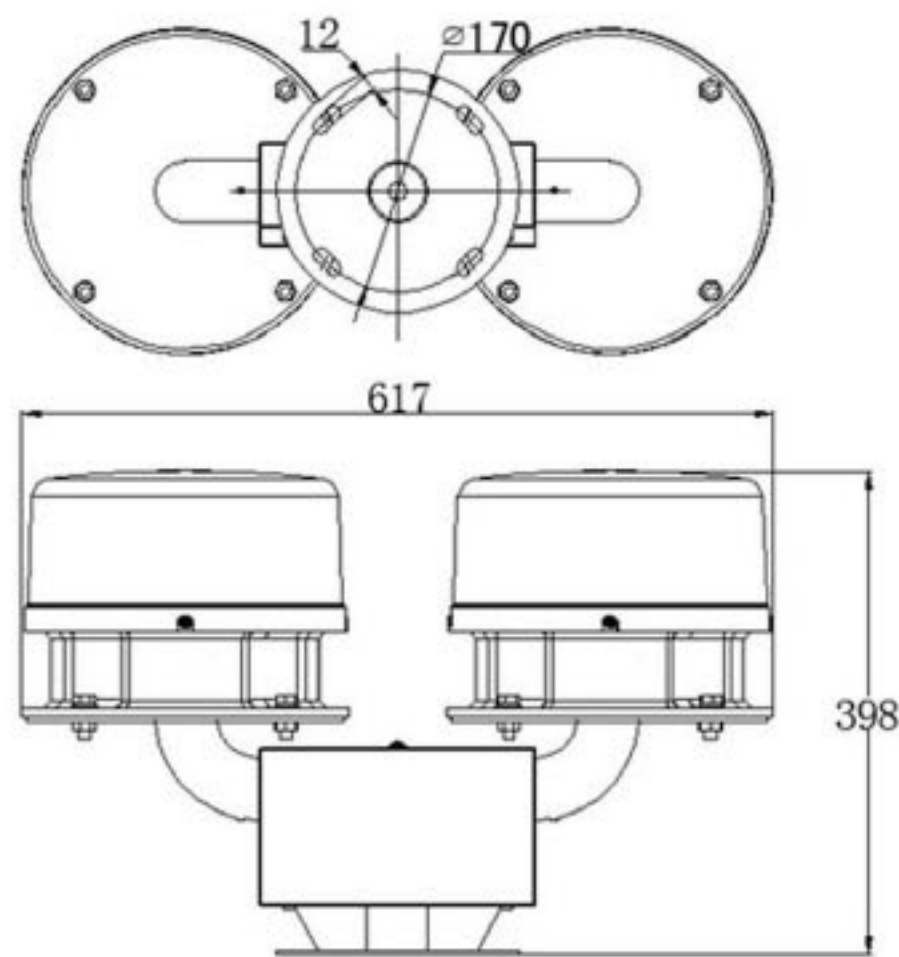


OLA 15MD Installation

- ① Installed the light on horizontal surface that have enough strength.(Reference the following picture)
- ② When installation, do not put the photocell to point at the light, especially there are any obstacles.
The photocell box is connected to The controller box

Usage

- ① Cable distinguish: The OLA 15MD double medium intensity obstruction light has a meter long with 3 cores cable, in which the cable connected with a smart female-male waterproof connectors, no need any tools and screw-driver to connect other lights. More convenient and less labor cost.
- ② For the fixed accessories or components are used M10 screws and brackets' fixed component are used M8 screws.





OLA CB 11

4 ways outputting for light, 1 way outputting for alarm
With photocell for day/night switch

Digital Control Box

OLA CB 11 Control box is especially designed for MCLUM® aviation obstruction light. It can synchronize aviation lights and monitor all lights' status. When lights fail, it will output alarm signal. By using OLA CB 11 with aviation lights, this system can widely applying to steel tower (tower crane, telecom tower, electrical iron tower) chimney tower, high buildings, large bridges, large port machinery, construction machinery, wind turbines and other area which request aircraft warning.

FEATURES:

Use the steel shell and spray coating techniques, resistance to corrosion, anti-UV

- The voltage of the power circuit and signal control line is same, so the connection of the wires are simple and reliable, it will not cause damage to the lightings and controller when connect the error line shortly.

- Control circuit use the MCU control, can simultaneously control 2000W load power / within

100 units aviation obstruction lights synchronized flashing or steady.

- Controller have 3 kinds operating modes: automatic, manual, close

Automatic mode: automatically shutdown during the day, turn off the aviation light control output; automatically turn on at night an open aviation light control output. Work in manual mode: work status is forced open.

Work close mode: work status is forced closed, three operating modes can be switched by the user .

- The controller can also customize the fault alarm function, when one of the light it

controlled failed, the indicator on the controller can be shown, also could use the dry contacts to alarm the external environment.

- The function of this aviation obstruction light controller is very powerful, performance is

reliable and safe. Use and maintenance are simple and convenient; and with anti-surge device (anti-lightning In15KA /5 times, I_{max} 40KA), can be applied to a poor working environment.

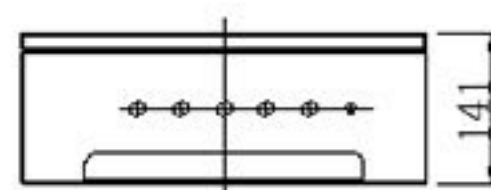
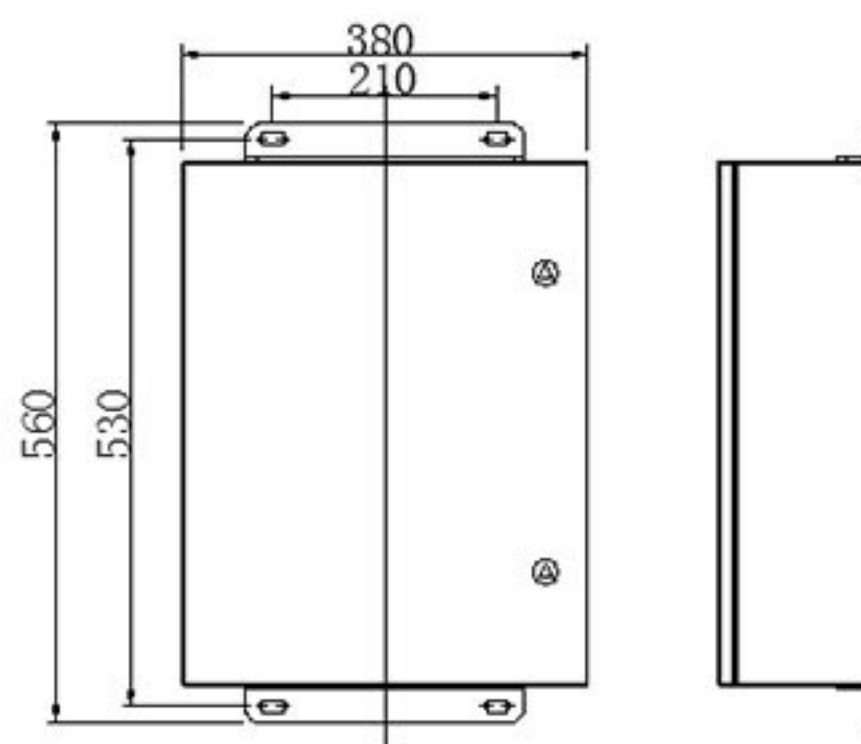
- OLA CB 11 control box is used to control 3 low intensity obstacle lights, which has function of alarm failure alarm, anti-lightning and smart connectors to connect with lights, backup

batteries and others. There is no any tools and screw-driver to fix and tighten them when they are installed to the tower cranes.

Installation Specification

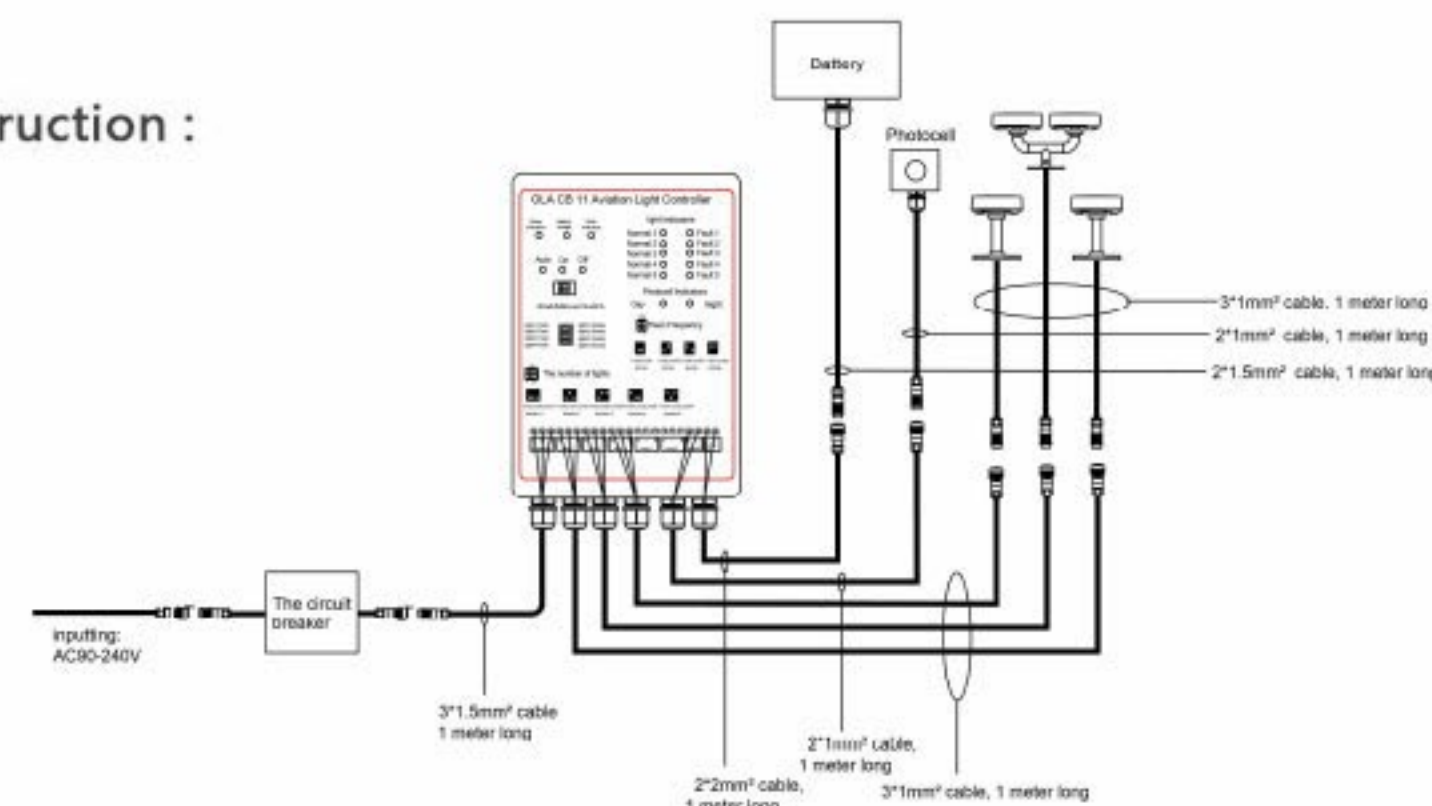
Flat Installation.

1. Use 4 pcs M8 screws
2. Recommended cable $3 \times 1 \text{ mm}^2 / 2 \times 1 \text{ mm}^2$ or other size, and patched with waterproof connector.

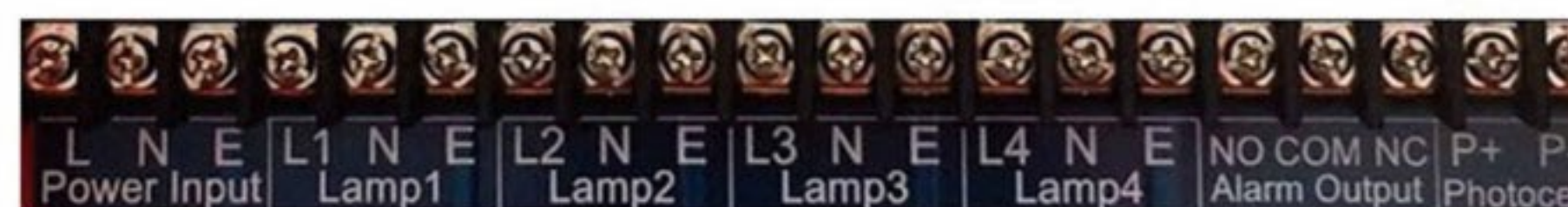


Photocell

Wiring Instruction :



Wiring Connection :



Power input: Connection with power wiring.

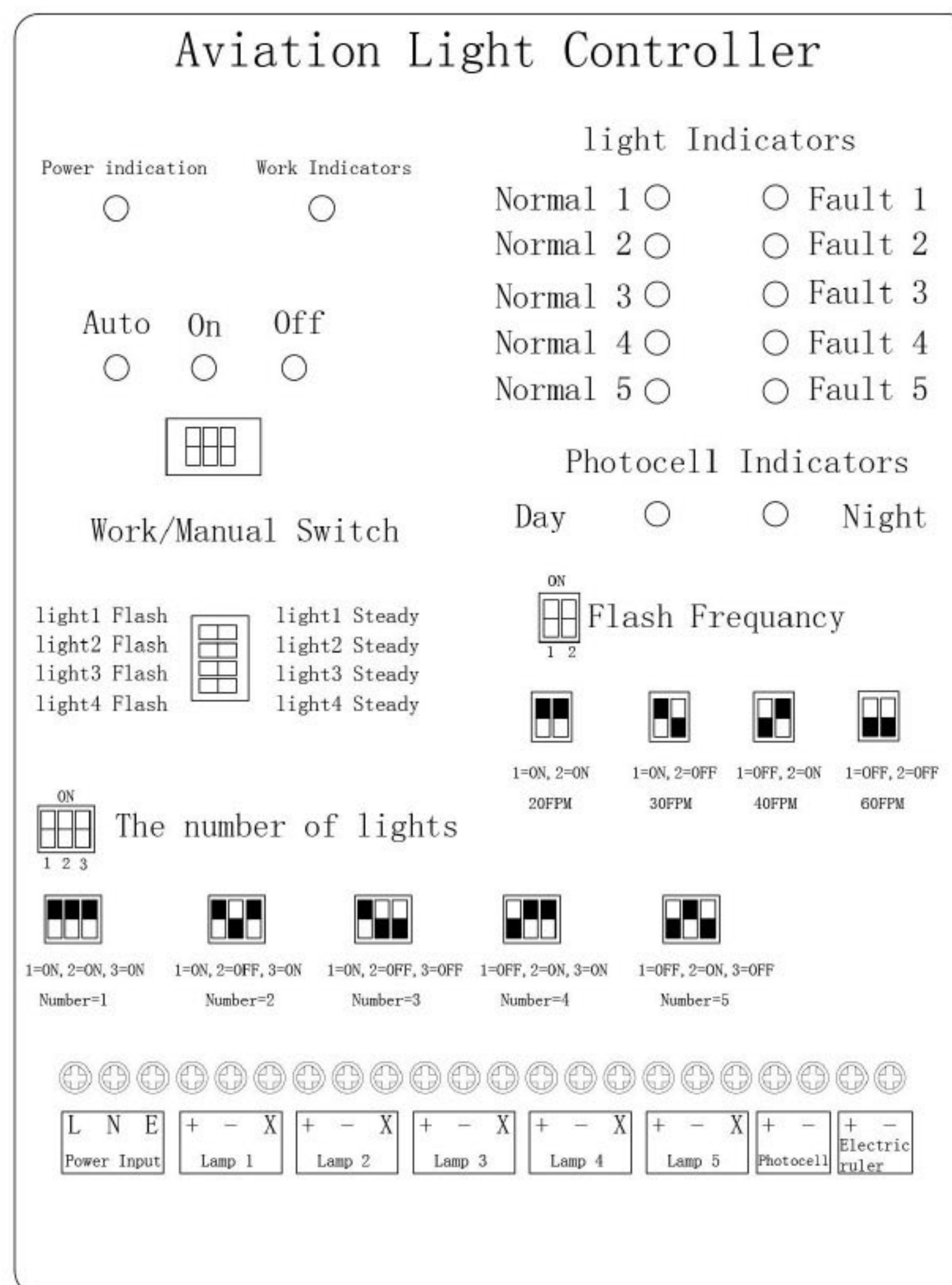
	Mark	Description
AC Type	L	Live
	N	Neutral
	E	Protective earth
DC Type	+	Positive
	-	Negative
	E	Protective earth

Lamp 1,2,3 Connect to obstruction light 1,2,3.

Alarm Output: Connect to external alarm equipment. Dry node outputting. Alarm Relay

(Contact Capacity Resistive Load: 10A)

Photocell: Connect to photocell box. Photocell box is provided with controller.



Specification	
Controller characteristics	OLA CB 11
Mode size	560mm×380mm×141mm
Installation Size	530mm×210mm-4×M10
Control mode	Steady burning and infrared
Photocell sensitivity	500±50 Lux(On/Off)
Flashing adjustment	NA
Electrical characteristics	
Operating voltage	90~240VAC, 12VDC,
Mechanical characteristics	
Body material	Stainless steel
Weight	23 (including battery' s weight)
Dimension	See diagram
Working temperature	-40°C ~ +50°C
Humidity	10% ~ 95%
Wind speed	Up to 150mph(240kph)
Waterproof	IP66
Photocell sensitivity	50-500Lux

MCLUM OLA 11CB (100W) Controller Box Manual

1、 Function

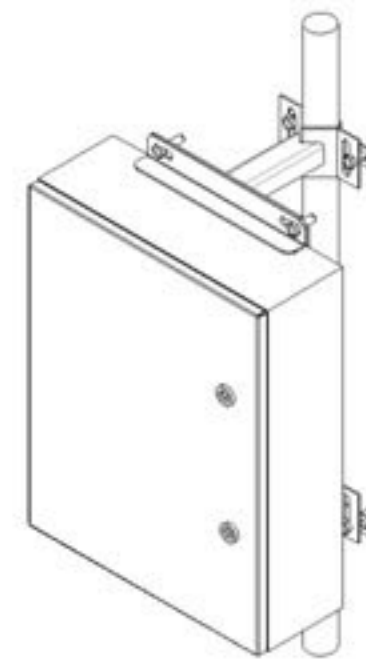
- ① The signal control method with the same voltage level as the power supply line is adopted directly, the connection is simple, and high work reliability; the lead-acid battery is installed in the control box, and after the power is cut off, the power supply for the lamp can be satisfied for one hour.
- ② Powerful, reliable, safe, easy to use and maintain, built-in anti-surge protection
- ③ Equipped with an outdoor photocell, which made all different types of aviation obstacle light automatically synchronous flashing or work with steady burning when the dark is falling.

2、 Installation

① Controller Box Installation Instruction

The controller is wall-mounted and has 4 mounting holes at the bottom and is fixed with 4 M10 bolts.

Please reference the following picture.



② Battery assemble

Put 4pcs batteries into the upper layer of controller box , wire them with female-male connectors. Finally fix the protection board.

(Reference the following picture)



Batteries Assemble



Female-male connecting

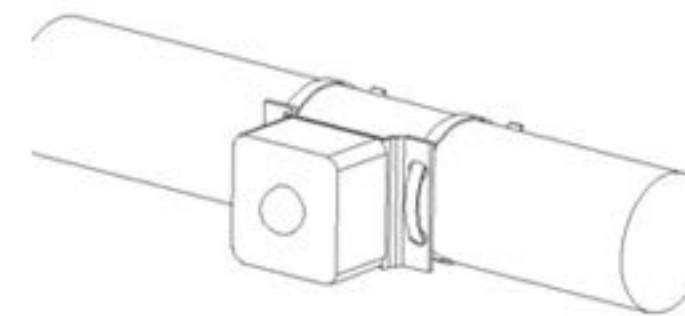
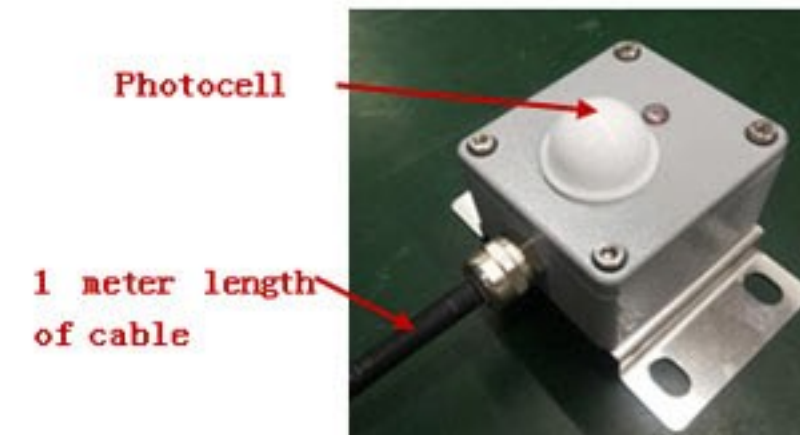


Fix the protection board

MCLUM OLA 11CB (100W) Controller Box Manual

③ Photocell Installation

Photocell with one meter cable, which is installed in the non-obstacle place. Even more, do not point at other light source in case of affecting its working.



3、How to connect the wire

(1) How to connect the input power cable

AC90-240V Input : Waterproof female connector "1" should be connected to Live wire, connector "2" should be connected to Null wire, and connector "3" should be connected to Earth wire. Finally to connect with male connector.

Remark : Power input AC220V, 50HZ or 60HZ.

Cable size 1.5mm² cable.



Female Connector



Female-male connecting

(2) Output power cable instruction

There are 3 pcs 3-core female connectors (DT+ connect with brown wire, DTR- connect with yellow and green wire, DTH- connect with black wire) wire to the male connectors of lights. 2-core female connector (GK+ connect with brown wire, GK- connect with black wire) wire to the male connectors of photocell.



Male connectors of lights
and photocell

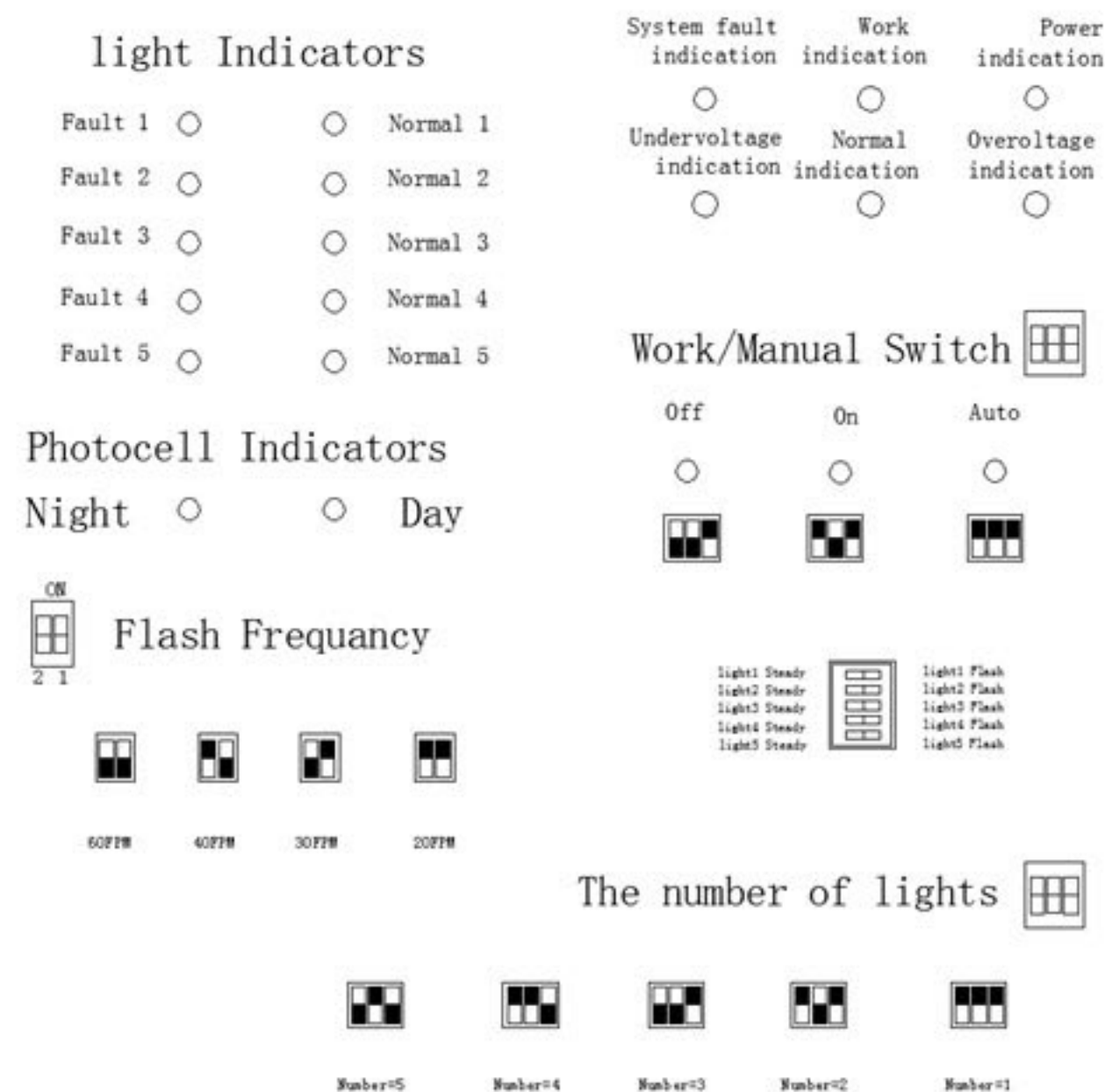


Female-male connecting

MCLUM OLA 11CB (100W) Controller Box Manual

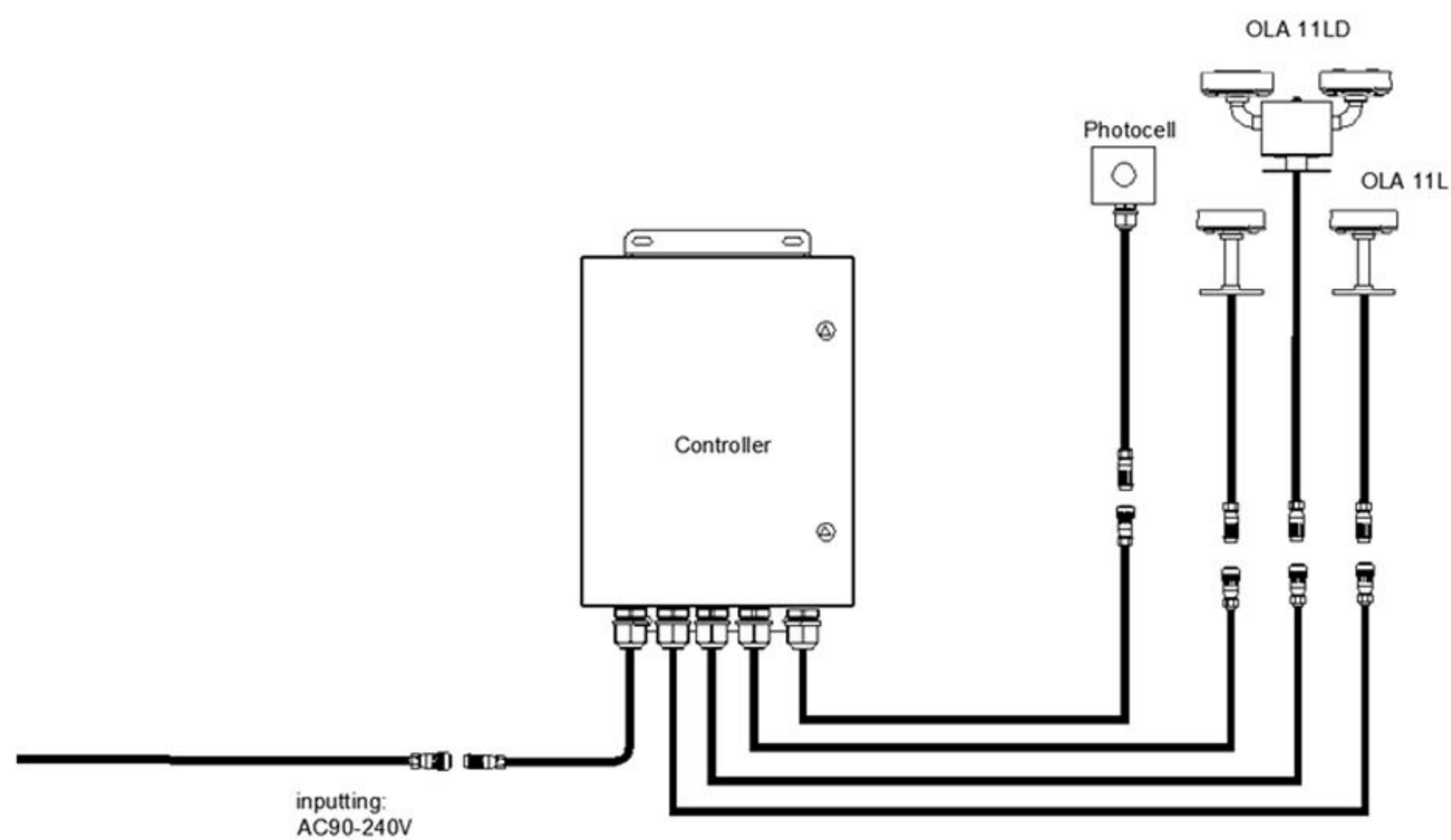
- ① Below the light indication, the Normal 1 light is on, indicating that the No. 1 lamp is working well. And if the Fault 1 light is on, indicating that the No. 1 lamp is fail. The same indicate as the following lights.
- ② When it's at night, the low intensity obstruction lights are on. When it's in the daylight, the low intensity lights are off.
- ③ Cause for this system, all of lights are steady burning, so the flashing mode is useless.
- ④ If the power indicate light is on, which means the whole system is worked well. If "Normal 1,2,3,4,5,6" indicate lights are on, every thing worked well. If the "Fault 1,2,3,4,5,6" indicate lights are on, so the whole system is failure. The failure alarm is started to work. If "Under voltage indication" is on, which shows that the voltage for the battery is a little high.
- ⑤ Put the "Work/Manual Switch" to "Off" position, reference everything is off. Put to "On", reference all of lights and device are working on. Put to "Auto", reference all of lights and device are worked automatically.
- ⑥ Put "The number of lights" switches to the position of below picture showing, which indicate to control the quantities of lights.

Aviation Light Controller



MCLUM OLA 11CB (100W) Controller Box Manual

4、Wiring Diagram





OLA CB 15

4 ways outputting for light, 1 way outputting for alarm
With photocell for day/night switch

Digital Control Box

OLA CB 15 Control box is especially designed for MCLUM® aviation obstruction light. It can synchronize aviation lights and monitor all lights' status. When lights fail, it will output alarm signal. By using OLA CB 15 with aviation lights, this system can widely applying to steel tower (tower crane, telecom tower, electrical iron tower) chimney tower, high buildings, large bridges, large port machinery, construction machinery, wind turbines and other area which request aircraft warning.

FEATURES:

Use the steel shell and spray coating techniques, resistance to corrosion, anti-UV

- The voltage of the power circuit and signal control line is same, so the connection of the wires are simple and reliable, it will not cause damage to the lightings and controller when connect the error line shortly.

- Control circuit use the MCU control, can simultaneously control 2000W load power / within

100 units aviation obstruction lights synchronized flashing or steady.

- Controller have 3 kinds operating modes: automatic, manual, close Automatic mode: automatically shutdown during the day, turn off the aviation light control output; automatically turn on at night an open aviation light control output. Work in manual mode: work status is forced open. Work close mode: work status is forced closed, three operating modes can be switched by the user .

- The controller can also customize the fault alarm function, when one of the light it controlled failed, the indicator on the controller can be shown, also could use the dry contacts to alarm the external enviroment.

- The function of this aviation obstruction light controller is very powerful, performance is reliable and safe. Use and maintenance are simple and convenient; and with anti-surge device (anti-lightning In15KA /5 times, I_{max} 40KA), can be applied to a poor working environment.

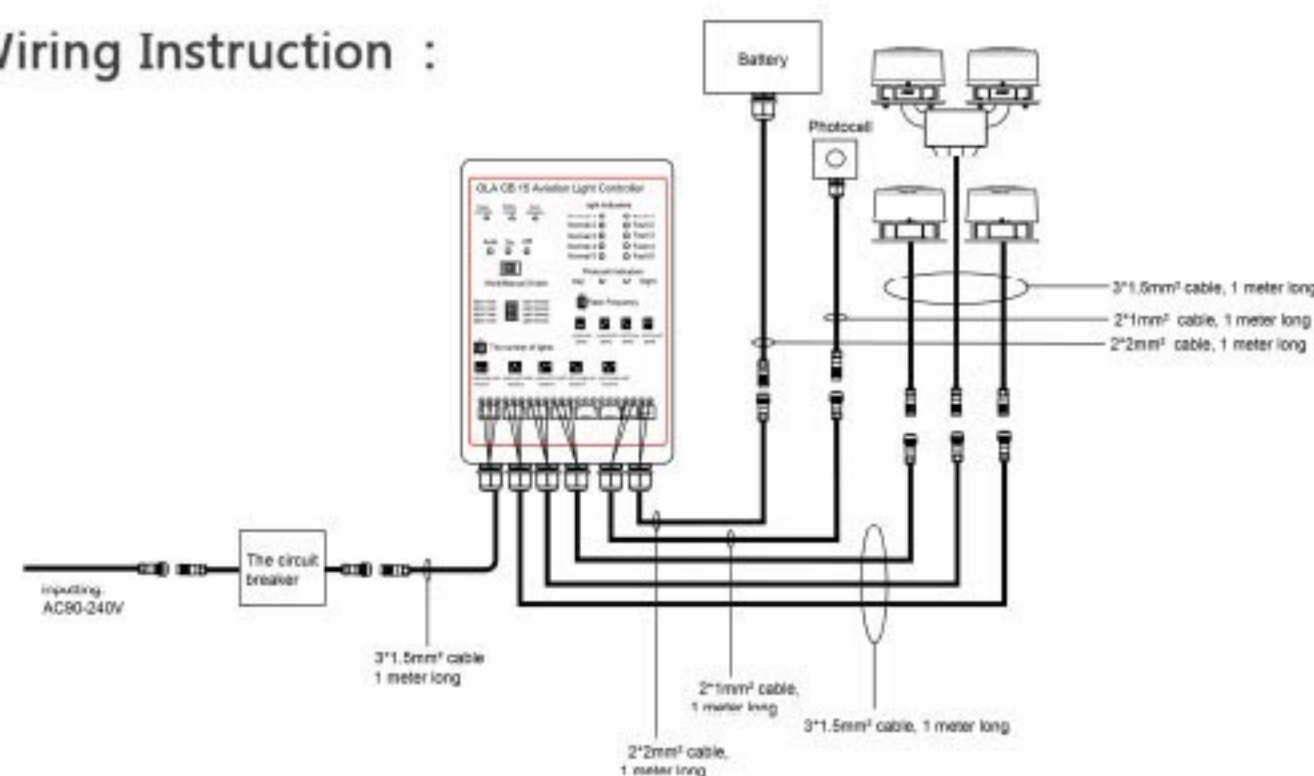
- OLA CB 15 control box is used to control 3-5 medium intensity obstacle lights, which has function of alarm failure alarm, anti-lightning and smart connectors to connect with lights, backup batteries and others. There is no any tools and screw-driver to fix and tighten them when they are installed to the tower cranes.

Installation Specification

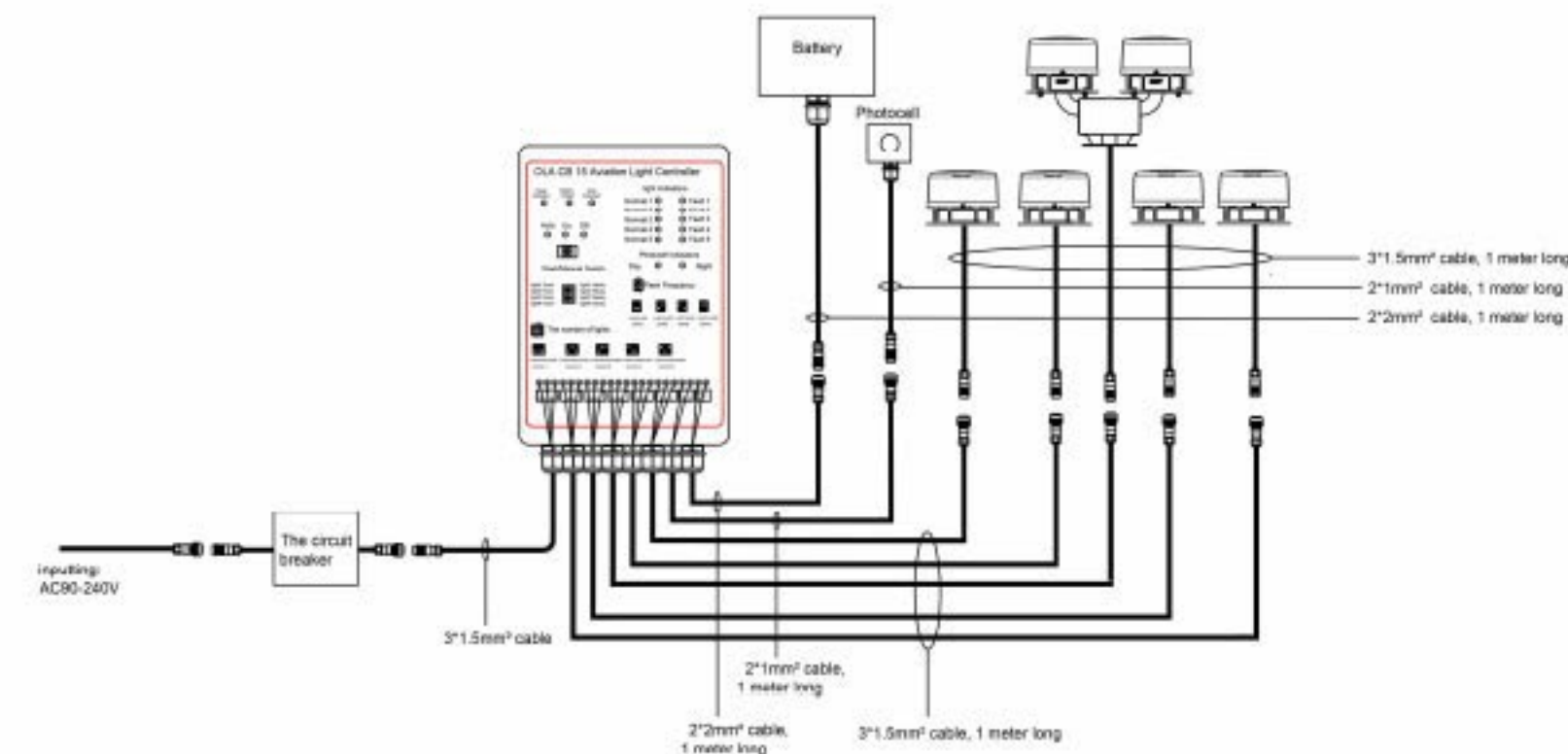
Flat Installation.

1. Use 4 pcs M8 screws
2. Recommended cable 3*1 mm²/2*1 mm² or other size, and patched with waterproof connector.

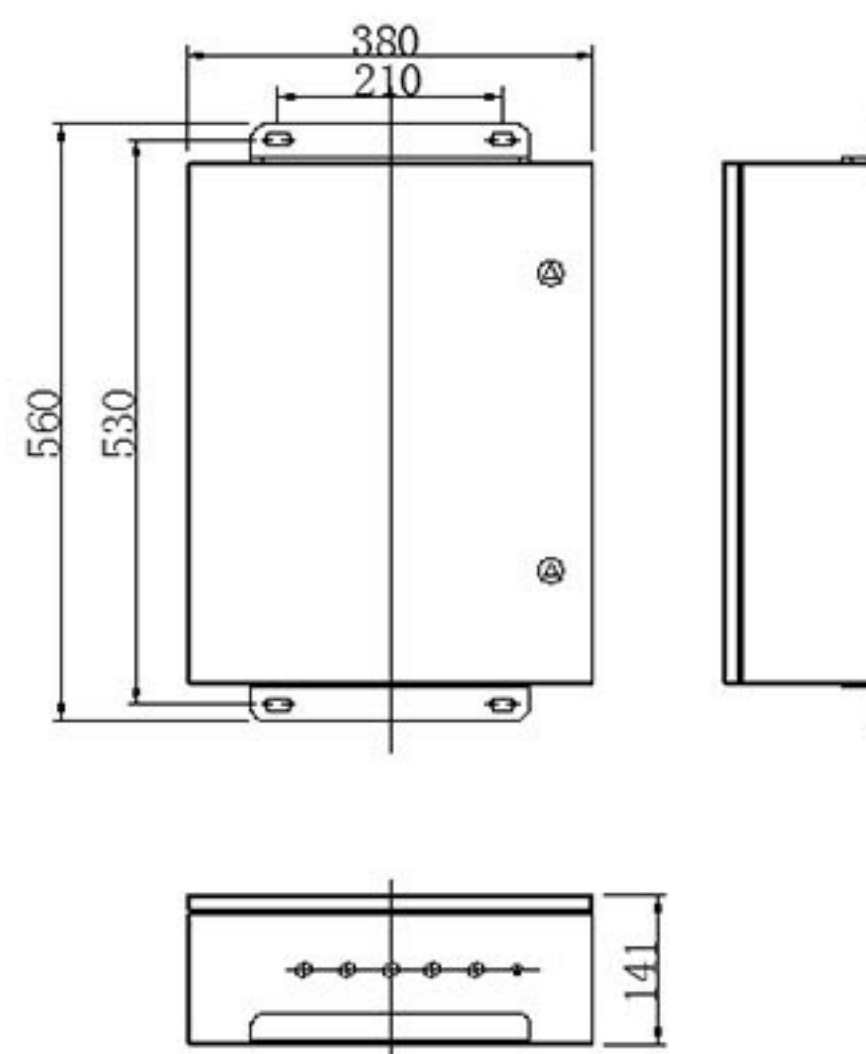
Wiring Instruction :



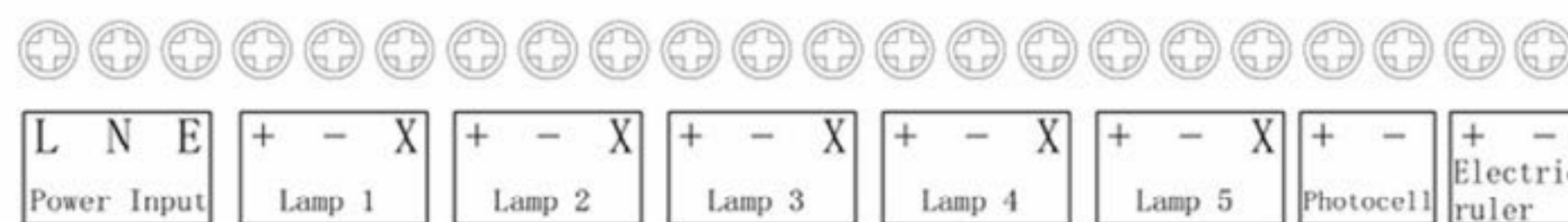
OLA CB 15 connect with 3 obstacle lights (install to 45m-60m tower crane)



OLA CB 15 connect with 5 obstacle lights (install to 80m-100m tower crane)



Wiring Instruction :



Power input: Connection with power wiring.

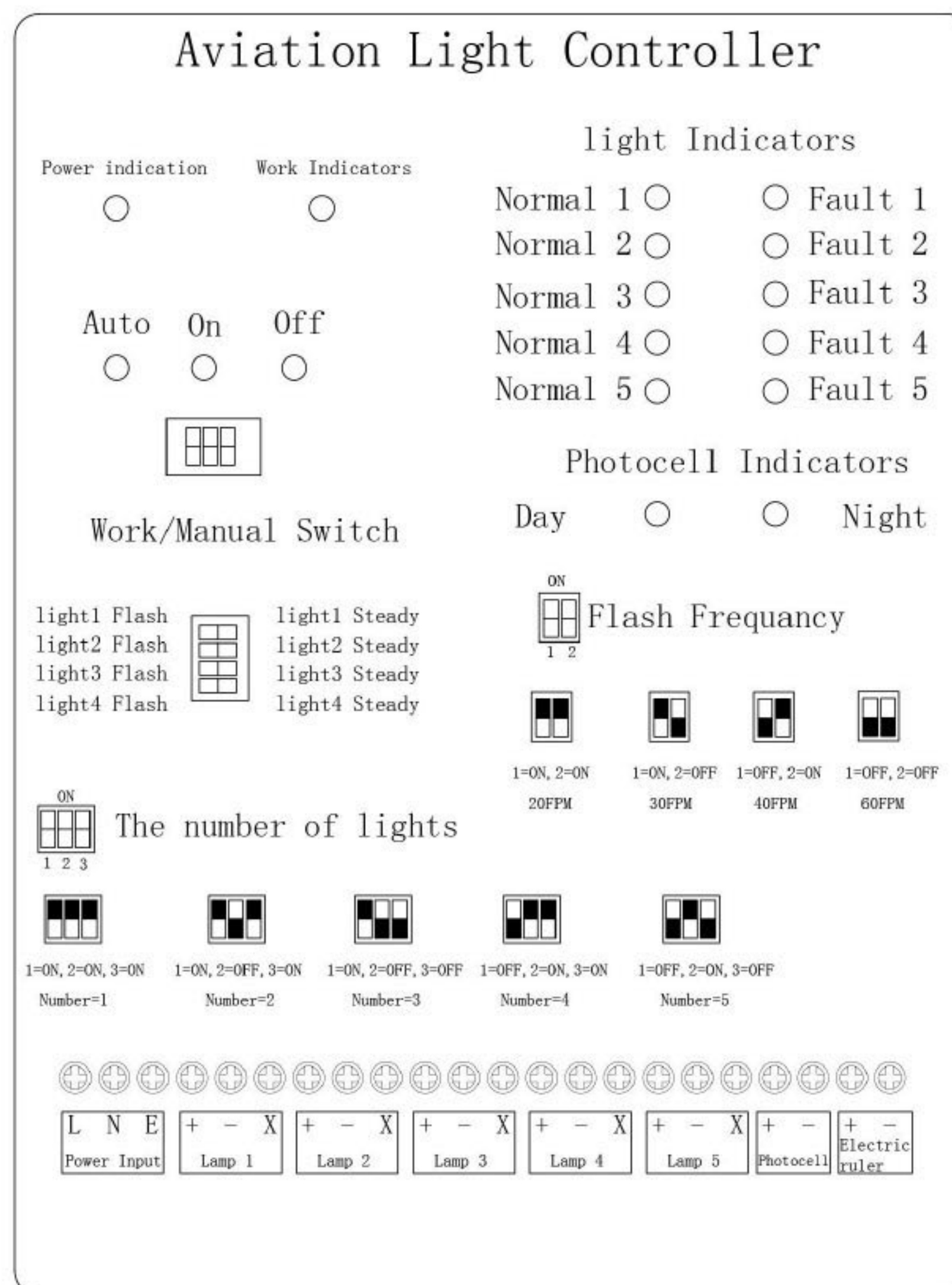
	Mark	Description
AC Type	L	Live
	N	Neutral
	E	Protective earth
DC Type	+	Positive
	-	Negative
	E	Protective earth

Lamp 1,2,3 Connect to obstruction light 1,2,3.

Alarm Output: Connect to external alarm equipment. Dry node outputting. Alarm Relay

(Contact Capacity Resistive Load: 10A)

Photocell: Connect to photocell box. Photocell box is provided with controller.



Specification	
Controller characteristics	OLA CB 15
Mode size	560mm×380mm×141mm
Installation Size	530mm×210mm-4×M10
Control mode	Steady burning and infrared
Photocell sensitivity	500±50 Lux(On/Off)
Flashing adjustment	NA
Electrical characteristics	
Operating voltage	90~240VAC, 48VDC,
Mechanical characteristics	
Body material	stainless steel
Weight	10KG
Dimension	See diagram
Working temperature	-40°C ~ +50°C
Humidity	10% ~ 95%
Wind speed	Up to 150mph(240kph)
Waterproof	IP66
Photocell sensitivity	50-500Lux

Battery Container



Lithium Battery

Material : Stainless steel

Battery type : Lithium battery

Battery capacity : For OLA CB 11 controller: 48V/0.8Ah (control 3 pcs low intensity obstacle lights)

For OLA CB 15 controller: 48V/ 5 Ah (control 3 pcs medium intensity obstacle lights)

For OLA CB 15 controller: 48V/ 6 Ah (control 5 pcs medium intensity obstacle lights)

Last working time for the battery: 60 minutes

Material Designation: DH20 3-pin waterproof connector



3-pin Female waterproof connector



3-pin Male waterproof connector



2-pin Female waterproof connector



2-pin Male waterproof connector

Materials Processes, Surface Treatment

A.Contact

Materials: Male Pin: Brass; Female Pin: Phosphor Bronze
Processes: Machining
Surface Treatment: Gold Plating for 4u" over nickel

B.Shell

Materials: Zinc alloy
Processers: Die-casting
Surface Treatment: Nickel Plating

C. Insulator

Materials: PBT
Processes: Injection
Color: Black

Material Introduction:

A. Basic Information

The performance of this connector is in conformity with Linko electric enterprise standard (in accordance with the TIA/EIA 568, MIL, IEC, CNS, etc.). With zinc alloy to reduce external electromagnetic interference. You can choose different color in different environment. Metal and silica gel cover are optional to be used in different environment. The contact part shall be welded with the end of the conductor.

Offer standard insert arrangements from 2-12 pins for your chosen.

B. Packing and Storage:

The production are packed in plastic bag, The packing list must be set in every carton, which has been given clear information of material designation, part number, production order number, packet quantity and total product quantity. The packaged production should be stored in the storeroom, in which Environment Temperature is $-40^{\circ}\text{C} \sim +80^{\circ}\text{C}$, Relative humidity $\leq 85\%$, no acidic, alkaline and other corrosive gases.

C. Mating Type.

Mated with: DH20 connector (male)

Applicable Standards: TIA/EIA 568, MIL, IEC, CNS Standards

D. Process Requirements

According to form of terminal. The form of terminal is welding, the welding must be firm and cannot have pseudo soldering

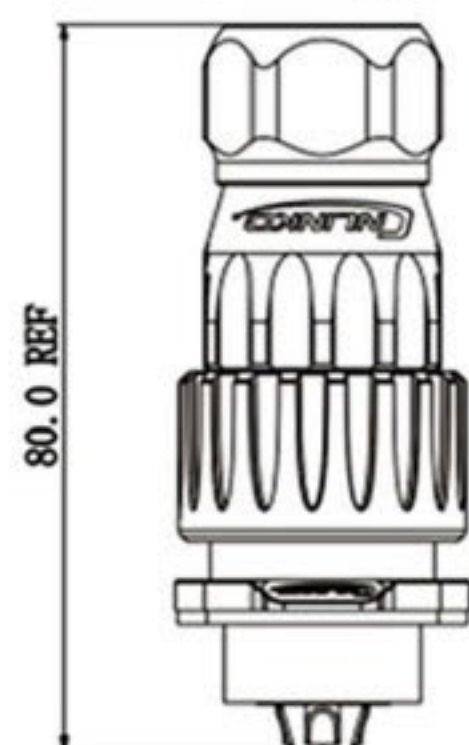
E. According to form of mounting

Please see the mounting hole figure.

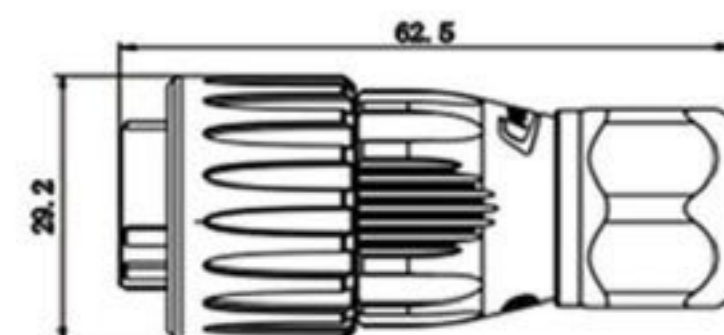
Specification	
Item No.	DH20 3-pin/DH 20 2-pin
Rated current	20A
Operating voltage	500V
Withstanding voltage	2500V
Contact resistance	<1.0m Ω
Temperature rise	20A 30°C↓; 25A 40°C↓; 30A 50°C↓
Contact dimension	Ø2.7*3 mm
Insertion and extraction force	4.5N max
Temperature and humidity	-40°C ~ +80°C; 40°C, 85%RH.
Vibration	Frequency: 5~200Hz, Amplitude: 5mm, Speed :10m/s No instantaneous short circuit in 0.10us
Impact resistance	294m/S
Salt spray	PH6.5-7.2, NaCl, 5% 48H
Wire specification	2.5mm ² -4mm ² /12-14AWG
Applicable wire diameter	Scope of application (OD: Ø8-Ø12) mm
Protection level	IP67
Certification standard	Comply with the TUV and UL certification standards

Draft Structure

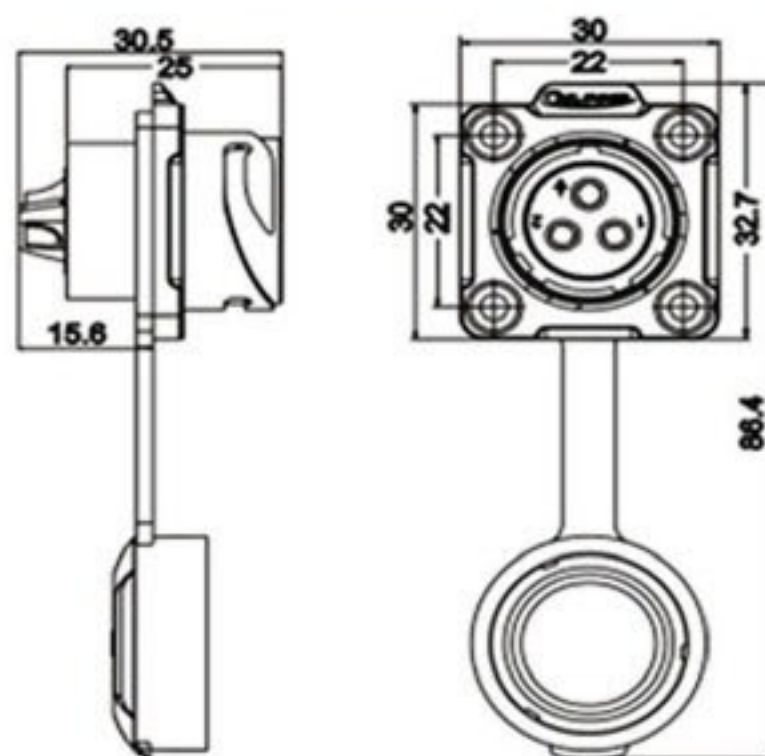
Dimensions figure



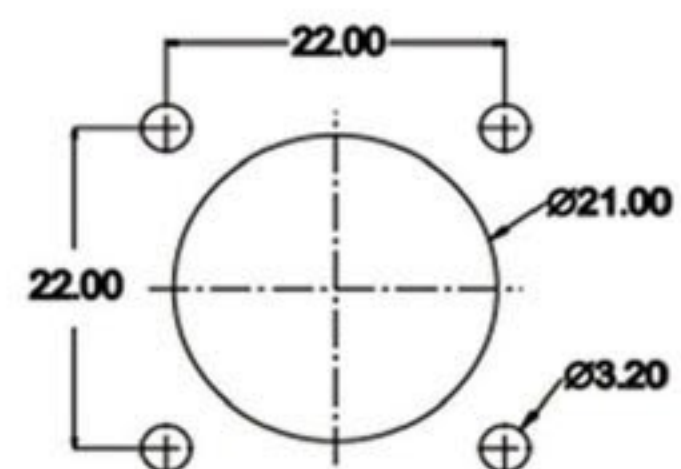
PE clamping cable plug
(dimensions figure)



socket (dimensions figure)



Installation hole figure





OLA 11L Connecting wire with waterproof connector



OLA 15M Connecting wire with waterproof connector



OLA 11LD Connecting wire with waterproof connector

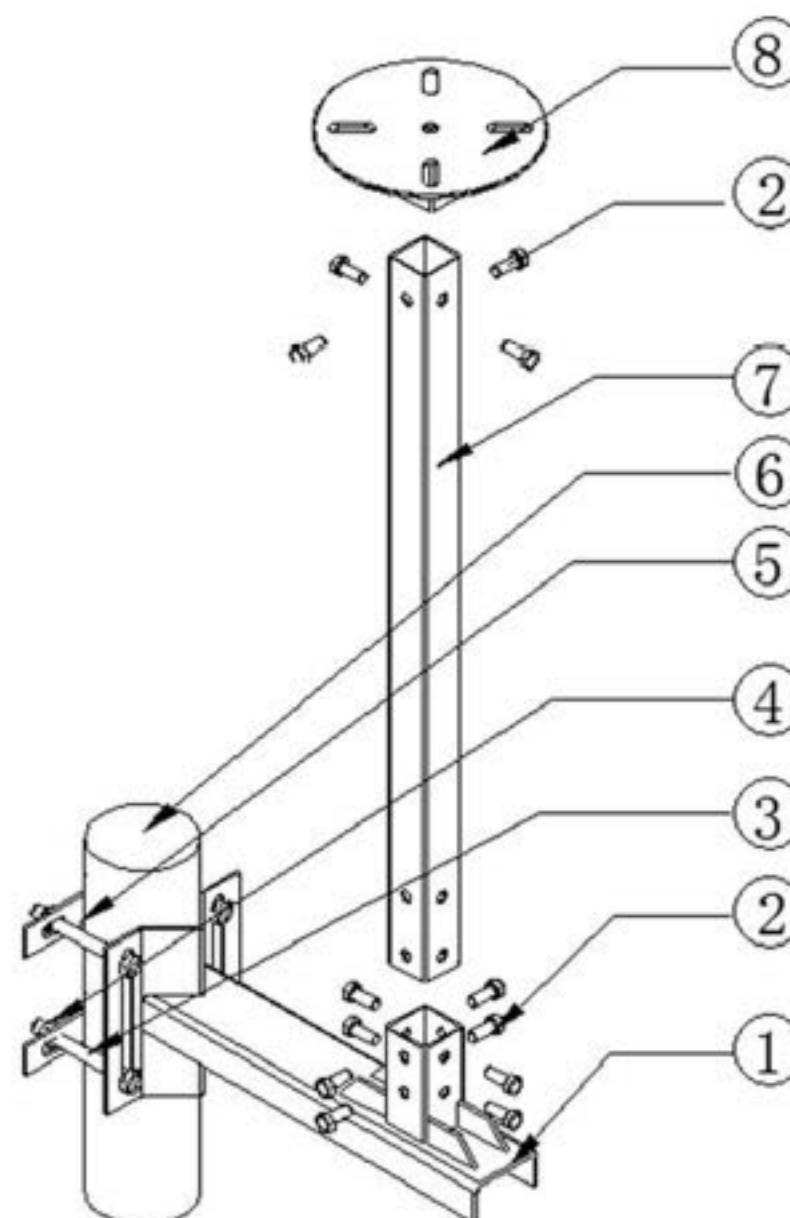


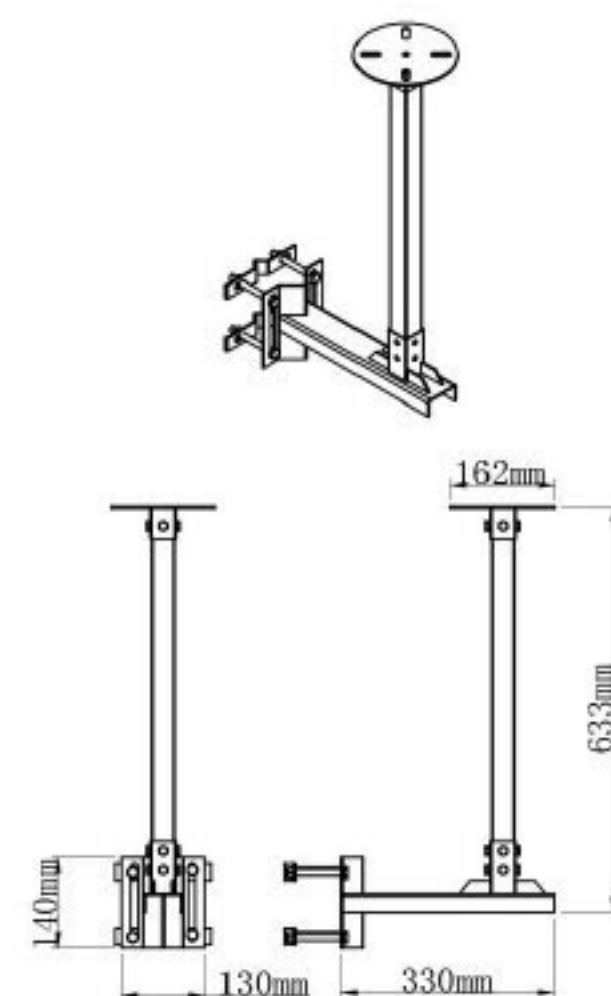
OLA 15MD Connecting wire with waterproof connector

Mounting Bracket for aviation obstruction light

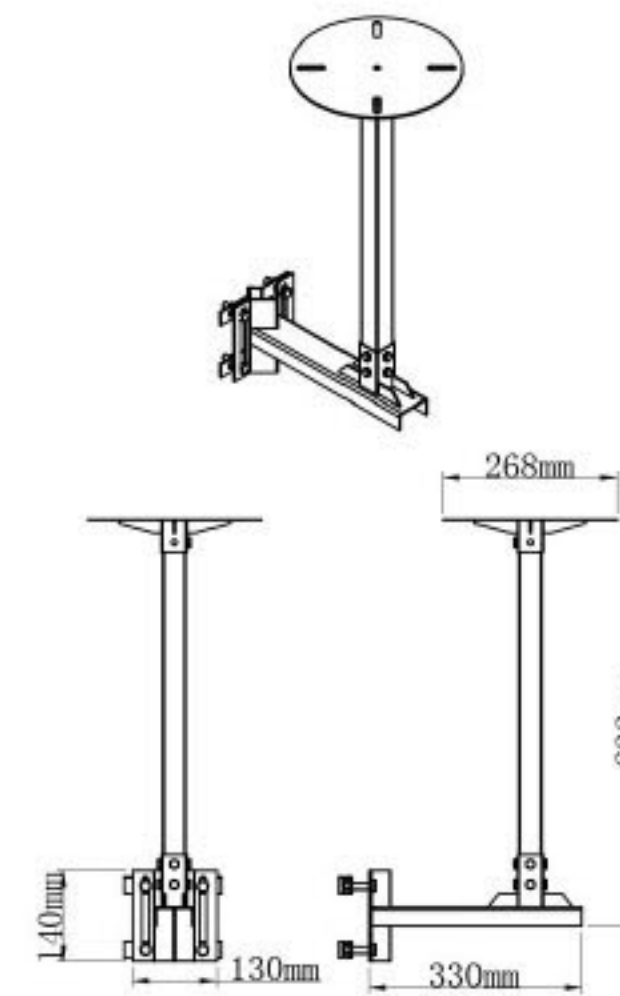
Mounting bracket is suitable for single and double low intensity light OLA 11L/OLA11LD/OLA15M/OLA15MD. It's suitable for installation on steel tower/pipe or other pillar structures. It uses horse clamp to fix light on structure. It is easy and reliable mounting way for your structure.

No.	Item	Quantity	Description and Details
1	Key body mounting bracket	1	SUS#304
2	M8*16 Hex screw	12	Total for 12pcs SUS#304
3	Screw	4	SUS#304
4	Nut	4	SUS#304
5	Installation gasket	2	SUS#304
6	Fixed pipe of crane tower	1	
7	Fixed low/medium light square pipe	1	SUS#304 length:60cm
8	Fixed plate	1	SUS#304

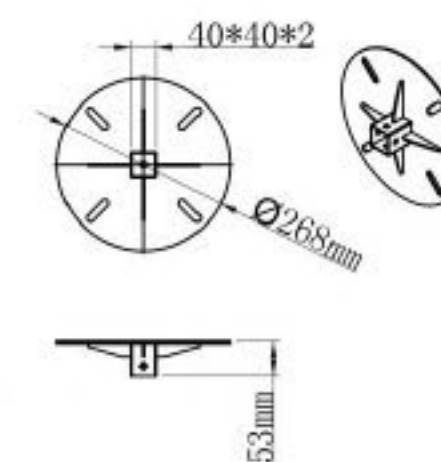
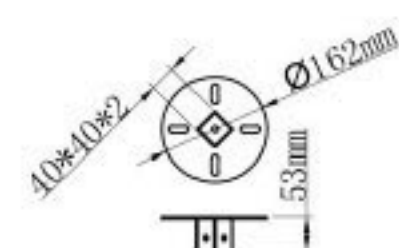
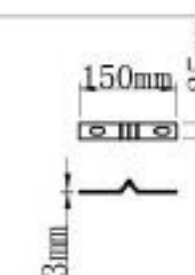
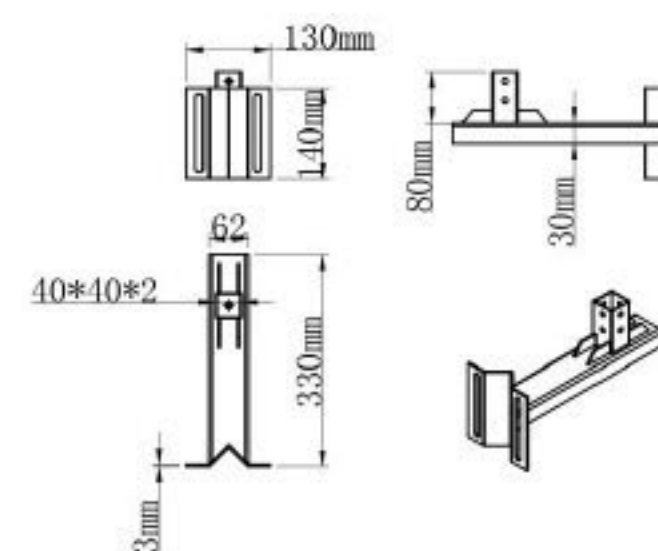




OLA 11L/OLA 11LD Installation structure



OLA 15M/OLA 15MD Installation structure





Issue Date: April 6, 2018
Project No. G103398223
P.O. No.: CDTLOBL-002
Phone No. 86073185563265

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Report No. 103398223CRT-003TVOC
Hunan Chendong Technology CO., LTD


No.588 Xincheng Science&Technology Park, Yuelu Ave. Yuelu District

CHANGSHA HN
CHINA

Standard(s)

International Civil Aviation Organization (ICAO), Aerodromes, Annex 14, Volume 1, Seventh Edition, dated July 2016

Purpose: Photometry and Chromaticity of Red Type B Low Intensity Fixed Obstacle Light
Model: CM-11
Test Dates: April 1, 2018 through April 6, 2018


Christopher W. Metcalf
Senior Associate Engineer
Lighting


Jeremy N. Downs PE
Staff Engineer
Lighting

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Test Verification of Conformity

On the basis of the tests undertaken, the sample(s) of the below product have been found to comply with the requirements of the referenced specifications at the time the tests were carried out. This verification is part of the full test report(s) and should be read in conjunction with them.

Applicant Name & Address:	Hunan Chendong Technology Co., Ltd. The 4th Building No.588 Xincheng Science&Technology Park Yuelu Ave., Yuelu District Changsha, Hunan, China
Verification Number:	103398223CRT-001TVOC
Product Description:	Medium Intensity Type A, White, Flashing / 40FPM
Ratings & Principle Characteristics:	220Vac, 224 White LED's, Clear ABS Plastic Lens
Models/Type References:	CM-15
Standard(s):	International Civil Aviation Organization (ICAO), Aerodromes, Annex 14, Volume 1, Seventh Edition, dated July 2016 Photometry – Chapter 6 Section 6.2.1.2, Table 6-1 and Table 6-3 Table 6-3 Minimum Requirements Table 6-3 Recommendations (Not Included) Chromaticity – Appendix 1 Section 2.3.1 White
Verification Issuing Office Name & Address:	3933 U.S. Rt. 11 Cortland, NY 13045
Test Report Number(s):	103398223CRT-001
Additional information in Appendix.	


Signature
Name: Jeremy N. Downs, P.E.
Position: Staff Engineer
Date: 06 April 2018

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Certificate of Compliance

No. OP170605.HCTUS39

Technical Construction File no. TLEJS201705271871-5



Certificate's Holder: Hunan Chendong Technology Co., Ltd.
#4 building, No.588 XinCheng Science and Technology Park, West Yuelu Ave, Yuelu district, Changsha, Hunan province, China

Certification ECM Mark:



Product: Medium Intensity A Aviation Obstruction Light
Model(s): CK-13(A/B), CM-15(A)

Verification to: Standard:
EN 50490:2008, EN 60598-1:2015,
EN 55015:2013, EN 61547:2009

related to CE Directive(s):
2014/35/EU (Low Voltage)
2014/30/EU (Electromagnetic Compatibility)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Certification Mark of ECM, in reference to the above listed Standard(s). The above Compliance Mark can be affixed on the product(s) accordingly to the ECM regulation about its release and its use. The regulation can be found at www.entecerma.it. This Certificate of Compliance can be checked for validity at www.entecerma.it.
This verification doesn't imply assessment of the production of the product(s).

Additional information, clarification about the CE Marking:



We attest that a TCF for the CE Marking process is in place. Whereas the Manufacturer is Responsible to start the CE Marking Certification Procedure and to perform all the necessary activities, as required by the Directive before placing the CE Mark on the product(s).

Date of issue 05 June 2017

Chief Manager
Marta Moringa

Expiry date 04 June 2022

Deputy Manager
Amanda Payne

Ente Certificazione Macchine Srl

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Certificate of Compliance

No. OP170605.HCTUS35

Technical Construction File no. TLEJS201705271871-1



Certificate's Holder: Hunan Chendong Technology Co., Ltd.
#4 building, No.588 XinCheng Science and Technology Park, West Yuelu Ave, Yuelu district, Changsha, Hunan province, China

Certification ECM Mark:



Product: Low Intensity B Aviation Obstruction Light
Model(s): CK-11L

Verification to: Standard:
EN 50490:2008, EN 60598-1:2015,
EN 55015:2013, EN 61547:2009

related to CE Directive(s):
2014/35/EU (Low Voltage)
2014/30/EU (Electromagnetic Compatibility)

Remark: The product(s) has been verified on a voluntary basis. The product(s) satisfies the requirements of the Certification Mark of ECM, in reference to the above listed Standard(s). The above Compliance Mark can be affixed on the product(s) accordingly to the ECM regulation about its release and its use. The regulation can be found at www.entecerma.it. This Certificate of Compliance can be checked for validity at www.entecerma.it.
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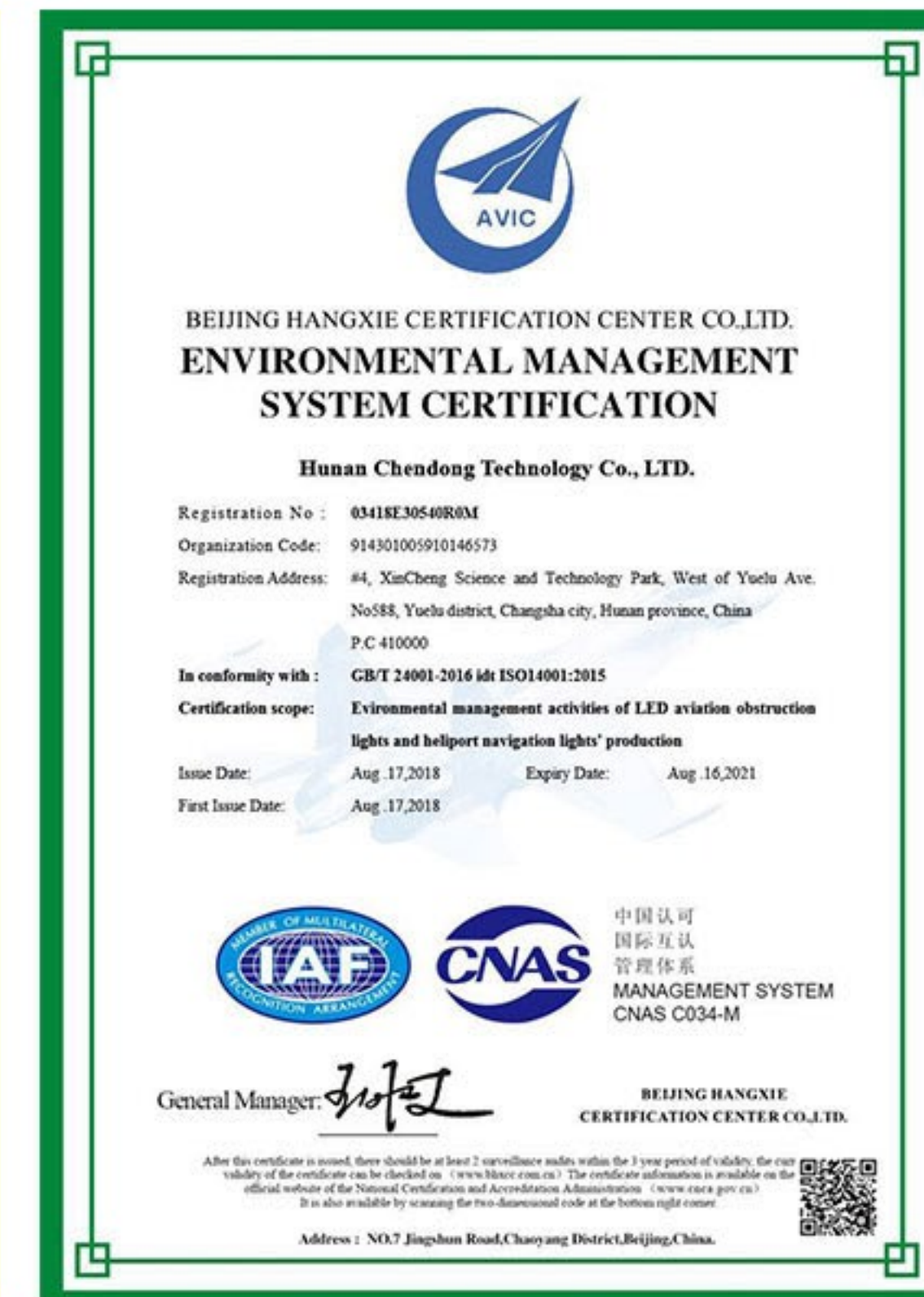
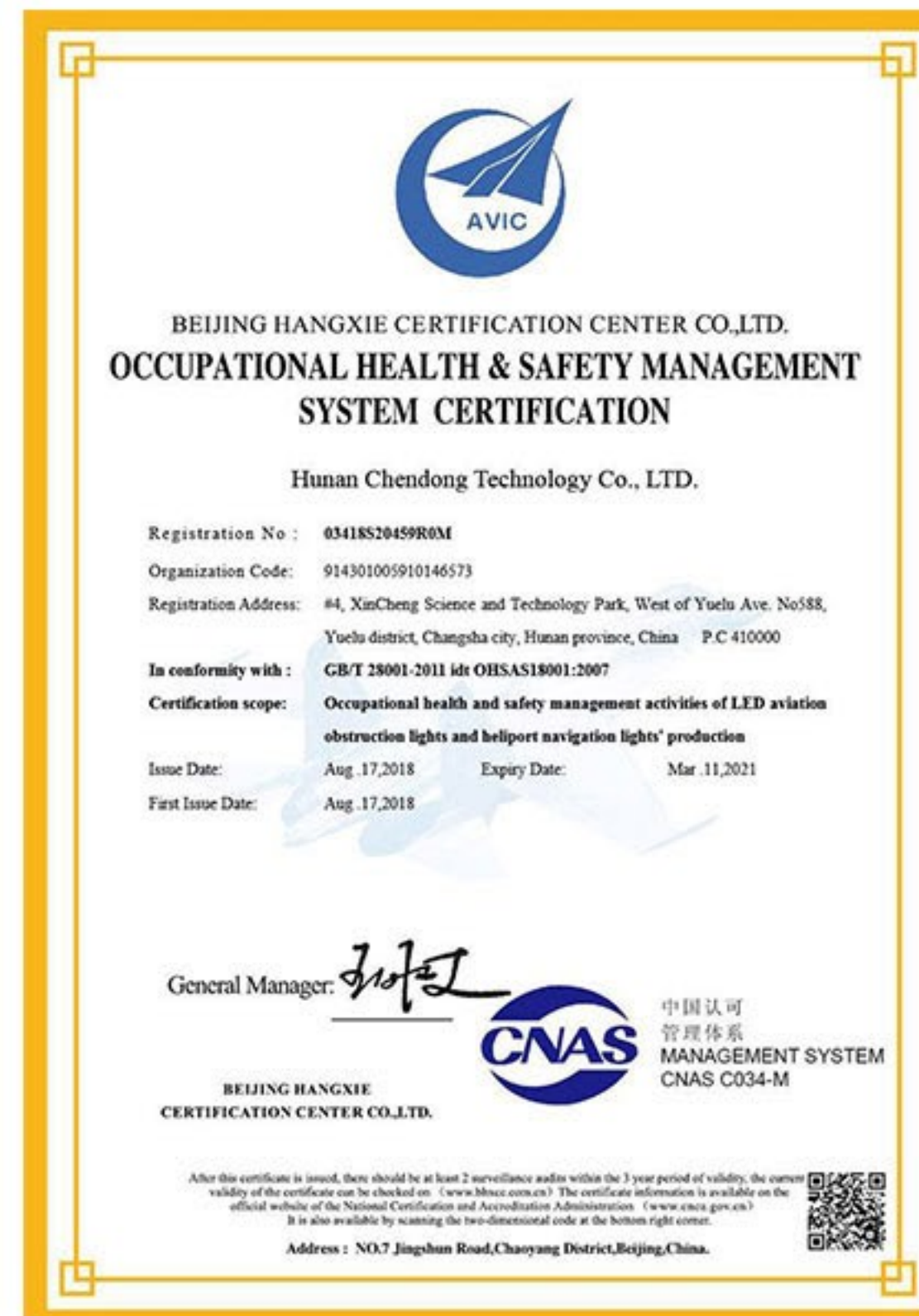
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