bestart Lighting

Bestart Focus on Lighting Solutions
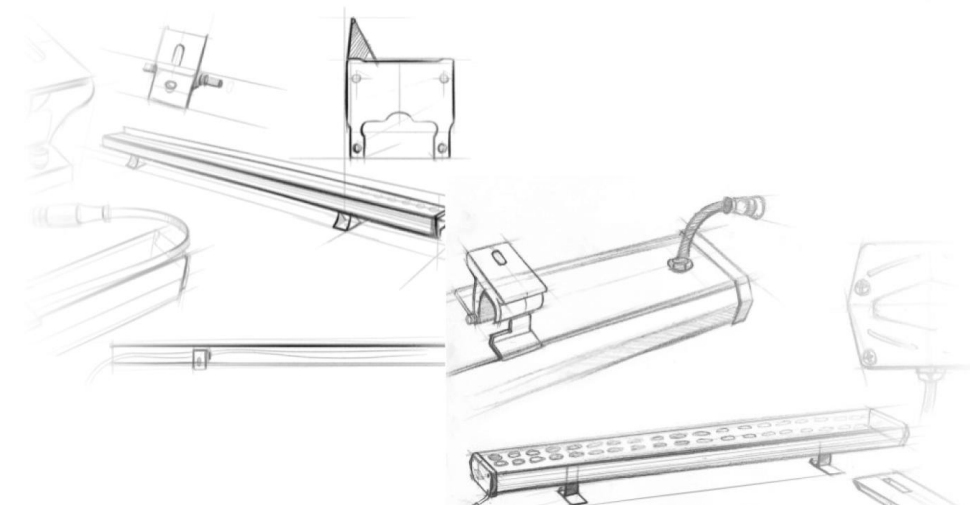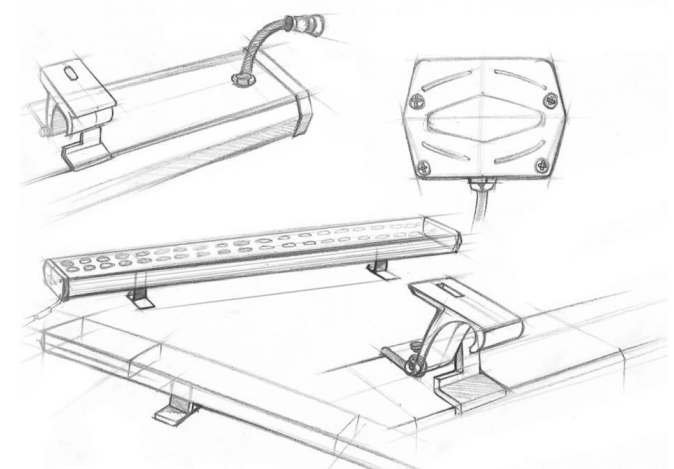
About Us

Shenzhen Bestart Creativity Technology Co.,Ltd specializes in architectural and landscape lighting products and solutions. We are committed to deliver eco-friendly modern solutions that enhances buildings and spaces.

**Bestart lighting´s team, a knowledgeable and confident multidisciplinary team, with more of 10 years experience. We are dedicated to providing creative designs and match lighting projects requirements fitting each budget, guaranteeing durable quality with up to 5 years warranty and full range service 24/7.**

Above all, we have a complete supply chain, from design to production,which results in innovative design and better and unique projects.

We welcome enquiries from old and new customers aswell.Just let us know your needs and ideas, and we will make it happen.

We are Bestart Lighting — your first choice for custom architectural and landscape lighting solutions.
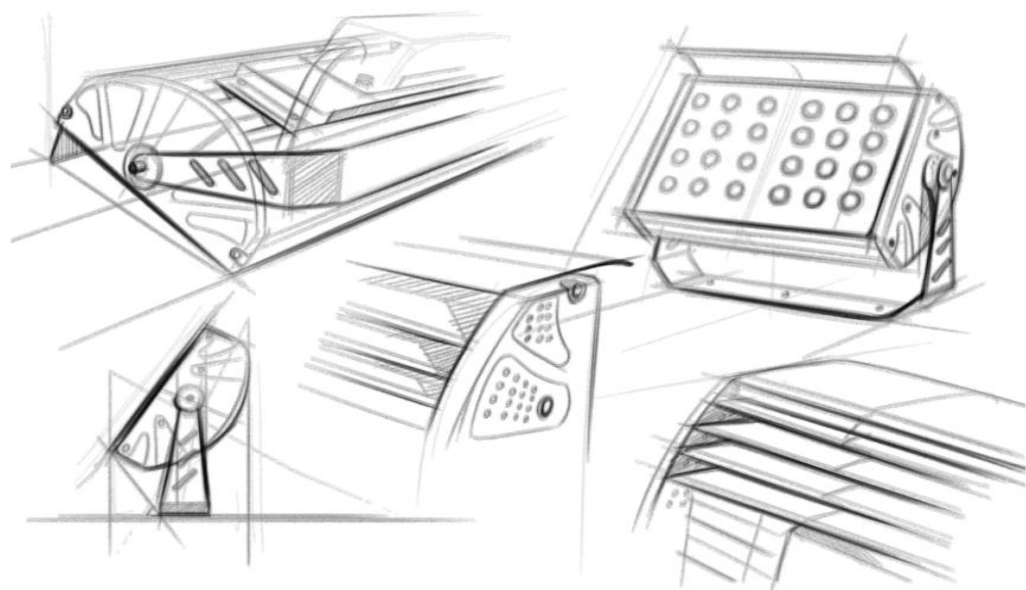
High and low temperature detection

SMD workshop
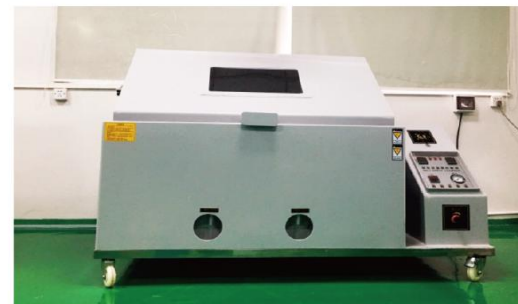
Salt spray test machine

Wire Bonding Machine

Production workshop

Aging workshop

Integrating sphere

Needle Flame Testing Machine

CE RoHS

CE RoHS

Product catalog

Spot light

Wall Washer

Pixel Dot

Linear Light

Underwater Lamp

Neon and Strip

Underground light

Window Light

Star light

Tunnel Lamp

Transparent Screen

Wall Lamp

CE RoHS

Product catalog

Street light

Garden light

Solar light

LED Brick Light

Led display screen

Meanwell Driver

Dmx controller

Meanwell Driver

CE RoHS

Pixel dot light Feature

Application:

Application range: low power point light source， LED light strip, supporting aluminum light trough, each pixel can be controlled as a single poi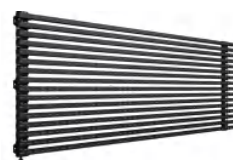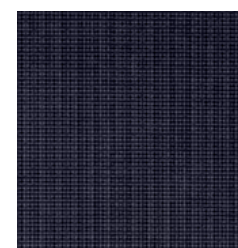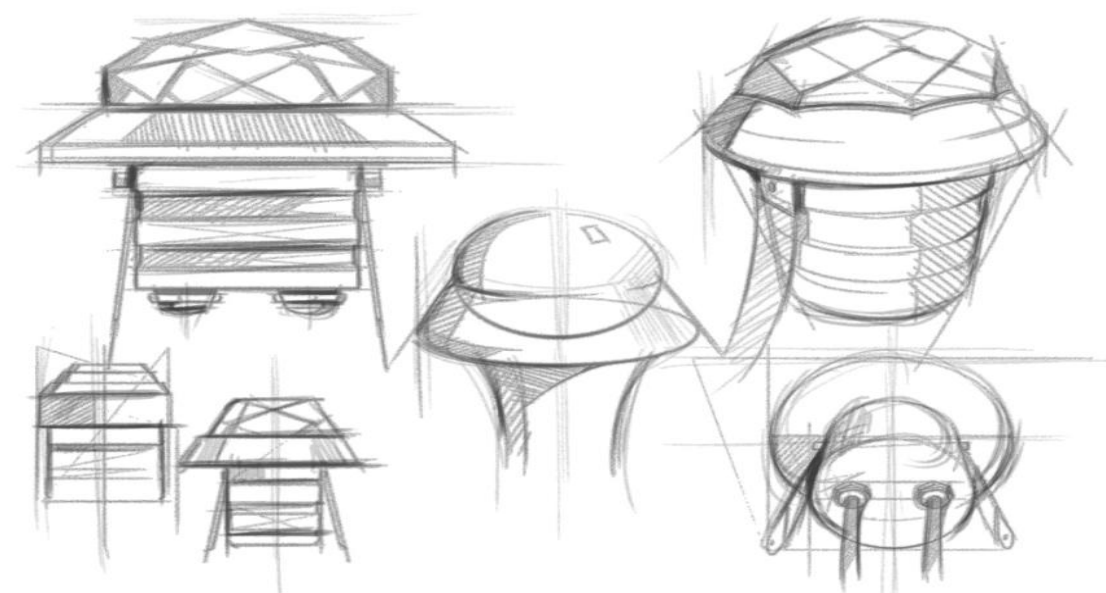nt, low power consumption. Support for a variety of customizations including: pixel pitch, lens, LED color (RGB, RGBW or monochrome). IP65 protection grade, UV resistance, V0 flame retardant grade, Class III electrical safety class, can effectively ensure the stability of the lamp in the outdoor environment for all weather conditions. Flexible mounting performance for a variety of irregular curtain wall configurations for a variety of media solutions (curtain walls, large screens, finishes, 3D shapes, etc.)

Lighting Performance:

RGBW, RGB, monochrome and other light source combinations to meet any required mode; customizable lenses to adjust to different applications and scenarios. Color resolution of 16 bits, effects are more stylish and smooth; built-in electronic drive, with over-temperature and overload protection.

Structure:

UV-resistant PC housing and die-cast aluminum housing are optional, light weight, the lampshade is made with UV-resistant PC,strong impact resistance, long life, not easy to age nor yellowing; die-cast aluminum shell surface anodized or by background color spray treatment; the installation structure is simple, the power and signal lines are hidden in the line slot, and the aluminum alloy line slot can also.

Control:

The luminaire can have DMX or monochrome control optionally, single point controllable, 8 output ports per controller, each output port can control up to 340 full color pixels.

CE RoHS

Installation

Installation completion diagram   Overall installation tiled diagram
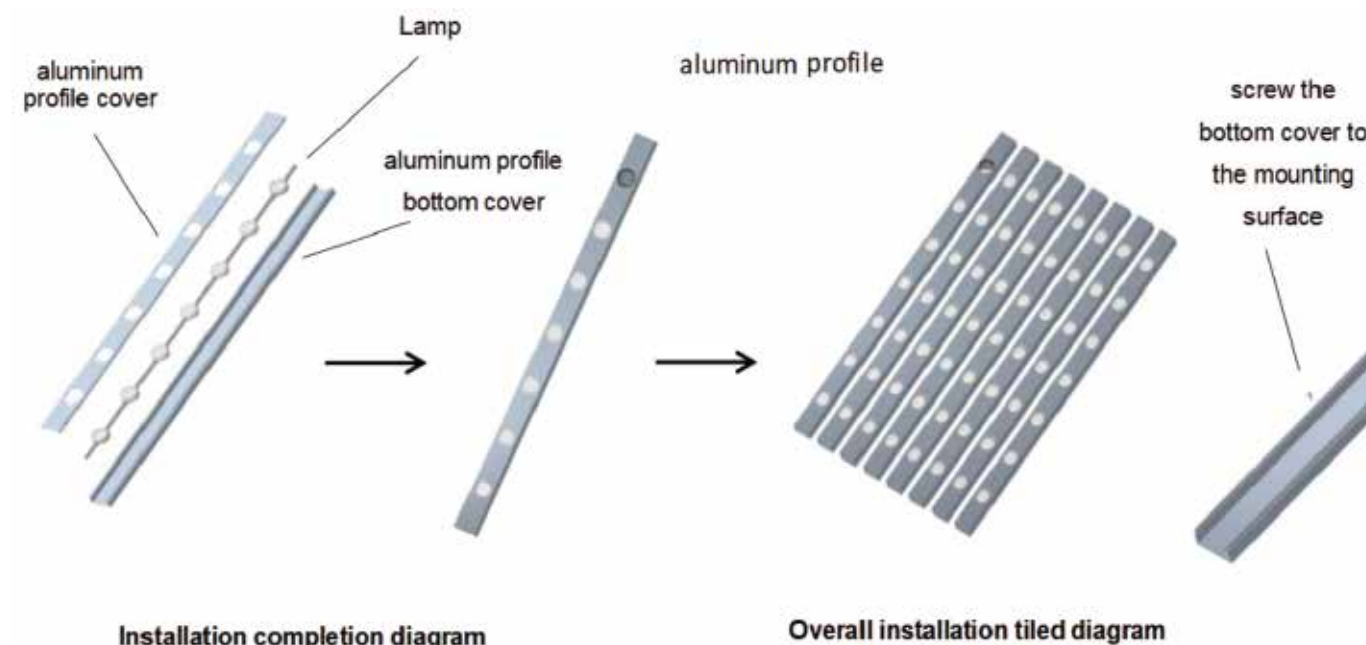
System Drawing
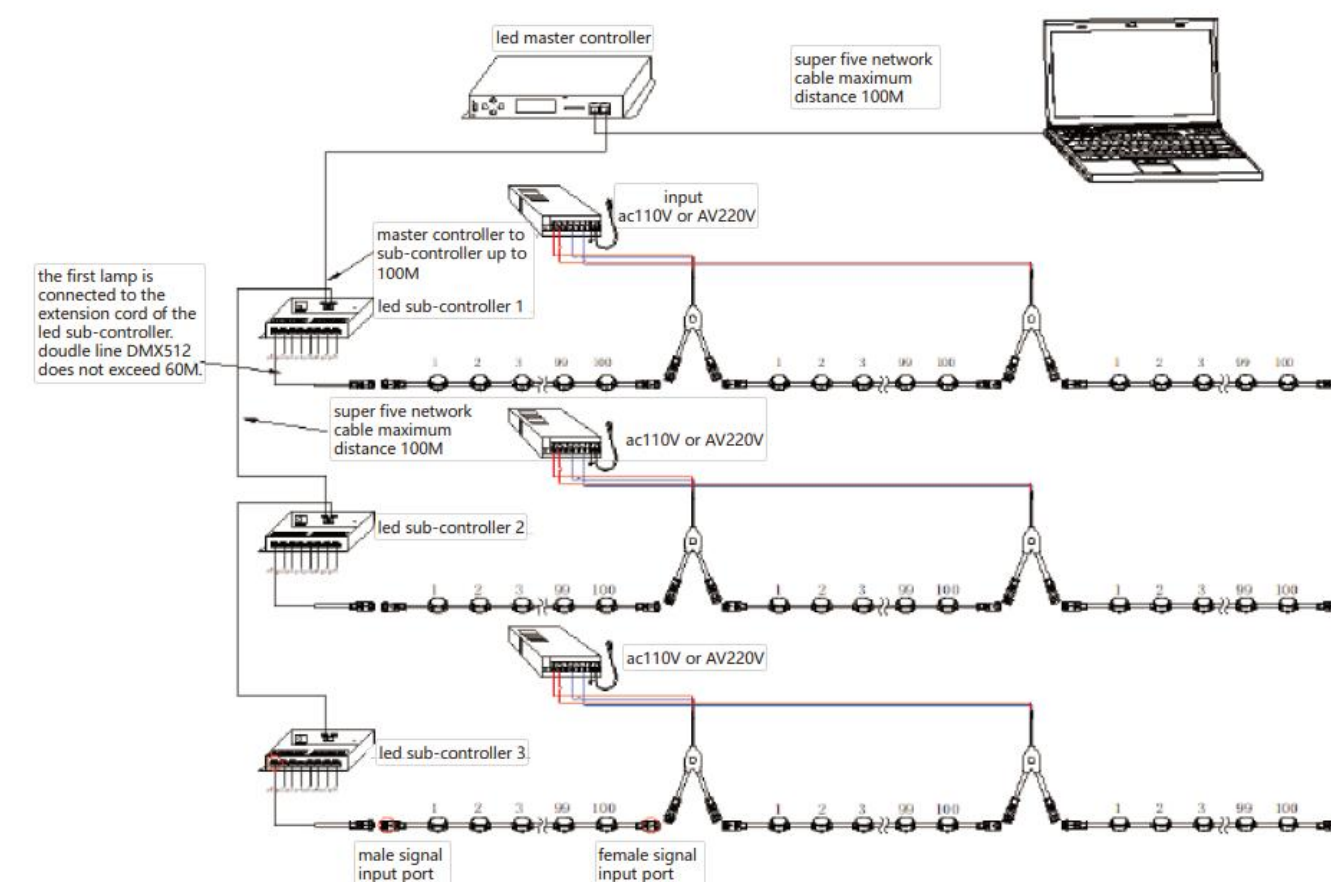
Tech Specifications

Model	BC-C26-1	BC-C26-2
Voltage	DC5V	DC12V
Power	0.3 W / pixel	0.5 W / pixel
Pitch	From P50 to P300mm	From P50 to P500mm
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	1 SMD	2 SMD
Weight	12 G	12 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Transparent / Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

Dimension

26,6   31,2   15,8

Project

Tech Specifications

Model	BC-C26-1-Mesh	BC-C26-2-Mesh
Voltage	DC5V	DC12V
Power	0.3 W / pixel	0.5 W / pixel
Pitch	P50mm, P70mm, P83mm, P100mm, P125mm	
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	1 SMD	2 SMD
Weight	12 G	12 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Transparent / Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

CE RoHS

Installation Diagram

1.Fixed the steel wire into the buckle of the PC bracket strip

2.After the PC bracket strip is assembled into 1200mm (3 rows of cards)* (actual installation length),then install the lamp on the PC bracket strip (the direction of the PC bracket strip must be the same)

3.Place the wire-loaded strips on a flat surface (ground or table).
Then, the lamps are respectively fastened to the position of the card strips.

4. After installing the lamp, flatten it, then straighten it, try to ensure that each product is installed.

5. Splicing two or more PC bracket strip with lights installed, as shown in the figure, if the project is large, if it can't be installed completely, put one piece into the installation position and then splicing it together.

6. As shown in the figure, you can splicing the size at will. After the completion, you can hang it use the wire rope in the required installation position.

CE RoHS

Tech Specifications

Model	BC-C30-3-RGB	BC-C30-4-RGBW
Voltage	DC12V	DC12V
Power	0.72 W / pixel	1 W / pixel
Pitch	From 50MM to 5000MM	
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	3 SMD	4 SMD
Weight	14.2 G	14.2 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

CE RoHS

Dimension

Project

CE RoHS

Tech Specifications

Model	BC-C35-3-RGB	BC-C35-4-RGBW	BC-C35-6-RGB
Voltage	DC12V	DC12V	DC24V
Power	0.72 W	1 W	1.44 W
Pitch		From 80mm to 5000mm	
Led Brand	Epistar /Osram/CREE	Epistar	Epistar /Osram/CREE
Color Resolution	8 bit /16 bit	8 bit /16 bit	8 bit /16 bit
Light Source	3 SMD	(3 RGB + 1W) SMD	6 SMD
Weight	14.2 G	14.2 G	14.2 G
Control	DMX/TTL	DMX/TTL	DMX/TTL
Housing	PC	PC	PC
Housing Color	Black / White / Grey	Black / White / Grey	Black / White / Grey
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

Dimension

Project

Tech Specifications

Model	BC-C42-3-RGB	BC-C42-6-RGB	BC-C42-8-RGBW
Voltage	DC12V	DC24V	DC24V
Power	0.72 W	1.44 W	1.8 W
Pitch		From 80mm to 5000mm	
Led Brand	Epistar /Osram/CREE	Epistar	Epistar /Osram/CREE
Color Resolution	8 bit /16 bit	8 bit /16 bit	8 bit /16 bit
Light Source	3 SMD	6 SMD	(6 RGB + 2W) SMD
Weight	18 G	18 G	18 G
Control	DMX/TTL	DMX/TTL	DMX/TTL
Housing	PC	PC	PC
Housing Color	Black / White / Grey	Black / White / Grey	Black / White / Grey
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

Dimension

42mm
52 mm
17.5 mm

Project

Dimension

φ 72

53

Tech Specifications

Model	BC-C72-6-RGB	BC-C72-6-RGBW	BC-C72-6-W
Voltage	DC24V	DC24V	DC24V
Power	3 W	3 W	3W
Pitch		From 120mm to 5000mm	
Led Brand	Epistar /Osram/CREE	Epistar	Epistar /Osram/CREE
Color Resolution	8 bit /16 bit	8 bit /16 bit	8 bit /16 bit
Light Source	6 SMD	6 SMD	6 SMD
Weight	125 G	125 G	125 G
Control	DMX/TTL	DMX/TTL	DMX/TTL
Housing	Aluminum	Aluminum	Aluminum
Housing Color	Grey	Grey	Grey
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years
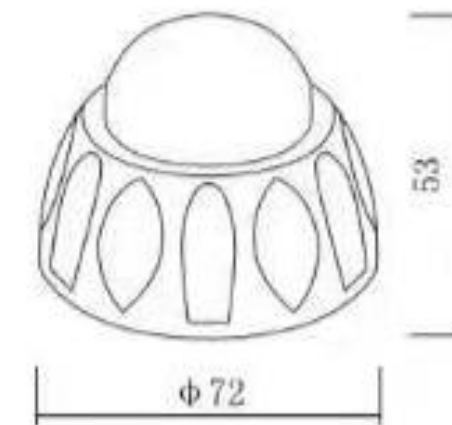
Project

Tech Specifications

Model	BC-C120-RGB	BC-C120-RGBW	BC-C120-W
Voltage	DC24V	DC24V	DC24V
Power	Max 14W	Max 14W	Max12W
Pitch		From 200mm to 5000mm	
Led Brand	Epistar /Osram/CREE	Epistar	Epistar /Osram/CREE
Color Resolution	8 bit /16 bit	8 bit /16 bit	8 bit /16 bit
Light Source	6 SMD	6 SMD	24 SMD
Weight	350G	350G	350G
Control	DMX/TTL	DMX/TTL	DMX/TTL/No control
Housing	Aluminum	Aluminum	Aluminum
Housing Color	Grey	Grey	Grey
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

CE RoHS

Dimension

83

Φ120

Project

CE RoHS

Tech Specifications

Model	BC-P38-4-RGB	BC-P38-3-RGB
Voltage	DC12V	DC12V
Power	1 W / pixel	0.72 W / pixel
Pitch	From P80 to P5000mm	From P80 to P5000mm
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	4SMD	3 SMD
Weight	16 G	16 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

Dimension
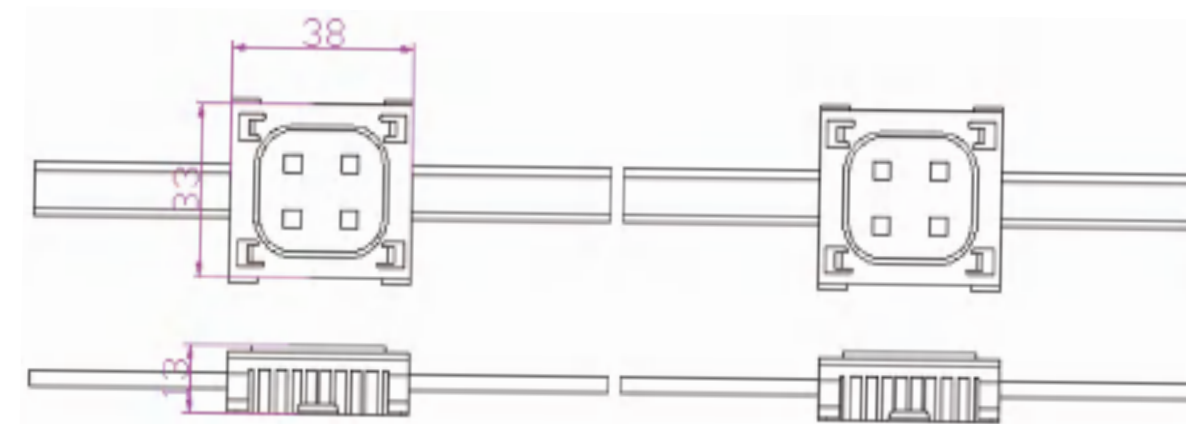
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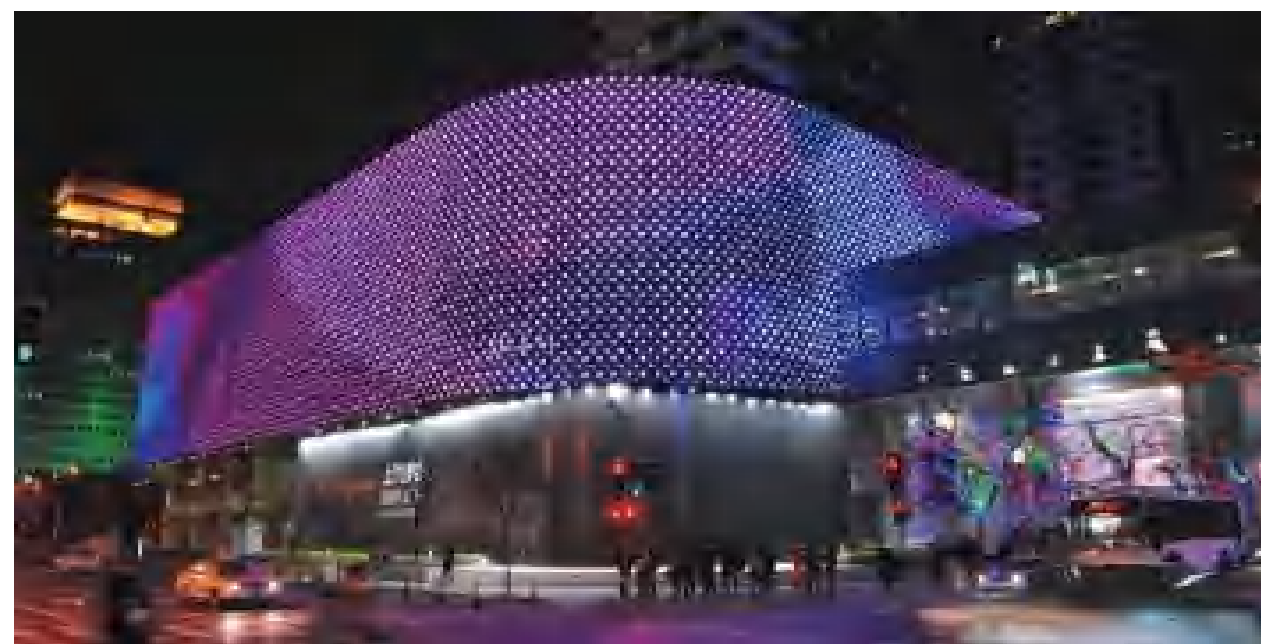
Tech Specifications

Model	BC-P50-6-RGB	BC-P50-8-RGBW
Voltage	DC12V	DC12V
Power	0.72 W / pixel	1 W / pixel
Pitch	From 50MM to 5000MM	
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	3 SMD	4 SMD
Weight	14.2 G	14.2 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

Dimension

Project

Tech Specifications

Model	BC-P65-6-RGB	BC-P65-6-RGBW
Voltage	DC12V	DC24V
Power	1.44 W / pixel	1.44 W / pixel
Pitch	From P100 to P5000mm	From P100 to P5000mm
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	4SMD	(4RGB+2W) SMD
Weight	45 G	45 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

CE RoHS

Dimension

Project

CE RoHS
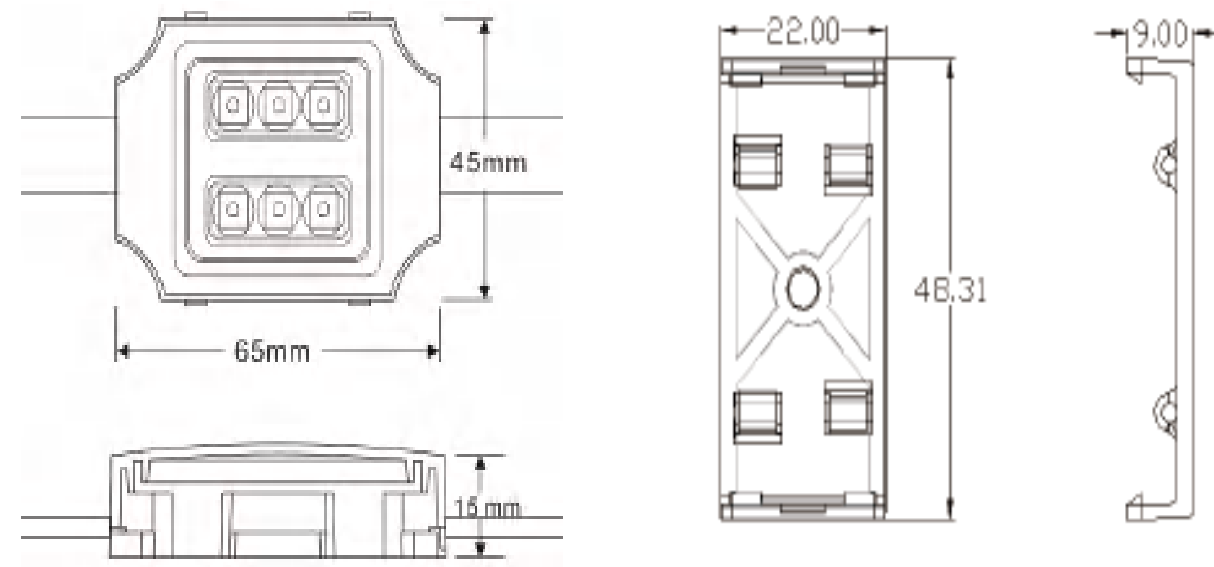
Tech Specifications

Model	BC-P77-6-RGB	BC-P77-6-RGBW
Voltage	DC24V	DC24V
Power	1.44 W / pixel	1.44 W / pixel
Pitch	From 100MM to 5000MM	
Led Brand	Epistar/Osram/Cree	Epistar/Osram/Cree
Color Resolution	8 bit /16 bit	8 bit /16 bit
Light Source	6 SMD	(4RGB+1W) SMD
Weight	16 G	16 G
Control	DMX/TTL	DMX/TTL
Housing	PC	PC
Housing Color	Black / White /Grey	
IP	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours
Warranty	3 years	3 years

Dimension

Project

Dimension
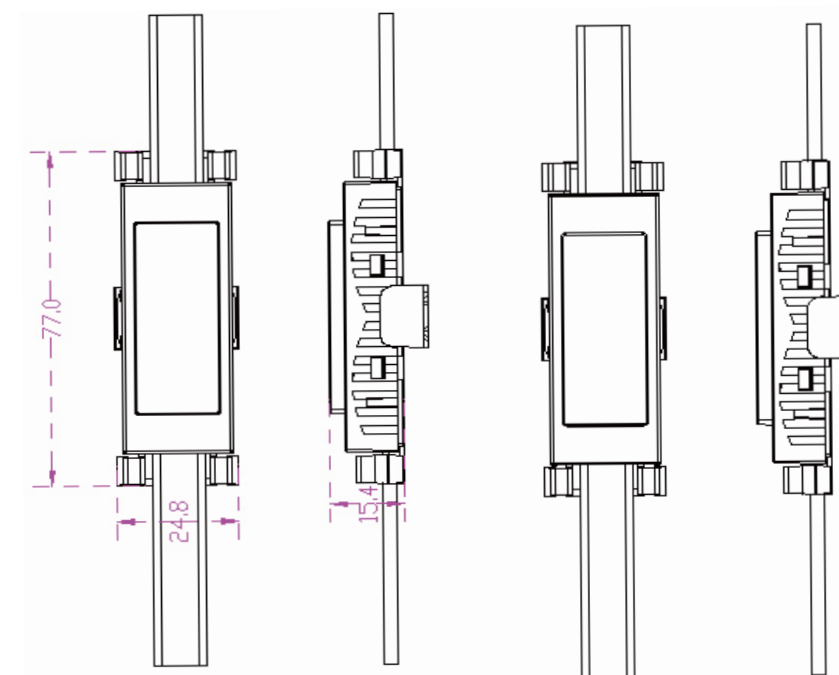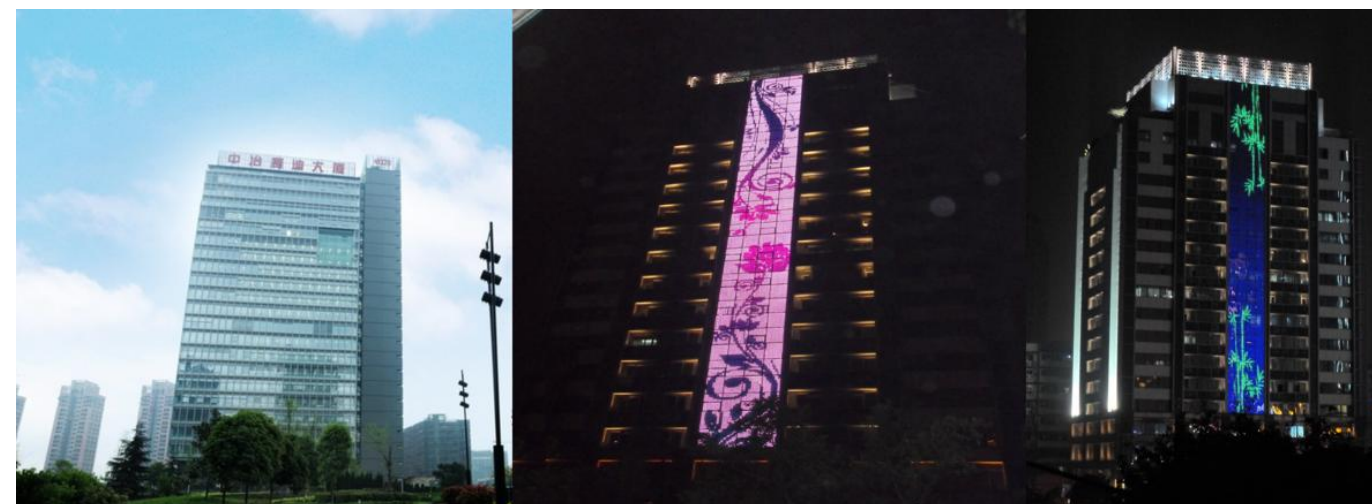
Tech Specifications

Model	BC-P85-12-RGB	BC-P85-12-RGBW	BC-P85-12-W
Voltage	DC24V	DC24V	DC24V
Power	3 W	3.2 W	3W
Pitch		From 150mm to 5000mm	
Led Brand	Epistar /Osram/CREE	Epistar	Epistar /Osram/CREE
Color Resolution	8 bit /16 bit	8 bit /16 bit	8 bit /16 bit
Light Source	12 SMD	12 SMD	12 SMD
Weight	120 G	120 G	120 G
Control	DMX/TTL	DMX/TTL	DMX/TTL/No control
Housing	Aluminum	Aluminum	Aluminum
Housing Color	Grey	Grey	Grey
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 60°	-35° ~ 60°	-35° ~ 60°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

Project

Spot light Features

Material:

Smaller and Medium power spot light. Supports a variety of customizations: aluminum color, lens, LED color (RGB, RGBW or monochrome). Protection grade IP66, UV resistance, flame retardant V0, electrical safety Class III, can effectively ensure the stability of the LED outdoor for all weather condition. The installation method is quick and convenient, and the angle can be adjusted by.

Lighting Performance:

RGBW, RGB, monochrome and other light source combinations to meet more requirements; minimize visible light-emitting surface and increase visual comfort; customizable lenses, different angle lenses, uniform light mixing, suitable for projection of many different heights building cleaning project;smoother grayscale changes; built-in electronic drive with over-temperature overload protection

Structure:

Light body design is small in size, integrated and compact design, with decorative panel, overall beautiful and simple and practical; extruded aluminum lamp body and tempered glass resistant to ultraviolet and salt spray, optical grade PC lens, LED body color customized according to the building; installation structure reasonable and convenient, to adjust the angle of the lamp.

Control :

The Linear used standard DMX protocol, multi-pixel or monochrome optional; with the standard control system, can achieve a variety of scene changes; high gray level high refresh frequency, to ensure that the picture is smooth.

System drawing

DMAX512 system drawing
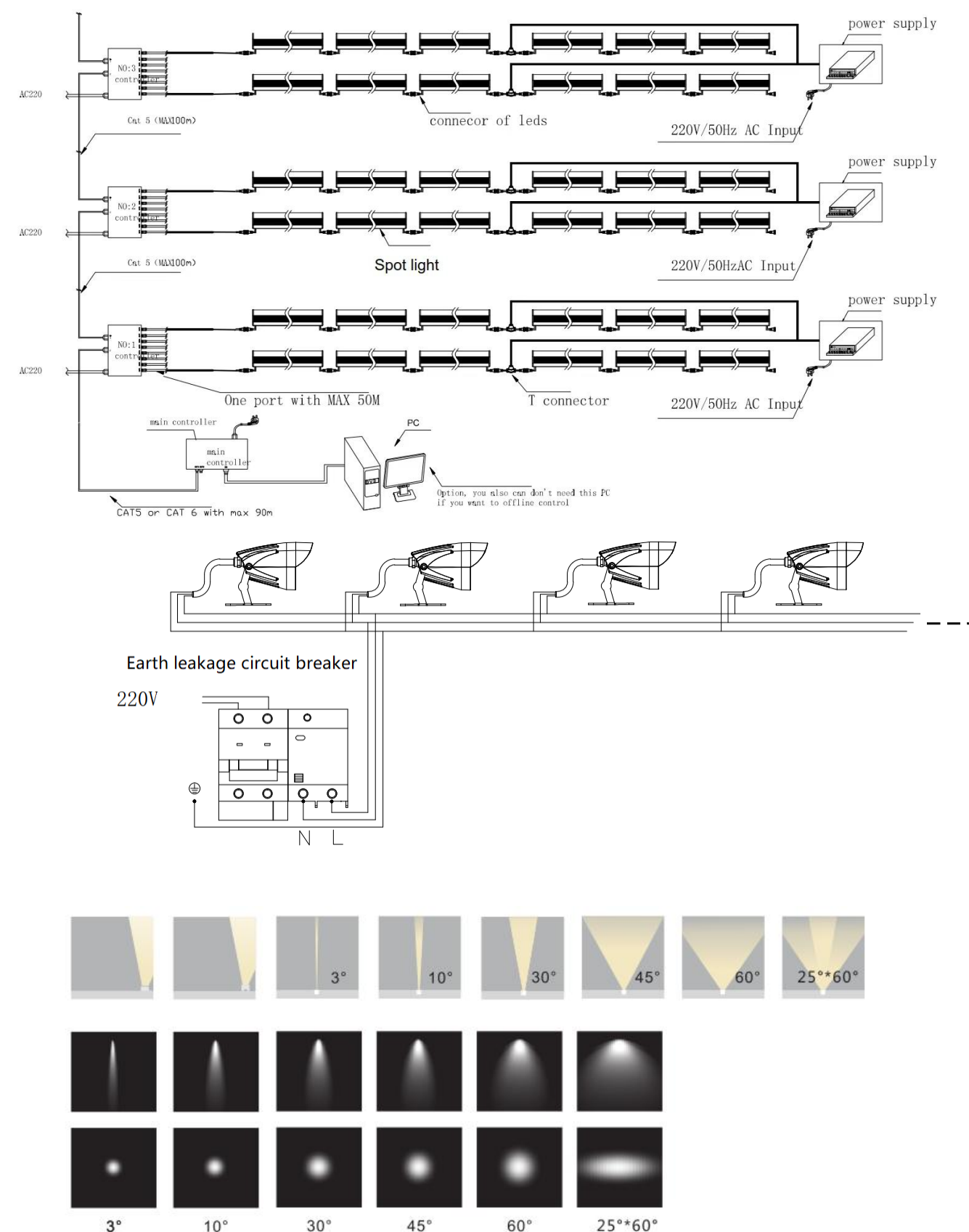
Tech Specifications

Model	BC-Kiwi85-W	BC-Kiwi85-RGB	BC-Kiwi85-RGBW
Led Brand	CREE	Epistar	Epistar
LED QTY	5 SMD	5 SMD	5 SMD
Voltage	AC220V /DC24V	DC24V	DC24V
Power	Max 15W	Max 15W	Max 15W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP66	IP66	IP66
Operating Temp	-35° ~ 50°	-20° ~ 50°	-20° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

Installation

3-M6 Setscrew

Hexagon bolt

Internal hexagonal wrench

Adjust the angle

Install lamp

Wall

Dimension

85,3

133

9

56

82,4

109,1

36

3-Ø7

Project

Dimension

273

147

153
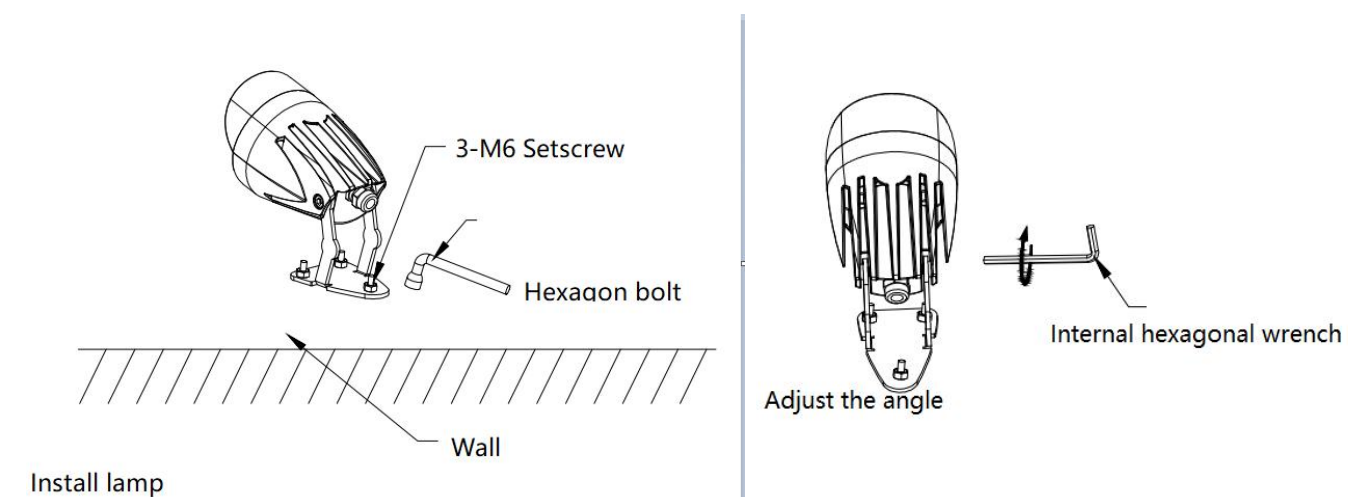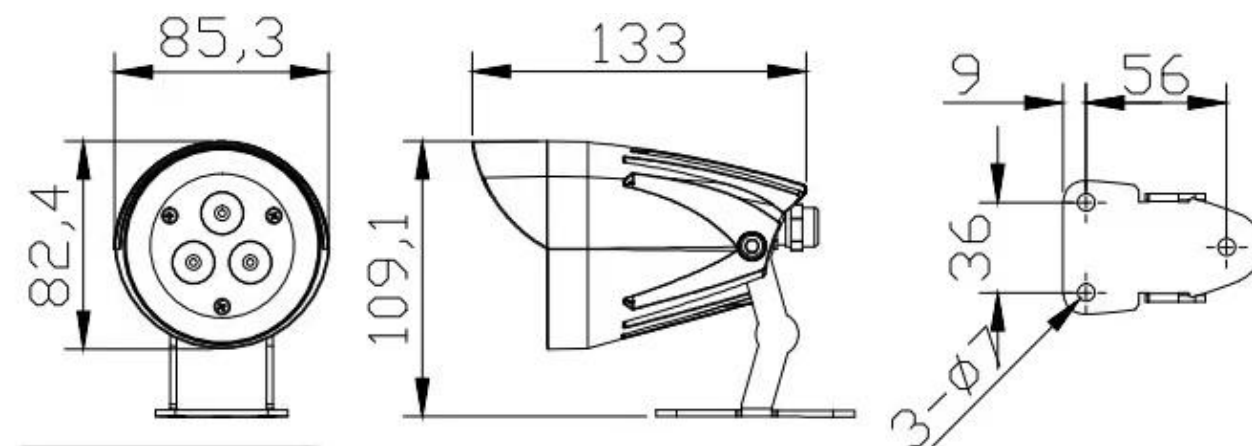
Tech Specifications

Model	BC-Kiwi273-W	BC-Kiwi273-RGB	BC-Kiwi273-RGBW
Led Brand	CREE	Epistar	Epistar
LED QTY	18 SMD	18/24 SMD	18/24 SMD
Voltage	AC220V	DC24V	DC24V
Power	Max 48W	Max 48W	Max 48W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP67	IP67	IP67
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

Project

CE RoHS

CE RoHS

Tech Specifications

Model	BC-Kiwi258-W	BC-Kiwi258-RGB	BC-Kiwi258-RGBW
Led Brand	Epistar /Osram /Cree	Epistar	Epistar
LED QTY	24 SMD	24 SMD	24 SMD
Voltage	AC220V / DC24V	DC24V	DC24V
Power	Max 72W	Max 72W	Max 72W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP66	IP66	IP66
Operating Temp	-35° ~ 50°	-20° ~ 50°	-20° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

CE RoHS

Dimension

Project

CE RoHS

Tech Specifications

Model	BC-Kiwi501-W	BC-Kiwi501-RGB	BC-Kiwi501-RGBW
Led Brand	CREE	Epistar	Epistar
LED QTY	36 SMD	36 SMD	36 SMD
Voltage	AC220V	DC24V	DC24V
Power	Max 108W	Max 108W	Max 108W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP67	IP67	IP67
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

CE RoHS

Product Features

147

153

501

Project

CE RoHS

Tech Specifications

Model	BC-Kiwi497-W	BC-Kiwi497-RGB	BC-Kiwi497-RGBW
Led Brand	CREE	Epistar	Epistar
LED QTY	72 SMD	72 SMD	72 SMD
Voltage	AC220V	DC24V	DC24V
Power	Max 200W	Max 200W	Max 200W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP67	IP67	IP67
Operating Temp	-35° ~ 50°	-20° ~ 50°	-20° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

CE RoHS

Dimension

497mm   324mm   185mm

Project

CE RoHS

Tech Specifications

Model	BC-Kiwi762-W	BC-Kiwi762-RGB	BC-Kiwi762-RGBW
Led Brand	CREE	Epistar	Epistar
LED QTY	108 SMD	108 SMD	108 SMD
Voltage	AC220V	DC24V	DC24V
Power	Max 300W	Max 300W	Max 300W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP67	IP67	IP67
Operating Temp	-35° ~ 50°	-20° ~ 50°	-20° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

Dimenson

762 330 234

Project

Tech Specifications

Model	BC-Kiwi991-W	BC-Kiwi991-RGB	BC-Kiwi991-RGBW
Led Brand	CREE	Epistar	Epistar
LED QTY	144 SMD	144 SMD	144 SMD
Voltage	AC220V	DC24V	DC24V
Power	Max 400W	Max 400W	Max 400W
Pixel	0	1 pixel	1 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°, 10°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP67	IP67	IP67
Operating Temp	-35° ~ 50°	-20° ~ 50°	-20° ~ 50°
Storage Temp	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3-5 years	3 years	3 years

Dimension

991   330   234

Project

Linear Product features

Application:

Easy installation, high brightness, and can be used in multiple outdoor applications (Edge, Large Screen). Flexible customization options: aluminum color, length, LED color (RGB, RGBW, monochrome). Protection grade IP67, UV resistance, flame retardant V0, electrical safety Class III, Provide reliable outdoor stability under all weather conditions. Flexible installation,suitable for a variety of irregular building structures, providing reliable indoor and outdoor solutions.

Lighting Performance:

Light source configurations including RGBW, RGB, monochrome, etc., to meet a wide range of requirements; foreign imported material diffuser to create a uniform and soft light effect, to protect eyes from glare and increase visual comfort; With over-temperature overload protection and a built-in electronic drive, the picture looks more delicate and smooth.

Structure:

All the diffuse hoods use imported materials diffuse hood to ensure uniform light output. The structure of the lamp body is simple, reasonable and beautiful, and can be combined with other building structures. Square, curved, transparent, and opaque covers are available. Customization of the color of the housing is possible. The installation structure is reasonable and simple, can be slidably mounted to the mounting bracket. The operation is simple, and it can be applied to a wide range of building structures; Cables are hidden at the bottom of the linear and perfectly integrated with the building structure.
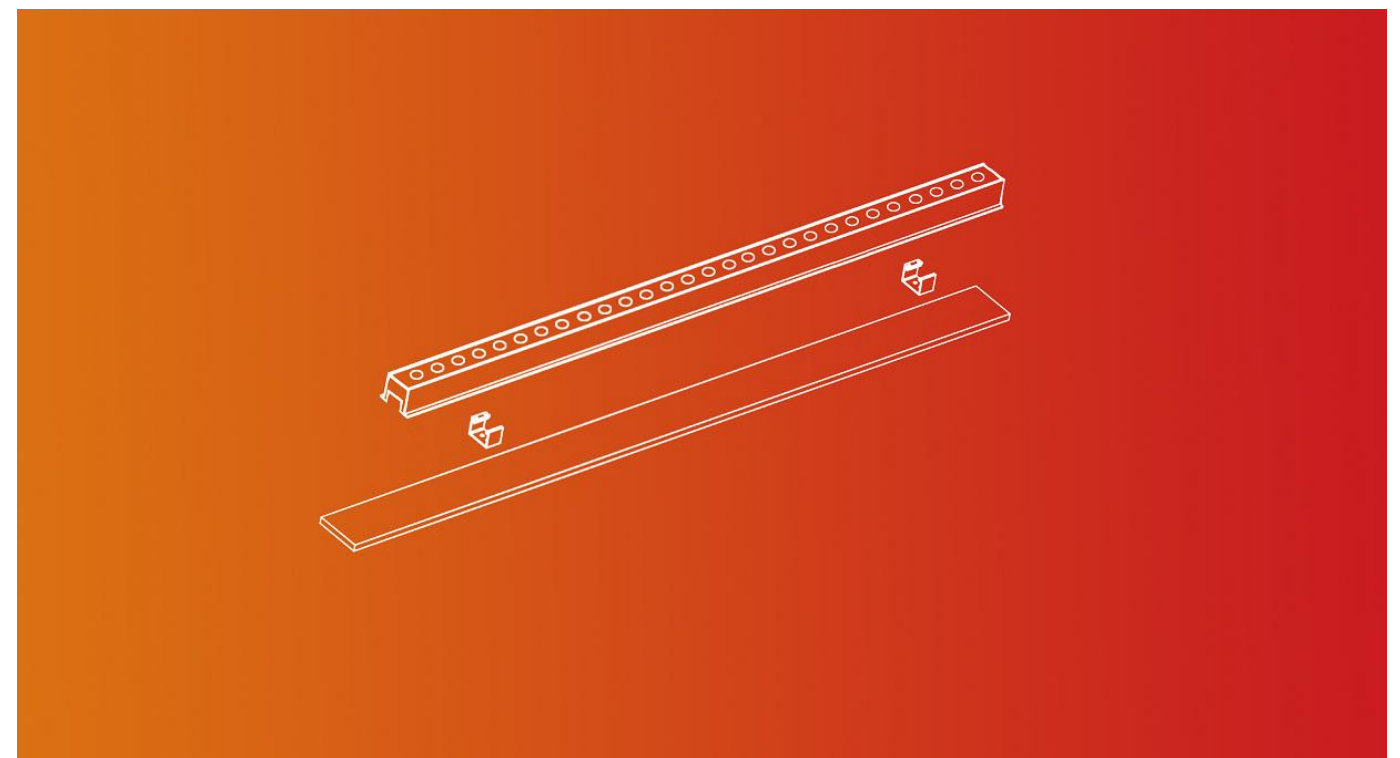
Control:

DMX or SPI protocol is used by the Linear, multi-pixel or monochrome; with the standard control system, can achieve a variety of scene changes; high gray level and high refresh frequency, ensuring smooth output.
Parameters of Optics

CE RoHS

Control System Drawing
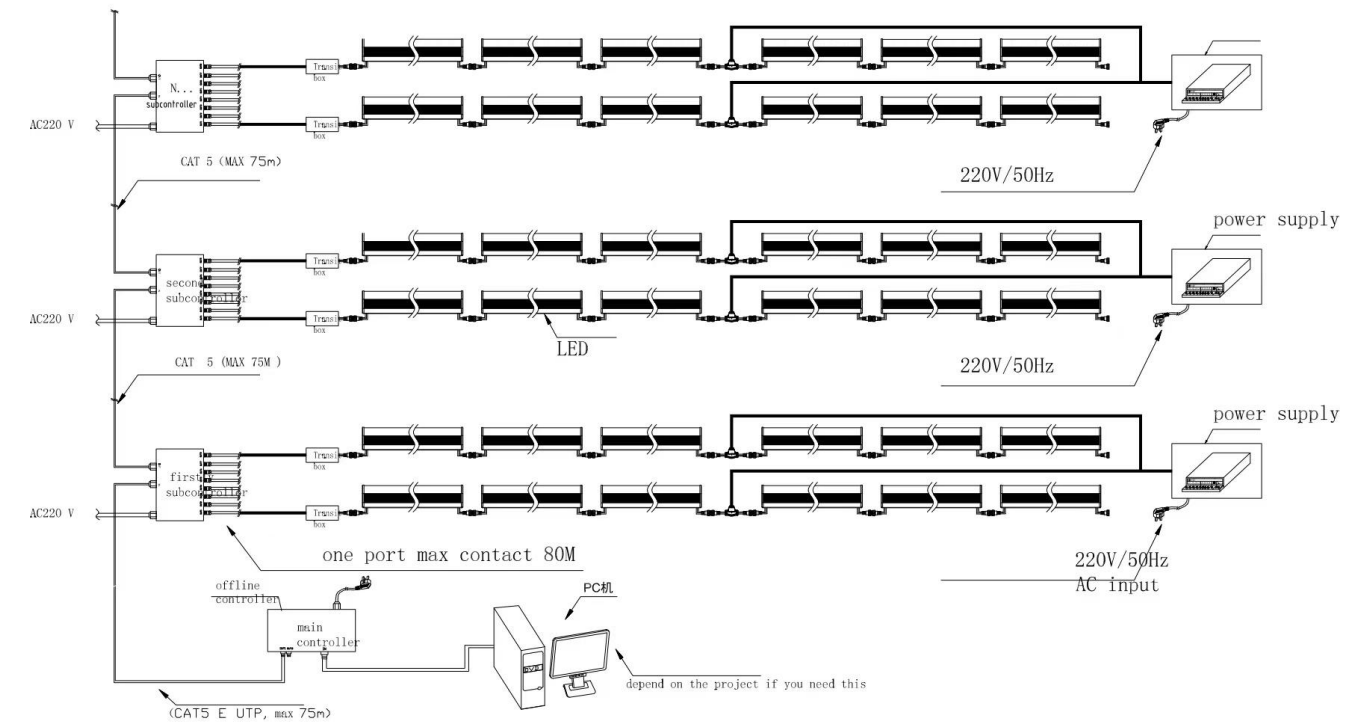
Installation

Tech Specifications

Model	BC-Apio13-W	BC-Apio13-RGB	BC-Apio13-RGBW
Led Brand	Epistar /Osram/CREE	Epistar /Osram/CREE	Epistar /Osram/CREE
LED QTY	48 pcs	48 pcs	48 pcs
Voltage	DC24V	DC24V	DC24V
Power	12W	12W	12W
Pixel	0 / 8 pixel	8 pixel	8 pixel
Color Temp	2700k - 6000K	2700k - 6000K	RGB
Control	without control /DMX	DMX	DMX
Weight	0.15KG	0.15KG	0.15KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Cover	Aluminum	Aluminum	Aluminum
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Installation

Dimension

Project

CE RoHS
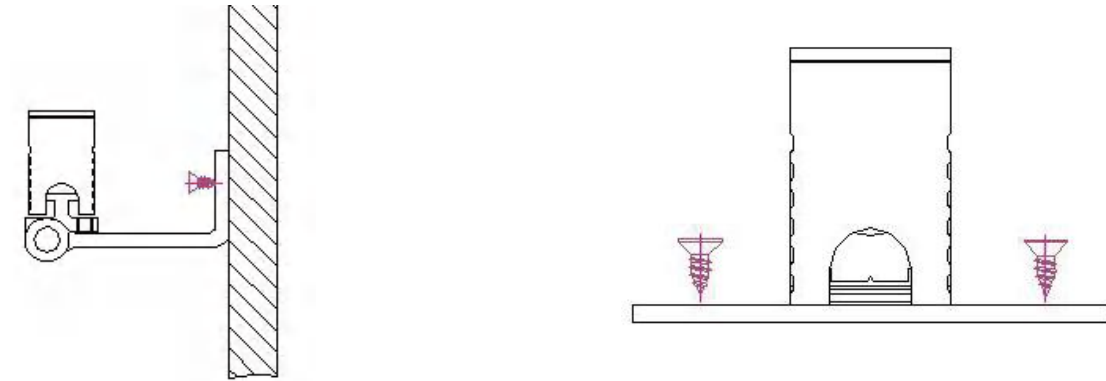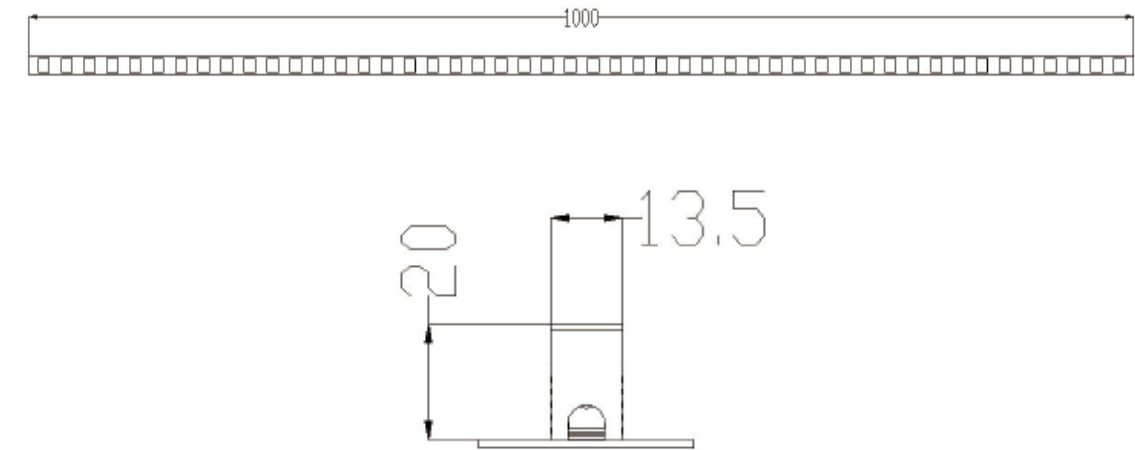
Tech Specifications

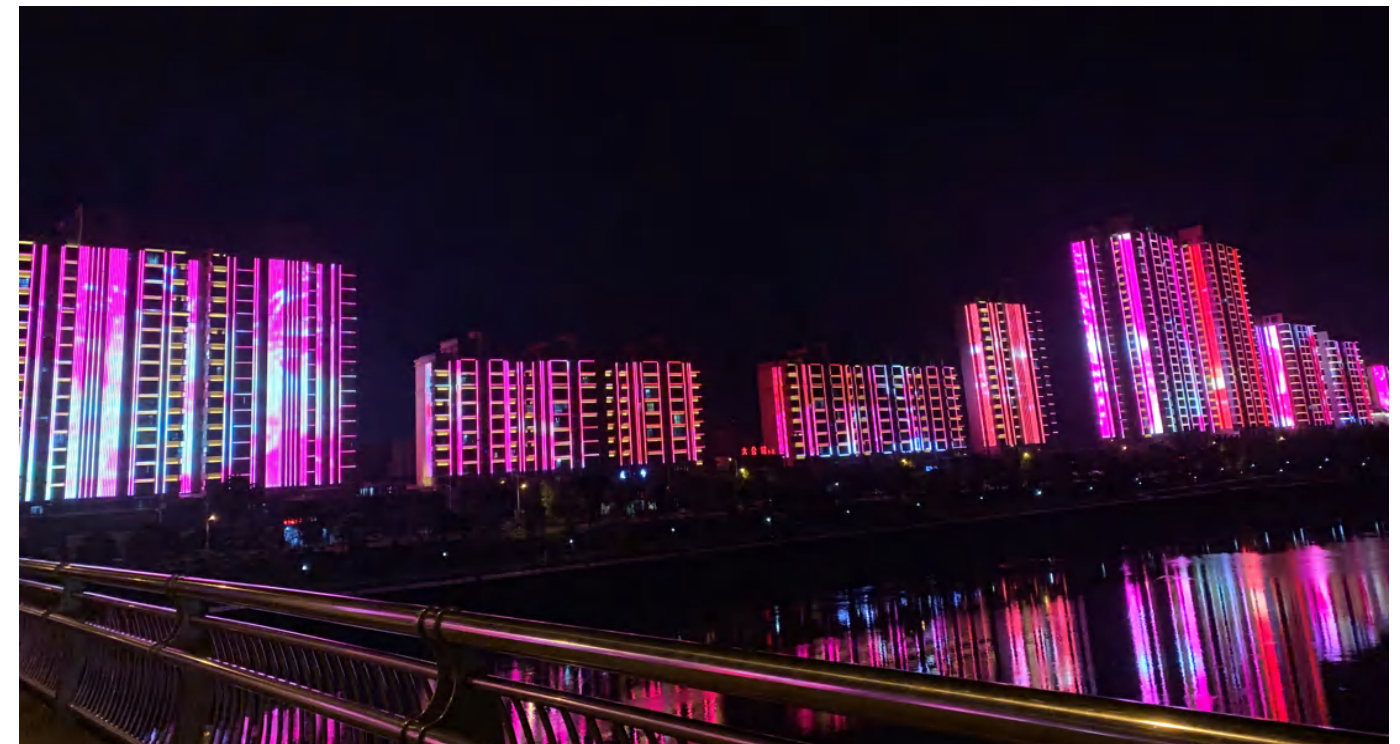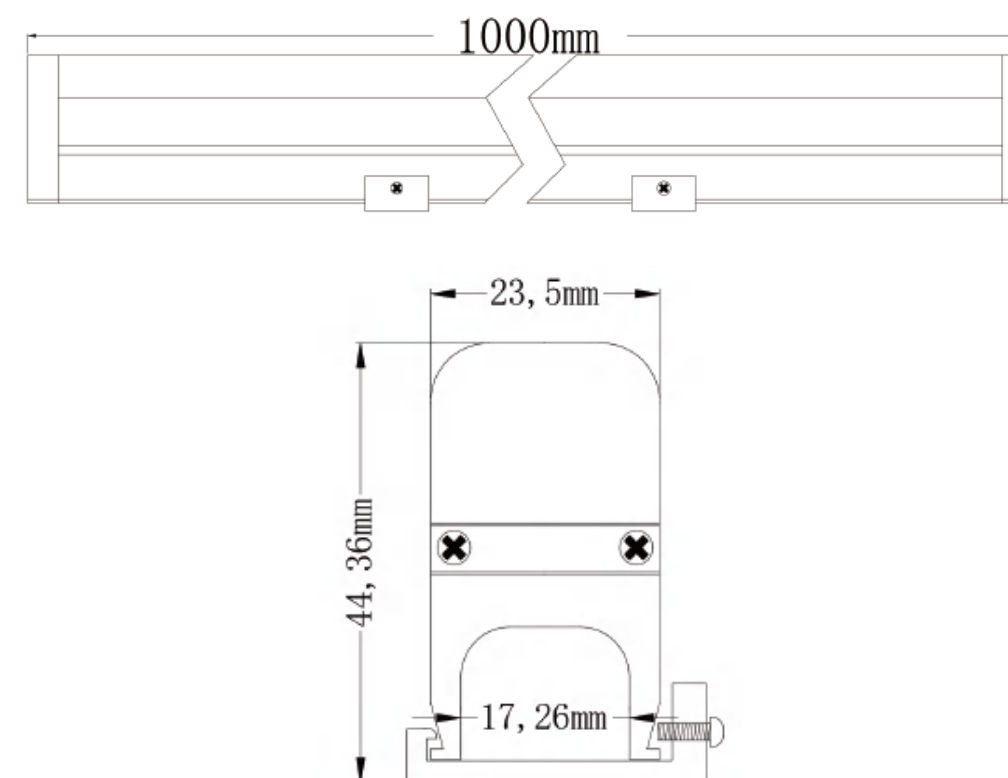| Model	BC-Apio23-W	BC-Apio23-RGB	BC-Apio23-RGBW
Led Brand	Epistar /Osram/CREE	Epistar /Osram/CREE	Epistar /Osram/CREE
LED QTY	48 pcs	48 pcs	48 pcs
Voltage	DC24V	DC24V	DC24V
Power	12W	12W	12W
Pixel	0 / 8 pixel	8 pixel	8 pixel
Color Temp	2700k - 6000K	2700k - 6000K	RGB
Control	without control /DMX	DMX	DMX
Weight	0.67KG	0.67KG	0.67KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Cover	Flat PC	Flat PC	Flat PC
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Product features

1000mm

23, 5mm

44, 36mm

17, 26mm

Project

Tech Specifications

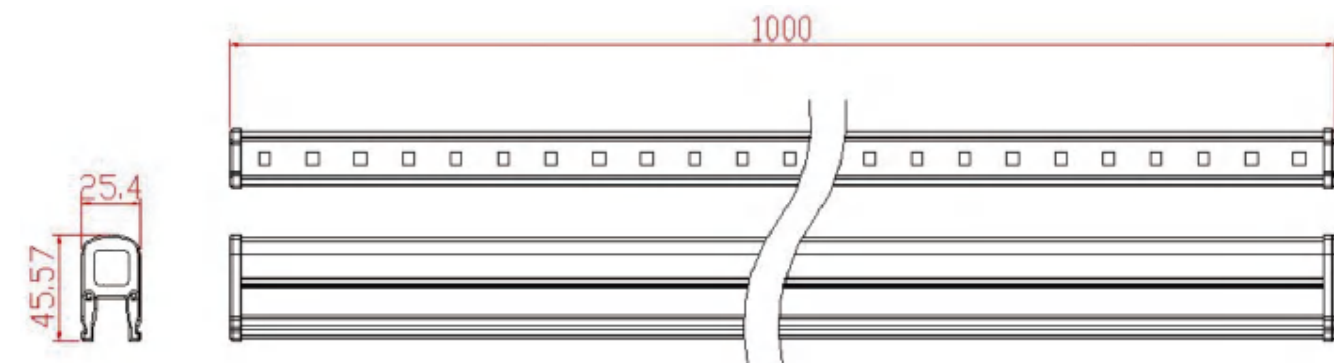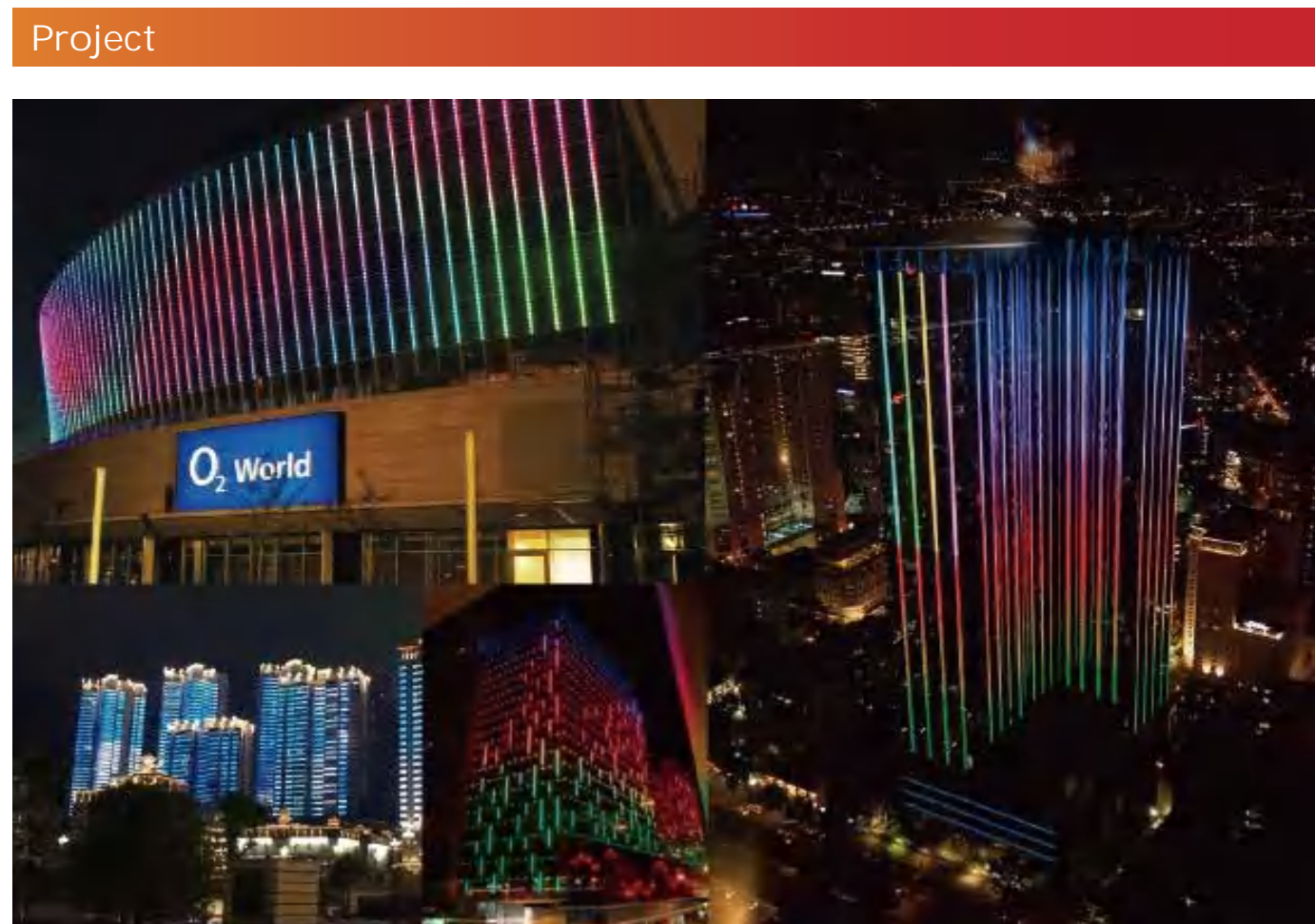| Model	BC-Apio25-W	BC-Apio25-RGB	BC-Apio25-RGBW
Led Brand	Epistar /Osram/CREE	Epistar /Osram/CREE	Epistar /Osram/CREE
LED QTY	48 pcs	48 pcs	48 pcs
Voltage	DC24V	DC24V	DC24V
Power	12W	12W	12W
Pixel	0 / 8 pixel	8 pixel	8 pixel
Color Temp	2700k - 6000K	2700k - 6000K	RGB
Control	without control /DMX	DMX	DMX
Weight	0.35KG	0.35KG	0.35KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Cover	Ball PC	Ball PC	Ball PC
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

Product features

Product features

Tech Specifications   Project

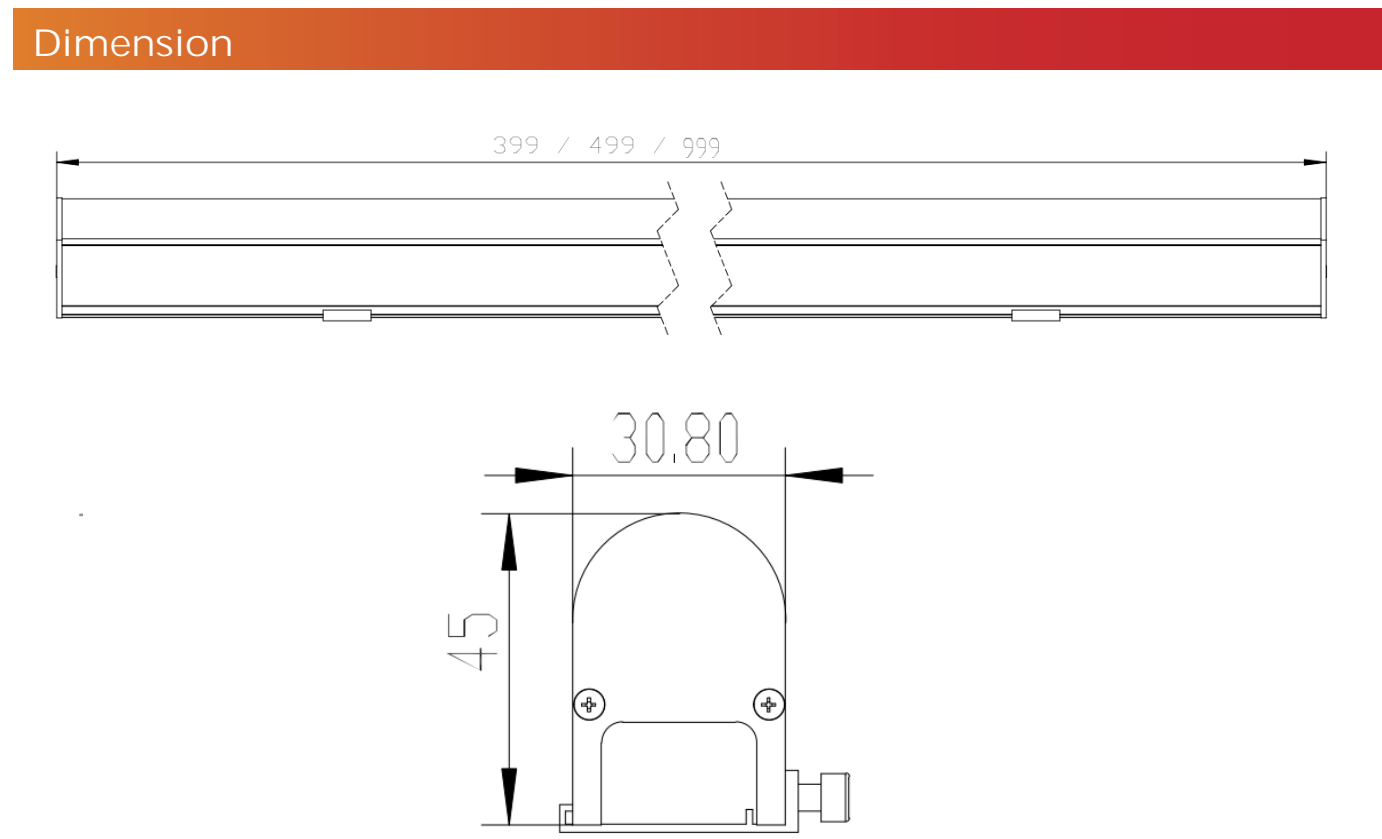| Model	BC-Apio30-W	BC-Apio30-RGB	BC-Apio30-RGBW
Led Brand	Epistar /Osram/CREE	Epistar /Osram/CREE	Epistar /Osram/CREE
LED QTY	48 pcs	48 pcs	48 pcs
Voltage	DC24V	DC24V	DC24V
Power	12W	12W	12W
Pixel	0 / 8 pixel	8 pixel	8 pixel
Color Temp	2700k - 6000K	2700k - 6000K	RGB
Control	without control /DMX	DMX	DMX
Weight	0.57KG	0.57KG	0.57KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Cover	Flat / Ball PC	Flat / Ball PC	Flat / Ball PC
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Dimension

399 / 499 / 999

30.80

45

Project

O₂ World

CE RoHS

Tech Specifications

| Model	BC-Apio234-W	BC-Apio234-RGB	BC-Apio234-RGBW
Led Brand	Epistar /Osram/CREE	Epistar /Osram/CREE	Epistar /Osram/CREE
LED QTY	48 pcs	48 pcs	48 pcs
Voltage	DC24V	DC24V	DC24V
Power	12W	12W	12W
Pixel	0 / 8 pixel	8 pixel	8 pixel
Color Temp	2700k - 6000K	2700k - 6000K	RGB
Control	without control /DMX	DMX	DMX
Weight	0.35KG	0.35KG	0.35KG
Housing	Silvery / Aluminum	Silvery / Aluminum	Silvery / Aluminum
Cover	Flat / Ball PC	Flat / Ball PC	Flat / Ball PC
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

 CE RoHS

Product features

1000

Project

 CE RoHS
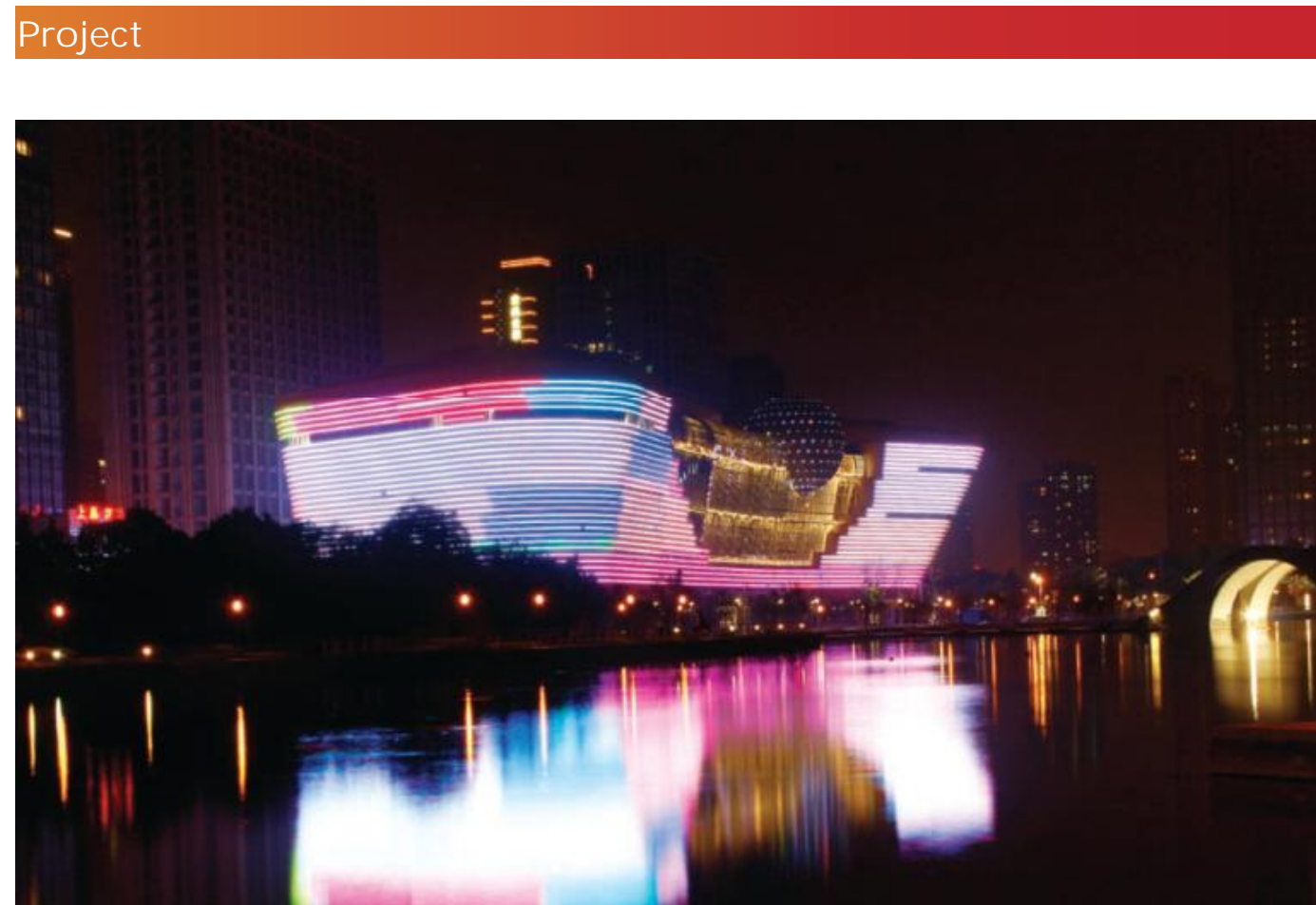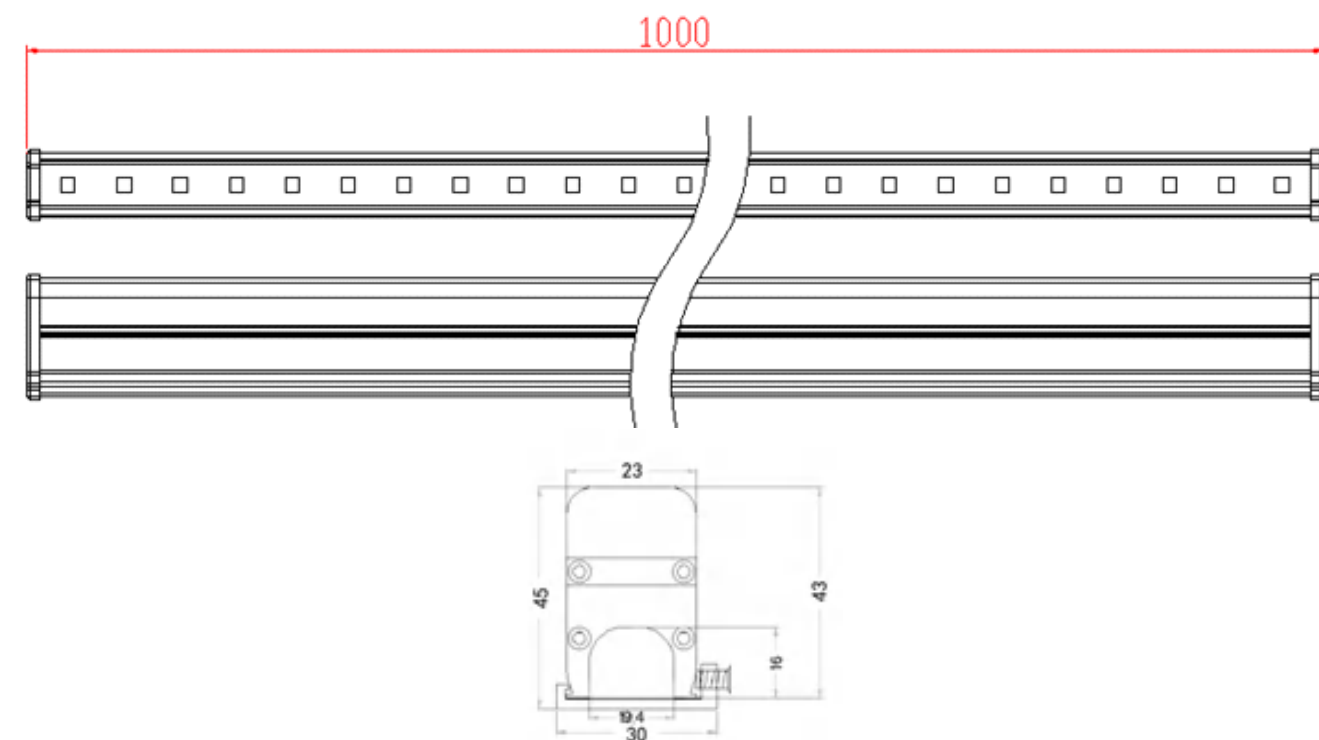
Wall washer Product features

Application:

Various customizations are available: aluminum color, length, lens, LED color (RGB, RGBW or monochrome). IP65, UV resistance, flame retardant V0, electrical safety Class III, etc. The installation method is fast and easy, and the angle can be adjusted, effectively ensuring the LED outdoor's stability under any weather condition.

Lighting Performance:

Combining RGBW, RGB, monochrome, and other light sources to meet more requirements; reducing visible light-emitting surfaces and increasing visual comfort; Customized lenses, different lenses of different angles, uniform light mixing, suitable for building cleaning projects at various heights; 16-bit color resolution, smoother grayscale changes; electronic drive with temperature overload protection.

Structure:

The body design simple and practical, with an extruded aluminum lamp body and tempered glass resistant to ultraviolet rays and salt spray, a PC optical lens, and LED bodies customized to match the building's color scheme; installation is simple and straightforward.
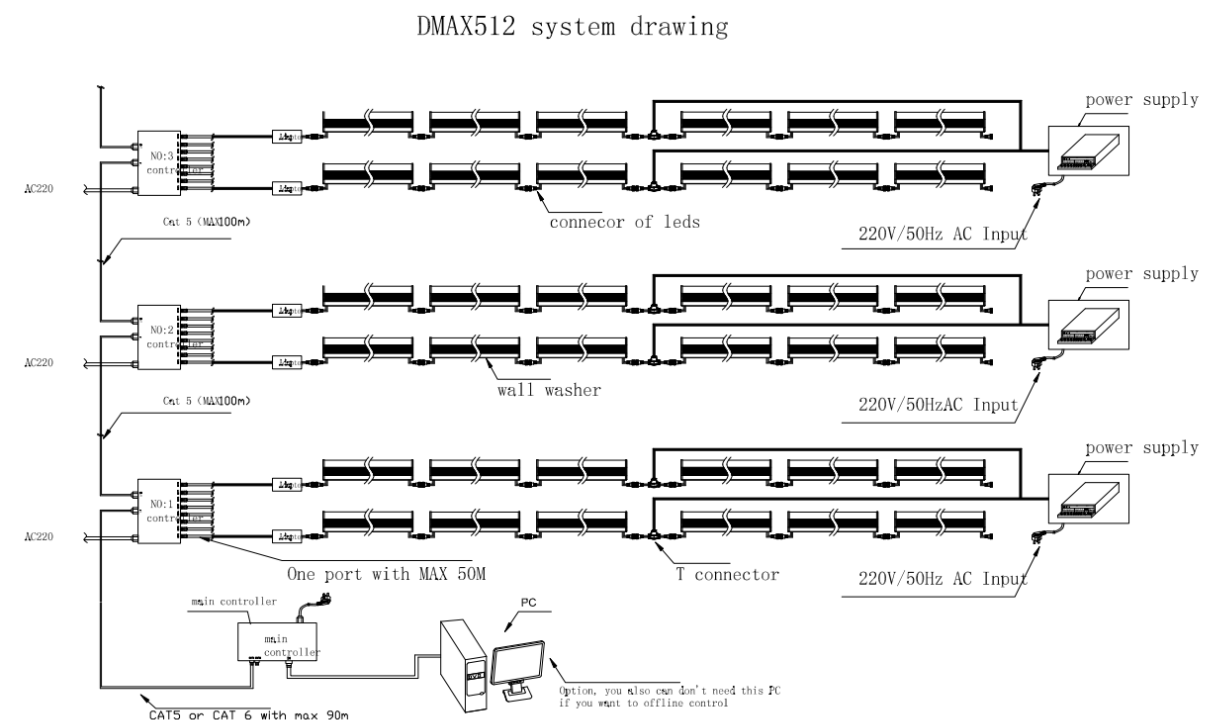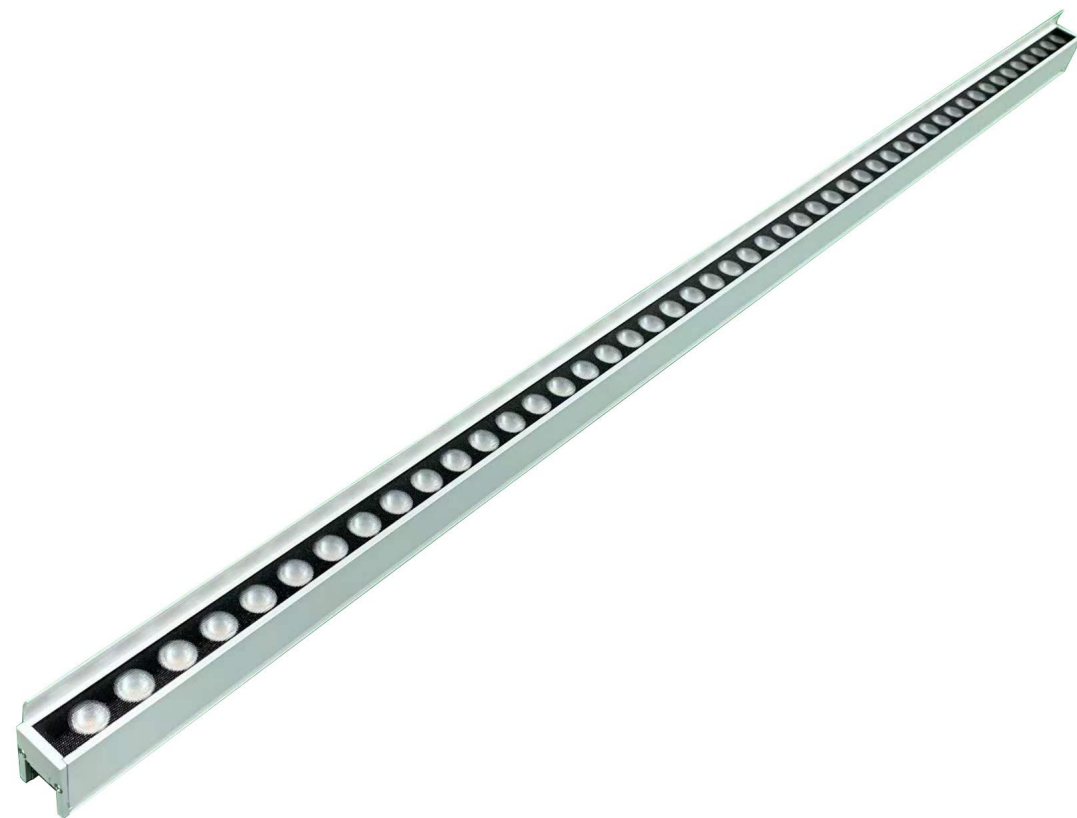
Control:
The wall washer used standard DMX protocol, multi-pixel or monochrome available; with the standard control system, the various scenes can be changed; high gray level high refresh frequency, to ensure that the image appears smooth.

Installation

Fixed lighting on the wall
90° 70°
M5 Screw

Control System Drawing

DMAX512 system drawing
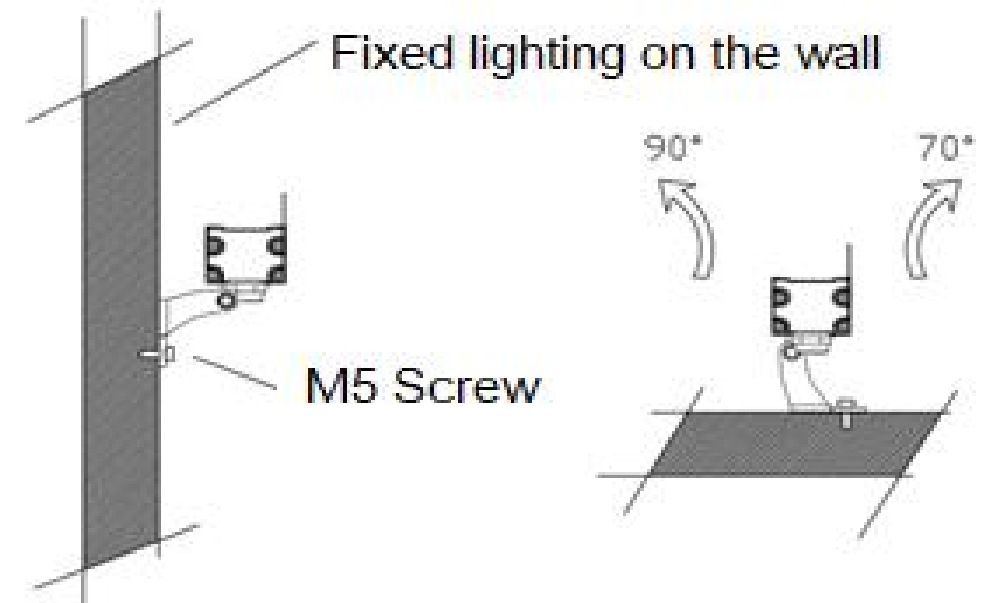
Tech Specifications

Model	BC-Cuca243-W	BC-Cuca243-RGB	BC-Cuca243-RGBW
Led Brand	Epistar /Osram/CREE	Epistar	Epistar
LED QTY	48 pcs	48 pcs	48 pcs
Voltage	DC24V	DC24V	DC24V
Power	Max 15W	Max 15W	Max 15W
Pixel	0	8 pixel	8 pixel
Color Temp	2700k - 6000K	2700k - 6000K	RGB
Control	without control	DMX	DMX
Weight	0.5KG	0.5KG	0.5KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	20°,45°,25°45°	20°,45°,25°45°	20°,45°,25°45°
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Dimension

24.5   32   1000

Project

CE RoHS
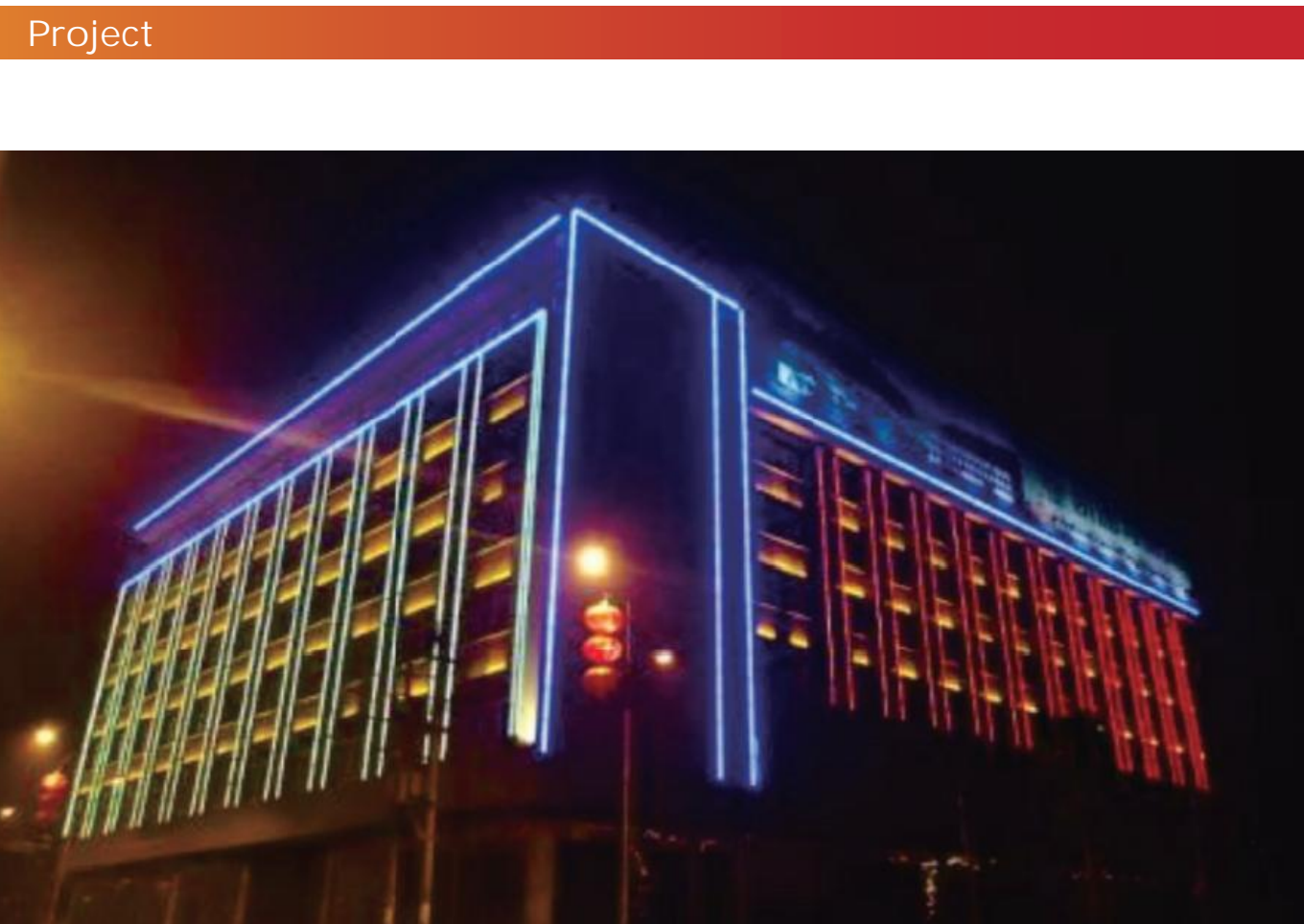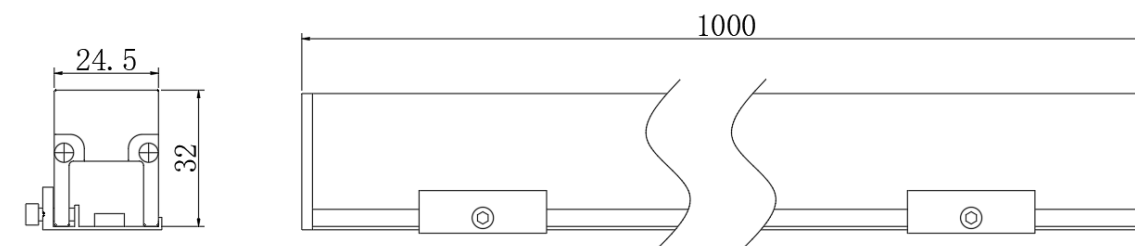
Tech Specifications

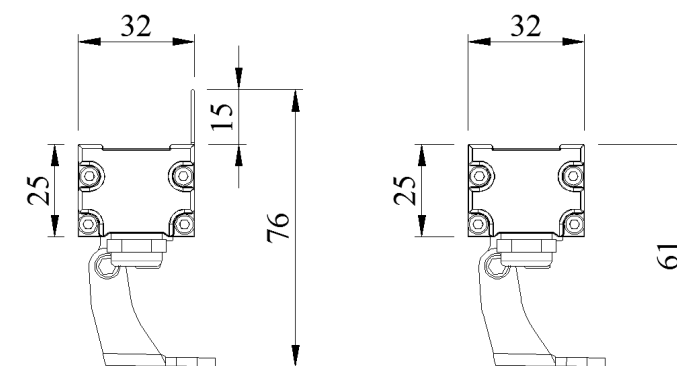| Model	BC-Cuca322-W	BC-Cuca322-RGB	BC-Cuca322-RGBW
Led Brand	Epistar /Osram/CREE	Epistar	Epistar
LED QTY	18/24 SMD	18/24/36 SMD	18/24 SMD
Voltage	DC24V	DC24V	DC24V
Power	18W/24W	18W/24W	18W/24W
Pixel	0	4 pixel	4 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Weight	0.8KG	0.8KG	0.8KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	10°*22°,10°*60°, 10°*45°, 10°*30°, 10°, 15°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Dimension

Project

CE RoHS

Tech Specifications

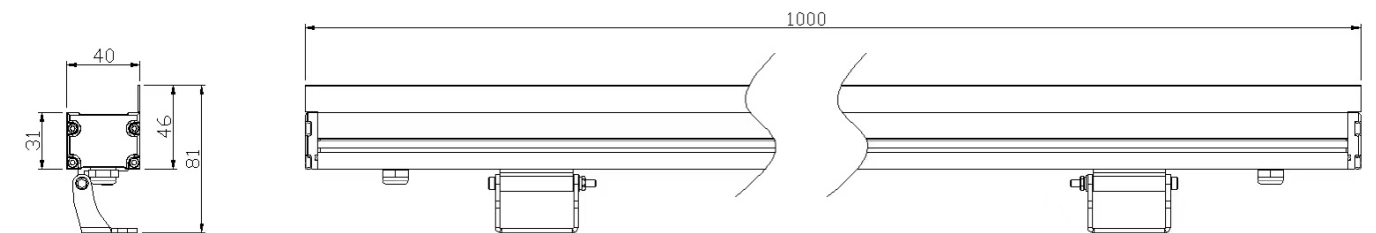| Model	BC-Cuca403-W	BC-Cuca403-RGB	BC-Cuca403-RGBW
Led Brand	Epistar /Osram/CREE	Epistar	Epistar
LED QTY	18/24 SMD	18/24/36 SMD	18/24 SMD
Voltage	DC24V	DC24V	DC24V
Power	Max 40W	Max 48W	Max 48W
Pixel	0	4 pixel	4 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Weight	1.64KG	1.64KG	1.64KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	10°*22°,10°*60°, 10°*45°, 10°*30°, 10°, 15°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Dimension

Project

CE RoHS

Tech Specifications

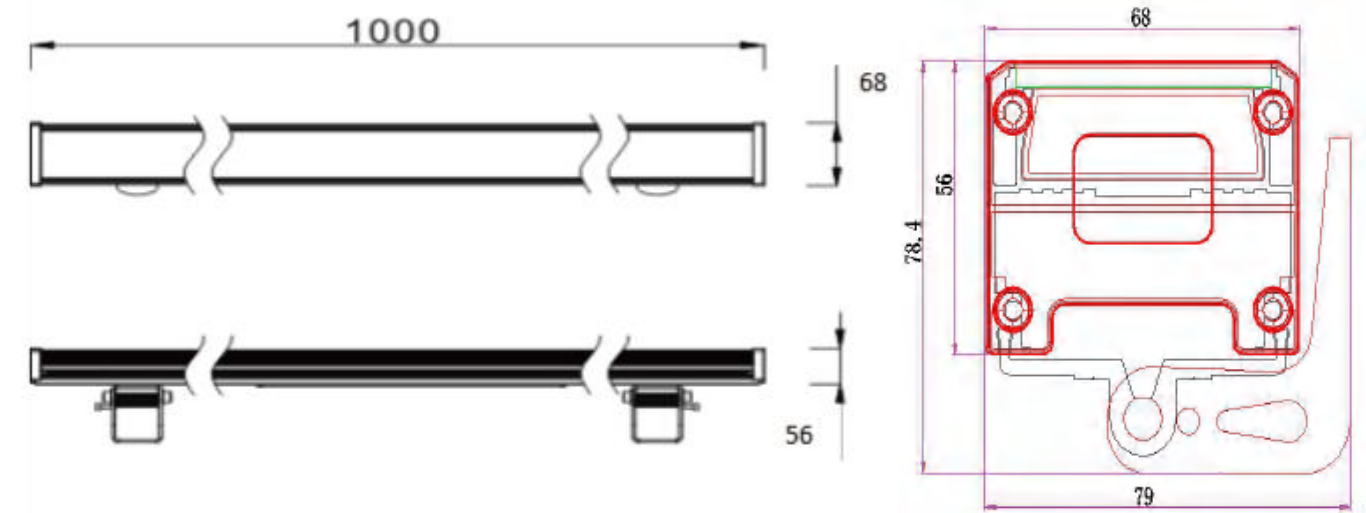| Model	BC-Cuca68-W	BC-Cuca68-RGB	BC-Cuca68-RGBW
Led Brand	Epistar /Osram/CREE	Epistar	Epistar
LED QTY	48 SMD	48 SMD	48 SMD
Voltage	DC24V	DC24V	DC24V
Power	72W	72W	72W
Pixel	0	4 pixel	4 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Weight	1.8KG	1.8KG	1.8KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	10°*60°, 10°*45°, 10°*30°, 10°, 15°,30°,45°,60°		
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-30° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Product features

Project

CE RoHS

Tech Specifications

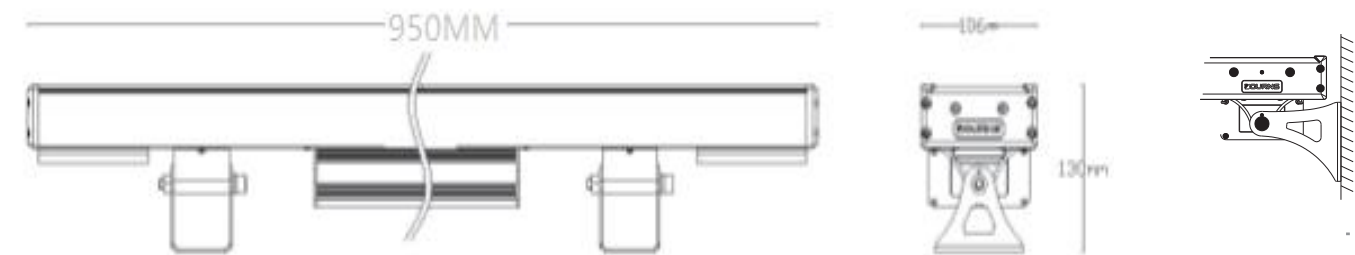| Model	BC-Cuca106-W	BC-Cuca106-RGB	BC-Cuca106-RGBW
Led Brand	Epistar /Osram/CREE	Epistar	Epistar
LED QTY	48 SMD	48 SMD	48 SMD
Voltage	DC24V	DC24V	DC24V
Power	Max120W	Max120W	Max120W
Pixel	0	4 pixel	4 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Weight	3.5KG	3.5KG	3.5KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°,10°, 15°,30°,45°,60°,10°*60°, 10°*45°, 10°*30°,		
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3-5 years	50000 hours/3 years	50000 hours/3 years

CE RoHS

Dimension

Project

CE RoHS

Dimension

Tech Specifications

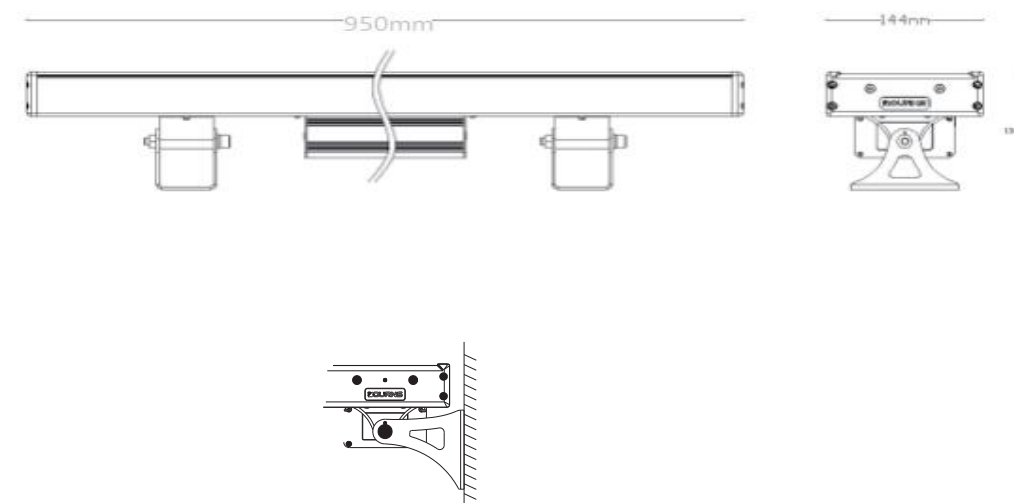| Model	BC-Cuca144-W	BC-Cuca144-RGB	BC-Cuca144-RGBW
Led Brand	Epistar /Osram/CREE	Epistar	Epistar
LED QTY	72 SMD	72 SMD	72 SMD
Voltage	DC24V	DC24V	DC24V
Power	Max216W	Max216W	Max216W
Pixel	0	4 pixel	4 pixel
Color Temp	2700k - 6000K	RGB	RGBW
Control	without control	DMX	DMX
Weight	4.7KG	4.7KG	4.7KG
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle	3°,10°, 15°,30°,45°,60°,10°*60°, 10°*45°, 10°*30°,		
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-35° ~ 50°	-30° ~ 50°	-30° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan/Warranty	50000 hours/3-5 years	50000 hours/3 years	50000 hours/3 years

Project

LED NEON FLEX LIGHT

BESTART

- This is a high output, low voltage, long lifespan LED Silicon extrusion Neon Flex Light.
- It can be cut every 2.5cm(12VDC) / 5cm(24VDC) to create the exact length needed for your specific application
- It is available in single color colors. It is max 12W per meter, and feature luminous flux of 2835 SMD 20-22 per LED.
- The combination of it's high output, color difference and low voltage allows for a wide variety of both indoor and outdoor decoration, lighting design and many other applications.

Tech Specifications

Model	BC-Ajo-N-1515-W	BC-Ajo-N-1515-RGB
Dimension	W15mm*H15mm	W15mm*H15mm
LED Source	2835	5050
Led Brand	Epistar	Epistar
LED QTY	120 pcs	120 pcs
Voltage	DC24V	DC24V
Power	14.4W	14.4W
Pixel	0	10 / 12 pixel
Color Temp	3000k - 6000K	RGB
Control	Without control	Automatic Control
Cut Unit	2.5cm	2.5cm
PCB width	10mm	10mm
CRI	>90	N/A
Housing	silica gel	silica gel
IP	IP67	IP67
Operating Temp	-25° ~ 60°	-25° ~ 60°
Warranty	2 years	2 years
Max run lenghth	10M	10M

Dimension

15
15

6
3
5
7
4 2

1
5
7

HQ 1080P   REC
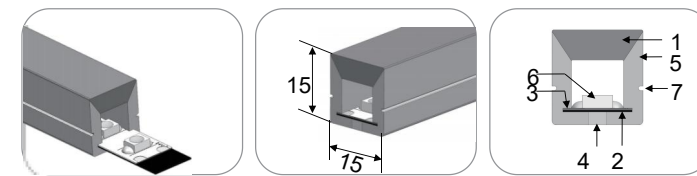
Instruction
1 Lighting surface
2 Base board
3 PCB
4 Cutting window
5 Cover
6 LED Chips
7 Mounting slot

Integrated silicone extrusion one molding technology

Light Source

Light Source
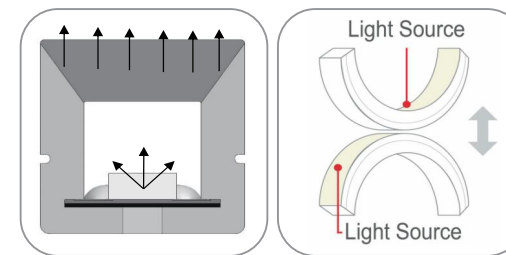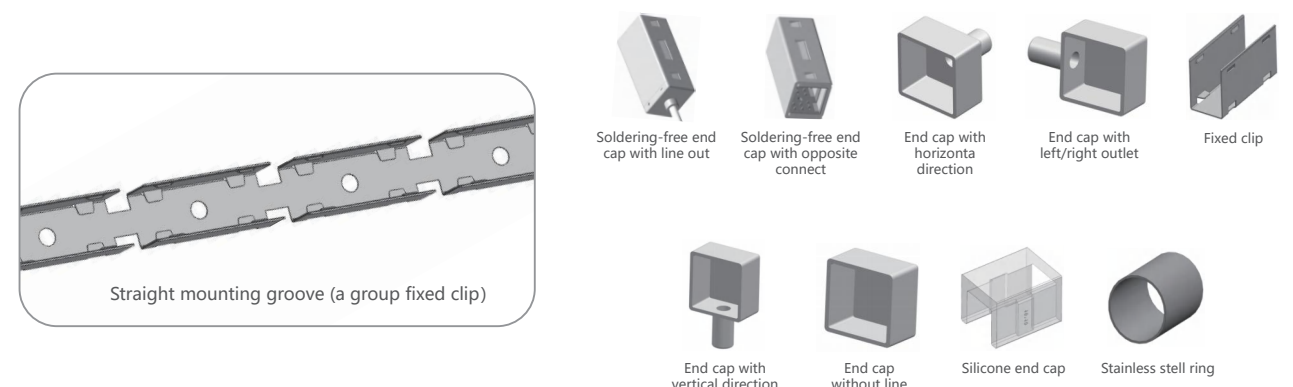
1.High luminous efficiency, unique optical light distribution structure, uniform and soft lighting, dot-free and no shadow.
2.High light transmittance, food-grade environmental silicone material, with good flexibility and stylish appearance, exquisite and unique.
3.IP67, with resistances to saline solutions, acids & alkalis, corrosive gases, fire and UV.
4.Top bend and side bend, limitless application.
5.Convenient cutting any length with cutting window.
6.Adopt integrated silicone extrusion one molding technology to ensure a good product.

Cut unit
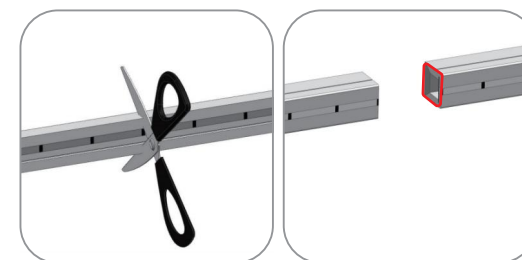
DC12V / DC24V low voltage silicone LED neon light can be cuttable based on customers' requirements.
There are clear cutting marks on the side way.

Accessories

Straight mounting groove (a group fixed clip)

Soldering-free end cap with line out

Soldering-free end cap with opposite connect

End cap with horizonta direction

End cap with left/right outlet

Fixed clip

End cap with vertical direction

End cap without line

Silicone end cap

Stainless stell ring

What is different between silicone and PVC

Installation of end cap with line out and without line out

01 End cap with left/right outlet   End cap with vertical direction   End cap with horizontal direction   End cap without line
Prepare end cap, wire cable and stainless steel ring accroding to application

03 Connect red to positive and black to negative on PCB. Or operate according to specific require-ments.

02 a. Insert stainless steel ring into wire cable.
b. Let wire cable less than ⌀6mm cross the hole into end cap

Before stamping   After stamping

05 Keep motionless for 15-20 minutes after amounting. 2 hours later put stainless steel ring into the area of outlet line. After stamping the stainless steel ring, the strip light can be packaged.

04 Apply the glue around and into the end cap. And install it in the direction of arrow. Then fill the glue on the position of outlet. Wipe clean the excess glue after completion. Install the other end in the same way

Specifications Comparison

Main parameters	Silicon Flexible led strip	PVC flexible LED strip	Notes
Colloid features in -40°C	No Crack after 30 days	Totally cracked	The low temperature resistant of silicone is superior than pvc or epoxy materials
Colloid features in -180°C	No obvious change after 72 hours	Brown and some melted after 20 minutes	Over 150°C,PVC is easily hydrolyzed,Viscosity becomes weaken and easily seperated
Steadily lighted in seawater for 72 hours	No obvious change	Serious atomization on surface	The waterproff grade of silicone led strip can reach to IP 67,high resistance to acidic alkali and salt properties
Termal conductivity	Good thermal conductivity	No thermal conductivity	PVC and epoxy cannot conduct heat,while silicone has good thermal conductivity

Installation of fixed clip

Fixed clip(single)   Straight mounting groove (a group fixed clip)

A Select fixed clip and screw according to products.

B Fix the clip to the appropriate position and fix it with M3 screws

C Put the strip light into the clip and keep light-emitting surface facing outward
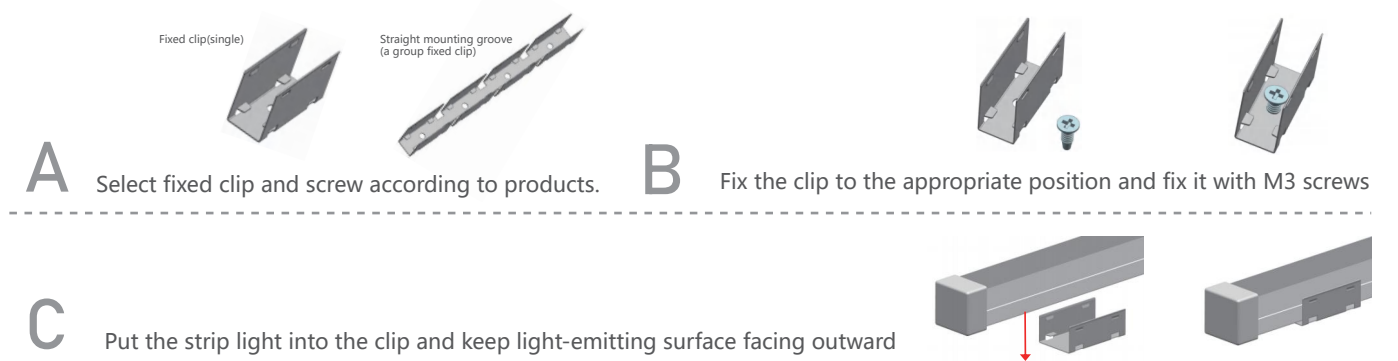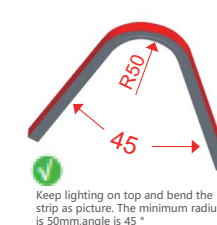
Attension

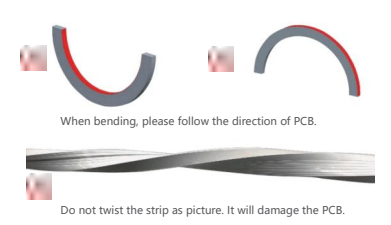Do not bend strip light at any direction. Please follow instruction as beow when installation.

●This product adopts low-voltage DC power supply. It must be used after AC-DC switching power supply for voltage conversion. It is strictly forbidden to connect the product directly with AC mains voltage,otherwise it will deduct the product and may cause safety accident.

●Please read the instructions carefully before using this product,and ask the professional to install it to ensure safe use.

●When packing longer product,please keep more curved angle of inner diameter.

R50   45
Keep lighting on top and bend the strip as picture. The minimum radius is 50mm,angle is 45 °

100mm
When packing, keep lighting area on top. The minimum bending diameter is 100mm. 5m per roll

When bending, please follow the direction of PCB.

Do not twist the strip as picture. It will damage the PCB.

Right Bending   Wrong Bending

Tech Specifications

| Model	BC-Ajo1405-W	BC-Ajo1405-RGB	BC-Ajo1405-RGBW
Dimension	W14mm*H5mm	W14mm*H5mm	W14mm*H5mm
LED Source	2835	5050	5050
Led Brand	Epistar	Epistar	Epistar
LED QTY	112 / 120 /112 pcs	60pcs or 84 pcs	60pcs or 72 pcs
Voltage	DC24V	DC24V	DC24V
Power	8W (12W, 15W)/M	13W/M, 17W/M	17W/M,20W/M
Pixel	4 /8/16 pixel	10 / 12 pixel	10 / 12 pixel
Color Temp	3000k - 6000K	RGB	RGBW
Control	DMX	DMX	DMX
Cut Unit	25cm/12.5cm/6.25cm	10cm / 8.33cm	10cm / 8.33cm
PCB width	10mm	12mm	12mm
CRI	>90	N/A	>80
Housing	silica gel	silica gel	silica gel
IP	IP65	IP65	IP65
Operating Temp	-25° ~ 60°	-25° ~ 60°	-25° ~ 60°
Warranty	2 years	2 years	2 years
Max run lenghth	8M	10M	10M

Product features

1.High luminous efficiency, uniform and soft lighting, dot-free and no shadow .

2.High light transmittance, food-grade environmental silicone material, with good flexibility and stylish appearance, exquisite and unique.

3.IP65, with resistances to saline solutions, acids & alkalis, corrosive gases, fire

and UV. 4.Top bend and side bend, limitless application.

5.Convenient cutting any length with cutting window.
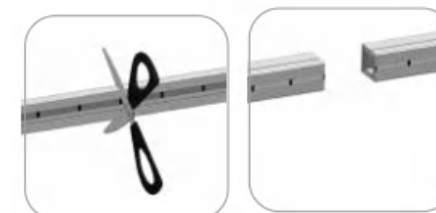
DC24V low voltage strip light can be cuttable based on customers' requirements.

There are clear cutting marks on the side way.

Control System Drawing
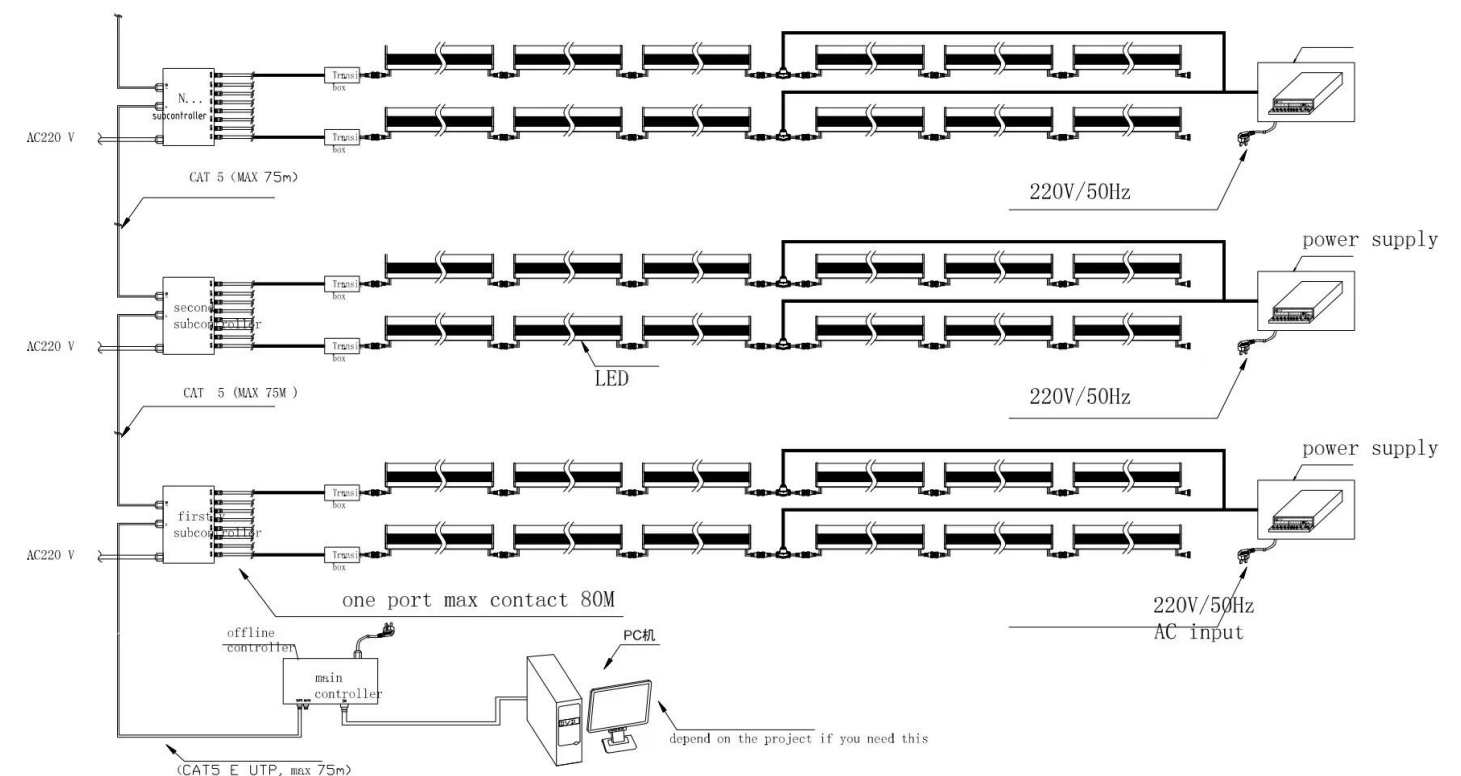
Project

Installation

1. Select fixed clip and screw according to products.

Fixed clip(single)

Straight mounting groove
(a group fixed clip)

Aluminum profile

2. Fix the clip to the appropriate position and fix it with M3 screws

3. Put the strip light into the clip and keep light-emitting surface facing outward

CE RoHS

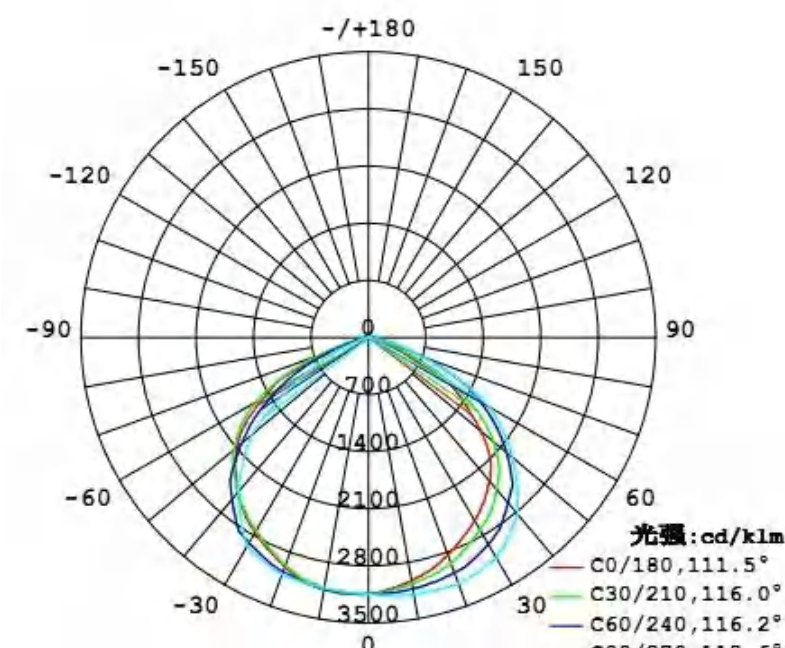## Tech Specifications

| Model	BC-Ocra-A-250	BC-Ocra-A-300-A	BC-Ocra-A-300-B
Led Brand	CREE	CREE	CREE
LED QTY	12 SMD	12 SMD	12 SMD
Voltage	AC220V	AC220V	AC220V
Power	18*2W /24*2W	18*2W	24*2W
Lighting Dimension	Ø130*L250mm	Ø145*L300mm	Ø160*L300mm
Color Temp		3000K,4000K,6000K	
Control	without control	without control	without control
Lumen	110lm/W	110lm/W	110lm/W
Housing	Grey / Aluminum	Grey / Aluminum	Grey / Aluminum
Bean angle		10°*30°, 10°, 15°,30°,45°,60°	
Cover	Glass	Glass	Glass
IP	IP65	IP65	IP65
Operating Temp	-25° ~ 50°	-25° ~ 50°	-20° ~ 50°
Storage Tem	-40° ~ 70°	-40° ~ 70°	-40° ~ 70°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

Product Features

This lamp is coated with outdoor grade oxidation, it is made with imported waterproof silicone, it has better waterproof performance, high-quality impact-resistant 4MM tempered glass. The lamps use the international brand CREE light source. It utilizes domestic first-line brand drivers and Japanese imported PC material with optical devices that minimize glare and form secondary light distribution, which increases overall light efficiency by 93%.The rubber docking power cables are meant to withstand extreme temperatures and cold well, making them safer and more reliable for docking installations. Featuring beautiful fluid mechanics design, the aesthetics and functionality of the product complement one another perfectly.The external lamp body adopts SUS304 stainless steel screws.
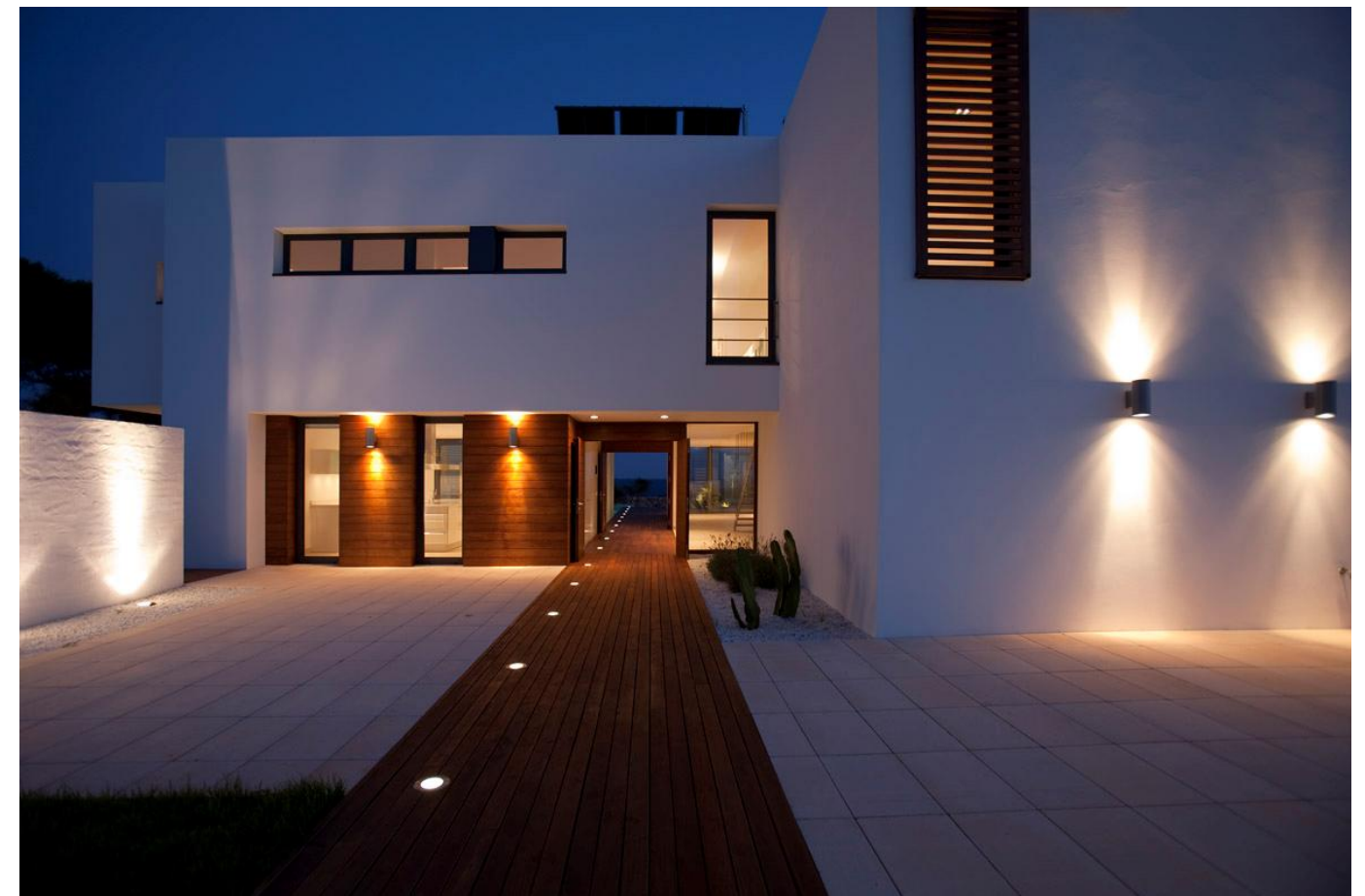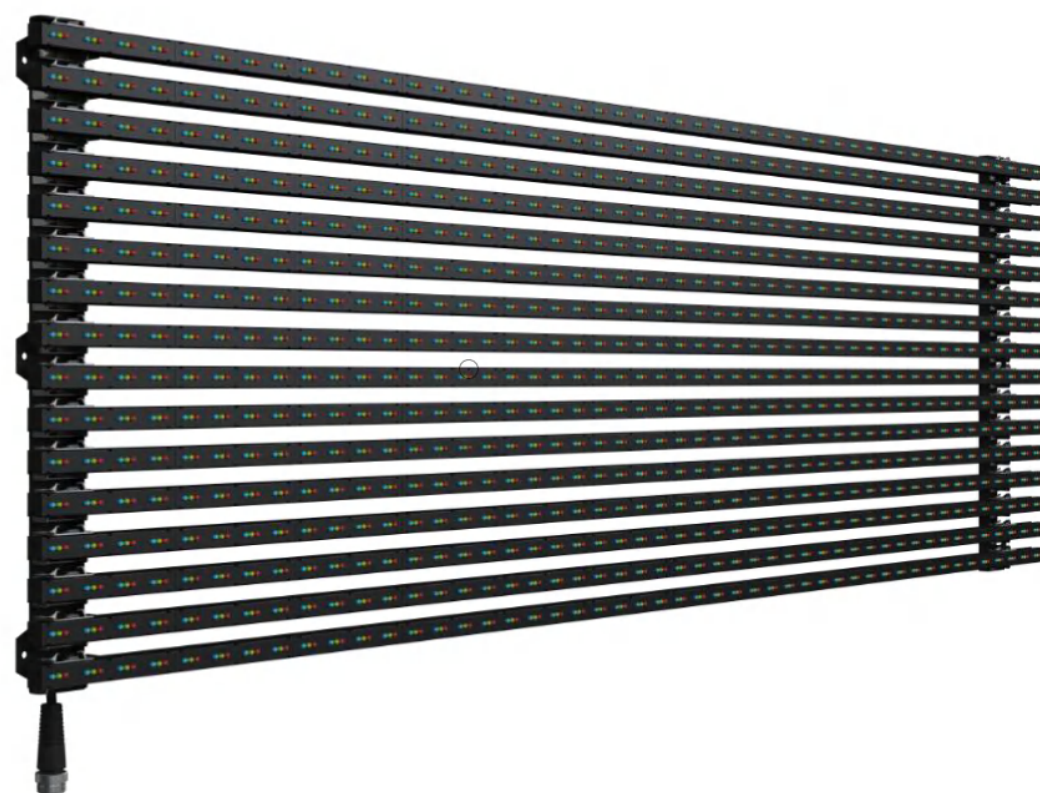
Parameter of Optics

Dimension

130mm
250mm
38mm
100mm
58mm

145 mm
300mm
38mm
100mm
58mm

160 mm
300mm
38mm
100mm
58mm
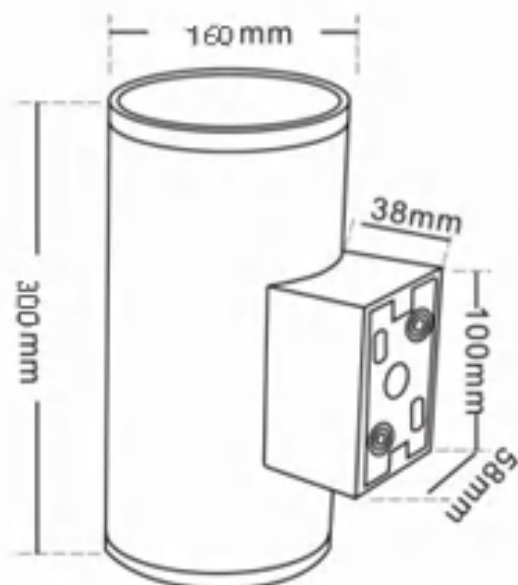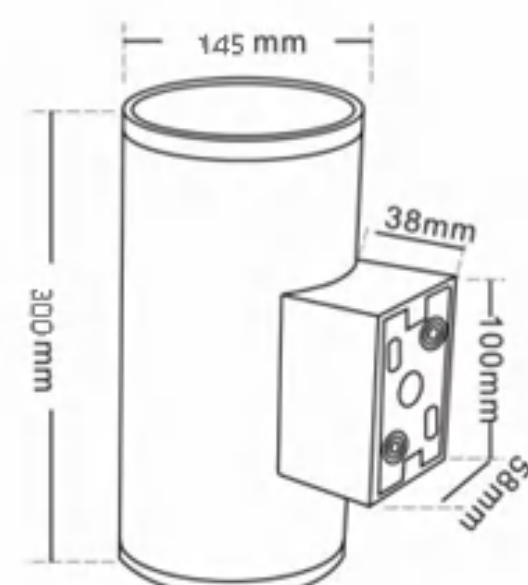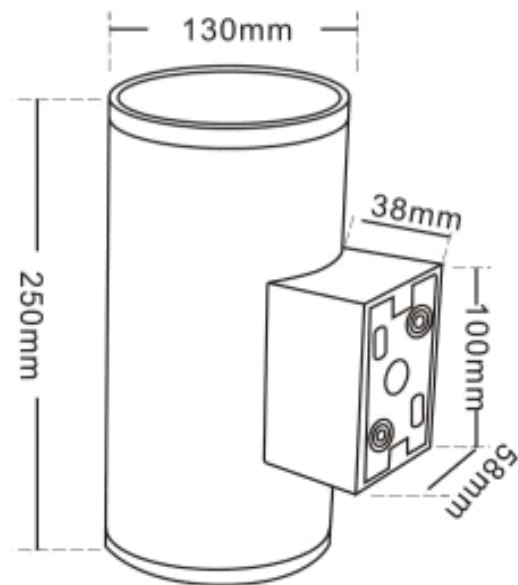
Project

Tech Specifications

Model	BC-Malla-A-2525	BC-Malla-A-2550
Voltage	DC36-48V	DC36-48V
Max /Average Power	425W/sqm, 145W/sqm	260W/sqm, 90W/sqm
Pitch	25mm(H)*25mm(V)	25mm(H)*50mm(V)
Led Brand	Epistar/Nichia	Epistar/Nichia
Lumen	9000CD/sqm	7200CD/sqm
Light Source	1R1G1B DIP	2R2G2B DIP
Dimension unit	1200mm(L)*500mm(H)	1200mm(L)*800mm(H)
Weight	18.7kg/sqm	10.9KG/sqm
Transparency	>45%	>72%
Resolution	20*48 pixeles	16*48pixeles
Housing	Aluminum	Aluminum
IP	IP67	IP67
Operating Temp	-40° ~ 50°	-40° ~ 550°
Lighting dimension	14mm*1200mm	14mm*1200mm
Viewing Angle	120°(H)/60°(V)	120°(H)/60°(V)
Lifespan /Warranty	50000 hours /3 years	50000 hours /3 years

CE RoHS

Product features

1 . LED mesh screen has the advantages of light weight, high brightness, high transparency, and low wind loading, which overcomes many limitations of building walls for traditional LED display. LED mesh screen incorporates the advantages of high resolution, low cost, and high transparency.This LED display combines centralized control with long-distance transmission technology, thereby eliminating the transmission problem caused by interruptions to the LED signal. It has both high quality and high gray levels of conventional LED displays. Light bars are spliced with aluminum alloy, and each group of lights is isolated with RC technology, so that even if a light bar breaks, it cannot affect the others. The screen unit has a high heat dissipation efficiency, requiring no air conditioning, with the ability to be installed on the front or rear of a building facade, it simplifies, makes the application more flexible, and is more efficient. It is the best choice for indoor and outdoor applications.

2. High transparency:The light bar width is less than 14mm, which means it will have a transparency as high as 72%. It can be installed inside or outside of a glass wall without affecting indoor brightness. If installed on the roof, it will reduce wind resistance greatly.

3. Simple maintenance: This LED light bar can be maintained from both the front and rear, and it allows you to select the best maintenance method based on the application site. For example, if installed before the building's facade, you may choose the front maintenance method.also can choose rear maintenance if installed behind glass wall.
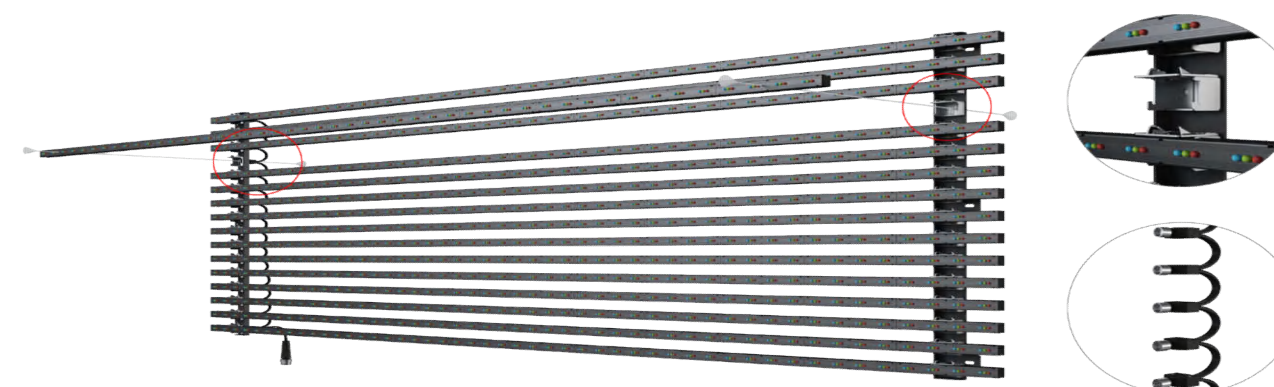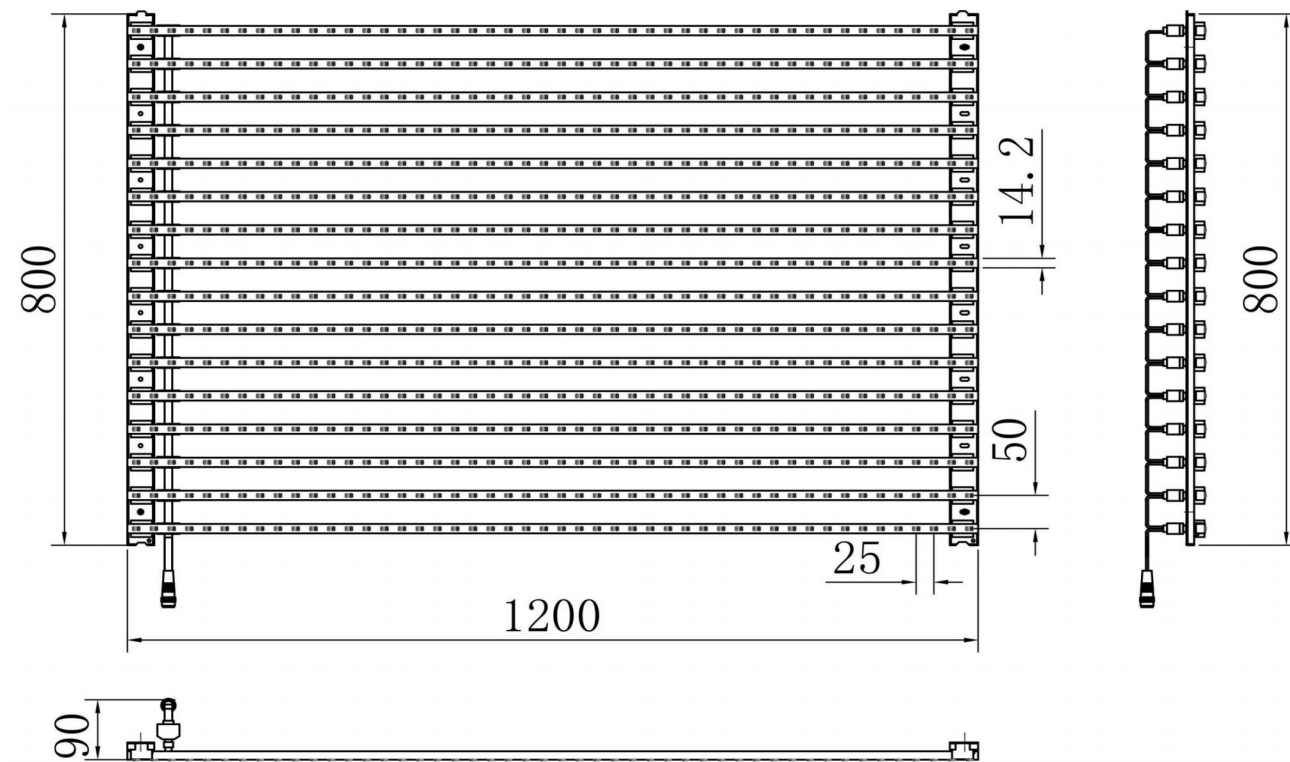

4.This product weighs less than 11 kilograms per square meter, making it easy to transport and easy to control labor costs.

5.Control is simple: By using parallel transmission, each light bar operates independently, without interfering with other light bars, and it can be customized based on any other requirements.
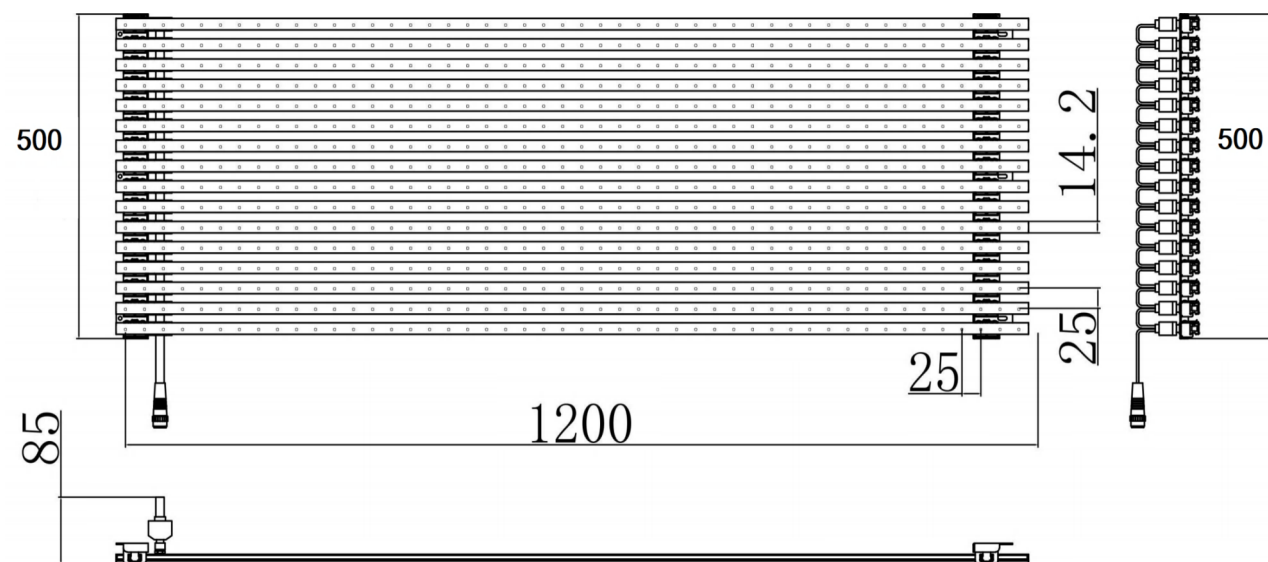
6.High level protectionIP67, suitable for both indoor and outdoor applications. The extrusion is aircraft aluminum, the surface is treated with an environmentally-friendly dichromate solution, with its excellent cooling and corrosion-resistance.

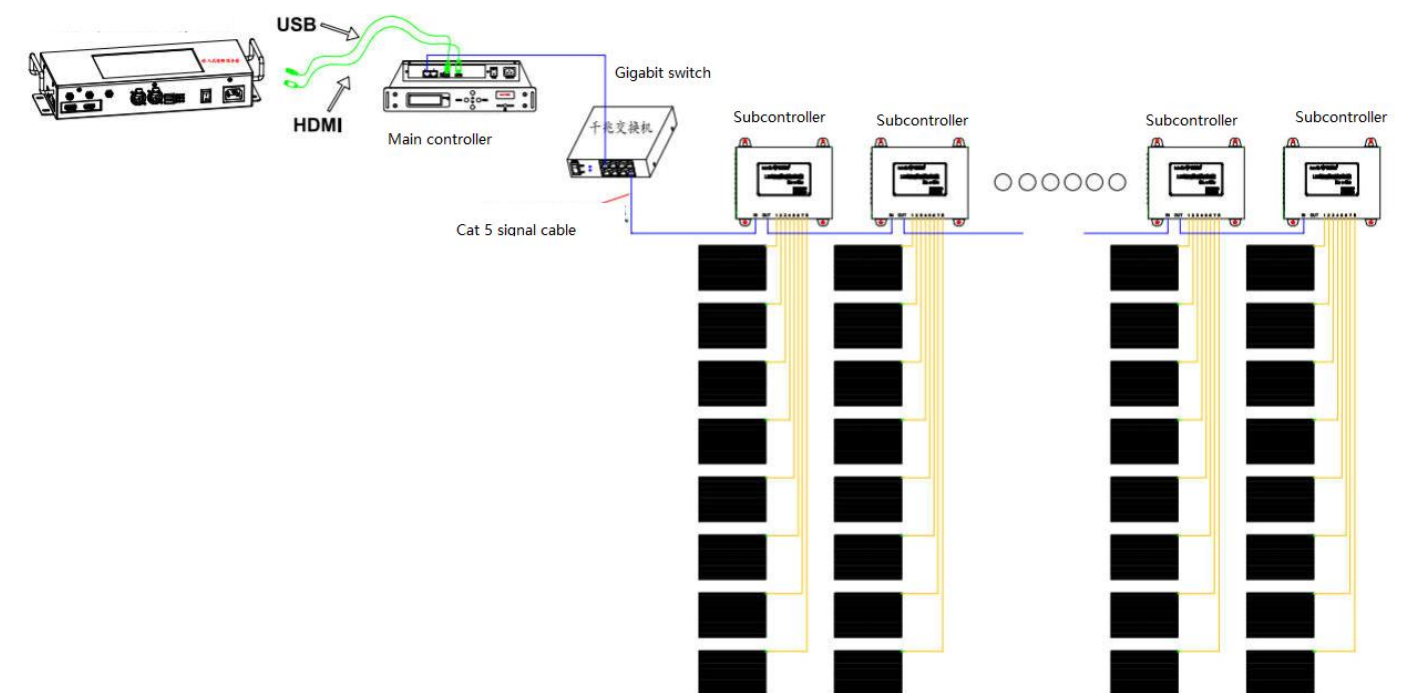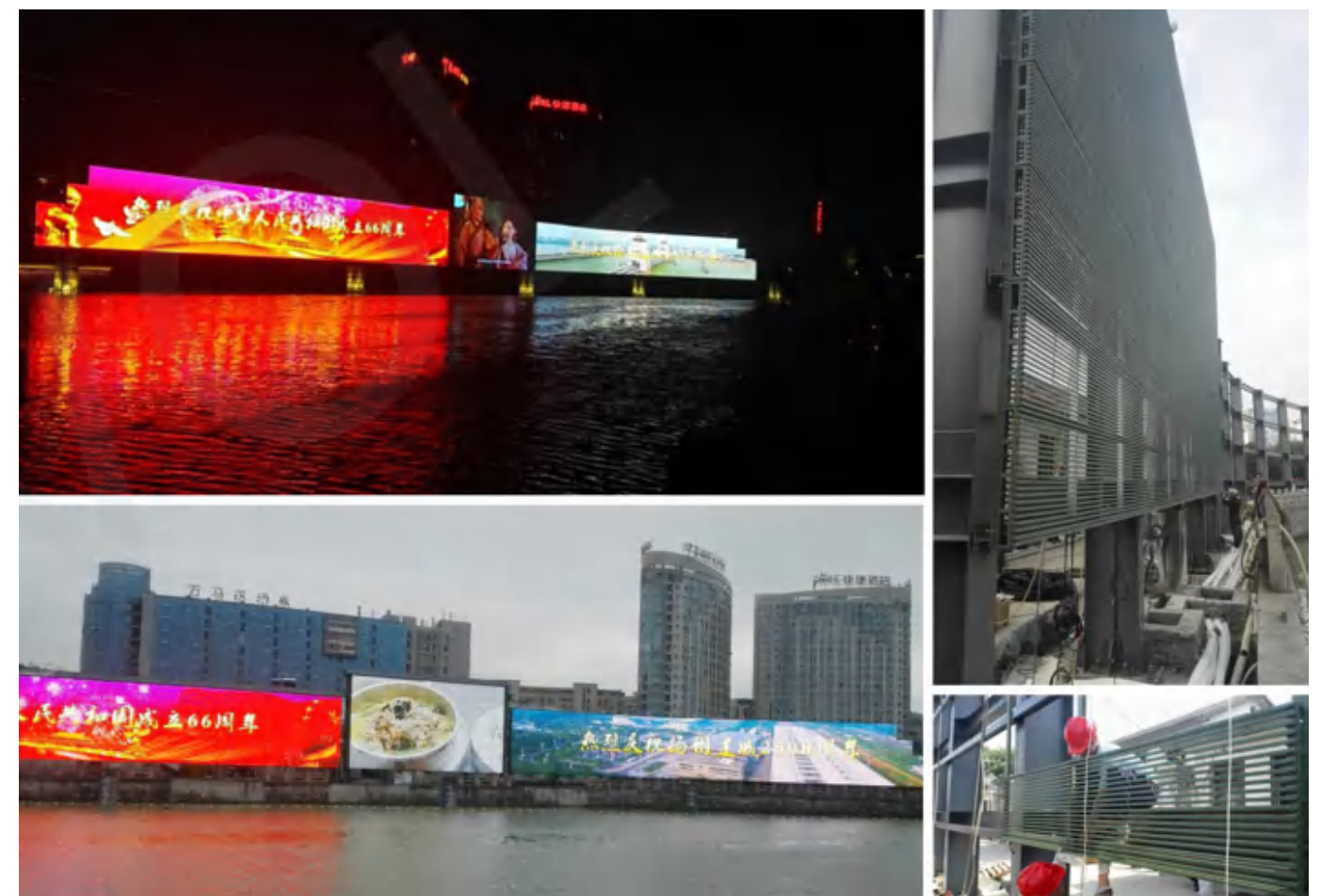7.Brightness up to 7200CD per square meter using 346 RGB DIP tubes, meeting requirements for daytime displays.

CE RoHS

Dimension

14.2

800

50

25

1200

800

25

90

Pitch: 25*50MM

500

14.2

500

25

25

1200

85

Pitch: 25*25MM

System drawing

USB
HDMI
Main controller
Gigabit switch
Subcontroller Subcontroller Subcontroller Subcontroller
Cat 5 signal cable

Project

Tech Specifications

Model	BC-Nabo380-A	BC-Nabo380-B	BC-Nabo380-C
Voltage	AC85-305V (50/60Hz)	AC85-305V (50/60Hz)	AC85-305V (50/60Hz)
Power	50W / 60W	100W /120W	150W
Led Brand	Epistar	Epistar	Epistar
LED QTY	120 PCS * SMD2835	120 PCS * SMD3030	150 PCS * SMD3030
Lumen	100-110lm/W	100-110lm/W	100-110lm/W
Color Temp	3000k - 6000K	3000k - 6000K	3000k - 6000K
Installation	Lamp pole Installation	Lamp pole Installation	Lamp pole Installation
Surge Protection	4KV	4KV	4KV
Power factor	90	90	90
CRI	>70	>70	>70
Housing	Aluminum	Aluminum	Aluminum
IP	IP65	IP65	IP65
Operating Temp	-25 ~ 55	-25 ~ 55	-25 ~ 55
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

Product features

Characteristics and application:

Our lamp is a patented private mold product developed by ourselves, with a high-end atmosphere, beautiful structure, and superior performance. The whole lamp is made of high-purity aluminum, which has good heat dissipation and a strong and durable structure, and effectively prolongs the service life of the lamp. This product is IP65 protection grade, which is easy to install and maintain.

Characteristics of light sources:

Adopt domestic famous brand SMD-2835 light source, which has high brightness, small light attenuation and longer service life.

Power supply characteristics:

Adopt high-stability isolated constant current power supply scheme, it has the characteristics of over temperature protection, wide voltage range, high power factor, high efficiency and good heat dissipation effect.

Heat sink feature:

Adopt high-purity aluminum radiator with high thermal conductivity.The radiator is specially designed, taking aerodynamics and hydromechanics into full consideration,maximizing the heat dissipation area and the efficiency of heat exchange with cold and hot air, so that the heat generated by the light source can be efficiently emitted and the reasonable temperature can be maintained,thus ensuring the stability of the product function and prolonging its service life.
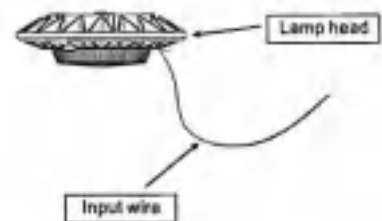
Installation:
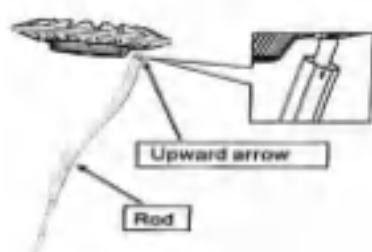
Adopt lamp pole installation

Product application:

This product is widely used for road lighting on one side or both sides of public places such as slow lanes, narrow lanes, residential quarters, tourist attractions, parks, squares, private gardens, courtyard corridors, etc.
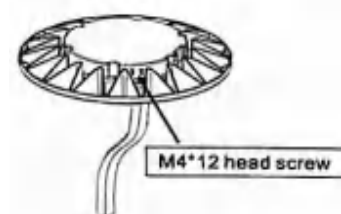
Installation

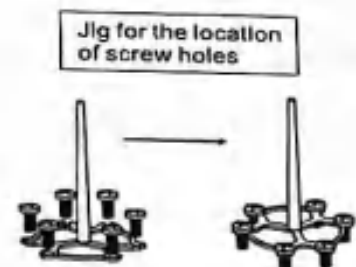Step1：Take out lamp head and other the assembly parts

Step3：Fixed the lamp head and rod by 2 pieces M4*12 head screws

Step 5: Put 6 pieces M4*12 head screws on the ji that is designed for the inside screw holes of the lamp pole.

step 7; Put the screw jig align with the screw holes in lamp pole, fix all screws by tool, then take out the jig and tighten the screws up.

Step2 ：Thread the input wire into the rod that is marked with upward arrow

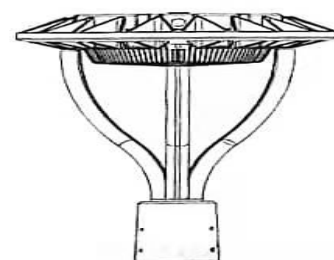Step 4：Refer to step 3 and use the M4*12 head screws to fix the other two rods to the lamp head.
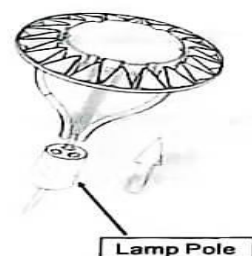
Step 6;Put 3 rods into the lamp pole accordingly

Step 8: Finish the assemblage.

CE RoHS

☆ Blackout before installation. Don't install it with electricty on.

☆ This product is widely used for road lighting on one side or both sides of public places such as slow lanes, narrow lanes, residential quarters, tourist attractions, parks, squares, private gardens, courtyard corridors, etc.

☆ It Install as shown in the installation steps. You can install it at the height you need according to the optical version or the conventional version.

☆ Connect the wire. It's 0.75mm² triple-core, brown is firing line, blue is zero line, yellow green is ground line.
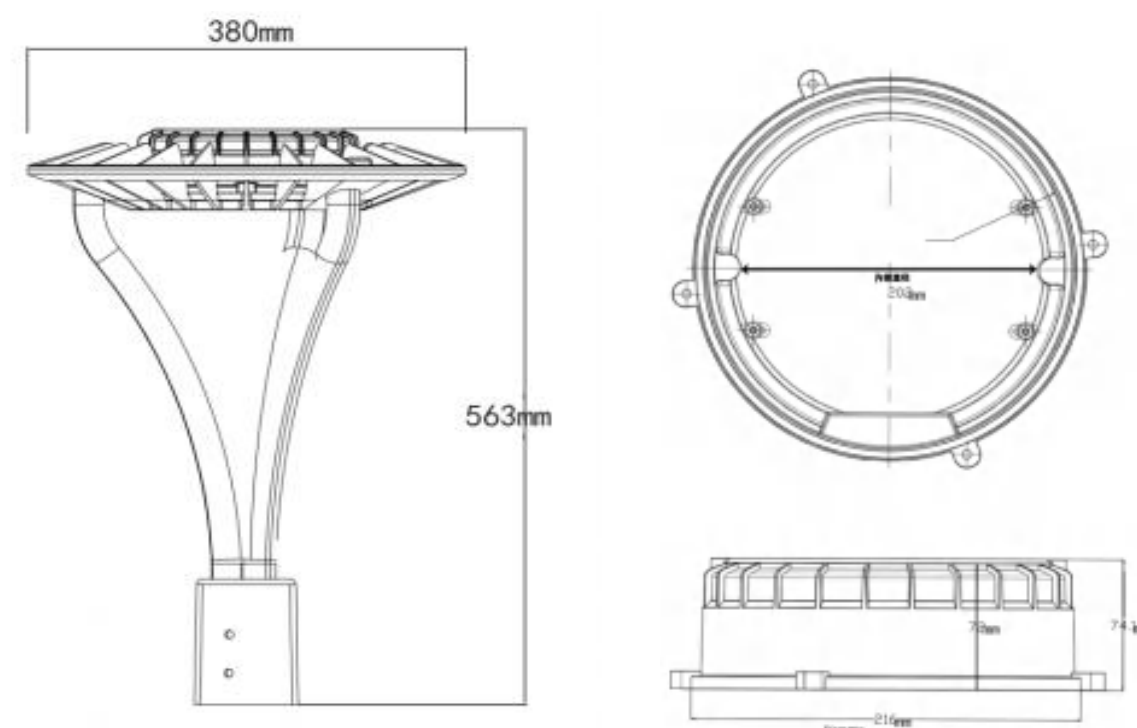
☆ Don't try to install the damaged product.

☆ Don't install the lamp in the inclosed place in order to good heat dissipation effect. ☆ Make sure the wire connection is good and safe to avoid electric leakage after installing the lamp.

☆ Waterproof measure must be taken when connecting the driver.

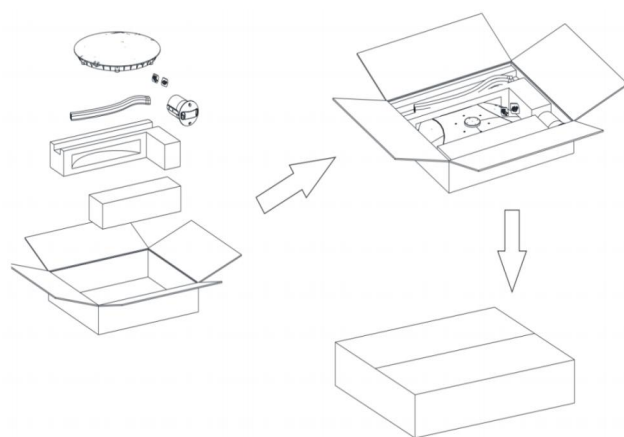☆ Don't violate the law of fire controll when using the lamp.

Dimension

Installation Instructions

1.The working voltage of the product is AC85V-305V 50/60Hz.Do not exceed the working voltage range.

2.The glass of lights and lanterns is a fragile accessory. Please handle it with care when handling and storing, and do not put it under heavy pressure.

3.Please install and use the products according to the instructions of this specification, and the installation height can be adjusted according to the specific use scenarios and needs.

4.Users can choose the regular version or the light sensor version according to the actual needs. The light sensor and lamps are designed separately, which is simple, convenient and plug and play.

5.When installing lamps and lanterns, the wiring must be tightly sealed to prevent the risk of leakage and short circuit of water.Do not electrify during wiring.

6.When external power lines are connected,corresponding waterproof and leakage prevention measures must be taken.

7.It shall not violate any fire regulations when used the lamp.

8.Please find professional electrician for installation. The cable should be 0.75-1mm2 three-core cable ,the brown wire is" L" wire,the blue wire is "N"wire, and the yellow-green wire is the "PE".
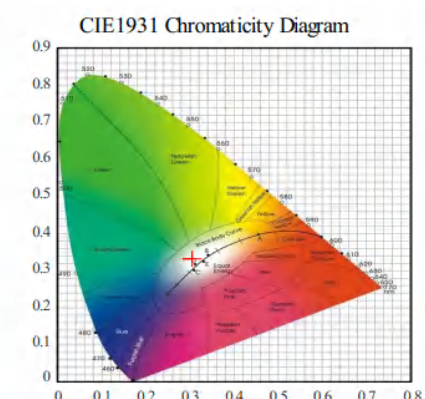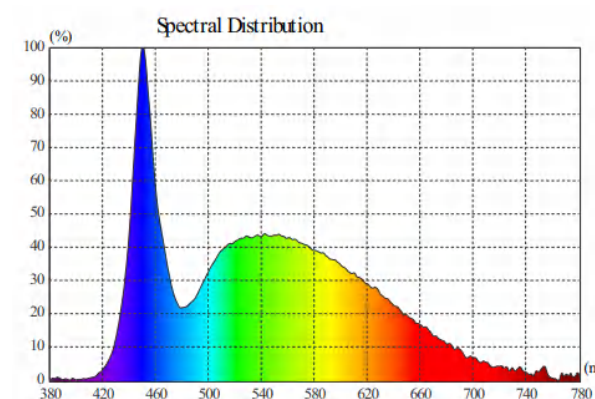
Packaging
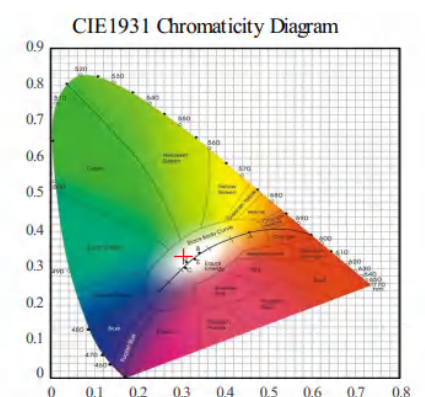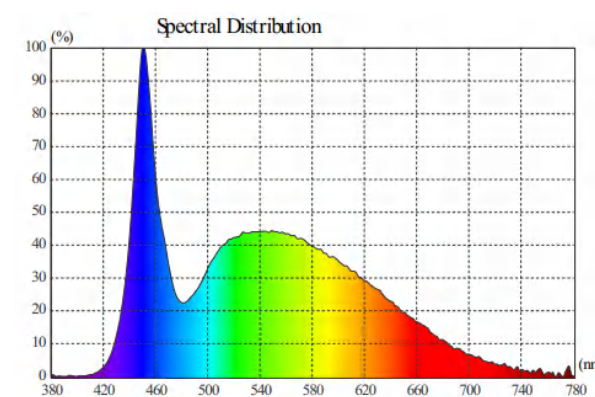
Packaging dimension: 55X46X14cm
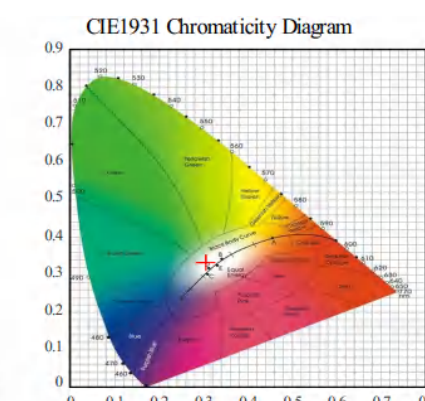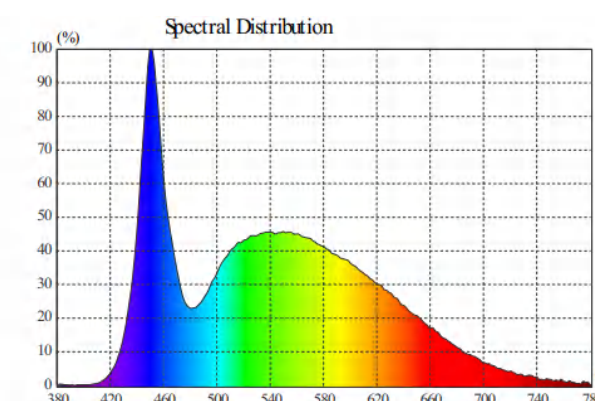
Parameters of Optics
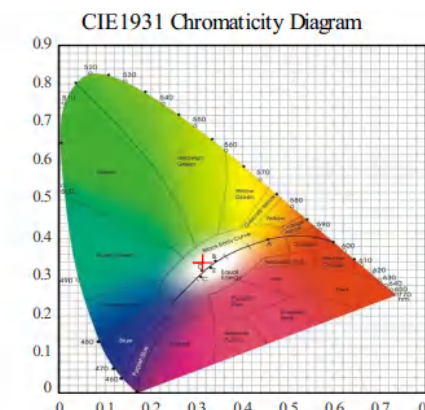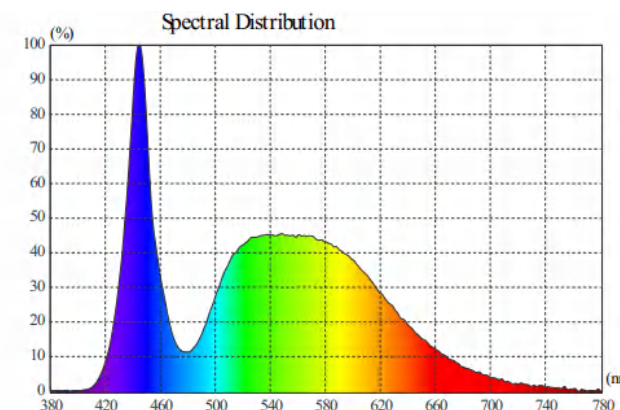
3C-Nabo380-60

BC-Nabo380-100

BC-Nabo380-120

BC-Nabo380-150

Tempture Test

Product Name	position	Temperature	Ambient temperature	Temperature rise
BC-Nabo380	LED junction	79.5 ℃	32.2 ℃	47.3 ℃
	PCB	68.7 ℃	32.2 ℃	36.5 ℃
	housing	66.2 ℃	32.2 ℃	34.0 ℃
	Driver	51.8 ℃	32.2 ℃	19.6 ℃

Project

Information on maintenance and repair

1. Please make sure that the power has been cut off before repairing the lamp.

2. Clean the PC lens of the lamps regularly to keep good light transmittance.

3.Regularly clean the dust of the outer shell of the lamp to maintain good heat dissipation performance.

4. Do not clean with water or corrosive solution, but rather with a dry rag.

5. Avoid storing and using lamps in corrosive environment or environment containing harmful substances, such as sulfide, halide and phthalate.

6. When installing and maintaining lamps,do not look directly at the light source.

7.Please contact with the dealer and manufacturer if the LED chip or driver has to be replaced. Because the waterproof and dust-proof performance will be effected after dismounting again.

8.Product guarantee 3 years, the manufacturer will be responsible for the quality during the period. The damage resulted of irresistible clause will have paid maintenance.

After- Sales Service and quality assurance

Under normal use conditions, quality assurance is based on the correct preservation, installation, use and maintenance of products; Product damage caused by improper installation and use and violation of product operation regulations is not within the scope of this guarantee; For the quality problems during the quality warranty period, the company will choose to repairing, repairing parts or repairing new products during the warranty period; If the warranty period exceeds, materials and labor costs will be properly charged. The product quality problems caused by natural factors and environmental factors are not covered by the warranty.

Sensor Version	Standard Version

Tech Specifications

Model	BC-Nabo448-A	BC-Nabo448-B
Voltage	AC85-305V (50/60Hz)	AC85-305V (50/60Hz)
Power	100W	150W
Led Brand	Epistar	Epistar
LED QTY	150 PCS * SMD2835	300 PCS * SMD2835
Lumen	100-110lm/W	100-110lm/W
Color Temp	3000k - 6000K	3000k - 6000K
Installation	Lamp pole Installation	Lamp pole Installation
Surge Protection	4KV	4KV
Power factor	95	95
CRI	>70	>70
Housing	Aluminum	Aluminum
IP	IP65	IP65
Operating Temp	-25 ~ 55	-25 ~ 55
Lifespan	50000 hours	50000 hours
Warranty	3 -5 years	3-5 years

CE RoHS

Product features

Characteristics and application:

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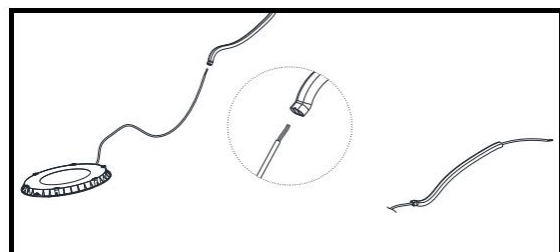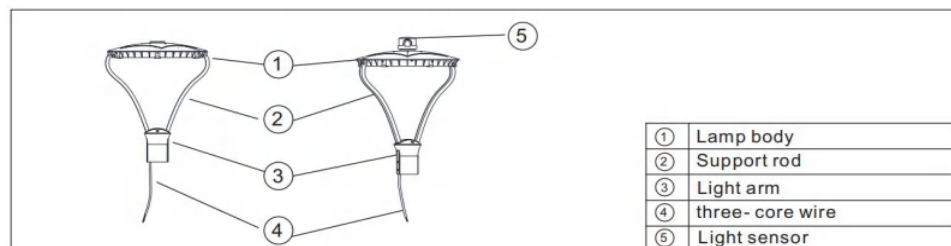
### Installation:

Adopt lamp pole installation

Product application:

This product is widely used for road lighting on one side or both sides of public places such as slow lanes, narrow lanes, residential quarters, tourist attractions, parks, squares, private gardens, courtyard corridors, etc.

CE RoHS

Installation

①	Lamp body
②	Support rod
③	Light arm
④	three- core wire
⑤	Light sensor

STEP1: Support rod threading.
The exposed three-core wires of lamps and lanterns are penerated fromthe bottom end of the support rod with the "U"shaped groove, and then are penetrated from the other end.
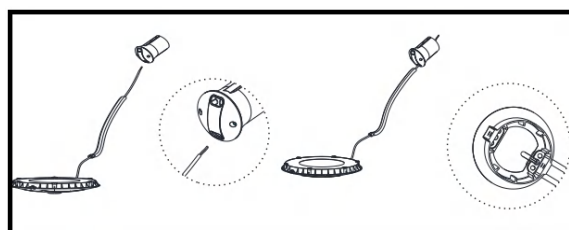
STEP2: Light arm threading.
Insert the three-core wire from the support rod in STEP1 into the corresponding hole of the lamp arm and out from the middle hole on both sides of the lamp arm--as shown above.
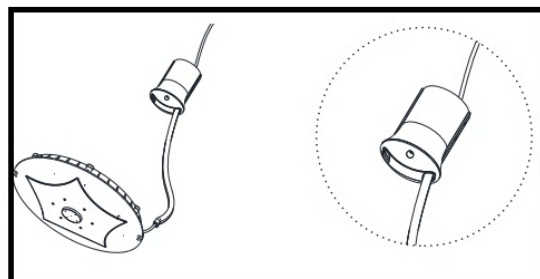
STEP4:The support rod is inserted into the lamp arm hole2.
As in STEP3. insert the other support rod into the corresponding position of the lamp arm and fix it with M6*20mm screw from the other end of the lamp.
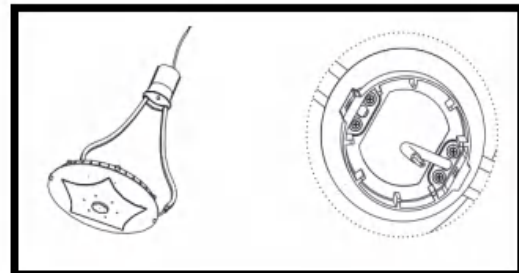
STEP3:The support rod is inserted into the lamp arm hole 1.
Insert the outlet end of the bracket rod threaded in the previous step into the corresponding position of the lamp arm.
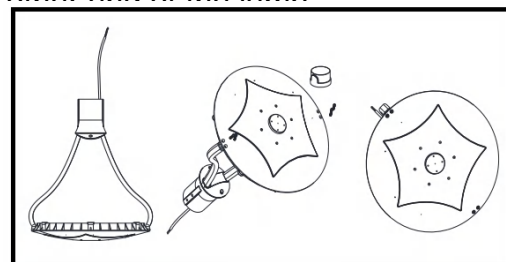
STEP5:Adjust and fix the other end of the support rod.
Install one end of the two support rods inSTPE near the lamp body on the positioning mechanism of the lamp body, and fix them on the lamp body with M6*20mm screws.and install the optical sensor on the optical sensor.
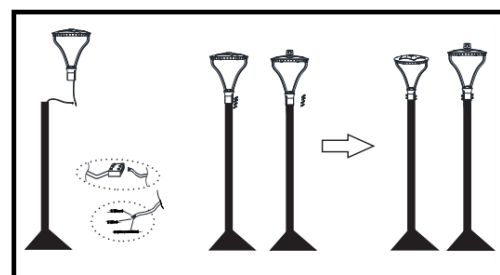
STEP6:Wiring and installation the lights.
Install the assembled lamp on the lamp post, as shown in the figure and connect the corresponding wiring. Fix the lamp on the lamp post with M8*35mm Allen screw.

CE RoHS

☆ Blackout before installation. Don't install it with electricty on.

☆ This product is widely used for road lighting on one side or both sides of public places such as slow lanes, narrow lanes, residential quarters, tourist attractions, parks, squares, private gardens, courtyard corridors, etc.

☆ It Install as shown in the installation steps. You can install it at the height you need according to the optical version or the conventional version.

☆ Connect the wire. It's 0.75mm² triple-core, brown is firing line, blue is zero line, yellow green is ground line.

☆ Don't try to install the damaged product.

☆ Don't install the lamp in the inclosed place in order to good heat dissipation effect. ☆ Make sure the wire connection is good and safe to avoid electric leakage after installing the lamp.

☆ Waterproof measure must be taken when connecting the driver.

☆ Don't violate the law of fire controll when using the lamp.

Dimension

Installation Instructions

1.The working voltage of the product is AC85V-305V 50/60Hz.Do not exceed the working voltage range.

2.The glass of lights and lanterns is a fragile accessory. Please handle it with care when handling and storing, and do not put it under heavy pressure.

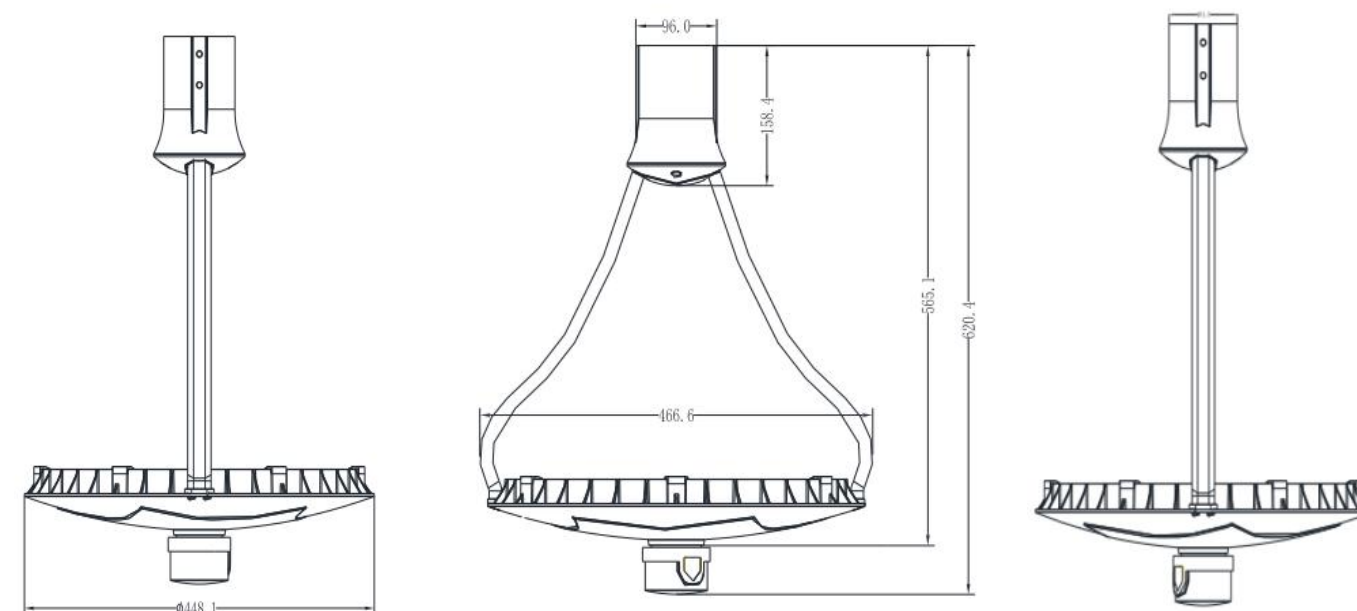3.Please install and use the products according to the instructions of this specification, and the installation height can be adjusted according to the specific use scenarios and needs.

4.Users can choose the regular version or the light sensor version according to the actual needs. The light sensor and lamps are designed separately, which is simple, convenient and plug and play.

5.When installing lamps and lanterns, the wiring must be tightly sealed to prevent the risk of leakage and short circuit of water.Do not electrify during wiring.

6.When external power lines are connected,corresponding waterproof and leakage prevention measures must be taken.

7.It shall not violate any fire regulations when used the lamp.

8.Please find professional electrician for installation. The cable should be 0.75-1mm2 three-core cable ,the brown wire is" L" wire,the blue wire is "N"wire, and the yellow-green wire is the "PE".

Packaging

Product Series	BC-Nabo 100/150
Size of Carton	520mm*600mm*135mm
Packing quantity	1 pcs/carton
Net weight	100W:5.50 kg /150W:5.8ĸG
Gross weight	100W:6.9ĸG / 150W:7.05ĸG

Parameters of Optics

-/+180

UNIT:cd
V 0.0DEG PLAN, 114.5
H 0.0DEG PLAN, 113.8

AVERAGE BEAM ANGLE(50%):114.1 DEG

A A I   F i g u r e

Flux out:8427 lm

Height	Eavg,Emax	Angle:113.82deg	Diameter
1m	1131, 38271x		306.91cm
2m	282.8, 956.71x		613.82cm
3m	125.7, 425.21x		920.73cm
4m	70.71, 239.21x		1227.64cm
5m	45.25, 153.11x		1534.56cm
8m	17.68, 59.791x		2455.29cm
10m	11.31, 38.271x		3069.11cm
12m	7.856, 26.571x		3682.93cm
14m	5.772, 19.521x		4296.76cm
20m	2.828, 9.5671x		6138.22cm
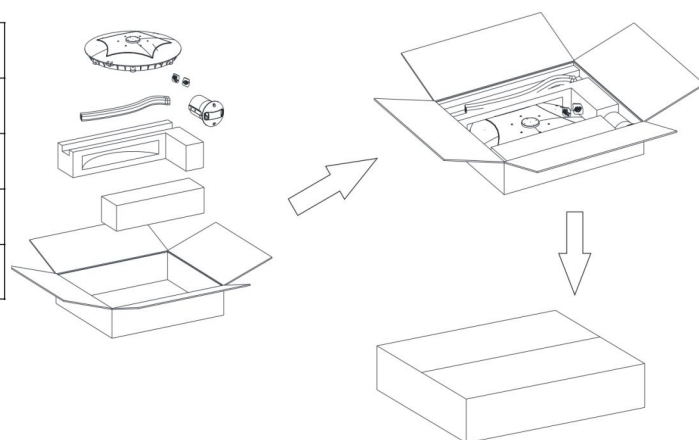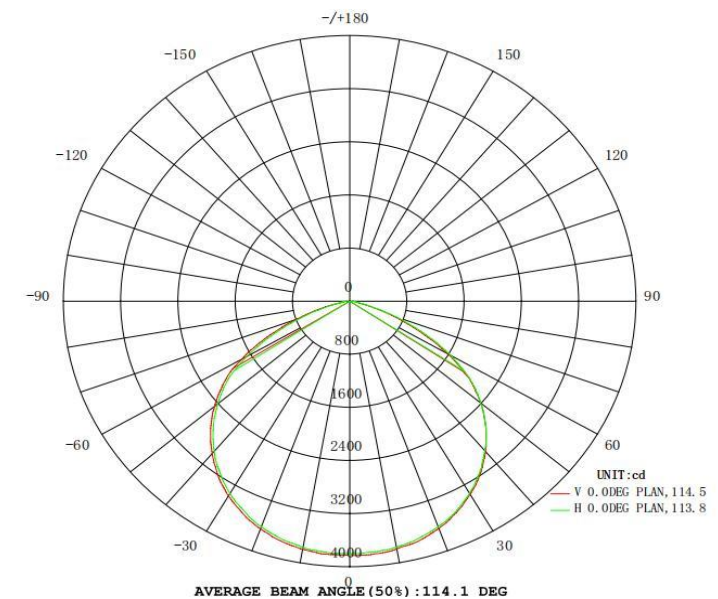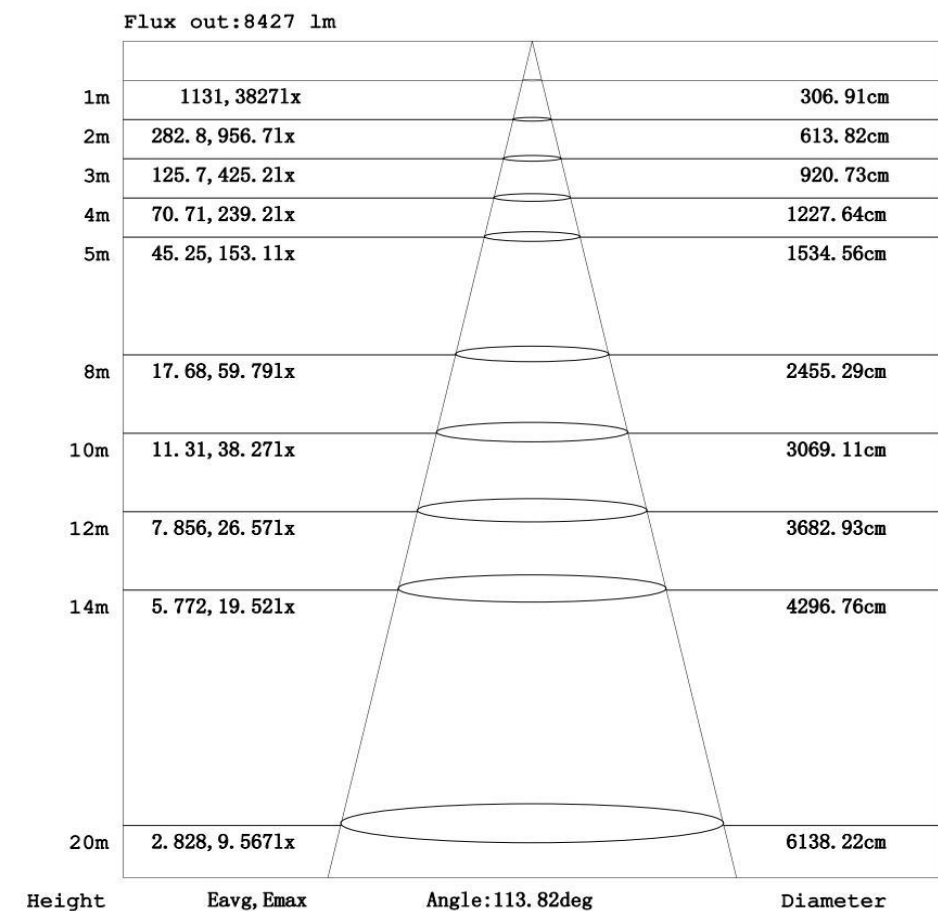
Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

Tempture Test

Product Name	position	Temperature	Ambient temperature	Temperature rise
BC-Nabo448	LED junction	79.5 ℃	32.2 ℃	47.3 ℃
	PCB	68.7 ℃	32.2 ℃	36.5 ℃
	housing	66.2 ℃	32.2 ℃	34.0 ℃
	Driver	51.8 ℃	32.2 ℃	19.6 ℃

Project

Information on maintenance and repair

1. Please make sure that the power has been cut off before repairing the lamp.

2. Clean the PC lens of the lamps regularly to keep good light transmittance.

3. Regularly clean the dust of the outer shell of the lamp to maintain good heat dissipation performance.

4. Do not clean with water or corrosive solution, but rather with a dry rag.

5. Avoid storing and using lamps in corrosive environment or environment containing harmful substances, such as sulfide, halide and phthalate.

6. When installing and maintaining lamps,do not look directly at the light source.

7. Please contact with the dealer and manufacturer if the LED chip or driver has to be replaced. Because the waterproof and dust-proof performance will be effected after dismounting again.

8. Product guarantee 3 years, the manufacturer will be responsible for the quality during the period. The damage resulted of irresistible clause will have paid maintenance.

After- Sales Service and quality assurance

Under normal use conditions, quality assurance is based on the correct

preservation, installation, use and maintenance of products; Product damage

caused by improper installation and use and violation of product operation

regulations is not within the scope of this guarantee; For the quality problems

during the quality warranty period, the company will choose to repairing, repairing

parts or repairing new products during the warranty period; If the warranty period

exceeds, materials and labor costs will be properly charged. The product quality

problems caused by natural factors and environmental factors are not covered by

the warranty.

Tech Specifications

Model	BC-COCO-A-50W	BC-COCO-A-100W
Voltage	AC100-265V (50/60Hz)	AC100-265V (50/60Hz)
Power	50W	100W
Led Brand	Epistar	Epistar
LED QTY	100 PCS * SMD2835	200 PCS * SMD2835
Lumen	100-110lm/W	100-110lm/W
Color Temp	3000k - 6000K	3000k - 6000K
Installation	Lamp pole Installation	Lamp pole Installation
Surge Protection	4KV	4KV
Power factor	95	95
CRI	>70	>70
Housing	Aluminum	Aluminum
IP	IP65	IP65
Operating Temp	-25° ~ 55°	-25° ~ 55°
Weight	1.36kg	2.11kg
Dimension of packaging	450*400*525 (mm)	495*360*660(mm)
Lifespan /Warranty	50000 hours /3 years	50000 hours/3 years

Product Feature

Character and Application:

Patenetd products, easy to install. The lamp body is made of die-casting aluminum alloy, which makes drivers have good heat dissipation, and improves the life of the product. This lamp is suitable for installation at 6-8m height, and The distance is 3~3.5 times the height.

Light source characteristics:

Adopt domestic famous brand SMD light source, which has high brightness, small light attenuation and longer service life.

Power supply characteristics:
Adopt high-stability isolated constant current power supply scheme, it has the characteristics of over-temperature protection, wide voltage range, high power factor, high efficiency and good heat dissipation effect.

Heat sink feature:

Adopt high-purity aluminum radiator with high thermal conductivity. The aluminum radiator isspecially designed, which increases the radiating area, enhances the heat exchange efficiency of cold and hot air, which can reduces the temperature of the light source and ensures the stability of the product function, and has a longer service life.

Installation:

Lamp pole installation

Application:

Urban branch road, garden road, industrial park road, etcDirection for using

Installation Instructure

Light

Arm

L(Brown)   G(Yellow and Green)

N(Blue)

5~15°

light

Φ60 arm

5~15°

pole

6~8m

1.The working voltage of the product is AC100V-265V 50/60Hz. Do not exceed the working voltage range.

2..The luminous surface of the lamp is a PC lens, which is fragile. Please handle it with care during transportation, handling, storage and fixation.

3.When installing lamps and lanterns, the wiring and wiring place shall be sealed to prevent electric leakage. Do not electrify during wiring.

4.When external power lines are connected, corresponding waterproof and leakage prevention measures must be taken.

5.It shall not violate any fire regulations when used the lamp.

6.Please employ a professional electrician to install it. The cable should be 0.75-1mm three-core cable ,the brown wire is " L" wire, the blue wire is "N"wire, and the yellow-green wire is the "PE".)

Dimension

Ⅰ.Standard version model: 500mm*160mm* 38 mm

500.0

340.0

160.0

ø63.5

ø70.0 ø72.0

38.0

15.5
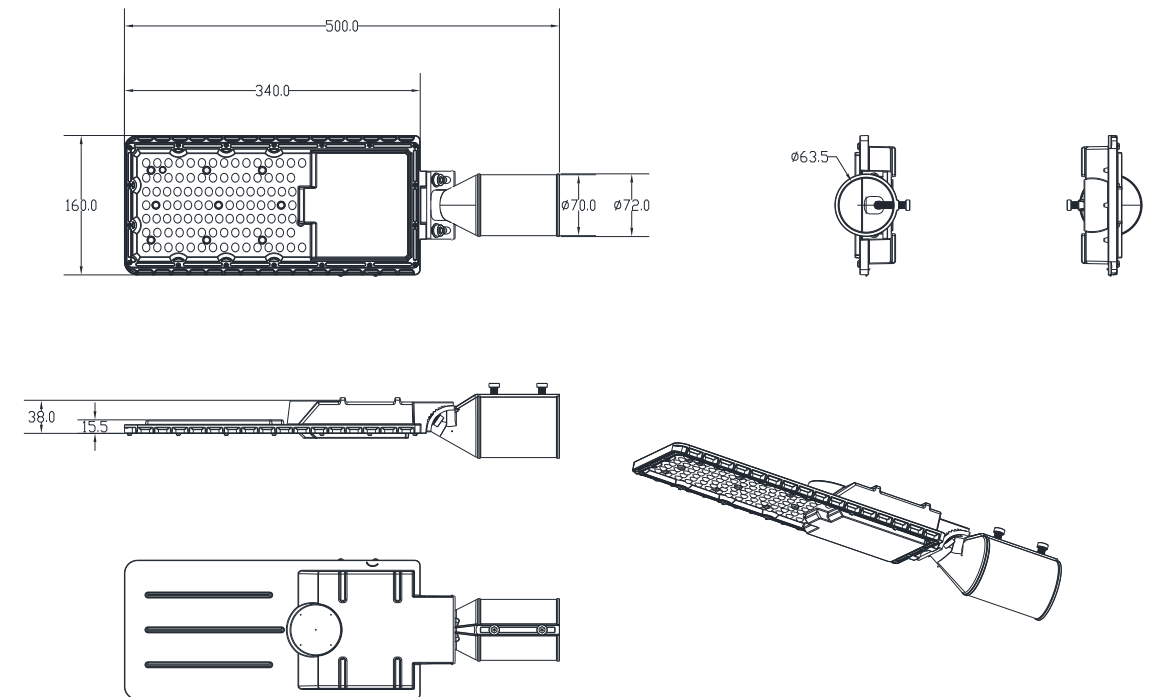
Ⅱ.Light-induced version model: 500mm*160mm* 93 mm.

500.0

340.0

160.0

ø63.5

ø70.0 ø72.0

93.0

15.5
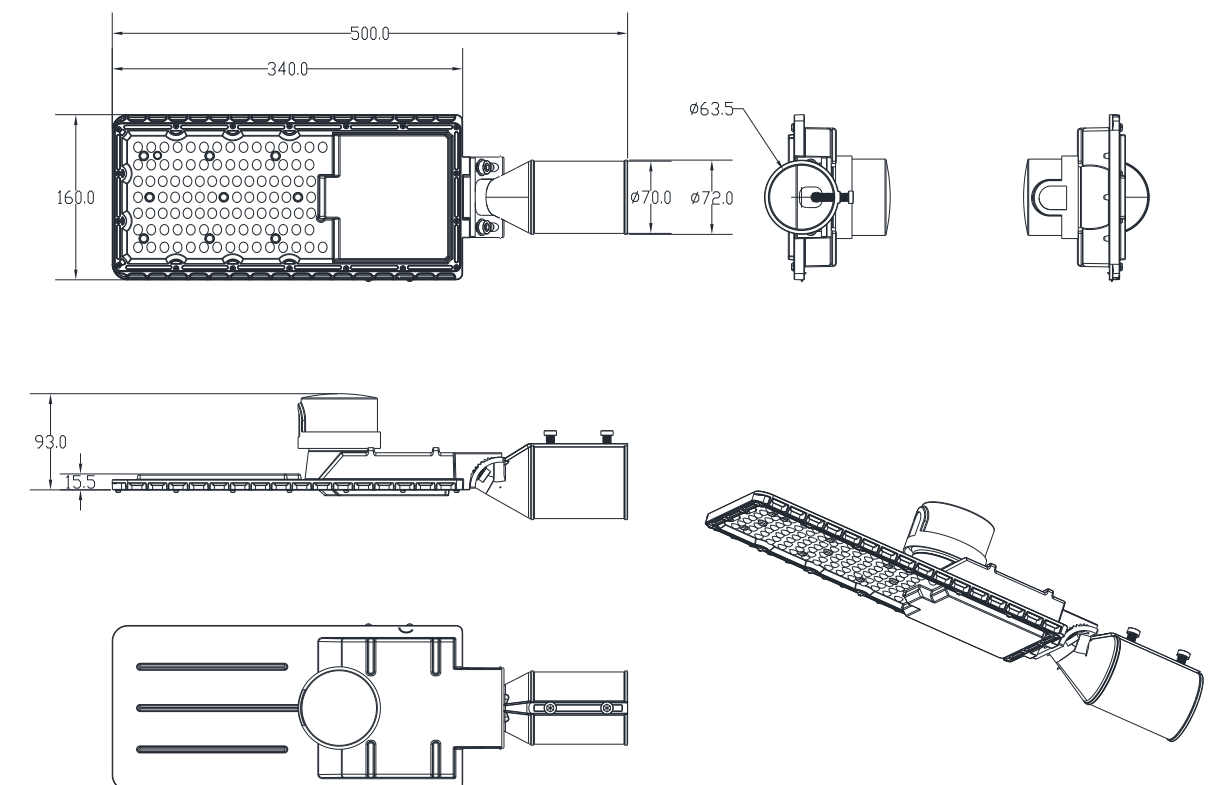
Packaging

Product Series	BC-COCO-A-50W	BC-COCO-A-100W
Size of color box	190mm*85mm*507mm	240mm*85mm*645mm
Size of Carton	450mm*394mm*525mm	495mm*360mm*660mm
Packing quantity	10 pcs/carton	8 pcs/carton
Net weight	13.60 kg	16.88 kg
Gross weight	16.50 kg	20.00 kg

Light sensor
(It is configured at the light-induced version model, and not needed at the standard version model)

Pearl cotton support block
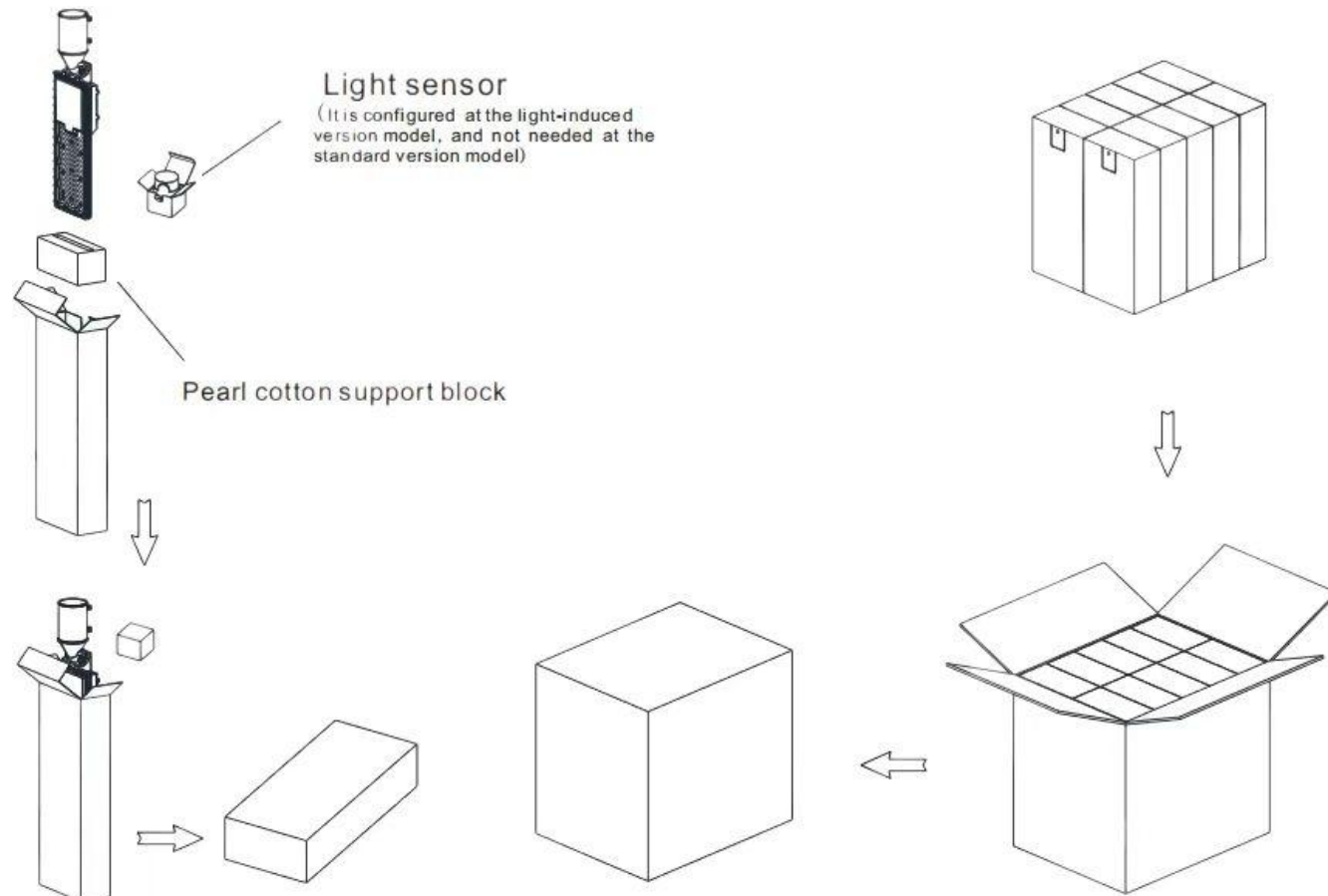
Parameters of Optics
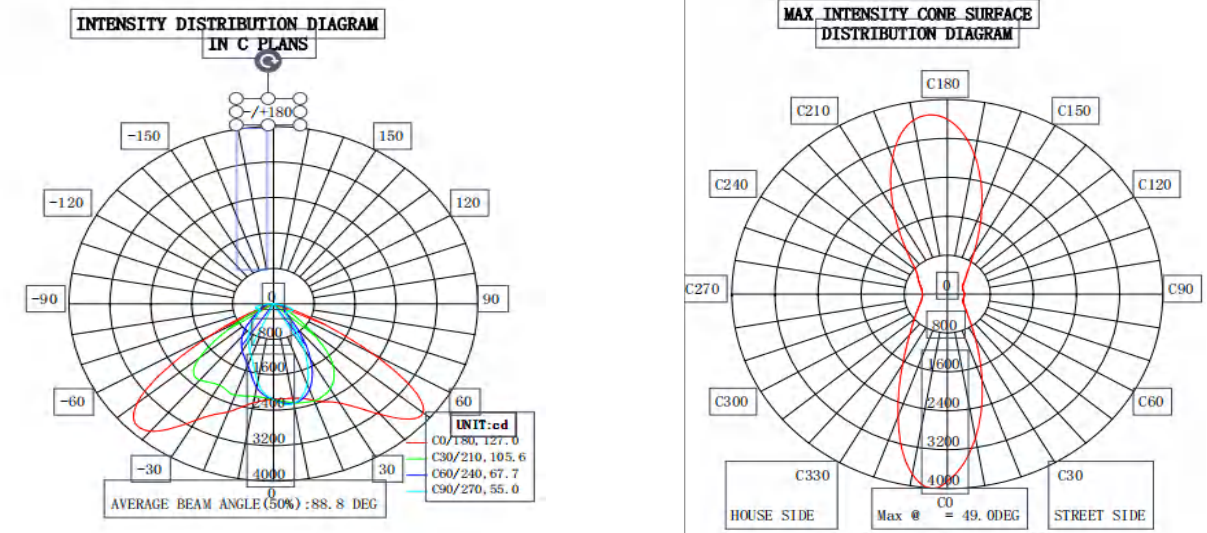
BC-COCO-A-50W
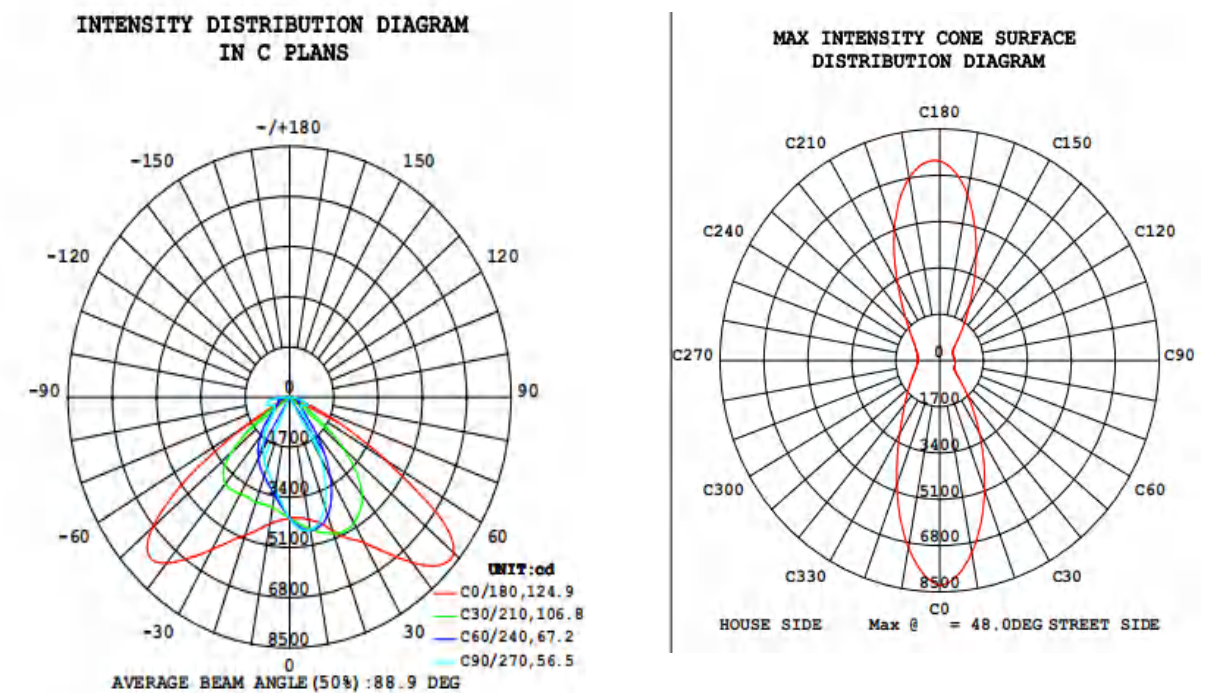
BC-COCO-A-100W

TemperatureTest

Product Name	Position	Temperature	Ambient temperature	Temperature rise
BC-COCO-A-50W	LED junction	79.2℃	35.8℃	43.4℃
	PCB	70.3℃	35.8℃	34.5℃
	Housing	68.2℃	35.8℃	32.4℃
	Driver	67.4℃	35.8℃	31.6℃

Product Name	Position	Temperature	Ambient temperature	Temperature rise
BC-COCO-A-100W	LED junction	89.9℃	34.7℃	55.2℃
	PCB	79.4℃	34.7℃	44.7℃
	Housing	77.1℃	34.7℃	42.4℃
	Driver	73.9℃	34.7℃	39.2℃
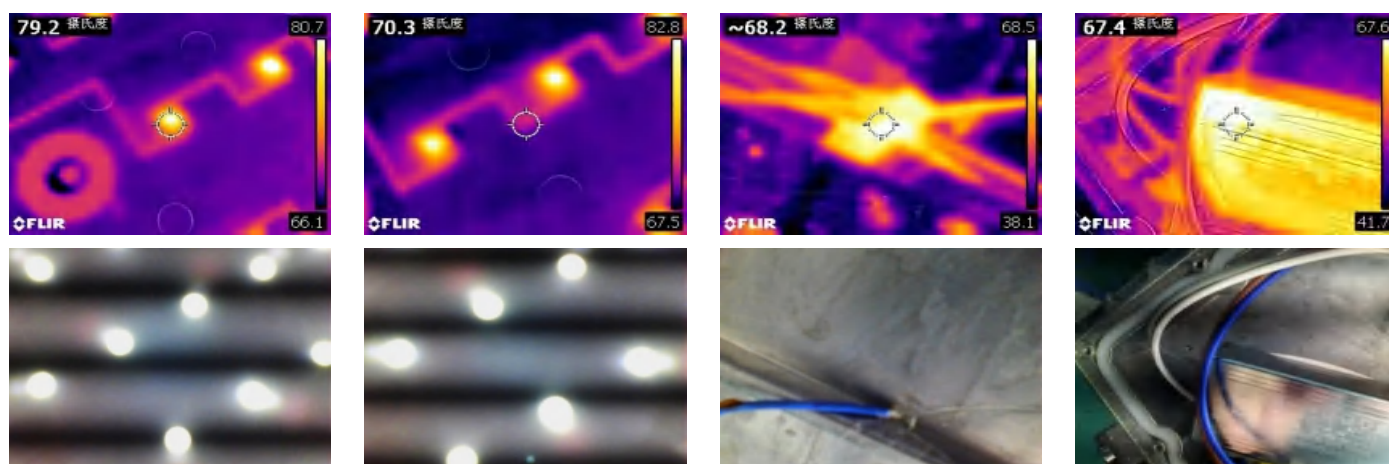
LED junction	PCB	Housing	Driver

Information on maintenance and repair

1. Please make sure that the power has been cut off before repairing the lamp.

2. Clean the PC lens of the lamps regularly to keep good light transmittance.

3.Regularly clean the dust of the outer shell of the lamp to maintain good heat dissipation performance.

4. Do not clean with water or corrosive solution, but rather with a dry rag.

5. Avoid storing and using lamps in corrosive environment or environment containing harmful substances, such as sulfide, halide and phthalate.

6. When installing and maintaining lamps,do not look directly at the light source.

7.Please contact with the dealer and manufacturer if the LED chip or driver has to be replaced. Because the waterproof and dust-proof performance will be effected after dismounting again.

8.Product guarantee 3 years, the manufacturer will be responsible for the quality during the period. The damage resulted of irresistible clause will have paid maintenance.

After- Sales Service and quality assurance

Under normal use conditions, quality assurance is based on the correct

preservation, installation, use and maintenance of products; Product damage

caused by improper installation and use and violation of product operation

regulations is not within the scope of this guarantee; For the quality problems

during the quality warranty period, the company will choose to repairing, repairing

parts or repairing new products during the warranty period; If the warranty period

 exceeds, materials and labor costs will be properly charged. The product quality

 problems caused by natural factors and environmental factors are not covered by

the warranty.

Tech Specifications

Model	BC-COCO-B-50W	BC-COCO-B-100W	BC-COCO-B-150W
Voltage	AC100-265V (50/60Hz)	AC100-265V (50/60Hz)	AC100-265V (50/60Hz)
Power	50W	100W	150W
Led Brand	Epistar	Epistar	Epistar
LED QTY	100 PCS * SMD2835	200 PCS * SMD2835	300 PCS * SMD2835
Lumen	100-110lm/W	100-110lm/W	100-110lm/W
Color Temp	3000k - 6000K	3000k - 6000K	3000k - 6000K
Installation	Lamp pole Installation	Lamp pole Installation	Lamp pole Installation
Surge Protection	4KV	4KV	4KV
Power factor	90	90	90
CRI	>70	>70	>70
Housing	Aluminum	Aluminum	Aluminum
IP	IP65	IP65	IP65
Operating Temp	-25° ~ 55°	-25° ~ 55°	-25° ~ 55°
Lifespan	50000 hours	50000 hours	50000 hours
Warranty	3 years	3 years	3 years

CE RoHS

Product Feature

Character and Application:
Patenetd products,easy to install. The power supply box is madae of die-casting aluminum alloy, which makes drivers have good heat dissipation,and improves the life of the product.This lamp is suitable for installation at8-12m height.

Light source characteristics
Llight source with high brightness and longlife. TheL EDhas LM-80 certification.

Power supply characteristics
DOB Program , without driver

Heat sink feature
The heat sink is made of ADC12 aluminum with the high heat conductivity,The heat dissipationareais large, which guarantees the stability of product function and lengthen life.

Installation
Lamp pole installation

Product application
Suitable for urban and rural road, garden road, industrial park road, etc.

Packaging

Product Series	BC-COCO-B-50W	BC-COCO-B-100W	BC-COCO-B-150W
Carton Size	38*16*7cm	50.5*20.5*8.3cm	60*26*8.3cm
Gross Weight	0.9kg	1.6kg	2.5kg
Net Weight	1.2kg	2kg	3kg

Installation Instructure
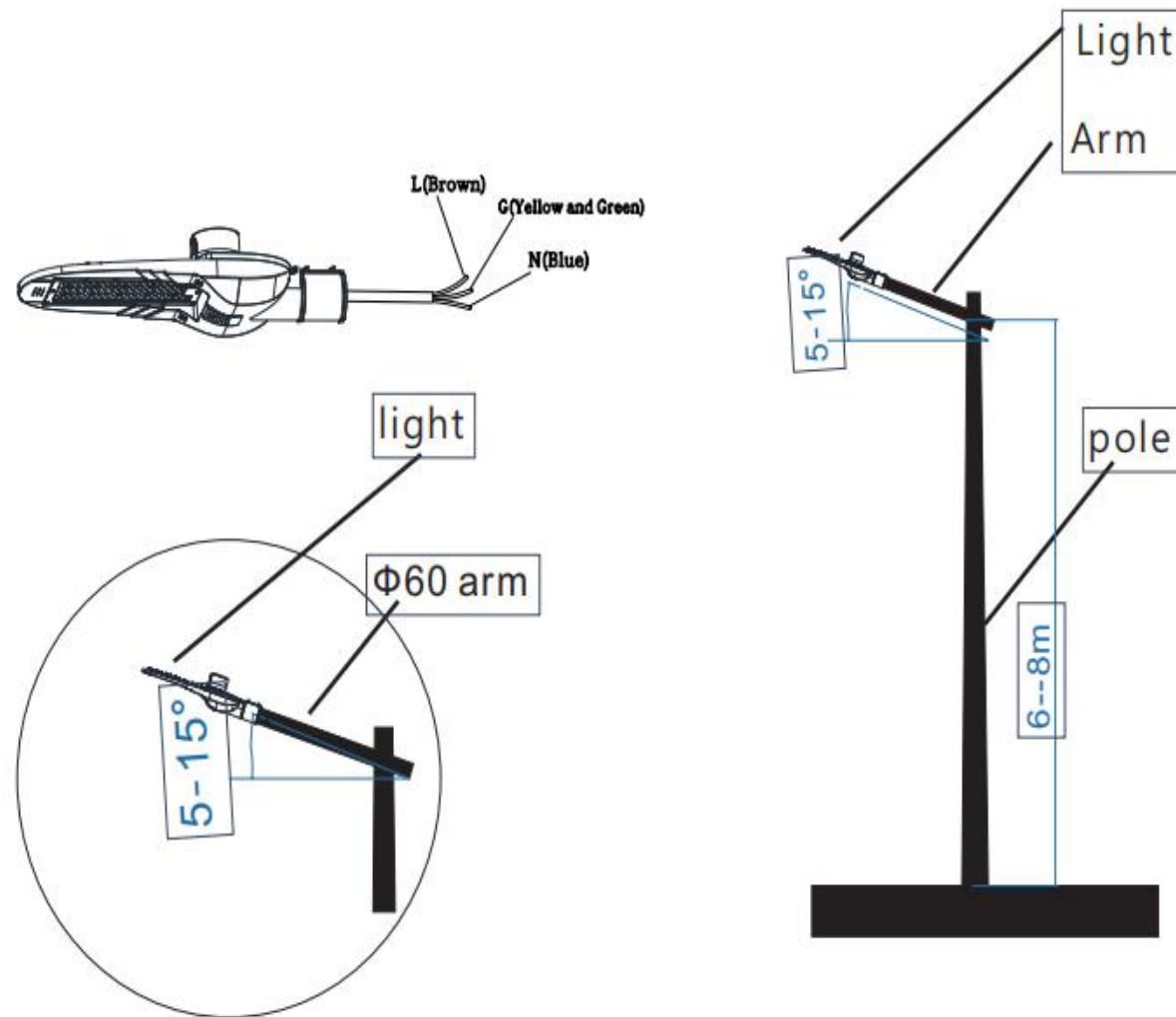
1. Power supply voltage: AC 85-265V/180-240V .
2. The diameter of pole arm is 50~60mm.
3. Connect the right wire according the color of the wire.
4. Please find professional electrician for installation. The cable of 0.75-1mm2 three-core cable ,the brownis" L" wire, the blue is "N"wire, and the yellow green line is the "PE".
5. The joint of the the wires is treated to be water proof.
6. Take the light and let the arm of pole into the hole of street light ,the beam angle is 5~15°.
7. Fix the street lights with two boltof M6X16mm.
8. The cover o fthe light is made of glass, and the glass is fragile, Please pay attention to gently take the light to release the pressure while transportation,handle,storage,fix.

CE RoHS

Diagram of continue operating for 6000H
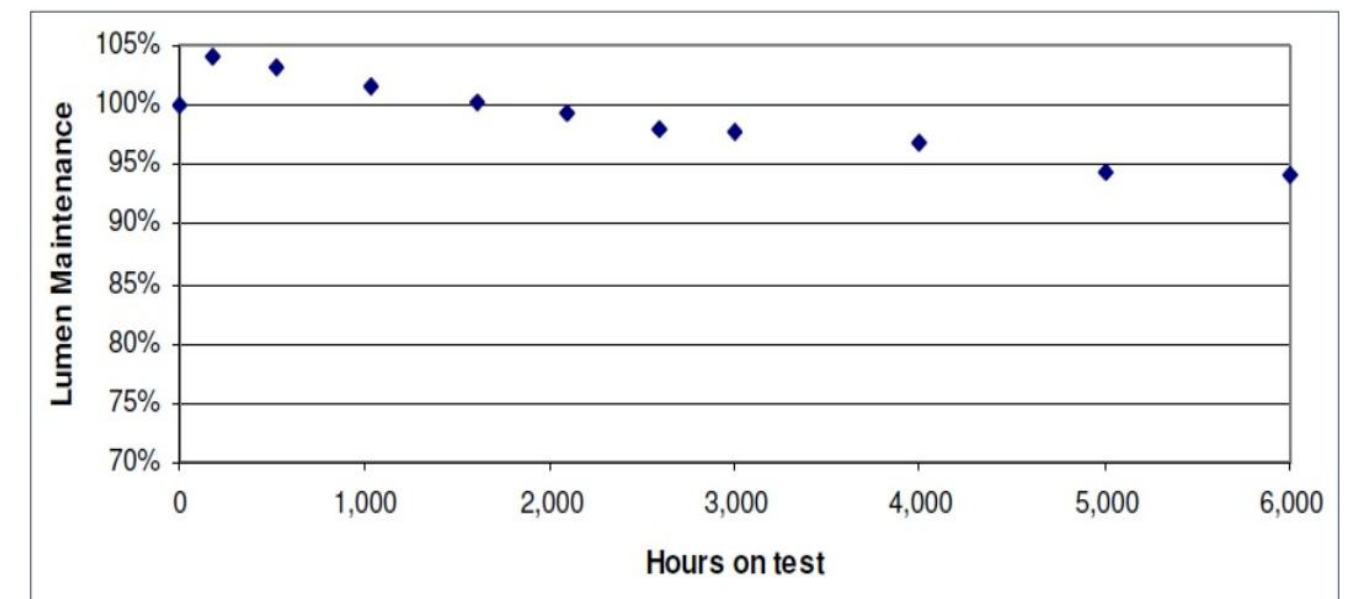
Attentions

1、 Maintain after power off .

2、 Clean the glass of light in time to keep good light transmission.

3、 Use the right cleaner not strong corrosive liquid while cleaning.

Temperature test

Product Name	Position	Temperature	Ambient temperature	Temperature rise
BC-COCO-D-50W	LED junction	62.9°C	23.2°C	39.7°C
	PCB	59.3°C	23.2°C	36.1°C
	Housing	59.2°C	23.2°C	36°C
	Driver	60.3°C	23.2°C	37.1°C

Parameter of Optics

INTENSITY DISTRIBUTION DIAGRAM IN C PLANS

UNIT:cd
C0/180,126.7
C30/210,101.9
C60/240,71.9
C90/270,65.1

AVERAGE BEAM ANGLE (50%) : 91.4 DEG

Information on maintenance and repair

1. Please make sure that the power has been cut off before repairing the lamp.

2. Clean the PC lens of the lamps regularly to keep good light transmittance.

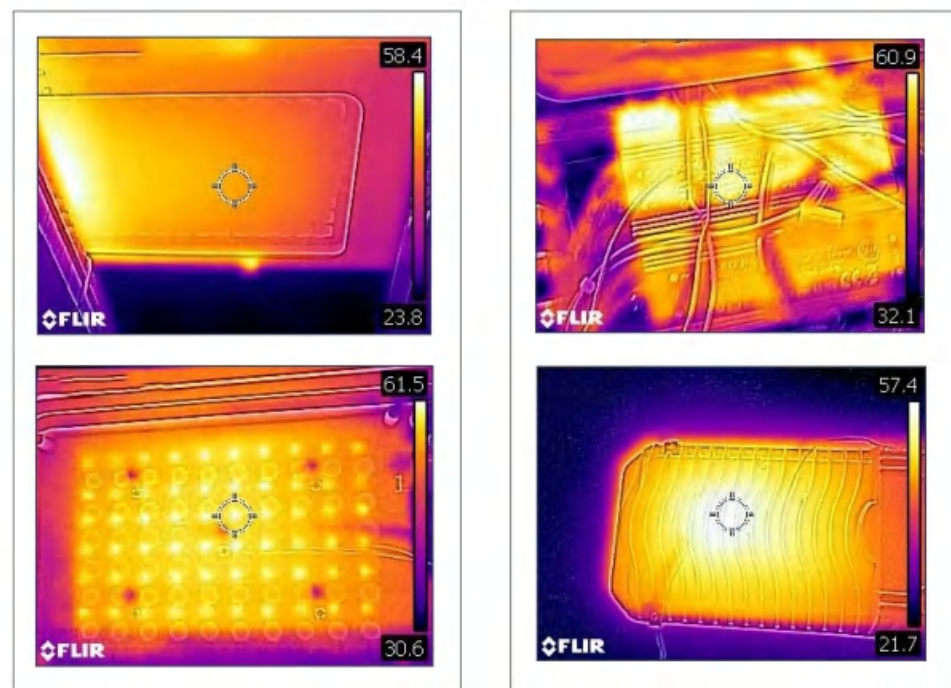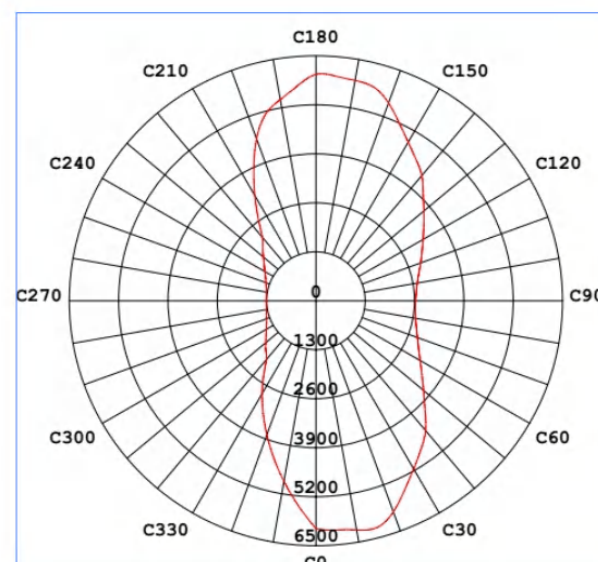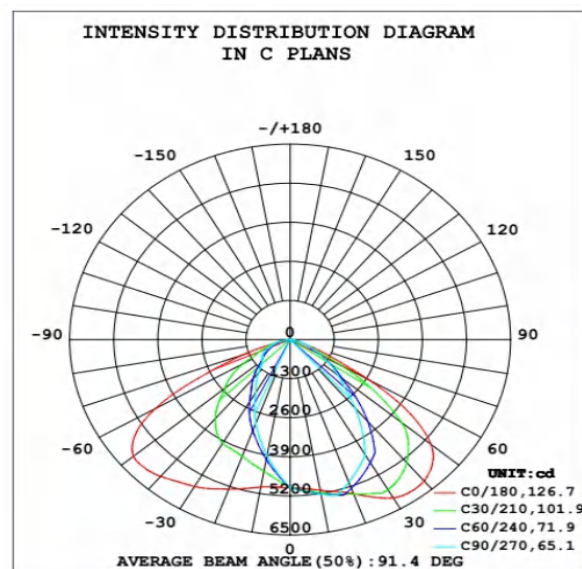3.Regularly clean the dust of the outer shell of the lamp to maintain good heat dissipation performance.

4. Do not clean with water or corrosive solution, but rather with a dry rag.

5. Avoid storing and using lamps in corrosive environment or environment containing harmful substances, such as sulfide, halide and phthalate.

6. When installing and maintaining lamps,do not look directly at the light source.

7.Please contact with the dealer and manufacturer if the LED chip or driver has to be replaced. Because the waterproof and dust-proof performance will be effected after dismounting again.

8.Product guarantee 3 years, the manufacturer will be responsible for the quality during the period. The damage resulted of irresistible clause will have paid maintenance.

After- Sales Service and quality assurance

Under normal use conditions, quality assurance is based on the correct preservation, installation, use and maintenance of products; Product damage caused by improper installation and use and violation of product operation regulations is not within the scope of this guarantee; For the quality problems during the quality warranty period, the company will choose to repairing, repairing parts or repairing new products during the warranty period; If the warranty period exceeds, materials and labor costs will be properly charged. The product quality problems caused by natural factors and environmental factors are not covered by the warranty.

Tech Specifications

Model	BC-COCO-D-50W	BC-COCO-D-100W
Voltage	AC100-265V (50/60Hz)	AC100-265V (50/60Hz)
Power	50W	100W
Led Brand	Epistar	Epistar
LED QTY	80 PCS * SMD2835	130 PCS * SMD2835
Lumen	100-110lm/W	100-110lm/W
Color Temp	3000k - 6000K	3000k - 6000K
Installation	Lamp pole Installation	Lamp pole Installation
Surge Protection	4KV	4KV
Power factor	95	95
CRI	>70	>70
Housing	Aluminum	Aluminum
IP	IP65	IP65
Operating Temp	-25° ~ 55°	-25° ~ 55°
Weight	1.32KG	2.1KG
Dimension of packaging	520*210*120(mm)	550*220*140(mm)
Lifespan/Warranty	50000 hours/2 years	50000 hours/2 years

Product Feature

Character and Application:

Patenetd products, easy to install. The lamp body is made of die-casting aluminum alloy, which makes drivers have good heat dissipation, and improves the life of the product. This lamp is suitable for installation at 6-8m height, and The distance is 3~3.5 times the height.

Light source characteristics:

Adopt domestic famous brand SMD light source, which has high brightness, small light attenuation and longer service life.

Power supply characteristics:

Adopt high-stability isolated constant current power supply scheme, it has the characteristics of over-temperature protection, wide voltage range, high power factor, high efficiency and good heat dissipation effect.

Heat sink feature:

Adopt high-purity aluminum radiator with high thermal conductivity. The aluminum radiator isspecially designed, which increases the radiating area, enhances the heat exchange efficiency of cold and hot air, which can reduces the temperature of the light source and ensures the stability of the product function, and has a longer service life.

Installation:

Lamp pole installation

Application:

Urban branch road, garden road, industrial park road, etcDirection for using

Installation Instructure

1.The working voltage of the product is AC100V-265V 50/60Hz. Do not exceed the working voltage range.

2..The luminous surface of the lamp is a PC lens, which is fragile. Please handle it with care during transportation, handling, storage and fixation.

3.When installing lamps and lanterns, the wiring and wiring place shall be sealed to prevent electric leakage. Do not electrify during wiring.

4.When external power lines are connected, corresponding waterproof and leakage prevention measures must be taken.

5.It shall not violate any fire regulations when used the lamp.

6.Please employ a professional electrician to install it. The cable should be 0.75-1mm three-core cable ,the brown wire is " L" wire, the blue wire is "N"wire, and the yellow-green wire is the "PE".)

Dimension

1. Standard version model: 474mm*197mm* 83 mm
2. Light sensor version model: 474mm*197mm* 115 mm
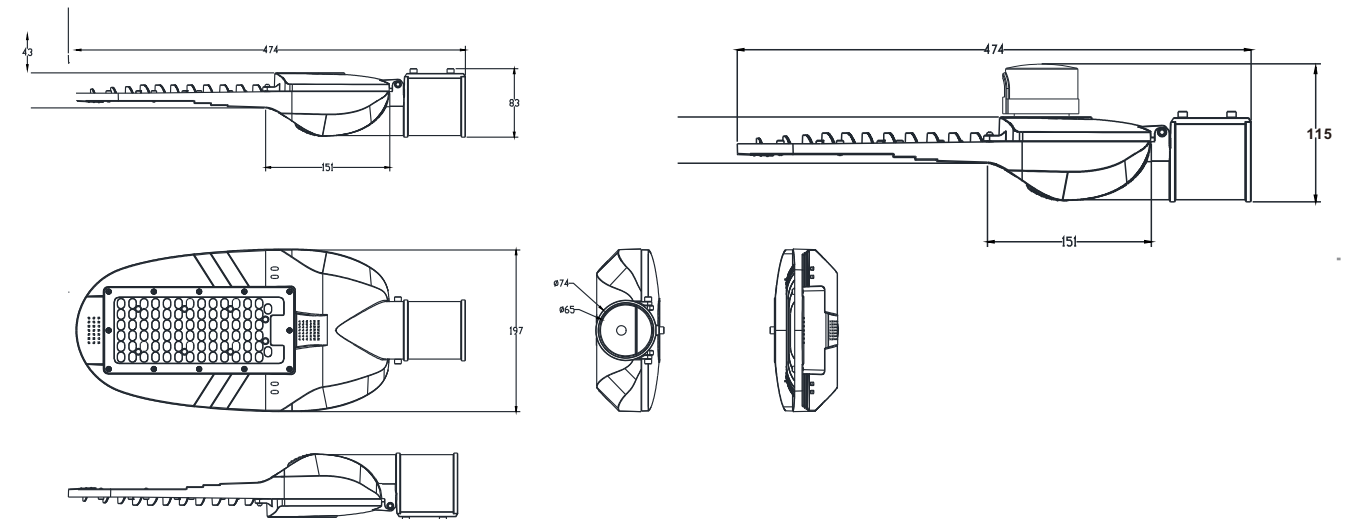
2.Light-induced version model: 546mm*213mm* 135 mm.
2. Standard version model: 546mm*213mm* 81 mm.

Packaging

Pearl cotton

Light sensor
It is configured at the light-induced version model, and not needed at the standard version model

Parameters of Optics

INTENSITY DISTRIBUTION DIAGRAM IN C PLANS

UNIT:cd
C0/180,127.0
C30/210,105.6
C60/240,67.7
C90/270,55.0

AVERAGE BEAM ANGLE(50%):88.8 DEG

MAX INTENSITY CONE SURFACE DISTRIBUTION DIAGRAM

HOUSE SIDE   Max @ = 49.0DEG   STREET SIDE

BC-COCO-A-50W

INTENSITY DISTRIBUTION DIAGRAM IN C PLANS

UNIT:cd
C0/180,124.9
C30/210,106.8
C60/240,67.2
C90/270,56.5

AVERAGE BEAM ANGLE(50%):88.9 DEG

MAX INTENSITY CONE SURFACE DISTRIBUTION DIAGRAM

HOUSE SIDE   Max @ = 48.0DEG STREET SIDE

BC-COCO-A-100W

TemperatureTest

Product Name	Position	Temperature	Ambient temperature	Temperature rise
BC-COCO-D-50W	LED junction	69.5℃	27.1℃	42.4℃
	PCB	59.2℃	27.1℃	32.1℃
	Housing	40.3℃	27.1℃	13.2℃
	Driver	67.7℃	27.1℃	40.6℃
BC-COCO-D-100W	LED junction	82.2℃	27.9℃	54.3℃
	PCB	62.3℃	27.9℃	34.4℃
	Housing	59.5℃	27.9℃	31.6℃
	Driver	71.9℃	27.9℃	44.0℃

LED junction   PCB   Housing   Driver

CE RoHS

Information on maintenance and repair

1. Please make sure that the power has been cut off before repairing the lamp.

2. Clean the PC lens of the lamps regularly to keep good light transmittance.

3. Regularly clean the dust of the outer shell of the lamp to maintain good heat dissipation performance.

4. Do not clean with water or corrosive solution, but rather with a dry rag.

5. Avoid storing and using lamps in corrosive environment or environment containing harmful substances, such as sulfide, halide and phthalate.

6. When installing and maintaining lamps,do not look directly at the light source.

7. Please contact with the dealer and manufacturer if the LED chip or driver has to be replaced. Because the waterproof and dust-proof performance will be effected after dismounting again.

8. Product guarantee 3 years, the manufacturer will be responsible for the quality during the period. The damage resulted of irresistible clause will have paid maintenance.

After- Sales Service and quality assurance

Under normal use conditions, quality assurance is based on the correct preservation, installation, use and maintenance of products; Product damage caused by improper installation and use and violation of product operation regulations is not within the scope of this guarantee; For the quality problems during the quality warranty period, the company will choose to repairing, repairing parts or repairing new products during the warranty period; If the warranty period exceeds, materials and labor costs will be properly charged. The product quality problems caused by natural factors and environmental factors are not covered by the warranty.

CE RoHS

Tech Specifications

MODEL	BC-Haba-H-100W	BC-Haba-H-200W	BC-Haba-H-300W
Lumen	100~130 lm /W	100~130 lm /W	100~130 lm /W
Led Source	120pcs * SMD2835	240pcs * SMD2835	480pcs * SMD2835
Color temperature	6000k~6500k	6000k~6500k	6000k~6500k
Color rendering index	CRI > 70	CRI > 70	CRI > 70
Color tolerance adjustment	≤15SDCM	≤15SDCM	≤15SDCM
Battery capacity	15000m AH	15000m AH	30000m AH
Solar panel power	15 W / 6V	15 W / 6V	35 W / 6V
Rainy days with lighting	2-3 days	2-3 days	2-3 days
Work temperature	-10℃ to +40℃	-10℃ to +40℃	-10℃ to +40℃
Life span	30000 H	30000 H	30000 H
IP	IP 65	IP 65	IP 65
Dimensions overall	890x410x530 mm	890x410x530 mm	1000x480x350 mm
Solar panel size	350x350x17 mm	350x530x17 mm	350x670x17 mm
Size of lamp arm	Φ60 mm*500mm	Φ60 mm*500mm	Φ60 mm*500mm
Installations	Lamp post installation or Installagainst the wall		
Connecting power wires	Butt joint	Butt joint	Butt joint
Height recommendation	3~6 m	4~8 m	5~10 m

CE RoHS

Product Feature

Application and character:
Solar energy is used to power this product to provide night lighting. During the day, solar panels convert solar energy into electricity to charge the battery. At night, the battery is discharged and leds provide lighting. The product is designed with an efficient LED light source, which has the characteristics of high brightness, energy saving and environmental protection, easy installation, stable and reliable operation, no need for cables, no conventional energy consumption, long life-span.

Light source characteristics:
The SMD light source is a well-known brand , which boasts high luminous efficiency, low light fade, and long life.

Battery characteristics:
The product uses a high-performance lithium battery, which is radiation-free and environment-friendly, with a small internal resistance and a large capacity, making it able to discharge a high current continuously. It also has a good protection system. During long-term operation, no manual maintenance is required. Acid mist and gas will not be generated during the operation period, as it provides over-charge, over-discharge, and night anti-reverse charge protection functions.

Power supply characteistics:
With this product's glass and silicon wafer lamination technology, it has the advantages of long life cycle, low attenuation rate, weather resistance, high fire resistance, good heat dissipation, good insulation, easy cleaning, and higher power generation efficiency. IP65, which is more widely used in parks, seaside and other applica tion environm ents.

System characteristics:
Intelligent control is realized by using microprocessor and special control algorithm. With light control, time control and remote control functions. Effectively adapt to multiple usage scenarios, maximize energy saving and environmental protection, The intelligent control system can ensure battery and lamp bead plate double protection, thereby providing battery open circuit protection, load over-voltage protection, output overload and short circuit protection, and solar panel reverse connection protection.

Installations:
Installation of lamp posts or mounting against the wall

Product application:
The lighting can be used for roads, residential streets, homes, villas, industrial parks, pedestrian walkways, fitness and recreation centers, etc.

CE RoHS

Installation Instruction

✦ Assembly drawing of product

Solar panel
M5 screw and butterfly cap
Arm Φ60mm
M8*16 screw, flat washer, spring washer, nut
Lamp-body
Plug in the connecting wire and lock the waterproof cap
Connecting wire
(The end line length of lamp-body is 70cm, and the end line length of solar panel is 50cm)

✦ Installation Instruction：

M10*70 screw, nut
Arm
pole
h

Wall
Expansion screw fixation
Arm
Figure 2

	100W	200W	300W
h	3~6m	4~8m	5~10m

Figure 1

Accessories list

lamp-body   lamp-arm   solar panel   Bracket

Remote control   2 batteries   Screw Pack 3 packs

🔆 Light on button
Press this button to light the lamp

🔆 Enhance brightness button
Press this button to make the lamp brighter

🔆 Half bright button
Press this button to light the lamp with half of the full power

🔆 3H mode button
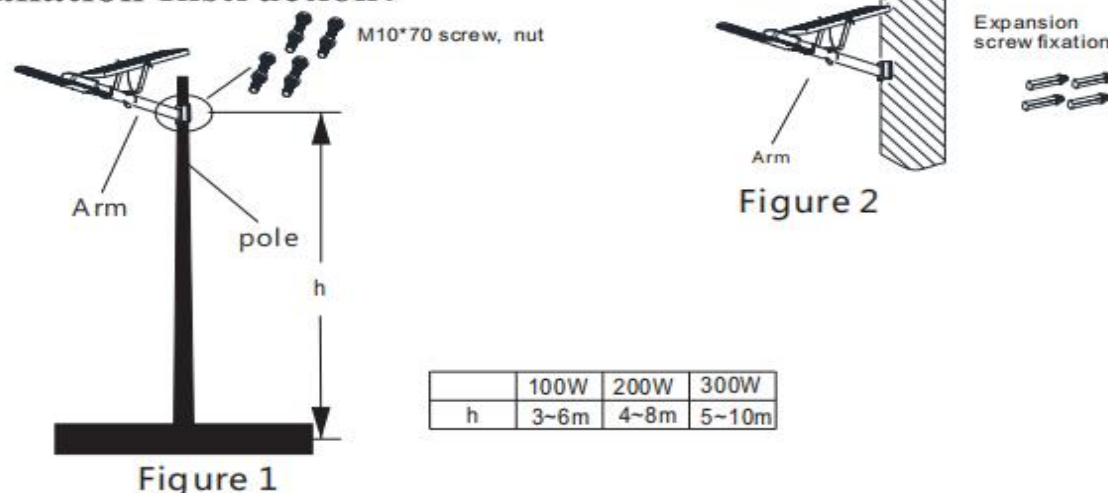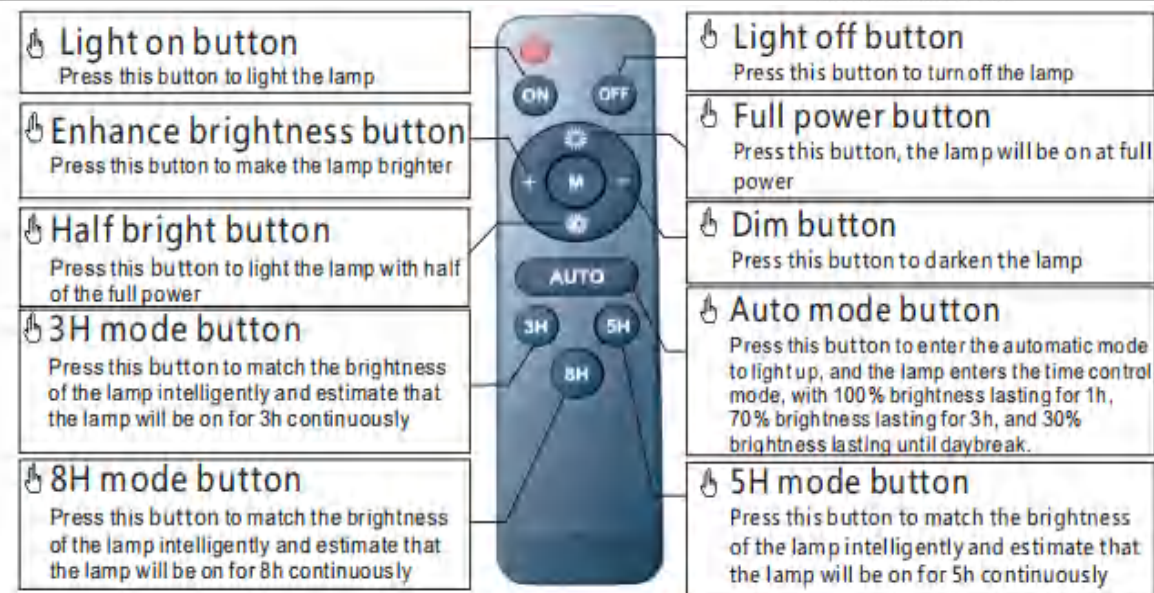Press this button to match the brightness of the lamp intelligently and estimate that the lamp will be on for 3h continuously

🔆 8H mode button
Press this button to match the brightness of the lamp intelligently and estimate that the lamp will be on for 8h continuously

🔆 Light off button
Press this button to turn off the lamp

🔆 Full power button
Press this button, the lamp will be on at full power

🔆 Dim button
Press this button to darken the lamp

🔆 Auto mode button
Press this button to enter the automatic mode to light up, and the lamp enters the time control mode, with 100% brightness lasting for 1h, 70% brightness lasting for 3h, and 30% brightness lasting until daybreak.

🔆 5H mode button
Press this button to match the brightness of the lamp intelligently and estimate that the lamp will be on for 5h continuously

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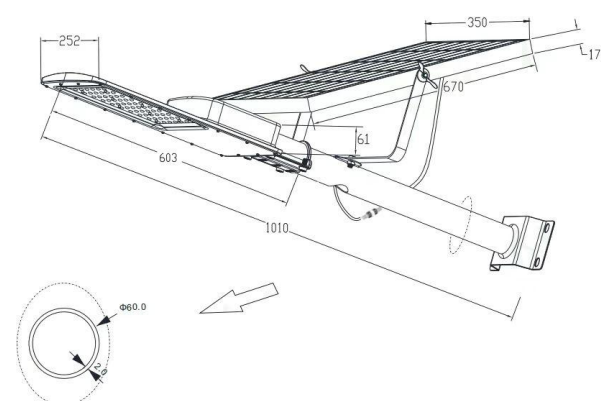## Installation Instruction

1. The lamp can be mounted either on the wall or on the lamp pole.

2. If it is mounted on the wall, the solar photovoltaic panel and lamp are mounted together through the lamp arm, which is then fixed on the wall with expansion screws, as shown in Figure 2 below.

3. Installing the lamp and solar panel together through the lamp arm, and then mounting the lamp arm on the lamp post, is the proper way to install them on the lamp post, as shown in Figure 3 below.

4. After installation, connect the lamp's power line and the solar panel's power line through the butt joint. Ensure that the butt joint is fully connected to ensure the lamp's waterproof feature. The lamp's end of the power line is 70 cm. In addition, the solar photovoltaic panel end is 50cm long. It can also be customized to meet the customers' needs.

5. The luminance surface of the lamp is made of PC plastic, while the solar panel is made of glass. The two are fragile products, so please handle them with care during transportation, handling, storage and installation, and do not drop them, and do not press them heavily to avoid damaging the structure of the lamp.

6. Storage of the lamp should be done in a place with good airflow and no dust. The ambient temperature should be between -10°C and 40°C, and it should not be kept in a freezing environment. Let the lamp rest, and charge and discharge it once a month.

7. Installing solar panels should take advantage of direct sunlight as much as possible, without being blocked by buildings or trees, and ensure the longest possible irradiation time (solar panels cannot be installed under glass or indoors). Installing solar panels correctly and scientifically will result in the best charging effect.

8. Place the solar panel and lamp in a place with enough light, and connect the lamp's connection to the solar panel. Cover the solar panel with opaque material, and the lamp will be lit. The solar panel can work normally and the battery can be charged normally Electricity. Install the battery on the remote control and press the off button to turn off the lamp. Press the on button to turn the light back on and test the other buttons on the remote control, Following debugging or inspecting the lamp, it is necessary to press "Auto" to return the lamp control system to normal operation.
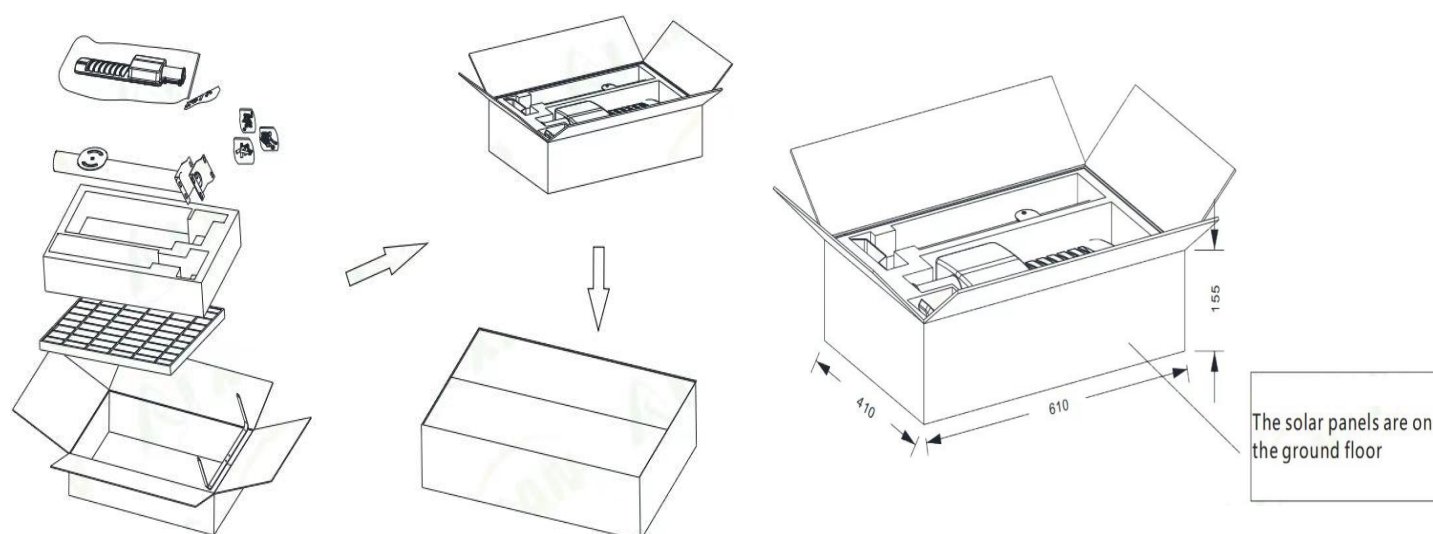
Dimension
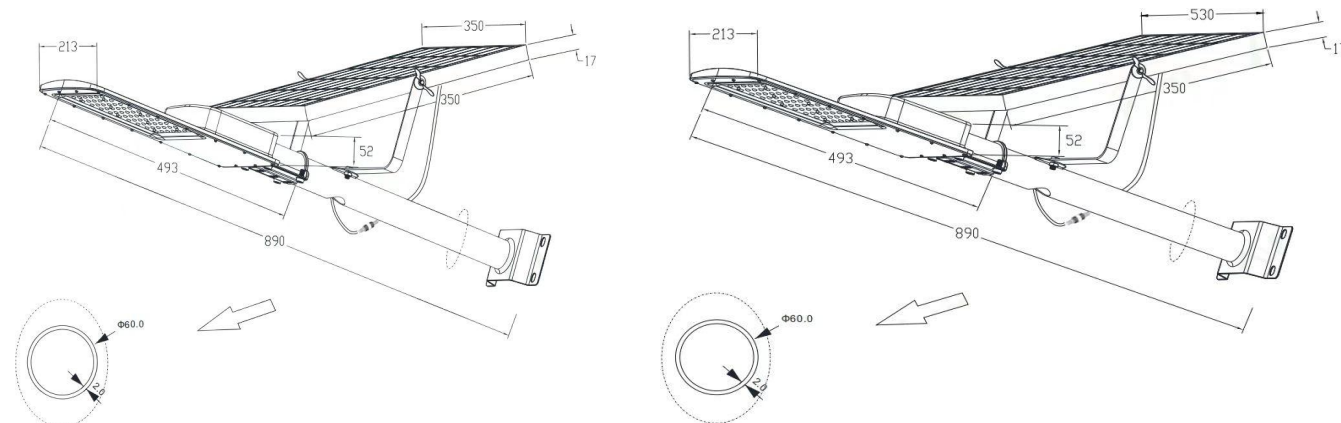
BC-Haba-H-100W

BC-Haba-H-200W

BC-Haba-H-300W

Packaging

The solar panels are on the ground floor
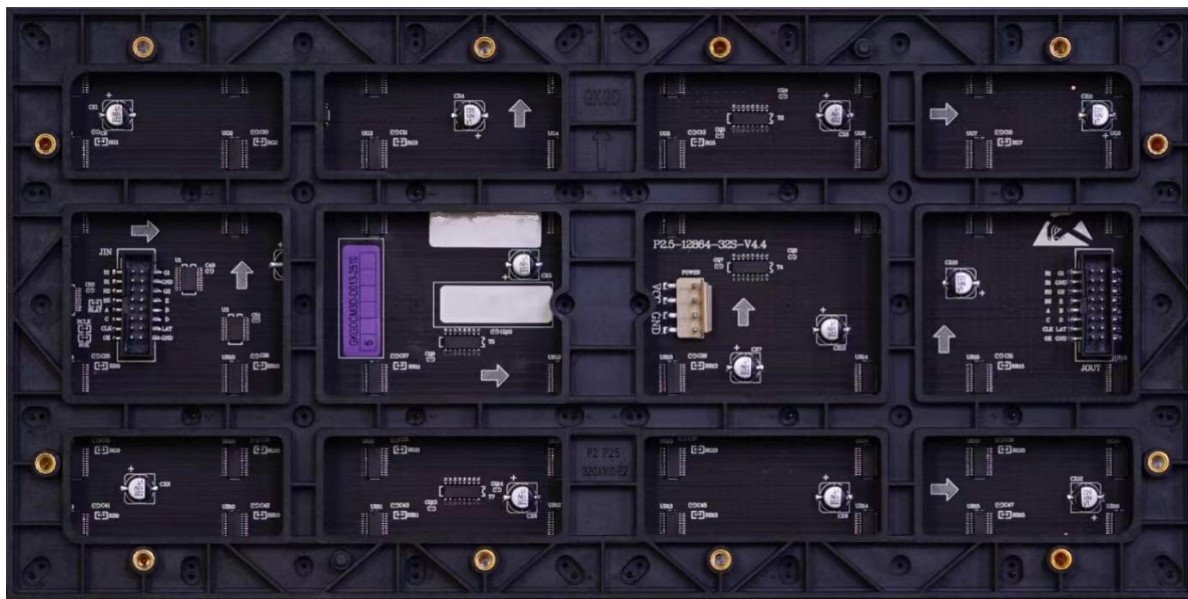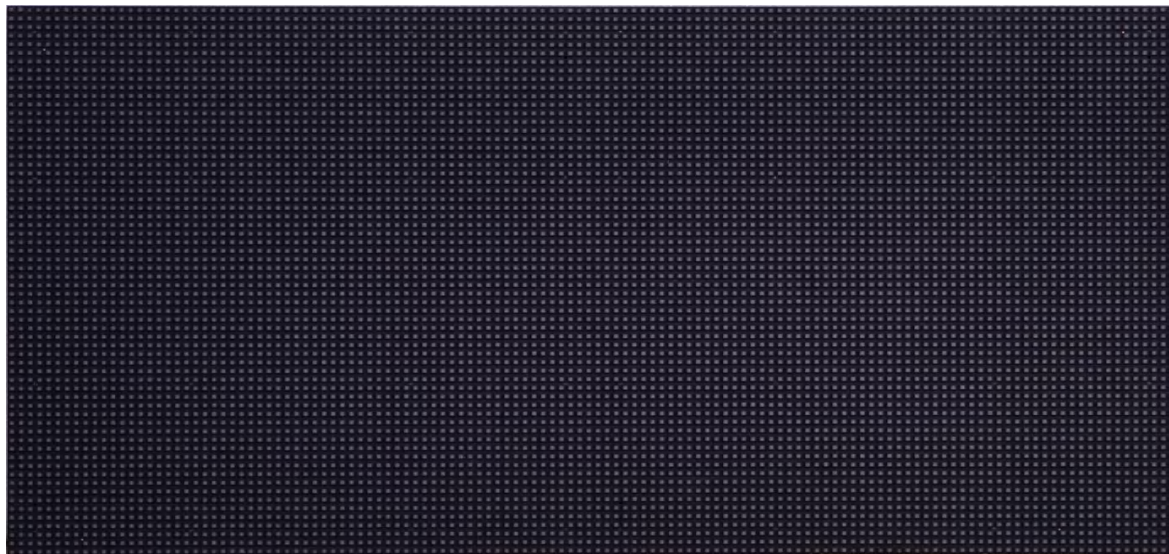
Information on maintenance and repair

1. Please make sure that the power has been cut off before repairing the lamp.

2. Clean the PC lens of the lamps regularly to keep good light transmittance.

3. Regularly clean the dust of the outer shell of the lamp to maintain good heat dissipation performance.

4. Do not clean with water or corrosive solution, but rather with a dry rag.

5. Avoid storing and using lamps in corrosive environment or environment containing harmful substances, such as sulfide, halide and phthalate.

6. When installing and maintaining lamps,do not look directly at the light source.

7. Please contact with the dealer and manufacturer if the LED chip or driver has to be replaced. Because the waterproof and dust-proof performance will be effected after dismounting again.

8. Product guarantee 3 years, the manufacturer will be responsible for the quality during the period. The damage resulted of irresistible clause will have paid maintenance.

After- Sales Service and quality assurance

Under normal use conditions, quality assurance is based on the correct

preservation, installation, use and maintenance of products; Product damage

caused by improper installation and use and violation of product operation

regulations is not within the scope of this guarantee; For the quality problems

during the quality warranty period, the company will choose to repairing, repairing

parts or repairing new products during the warranty period; If the warranty period

exceeds, materials and labor costs will be properly charged. The product quality

problems caused by natural factors and environmental factors are not covered by

the warranty.

Model	Photo	Description	Model	Photo	Description
BC-001		Size: L*17.4*12.1mm Aluminum profile +PC+2 pcs end cap +2 pcs	BC-002		Size: L*24.5*12.2mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-003		Size: L*14.4*8.8mm Aluminum profile +PC+2 pcs end cap	BC-004		Size: L*14.3*6.7mm Aluminum profile +PC+2 pcs end cap
BC-005		Size: L*14.2*8.5mm Aluminum profile +PC+2 pcs end cap +2 pcs clips	BC-006		Size: L*18.4*8.5mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-007		Size: L*24.7*7mm Aluminum profile +PC+2 pcs end cap +2 pcs clips	BC-008		Size: L*17.4*7mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-009		Size:L*13.2*7mm Aluminum profile +PC+2 pcs end cap +2 pcs clips	BC-010		Size: L*14.5*14.5mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-011		Size: L*23*14.5mm Aluminum profile +PC+2 pcs end cap +2 pcs clips	BC-012		Size: L*15.5*6.7mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-013		Size:L*16.2*9.2mm Aluminum profile	BC-014		Size:L*17.2*14.4mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-015		Size:L*24*14.2mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-016		Size:L*24*19mm Aluminum profile +PC+2 pcs end cap +2 pcs springs
BC-017		Size:L*13*13mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-018		Size:L*15.8*15.8mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-019		Size:L*15.8*15.8mm Aluminum profile +PC+2 pcs end cap +2 pcs clips	BC-020		Size:L*19*19mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-021		Size:L*41.3*23.5mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-022		Size:L*19.3*13mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-023		Size:L*23.5*9.8mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-024		Size:L*15.5*6.7mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-025		Size:L*21.7*6.7mm Aluminum profile +PC+2 pcs end cap +2 pcs clips	BC-026		Size:L*30.3*9.8mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-027		Size:L*18*6mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-028		Size:L*30.3*9.8mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-029		Size:L*12.4*9mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-030		Size:L*10*10mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-031		Size:L*15.6*10mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-032		Size:L*10*13mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-033		Size:L*17*13mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-034		Size:L*15*20MM White Aluminum profile +PC
BC-035		Size:L*20*10mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-036		Size:L*26*10mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-037		Size:L*20*20mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-038		Size:L*27*20mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-039		Size:L*23.5*20.5mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-040		Size:L*30*20.5mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-041		Size:L*30*10mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-042		Size:L*41*10mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-043		Size:L*41*10mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-044		Size:L*30*20mm Aluminum profile +PC+2 pcs end cap +2 pcs clips
BC-045		Size:L*44*20mm Aluminum profile+PC+2 pcs end cap +2 pcs clips	BC-046		Size:L*40*20mm Aluminum profile +PC+2 pcs end cap
BC-047		Size:L*55*20mm Aluminum profile+PC+2 pcs end cap	BC-048		Size:L*50*20mm Aluminum profile +PC+2 pcs end cap
BC-049		Size:L*64*20mm Aluminum profile+PC+2 pcs end cap	BC-050		Size:L*23.5*27.6mm Aluminum profile +PC+2 pcs end cap
BC-051		Size:L*36*27.6mm Aluminum profile+PC+2 pcs end cap	BC-052		Size:L*35.7*25.8mm Aluminum profile +PC+2 pcs end cap

CE RoHS

Model	Photo	Description	Model	Photo	Description
BC-053		Size:L*44*35mm Aluminum profile +PC+2 pcs end cap	BC-054		Size:L*43.6*35mm Aluminum profile +PC+2 end cap +2 pcs clips
BC-055		Size:L*35*34.8mm Aluminum profile +PC+2 pcs end cap+2 pcs clips	BC-056		Size:L*30*30mm Aluminum profile +PC+2 pcs end cap
BC-057		Size:L*35*35mm Aluminum profile+PC+2 pcs end cap	BC-058		Size:L*50*35mm Aluminum profile +PC+2 pcs end cap
BC-059		Size:L*50*20mm Aluminum profile+PC+2 pcs end cap	BC-060		Size:L*64*20mm Aluminum profile +PC+2 pcs end cap
BC-061		Size:L*50*32mm Aluminum profile+PC+2 pcs end cap	BC-062		Size:L*64*32mm Aluminum profile +PC+2 pcs end cap
BC-063		Size:L*60*35mm Aluminum profile+PC+2 pcs end cap	BC-064		Size:L*74*35mm Aluminum profile +PC+2 pcs end cap
BC-065		Size:L*75*35mm Aluminum profile +PC+2 pcs end cap	BC-066		Size:L*90*35mm Aluminum profile +PC+2 pcs end cap
BC-067		Size:L*100*35mm Aluminum profile+PC+2 pcs end cap	BC-068		Size:L*120*35mm Aluminum profile +PC+2 pcs end cap
BC-069		Size:L*35*67mm Aluminum profile +PC+2 pcs end cap	BC-070		Size:L*50*75mm Aluminum profile +PC+2 pcs end cap
BC-071		Size:L*50*88mm Aluminum profile +PC+2 pcs end cap	BC-072		Size:L*70*88mm Aluminum profile +PC+2 pcs end cap
BC-073		Size:L*50*50mm Aluminum profile +PC+2 pcs end cap	BC-074		Size:L*75*75mm Aluminum profile +PC+2 pcs end cap
BC-075		Size:L*100*75mm Aluminum profile+PC+2 pcs end cap	BC-076		Size:L*32*13mm Aluminum profile +PC+2 pcs end cap
BC-077		Size:L*32*13mm Aluminum profile +PC+2 pcs end cap	BC-078		Size:L*33*12mm Aluminum profile +PC+2 pcs end cap
BC-079		Size:L*53*13.5mm Aluminum profile +PC+2 pcs end cap	BC-080		Size:L*53*13.5mm Aluminum profile +PC+2 pcs end cap
BC-081		Size:L*46*24mm Aluminum profile+PC+2 pcs end cap	BC-082		Size:L*50*22mm Aluminum profile +PC+2 pcs end cap
BC-083		Size:L*61*14mm Aluminum profile+PC+2 pcs end cap	BC-084		Size:L*61*14mm Aluminum profile +PC+2 pcs end cap
BC-085		Size:L*56*15mm Aluminum profile+PC+2 pcs end cap	BC-086		Size:L*50*25.5mm Aluminum profile +PC+2 pcs end cap
BC-087		Size:L*53*24mm Aluminum profile+PC+2 pcs end cap	BC-088		Size:L*71.5*35mm Aluminum profile +PC+2 pcs end cap
BC-089		Size:L*96*20mm Aluminum profile+PC+2 pcs end cap	BC-090		Size:L*20*20mm Aluminum profile +PC+2 pcs end cap+2 pcs clips
BC-091		Size:L*26*23mm Aluminum profile+PC+2 pcs end cap	BC-092		Size:L*30mm Aluminum profile +PC+2 pcs end cap
BC-093		Size:L*60mm Aluminum profile+PC+2 pcs end cap	BC-094		Size:L*45*42mm Aluminum profile +PC+2 pcs end cap
BC-095		Size:L*45*42mm Aluminum profile+PC+2 pcs end cap	BC-096		Size:L*11.2*11.2mm Aluminum profile +PC
BC-097		Size:L*16.5*30mm Aluminum profile+PC	BC-098		Size:L*23.5*9mm Aluminum profile +PC+2 pcs end cap
BC-099		Size:L*28*11mm Aluminum profile+PC+2 pcs end cap	BC-100		Size:L*21.3*25.8mm Aluminum profile +PC+2 pcs end cap
BC-101		Size:L*65*26.5mm Aluminum profile+PC+2 pcs end cap	BC-102		Size:L*65*25.2mm Aluminum profile +PC+2 pcs end cap
BC-103		Size:L*80*18mm Aluminum profile+PC+2 pcs end cap	BC-104		Size:L*101*49.5mm Aluminum profile +PC+2 pcs end cap
BC-105		Size:L*43*108mm	BC-106		Size:L*101*49.5mm
BC-107		Size:L*98*19mm	BC-108		Size:L*70*68mm

CE RoHS

Tech specifications

Input Voltage:	AC110V±10%	Viewing Angle:	H: 160°/V: 140°
Ave.Power Consumption:	246W/sqm	Max.Power Consumption:	492W/sqm
Working Temperature:	-10℃~50℃	Storing Temperature:	-20℃~60℃
Brightness:	>500cd/sqm	Working Humidity:	10%-60%
Pixel Density:	288906 /sqm	Color Temperature:	3000K~18000K by user choice
Color Depth:	15 bit	Refresh Rate:	3840Hz
Repetition Frequency:	50/60Hz	Lifespan:	100000hrs
Model Size:	320*160mm	Min viewing distance:	>1.8m
Flammability:	PCB UL94-V-0	Control:	PC

CE RoHS

Product features

This product uses SMD 1212 full-color lamp, and the red, green and blue chips are packaged in the lamp. The 1212 lamp are soldered on the PCB by surface mount technology (SMT).
This product is controlled by computer using PWM driver IC chip and integrated row driver chip;
Wide display viewing angle, pure and consistent color, stable and uniform brightness, clear text, image and videoclear.
The lamp and chips are mounted on the PCB board to form a unit board, and then mounted on the bottom case to form a module.
Its appearance is exquisite and beautiful, sturdy and durable.
The bottom case has M4 threaded holes for installing modules. The magnetic column can be installed on the module, and then installed into a whole screen, or use screws to fix the module on the box, and then splicing the box into a whole screen.

Interface definition

R1	1	2	G1
B1	3	4	GND
R2	5	6	G2
B2	7	8	E
A	9	10	B
C	11	12	D
CLK	13	14	LAT
OE	15	16	GND

Pin	Signal	Function	Pin	Signal	Function
1、2 3	R1 G1 B1	First Group RGB data	4、16	GND	Signal
5、6 7	R2 G2 B2	Second Group RGB data	8、9 10、11 12	E、A B、C D	Line control Signal
13	CLK	Clock signal	14	LAT	Latch signal
15	OE	Enable signal			

Hole

CE RoHS
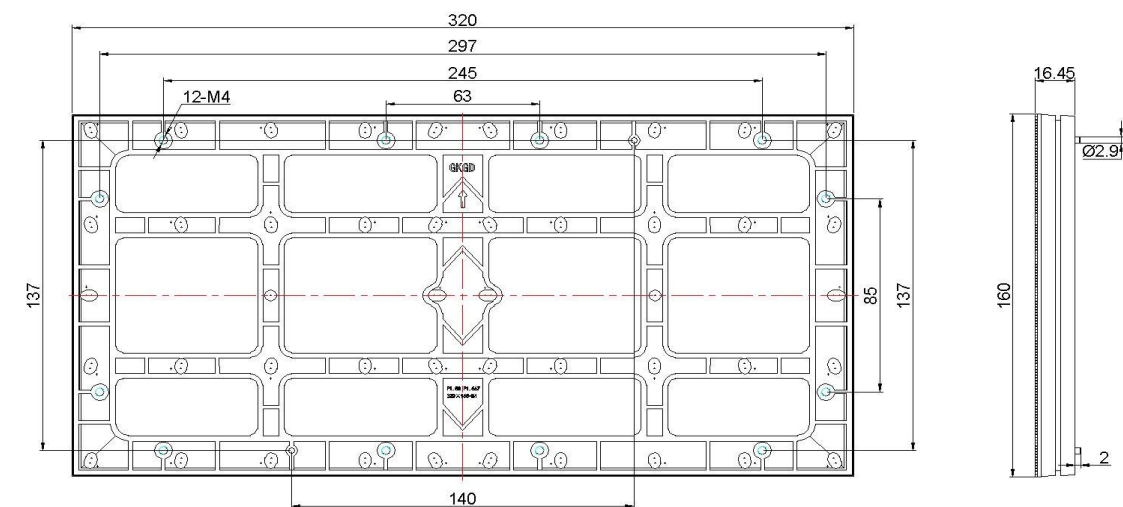
Installation of model

The mounting threaded holes on the back of the module are aligned with the corresponding mounting holes in the box, and M4 screws are used to attach the the module is fixed on the box, pay attention to the splicing gap and meet the flatness requirements.
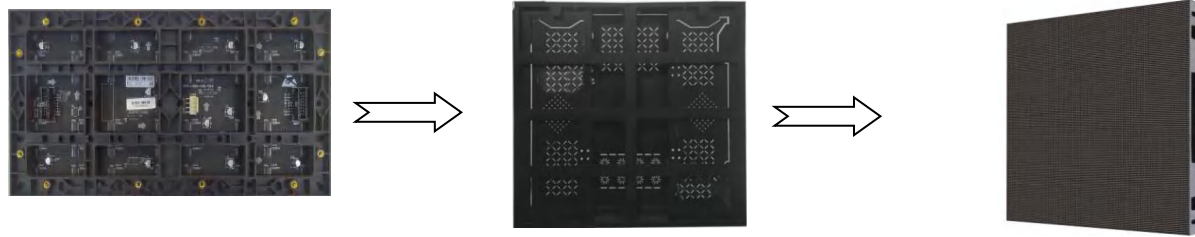
Use M4 screws to fix the module, and the length of the screws after passing through the box should not exceed 5mm. use GB9074.4 screws (as shown in the figure below, spring washers, washers and screws cannot be separated), which can reliably fix the module. For the parts where the GB9074.4 screws cannot be used due to the limitation of the box structure, GB818 screws can be used (see the following figure). Please refer to the corresponding national standard for screw selection and naming method.

M4 GB818 Pan screw   M4 GB9074.4 with locking screw

Module installation clearance

The flatness gap of module splicing is less than 0.2mm to avoid bright and dark lines in color. The size of model is 320mm×160mm, but the actual size is 319.90±0.1mm×159.90±0.1mm, The module installation distance needs to be calculated based on the actual size.

Magnetic column requirements

The M4 magnetic column is commonly used in the LED display, and the diameter of the magnetic column chassis is 13±0.05mm, the height of the magnetic column is 13±0.05mm; the diameter of the magnetic core is 10±0.05mm,The core thickness is 1.2±0.05mm.

Module magnetic installation

Design and manufacture the steel frame according to the size of the display screen and the size of the module, generally use 40mm×40mm square steel. After the steel frame is installed on site, install the receiving card, power supply and wires on the steel frame. Install the magnetic column on the module, connect the power cable and the cable of the module, and magnetically attract the module to the steel frame


Connection of Model's signal

Select the corresponding 16P/26P cable and matching receiving card according to the module interface definition, and connect the module data input interface with the receiving card output port J1, J2, J3, J5, J6, J7 through the long cable respectively. Watt DH3208 receiving card, the connection between the module and the receiving card is as follows (our company customizes the lighting program to meet the needs of the pixels):
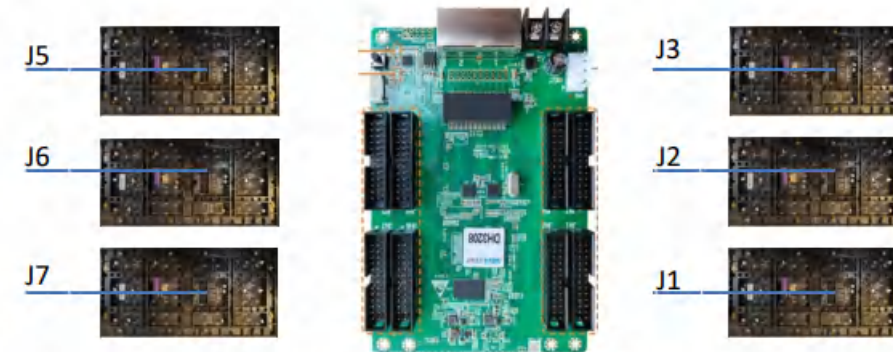
Module Power Configuration

Power supply: 4.2V, 60 A
Current of each model: Max 6.1A
Connection model quantity: <6 pcs

Power cord model: one for two 60cm-25cm/15cm VH4 crimped bar-shaped cable (pure copper or copper clad aluminum).
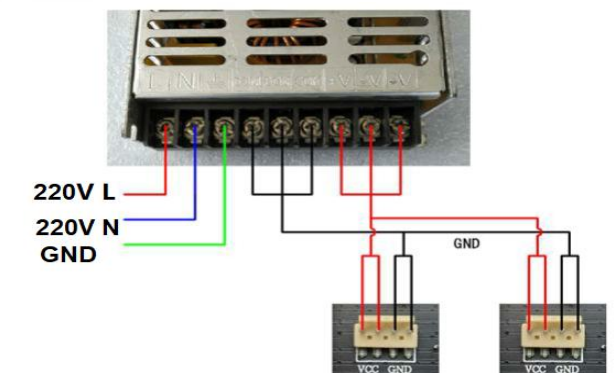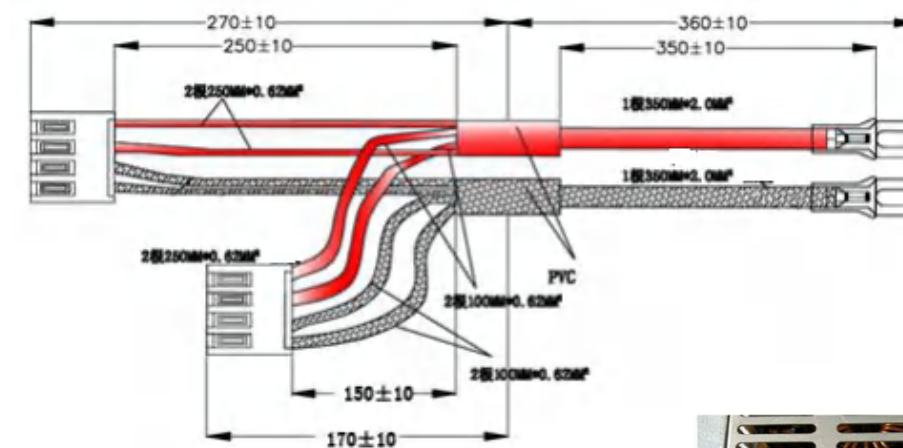
Installation of display screen

1. Wall installation

It is suitable for the installation of indoor screen, the area is small (below 10 square meters), and the wall is required to be a solid wall. This installation method is not suitable for hollow bricks or simple partition walls.
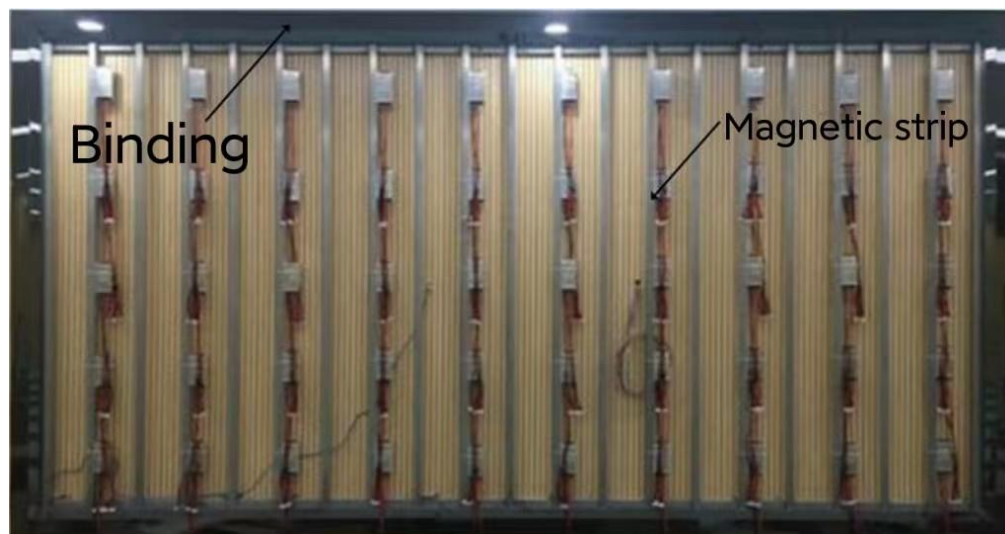
Wall
Wall
Structure
LED display screen
LED display screen
Binding
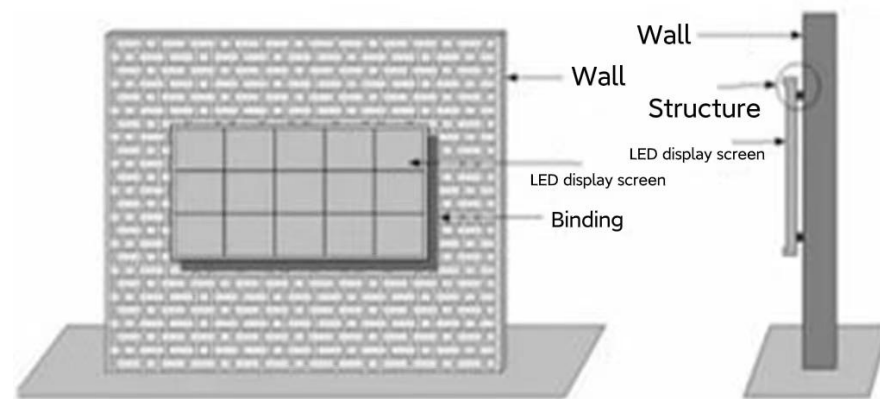
2. The installation of frame with magnetic strip

(1) Design the frame according to the installation area and module size (considering the edge and splicing gap), magnetic strip is welded on the frame with 4cm wide square steel evenly arranged according to the size of the module, and finally the frame is fixed on the wall.

(2) M4 magnetic column commonly used in LED display screen, the diameter of the magnetic column chassis is 13±0.05mm, the magnetic height is 13±0.05mm; the core diameter is 10±0.05mm, and the core thickness is 1.2±0.05mm.

(3) Larger display screens should be spliced with cabinets.

Binding   Magnetic strip

3.Embedded installation

It is suitable for indoor screens with small area. According to the size of the screen, dig out the same size on the wallarea, and the display screen is embedded in the wall. The wall is required to be a solid wall, and maintenance is required before use.

Wall
LED display screen
Inset border
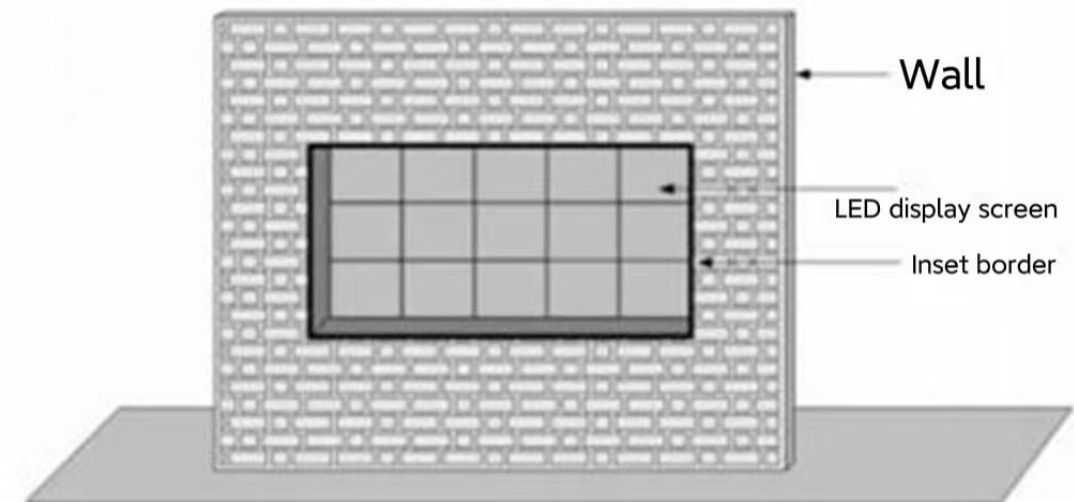
4. Pedestal installation

Removable seat: Refers to the seat frame is processed separately. It is placed on the ground and can be moved.
Fixed seat: Refers to the seat frame is a fixed seat frame connected to the ground or wall.

LED display screen
Connecting pieces
Pedestal
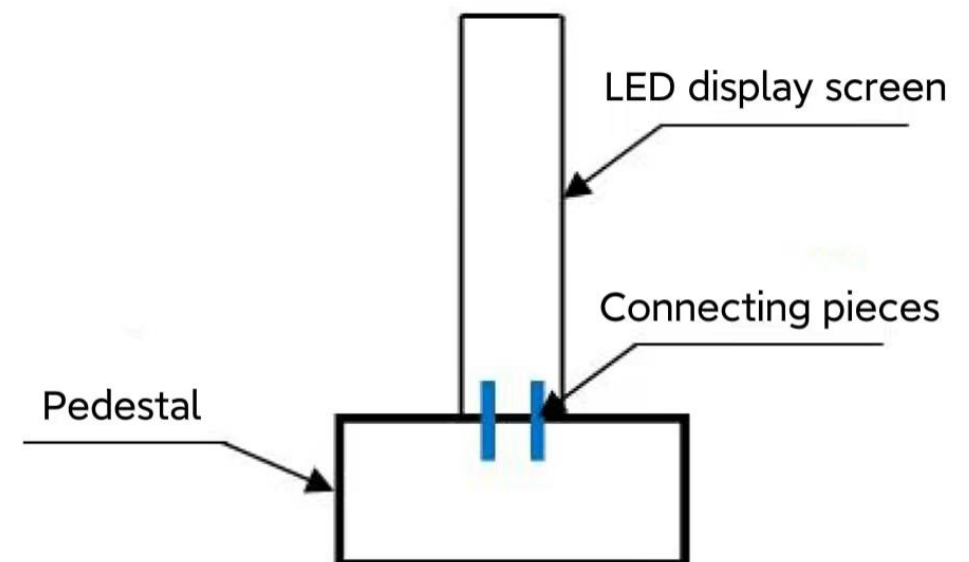
Display screen installation precautions

Waterproof and moistureproof

Wetting or serious damping of electronic equipment can cause short circuit or even fire, causing failure or even fire, resulting in losses. It is required that the junction of the screen and the building must be strictly waterproof and leak-proof, and avoid the water pipeline.

Ventilation, cooling

When the display screen works, it will generate a certain amount of heat. If the ambient temperature is too high and the heat dissipation is not good, the integrated circuit may not work properly, or even be burned, so that the display system can not work properly.
It is required to install ventilation equipment to cool down, so that the internal temperature of the screen is between -20 ℃ ~ 50 ℃. back of screen a temperature-controlled fan is installed at the upper rear to dissipate heat.

For installation methods that are difficult to repair and maintain, it is recommended to install remote monitoring and protection facilities.

Software installation

Display screen control and program production software, with software instruction manual, from the official website of the control system site download. Install and use the software according to the software instruction manual. If you have any questions about the use of the software, please consult our company's after-sales service or the control system manufacturer's after-sales service. The receiving card program used by the control system can be downloaded from the official website of Hi-Tech Optoelectronics. different models column driver IC may require different versions of control and program production software, and may also require the firmware of the receiving card to be upgraded to the specified version. Incorrect versions of control and program production software and receiving card firmware will result in abnormal display, or performance cannot be debugged to an ideal state.

Safety requirements

Safety Requirements for Using Models

Installation electrostatic protection requirements

During the use of the LED module, strict attention should be paid to electrostatic protection, and those who contact the module must wear grounded electrostatic wristbands or electrostatic gloves.

Installation grounding requirements are to prevent damage to chips or LEDs from lightning strikes or surges. During the module assembly process, various power tools must be well grounded, and the switching power supply shell and screen in the box must be properly grounded (must be separated from the strong electric ground).

Module Cleaning Requirements

Cleaning the module requires using a clean soft rag moistened with alcohol to gently wipe the surface of the module. Impossible use unknown chemical liquid to wipe, so as not to damage or corrode the plastic parts of the module, LED housing or LED light surface gel. After cleaning, wait until the surface of the module is completely dry before powering on the display.

Maintenance requirements

When repairing the LED module, use a constant temperature electric soldering iron and air gun and ground it well. Soldering iron tip is generally used a knife-shaped tip and a tapered tip.

When soldering the drive surface components of the LED module, the temperature of the electric soldering iron is generally 290~320℃, the welding time should not exceed 3s, and the number of soldering times should not exceed three times; The gun is slightly swayed clockwise against the lamp bead. After the solder is completely melted, the maintenance operation is carried out, and the number of welding is not more than three times.

Knife soldering iron tip   Conical Soldering Iron Tip

Anti-collision requirements

During the installation and transportation of the module, do not drop, push, squeeze or press the packaging to prevent the module from falling and knocking, in order to avoid problems such as kit breakage, lamp bead falling off, lamp bead damage, pad falling off, and components falling off.

Safety Requirements for using Display screen

Ambient temperature requirements

In order to ensure the stable operation of the display screen and achieve the designed service life, it is required that the module work the surface temperature is ≤85℃, and the air temperature inside the display body is ≤50℃. According to the actual working environment of the display screen, take necessary cooling measures, such as adding exhaust fans and exhaust fans to form cooling air ducts or installing air conditioners for cooling.

Display content requirements

In order to avoid serious attenuation of local LED lamp bead brightness or dead lamp, make the display screen reach the design level.It is not allowed to display still pictures or still texts for a long time, and scrolling pictures or texts must be played.

Power Connection Requirements

A dedicated switching power supply for LED displays must be used, and a single switching power supply is connected to multiple modules.The total current cannot exceed 80% of the rated maximum output current of the power supply. The wires connecting the module and the power supply need to use high-quality copper wires, and ensure that the voltage U range at the module power socket is U ±0.2V.

When connecting the power supply, it must be noted that the module power socket corresponds to the positive and negative poles of the output terminal of the switching power supply. If the positive and negative poles are reversed, the module will be burned, or even a fire will occur.

The module must not be connected to AC 220V, which will cause the module to burn immediately.

When wiring the power supply, ensure that the module plugs and sockets are connected reliably, and the power supply socket terminals of the switching power supply must be connected reliably. Tighten the screws. Loose plugs, sockets and screws can lead to increased contact resistance causing wire burn or product damage.

Screen acceptance requirements and methods

Display brightness acceptance

Adjust the display to full brightness, and use the brightness meter to measure the brightness of the display within 5 minutes.When measuring the brightness, the optical axis of the luminance meter is required to be perpendicular to the screen body. Adjust the distance between the luminance meter and the display screen, make sure that the black dots or circles in the eyepiece of the luminance meter cover more than 16 pixels, adjust the focal length so that the LED light beads can be clearly seen in the eyepiece, and then measure and read the luminance data.

Visual angle acceptance

As shown in the figure below, it is viewed at 160° left and right of the screen and 70° from the lower viewing angle of the display.There is no obvious black spot or obvious dark block phenomenon on the screen.
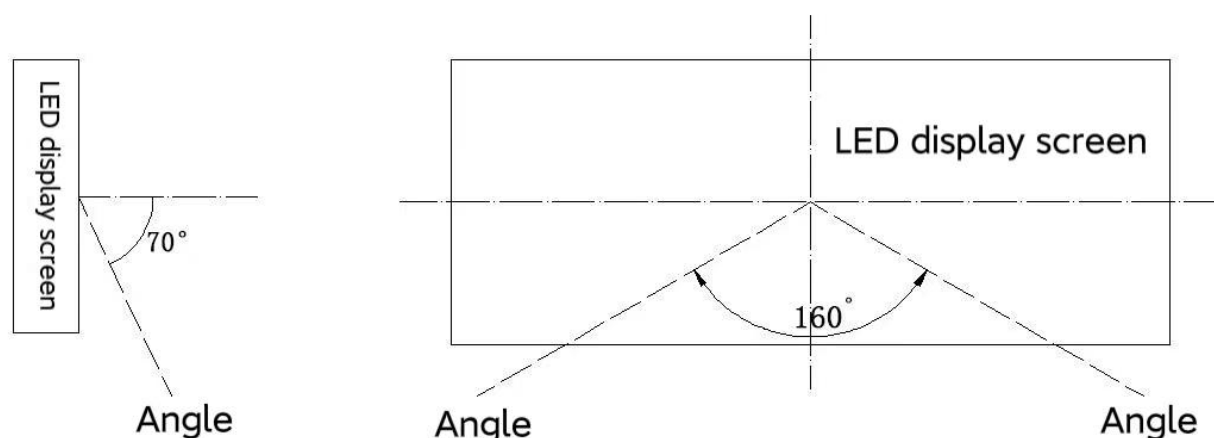
Ground check

The shell box and display frame of the power supply must be well grounded, and the grounding resistance is required to be less than or equal to 10 Ω and check the grounding resistance every six months.

Lightning protection facility inspection

The LED display screen is required to be reliably grounded, the power distribution box is required to be equipped with a surge protector, and the lightning protection facilities are checked every six months. Avoid using the display during thunderstorms.

Anti-burn-in operation requirements

Standard operation

When the entire screen is powered off, connect the signal cable and power cable, check that the connection is good, and then connect it to the entire screen.If it is found that the display is not good, the whole screen will be powered off immediately, and the wiring will be rectified and then the whole screen will be powered on for inspection.

Installation operation with electricity

When we need installation operation with electricity, it must be operated in the following order: first connect the signal input cable, then connect the signal output cable, and finally connect the module power plug. The modules must be installed and debugged one by one, and it is not allowed to continuously install multiple modules with abnormal display and then debug.

The display is abnormal when we are using screen

When the user finds that the display is abnormal during use, especially if the entire line is highlighted,Immediately after the whole screen is powered off, repair it in order to avoid long-term power supply in this case.

Installation cabinet

This cabinet is a magnesium-aluminum alloy box independently designed by our company. It is formed by a mold. It has the advantages of light weight, reasonable structure, high precision, good heat dissipation effect, and basically seamless splicing. The power supply and receiving card inside the box are installed and removed from the front, which can realize full front maintenance of the box. The upper, lower, left and right connection of the cabinet body adopts a quick locking mechanism, which is easy to install. The modules are adsorbed on the box body through the magnetic column, and each box body is adsorbed 2×3 modules.

The dimension of cabinet installation
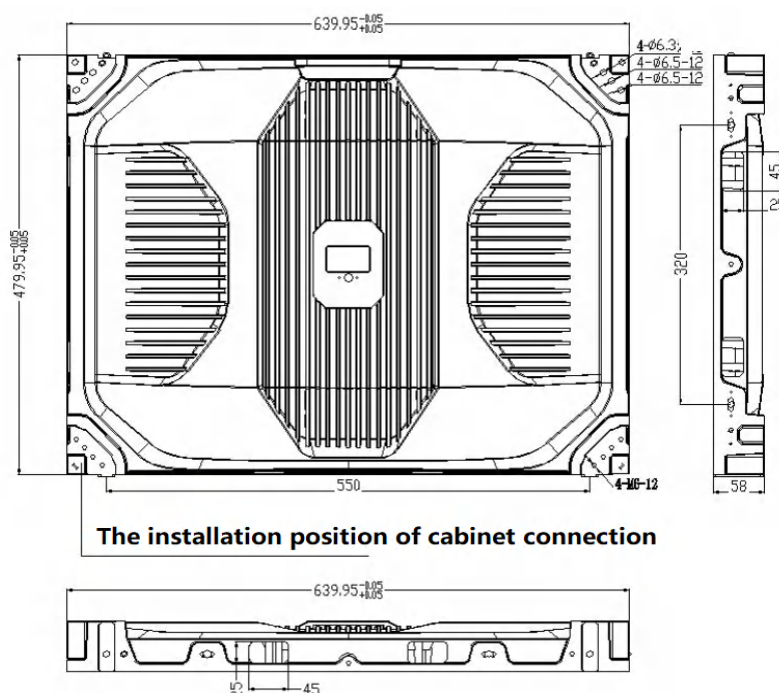
The installation position of cabinet connection

Cabinet installation

The M4 magnetic column installed on the back of the module is aligned with the magnetic positioning column of the box, and the module is adsorbed on the box. Pay attention to the splicing gap and meet the flatness requirements. Shipped in the form of a box, the specifications and models of the magnetic column screwed to the module are: the diameter of the chassis is 12mm, the height of the magnetic column is 3mm, and the length of the thread is 5mm, as shown in the following figure:
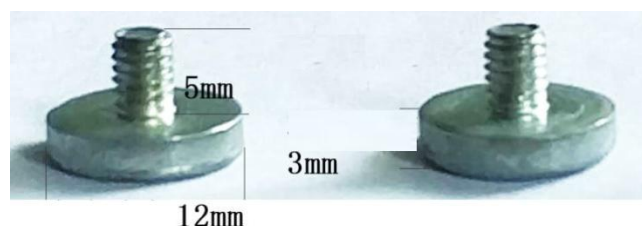
Assemble the modules, supporting cables, power cables, and receiving cards into a box, as shown in the following figure:
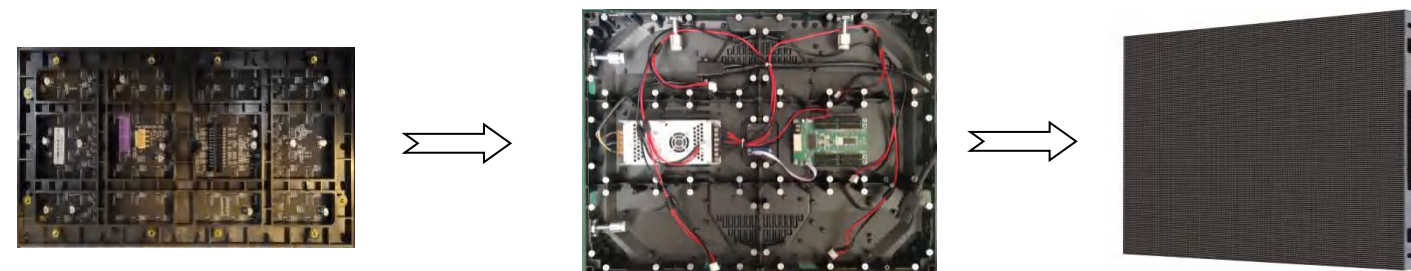
Cabinet installation

First, use 40×40 square steel to build the steel frame structure, and use a level to adjust the steel frame structure to the level (the flatness within the horizontal length of 7m is within ±1mm); use a plumb bob to measure the verticality of the column to ensure that the front end of the steel frame is All square steel faces are on the same plane.
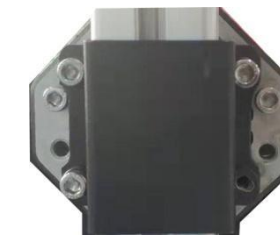
Splicing the box with the 0 degree box connecting piece, place the first box from the middle of the steel frame structure, the connecting piece is close to the steel frame structure, fasten the square steel connecting piece to install the box, and use M6*20 bolts to fasten the box body. Lock with the connecting piece, and then place the boxes one by one on both sides. The boxes are positioned by positioning pins, and locked with a quick locking mechanism to ensure that the gap between adjacent boxes is ≤ 0.13mm until the first layer of boxes is fixed. Installed. And so on to complete the installation of the remaining cabinets.

Clips of cabinet　　　Clips of structure　　　After fixed

Fixed cabinet and structure together

Cabinet Signal/Power Connections
The power supply of the box needs to use the specially equipped 3×2.5mm2 FV-LOCK plug power cord, which is connected in series. The number of boxes connected in series is recommended not to exceed 15.

The signal connection of the box body adopts the specially equipped stp single-shielded super five signal line, and the number of the box body connected in series does not exceed the maximum load point of the single network port of the sending card divided by 129792 (rounded).

Bestart Dmx Subcontroller system Characteristics

1. Controller's output support standard USITT DMX512/1990 Universal Protocol and expand DMX512 Protocol.

2. Three-primary-color independent brightness control, which realize simple, effective and accurate adjustment of white balance.

3. Precise gamma correction algorithm. It better conforms to the visual photographic characteristics of the human body, and the display color is more sufficient and rich, so as to perfectly reflect the animation or video effects of the designer.

4. Support 120-frame frequency maximum, to guarantee demands for HD display and 3D display of the image;

5. Adopt Ethernet interface and UDP network protocol, to guarantee stable transmission, the maximum transmission distance is 100m.

6. LCD display module, to timely display the controller parameters and state.
7. Dual-network interface, which can realize cascade connection between controllers and automatic inspection of the controller, and the connection status is displayed intuitively through the software.

8. 8-port output, single port output is standard 512-channel, expand protocol load points by client basis chip characteristics self-testing.

9. Support dual-way backup, the display will not be influenced if a controller is broken or the network cable is disconnected.

10. Can set self-adapting 1000M / 100M or forced 100M, to guarantee stability of large project.

Design concept

1. 1000M / 100M optional: adapt to different project schemes.
2. Two-way redundancy of the system signal, doubled stability.
3. Four-color independent algorithm: energy-saving, environmental-friendly and with pure color;

4. Integrated synchronous and asynchronous control, online in priority, automatic switching to the offline effect without online signal, to realize video source backup.

5. Large independent development and design video edition, playing and wiring design software: stronger adaptability, more languages supporting and higher openness. It is used in various shaped screens, multiple screens, building screen, pixel light screen and other complicated applications at home and abroad.

6. Support IP group function, and adopt switch parallel connection scheme reduce system-level cascade chain length, and improve stability
7. Support optical fiber transmission after conversion of optical fiber module; Support wireless network transmission, wireless bridge connection and Internet remote control.

8. The system supports automatic, timed and holiday preset playing.
9. Support mainstream 32-bit and 64-bit operating systems: windows2000, windowsXP, windows7, windows8 and so on.

Expansibility
1. Synchronous and asynchronous play of contents of video and image files of multiple formats.
2. Can install all Windows operating systems and support languages of various countries.
3. The player software is reserved with sufficient interfaces, so as to be compatible with other international
general protocols, and support the personalized design demands of the customers.

Ports of Bestart DMX controller

Controller front view

Controller rear view

①: power switch ②: LCD display ③:power / communication indicator lamp

④: work indicator lamp ⑤⑥: self-adapting network interface ⑦: output port

⑧: power interface

Controller basic parameters table
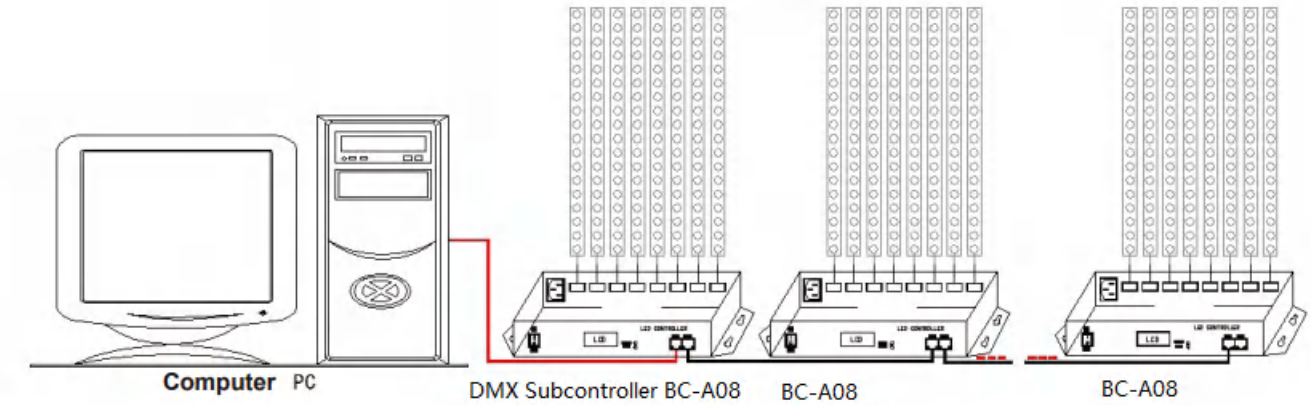
Input power supply : AC100V to 240V

Maximum power: 15W

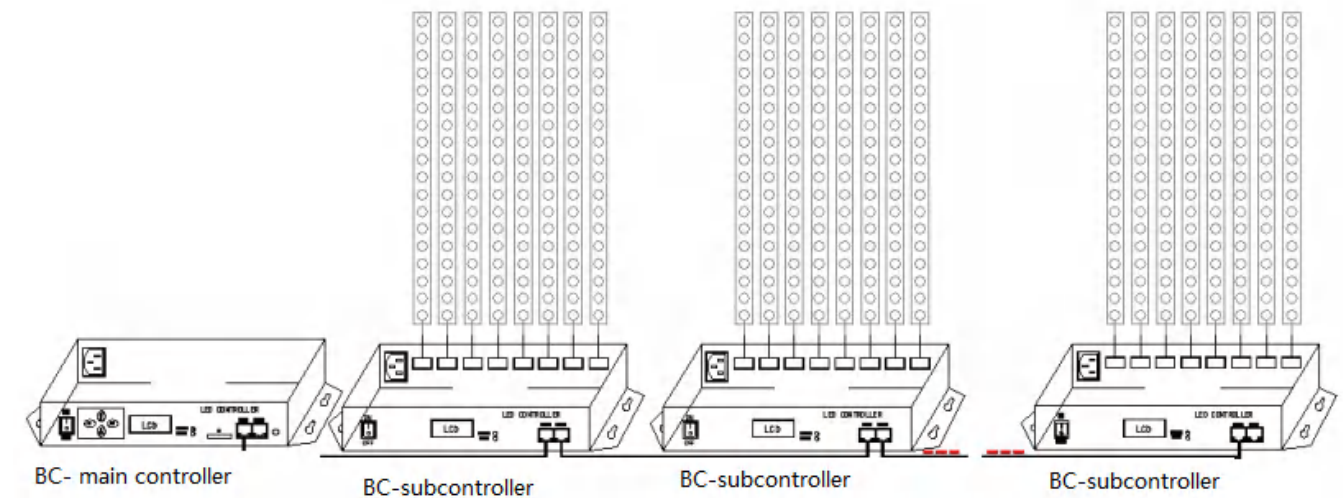Length *Width* Heigh: 28.6cm *13.6cm*4.35cm

Spacing of fixing holes : 26.8cm; 6.8cm

Controller connection

I. Online mode (connected with the computer)
Directly connected with the computer network port:

II. Offline mode
    Connected with the offline main control:

Controller connection

III. Integrated synchronous and asynchronous mode

Connected with the computer and offline master controller (when the mode is selected, the computer on-line works in priority, and the offline effect is automatically switched to without online signal)
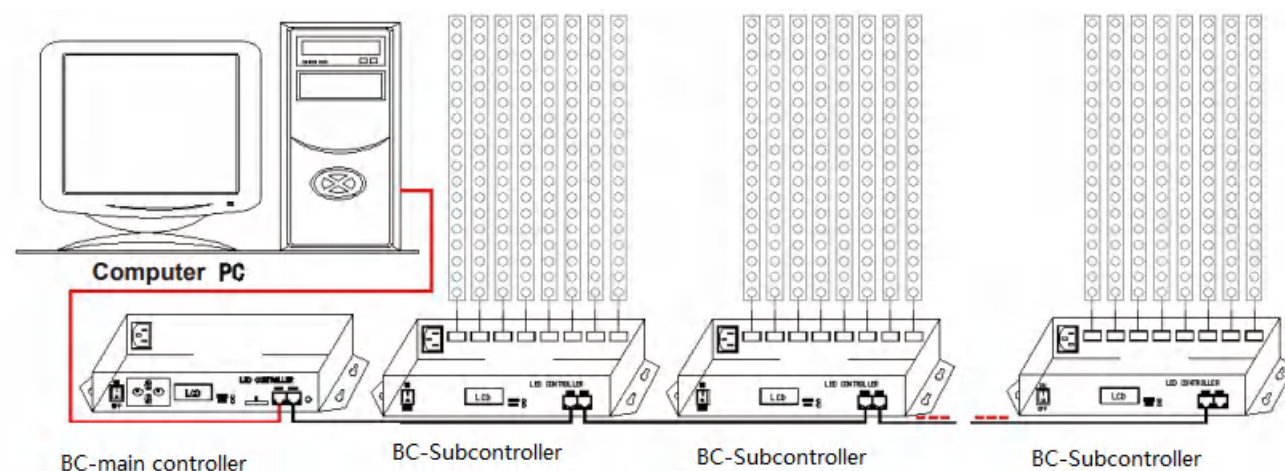
IIII. Output interface sequence
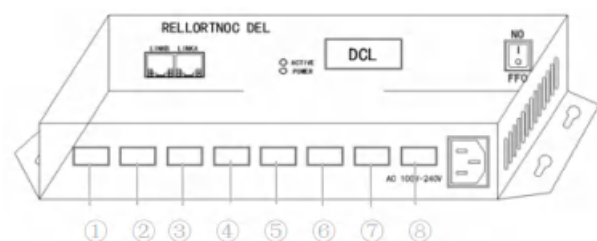
Output interface is 8 × 3P interfaces, 1 to 8 respectively (as picture shown)

3P terminal from left to right, single in sequence

Bestart Controller	1	2	3
	Grand	Data+	Data -
Signal output	GND	A	B

Attention matters

Network cable sequence

568B: orange-white orange green-white blue blue-white green brown-white brown

568A: green-white green orange-white blue blue-white orange brown-white brown

The crossover cable shall be adopted among the controller, offline master controller and switch, i.e., an end is 568B and the other end is 568A. The straight line shall be adopted as the network cable between any equipment and computer above, i.e., both ends are 568B and 568A. Do not customize the straight line sequence.

Wire and connection method between the lamps and the controller

1. If the distance between the controller output port and the lamps is too far, it is suggested to adopt 485 special cable or over UTP shielded cable for connection, and the best connection method is: orange-A, orange-B, other can be connected to GND

2. At the end of each signal that is between A and B to add a terminal resistance of 120R

3. Do not use two wires wound to receive the signal simultaneously, for example, connect green and green-white to A+or B-.