

Version: A1.3

Features

1. Special optical lens is used
2. The Aluminum PCB back uses heat dissipation tape
3. Using external controllers can achieve rich color conversion
4. Multiple specifications available and customizable

Application

Suitable for advertising lightbox and signage lighting project etc.

Installation

Fix by adhesive tape or screws

Specification

Model No.	Light Color	Color Temperature/ Wavelength(K/nm)	Beam Angle	Typical Luminous Flux value(lm/pcs)	Ra	Efficacy (lm/W)	Voltage (V DC)	Power (W/pcs)
QBPS-C	W	6500	10°20°	243	70+	86	24	3
	R	615-625		138	/	45		3
	G	515-530		247		83		3
	B	450-460		38		14		3
	RGB	100000		409		46		9
	RGBW	100000		630		53		12

Other Parameters

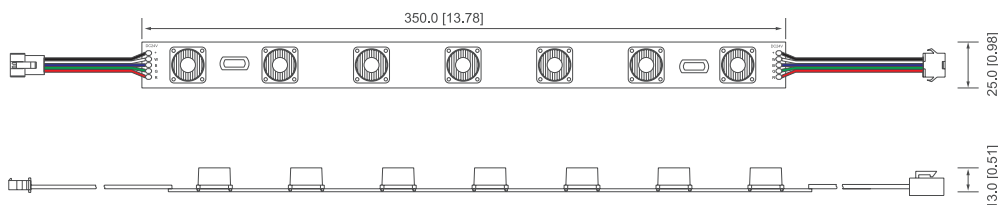
Model No.	LED Quantity/pcs	Product Size L*W*H(mm)	Standard Run(pcs)	Working Temperature	Storage Temperature
QBPS-C	7	350*25*13	3	-20~+60℃	-20~+70℃

NOTE:

1. Test environment temperature : 25±2℃.
2. The above data is typical values. The actual data of each single product may differ from the typical values. The data is subject to change without notice.
3. Luminous flux is tested when lighting on with the single color.
4. Different color temperature will make luminous flux different.

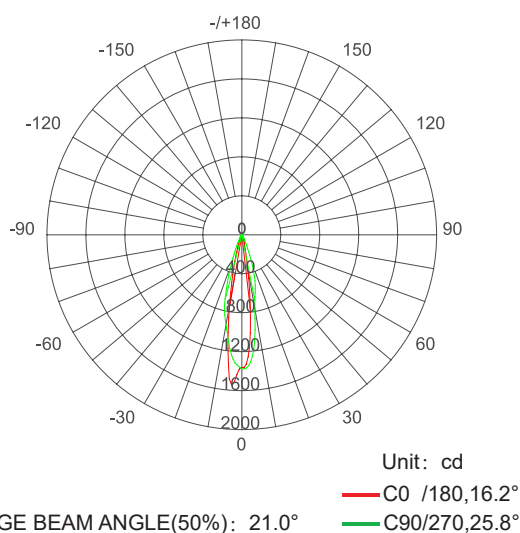
Profile Drawings

Unit:mm[inch]

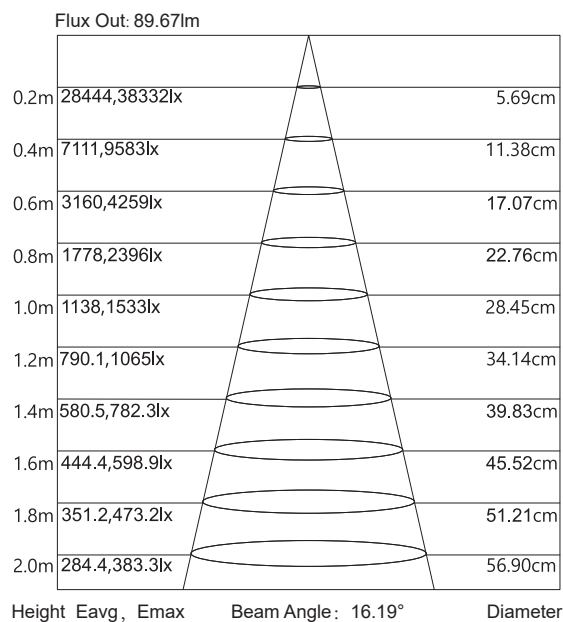


NOTE: for detailed drawing, please consult sales rep.

Luminous Intensity Distribution Diagram



Average Illumination

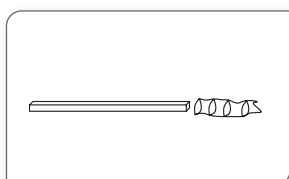


NOTE: The above two figures are tested with the sample QBPS-C, for other data, please consult sales rep.

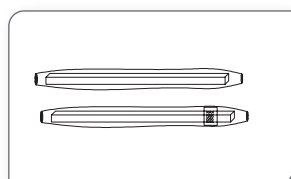
Reliability Test

Test Sort	Test item	Reference Standard	Test condition	Test result
Environmental test	PTC test	Blueview standard	TH=-40~60°C, continuous cycle, every 2 hours per times (normal temperature for 15 min, temperature rise and fall for 45 min)	PASS
	High Temperature Resistance Test		TH=60/80°C, continuous lightened up	
	Room temperature aging test		TH=25°C, continuous lightened up	
Other tests	Luminous flux maintenance test		TH=60°C, TH=25°C	
	lens thrust test		>20KGF	
	Wire tensile test		>20KGF	

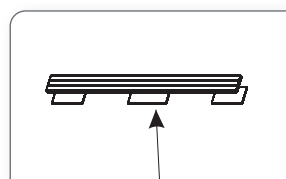
packing



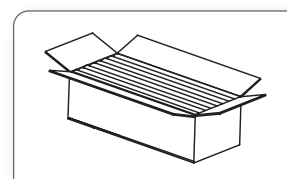
Put the product into PE bag.



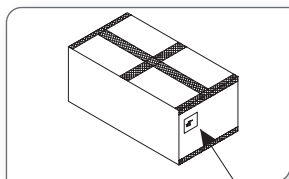
Seal the bag in two ends, and label it.



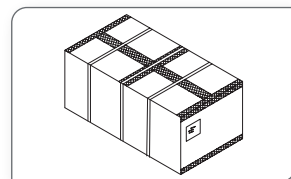
Separate the product layer by layer with foam



Put the product into carton box.



Seal and label the box.



Use packing belt to pack. Add edge protectors if necessary.

Packaging information

Model No.	Product Size L*W*H(mm)	Carton Size(mm)	PCS/Carton	Net Weight(kg)	Gross Weight(kg)
QBPS-C	350*25*13	390*390*325	150	10.45(1±10%)	11.79(1±10%)

Note:

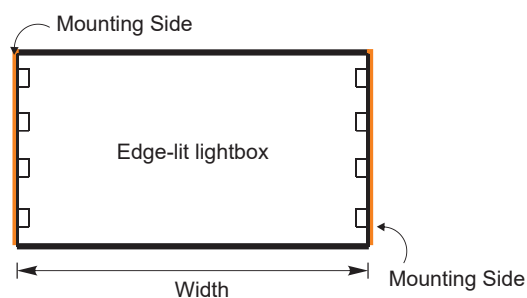
1. Packing material: PE bags and carton box
2. The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

Installation

Installation Reference

Model No.	Lighting Mode	Surface Material	Width(m)	Depth H(cm)	Color	Illumination (Lux)	Evenness	Watt Density (W/m ²)	Density (pcs/2m)	Effect
QBPS-C	Double Side	White non weaving canvas	1.5	12	W	400-630	0.63	8	2*2	OK
					R	--	--	8		
					G	--	--	8		
					B	--	--	8		
					RGB	--	--	24		
					RGBW	--	--	32		
QBPS-C	Double Side	White non weaving canvas	2	15	W	300-400	0.75	6	2*2	OK
					R	--	--	6		
					G	--	--	6		
					B	--	--	6		
					RGB	--	--	18		
					RGBW	--	--	24		

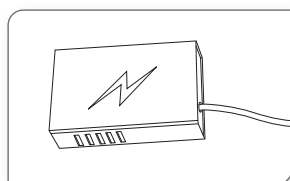
Note: the density is within a light box of 1 square meter. PCS/m indicates the product quantity installed on single side, and pcs/2m indicates the quantity of double-sided installation.



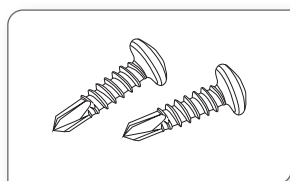
Note:

The density refers to product quantities installed on the mounting side, and "1*2" refers to 2 mounting sides and each side with 1pcs.

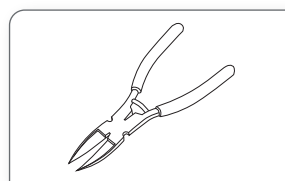
Products and Tools



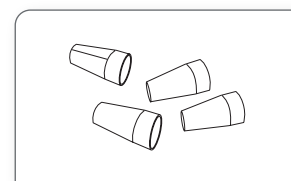
LED power supply



Screws

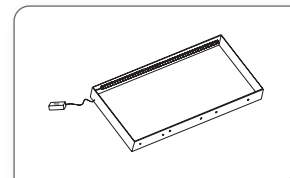
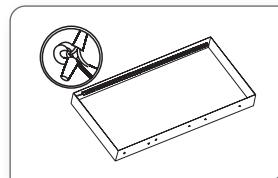
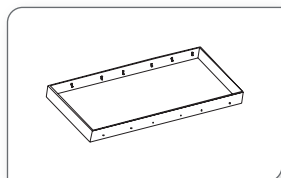
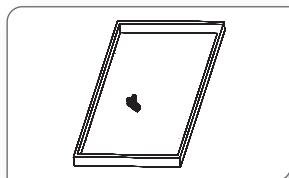


Diagonal pliers



Connection Terminals

Installation Methods and Steps



1. Clean the mounting surface
2. Determine the mounting distance, fix with the installation clips
3. For bare wire connection, please use terminals.
Treat the thread with insulation, waterproof, and anti-corrosion arrangement as it cannot pull out by hands.
4. Check and ensure correct installation, and fix the product with screws, then power on for self-test.

Note:

1. Screw to avoid welding plate, avoiding short circuit
2. When fastening the screw, make sure to add plastic gaskets to insulate the screw from the LED panel.

Attentions before installation

- Before installation, check that the product parameters are consistent with the requirements (Seeing product specifications or product labels)
- Load voltage, current, power and power supply should be matched with the product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.
- Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the light will not be on.
- Make sure the power cord firmly screwed into the terminal and it should not be pulled out by hands.
- The terminal should have insulation, waterproof and anti-corrosive treatment.
- After installation, the fabric light box must be covered with cloth within 48 hours. Please avoid leaving the light box idle for a long time.

Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light on.	No electric supply.	Fix the short circuit problem.
	Automatic power protection from the open or short circuit in output of the power supply.	
	Wrong connection of power supply.	
LEDs can not light on partly.	Some switching mode power supplies are not powered.	Correctly connection.
	Power supply line error.	
	Mistaken wire connection of some of products	
Brightness of LED is inconsistent tor insufficient.	Power overloaded.	Replace with more powerful power.
	Power supply circuit excessive consumption.	Make sure the working voltage of the product within $\pm 5\%$ of standard voltage, or keep balance by circuit power consumption.
	Excessive quantities in series connection of the product	Reduce the quantities of the product in series connection to meet requirement.
LED flicker.	Connection point fault.	Remove bad connection point.
	Switching power supply failure.	Replace a new power supply.
	Wrong Installation or use of products	Please follow the instructions

Warning

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation, especially for high voltage product.
- Do not use any organic chemical solvents.
- Use neutral glass adhesive to fix this product and it needs to be dried 24 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation, waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm² cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the max run.
- The length of the power cable between the power supply and the led strip should not exceed 2 meters. Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

Statements and Recycling

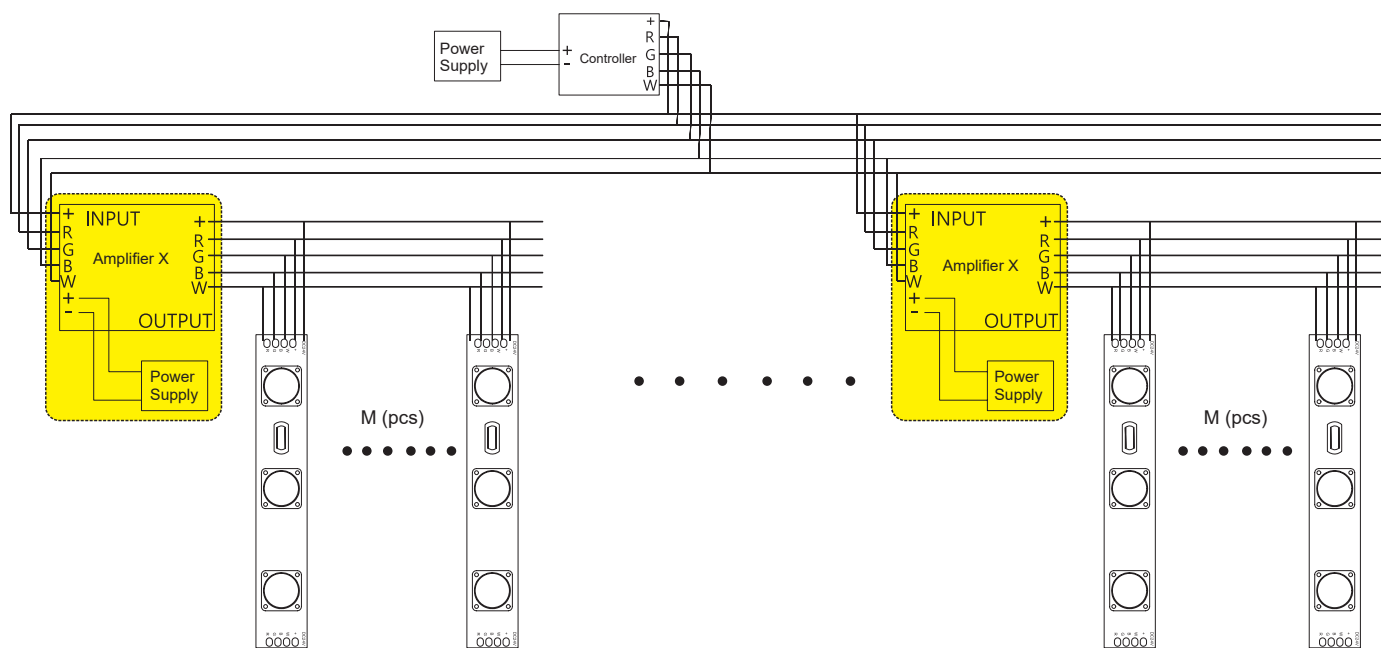
Statements:

- Repair should be operated by a qualified technician, if the external circuit or main line of this product is damaged.
- The parameters given in this manual are typical values and for reference only.
- All illustrations and drawings in this manual are for reference.
- This product is subject to change without notice.

Recycling:

- LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.

Connection Diagram of Controller



Amplifier power supply rated power (W): P

Product rated power (W): P(length)

Controller load: M(pcs)

Module max run: MAX

$$M = \frac{Px0.8}{P_{(length)} \times MAX}$$

Use QBPS-C as an example: P(length)=12W, Max run MAX=4pcs, The power supply is 400W, The amplifier load is

$$M = \frac{Px0.8}{P_{(length)} \times MAX} = \frac{400 \times 0.8}{12 \times 4} \approx 13(\text{pcs})$$

Note:

The power supply of the controller must be consistent with the power requirements of the controller;

If the distance between the controller and the product is more than 20 meters, an amplifier must be added to drive the product, as shown in the figure above;