



Version: A1.0

Features

- Adopt integrated optical lens, aesthetic appearance, super cost-effective;
- Special ultrasonic technology, IP66;
- High luminous efficiency 145LM/W;
- Single module cuttable, support customization;

Application

- Suitable for light box or advertising letter with a depth more than 10cm;

Installation

- Fixed by adhesive tape or screws



Specification

Model No.	Light Color	Color Temperature(K)	Beam Angle	Typical Luminous Flux value(lm/pcs)	Ra	Efficacy (lm/W)	Voltage (V DC)	Power (W/pcs)
PT10-1	W	3000	175 °	52	70+	145	24	0.36
		4000		54		150		
		5000		54		150		
		6500		54		150		
		7000-7800		54		150		
		10000		52		145		
PT10-2	W	3000	175 °	101	70+	140	24	0.72
		4000		104		145		
		5000		104		145		
		6500		104		145		
		7000-7800		104		145		
		10000		101		140		
PT10-3	W	3000	175 °	156	70+	145	24	1.08
		4000		162		150		
		5000		162		150		
		6500		162		150		
		7000-7800		162		150		
		10000		156		145		
PT10-4	W	3000	175 °	209	70+	145	24	1.44
		4000		216		150		
		5000		216		150		
		6500		216		150		
		7000-7800		216		150		
		10000		209		145		

Other Parameters

Model No.	Quantity (LED Qty/pc)	Product Size L*W*H (mm)	Standard Run (pcs)	Max Run(pcs)	Working Temperature	Storage Temperature
PT10-1	1	22.5*15*10.5	100	100	-20~+60°C	-20~+70°C
PT10-2	2	47*20*10.2	80	90		
PT10-3	3	72*20*10.2	60	70		
PT10-4	4	47*41*10.2	50	55		

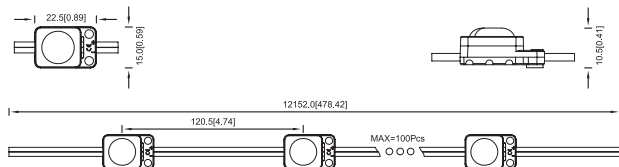
Notes:

1. Test environment temperature: $25 \pm 2^\circ\text{C}$.
2. Figures above are typical figures. Actual figures could be different with typical figures, and the data is subject to change without notice.
3. Different color temperature will make luminous flux different.
4. The error in luminous flux and power is $\pm 10\%$.
5. The "Quantity" above means the LED quantity of single module.
6. Max run quantity with one end power feed.

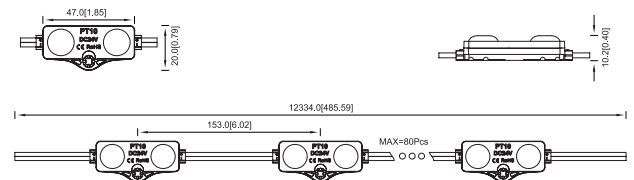
Profile Drawings

Unit:mm[inch]

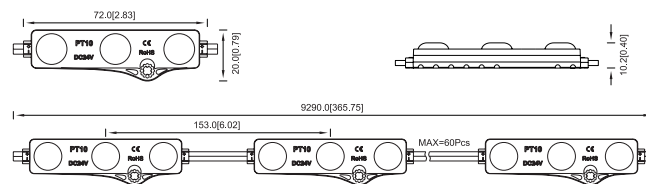
PT10-1



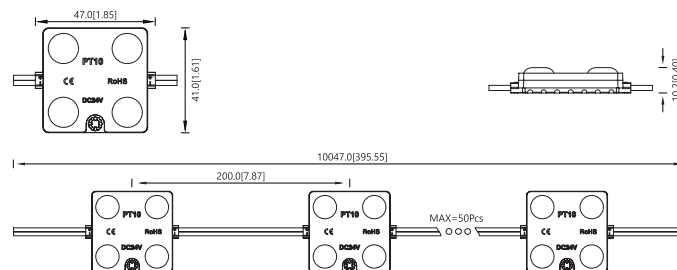
PT10-2



PT10-3



PT10-4

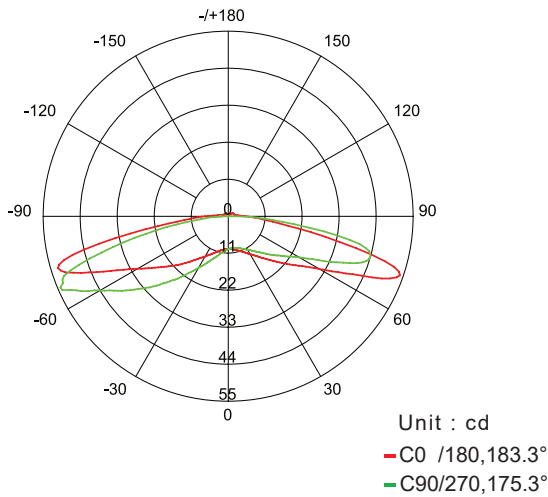


Note:

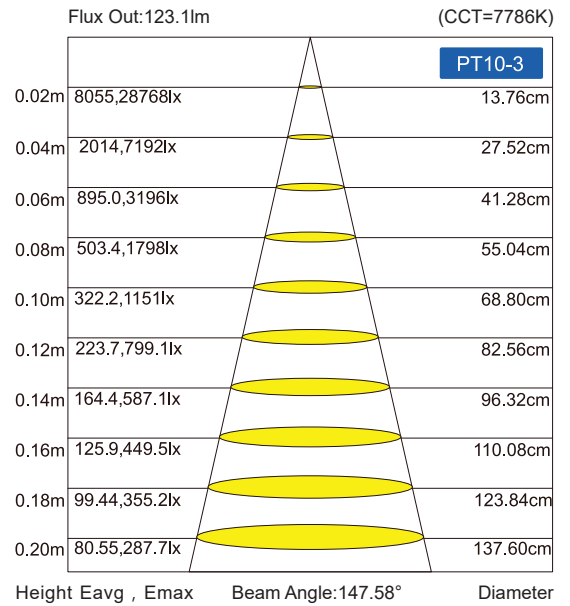
Dimension tolerance: length $\pm 0.2\text{mm}$; width $\pm 0.2\text{mm}$; height $\pm 0.2\text{mm}$.
For detail drawing, please consult sales rep.

LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

AVERAGE ILLUMINATION



AVERAGE BEAM ANGLE(50%):179.3°

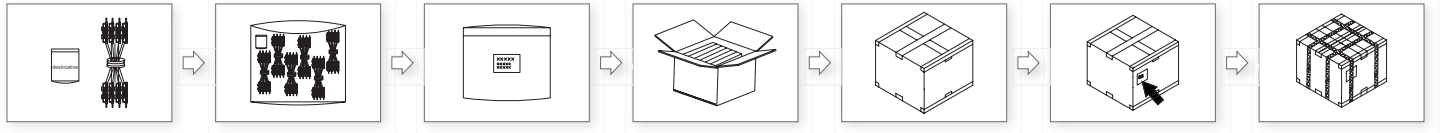


Note: the above data is tested with PT10-3 at 7786K. For other data, please consult sale rep.

Reliability Test

Type	Name	Standard	Condition	Result
Environmental test	PTC test	Blueview standard	TH=-40-60°C/2h cycle once (temperature holding time 15 min, heating and cooling time 45 min)	Pass
	High temperature resistance test		TH=60/80°C, continuous power on	
	High temperature and humidity test		TH =85°C/RH=85%, continuously light on	
	Room temperature aging test		Ta=25°C, continuous power on	
	IPX6		Water spray diameter: 12.5mm, distance: 3m, water flow: 100L/min, test duration: 3min	IP66

packing



1. Prepare the desiccant and bind the product.
2. Put the product and desiccant into static shielding bag.
3. Seal and label the static shielding bag.
4. Put the static shielding bag side by side into carton box.
5. Seal the box.
6. Label the box;
7. Use packing belt to pack after adding the edge protectors.

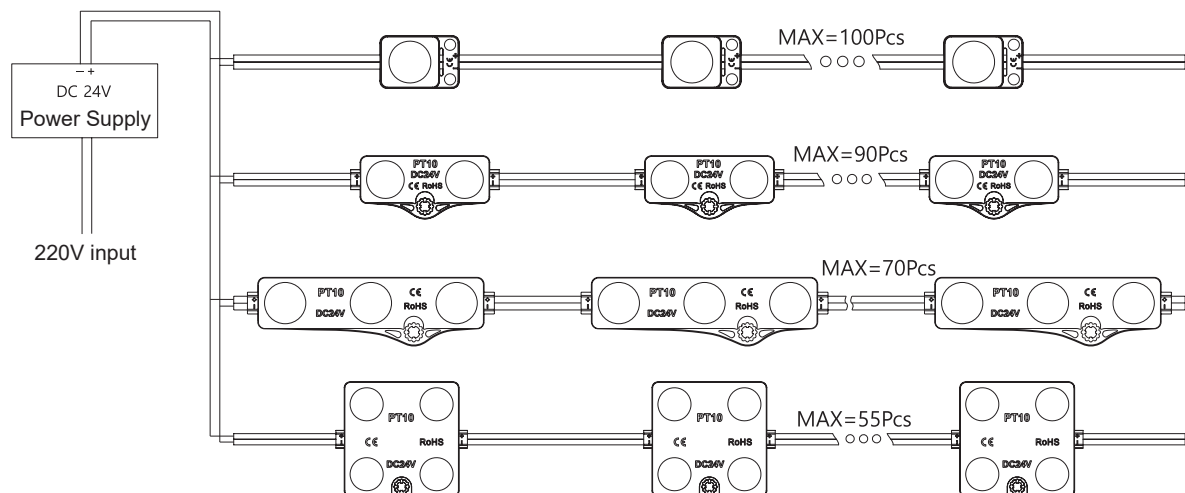
Packaging information

Model No.	Product Size L*W*H (mm)	Carton Size(mm)	PCS/Bag	Bag/Carton Box	Net Weight(kg)	Gross Weight(kg)
PT10-1	22.5*15*10.5	390*390*325	200	16	13.12(1±10%)	14.32(1±10%)
PT10-2	47*20*10.2		160	16	21.20(1±10%)	22.30(1±10%)
PT10-3	72*20*10.2		60	16	10.36(1±10%)	11.40(1±10%)
PT10-4	47*41*10.2		50	20	14.40(1±10%)	15.40(1±10%)

Note: 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.

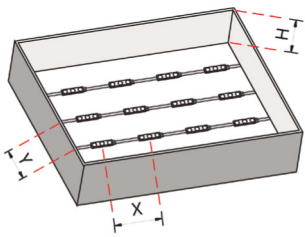
Installation

Connection Diagram



Regular light box

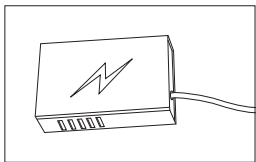
Model No	Surface Material	Depth(H)cm	Illumination (lux)	Evenness	Density (pcs/m ²)	Spacing (X*Y)cm	Power Density (W/m ²)	Visual Effects
PT10-3	White Soft Film	12	7010-7830	0.90	10*15	10*5	165	OK
		14	4693-5070	0.93	10*15	10*5	165	
		16	3400-3830	0.89	8*10	12.5*10	88	
		18	3018-3290	0.92	6*8	15*12	53	
PT10-4	White Soft Film	10	9438-10220	0.92	10*10	10*10	144	OK
		12	7825-8370	0.93	10*10	10*10	144	
		14	5470-5940	0.92	8*8	12.5*12.5	92	
		16	4095-4420	0.93	7*7	15*15	71	
		18	3113-3460	0.90	6*6	17.5*17.5	52	



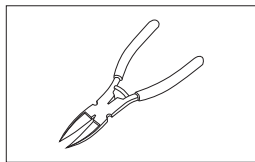
Note:

1. X indicates the horizontal center spacing between modules;
2. Y indicates the longitudinal center spacing between modules;
3. Single LED modules are arranged in a square, X=Y.
4. When the depth of lightbox H>18cm, use more products to satisfy Illumination demand.
5. The wire length can be customized.
6. Please ask the sales for more info.

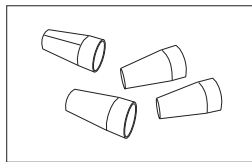
Accessories & Tools



LED power supply



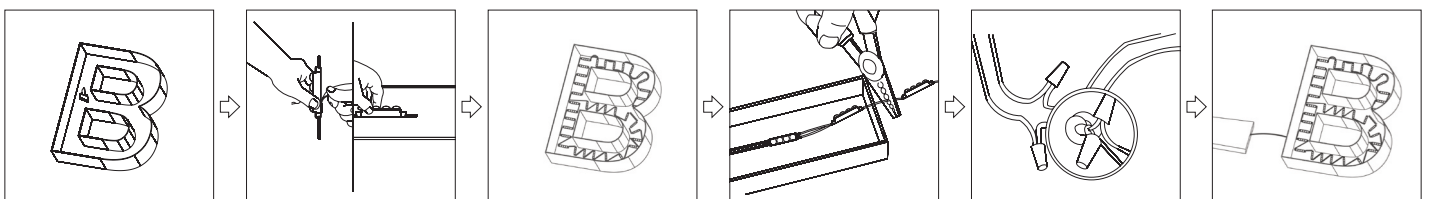
Diagonal pliers



Connection terminal

Installation steps

Installation steps



- 1.Clean the mounting surface.
- 2.Peel away the release paper on the back of led modules and stick them onto mounting surface.
- 3.Evenly arrange the led modules with appropriate space.
- 4.Cut the modules according to the requirements and treat the cut place with insulation and waterproof arrangement.
Note: Cut in the middle of the wire.
- 5.If the product needs to be connected, it is better to fix with connection ends.
Note: Treat the thread with insulation,waterproof, and anti-corrosion arrangement as it cannot pull out by hands.
- 6.Make sure the correct connection of positive and negative poles between led module and power supply.
Note: Treat the thread with insulation,waterproof, and anti-corrosion arrangement as it cannot pull out by hands.

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 installing, the fabric light box must be covered with cloth within 48 hours and avoid long-term idle after installed.**

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.	Check the power supply system to fix it.
	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.

Version	Content	Date
A1.0	first release	2023-8-10