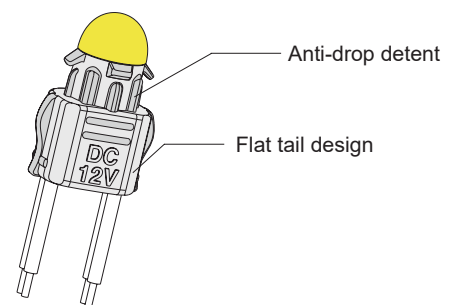


Version: A1.9

Features

- 9mm through hole light, luminous diameter 9mm
- Large light-emitting surface, give out light uniformly and evenly
- Anti-drop detent design, suitable for mounting board of 1-4mm thickness
- Flat tail design adopted soft material, easy to installation
- Integrated injection shell, great waterproof performance with glue filling process



Application

- Suitable for supermarkets, middle or large signage lighting, bars, ambient lighting, aviation and navigation signs, and etc.

Installation

- Through hole installation



Optical & Electrical Parameters

Model No.	Light Color	CCT/Wavelength (K/nm)	Beam Angle	Typical Luminous Flux value(lm/pcs)	CRI	Efficacy (lm/W)	Voltage (DC V)	Power (W/pcs)
CS0	□ W	2800-3200	130°	17	80+	92	12	0.18
		6000-6500		17		95		
		8000-10000		17		92		
		15000-20000		16		90		
	■ R	620-625	130°	4	/	24	12	0.18
	■ G	520-525		11		63		
	■ B	460-465		2		11		
	■ Y	585-590		20		110		
	■ O	600-610		7		39		
	■ P	/		9		48		
	■ IB	475-485		11		62		
	■ F	/		2		13		
CS0	□ W	9000-10000	130°	19	80+	100	48	0.19
	■ R	620-625	130°	3	/	15	48	0.19
	■ G	520-525		5		28		
	■ B	460-465		2		10		
	■ Y	570-575		15		76		
	■ O	600-610		8		43		
	■ P	/		8		43		
	■ IB	475-485		13		68		
	■ F	/		11		57		

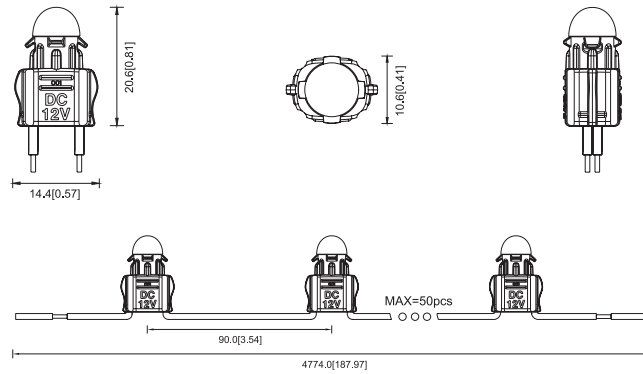
Other Parameters

Model No.	LED Qty (pcs)	Max Run(pcs)	Standard Run(Pcs)	Working Temperature	Storage Temperature
CS0	1	50	50	-20~+60℃	-20~+70℃

1. Testing temperature: 25±2℃.
2. The above data are typical values. The actual data of each single product may differ from the typical values.
3. Different color temperature or LEDs gears will make luminous flux different.
4. The "Quantity"above means the LED quantity of single product.
5. Luminous flux & power tolerance within ±10%.
6. Max. run quantity is in single feed.
7. Light color P/IB/F refers to Pink/Ice Blue/Rose Red.

Profile Drawings

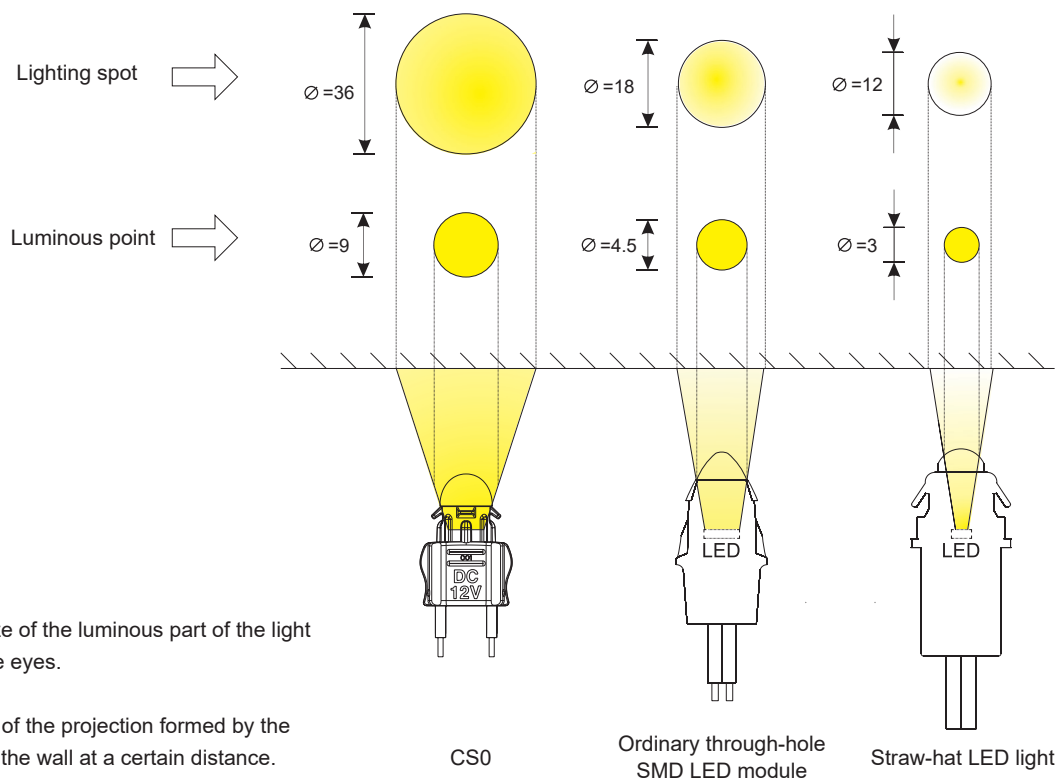
Unit:mm[inch]



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.

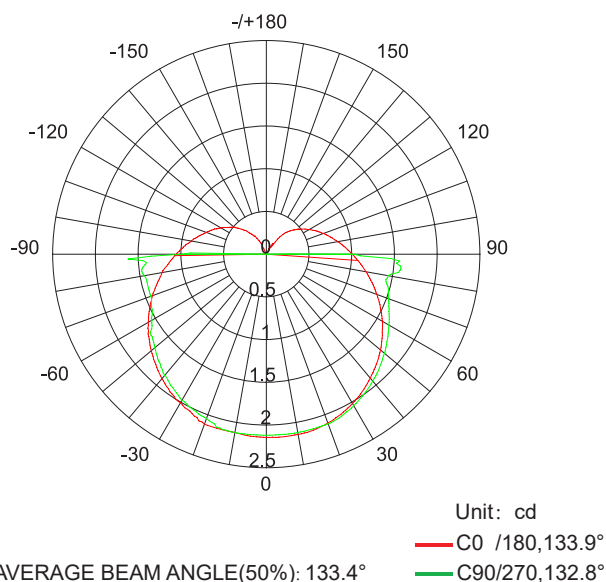
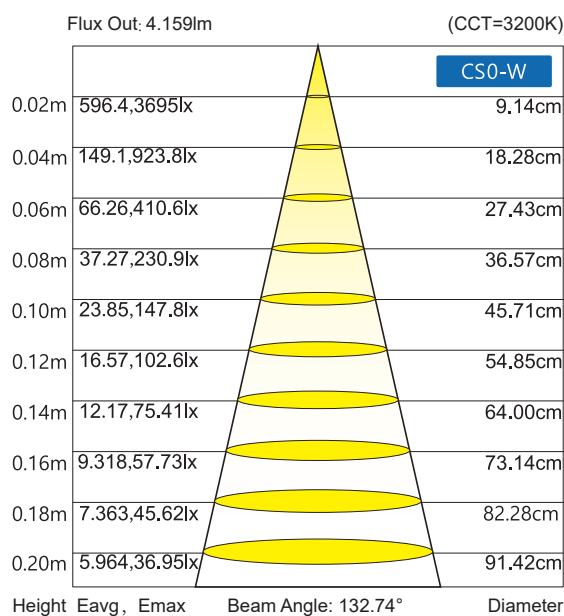
Luminous point VS Lighting spot

Unit:mm



NOTE:
Luminous point: the size of the luminous part of the light source observed by the eyes.

Lighting spot: The size of the projection formed by the light source shining on the wall at a certain distance.

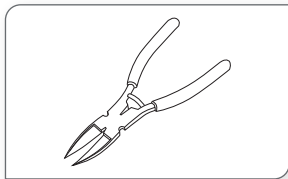
Luminous Intensity Distribution Diagram

Average Illumination


Note: The above two pictures are obtained when CS0-W at 3200K. If you need data and parameters of other models, please contact the sales Rep

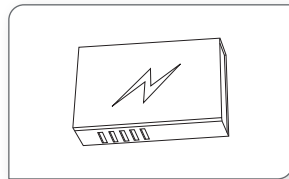


Installation

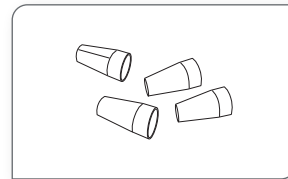
Products and Tools



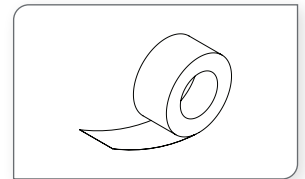
Diagonal Pliers



LED Power Supply

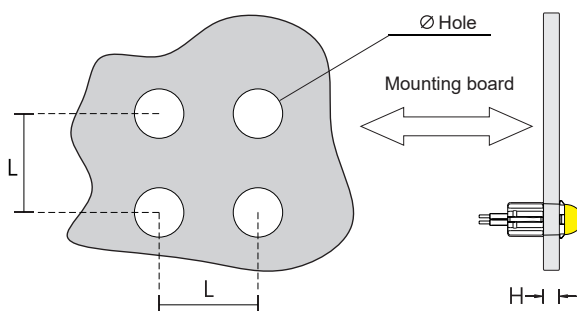


Connection Terminals



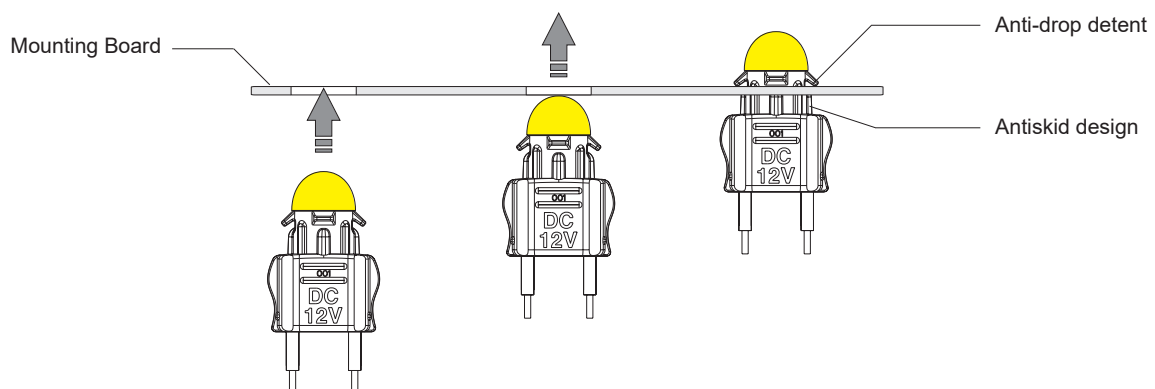
Gaffer Tape

Mounting board thickness and hole size

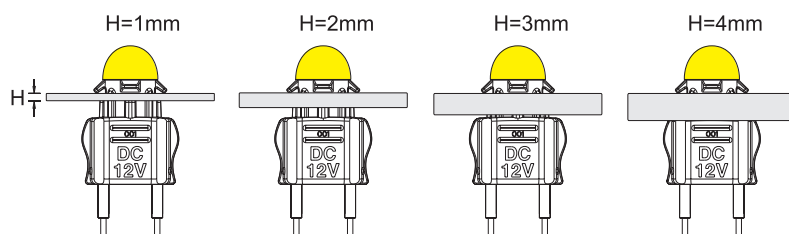


Model No.	CS0
"Ø" Hole size(mm)	9+0.2
"L" Distance(mm)	20-60
"H" Board thickness(mm)	1-4

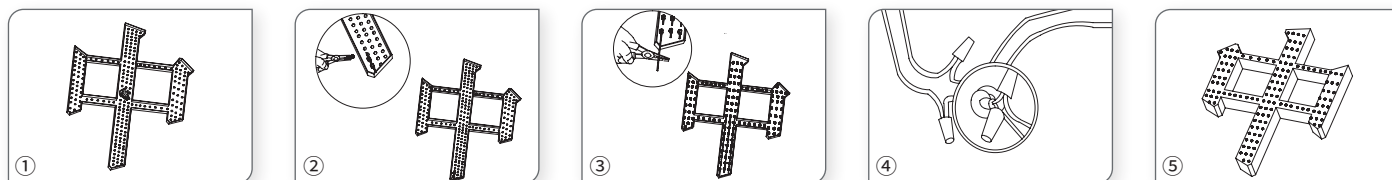
Through hole installation



suitable mounting board: H=1-4mm



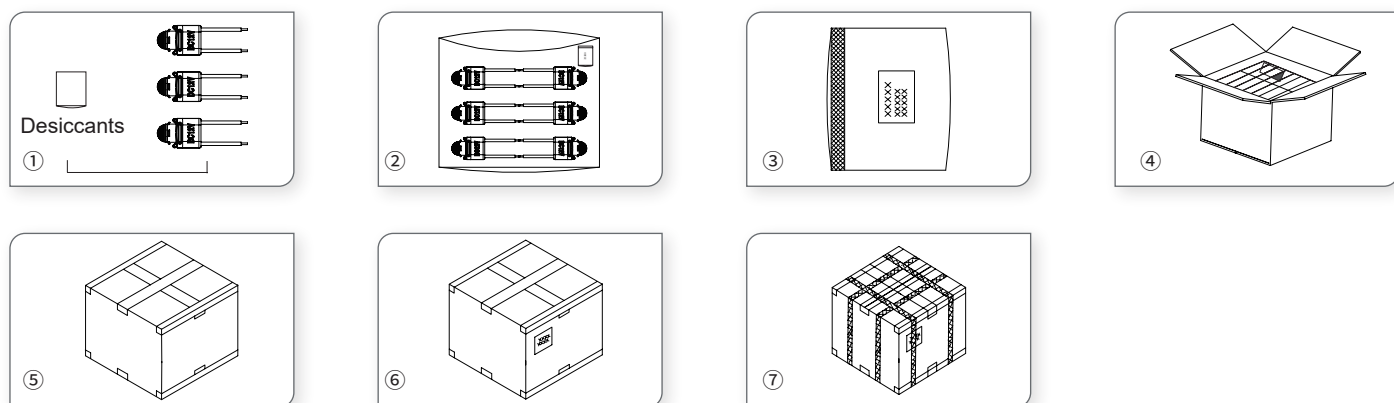
Exposed channel letters installation



1. Clean the mounting surface.
2. Put the through-hole LED module into the reserved hole.
3. Cut the modules according to the requirements and make waterproof and insulating treatment for the cut wire ends.
4. If the product needs to be connected, it is better to fix with connection terminals.
5. After that, light on for test.

Note: The wire ends must be insulated, waterproof and anti-corrosion treated, and shall not be pulled out with bare hands!

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.

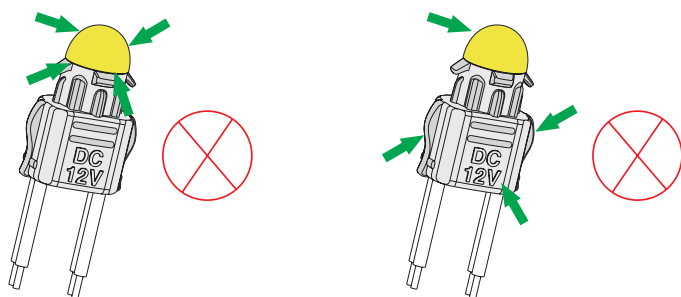
5. Seal the box.
6. Label the box.
7. Use packing belt to pack after adding the edge protectors.

Packaging information

Model No.	Product Size L*W*H(mm)	Carton Size(mm)	Pcs/bag	Bag/carton	Net Weight(kg)	Gross Weight(kg)
CS0	19.5*20.6*10.6	380*380*325	300	16	14.25(1±10%)	15.75(1±10%)

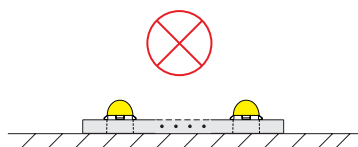
NOTE:

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.

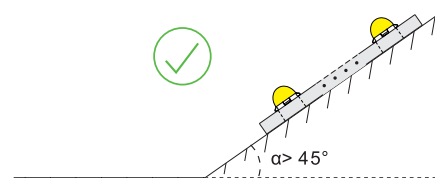


Do not apply pressure on the luminous soft shell and head, otherwise it will deform and affect the luminous effect.

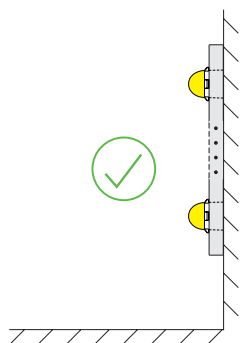
Available Installation Direction



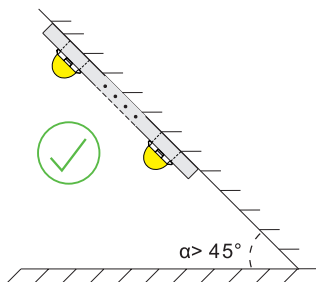
Horizontal Installation



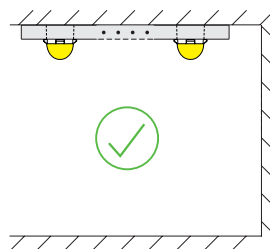
Obtuse Angled Installation



Vertical Installation



Acute Angle Installation



Ceiling Installation



Attentions before installation

- This product currently has two voltages, 12V and 48V; In the same project, products with the same voltage are recommended.
- In the same project, it is recommended to select products of the same batch. If not, the light color consistency must be verified first.
- This product has a soft shell, and the parts other than the anti-drop detent are not allowed to be affected by external force; otherwise, problems such as discoloration and disconnection may occur.
- If there is external force, it is recommended to use a hard shell product such as CS1.
- It is strictly forbidden to use this product in the environment of obvious smoke, grease and other long-term emission of high volatile organic molecules (exhaust gas output from engines, vehicles, or other oil-powered equipment); because it is easy to corrode the product and cause the product to change color and other performance decline.
- When the temperature exceeds 60°C, the shell of the product will be deformed and the lighting effect will be affected.
- 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.

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:

- Before use, please read this specification carefully, and operate according to the instructions, otherwise the company will not guarantee the quality, and will not be responsible for the consequences;
- 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.
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