

PRODUCT SPECIFICATION

# TOP BEND NEON STRIP

- ---

Top Bend

T1212

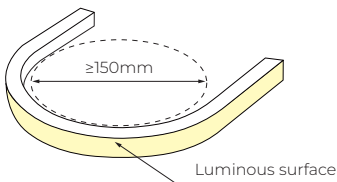
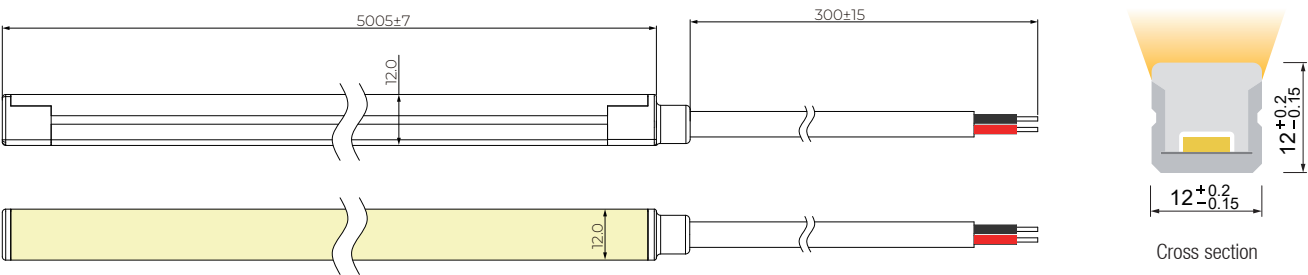
Shenzhen GRILIGHT Technology Co.,Ltd

Tel: +8675527390189 Fax: +8675527397337  
Web: [www.grillite.com](http://www.grillite.com) Contact: [sale@grilight.com](mailto:sale@grilight.com)

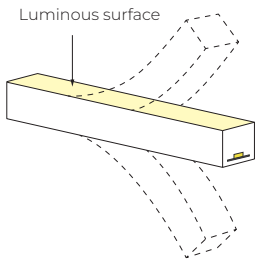


- It is made of Dow Chemical SILASTIC™ ET-7021 silicone rubber, which provides high transparency and high strength;
- Environmental protection grade silicone material, integrated extrusion molding process;
- Unique optical light distribution structure design, uniform lighting surface and no shadow;
- IP67 protection level, salt solution resistance, acids & alkalis and UV resistance;
- Excellent toughness, simple and stylish appearance, delicate and unique;
- 3-year warranty for pixel models, 5-year warranty for others, long-life LED ≥ 50000 hrs.

Dimension structure ( Unit: mm )



Min bending diameter



Bend vertical only

Electrical Parameter

Voltage	LED PIN Temperature	Storage Temperature	Ambient Temperature
DC24V	Max. 65 C	-25 C ~ 60 C	Min.-25°C Max(Table below)

Specification

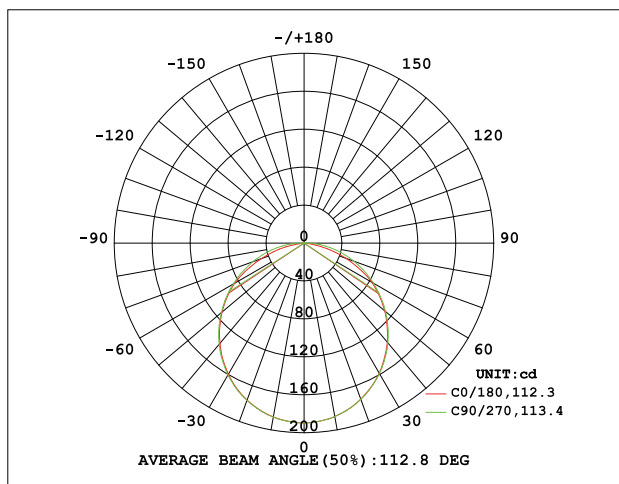
Power ( w/m )	Efficacy ( lm/w ) @4000K	Max Ambient Temperature
10	68	45 C

Due to the tolerance of the production and electrical components, output value and electrical power can vary up to 10%

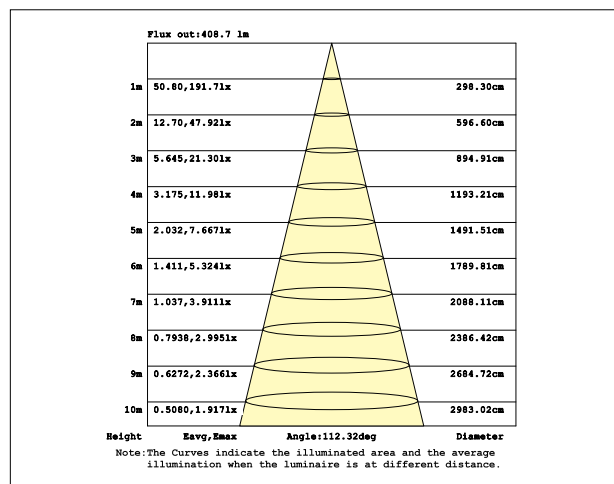
Length Standard

Length Range (M)	Final Length (mm)			Tolerance (mm)
	Integral end cap	Solder free end cap	Silicone end cap	
0<Neon Strip(L)≤5	L+5	L+32	L+5.5	±7
5<Neon Strip(L)≤10	L+5	L+32	L+5.5	±10
10<Neon Strip(L)≤15	L+5	L+32	L+5.5	±13
15<Neon Strip(L)≤20	L+5	L+32	L+5.5	±16

## Light Distribution Curve

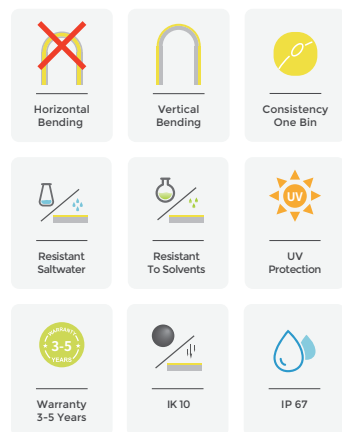


## Illuminance curve



Note: The above data is based on 24V, 10W/M, single colour with 4000k colour temperature. If you need IES files for other types, please contact our sales department.

## Parameter Table



- The maximum series length refers to the maximum length of the light strip with single-end power supply in series under the standard 30CM cable.
- For the load capacity of the solder free end cap, please refer to <The Maximum Load Capacity of Power Cables>
- The given color temperature is the temperature of finished product.
- The given data are typical values due to the tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.
- All products can be dimmed; the dimmer's voltage should conform to the rated voltage of the led light.
- The output frequency of the dimmer of the constant-current led light should be less than 2K Hz, and the output PWM can control the led light.

## Single color

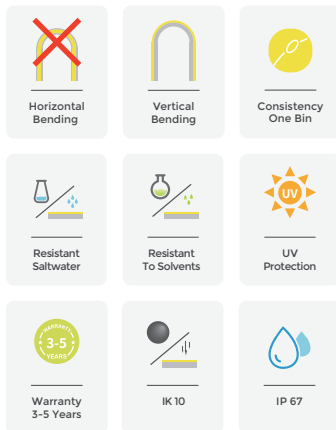
CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max Run Length (M)	CC/CV
2100±150	≥90	DC24V	10	560	56	50	13	CC
2400±150	≥90	DC24V	10	560	56	50	13	CC
2700±150	≥90	DC24V	10	670	67	50	13	CC
3000±150	≥90	DC24V	10	640	64	50	13	CC
3500±200	≥90	DC24V	10	660	66	50	13	CC
4000 <sup>+400</sup> <sub>-200</sub>	≥90	DC24V	10	680	68	50	13	CC
5000 <sup>+500</sup> <sub>-300</sub>	≥90	DC24V	10	680	68	50	13	CC
6500±500	≥90	DC24V	10	670	67	50	13	CC
Red	--	DC24V	10	280	28	50	17	CC
Green	--	DC24V	10	700	70	50	13	CC
Blue	--	DC24V	10	130	13	50	13	CC
Yellow	--	DC24V	10	260	26	50	17	CC
Pink	--	DC24V	10	280	28	50	13	CC

Note: -The running length is base on Constant Current 24Vdc LED Strip.

-When use the solder free end cap or waterproof connector, the max run length of 10W/M is respectively 8.4M.

## Free Cut

CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max. Run Length (M)	CC/CV
2700±150	≥90	DC24V	10	700	70.0	8.3	5	CV
3000±150	≥90	DC24V	10	730	73.0	8.3	5	CV
4000 <sup>+400</sup> <sub>-200</sub>	≥90	DC24V	10	750	75.0	8.3	5	CV
5000 <sup>+500</sup> <sub>-300</sub>	≥90	DC24V	10	740	74.0	8.3	5	CV
6500±500	≥90	DC24V	10	730	73.0	8.3	5	CV



- The maximum series length refers to the maximum length of the light strip with single-end power supply in series under the standard 30CM cable.
- For the load capacity of the solder free end cap, please refer to <The Maximum Load Capacity of Power Cables>
- The given color temperature is the temperature of finished product.
- The given data are typical values due to the tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.
- All products can be dimmed; the dimmer's voltage should conform to the rated voltage of the led light.
- The output frequency of the dimmer of the constant-current led light should be less than 2K Hz, and the output PWM can control the led light.

## CCT Tunable

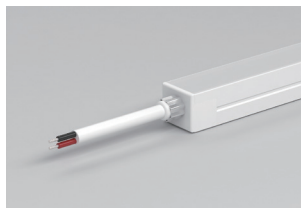
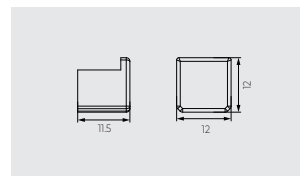
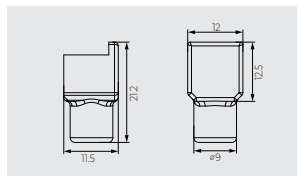
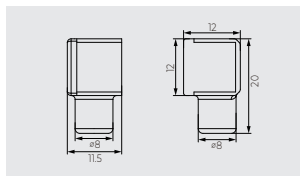
CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max Run Length (M)	CC/CV
2700±150	≥90	DC24V	5	315	63	50	5	CV
6500±500	≥90	DC24V	5	335	67	50	5	CV
2700+6500	≥90	DC24V	10	650	65	50	5	CV

## RGB

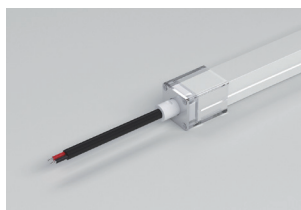
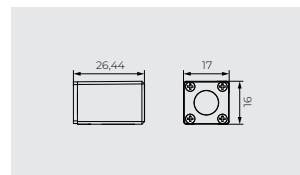
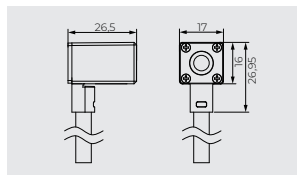
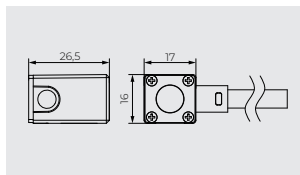
CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max Run Length (M)	CC/CV
R	--	DC24V	3.3	69	21	62.5	5	CV
G	--	DC24V	3.3	214	65	62.5	5	CV
B	--	DC24V	3.3	39	12	62.5	5	CV
RGB	--	DC24V	10	290	29	62.5	5	CV

## Pixel RGB : SPI

CCT(K)	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max Run Length (M)	Pixel ( pcs )	IC model
R	DC24V	4.8	60	12.5	100	5	10	WS2811
G	DC24V	4.8	194	40.4	100	5	10	WS2811
B	DC24V	4.8	33	6.9	100	5	10	WS2811
RGB	DC24V	12.5	266	21.3	100	5	10	WS2811

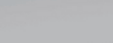

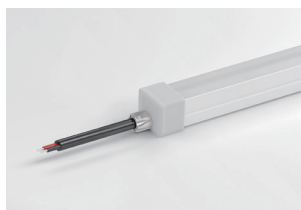
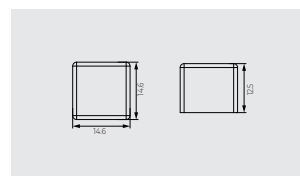
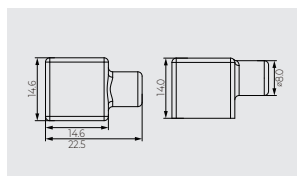
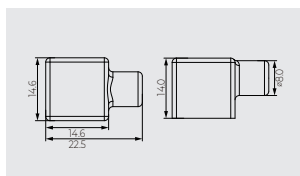


Closed End cap

[illegible]













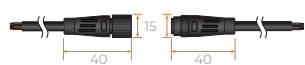













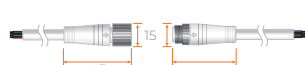

Closed End cap

Technical drawing of a square base with a central circular feature. The front view shows a square with a side length of 14.6 and a central circular feature with a diameter of 14.6. The side view shows a square with a side length of 20.8, a raised section with a height of 13.0, and a top surface with a width of 8.0.



Closed End cap

## Cable

Cable Type	Schematic Diagram	Specification	Core	Electrical Properties
PVC Cable		OD:5.0mm / Inner core:20AWG		Red V+, Black V-
		OD:5.0mm / Inner core:20AWG		Brown V+, White W, Yellow WW
		OD:5.5mm / Inner core:20AWG		Black V+, Blue B, Green G, Red R
Waterproof Connector with PVC Cable		OD:5.0mm / Inner core:20AWG M12Male / Female connecto		Red V+, Black V-
		OD:5.0mm / Inner core:20AWG M12Male / Female connecto		Brown V+, White W, Yellow WW
		OD:5.0mm / Inner core:20AWG M12Male / Female connecto		SPI: Red V+, Green DI/DO, Black V-
		OD:5.5mm / Inner core:20AWG M12Male / Female connecto		Black V+, Blue B, Green G, Red R
Silicone Cable		OD:6.0mm / Inner core:20AWG		Red V+, Black V-
		OD:6.0mm / Inner core:20AWG		Black V+, White W, Yellow WW
		OD:6.0mm / Inner core:20AWG		Black V+, Blue B, Green G, Red R
Waterproof Connector with Silicone Cable		OD:6.0mm / Inner core:20AWG M12Male / Female connecto		Red V+, Black V-
		OD:6.0mm / Inner core:20AWG M12Male / Female connecto		Black V+, White W, Yellow WW
		OD:6.0mm / Inner core:20AWG M12Male / Female connecto		SPI: Red V+, Green DI/DO, Black V-
		OD:6.0mm / Inner core:20AWG M12Male / Female connecto		Black V+, Blue B, Green G, Red R

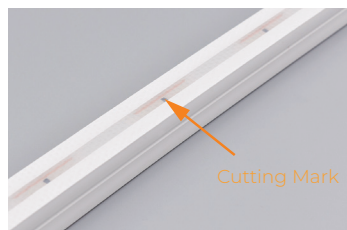
## Cable's Maximum load capacity

a. Assembled end cap with single-ended power supply, its maximum load power is as follows:

Color	Maximum load current (A)	DC24V Maximum load Power (W)	DC12V Maximum load Power (W)
Single color	4.2	100	50
CCT Tunable	3.5	84	42
RGB	3	72	36

b. When one end of the single color led neon goes out, the power exceeds the wattage listed in the table, it is recommended to use integrated or silicone end cap;

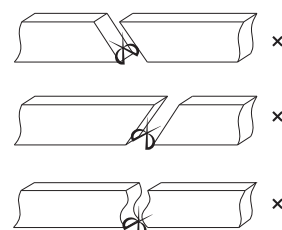
## Cutting Mark



Remark:  
The bottom of the led strip has transparent window, the black marker is the cutting position



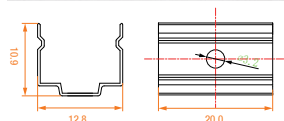
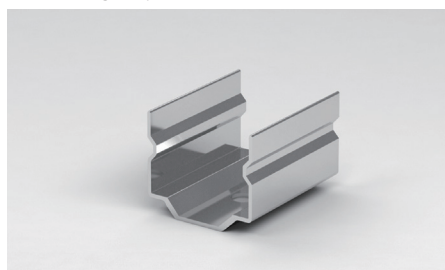
Use professional scissors to cut vertically at the cutting mark



Please don't be feel free to cut and cut into an oblique angle or cambered section.

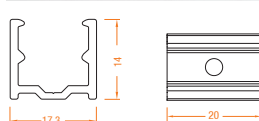
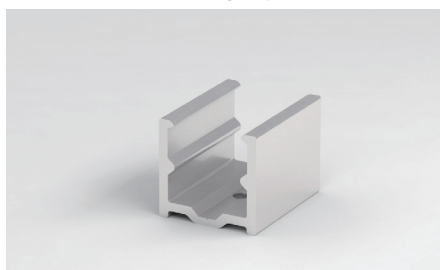
## Accessories( Unit: mm )

### Mounting Clips



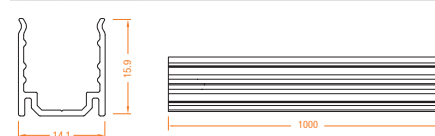
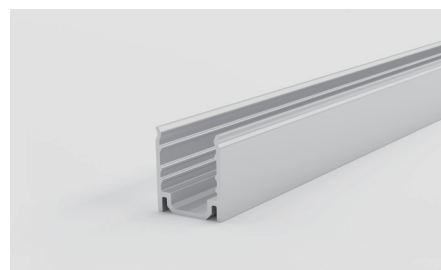
Dimension:  
20x12.8x10.9  
Accessories:  
Screw M3x16 (SUS304)

### Aluminium Mounting clips



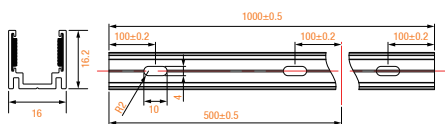
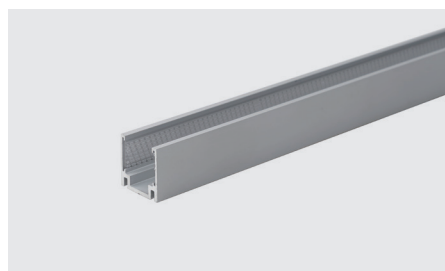
Dimension:  
20x17.3x14  
Accessories:  
Screw M3x16 (SUS304)

### Aluminium Profile



Dimension:  
1000(±5)x14.1x15.9  
Accessories:  
Screw M3x16 (SUS304)

### Internal Gear Profile



Dimension:  
1000x16x16.2  
Accessories:  
Screw M3x16 (SUS304)

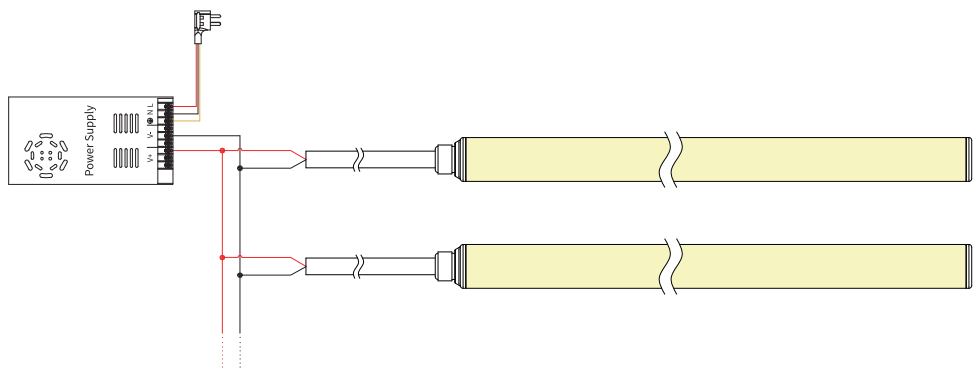
### Suspension Installation



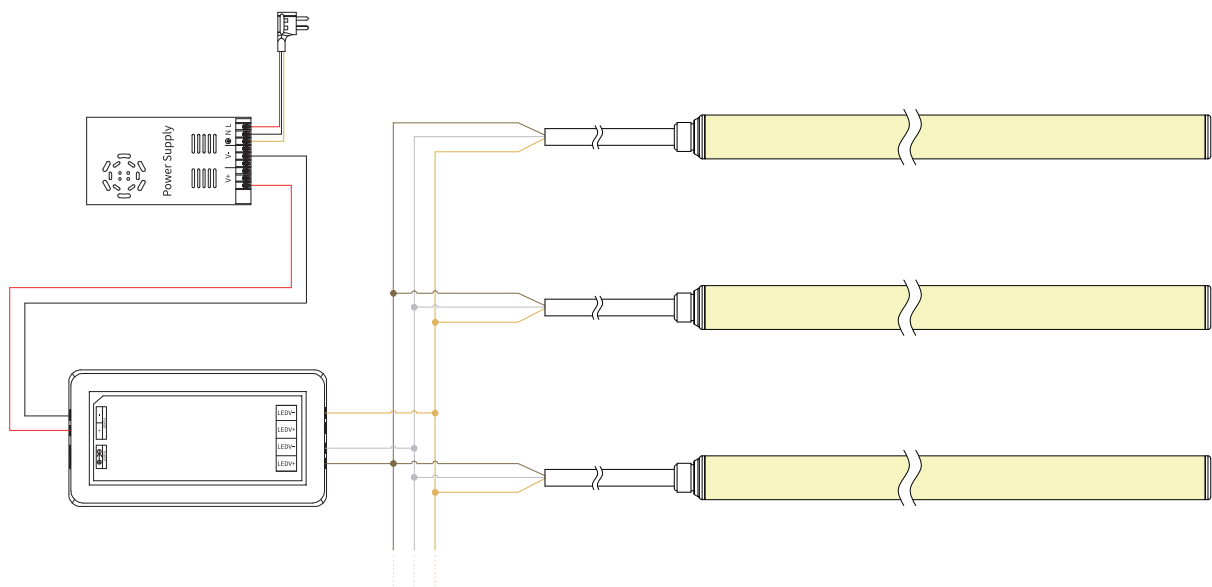
Use with the profile



Single Color Connection Diagram

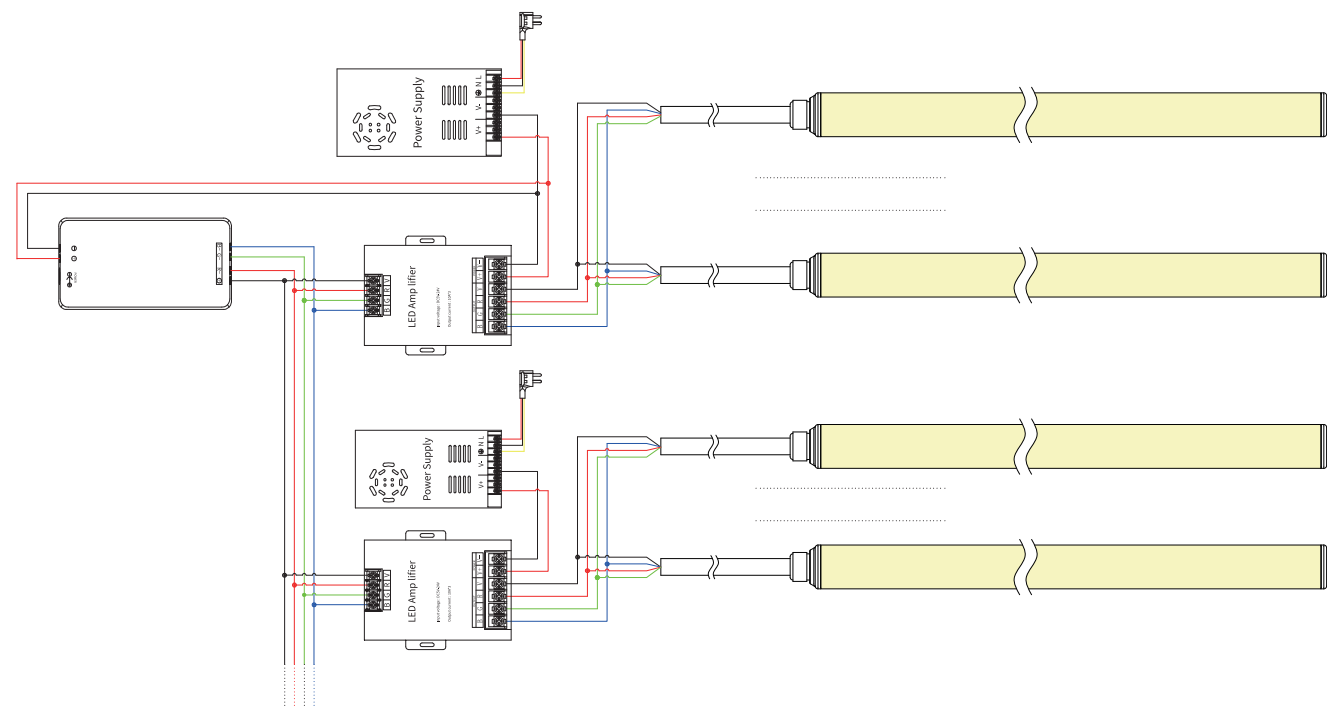


Tunable white Connection Diagram

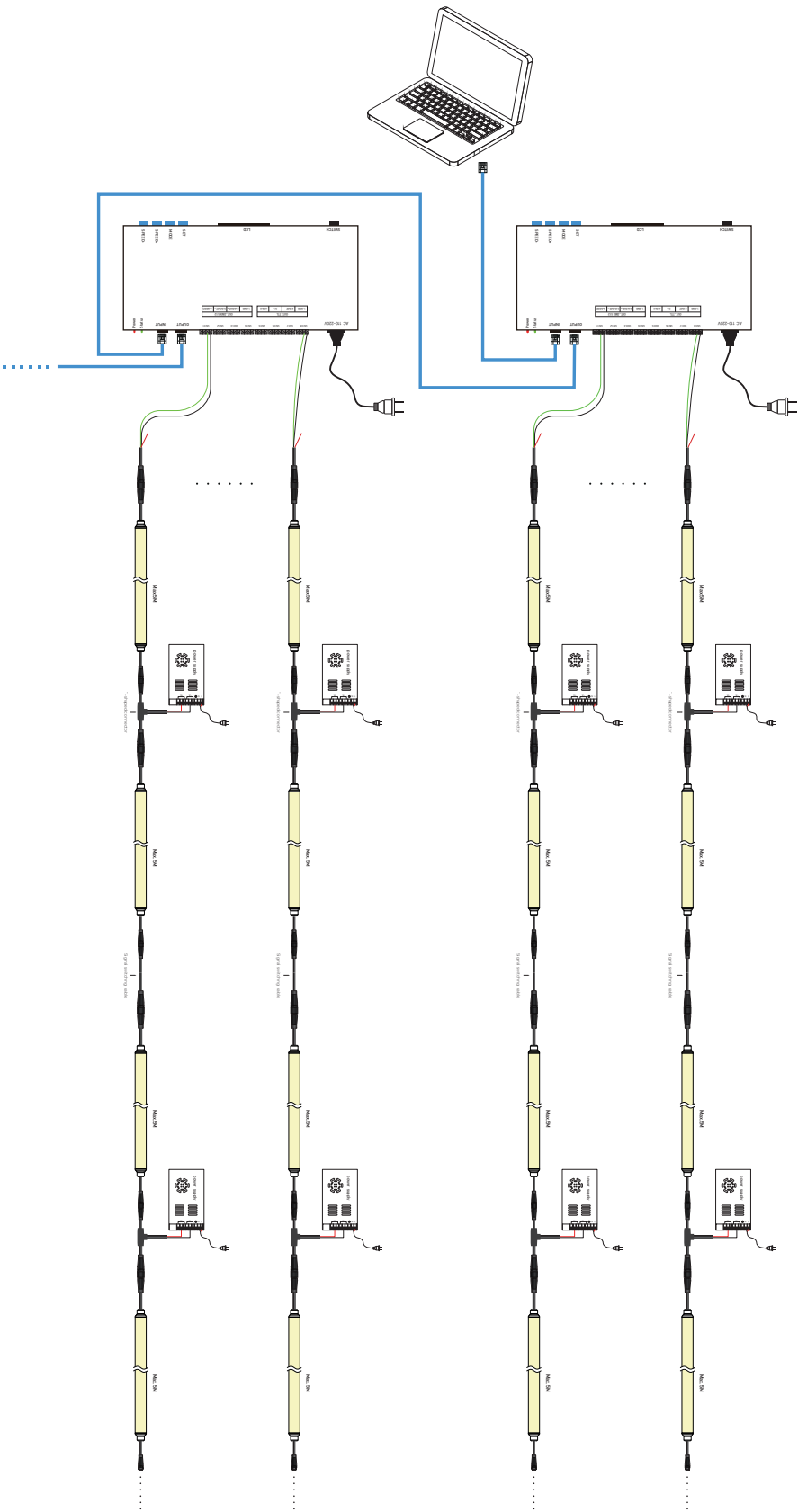




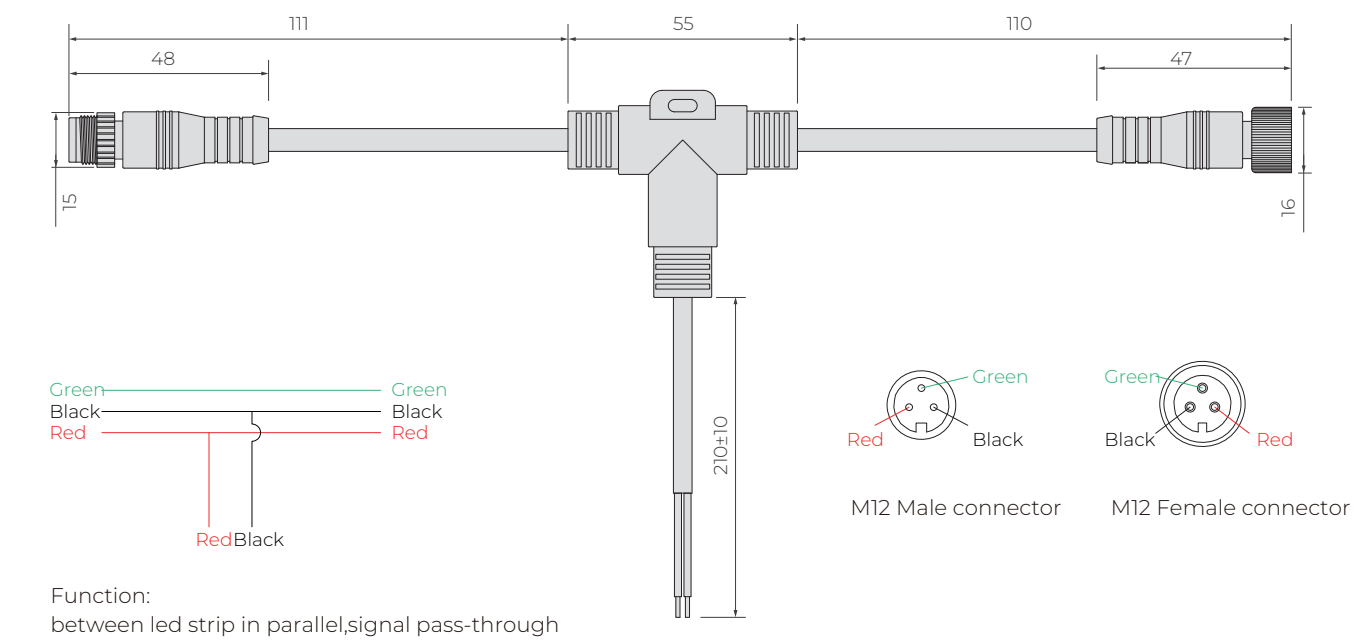
RGB Connection Diagram



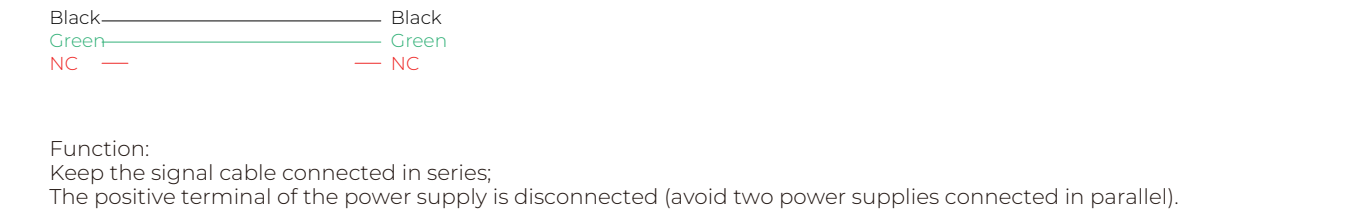
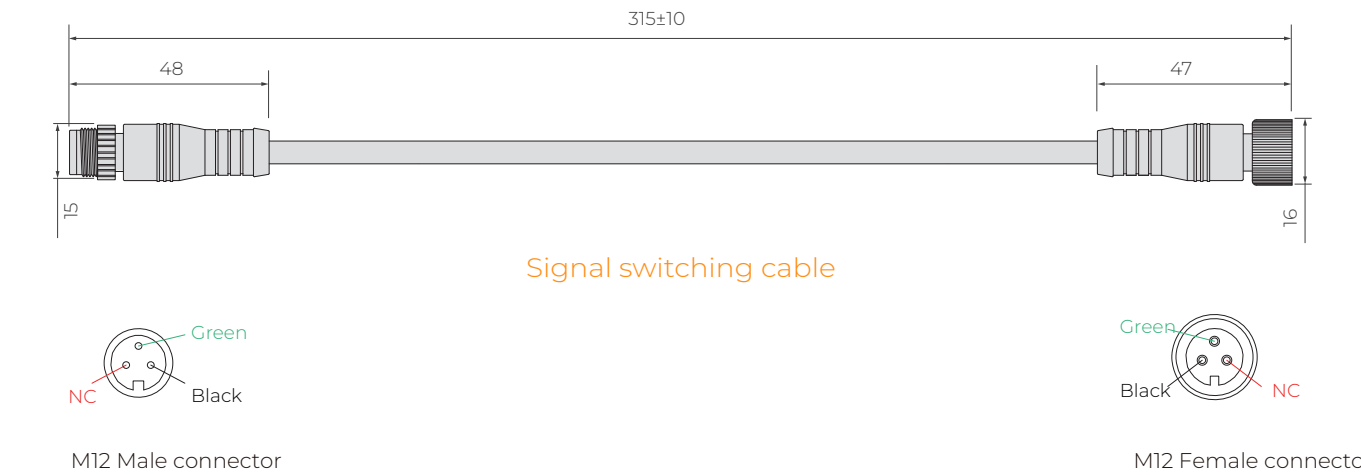
Schematic Diagram of Control System Connection - SPI Signal Type



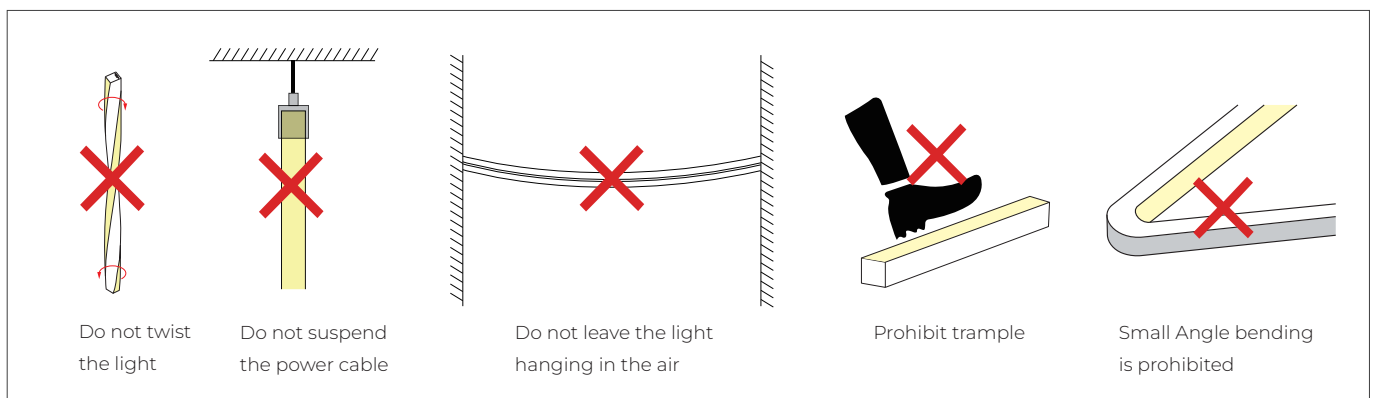
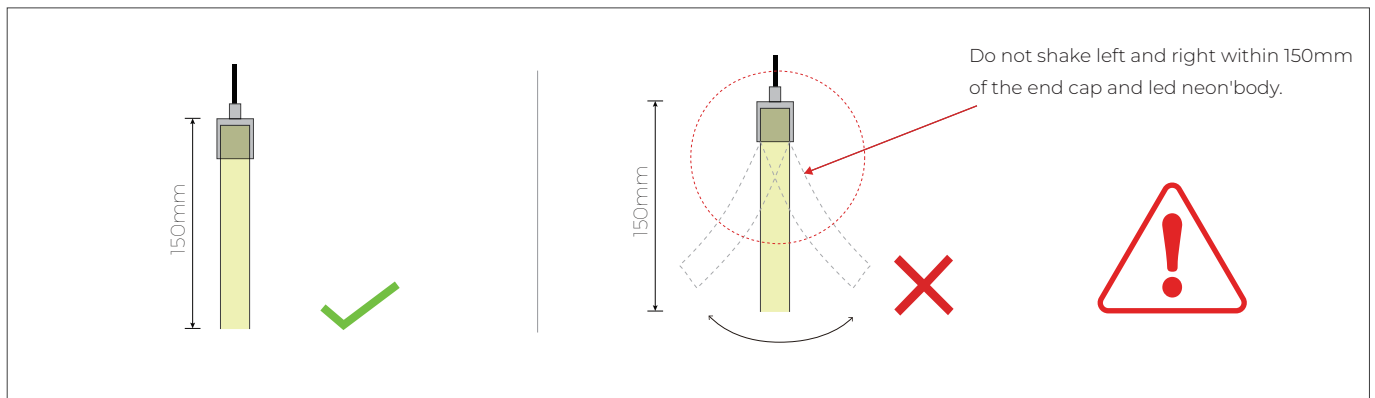
SPI signal type strip light with accessory cable ( Unit: mm )



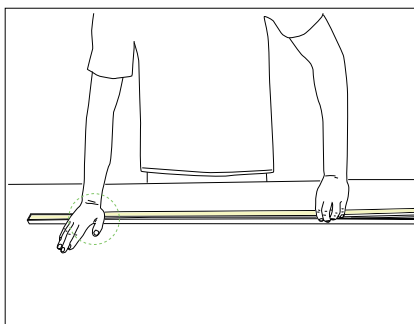
T-type 3 channel connector



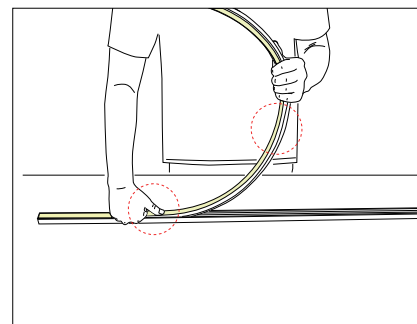
## Installation Precautions



## Put it in the profile



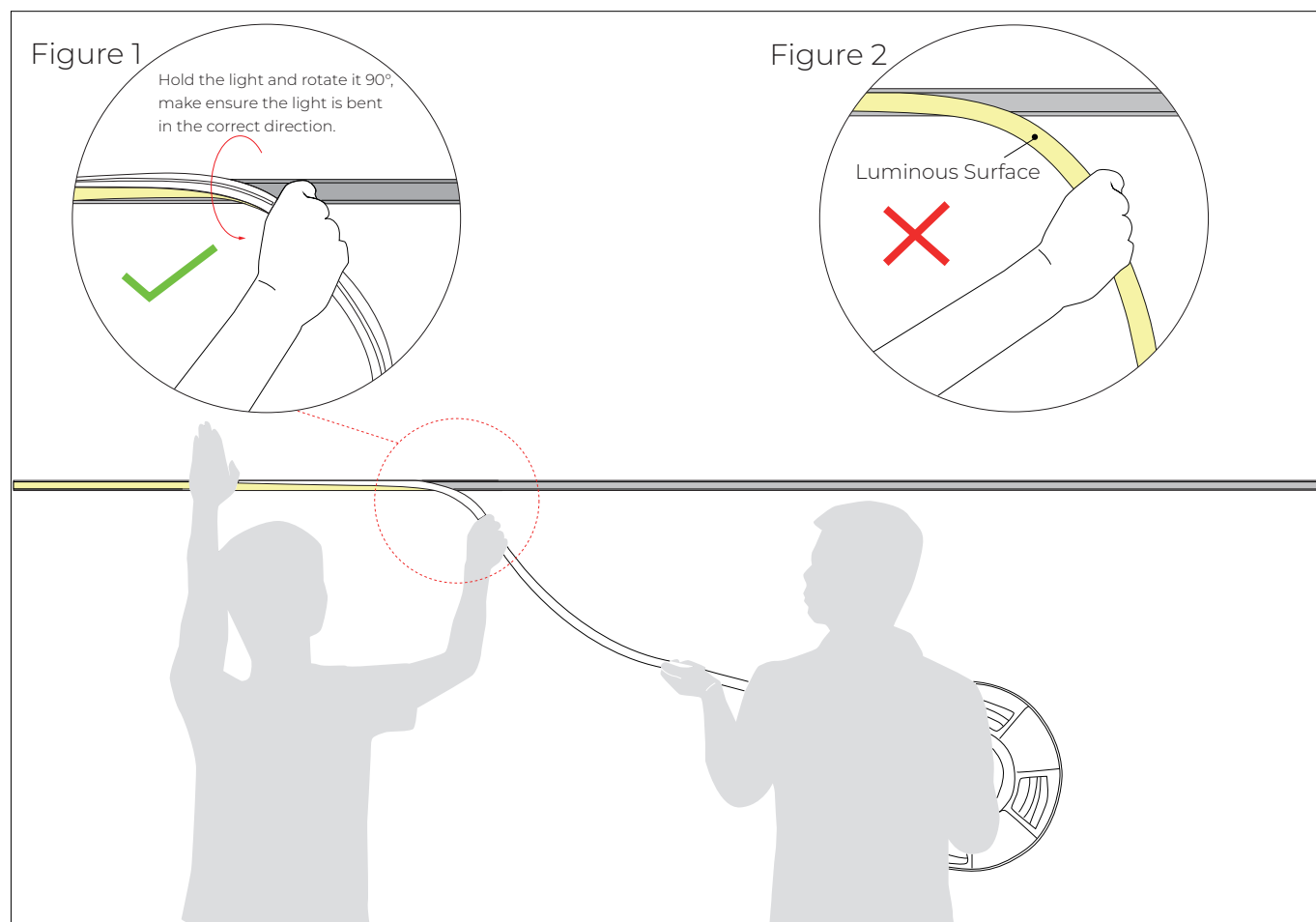
- Please press the led strip with your palm to slowly insert the led strip into the groove, and gently straighten the led strip above the groove with your right hand.
- Try to keep the led strip in a flat state during the installation process.



- Do not press the led strip with a single finger, it is easy to damage the internal parts of the led strip.
- The bent arc of the led strip should not be too large during installation.

## Installation Precautions -- Side Mounted

( If the length of the light is more than 2 meters, two persons must work together to install it. )



### 1.Installer:

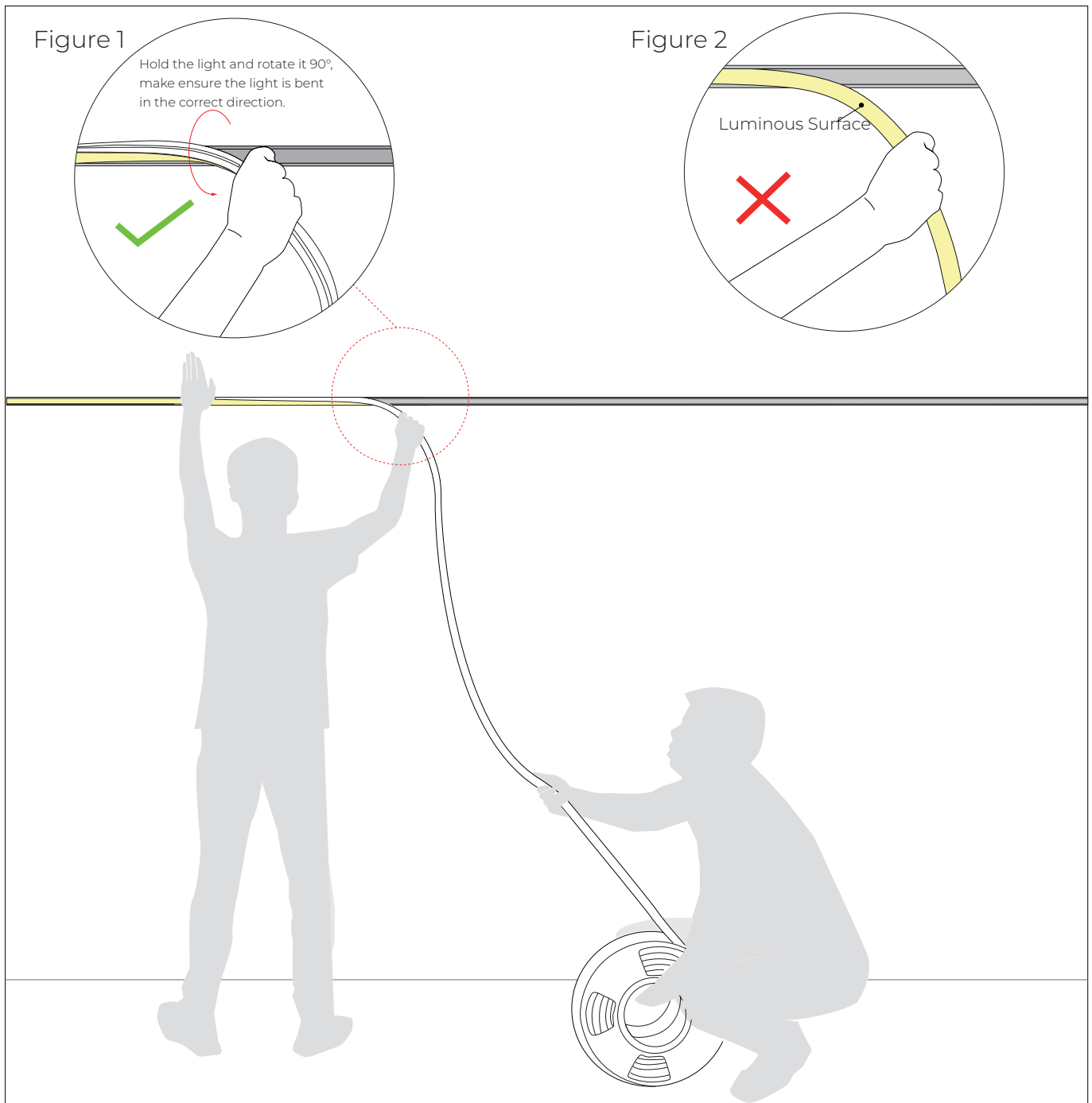
- Press the light with the palm of the left hand to slowly load it into the slot. Straighten the light with right hand, hold it and rotate it 90 ° to droop it in the direction of your hand. See Figure 1.
- Do not bend the luminous surface to the side. See Figure 2.

### 2.Assistant:

- Cooperate with the installer to lift the reel of the light, and then slowly deliver the light to installer. Do not pull or twist the light during the installation.

## Installation Precautions -- Side Mounted

( If the length of the light is more than 5 meters, two persons must work together to install it.)



### 1.Installer:

-Press the light with the palm of the left hand to slowly load it into the slot. Straighten the light with right hand, hold it and rotate it 90 ° to droop it in the direction of your hand. See Figure 1.

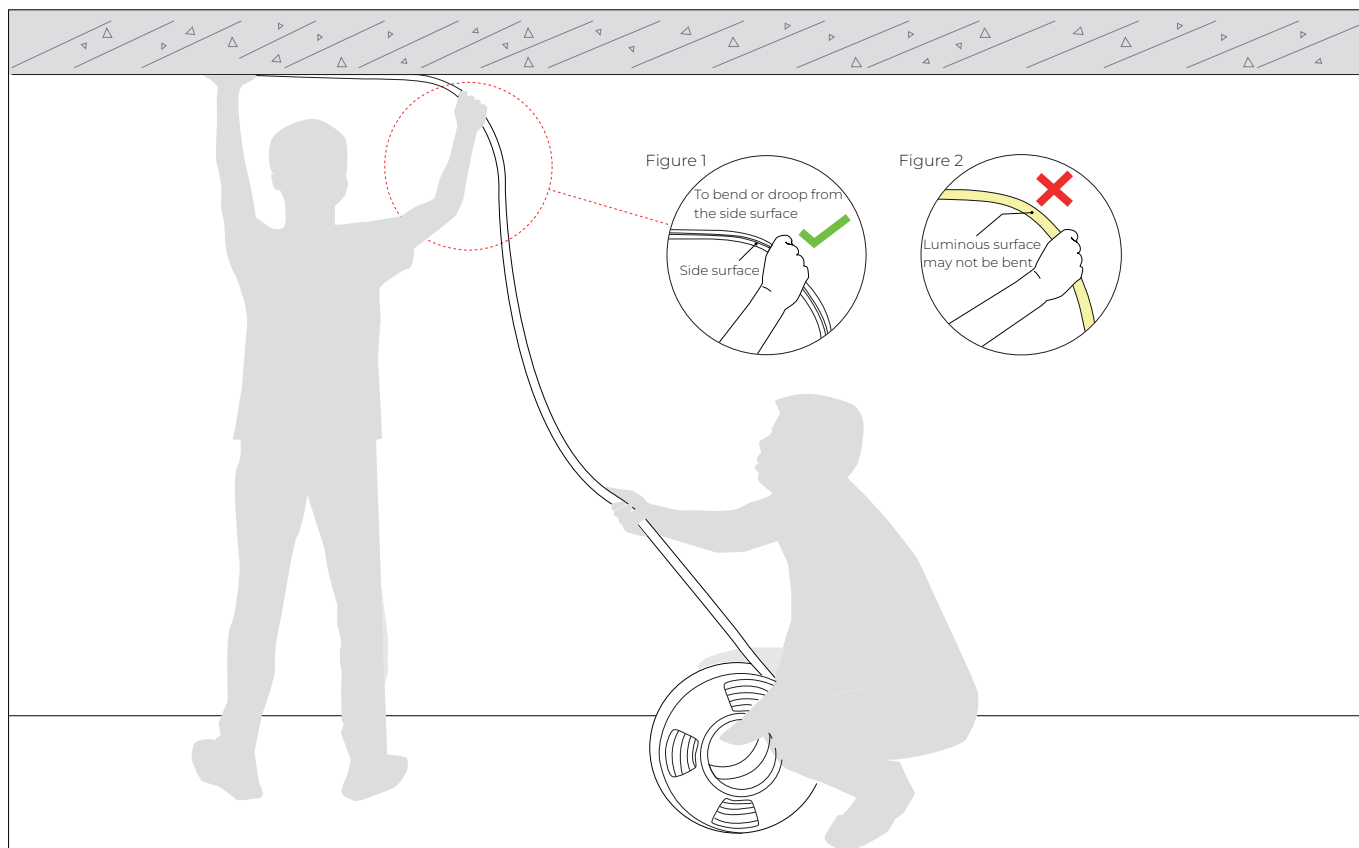
-Do not bend the luminous surface to the side. See Figure 2.

### 2.Assistant:

-Cooperate with the installer to slowly deliver the light to installer. Do not pull or twist the light during the installation.

## Installation Precautions -- Top Mounted

( If the length of the light is more than 2 meters, two persons must work together to install it.)



### 1.Installer:

- Press the light with the palm of the left hand to slowly load it into the slot. Straighten the light with your right hand so that it droop naturally. See Figure 1.
- Luminous surface may not be bent. See Figure 2.

### 2.Assistant:

- Cooperate with the installer to slowly deliver the light to installer. Do not pull or twist the light during the installation.



## Notes

The selection of the cable specification at the output end of the power supply, it depends on the total current of the load and the length of the cable. It is recommended to select according to the following table:

Current of the light	Specifications of the cable								
	L=1M	L=2M	L=4M	L=6M	L=8M	L=10M	L=12M	L=14M	L=16M
1A	AWG26	AWG23	AWG21	AWG18	AWG18	AWG17	AWG16	AWG15	AWG15
2A	AWG23	AWG21	AWG18	AWG16	AWG15	AWG14	AWG13	AWG12	AWG12
3A	AWG22	AWG18	AWG16	AWG14	AWG13	AWG12	AWG11	AWG11	AWG10
4A	AWG21	AWG18	AWG15	AWG13	AWG12	AWG11	AWG10	AWG9	AWG9
5A	AWG20	AWG17	AWG14	AWG12	AWG11	AWG10	AWG9	AWG9	AWG8
6A	AWG18	AWG16	AWG13	AWG11	AWG10	AWG9	AWG8	AWG8	AWG7
7A	AWG18	AWG15	AWG12	AWG11	AWG9	AWG8	AWG8	AWG7	AWG6
8A	AWG17	AWG15	AWG12	AWG10	AWG9	AWG8	AWG7	AWG7	AWG6
9A	AWG17	AWG14	AWG11	AWG10	AWG8	AWG7	AWG7	AWG6	AWG5
10A	AWG16	AWG14	AWG11	AWG9	AWG8	AWG7	AWG6	AWG6	AWG5

- ※The unused light should be sealed with the packaging bag to avoid prolonged exposure.
- ※Please use DC24V isolated constant voltage power supply with ripple voltage less than 5%. Using other types of power supply may damage the light or cause other safety risks.
- ※In practical application, 20% allowance should be reserved for power supply to ensure the stability of power supply.
- ※It is recommended that professionals connect the power supply. Do not connect the power supply with live power to avoid electric shock.
- ※Please confirm whether the voltage of the power supply is consistent with the voltage of the light; Pay attention to the positive and negative poles of the power cord, do not connect wrong, so as not to cause product damage;
- ※ When multiple power supplies are used, ensure that the positive poles of the power supply are not connected in parallel. Otherwise, the power supply system may be unstable or damaged after long-term operation.
- ※ If the actual application length exceeds the specified length, it will lead to overload, heating and uneven brightness of the light.
- ※ During installation, please do not scratch, twist, or bend the light irregularly. Otherwise, the light may be damaged beyond repair.
- ※ To ensure the life and reliability of the light, please do not over bend the light, which will damage the product itself.
- ※ To protect your eyes, please avoid staring at the glowing surface of the light for a long time.
- ※ Non-professionals are forbidden to install, disassemble and maintain the product.
- ※ Do not use any acid or alkaline adhesive to fix the light (including but not limited to glass glue, etc.)
- ※ IP67 products are not suitable for long-term immersion in water; IP68 products are only customized by the factory. After cutting and processing by users themselves, there is a risk that IP68 protection level cannot be reached
- ※ Because of the difference in structure, even if the same color temperature value, different sizes of light will look slightly different colors. Please confirm it before use.

Tests showed that methanol and benzenes will have yellowing effects on silicone.

In the newly decorated interior environment, epoxy floor paint, wall paint, wallpaper adhesive, various decoration materials or new furniture, they are likely to release of methanol and benzenes.

It is recommended to remove methanol and benzenes first, or ventilate for a period of time in the newly decorated interior environment before install the silicone neon light, to avoid affecting the silicone body.

# BE A TRUSTED LED STRIP MANUFACTURER

Shenzhen GRILIGHT Technology Co.,Ltd

Tel: +8675527390189 Fax: +8675527397337  
Web: [www.grillite.com](http://www.grillite.com) Contact: [sale@grillight.com](mailto:sale@grillight.com)