Note : The pictures in the Product Specification are for reference only, please refer to the actual product.

PRODUCT SPECIFICATION

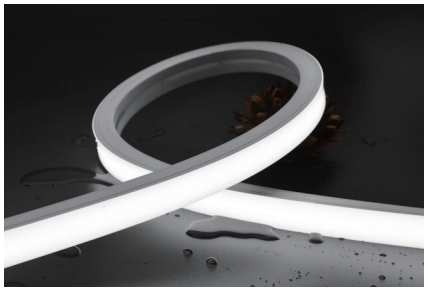
SILICONE NEON STRIP

- Top View

3020 LED NEON LIGHT

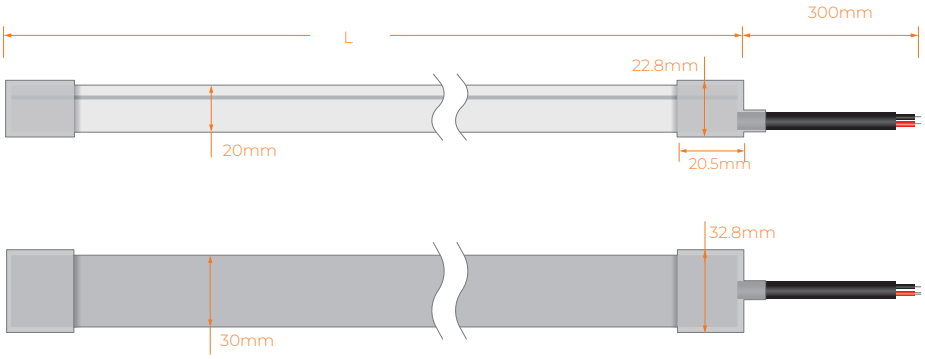
AiDiWatt

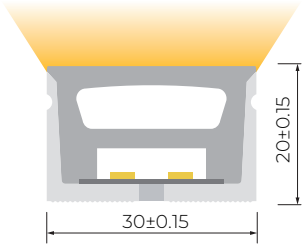
www.aidiwattlighting.com



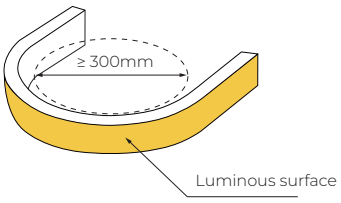
- It is made of Dow Chemical SILASTIC™ ET-7021 silicone rubber, which provides high transparency and high strength.
- Environmental protection grade silicone material, integrated extrusion molding process.
- Unique optical light distribution structure design, uniform lighting surface and no shadow.
-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

Dimension structure

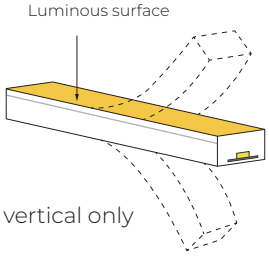




Unit: mm
Cross section



Min Bending diameter



Bend vertical only

Electrical Parameter

Voltage	DC24V
LED PIN Temperature	Max. 65℃
Storage Temperature	-25℃~60℃
Ambient Temperature	Min.-25°C , Max (Table below)
RA	>90

Specification

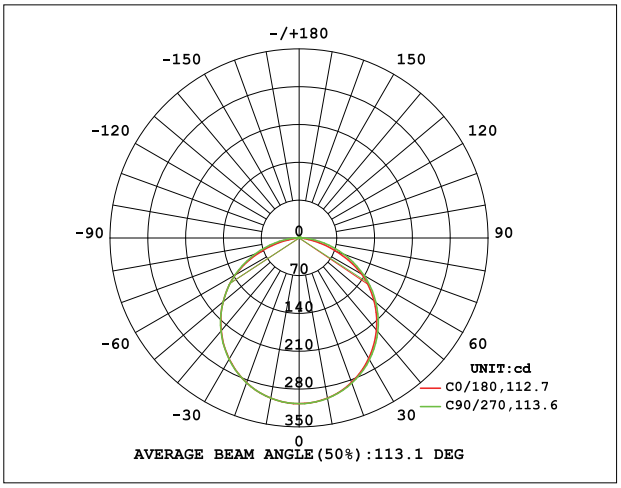
Power(w/m)	16w/m	20w/m	24w/m
Efficacy(lm/w)@4000K	65.6lm/w	64lm/w	63 lm/w
Max Ambient Temperature	55℃	45℃	35℃

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

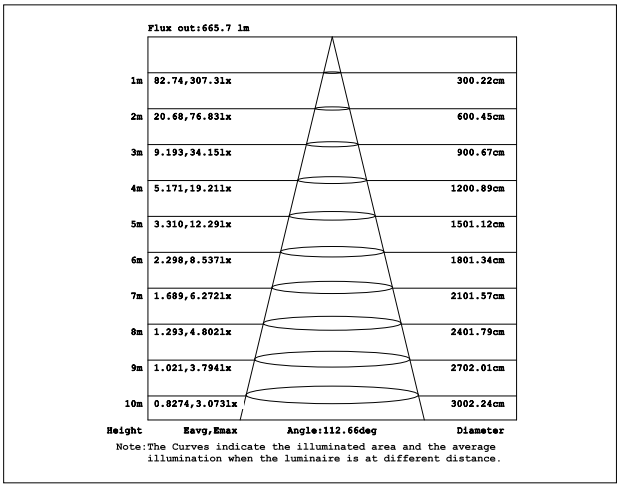
Length Standard

Length Range (M)	Final Length		Tolerance(mm)
	Silicone end cap	Integral end cap	
0M<Neon Strip(L)≤5M	L+8	L+6	±7

Light Distribution Curve



Illuminance curve



Note: The above date is based on 24V ,20W/M,single colour with 4000k colour temperature.If you need IES files for other types.Please contact our sales department.

- The maximum series length refers to the maximum single end power supply length of the constant current strip
- under the condition of standard 30cm wire .
- 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

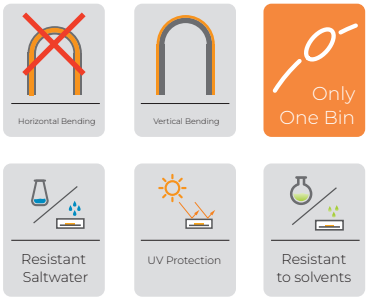
CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max. Run Length (M)	CC/CV
2100K±150	≥90	DC24V	20	1020	51	50	9	CC
2400K±150	≥90	DC24V	20	1040	52	50	9	CC
2700K±150	≥90	DC24V	20	1210	60.5	50	9	CC
3000K±150	≥90	DC24V	20	1220	61	50	9	CC
3500K±200	≥90	DC24V	20	1130	56.5	50	9	CC
4000K $^{+400}_{-200}$	≥90	DC24V	20	1280	64	50	9	CC
5000K $^{+500}_{-200}$	≥90	DC24V	20	1300	65	50	9	CC
6500K $^{+200}_{-600}$	≥90	DC24V	20	1180	59	50	9	CC
Red	--	DC24V	20	530	26.5	50	9	CC
Green	--	DC24V	20	1240	62	50	9	CC
Blue	--	DC24V	20	270	13.5	50	9	CC
Yellow	--	DC24V	20	520	26	50	9	CC
Pink	--	DC24V	20	520	26	50	9	CC

CCT Tunable

CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max. Run Length (M)	CC/CV
2700K	≥90	DC24V	10	610	61	41.66	5	CV
6000K	≥90	DC24V	10	650	65	41.66	5	CV
2700K+6000K	≥90	DC24V	20	1230	61.5	41.66	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	6.66	133.2	20	41.66	5	CV
G	--	DC24V	6.66	342.99	51.5	41.66	5	CV
B	--	DC24V	6.66	69.93	10.5	41.66	5	CV
RGB	--	DC24V	20	540	27	41.66	5	CV



- The maximum series length refers to the maximum single end power supply length of the constant current strip
- under the condition of standard 30cm wire .
- 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.

RGBW

CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max.Run Length (M)	CC/CV
R	--	DC24V	5	95	19	41.66	5	CV
G	--	DC24V	5	262.5	52.5	41.66	5	CV
B	--	DC24V	5	70	14	41.66	5	CV
W(2200-2600K)	≥80	DC24V	5	305	61	41.66	5	CV
RGBW	--	DC24V	20	720	36	41.66	5	CV

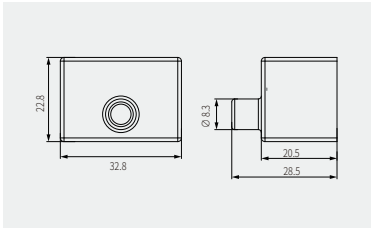
CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max.Run Length (M)	CC/CV
R	--	DC24V	5	95	19	41.66	5	CV
G	--	DC24V	5	262.5	52.5	41.66	5	CV
B	--	DC24V	5	70	14	41.66	5	CV
W(2400-3000K)	≥80	DC24V	5	302.5	60.5	41.66	5	CV
RGBW	--	DC24V	20	720	36	41.66	5	CV

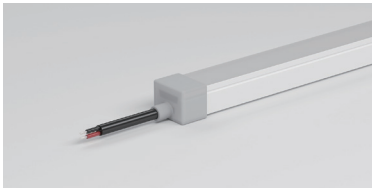
CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max.Run Length (M)	CC/CV
R	--	DC24V	5	95	19	41.66	5	CV
G	--	DC24V	5	262.5	52.5	41.66	5	CV
B	--	DC24V	5	70	14	41.66	5	CV
W(3400-4000K)	≥80	DC24V	5	320	64	41.66	5	CV
RGBW	--	DC24V	20	720	36	41.66	5	CV

CCT(K)	RA	Voltage	Power(W)	Lumen (LM/M)	Efficiency (LM/W)	Unit Length (mm)	Max.Run Length (M)	CC/CV
R	--	DC24V	5	95	19	41.66	5	CV
G	--	DC24V	5	262.5	52.5	41.66	5	CV
B	--	DC24V	5	70	14	41.66	5	CV
W(5000-5600K)	≥80	DC24V	5	313	62.6	41.66	5	CV
RGBW	--	DC24V	20	720	36	41.66	5	CV

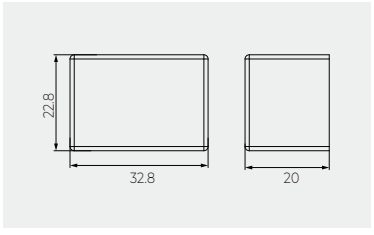
Cable Lead Option

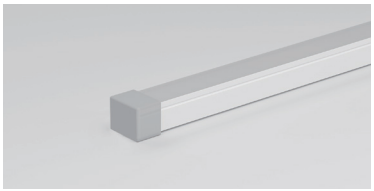
Silicone end cap (IP67)





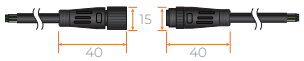
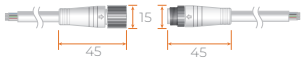
Front Cable Entry



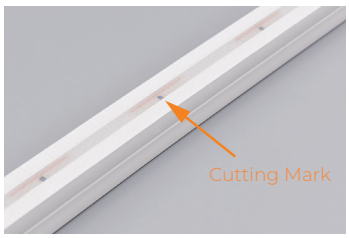


Closed End cap

Cable

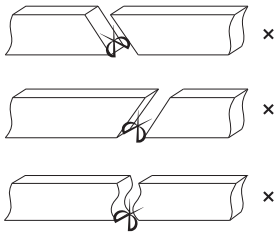
Cable Type	Schematic Diagram	Specification	Core	Electrical Properties
PVC Cable		OD：5.0mm / Inner core：20AWG	●●	Red V+、Black V-
		OD：5.0mm / Inner core：20AWG	●○●	Brown V+、White W、Yellow WW
		OD：5.5mm / Inner core：20AWG	●●●●	Black V+、Blue B、Green G、Red R
		OD：5.5mm / Inner core：22AWG	●○●●●	Black V+、White W、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：5.5mm /Inner core：20AWG M12Male / Female connecto	●●●●	Black V+、Blue B、Green G、Red R
		OD：5.5mm /Inner core：22AWG M12Male / Female connecto	●○●●●	Black V+、White W、Blue B、Green G、Red R
Silicone Cable		OD：5.0mm / Inner core：20AWG	●●	Red V+、Black V-
		OD：5.0mm / Inner core：20AWG	●○●	Brown V+、White W、Yellow WW
		OD：6.0mm / Inner core：20AWG	●●●●	Black V+、Blue B、Green G、Red R
		OD：6.0mm / Inner core：20AWG	●○●●●	Black V+、White W、Blue B、Green G、Red R
Waterproof Connector with Silicone 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：6.0mm /Inner core：20AWG M12Male / Female connecto	●●●●	Black V+、Blue B、Green G、Red R
		OD：6.0mm /Inner core：20AWG M12Male / Female connecto	●○●●●	Black V+、White W、Blue B、Green G、Red R

Cutting Mark



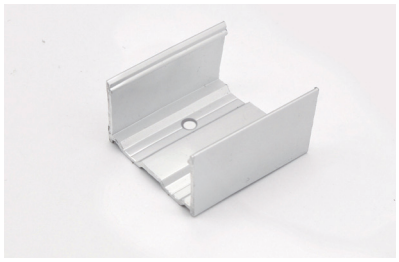
Remark:
The bottom of the led strip has transparent window, the black marker is the cutting position

Use professional scissors to cut vertically at the cutting mark

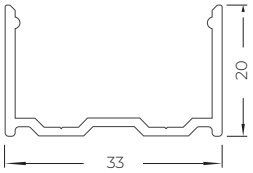


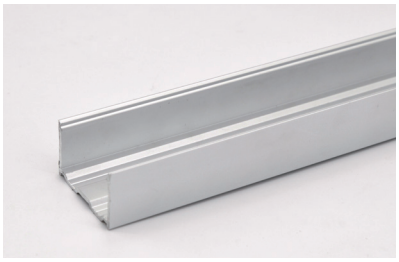
Please don't be feel free to cut and cut into an oblique angle or cambered section.

Mounting Way

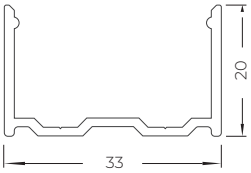


Aluminium Mounting clips
20x33x20mm(L x W x H)
Accessories:
Screw M3x15mm



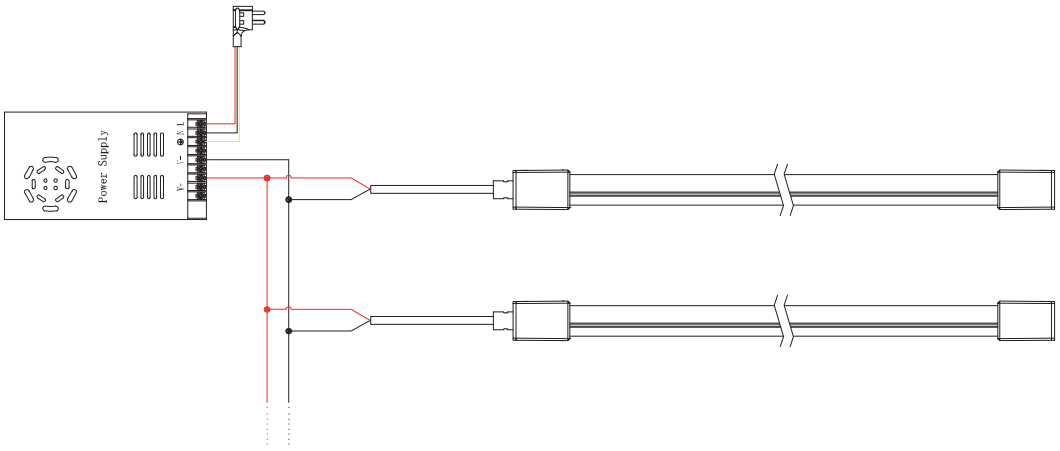


Aluminium Profile
1000(±5)x33x20mm(L x W x H)
Accessories:
Screw M3x15mm

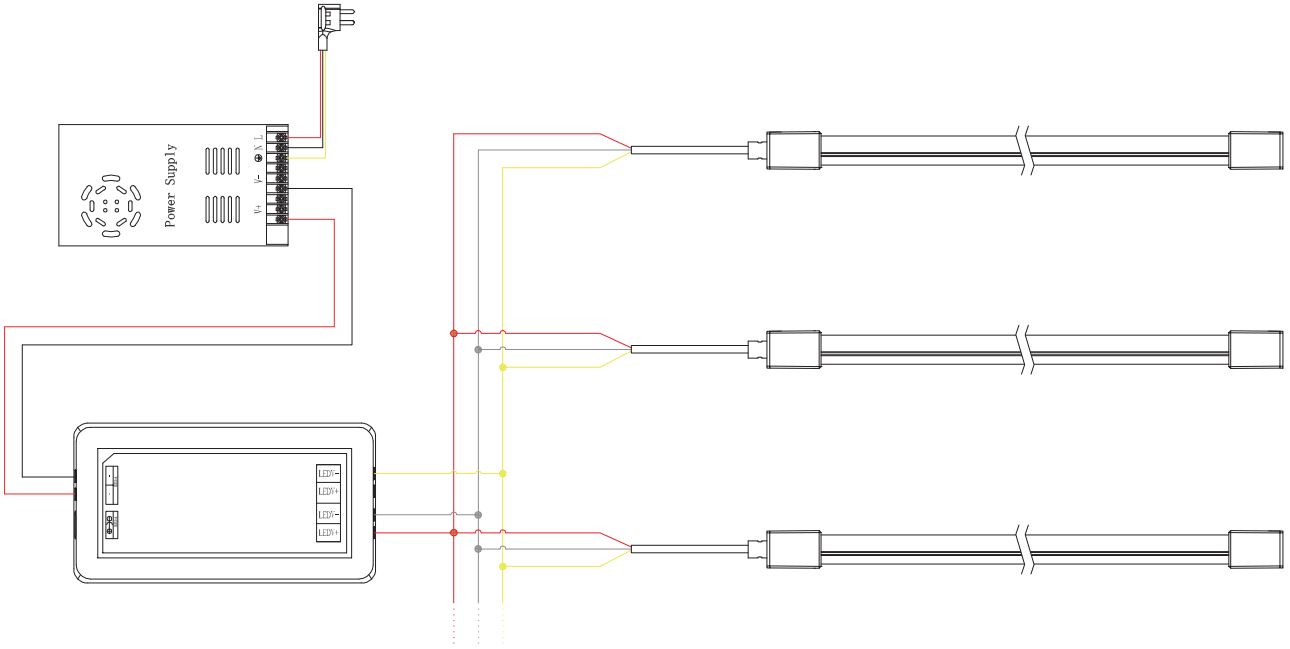


Suspension Installation

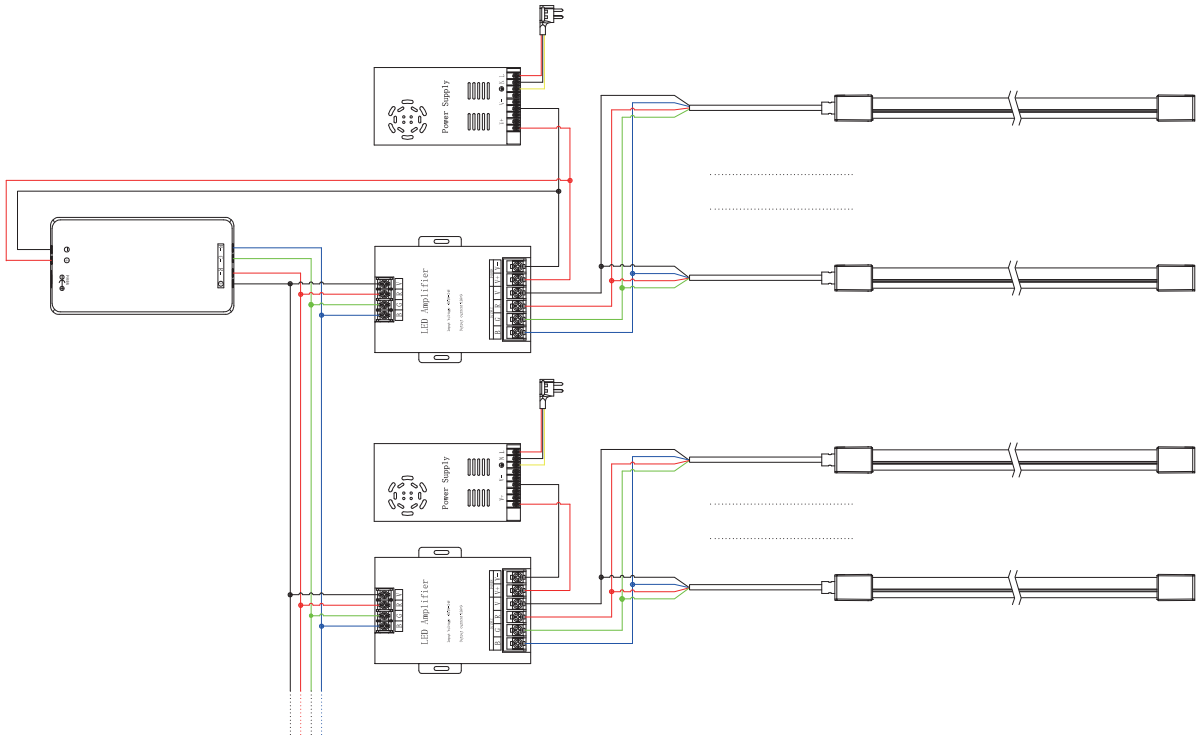
Single Color Connection Diagram



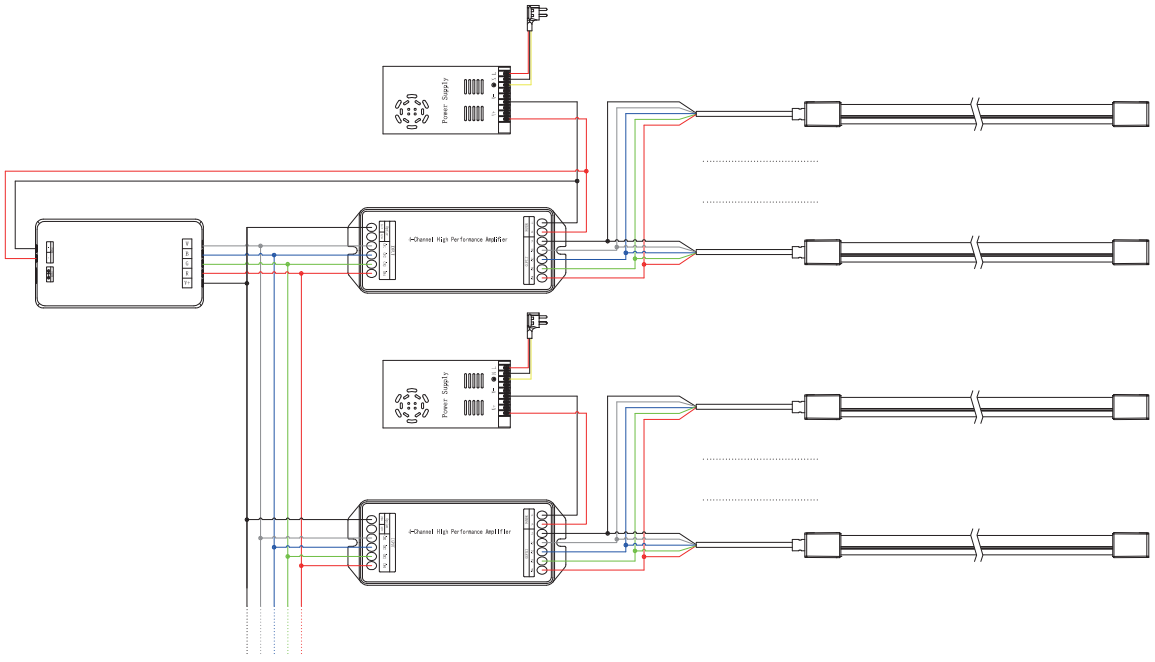
Tunable white Connection Diagram



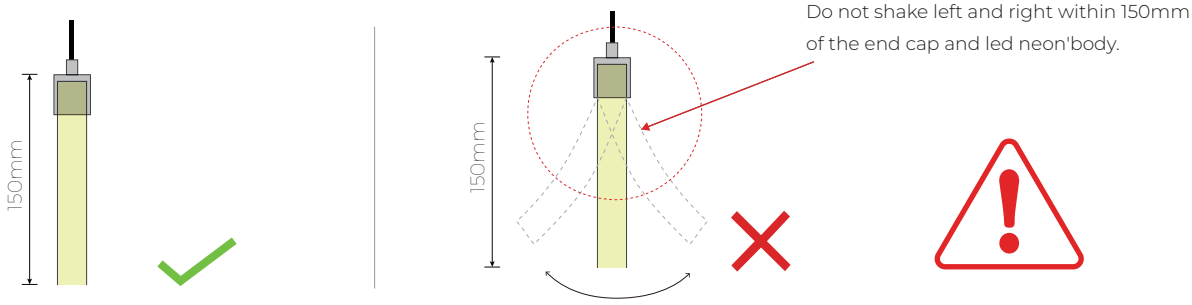
RGB Connection Diagram

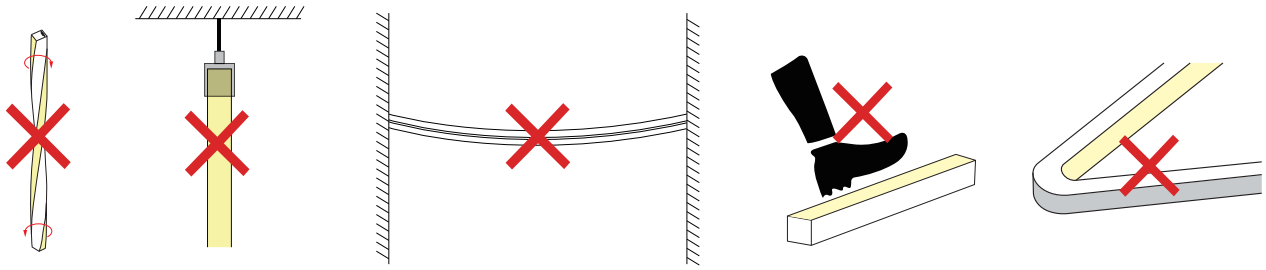


RGBW Connection Diagram



Installation Precautions





Do not twist the light

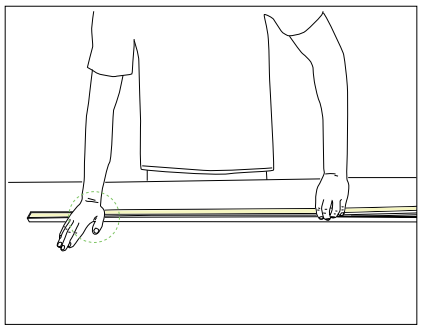
Do not suspend the power cable

Do not leave the light hanging in the air

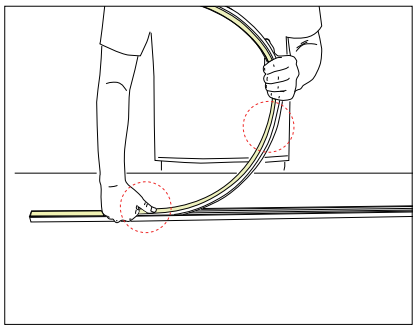
Prohibit trample

Small Angle bending is prohibited

Put it in the profile



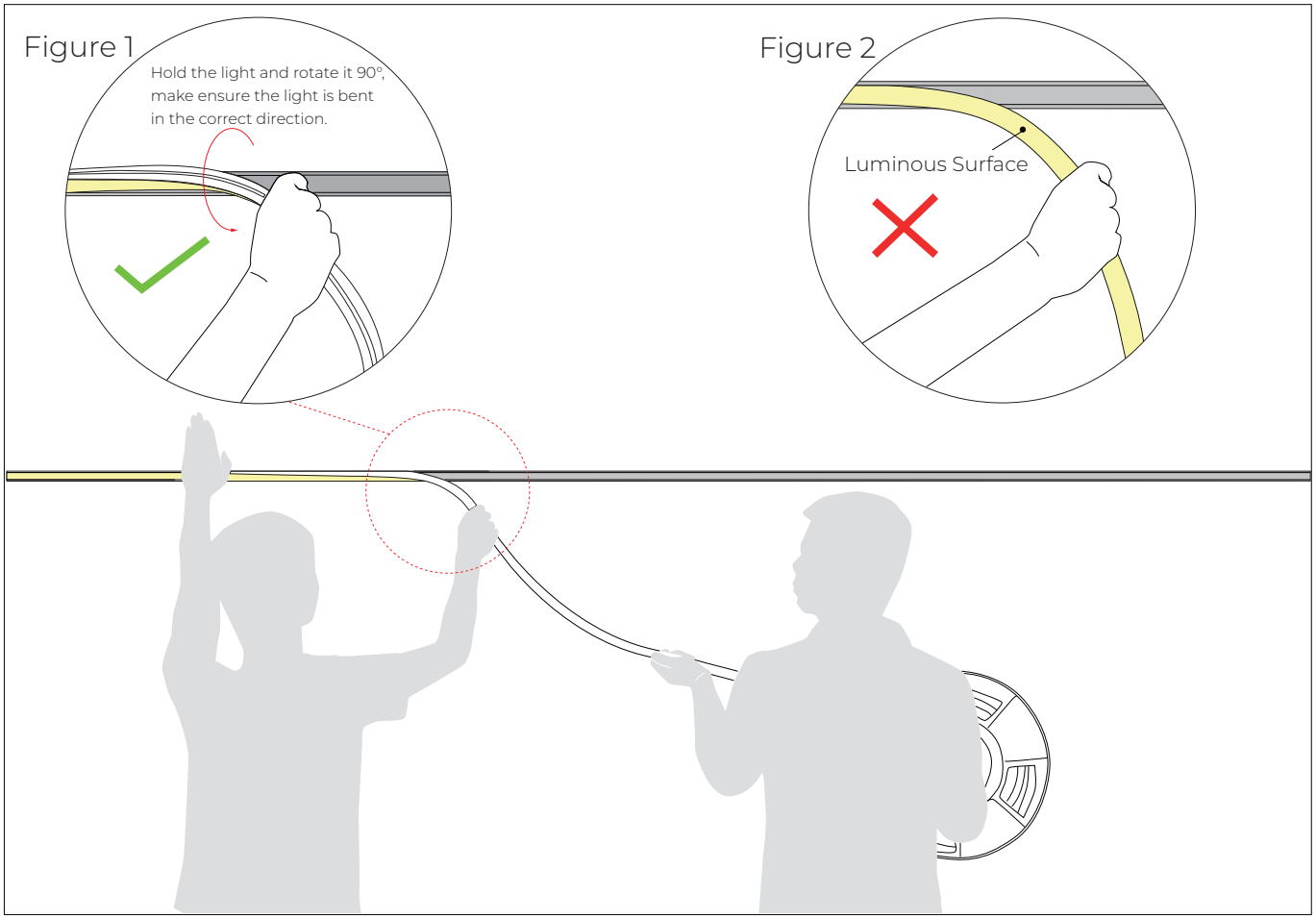
- Please press the led strip with your palm to slowly insert the led strip into the groove, and gently straighten the led strip above the groove with your right hand.
- Try to keep the led strip in a flat state during the installation process.



- 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.

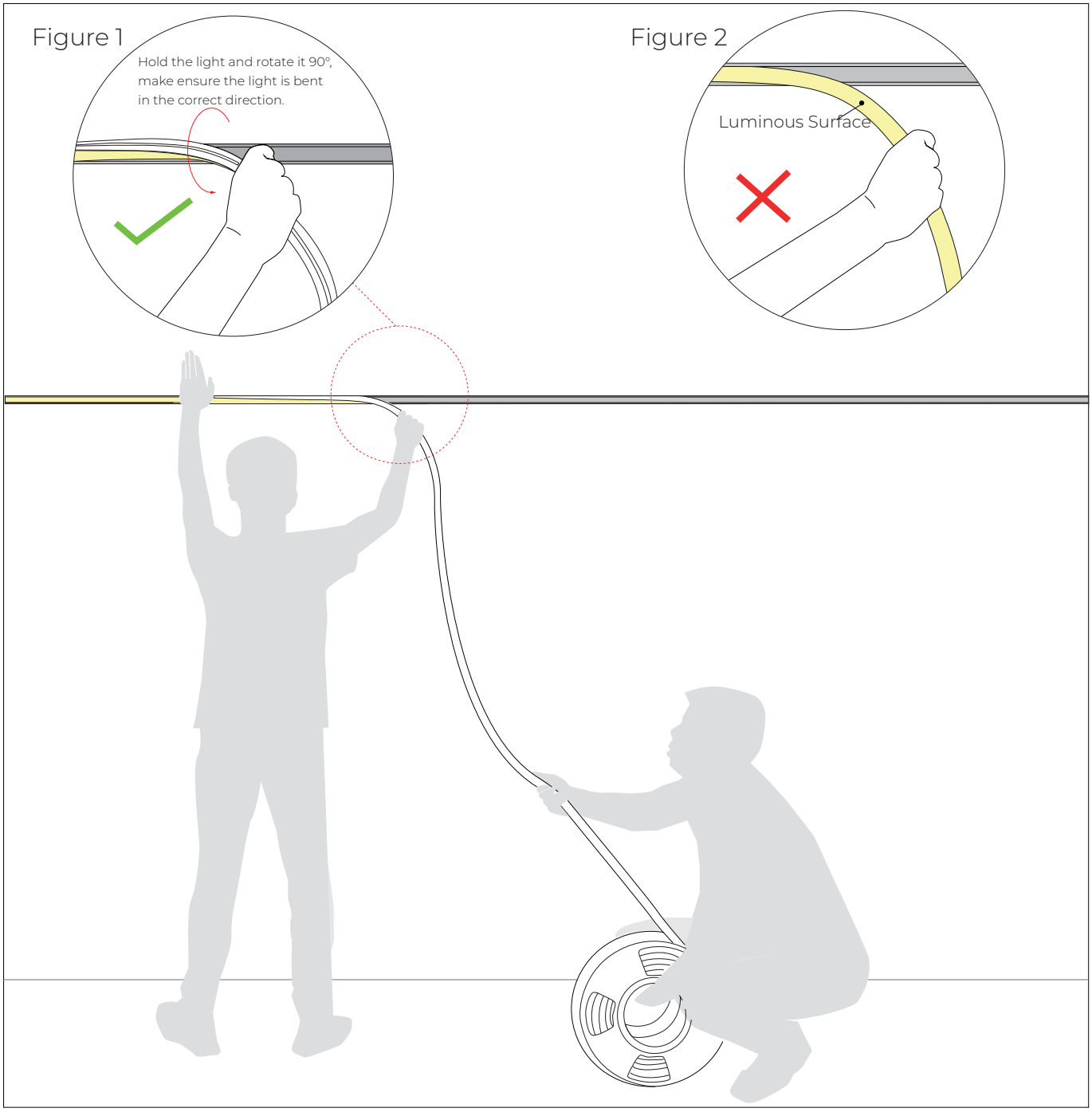
-Do not bend the luminous surface to the side. See Figure 2.

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.

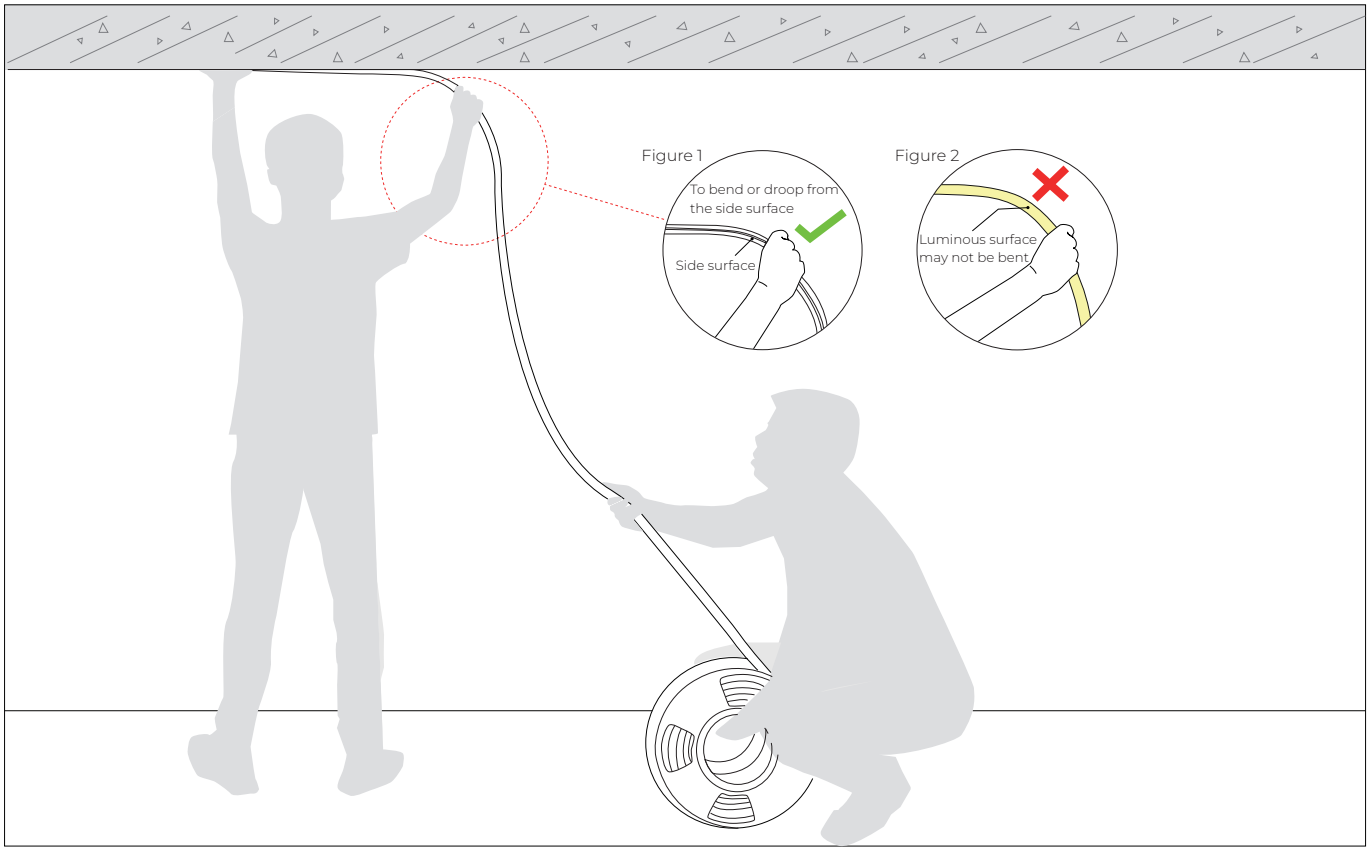
-Do not bend the luminous surface to the side. See Figure 2.

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.