

# SPECIFICATION TOP BEND NEON

NS-T3020 24V IP67

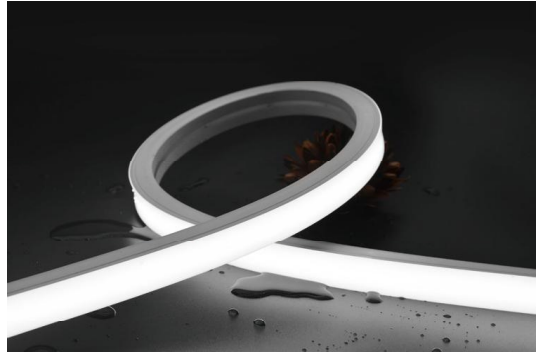


## Features

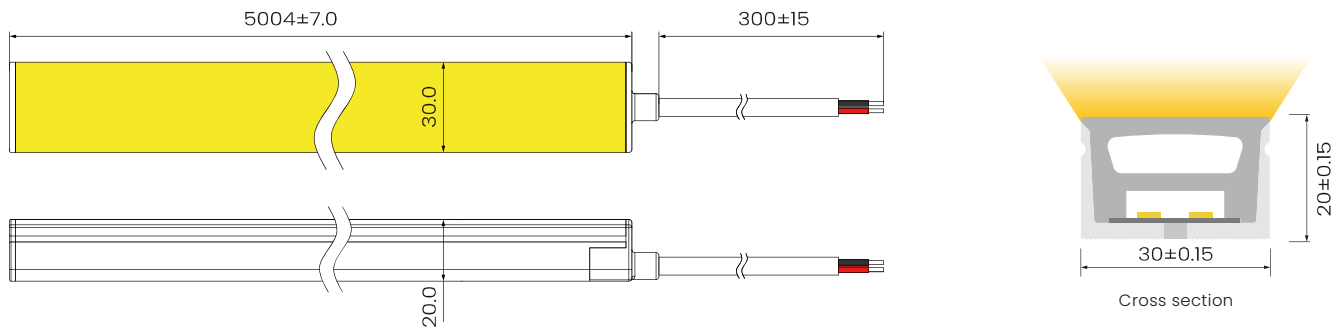
- It is made of Dow Chemical SILASTIC™ ET-7021 silicone rubber, which provides high transparency and high strength.
- Environmental protection grade silicone material, integrated extrusion molding process.
- Unique optical light distribution structure design, uniform lighting surface and no shadow.
- IP67 protection level, salt solution resistance, acids & alkalis and UV resistance.
- Excellent toughness, simple and stylish appearance, delicate and unique.
- 3-5 years warranty, working life  $\geq 50000$  hours.

2100k  
22400k  
27000k  
3000k  
3500k  
4000k  
5000k  
5500k

2700k  
~  
6500k



## Dimensions( Unit: mm )



## General Parameters

|                              |                                |
|------------------------------|--------------------------------|
| Voltage                      | DC24V                          |
| LED Solder-Point Temperature | Max. 65°C                      |
| Storage Temperature          | -25°C~ 60°C                    |
| Ambient Temperature          | Min.-25°C, Max ( Table below ) |
| CRI                          | see parameter tables           |

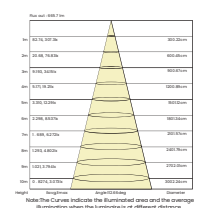
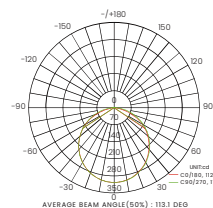
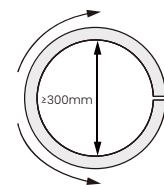
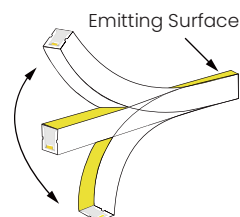
## Power Ratings

|                          |      |
|--------------------------|------|
| Power( w/m )             | 20   |
| Efficacy ( lm/w ) @4000K | 64   |
| Max Ambient Temperature  | 35°C |

Due to production and component tolerances, light output and electrical power may vary by up to  $\pm 10\%$ .

## Length Standard

| Length Range (M)    | Final Length     |                  | Tolerance |
|---------------------|------------------|------------------|-----------|
|                     | Integral end cap | Silicone end cap |           |
| 0M<Neon Strip(L)≤5M | L+4              | L+4.5            | ±7        |
| 5M<Neon Strip(L)≤9M | L+4              | L+4.5            | ±10       |



Note: The above data is based on a 24 V, 20 W/m, single-color product at 4000 K. For IES files for other versions, contact our sales team.

## Single Color: Model NS-T3020V24-CCx-A

| CCT(K)                                | CRI | Voltage | Power(W) | Luminous Flux (lm/m) | Efficacy (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 <sup>+400</sup> <sub>-200</sub> | ≥90 | DC24V   | 20       | 1280                 | 64              | 50               | 9                   | CC    |
| 5000K <sup>+500</sup> <sub>-300</sub> | ≥90 | DC24V   | 20       | 1300                 | 65              | 50               | 9                   | CC    |
| 6500K±500                             | ≥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    |

## Tunable White: Model NS-T3020V24-Ca-A

| CCT(K)      | CRI | Voltage | Power(W) | Luminous Flux (lm/m) | Efficacy (lm/W) | Unit Length (mm) | Max. Run Length (M) | CC/CV |
|-------------|-----|---------|----------|----------------------|-----------------|------------------|---------------------|-------|
| 2700K±150   | ≥90 | DC24V   | 10       | 610                  | 61              | 41.6             | 5                   | CV    |
| 6500K±500   | ≥90 | DC24V   | 10       | 650                  | 65              | 41.6             | 5                   | CV    |
| 2700K+6500K | ≥90 | DC24V   | 20       | 1230                 | 61.5            | 41.6             | 5                   | CV    |

## RGB: Model NS-T3020V24-Crgb-A

| CCT(K) | CRI | Voltage | Power(W) | Luminous Flux (lm/m) | Efficacy (lm/W) | Unit Length (mm) | Max. Run Length (M) | CC/CV |
|--------|-----|---------|----------|----------------------|-----------------|------------------|---------------------|-------|
| R      | --  | DC24V   | 6.6      | 133                  | 20              | 41.6             | 5                   | CV    |
| G      | --  | DC24V   | 6.6      | 342                  | 51.5            | 41.6             | 5                   | CV    |
| B      | --  | DC24V   | 6.6      | 69                   | 10.5            | 41.6             | 5                   | CV    |
| RGB    | --  | DC24V   | 20       | 540                  | 27              | 41.6             | 5                   | CV    |

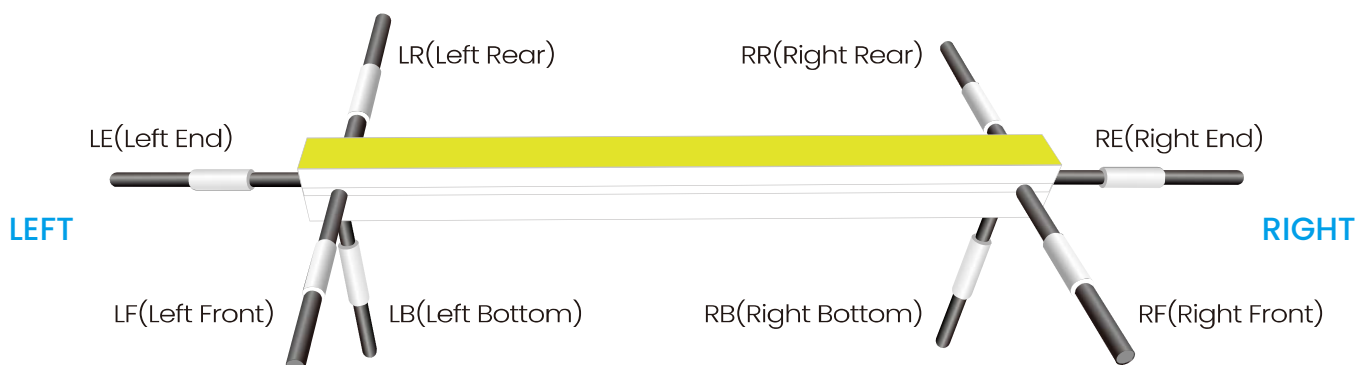
## RGBW: Model NS-T3020V24-Crgbwx-A

| CCT(K)                                  | CRI | Voltage | Power(W) | Luminous Flux (lm/m) | Efficacy (lm/W) | Unit Length (mm) | Max. Run Length (M) | CC/CV |
|-----------------------------------------|-----|---------|----------|----------------------|-----------------|------------------|---------------------|-------|
| R                                       | --  | DC24V   | 5        | 95                   | 19              | 41.6             | 5                   | CV    |
| G                                       | --  | DC24V   | 5        | 262                  | 52.5            | 41.6             | 5                   | CV    |
| B                                       | --  | DC24V   | 5        | 70                   | 14              | 41.6             | 5                   | CV    |
| W: 2400±200                             | ≥80 | DC24V   | 5        | 305                  | 61              | 41.6             | 5                   | CV    |
| RGBW                                    | --  | DC24V   | 20       | 720                  | 36              | 41.6             | 5                   | CV    |
| R                                       | --  | DC24V   | 5        | 95                   | 19              | 41.6             | 5                   | CV    |
| G                                       | --  | DC24V   | 5        | 262                  | 52.5            | 41.6             | 5                   | CV    |
| B                                       | --  | DC24V   | 5        | 70                   | 14              | 41.6             | 5                   | CV    |
| W: 2700±300                             | ≥80 | DC24V   | 5        | 302                  | 60.5            | 41.6             | 5                   | CV    |
| RGBW                                    | --  | DC24V   | 20       | 720                  | 36              | 41.6             | 5                   | CV    |
| R                                       | --  | DC24V   | 5        | 95                   | 19              | 41.6             | 5                   | CV    |
| G                                       | --  | DC24V   | 5        | 262                  | 52.5            | 41.6             | 5                   | CV    |
| B                                       | --  | DC24V   | 5        | 70                   | 14              | 41.6             | 5                   | CV    |
| W: 3700±300                             | ≥80 | DC24V   | 5        | 320                  | 64              | 41.6             | 5                   | CV    |
| RGBW                                    | --  | DC24V   | 20       | 720                  | 36              | 41.6             | 5                   | CV    |
| R                                       | --  | DC24V   | 5        | 95                   | 19              | 41.6             | 5                   | CV    |
| G                                       | --  | DC24V   | 5        | 262                  | 52.5            | 41.6             | 5                   | CV    |
| B                                       | --  | DC24V   | 5        | 70                   | 14              | 41.6             | 5                   | CV    |
| W: 5000 <sup>+500</sup> <sub>-300</sub> | ≥80 | DC24V   | 5        | 313                  | 62.6            | 41.6             | 5                   | CV    |
| RGBW                                    | --  | DC24V   | 20       | 720                  | 36              | 41.6             | 5                   | CV    |

- Maximum run length refers to the maximum length powered from one end using the standard 30 cm cable.
- The specified color temperature refers to the finished product.
- The values shown are typical. Due to production and component tolerances, light output and electrical power may vary by up to ±10%.
- All products can be dimmed; the dimmer voltage must match the rated voltage of the LED strip.
- The output frequency of the constant-current LED dimmer should be less than 2 kHz, and PWM output can control the LED strip.

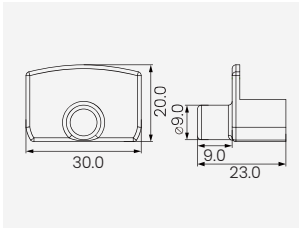
## Cable Entry Directions

Note: Only LE (Left End), RE (Right End), LB (Left Bottom), and RB (Right Bottom) cable entry directions are available for this model.

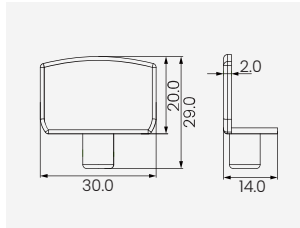


## Cable Entry and End Cap Options (Unit: mm)

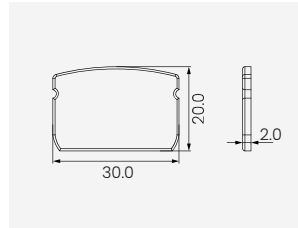
### Integral end cap (IP67)



Front Cable Entry

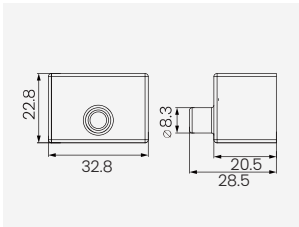
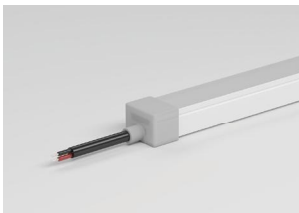


Bottom Cable Entry

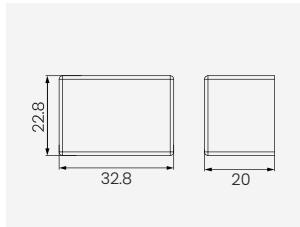
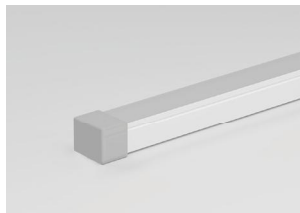


Closed End cap

### Silicone end cap (IP67)

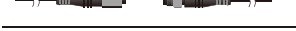
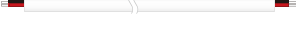


Front Cable Entry



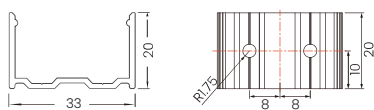
Closed End cap

## Cables and Connectors

| Cable Type                               | Schematic Diagram                                                                   | Specification                                                                                       | Core      | Electrical Properties                         |
|------------------------------------------|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|-----------|-----------------------------------------------|
| PVC Cable                                |    | OD: 5.0 mm / Conductor: 20 AWG                                                                      | ● ●       | Red V+ / Black V-                             |
|                                          |    | OD: 5.0 mm / Conductor: 20 AWG                                                                      | ● ○ ●     | Brown V+ / White W / Yellow WW                |
|                                          |    | OD: 5.5 mm / Conductor: 20 AWG                                                                      | ● ● ● ●   | Black V+ / Blue B / Green G / Red R           |
|                                          |    | OD: 5.5 mm / Conductor: 22 AWG                                                                      | ● ○ ● ● ● | Black V+ / White W / Blue B / Green G / Red R |
| Waterproof Connector with PVC Cable      |    | OD: 5.0 mm / Conductor: 20 AWG<br>M12 Male/Female Connector                                         | ● ●       | Red V+ / Black V-                             |
|                                          |    | OD: 5.0 mm / Conductor: 20 AWG<br>M12 Male/Female Connector                                         | ● ○ ●     | Brown V+ / White W / Yellow WW                |
|                                          |    | OD: 5.5 mm / Conductor: 20 AWG<br>M12 Male/Female Connector                                         | ● ● ● ●   | Black V+ / Blue B / Green G / Red R           |
|                                          |    | OD: 5.5 mm / Conductor: 22 AWG<br>M12 Male/Female Connector                                         | ● ○ ● ● ● | Black V+ / White W / Blue B / Green G / Red R |
| Silicone Cable                           |    | OD: 6.0 mm / Conductor: 20 AWG                                                                      | ● ●       | Red V+ / Black V-                             |
|                                          |    | OD: 6.0 mm / Conductor: 20 AWG                                                                      | ● ○ ●     | Black V+ / White W / Yellow WW                |
|                                          |  | OD: 6.0 mm / Conductor: 20 AWG                                                                      | ● ● ● ●   | Black V+ / Blue B / Green G / Red R           |
|                                          |  | OD: 6.4 mm / Conductor:<br>Red/Black--20 AWG<br>Green/Blue/White--22 AWG                            | ● ○ ● ● ● | Black V+ / White W / Blue B / Green G / Red R |
| Waterproof Connector with Silicone Cable |  | OD: 6.0 mm / Conductor: 20 AWG<br>M12 Male/Female Connector                                         | ● ●       | Red V+ / Black V-                             |
|                                          |  | OD: 6.0 mm / Conductor: 20 AWG<br>M12 Male/Female Connector                                         | ● ○ ●     | Black V+ / White W / Yellow WW                |
|                                          |  | OD: 6.0 mm / Conductor: 20 AWG<br>M12 Male/Female Connector                                         | ● ● ● ●   | Black V+ / Blue B / Green G / Red R           |
|                                          |  | OD: 6.4mm / Conductor:<br>Red/Black--20AWG<br>Green/Blue/White--22 AWG<br>M12 Male/Female Connector | ● ○ ● ● ● | Black V+ / White W / Blue B / Green G / Red R |

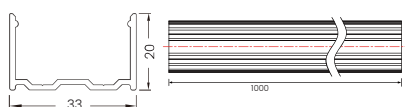
## Installation Accessories

Aluminum Mounting clips : 3320



|              |                                |
|--------------|--------------------------------|
| Name         | Aluminum Mounting clips : 3320 |
| Dimension:   | 20x33x20mm                     |
| Accessories: | M3 × 16 mm (SUS304) screw      |

Aluminum Profile : 3320



|              |                           |
|--------------|---------------------------|
| Name         | Aluminum Profile : 3320   |
| Dimension:   | 1000x33x20mm              |
| Accessories: | M3 × 16 mm (SUS304) screw |

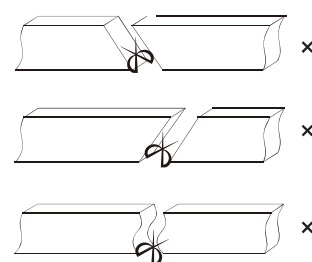
## Cutting Mark



Note:  
The bottom of the LED strip has a transparent window. The black mark indicates the cutting position.



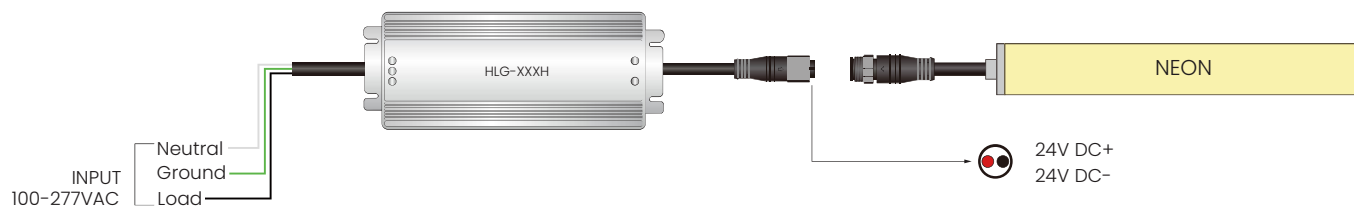
Use a professional cutting tool to cut vertically at the cutting mark.



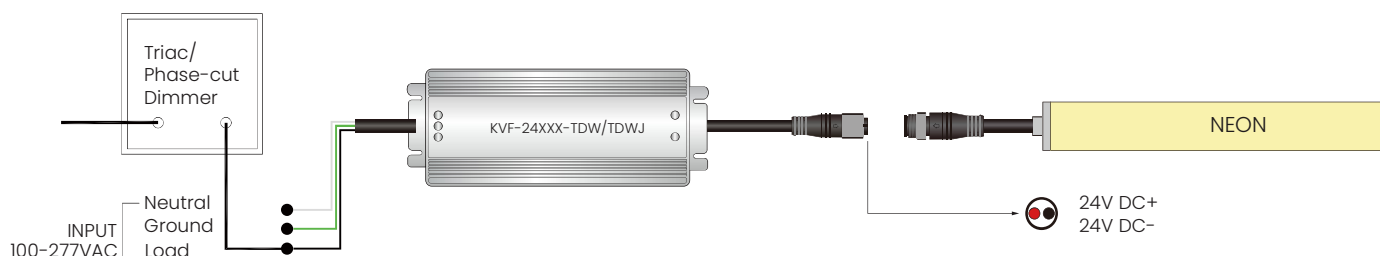
Do not cut at an oblique angle or along a curved section.

## Single Color Connection Diagram

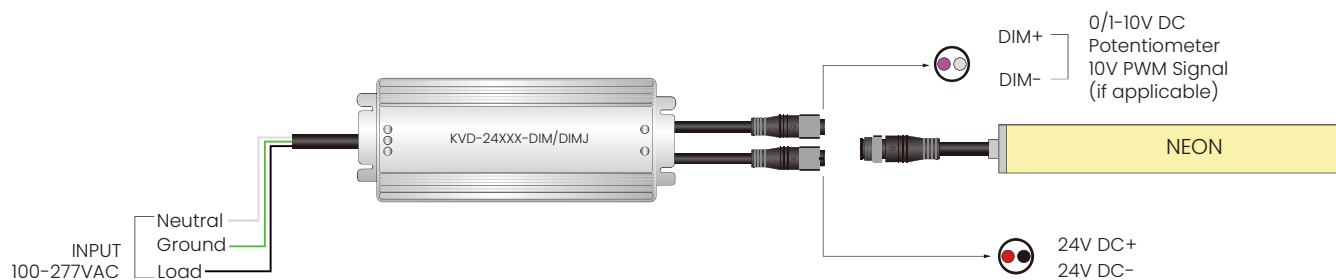
Non-dimmable



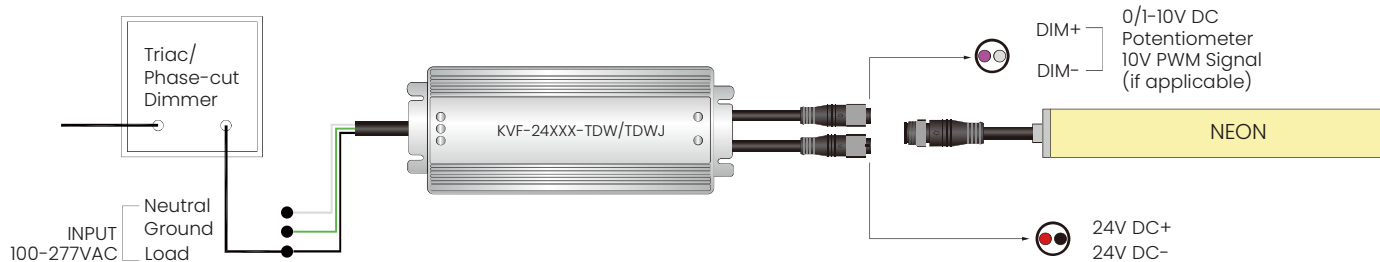
Phase-Cut / TRIAC Dimming



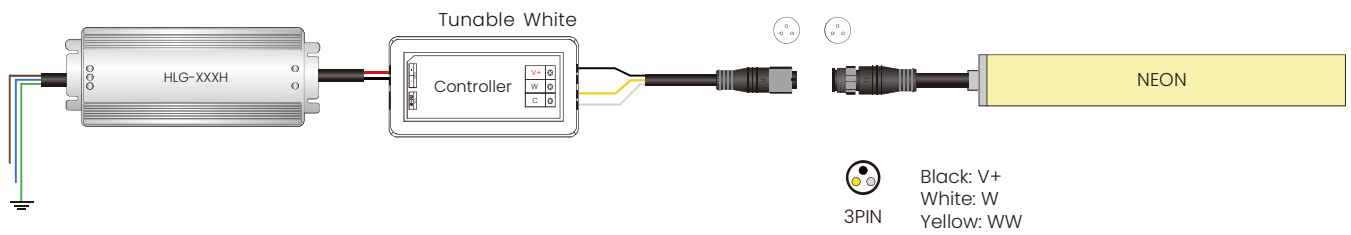
4-in-1 Dimming(0-10V/1-10V/Potentiometer/10V PWM)



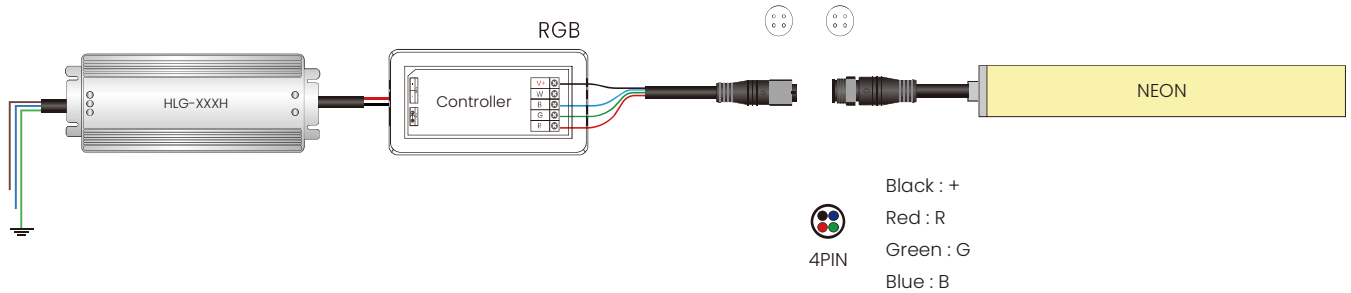
5-in-1 Dimming (Triac/0-10V/1-10V/Potentiometer/10V PWM)



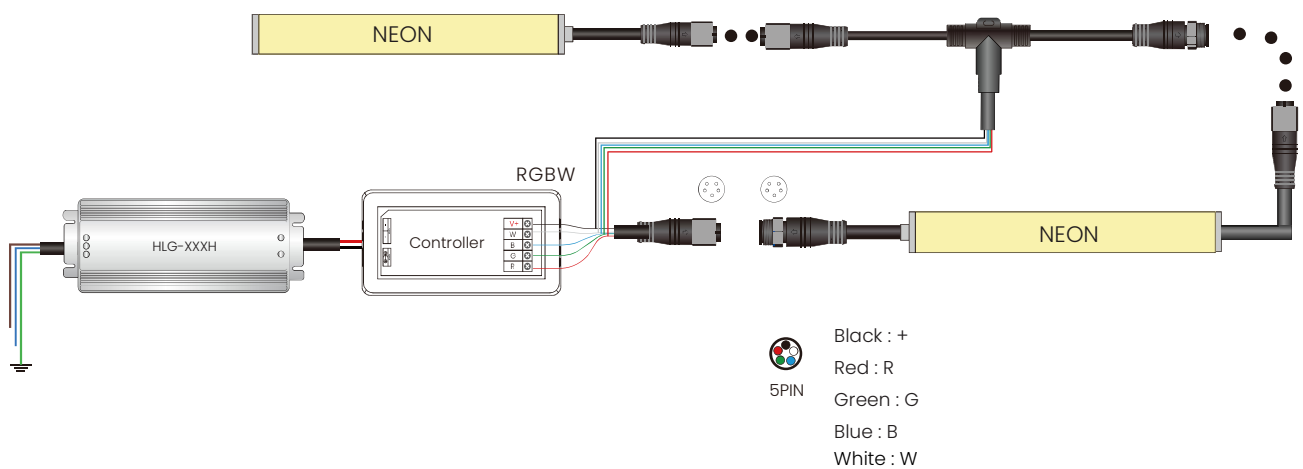
## Tunable White Connection Diagram



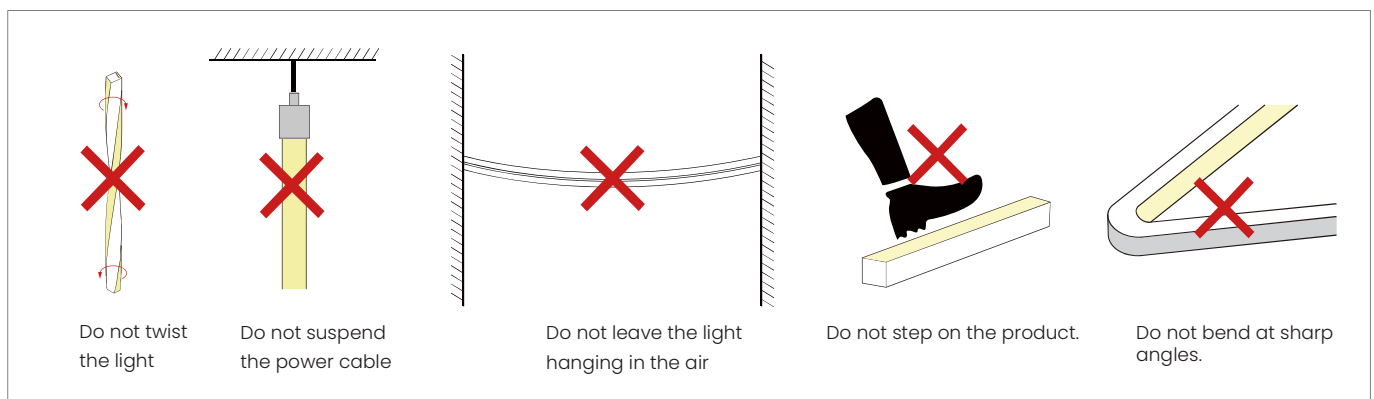
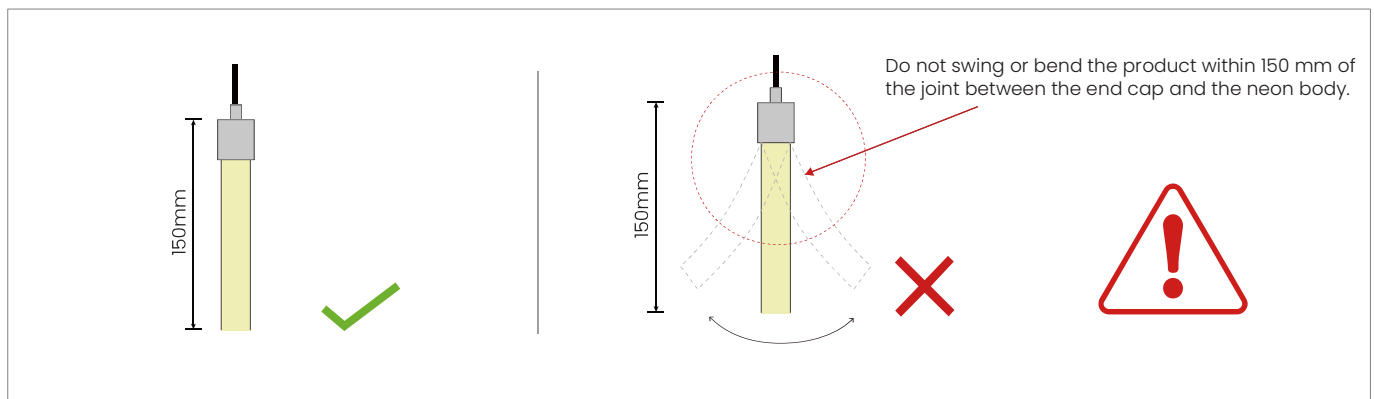
## RGB Connection Diagram



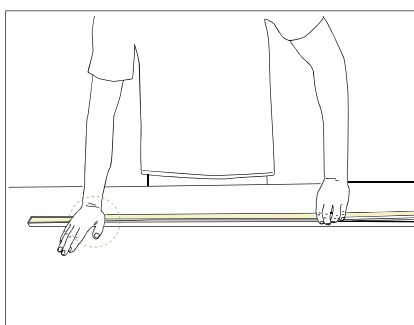
## RGBW Connection Diagram



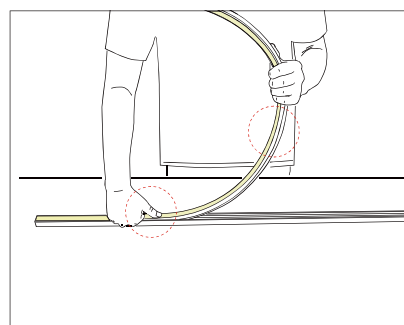
## Installation Precautions



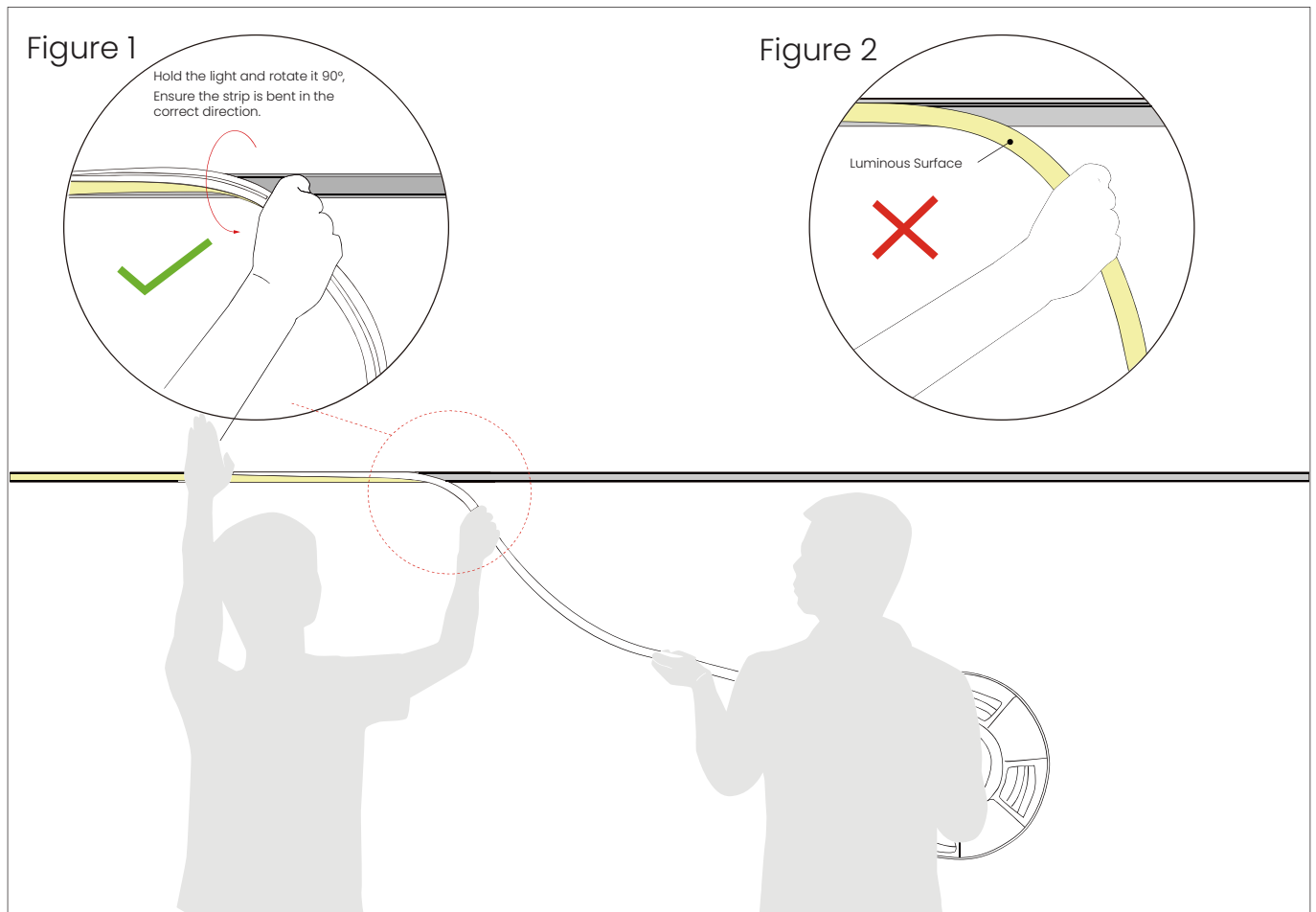
## Insert into the Profile



- Use your palm to slowly press the LED strip into the channel, then gently straighten it along the channel.
- Try to keep the LED strip in a flat state during the installation process.



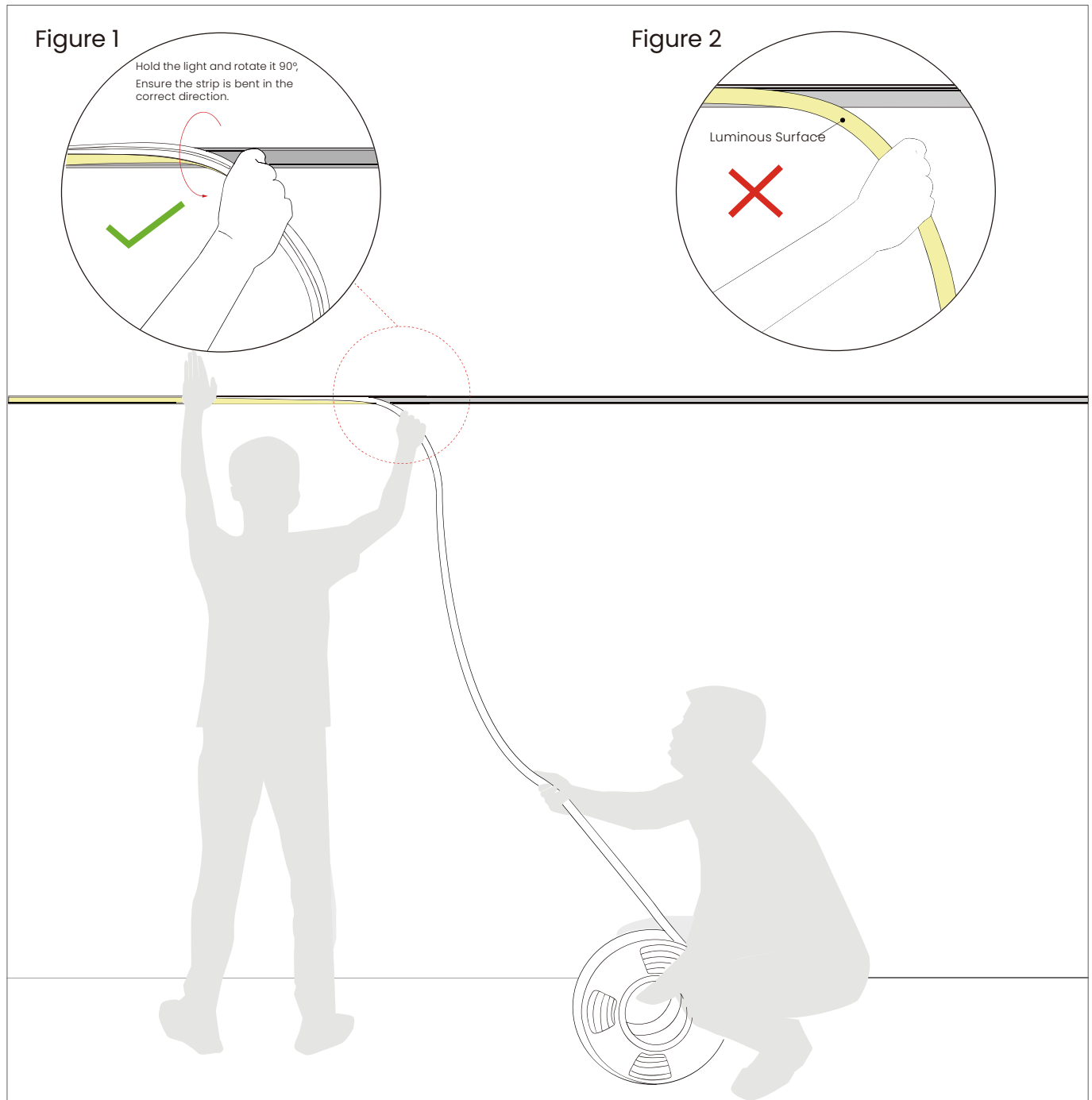
- Do not press the LED strip with one finger; this may damage internal components.
- The bent arc of the LED strip should not be too large during installation.

**Installation Precautions--Side Mounted** ( If the length of the light is more than 2 meters, two people 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. Use your right hand to guide the strip so it bends downward in the correct direction. See Figure 1.
- Do not bend the luminous surface to the side. See Figure 2.

**2. Assistant:**

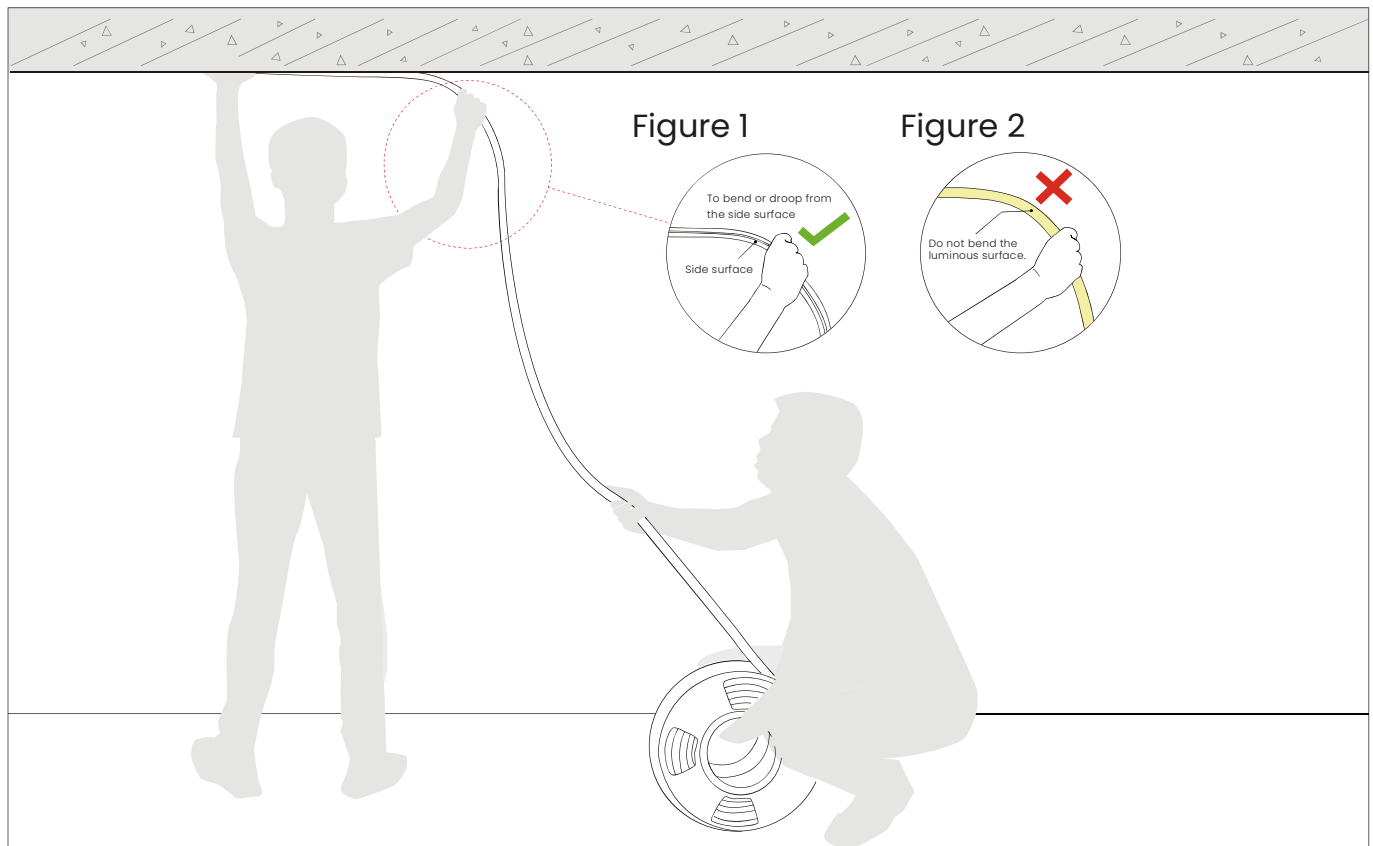
- Cooperate with the installer to lift the reel of the light, and then slowly feed the strip to the installer. Do not pull or twist the light during the installation.

**Installation Precautions--Side Mounted** (If the length of the light is more than 5 meters, two people 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. Use your right hand to guide the strip so it bends downward in the correct direction. See Figure 1.
- Do not bend the luminous surface to the side. See Figure 2.

**2. Assistant:**

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

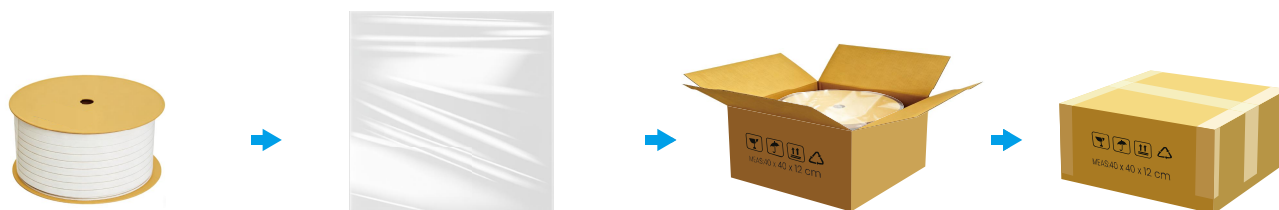
**Installation Precautions--Top Mounted** ( If the length of the light is more than 2 meters, two people must work together to install it. )**1. Installer:**

- 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 droops naturally. See Figure 1.

**2. Assistant:**

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

## Packaging Information



Standard Packaging: White carton with paper reel inside.

| Model             | Qty/Roll(m) | Rolls/Carton | Carton Size     | Net Weight      | Gross Weight    |
|-------------------|-------------|--------------|-----------------|-----------------|-----------------|
| NS-T3020 24V IP67 | 5m          | 3            | 42 x 43 x 31 cm | 11.34 kg/carton | 12.34 kg/carton |

For reference only. Final packing information shall be subject to actual shipment.

## Notes

Cable size at the power-supply output depends on the total load current and cable length. Select the cable according to the table below.

| Light Current | Cable Specification |       |       |       |       |       |       |       |       |
|---------------|---------------------|-------|-------|-------|-------|-------|-------|-------|-------|
|               | 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.
- ※ Use a 24 V DC isolated constant-voltage power supply with ripple below 5%. Using other types of power supply may damage the light or cause other safety risks.
- ※ In practical application, reserve at least 20% power-supply headroom.
- ※ 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 reverse polarity, 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 may cause overload, overheating, 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 overbend 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.
- ※ Installation, disassembly, and maintenance must be performed by qualified personnel only.
- ※ Do not use any acidic 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 versions are factory-customized only. User cutting or processing may compromise IP68 protection.
- ※ Because products differ structurally, products of different sizes may appear slightly different in color even at the same CCT.

Tests showed that formaldehyde and benzene compounds can cause yellowing of silicone. In newly decorated interiors, epoxy floor paint, wall paint, wallpaper adhesive, decoration materials, and new furniture may release formaldehyde and benzene compounds. It is recommended to remove these substances first, or ventilate the area for a period before installing the silicone neon light, to avoid affecting the silicone body.