



Color:    

## Features

1. High efficacy 5050 LED
2. 5 colors in one LED (red, green, blue, white and warm white)
3. Create multiple color possibilities (Over 16 million VIA controller);
4. Available of dimming

## Application

Light box, outline, decorative and landscape lighting.

## Installation

Fix by 3M self adhesive tape

## Optical & Electrical Parameters

Model No.	Light Color	Color Temperature Wavelength(K/nm)	Beam Angle	Luminous Flux (lm/m)	Ra	Efficacy (lm/W)	Voltage (V DC)	Power (W/m)
TN-S5050-72-24-RGBWN	WW	2300-2600	120°	240	80+	80	24	14.4
	NW	6500-7000		291	80+	97		
	R	615-625		102	--	--		
	G	515-525		218	--	--		
	B	460-470		49	--	--		
TN-S5050-72-12-RGBWN	WW	2300-2600	120°	236	80+	79	12	14.4
	NW	6500-7000		289	80+	96		
	R	615-625		100	--	--		
	G	515-525		216	--	--		
	B	460-470		49	--	--		
TN-S5050-60-24-RGBWN	WW	2300-2600	120°	193	80+	80	24	12.0
	NW	6500-7000		231	80+	97		
	R	615-625		82	--	--		
	G	515-525		175	--	--		
	B	460-470		39	--	--		

## Other Parameters

Model No.	LED Quantity (pcs/m)	Max Run Single Feed(m)	Min Cuttable length(mm)	Working Temperature	Storage Temperature
TN-S5050-72-24-RGBWN	72	3	83	-20~+60°C	-20~+70°C
TN-S5050-72-12-RGBWN	72	2	42	-20~+60°C	-20~+70°C
TN-S5050-60-24-RGBWN	60	3.5	100	-20~+60°C	-20~+70°C

**NOTE:**

Test environment temperature : 25±2°C.

The above data is typical values. The actual data of each single product may differ from the typical values. The data is subject to change without notice.

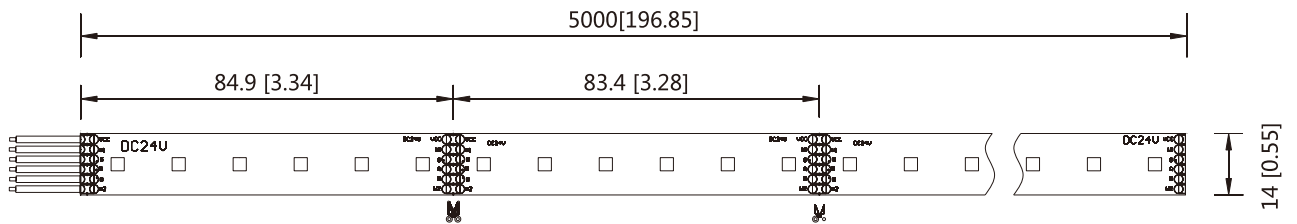
Different color temperature will make luminous flux different.

Single-ended power supply only. Max run is related to the working current of the LED.

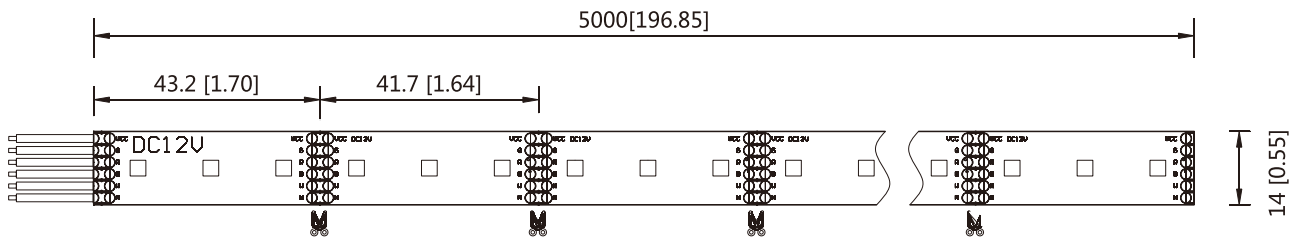
## Profile Drawings

Unit:mm[inch]

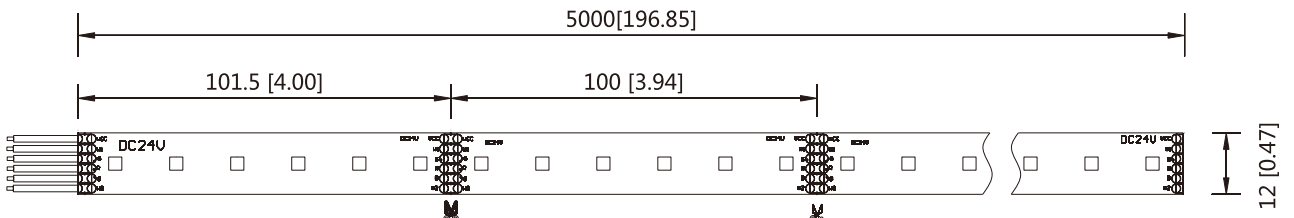
1.TN-S5050-72-24



2.TN-S5050-72-12

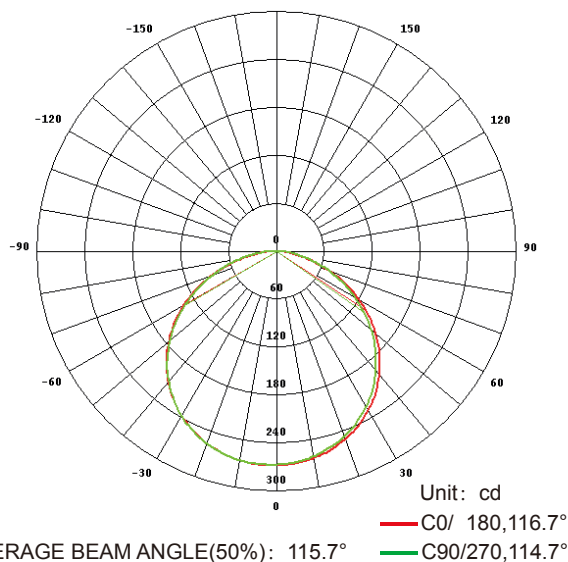


3.TN-S5050-60-24



Note:For detail drawing,please consult sales rep.

## Luminous Intensity Distribution Diagram



## Average Illumination

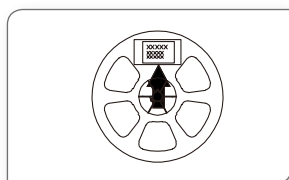
Flux Out: 483.1lm

1cm	743930,2678556lx	3.11cm
2cm	185983,669639lx	6.23cm
3cm	82659,297617lx	9.34cm
4cm	46496,167410lx	12.45cm
5cm	29757,107142lx	15.56cm
6cm	20665,74404lx	18.68cm
7cm	15182,54664lx	21.79cm
8cm	11624,41852lx	24.90cm
9cm	9184,33069lx	28.01cm
10cm	7439,26786lx	31.13cm

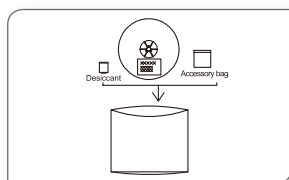
Height Eavg, Emax      Beam Angle: 118.89°      Diameter

**Note:**

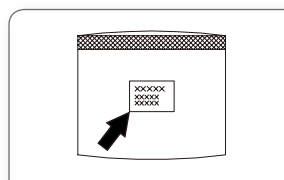
The above two figures are tested with the sample TN-S5050-72-12 at R/G/B/W/N five color light on and under control, for other light color or spec, please consult sales rep.

**packing**


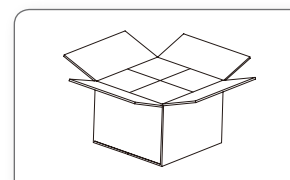
Label the reel;



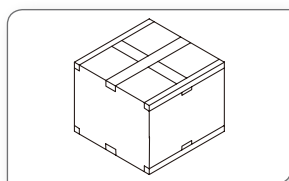
Put reel, accessory bag and desiccant together into static shielding bag;



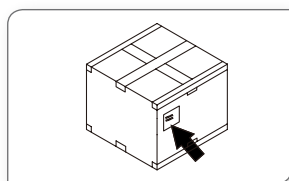
Seal and label the static shielding bag;



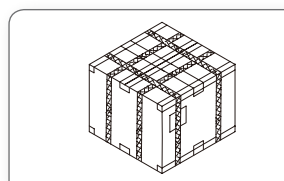
Put the packed static shielding bag into carton box;



Seal the carton box;



Label the box;



Use packing belt to pack. Add edge protectors if necessary.

**Packaging information**

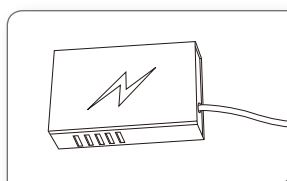
Model No.	Product Size L*W(mm)	Carton Size(mm)	Meter/Reel	Reel/Carton	Net Weight(kg)	Gross Weight(kg)
TN-S5050-72-24-RGBWN	5000X14	550X400X340	5	70	8.6(1±10%)	13.6(1±10%)
TN-S5050-72-12-RGBWN				70	8.6(1±10%)	13.6(1±10%)
TN-S5050-60-24-RGBWN				80	10.9(1±10%)	15.9(1±10%)

**Note:**

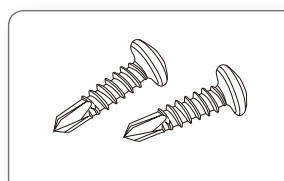
1. Five meters in a reel and packed in the static shielding bag.
2. The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

**Installation**
**1.Products and Tools**

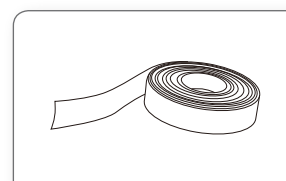

TN-S5050



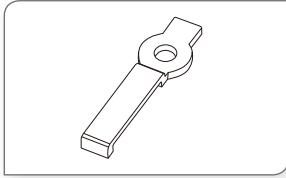
LED power supply



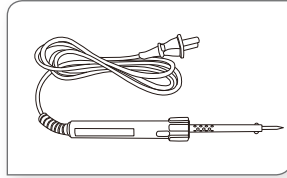
Self-tapping screw



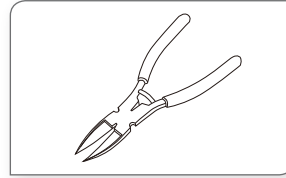
Insulation Tape



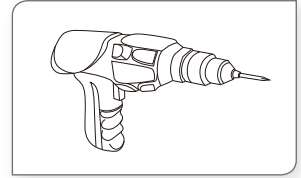
Clips



Electric iron



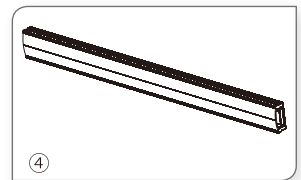
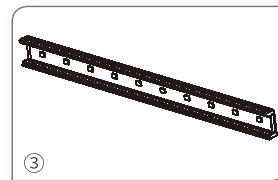
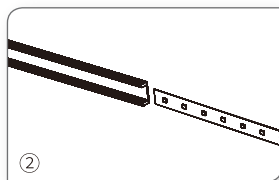
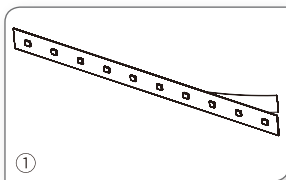
Diagonal pliers



Electric drill

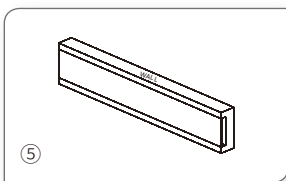
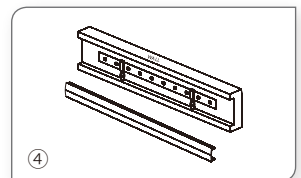
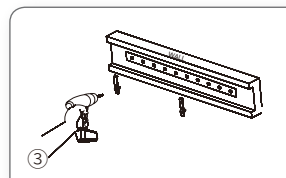
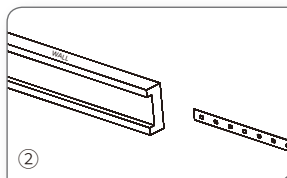
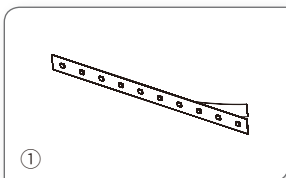
## 2.Installation Methods and Steps

### Aluminum channel installation

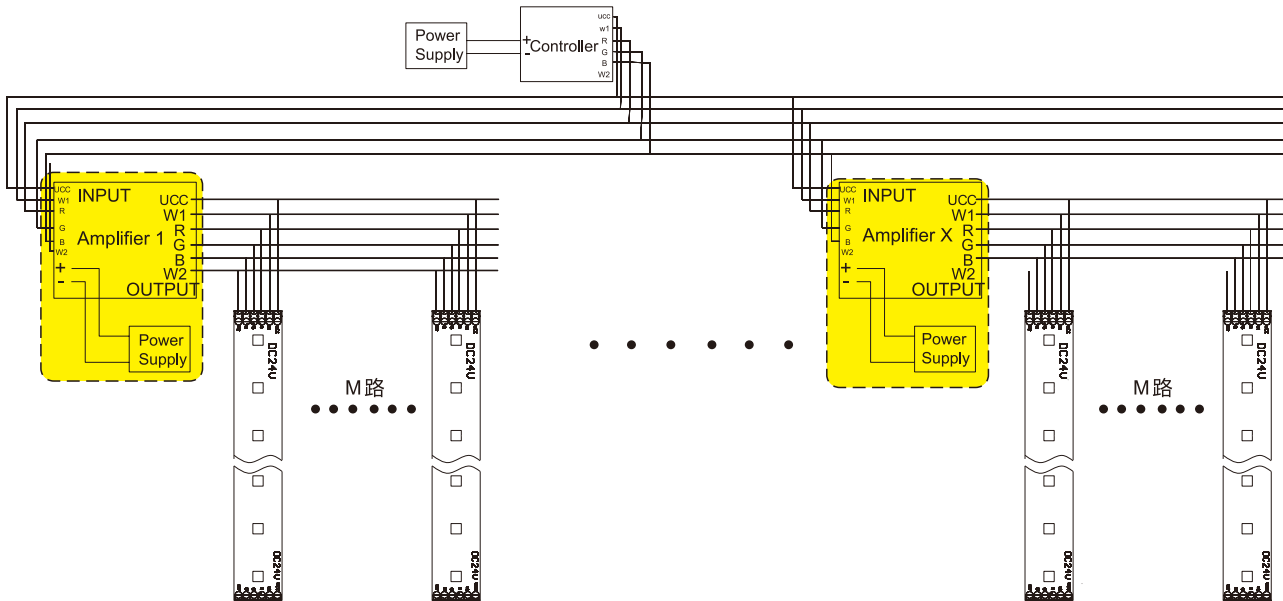


1. Peel away the self adhesive tape on the back of strip.
2. Cut off the excess part based on the installation position.
3. Evenly arrange the strips with appropriate space in the track.
4. Install the cover and end cap.

### Covered channel installation



1. Peel away the self adhesive tape on the back of strip.
2. Cut off the excess part based on the installation position.
3. Evenly arrange the strips with appropriate space in the track and fix them with clips.
4. Install the cover and end cap.
6. Finished

**Connection Diagram & Calculation Method between Product and Controller**


Amplifier power supply rated power (W): P  
 Product rated power (W): P(strip)  
 Amplifier load:M(pcs)  
 Product max run:MAX

$$M = \frac{P \times 0.8}{P_{(\text{strip})} \times \text{MAX}}$$

For example: the product is TN-S2835-72-24-RGBWN, P(strip)=14.4W/m, the max run(single feed) MAX=3m, the power supply is 400W,

Amplifier load:

$$M = \frac{P \times 0.8}{P_{(\text{strip})} \times \text{MAX}} = \frac{400 \times 0.8}{14.4 \times 3} \doteq 7(\text{pcs})$$

Note:

- 1.The controller's power supply must be consistent with the controller's power requirements.
- 2.The amplifier must be added to drive the product if the controller is more than 20 meters away from the product, see above.
- 3.The sample above powered in single-feed



## 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.
- If the working length exceeded the max run length, make sure to have extra power supply.
- If it needs higher current of a LED, make sure having extra cooling.

## Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light on.	No electric supply.	Power on
	Automatic power protection from the open or short circuit in output of the power supply.	Fix the short circuit problem.
	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	Correctly connection
Brightness of LED is inconsistent or 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 4 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 (0.75mm<sup>2</sup> 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.