

Features

- High brightness and lumen efficiency
- Great linear effect
- Flexible and cuttable, can be mounted on cove surface
- Long service life with excellent lumen maintenance
- 96 leds and 120 leds per meter for option

Bending radius: $R_{min}=20mm$



Application

Suitable for shopping mall, hotel and entertainment decoration.

Installation

Fix by 3M self adhesive tape



Optical & Electrical Parameters

Model No.	Light Color	Color Temperature/ Wavelength(K/nm)	Beam Angle	Ra	Typical Luminous Flux(lm/m)	Efficacy (lm/w)	Voltage (DC V)	Power (W/m)
TN-4040-96-24- RGB	R	615-630	120°	--	169	33	24	5.2
	G	515-530			307	60		5.2
	B	460-470			64	12.4		5.2
	RGB	100000			492	32		15.6
TN-4040-120-24- RGB	R	615-630	120°	--	211	33	24	6.4
	G	515-530			384	60		6.4
	B	460-470			87	13.5		6.4
	RGB	100000			614	32		19.2

Temperature Related Parameters(Normal Working)

Model No.	Power(W)	No Brightness Difference MAX(m)	UL Max Run (Single Feed) (m)	TA(°C)	Operating Temp MAXTc(°C)
TN-4040-96-24-RGB	15.6	3	5.5	-20~+60°C	80°C
TN-4040-120-24-RGB	19.2	4	4.5	-20~+60°C	80°C

Other Parameters

Model No.	LED Quantity (pcs/m)	Min Cuttable length(mm)	Storage Temperature
TN-4040-96-24-RGB	96	62.5	-20~+70°C
TN-4040-120-24-RGB	120	50	-20~+70°C

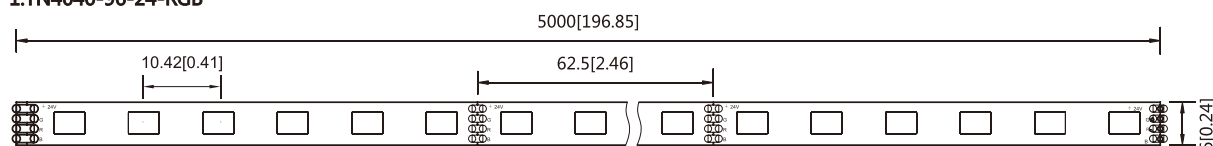
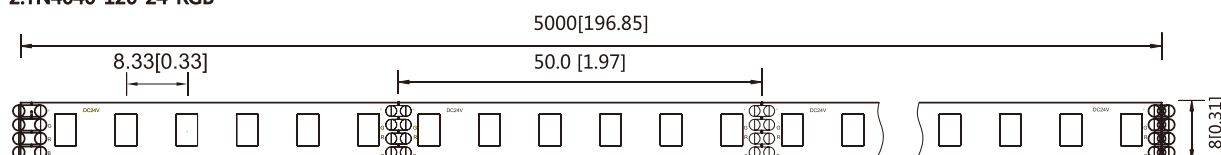
NOTE:

- Test environment temperature : 25±2°C.
- Figures above are typical figures. Actual figures could be different with typical figures, and the data is subject to change without notice.
- Luminous flux above is corresponding color light on tested result
- Different color temperature will make luminous flux different.
- UL max run refers to operating length at UL class II @100W.24V.
- Power tolerance within ±10%.
- Cutting marks see profile drawing below.



Profile Drawings

Unit:mm[inch]

1.TN4040-96-24-RGB

2.TN4040-120-24-RGB


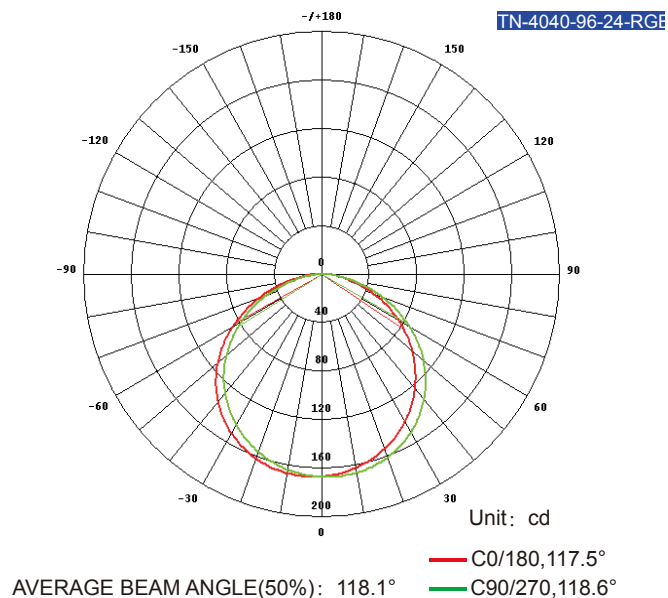
Note:For detail drawing,please consult sales rep.

Operating Length VS. Electrical Parameters

TN-4040-96-24-RGB	Operating Length (m)				
Parameters	1	2	3	4	5
Operating Voltage(DC V)	24.0				
Total Current(A)	0.640	1.210	1.670	2.040	2.310
Total Power(W)	15.6	29.1	40.1	49.0	55.5
Head voltage(V)	23.91	23.84	23.76	23.70	23.69
Tail voltage (V)	23.44	22.89	22.17	21.38	20.38
Head Current(mA)	39.8	39.2	38.6	38.8	38.5
Tail Current (mA)	37.6	34.5	31.5	27.0	22.9
Head-to-tail Voltage Drop Rate(%)	1.97	3.98	6.69	10.17	13.97
Head-to-tail Current Drop Rate(%)	5.66	12.17	18.40	30.64	40.64
More power needed	NO	NO	NO	YES	YES

TN-4040-120-24-RGB	Operating Length in Single Feed(m)				
Parameters	1	2	3	4	5
Operating Voltage(DC V)	24.0				
Total Current(A)	0.800	1.520	2.190	2.830	3.330
Total Power(W)	19.2	36.5	52.6	68.0	78.0
Head voltage(V)	23.91	23.84	23.80	23.74	23.66
Tail voltage (V)	23.52	23.13	22.86	22.41	21.74
Head Current(mA)	39.8	39.3	39.0	38.7	38.7
Tail Current (mA)	38.1	36.5	34.3	32.0	29.3
Head-to-tail Voltage Drop Rate(%)	1.97	2.98	3.95	5.6	8.11
Head-to-tail Current Drop Rate(%)	4.28	6.99	12.26	17.44	24.37
More power needed	NO	NO	NO	NO	YES

Luminous Intensity Distribution Diagram



Average Illumination

Flux Out: 388.2lm

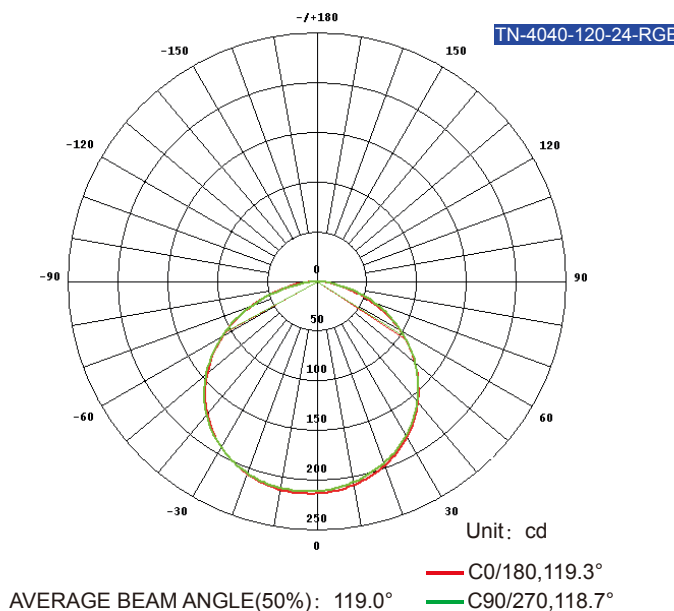
TN-4040-96-24-RGB

1cm	446145,167224lx	3.30cm
2cm	111536,418061lx	6.59cm
3cm	49572,185805lx	9.89cm
4cm	27884,104515lx	13.18cm
5cm	17846,66890lx	16.48cm
6cm	12393,46451lx	19.78cm
7cm	9105,34127lx	23.07cm
8cm	6971,26129lx	26.37cm
9cm	5508,20645lx	29.66cm
10cm	4461,16722lx	32.96cm

Height Eavg, Emax Beam Angle: 117.50° Diameter

Note: If you need other data, feel free to contact sales.

Luminous Intensity Distribution Diagram



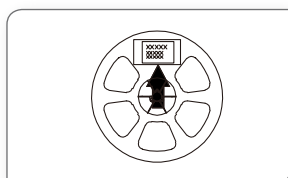
Average Illumination

Flux Out: 491.9lm

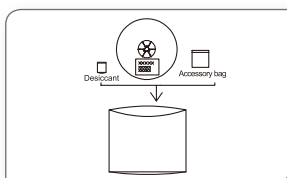
Height	Eavg	Emax	Beam Angle: 117.57°	Diameter
1cm	565278,2131479lx			3.30cm
2cm	141319,532870lx			6.60cm
3cm	62809,236831lx			9.90cm
4cm	35330,133217lx			13.20cm
5cm	22611,85259lx			16.50cm
6cm	15702,59208lx			19.80cm
7cm	11536,43500lx			23.10cm
8cm	8852,33304lx			26.40cm
9cm	6979,26315lx			29.70cm
10cm	5653,21315lx			33.00cm

Note: If you need other data, feel free to contact sales.

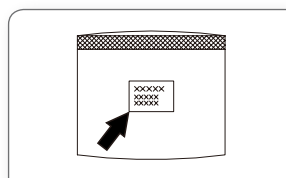
Packaging



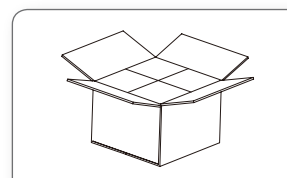
Label the reel;



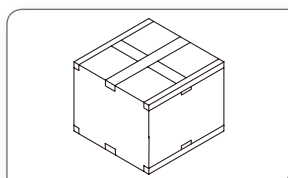
Put reel, accessory bag and desiccant together into static shielding bag;



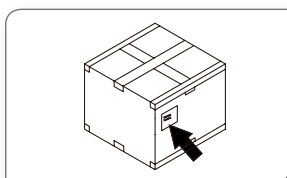
Seal and label the static shielding bag;



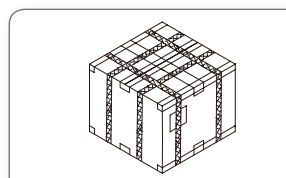
Put the packed static shielding bag into carton box;



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-4040-96-24-RGB	5000*6	550*400*340	5	140	10.64(1±10%)	13.85(1±10%)
TN-4040-120-24-RGB	5000*8	550*400*340	5	120	12.05(1±10%)	15.55(1±10%)

NOTE:

Five meters per reel, packed in the static shielding bag.

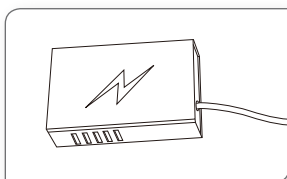
The above quantity and weight are only for the illustrated packaging method. There will be differences in the quantity and weight with other packaging methods.

Installation

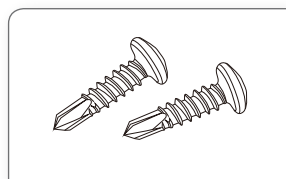
1.Products and Tools



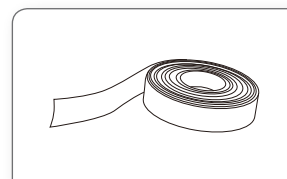
FN2835-XX-XX-X



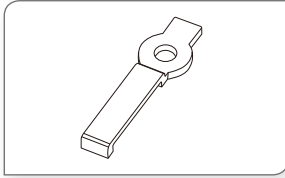
LED power supply



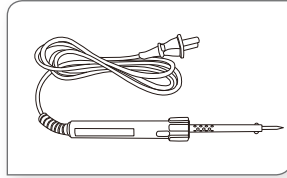
Self-tapping screw



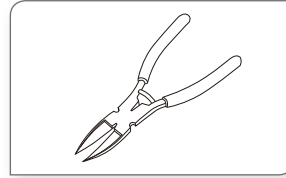
Insulation Tape



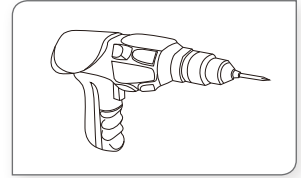
Clips



Electric iron

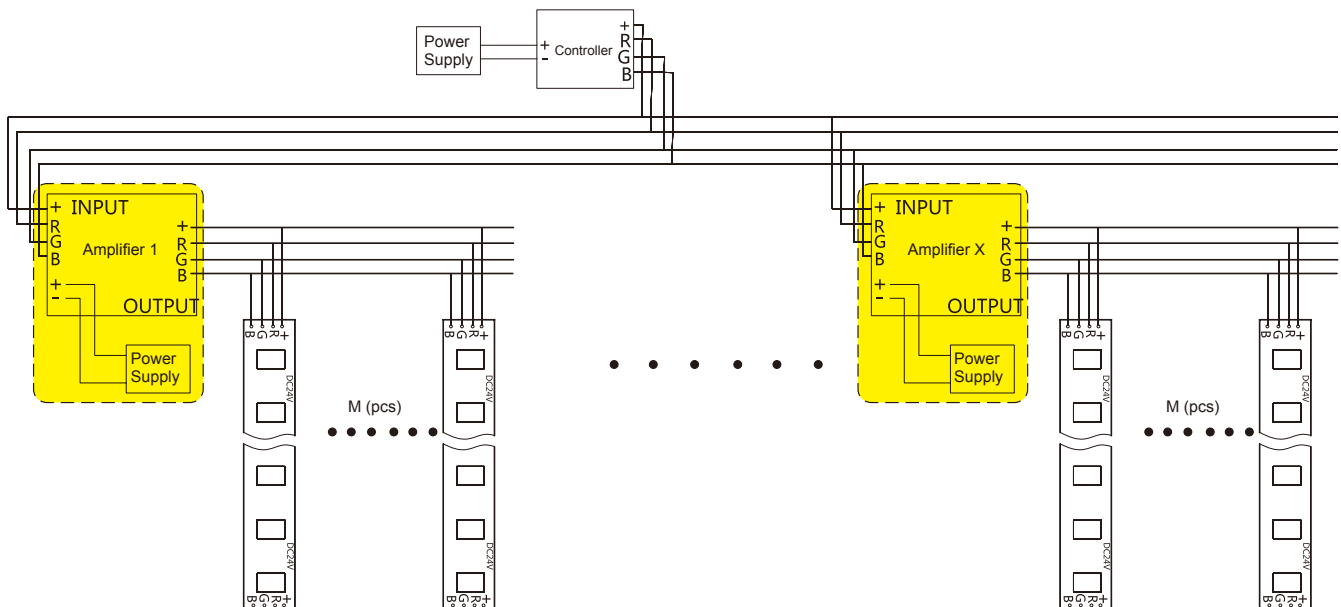


Diagonal pliers



Electric drill

2.Connection Diagram between Product and Controller & Calculation Method



Amplifier power supply rated power (W): P

Product rated power (W): P(strip)

Amplifier load:M(pcs)

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

For example: the product is TN4040-120-24-RGB, P(strip)=19.2W/m, the max run MAX=4m, the power supply is 400W, so the amplifier load load is

$$M = \frac{P \times 0.8}{P(\text{strip}) \times \text{MAX}} = \frac{400 \times 0.8}{19.2 \times 4} \div 4 \text{ (pcs)}$$

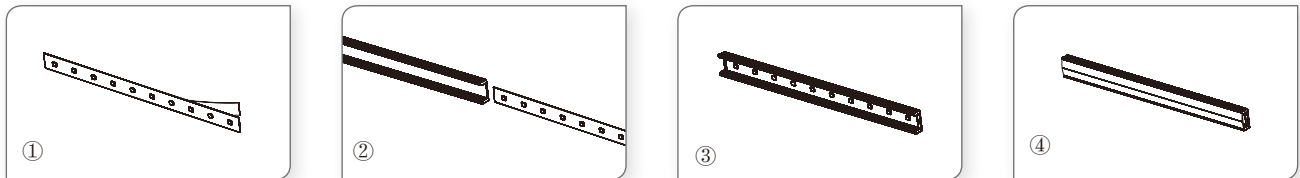
Note:

- 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.



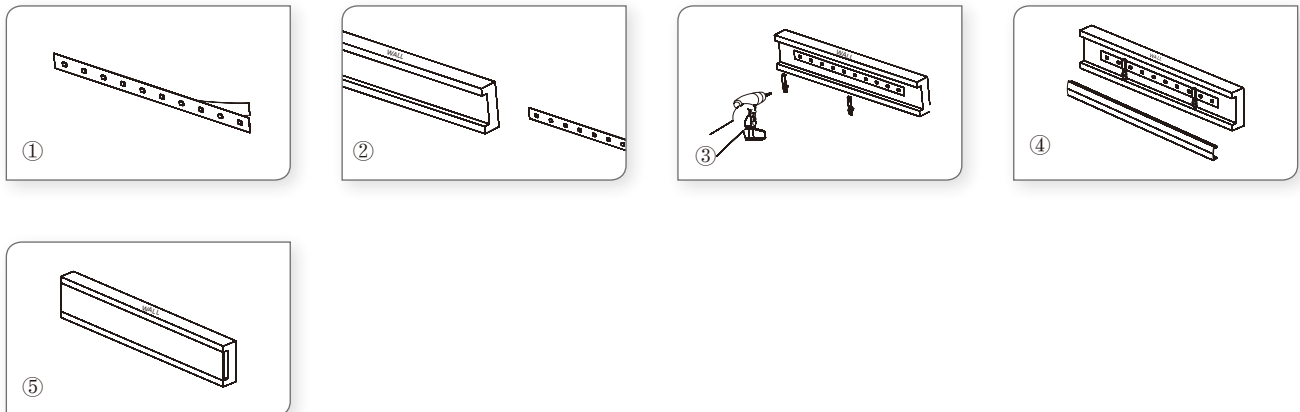
3.Installation Steps

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.
5. Finished



Attentions

- 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 product and then the power supply) to avoid short circuit.
- Make sure the correct connection of positive and negative poles between the product 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.	Fix the short circuit problem.
	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 for 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 (0.75mm² 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:

- 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.