


 Version: **A1.7**


Features

- Four-in-one design offers more uniform lights;
- Adopt flexible FPC with stable and reliable performance;
- Can be cut according to needs;
- Support PWM, 0-10V, DALI and DMX dimming.

Installation

- Fix with 3M adhesive.

Optical & Electrical Parameters

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TNF5050-60-12-RGB30K	12V DC	>80 /	 3000K	450	94	4.8
			 R+G+B	421	/	14.4
			 R+G+B+W	777	/	19.2
TNF5050-60-12-RGB35K	12V DC	>80 /	 3500K	462	96	4.8
			 R+G+B	416	/	14.4
			 R+G+B+W	790	/	19.2
TNF5050-60-12-RGB45K	12V DC	>80 /	 4500K	492	100	4.8
			 R+G+B	428	/	14.4
			 R+G+B+W	828	/	19.2
TNF5050-60-12-RGB65K	12V DC	>80 /	 6500K	510	107	4.8
			 R+G+B	420	/	14.4
			 R+G+B+W	837	/	19.2

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TNF5050-30-24-RGB30K	24V DC	>80 /	 3000K	232	97	2.4
			 R+G+B	237	/	7.2
			 R+G+B+W	416	/	9.6
TNF5050-30-24-RGB35K	24V DC	>80 /	 3500K	247	103	2.4
			 R+G+B	227	/	7.2
			 R+G+B+W	421	/	9.6
TNF5050-30-24-RGB45K	24V DC	>80 /	 4500K	262	109	2.4
			 R+G+B	239	/	7.2
			 R+G+B+W	441	/	9.6
TNF5050-30-24-RGB65K	24V DC	>80 /	 6500K	265	110	2.4
			 R+G+B	240	/	7.2
			 R+G+B+W	443	/	9.6

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TNF5050-60-24-RGB30K	24V DC	>80 /	 3000K	456	95	4.8
			 R+G+B	464	/	14.4
			 R+G+B+W	828	/	19.2
TNF5050-60-24-RGB35K	24V DC	>80 /	 3500K	474	98	4.8
			 R+G+B	453	/	14.4
			 R+G+B+W	834	/	19.2
TNF5050-60-24-RGB45K	24V DC	>80 /	 4500K	510	106	4.8
			 R+G+B	460	/	14.4
			 R+G+B+W	873	/	19.2
TNF5050-60-24-RGB65K	24V DC	>80 /	 6500K	510	106	4.8
			 R+G+B	471	/	14.4
			 R+G+B+W	882	/	19.2

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TNF5050-72-24-RGB30K	24V DC	>80 /	 3000K	504	117	4.32
			 R+G+B	513	/	12.96
			 R+G+B+W	965	/	17.28
TNF5050-72-24-RGB35K	24V DC	>80 /	 3500K	519	120	4.32
			 R+G+B	503	/	12.96
			 R+G+B+W	984	/	17.28
TNF5050-72-24-RGB45K	24V DC	>80 /	 4500K	602	139	4.32
			 R+G+B	525	/	12.96
			 R+G+B+W	1040	/	17.28
TNF5050-72-24-RGB65K	24V DC	>80 /	 6500K	578	134	4.32
			 R+G+B	555	/	12.96
			 R+G+B+W	1046	/	17.28

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
TN-F5050-120-24-RGBX	24V DC	/	 R	140	28	5
			 G	423	85	5
			 B	95	19	5
			 RGB	650	43	15
		>90 /	 3000K	376	75	5
			 RGBW	990	50	20
		>90 /	 3500K	385	77	5
			 RGBW	1006	50	20
		>90 /	 4500K	411	82	5
			 RGBW	1055	53	20
		>90 /	 6500K	426	85	5
			 RGBW	1054	53	20

Other Parameters

Model No.	LED QTY	Standard Run	Max Run	Working Temperature	Storage Temperature
TNF5050-60-12- RGBX	60pcs/m	5.0m	2.5m	-25~+60 °C	-25~+70 °C
TNF5050-30-24- RGBX	30pcs/m	5.0m	5.5m		
TNF5050-60-24- RGBX	60pcs/m	5.0m	4.5m		
TNF5050-72-24- RGBX	72pcs/m	5.0m	4.0m		
TNF5050-120-24-RGBX	120pcs/m	5.0m	4.5m		

NOTE:

- The above data was measured under standard conditions and actual data may be different. We would update data without further notice.
- The luminous flux was tested while the corresponding-color products were lightened.
- UL max run refers to operating length at UL class II @100W.24V.
- Luminous flux values were measured accordance to IES LM-80-08. LED chips with tolerance range of +/- 10%.
- Each maximum-run requires a dedicated power feed from the driver. Do not exceed the recommended maximum run length. Max run may exceed Class 2 limits.
- Actual wattage may be different from the calculated wattage due to voltage drop while using.
- Actual efficacy value is determined by the specific LED driver (power supply). An estimated efficacy value can be calculated as follows: Luminous intensity divided by average power consumption.
- Do not install products in the conditions that exceed the listed ambient temperature. Exceeding the maximum ambient temperature may damage LED chips, reduce the total lamp life, luminous intensity output, and/or adversely impact color consistency.
- Operating temperature was measured under the minimum and maximum ambient temperature environment.
- Cutting segments are marked on the profiles below.
- If the product power is greater than 15W, auxiliary heat dissipation appliances must be added.

Performance

- LED chip data measured in accordance to IES LM-80-08.
- Photometric & Colorimetry data measured in accordance to IES LM-79-08, in Blueview 's TUV Innovation Lab.

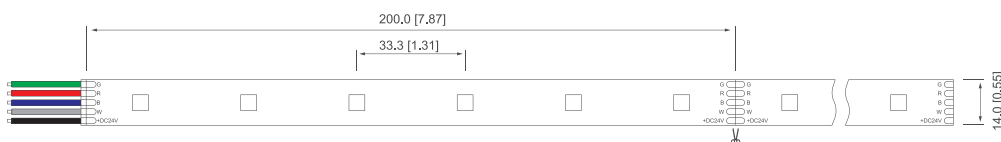
Compliance & Regulatory Approvals

	CE LVD	Standard: EN 60598-2-21: 2015; EN 60598-1: 2015; EN 62471: 2008; EN 62493:2015; EN 62031: 2015+A1: 2013+A2: 2015
	CE EMC	Standard: EN IEC 55015: 2019; EN IEC 61000-3-2: 2019; EN 61000-3-3:2013+A1: 2019;EN 61547: 2009
	CB	Standard: IEC 62031:2018
	UL LISTED	Standard: UL 2108 E354137-Low-voltage Lighting Systems, Power Units, Luminaires and Fittings
	RoHS	Standard: IEC62321

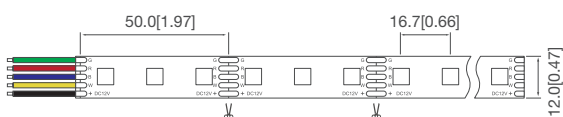
Profile Drawings

Unit: mm [inch]

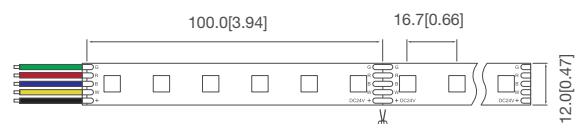
TNF5050-30-24- RGBX



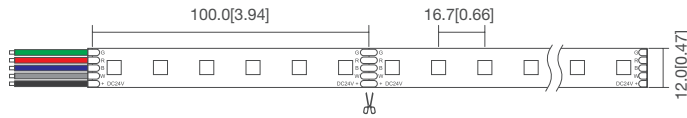
TNF5050-60-12- RGBX



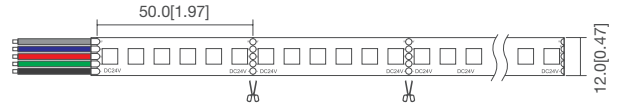
TNF5050-60-24- RGBX



TNF5050-72-24-RGBX



TNF5050-120-24-RGBX

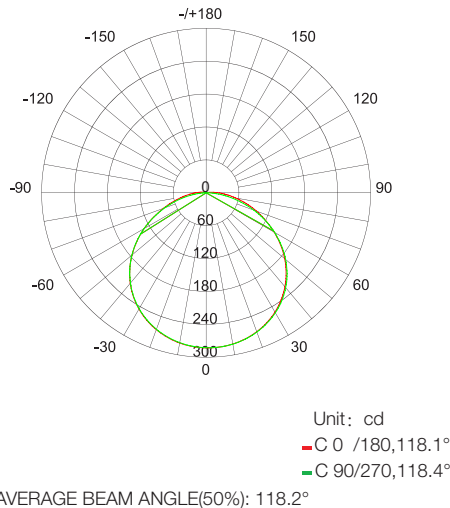


Note:

- For LED quantity less than 160leds/m with standard power, we recommend to use 20AWG parallel wire/sheathed cable with wire length less than 20cm, user need to reduce the max run when the wire length more than 20cm.
- For LED quantity more than 160leds/m with standard power, we recommend to use 18AWG parallel wire/sheathed cable in single feed, or 20AWG parallel wire or sheathed cable in both ends with wire length less than 20cm. Users need to reduce the max run properly when the wire length more than 20cm.
- Above conditions are only applicable to products with the PCB width of 10mm or more, for other width needs to be evaluated separately.
- Dimension tolerance: length $\pm 6\text{mm}$ [0.24inch]; width $\pm 0.2\text{mm}$ [0.008inch]; thickness $\pm 0.2\text{mm}$ [0.008inch]

Luminous Intensity Distribution Diagram

Average Illumination



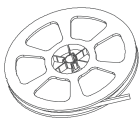
Flux Out: 670.5 lm

0.02m	177843,708346lx	6.67cm
0.04m	44461,177086lx	13.35cm
0.06m	19760,78705lx	20.02cm
0.08m	11115,44272lx	26.70cm
0.10m	7114,28334lx	33.37cm
0.12m	4940,19676lx	40.04cm
0.14m	3629,14456lx	46.72cm
0.16m	2779,11068lx	53.39cm
0.18m	2196,8745lx	60.07cm
0.20m	1778,7083lx	66.74cm

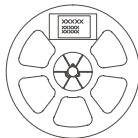
Height Eavg, Emax Beam Angle: 118.13° Diameter

Note: above data tested with TNF5050-60-24-RGB35K , for other data,please consult sales rep

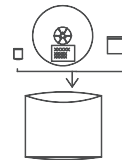
Packaging Information



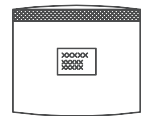
Roll the product to a reel



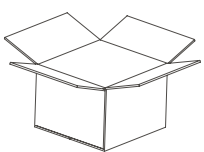
Label the reel;



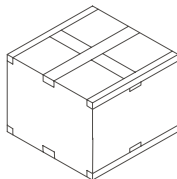
Put the reel and accessories bag on the work table



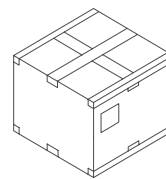
Put the prepared products into a bag and label the bag;



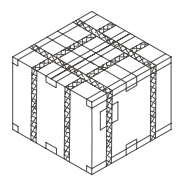
Put the bags into a carton box



Seal the carton box;



Label the carton box;



Use packing belt to pack. Add edge protectors if necessary

Packaging information

Model No.	Product Size L*W (mm)	Carton Size (mm)	Reel/Carton	Net Weight (kg)	Gross Weight (kg)
TNF5050-30-24-RGBX	5000*14	550*400*340	70	8.05 (1±10%)	12.75 (1±10%)
TNF5050-60-12/24-RGBX	5000*12	550*400*340	70	8.25 (1±10%)	13.05 (1±10%)
TNF5050-72-24-RGBX	5000*12	550*400*340	100	10.25 (1±10%)	15.05 (1±10%)
TNF5050-120-24-RGBX	5000*12	550*400*340	80	6.80 (1±10%)	10.90 (1±10%)

NOTE:

- 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.
- The gross weights of all above model are less than volume weight, the volume weight is 14.96kg.

Attentions before installation

- Check whether the power line is screwed into the terminal firmly, and it is better not to pull it out by hand.
- 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.
- The wiring terminal must be provided with effective waterproof and anti-corrosion treatment.

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.	
	Wrong connection of power supply.	
LEDs can not light on partly.	Some switching mode power supplies are not powered.	Correctly connection.
	Power supply line error.	
	Mistaken wire connection of some of products	
Brightness of LED is inconsistent tor insufficient.	Power overloaded.	Replace with more powerful power.
	Power supply circuit excessive consumption.	Make sure the working voltage of the product within ±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.
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