



Version: A1.4



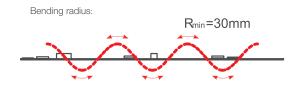
Features

- Long run series and no welding spot
- Dot-free, no shadows, high temperature resistance
- Lighter and thinner, small in size
- 180° big luminous angle, CRI 90+

- Not easy to vulcanize, good luminous flux maintenance rate
- Stable internal structure and long service life
- Seamless linear lighting with good flexibility
- Multiple specifications available

Installation

- Fix with 3M adhesive.



Optical & Electrical Parameters

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
FN-FC-280-24 (HS)	24V DC	>90	2700K	780	78	10.0
			3000 K	850	85	
			4000K	950	95	
			📃 5000 K	950	95	
			🗌 6500 K	900	90	
FN-FC-320-12 (HS)	12V DC	>90	2700K	780	78	10.0
			- 3000K	850	85	
			4000K	950	95	
			📃 5000 K	950	95	
			🗌 6500 K	900	90	
FN-FC-320-24-5mm	24V DC	>90	2700K	610	76	8.0
			3000 K	640	80	
			_ 4000K	700	87	
			📃 5000 K	700	87	
			🗌 6500 K	688	86	



XX-FC-XXX-XX (HS)

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
FN-FC-320-24 (HS)	24V DC	>90	2700K	780	78	10.0
			3000 K	850	85	
			4000K	950	95	
			📃 5000 K	950	95	
			🗌 6500 K	900	90	
FN-FC-480-24 (HS)	24V DC	>90	2700K	780	78	10.0
			3000 K	850	85	
			- 4000K	950	95	
			📃 5000 K	950	95	
			🗌 6500 K	900	90	

Other Parameters

Model No.	FN-FC-280-24 (HS)	FN-FC-320-12 (HS)	FN-FC-320-24-5mm	FN-FC-320-24 (HS)	FN-FC-480-24 (HS)
LED QTY (pcs/m)	280	320	320	320	480
Standard Run (m)	5.0	5.0	5.0	10.0	10.0
Product Size L*W (mm)	5000*8	5000*8	5000*5	10000*8	10000*8
No Brightness Difference MAX (m)	5.0	5.0	5.0	10.0	10.0
UL run (m)	8.0	6.0	5.0	8.0	8.0
Working Temperature	-20~+60 °C	-20~+60 °C	-20~+60 °C	-20~+60 °C	-20~+60 °C
Storage Temperature	-20~+70 °C	-20~+70 °C	-20~+70 °C	-20~+70 °C	-20~+70 °C

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.
- It is an advertising signage product. Please do not use it as main lighting.
- Cutting segments are marked on the profiles below.
- If the product power is greater than 15W, auxiliary heat dissipation appliances must be added.
- 180° is the luminous angle observed by the human eye, which is different with the actual tested angle;

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

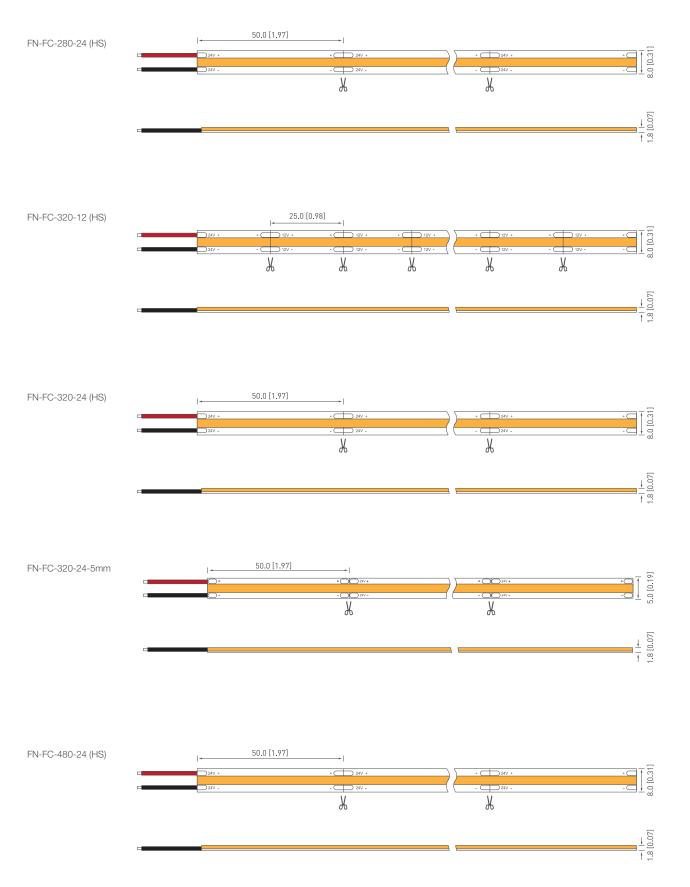
CE	CE LVD	Standard: EN 60598-2-21: 2015; EN 60598-1: 2015; EN 62471: 2008; EN 62493:2015; EN 62031: 2015+A1: 2013+A2: 2015
(6	CE EMC	Standard: EN IEC 55015: 2019; EN IEC 61000-3-2: 2019; EN 61000-3-3:2013+A1: 2019;EN 61547: 2009
	00	
CB	CB	Standard: IEC 62031:2018
	UL LISTED	Standard: UL 2108 E354137-Low-voltage Lighting Systems, Power Units, Luminaires and Fittings
LISTED		
	D 110	
	RoHS	Standard: IEC62321





Profile Drawings

Unit: mm [inch]

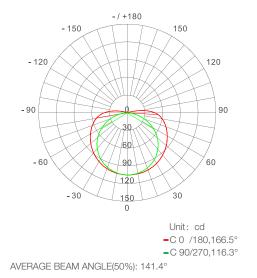


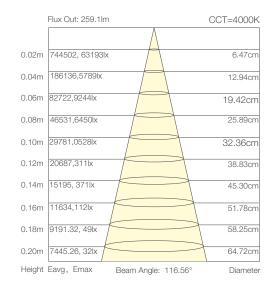
Note: we recommend to use 20AWG parallel wire/sheathed cable with wire length less than 20cm, user need to reduce the max run when the wire length more than 20cm.



Luminous Intensity Distribution Diagram

Average Illumination





Note: above data tested with FN-FC-320-24 (HS) at 4000K , for other data, please consult sales rep.

Recommended power supply upon working length

FN-FC-280-24 (HS)		
Operating Length (m)	5.0	10.0
Total Power (W)	44.88	63.84
Head-to-tail Voltage Drop Rate (%)	6.79	14.32
Head-to-tail Current Drop Rate (%)		
Single/Double feed	Single feed	Double feed

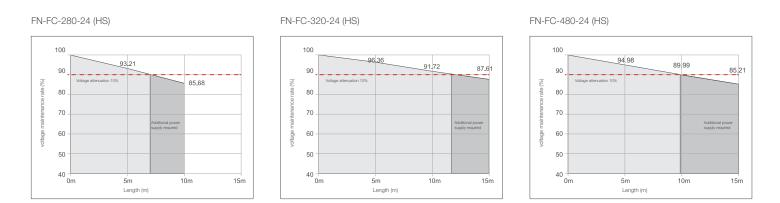
FN-FC-320-24 (HS)			
Operating Length (m)	5.0	10.0	15.0
Total Power (W)	43.92	57.12	66.72
Head-to-tail Voltage Drop Rate (%)	3.64	8.28	12.39
Head-to-tail Current Drop Rate (%)			
Single/Double feed	Single feed	Single feed	Double feed

FN-FC-480-24 (HS)
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5.0	10.0	15.0
45.36	59.28	67.92
5.02	10.01	14.79
Single feed	Single feed	Double feed
	45.36 5.02 	45.36 59.28 5.02 10.01



Voltage maintenance rate & Power supply mode



Note: if the voltage attenuation rate exceeds 10%, must adopt double feed mode -add additional power supply . More info, please contact sales rep

Packaging Information



Label the reel;



Seal the carton box;



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



Label the box;



Seal and label the static shielding bag;



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



Put the packed static shielding bag into carton box;

Packaging information

Model No.	Product Size L*W (mm)	Carton Size (mm)	Meter/Reel	Reel/Carton	Net Weight (kg)	Gross Weight (kg)
FN-FC-280-24 (HS)	5000*8	550*400*340	5	120	5.15 (1±10%)	9.55 (1±10%)
FN-FC-320-12 (HS)	5000*8	550*400*340	5	120	5.55(1±10%)	10.20 (1±10%)
FN-FC-320-24-5mm	5000*8	550*400*340	5	100	8.60 (1±10%)	14.10 (1±10%)
FN-FC-320-24 (HS)	10000*8	550*400*340	10	100	8.60 (1±10%)	14.10 (1±10%)
FN-FC-480-24 (HS)	10000*8	550*400*340	10	100	9.60 (1±10%)	15.10 (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 is14.96kg.



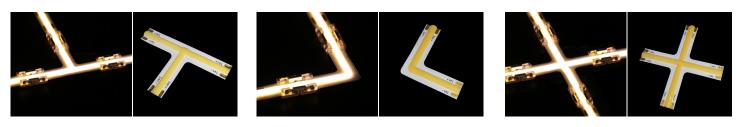
Reliability test

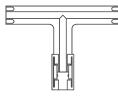
Project	Reference standards	Category	Test conditions	Outcome	
		PTC test	TH=-40°C~60°C, cycle every 2h (holding 15min, heating and cooling 45 min)		
		High temperature resistant test	Simulated 80°C, continuous power on		
Environmental test	Blueview standard	Thermal shock test	TH=80°C / 4h, TH = -40°C/4h, continuous cycle and power on	Pass	
		High temperature and humidity test TH=60°C, RH =90%, continuously power on			
		Room temperature bending aging test	Bending diameter 40mm, TH=25°C, continuous power on		
		Room temperature aging test	TH=25°C, continuous power on		
Other tests Blueview	Disco incontra dana	Twist test	Fix a sample with a length of 1m on the instrument fixture at the front and end respectively, twist one end, and rotate 360° forward and reverse each time, a total of 10 times.		
	Blueview standard	Repeat installation test	Paste the 5m-long sample on a clean acrylic carrier board, fix the carrier board, pull forcibly to remove the sample, observe the state of the sample, and repeat the above steps for 3 times.	- Pass	

Installation

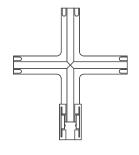


Connector usage diagram





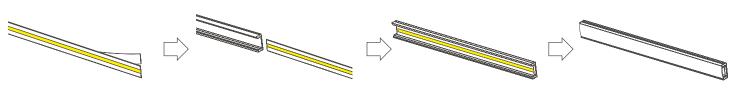






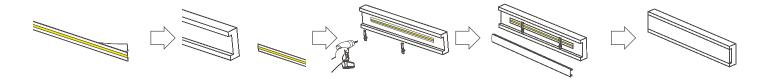
Installation Methods and Steps

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.

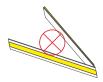
Covered channel installation



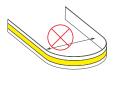
- 1. Peel away the self adhesive tape on the back of strip.
- 2. Cut off the excess part based on the installation position.
- 3. Evenly arrange the strips with appropriate space in the track and fix them with clips.
- 4. Install the cover and end cap.

5. Finished

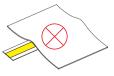
Warning Mark



Do not fold the LED strip



Do not bend the LED strip (bending range not less than the min bending diameter)



Do not cover the LED strip



Do not bend the LED strip horizontally



Do not light on the LED strip when it on the reel

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				
	No electric supply.					
All LEDs can not light 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.					
LEDa oop pot light op portly	Some switching mode power supplies are not powered.					
LEDs can not light on partly.	Power supply line error.	Correctly connection.				
	Mistaken wire connection of some of products					
	Power overloaded.	Replace with more powerful power.				
Brightness of LED is inconsistent tor insufficient.	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.				
	Connection point fault.	Remove bad connection point.				
LED flicker.	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.

- 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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