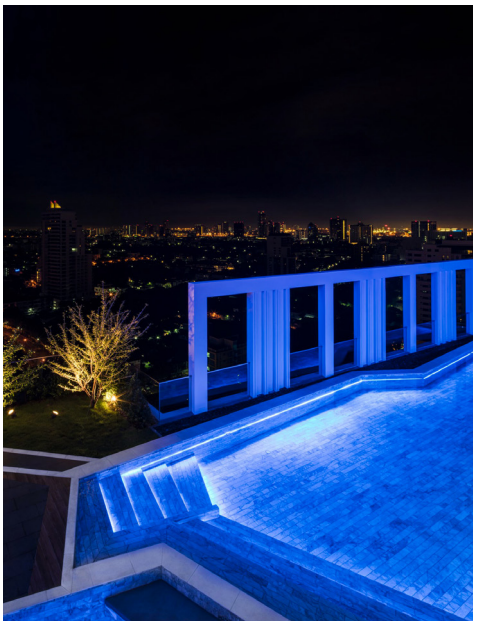
CE | 120° | 2835 | DC 24V | 3Years | IP68

Version: **C1.2**

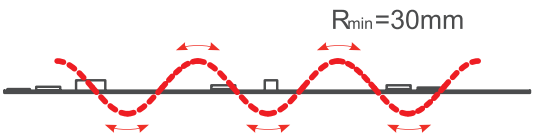


Suitable for shallow water places such as swimming pools and fountains.

Features

- Raw materials imported from Germany;
- The product is resistant to chlorine and salt corrosion;
- Ra 90+;
- Brightness keeps the same due to constant current design;
- Long run with less power feed;
- High quality FPC, easy to shape;
- High brightness and efficiency;
- Can not be cut during mounting, support customization;

Bending radius:



Installation

- Fix with mounting clips.

LED Driver

- Must use the isolated power supply
- Input: AC90-265V 50/60HZ
- Output: DC24V

Optical & Electrical Parameters

Model No.	Voltage	Ra	CCT	LM/m	LM/W	W/m
FWTU-2835T-112-24	24V DC	>90	3300-3500K	1100	96	11.52

Other Parameters

Model No.	LED QTY	Standard Packing Length	No Brightness Difference (single feed)	Working Temperature	Storage Temperature
FWTU-2835T-112-24	112pcs /m	10.0m	10.0m	-20~+55 °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.
- 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

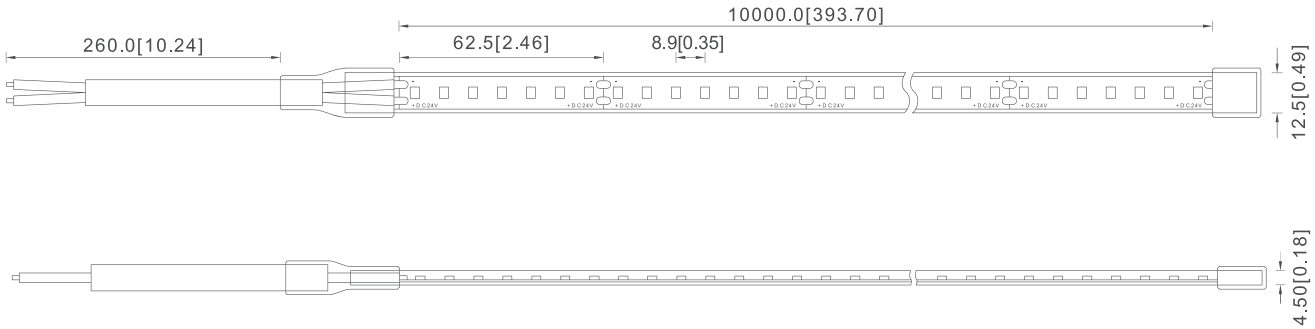
- LED chip data measured in accordance to IES LM-80-08.
- Photometric & Colorimetry data measured in accordance to IES LM-79-08, in Blueview 's TUV Innovation Lab.

Compliance & Regulatory Approvals

CE	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	CE EMC	Standard: EN IEC 55015: 2019; EN IEC 61000-3-2: 2019; EN 61000-3-3:2013+A1: 2019;EN 61547: 2009
CB	CB	Standard: IEC 62031:2018
c UL us LISTED	UL LISTED	Standard: UL 2108 E354137-Low-voltage Lighting Systems, Power Units, Luminaires and Fittings
RoHS	RoHS	Standard: IEC62321

Profile Drawings

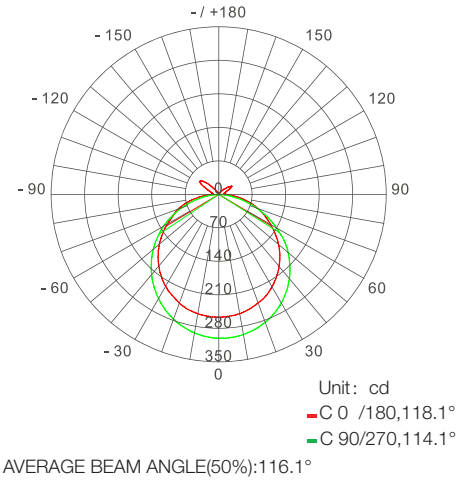
Unit: mm [inch]



Note:

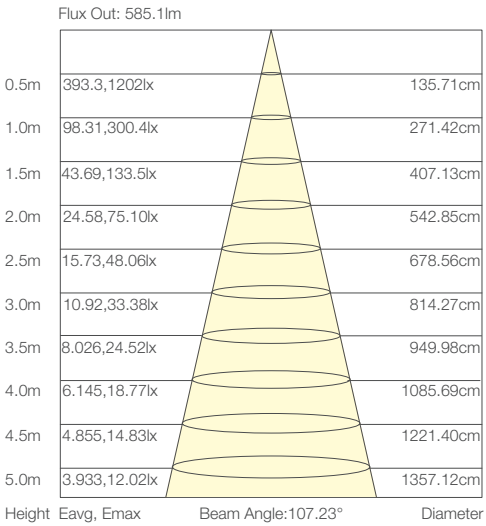
- For LED quantity less than 160leds/m with standard power, we recommend to use 20AWG parallel wire/sheathed cable with wire length less than 20cm, user need to reduce the max run when the wire length more than 20cm.
- For LED quantity more than 160leds/m with standard power, we recommend to use 18AWG 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.

Luminous Intensity Distribution Diagram



AVERAGE BEAM ANGLE(50%):116.1°

Average Illumination



Note: above data tested with FWTU-2835T-112-24 , for other data,please consult sales rep.

Reliability test

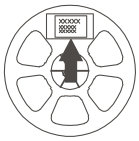
Project	Testing agency	Category	Test conditions	Outcome
Water environment test	Blueview	Artificial seawater test	Immerse the sample in artificial seawater solution (pH 7.5~8.0), immersed depth 10cm	Pass
	Blueview	Immersion test	Immerse the sample into an ordinary pool, immersed depth 100cm	
	Third-party	IP test(3m)	Please refer to the report for details	
	Third-party	Seawater immersion test	Please refer to the report for details	

Recommended power supply upon working length

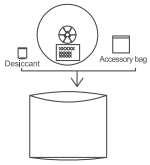
FWTU-2835T-112-24

Operating Length	Total Power	Head-to-tail Voltage Drop Rate	Head-to-tail Current Drop Rate	Single/Double feed
1.0m	10.73W	0.25%	0.49%	Single feed
3.0m	31.80W	1.13%	-0.32%	Single feed
5.0m	52.73W	3.14%	-0.32%	Single feed
7.0m	73.66W	6.17%	-0.16%	Single feed
9.0m	93.84W	10.17%	-0.16%	Single feed
10.0m	104.40W	12.45%	0.16%	Single feed

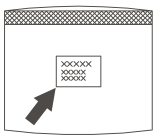
Packaging Information



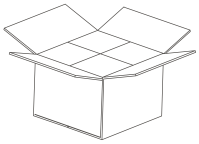
Label the reel;



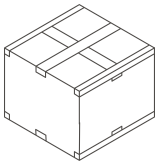
Put reel, accessory bag and desiccant together into static shielding bag;



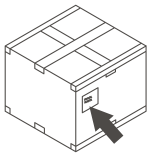
Seal and label the static shielding bag;



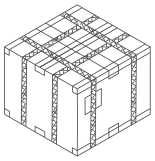
Put the packed static shielding bag into carton box;



Seal the carton box;



Label the box;



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

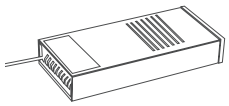
Packaging information

Model No.	Product Size L*W (mm)	Carton Size (mm)	Meter/Reel	Reel/Carton	Net Weight (kg)	Gross Weight (kg)
FWTU-2835T-112-24	10000*12.5	390*390*325	10	15	11.00 (1±10%)	16.50 (1±10%)

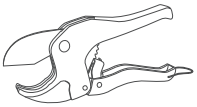
NOTE:

• 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.

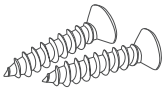
Installation



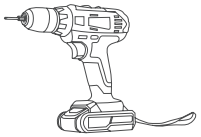
LED power supply



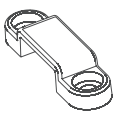
Cutter



Screw

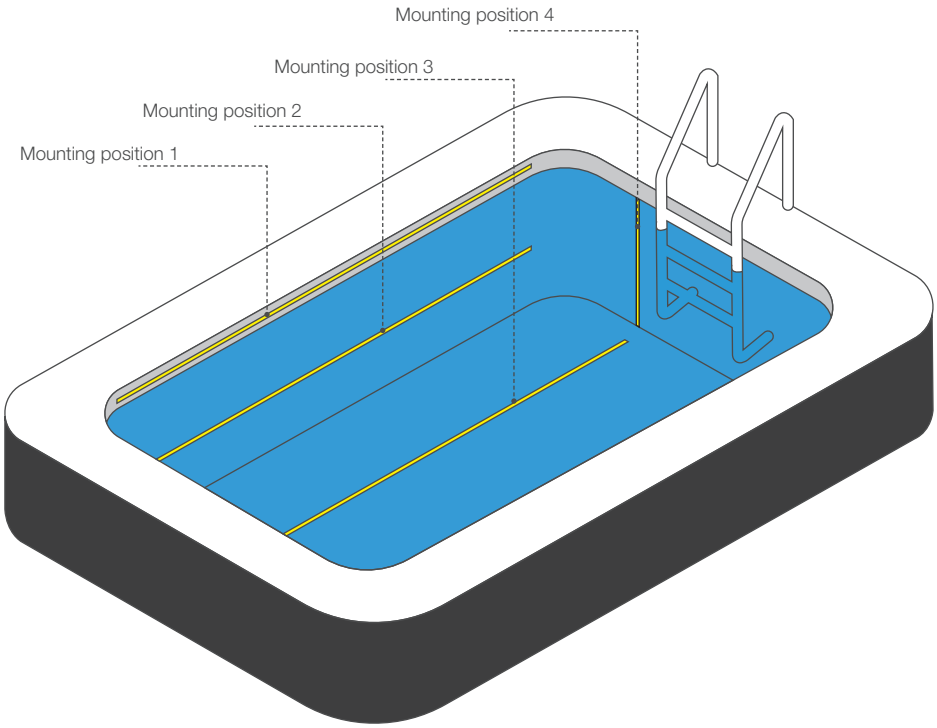


Electric drill

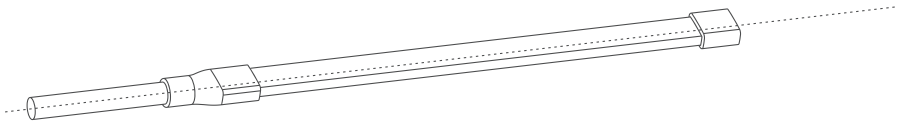


Clips

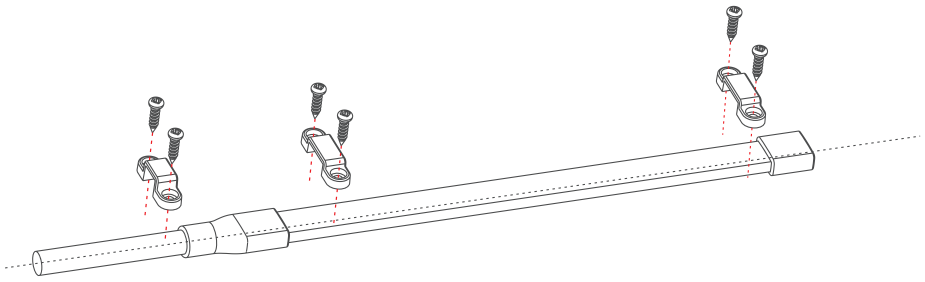
Mounting Position



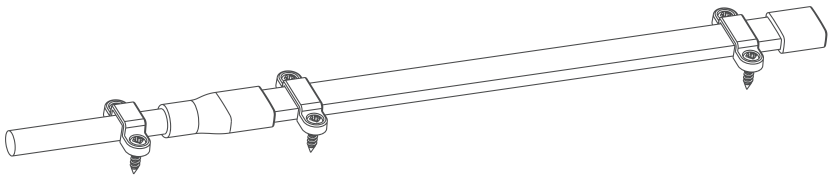
Mounting Method



After draining the water in the swimming pool, clean the mounting surface and mark the mounting position.



Fix the clips at the mounting position with screws.



Make sure the luminous surface is flat, then light on to test.

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.
- Use 1 mm² 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.
- For non replaceable light sources: the light source of this luminaire is not replaceable; when the light source reaches its end of life the whole luminaire shall be replaced.
- Do not connect the rope light to the supply while it is in the packing or wound onto a reel.
- Do not use the rope light when covered or recessed into a surface.
- The external flexible cable or cord of this luminaire cannot be replaced; if the cord is damaged, the luminaire shall be destroyed.
- For operation only with safety isolating transformer.
- This product needs to be cleaned regularly during use, and cannot be cleaned with oily, strong alkaline, strong acid and other chemical cleaners.

isolated power supply

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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