

PRODUCT DATA SHEET

MODE : 24V-2835-50-20Z FPC

COLOR : 2700K + 6500K

5000*8,600LED'S

CONSTANT VOLTAGE 24DC FLEXIBLE STRIP LIGHT



GDS-TUNABLE LED STRIPS

UL	CE	RoHS	2835 SMD	120 LEDS	WATTS 50	DC 24V	IP 20	3 YEARS WARRANTY
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PRODUCT FEATURES

- SWITCH BETWEEN WARM WHITE (2700K) AND COOL WHITE (6500K) FOR FLEXIBLE LIGHTING MOODS.
- 1100 LUMENS PER METER ENSURES VIBRANT ILLUMINATION.
- DELIVERS 110 LM/W FOR LOWER ENERGY CONSUMPTION.
- LOW POWER CONSUMPTION 10W PER METER.
- SAFE AND STABLE VOLTAGE FOR CONSISTENT PERFORMANCE.
- LONG-LASTING AND RELIABLE LED SOURCE.
- 120 LEDs PER METER FOR SMOOTH, UNIFORM LIGHT DISTRIBUTION.
- EASILY CUTTABLE AND INSTALLABLE ON DIFFERENT SURFACES.
- ADJUST BRIGHTNESS AND COLOR TEMPERATURE ACCORDING TO AMBIANCE.
- DESIGNED FOR DURABILITY AND CONSISTENT LIGHTING OVER TIME.

COLOUR & BINNING

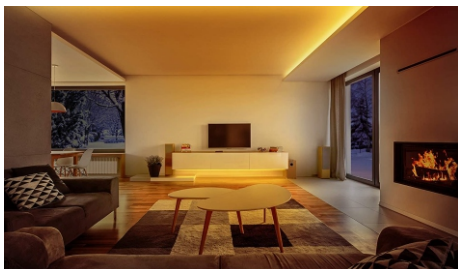
- TWO SEPARATE WHITE BINS AVAILABLE FOR TUNABLE MIXING:
WARM WHITE (WW): 2700 K
COOL WHITE (W): 6500 K
- TYPICAL CCT TOLERANCE: ± 150 K (DEPENDING ON BINNING)

COLOR RENDERING INDEX (CRI)

- RECOMMENDED: $RA \geq 80$ FOR GENERAL APPLICATIONS
- FOR HIGH-QUALITY LIGHTING: $RA \geq 90$

APPLICATIONS

- INDOOR ILLUMINATION AND DECORATION IN HOME, HOTEL, SHOPPING MALL, CINEMA, MUSEUM, BAR, SHOWING ROOM, JEWELRY COUNTER, ETC.



TECHNICAL PARAMETERS

PRODUCT CODE	GDS-TUNABLE LED STRIPS
LED TYPE	SMD 2835
WORKING VOLTAGE	DC24 V
POWER	10W/M
COLOR	WW2700K + W6500K
CRI	>80
PCB WIDTH	2OZ FPC
BEAM ANGLE	120°
EFFICENCY	110LMS/W
LUMENS	1100 LMS
LED QUANTITY	120 LED / METER
IP RATING	IP20
WARRANTY	3 YEARS

ELECTRICAL CHARACTERISTICS

- POWER PER METRE: 10 W
- NOMINAL VOLTAGE: 24 V DC
- CURRENT PER METRE

($I = P / V$): $10 \div 24 = 0.4166 \text{ A} / \text{M}$ (~0.416 A/M)
- EXAMPLE CURRENT (SINGLE RUN)

1 M → 0.416 A

5 M → 2.08 A

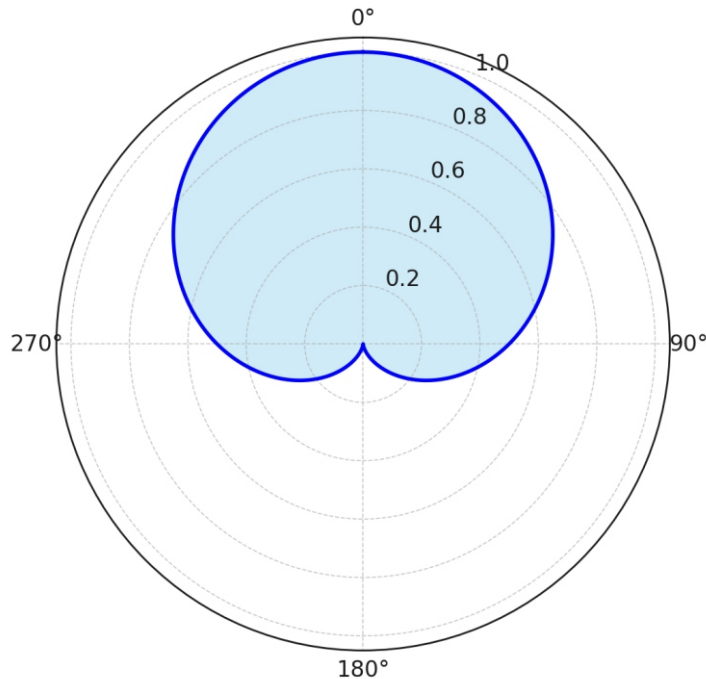
10 M → 4.16 A

PHOTOMETRIC & LIGHT DISTRIBUTION (DIAGRAM)

- BEAM DISTRIBUTION: WIDE, NEAR-LAMBERTIAN OUTPUT SUITABLE FOR LINEAR WASHING TYPICAL HALF-ANGLE ~60° (FULL BEAM ≈ 120°).
- LUMINOUS INTENSITY (APPROX): FOR A LINEAR SOURCE LUMINOUS FLUX IS GIVEN IN LM/M. PEAK CANDELA PER METRE DEPENDS ON DIFFUSER AND OPTICS; OBTAIN IES FILE FROM LABORATORY FOR EXACT CANDELA VALUES.

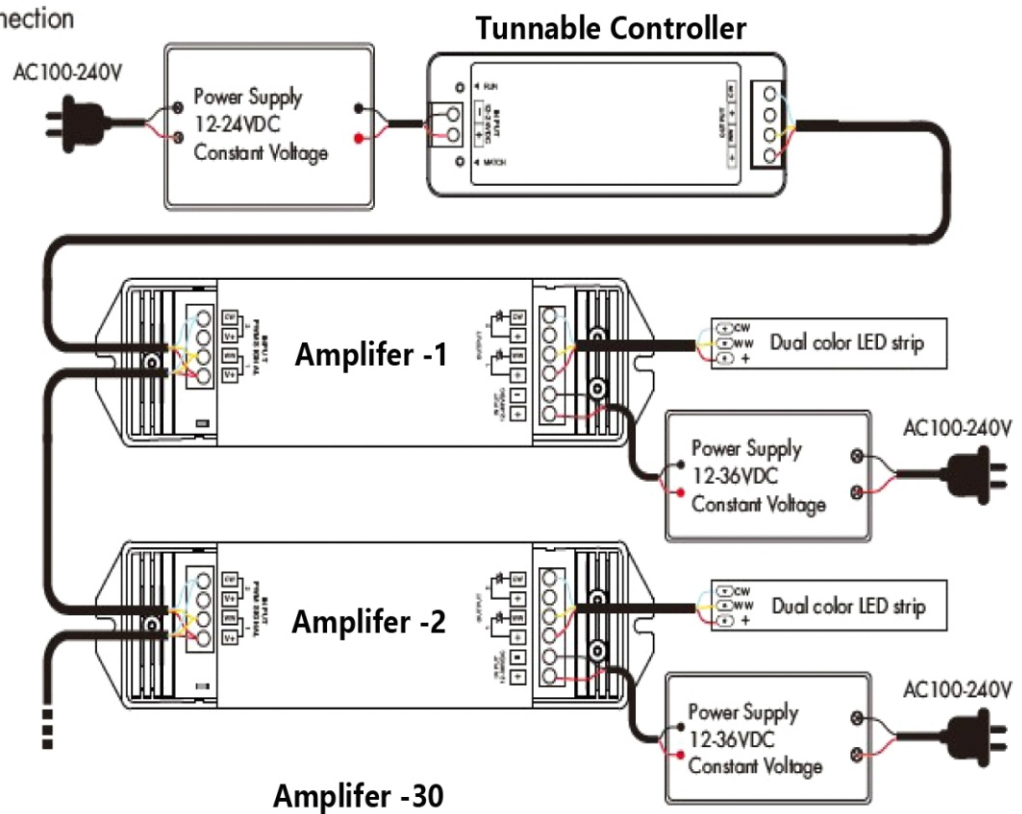
SIMPLE LIGHT DISTRIBUTION DIAGRAM

Light Distribution Diagram – Tunable LED Strip



CONNECTION LAYOUT

- Parallel connection



MECHANICAL & ENVIRONMENTAL

- PCB: FLEXIBLE 2 OZ COPPER FPC (DOUBLE-SIDED COPPER AS NEEDED)
- STRIP WIDTH: (SPECIFY YOUR PRODUCTION WIDTH) — TYPICAL: 8–12 MM FOR 120 LEDS/M ON 2 OZ.
- CUT POINTS: EVERY 6 LEDS (0.05 M) — CONFIRM ON PRODUCTION ARTWORK. MARKED CUT LINES EVERY 10 MM OR 50 MM DEPENDING ON LAYOUT.
- ADHESIVE BACKING: 3M ADHESIVE (OPTIONAL) / SILICONE MOUNTING CLIPS FOR HIGH-TEMPERATURE APPLICATIONS
- INGRESS PROTECTION: IP20 (UNLESS SILICONE COATED, THEN IP65/IP67 POSSIBLE)
- OPERATING TEMPERATURE: -20 °C TO +45 °C (AMBIENT). MAX
SOLDERING/ASSEMBLY TEMP: 260 °C PEAK FOR REFLOW AT PAD ONLY.

EXAMPLE CALCULATIONS

- CURRENT PER METRE: $10\text{ W} \div 24\text{ V} = 0.4166\text{ A}$ ($\approx 0.416\text{ A}$)
- TOTAL CURRENT FOR 5 M: $0.4166 \times 5 = 2.08\text{ A}$ ($\approx 2.08\text{ A}$)
- POWER FOR 5 M: $10 \times 5 = 50\text{ W}$
- ESTIMATED LUMENS FOR 5 M (RATED): $1,100 \times 5 = 5,500\text{ LM}$

COMMON PROBLEM AND SOLUTIONS

- PLEASE CHECK IF POWER SUPPLY IS CONNECTED, OR IF THE SWITCH IS IN THE CONNECTED POSITION WHEN THE LIGHT DOES NOT WORK.
- IF THE LAMP LIGHTS ON AND OFF FREQUENTLY, PLEASE CHECK CONNECTION BETWEEN POWER SUPPLY AND STRIP IN CASE THAT IT IS LOOSE.

NOTE : IF THE LIGHTS STILL DOES NOT WORK WELL AFTER TRYING THE METHODS ABOVE, PLEASE CONTACT PROFESSIONAL STAFF FOR HELP.

ATTENTIONS

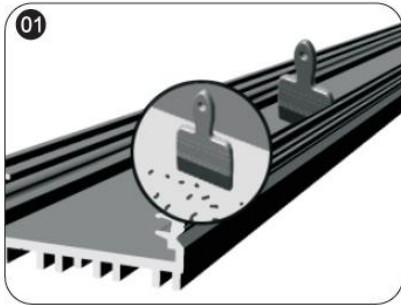
- PLEASE DO NOT CONNECT POWER SUPPLY WHEN THE LIGHT IS STILL IN BAG.
- PAY ATTENTION TO FIRE, ELECTRICITY AND SHAKE
- PLEASE DO NOT CONNECT HIGH VOLTAGE BEFORE THE INSTALLATION, AND MAKE SURE THAT THE FIXTURE CONNECTS THE EARTH
- PLEASE DO NOT USE ROUGH OR CLEANSER TO CLEAN THIS PRODUCTS, DO NOT USE HIGH PRESS WATER TO WASH THIS PRODUCT THAT IT WOULD BE HARMFUL FOR THE WATERPROOF COMPONENTS.
- PLEASE DO NOT USE SHARP EQUIPMENT TO STAB THIS PRODUCT, OR IT MAY BROKEN THE INTERNAL COMPONENTS.
- PLEASE DO NOT PULL OR PRESS TOO MUCH ON THE PRODUCTS.
- ONCE THE LIGHT REACHES THE LIFESPAN, PLEASE CONTACT YOUR LOCAL RELATIVE AUTHORITY OR RETAILER TO ASK FOR RECYCLE SUGGESTION.
- RECOMMENDED WORKING ENVIRONMENT TEMPERATURE IS -20~40 .
- PLEASE DO NOT USE THE LIGHT IF THE FIXTURE OR WIRE HAS PROBLEM, CHECK AND REPAIR FIRSTLY.
- THE LIGHT SHOULD BE INSTALLED BY PROFESSIONALS.

*IF THERE IS ANY CHANGE FOR THE PRODUCT, WE WILL NOT INFORM AGAIN.

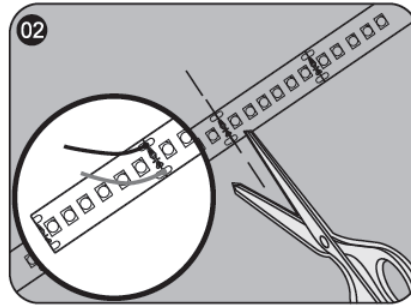
*IF YOU HAVE ANY QUESTION ABOUT THE SPECIFICATION, PLEASE ASK QUALIFIED ENGINEERS FOR HELP.

NOTICE : IF THE LIGHT BECOMES BROKEN BECAUSE OF MISUSE OF OTHER ACCESSORIES WHICH ARE NOT FROM OUR COMPANY, WE ARE NOT RESPONSIBLE THIS ISSUE.

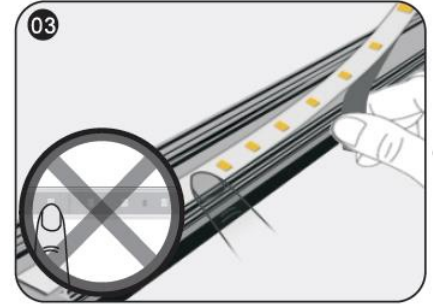
INSTALLATION STEP INSTRUCTIONS AND PRECAUTIONS



© Clean up debris on the mounting surface to ensure surface cleaning



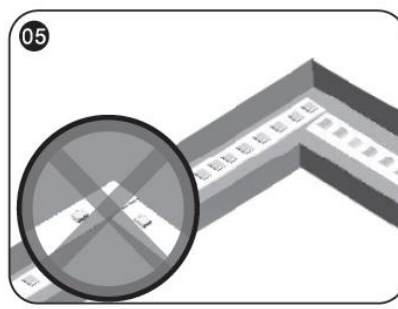
© Measure the length of the strip to be installed, and cut the extra LED strip along the scissors marking line. If you need to increase the connecting wire, please weld it at the next scissors mark at the cut.



© When attaching the led strip, be careful to peel while sticking. It is strictly forbidden to tear off all the release paper at once to prevent the led strip from sticking to each other.
△ Note: Do not press the lamp beads!



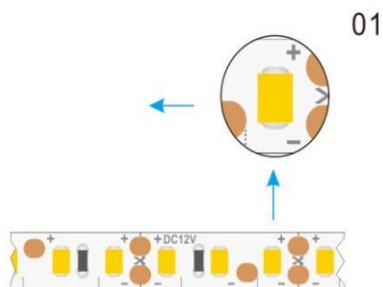
© The position of the led where scissors are in contact with the bottom of the section need to isolate with sticker tape, so as to avoid short circuit.



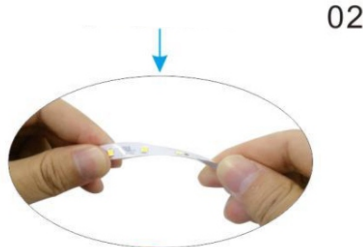
© The light strip at the corner is installed as shown above
△ Note: Do not fold into a right angle
Direct bending on the surface of the profile is strictly prohibited



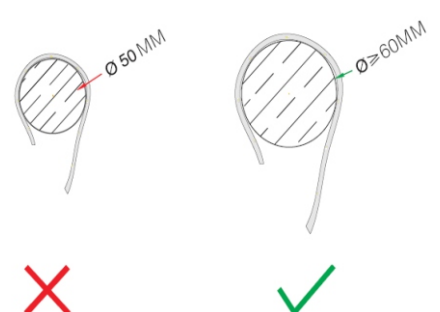
© After the strip is installed, it is connected to the power output. Insulation, short - circuit protection and corrosion protection should be done at the terminals



© Don't bend the LED position



© Don't twist the led strips



© Don't wrap objects less than 5cm in diameter

COMMON FAULTS OF PRODUCTS AND TROUBLESHOOTING METHODS

Fault phenomenon	Potential causes	Solution
All LEDs are off	1、The power is off.	power transmission
	2、Automatic protection of the power supply after the output of the switching power supply is open or shorted.	trouble shooting and recovering the power supply
	3、LED Strips with power supply terminal polarity reverse	Check the wire connection to ensure correct connection of positive and negative wire
Some of the LEDs are off	1、Part of the switching power supply is not powered	Check the power supply system and troubleshoot
	2、Part of the electricity supply line error	
	3、Partial led strips with reverse polarity connection	Correct connection
LED brightness is not the same or the brightness is not enough	1、Power overload	Replace the power supply with a larger power according to the load
	2、Switching power supply line or circuit loss is too large	Ensure that the operating voltage of the led strips is within $\pm 5\%$ of the rated voltage 1. Cut the length of the wire between the strip and the power cord or use wires with larger diameter; 2. Ensure that the number of each led strip is less than or equal to the maximum allowable cascade ;And make each strip with a similar connection.
	3、Over connection of LED Strips	Adjust the number of strips for each power supply and to meet the maximum connection requirements for each power supply.
LED flashing	1、Poor contact at the wiring point	Find out the bad points and troubleshoot
	2、Switching power supply failure	Replace the switching power supply

COMMON FAULTS OF PRODUCTS AND TROUBLESHOOTING METHODS

- © If the external cord of the product is damaged, it should be replaced by the manufacturer or its service agent or a similarly qualified person to avoid danger.
- © For the specific installation and precautions of the product, please refer to the product manual.
- © The data above in this specification is based on standard products. Actual shipments may be a little difference. Please refer to the actual product.
- © All product drawings in this specification are schematic diagrams, and actual shipments may be a little difference. Please refer to the actual product.