Top Bend Neon

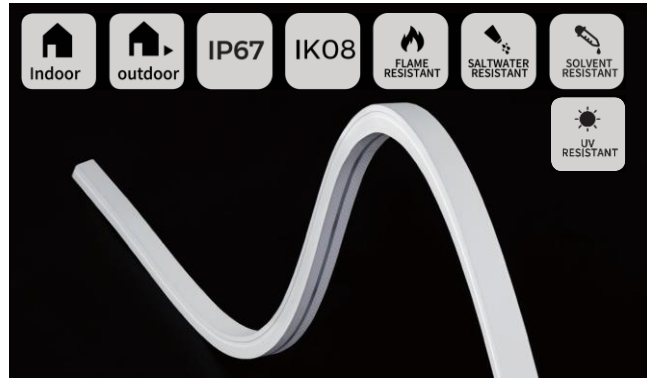
The 12W/m Top-Bend Neon LED Strip is a versatile and high-performance lighting solution designed for creative applications. Engineered to bend vertically (top-bend), it offers unparalleled flexibility, making it perfect for smooth curves, waves, and intricate designs. Delivering 12W per meter, this strip provides bright, uniform illumination with a CRI >90, ensuring vibrant and accurate color rendering

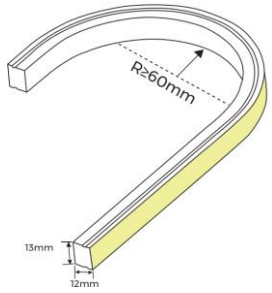
FEATURES AND BENEFITS:

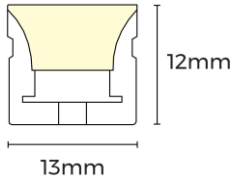
- ✓ High CRI 90
- ✓ Wide 120° Beam Angle
- ✓ Available in Constant Voltage 24V DC
- ✓ 140 LEDs per meter for smooth and seamless illumination.
- ✓ Available in 2700K/3000K/4000K/6000K/RGB
- ✓ Comes with IP67 rating
- ✓ Long Lifespan, rated for 36,000 hours (L70)
- ✓ 5-year warranty

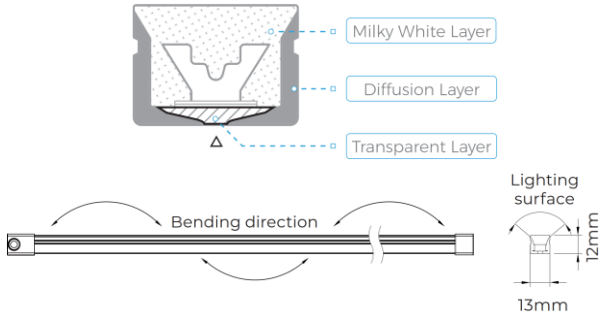
APPLICATION:

- ❖ Commercial lighting
- ❖ Architectural lighting
- ❖ Task lighting
- ❖ Cove and accent lighting
- ❖ Outdoor decorative lighting
- ❖ Custom lighting designs









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PERFORMANCE FEATURES:

High substitutability

Featured in high substitutability, can achieve various lighting effects such as white light, RGB and digital toning, can replace the neon tube, guardrail tube, rainbow tube and so on for signage lighting/architectural lighting/landscape lighting.

Good heat dispersion

Thermal conductivity value of silicone is 0.27W/MK, higher than that of PVC (0.14W/MK). With high-quality silicone adopted, neon strip can carry out effective heat transfer, and thus expands its life span.

High light transmittance

Featured in up-to-90% light transmission, can meet the requirements of high lumens output, and it's not only used for decoration but also lighting.

Superb Corrosion resistance

Silicone displays stable chemical properties and anti-corrosion to ordinary acid, alkali and salt; suitable for applications in special environment.

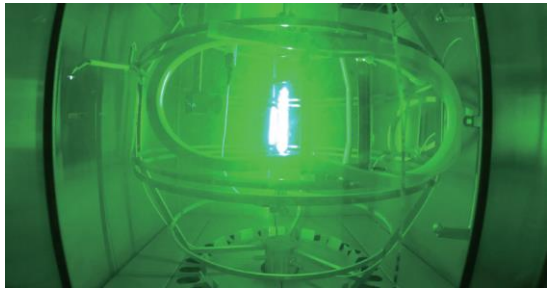
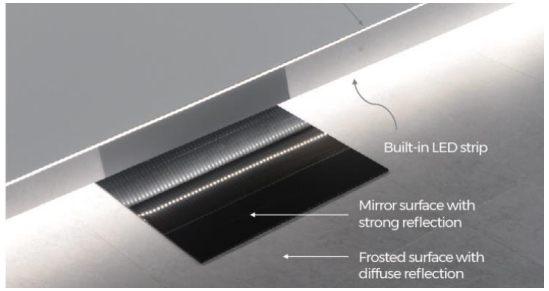


Illustration of anti-yellowing

Due to silicone's nature, slight color changes in the gel over extended use of neon products are normal. During installation, avoid adhesives like 502/705 that can react with silicone; use silicone sealant instead. Seal any leftover cut products for storage to prevent exposure to organic environments with aldehydes/benzenes

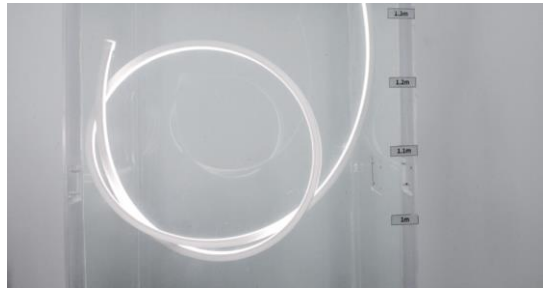


Uniform lighting

Featured in continuous light emitting without light spots, halos or shadows; the light is soft to view directly and suitable for highly reflective and smooth environment.

Excellent weather resistance

For material, Silicone can maintain its flexibility for a long time under extreme temperature of -50°C-+150°C while without embrittlement, deformation, softening, and aging for production, outdoor golden series Operating temperature: -40°C~+60°C.



Eminent protective performance

Suitable for harsh outdoor environment such as exterior Facade Illumination and Decorative Lighting.

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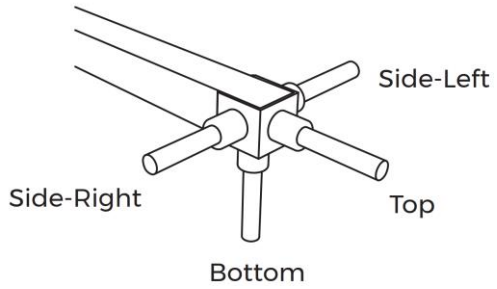
DATASHEET:

Azoogi Product Code	Input Voltage DC (V)	Max. Power per Meter (W/m)	Colour Temperature	Lumen (lm/m)	CRI	LEDs per Meter	Width (mm)	Height (mm)	Beam Angle	Cutting Increment	IP Rating	Operating Temperature	Warranty
STR106	24V	12W/m	2700 K	716lm/m	Ra>90	140leds/m	13mm	12mm	120°	50mm	IP67	-20°C to +40°C	5 years
STR107	24V	12W/m	3000 K	756lm/m	Ra>90	140leds/m	13mm	12mm	120°	50mm	IP67	-20°C to +40°C	5 years
STR109	24V	12W/m	4000 K	714lm/m	Ra>90	140leds/m	13mm	12mm	120°	50mm	IP67	-20°C to +40°C	5 years
STR141	24V	12W/m	6000 K	746lm/m	Ra>90	140leds/m	13mm	12mm	120°	50mm	IP67	-20°C to +40°C	5 years
STR108	24V	12W/m	R G B	209lm/m	Ra>90	84leds/m	13mm	12mm	120°	83.3mm	IP67	-20°C to +40°C	5 years

INSTALLATION OPTIONS:

Flat mounting aluminium groove	L = 1000mm With screws
Flat mounting clip	L = 25mm With screws
PC clip	L = 25mm With screws
Moldable groove	L = 500mm With screws



End Cap Orientation Options

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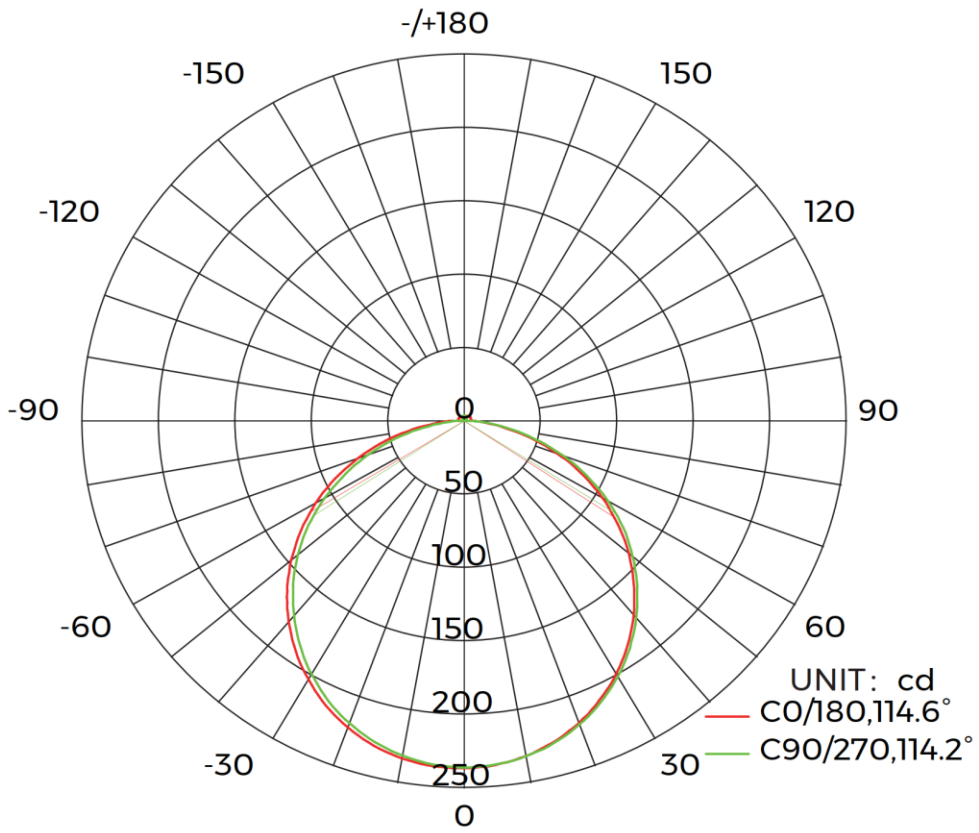
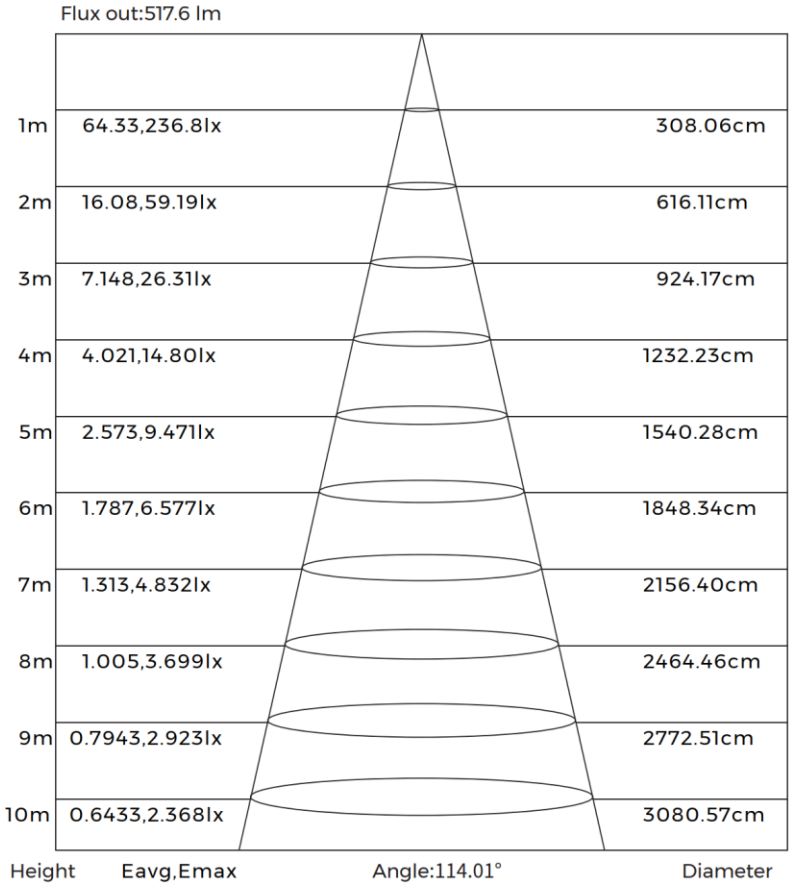
LUMINOUS INTENSITY DISTRIBUTION CURVE:



AVERAGE BEAM ANGLE(50%):114.4°

ILLUMINANCE AT A DISTANCE:



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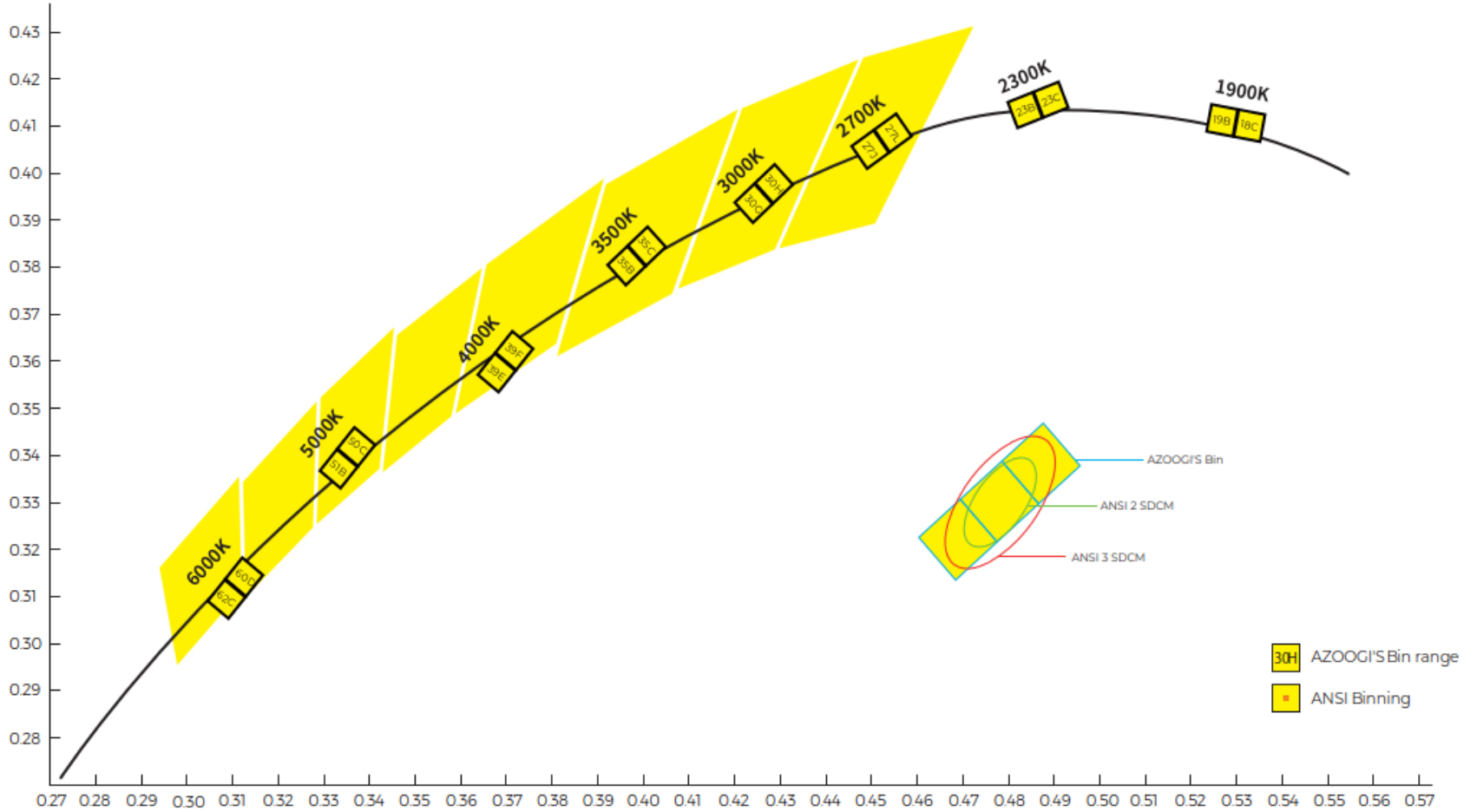
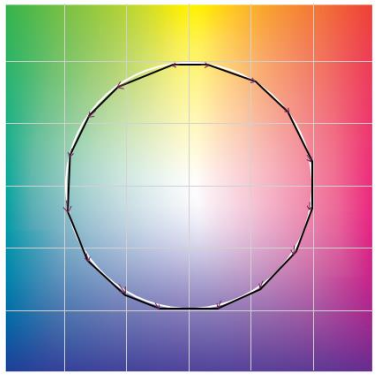
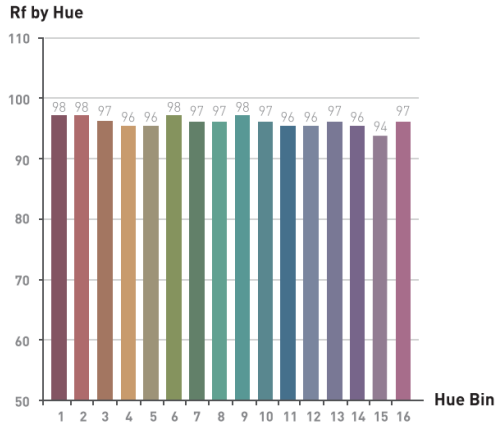
MACADAM ELLIPSES:

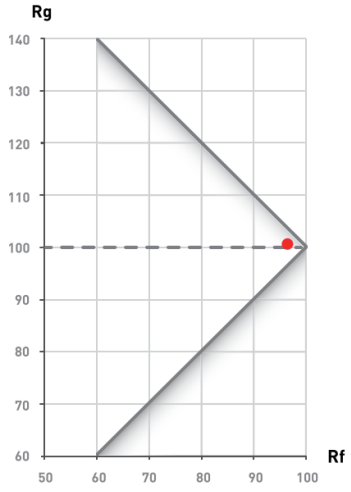


Complied with international ANSI standards, Azoogi divides every CCT into 2 or 3 bins, at 2-step McAdam ellipse at least, to ensure customers get the same colour of light even for different orders.

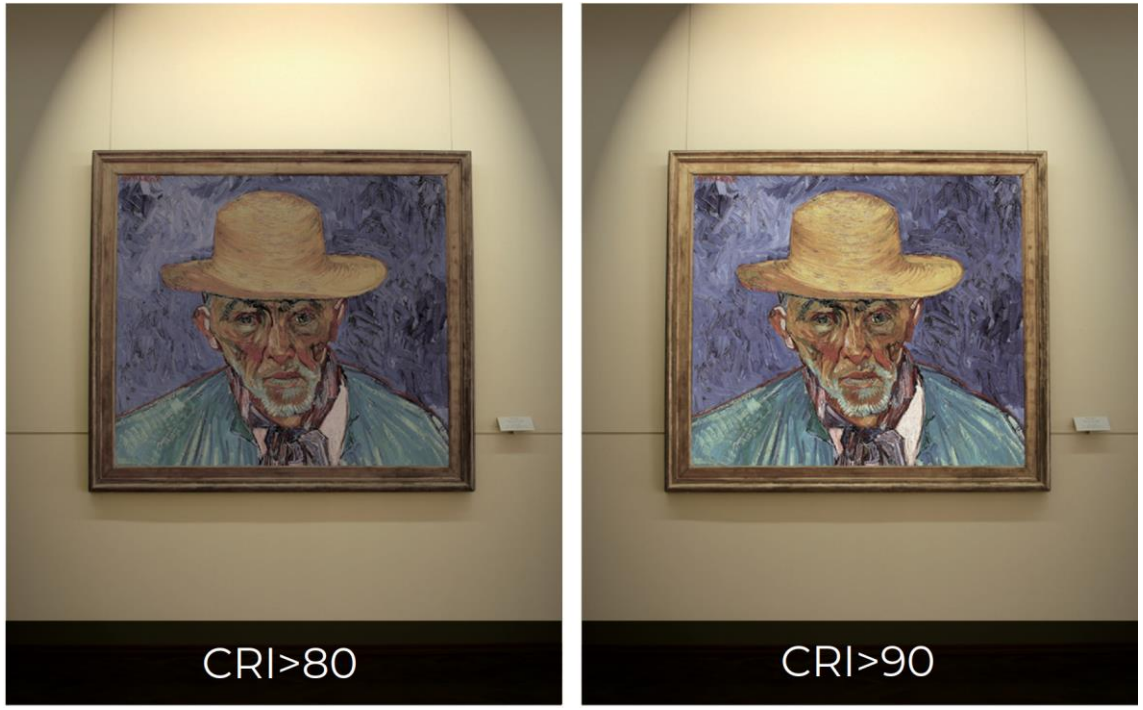
TEST OF FULL SPECTRUM (FS) LED:







COLOR RENDITION (CRI):



All our LED strips are manufactured with a **CRI>90**, ensuring superior color rendering for vibrant, true-to-life illumination. This high CRI rating enhances the richness and accuracy of colors, making them ideal for applications where color precision is essential, such as artwork displays, retail spaces, and interior designs. With our CRI>90 LED strips, you can bring out the finest details and create visually stunning environments.

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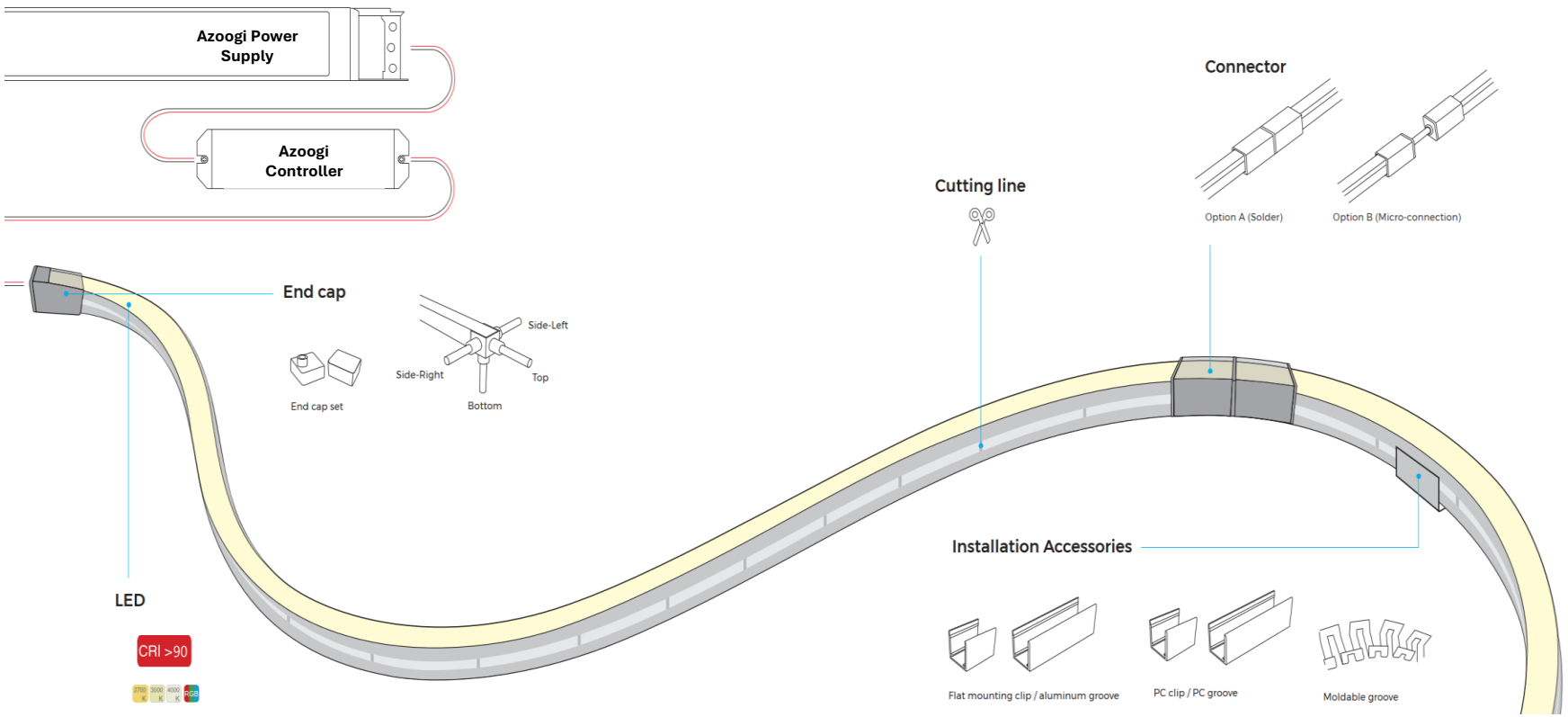
INSTALLATION:



Step 1: Prepare the Area

- **Measure and Plan:** Measure the installation area to determine the length of the neon LED strip required and mark the placement and routing of the strip for a clean and organized setup.
- **Clean the Surface**: Ensure the mounting surface is clean, dry, and dust-free for optimal adhesion and mounting.

Step 2: Cutting the Neon Strip

- **Locate the Cutting Line:** Identify the pre-marked cutting lines on the neon strip. These are the only safe points for cutting.
- **Cut the Strip:** Use sharp scissors or a cutting tool to cut along the marked line.
- **Seal the Ends**: After cutting, apply silicone glue to the exposed ends and attach the end cap set to maintain the strip's ingress protection rating.

Step 3: Mounting the Neon Strip

- **Choose Mounting Accessories:** For flat surfaces, use the flat mounting clip or aluminum groove and for curved surfaces or custom shapes, opt for the PC clip, PC groove, or moldable groove.
- **Install the Mounting Clips:** Secure the clips or grooves to the mounting surface using screws or adhesive as per your design plan.
- **Place the Neon Strip:** Gently press the neon LED strip into the clips or grooves until it is securely held in place.

Step 4: Connecting the Neon Strip

- **Attach the Power Supply:** Connect the neon strip to the power supply, ensuring the correct polarity (+/-) and ff using a controller, place it between the power supply and the neon strip.
- **Secure the Connection:** Ensure all connections are tight and properly sealed to prevent moisture ingress.

Step 5: Power On and Test

- **Power On:** Connect the power supply to the mains and turn it on.
- **Test the Neon Strip:** Check the neon strip for uniform brightness and smooth operation and adjust any mounting or connections as needed.

Tips for Best Results:

- Always use cutting lines to avoid damaging the strip's internal wiring.
- Use a controller for dimming or color-changing effects to enhance the functionality.
- Ensure end caps are sealed properly with silicone glue to maintain water resistance.
- For outdoor installations, verify that all components (strip, power supply, connectors) are suitable for the environment.

Maintenance

- Clean the neon strip with a damp microfiber cloth to remove dust and dirt.
- Avoid using harsh chemicals or high-pressure cleaners.
- Inspect connections periodically to ensure they remain secure and weatherproof.
- By following this guide, your neon LED strip will be securely and beautifully installed, ready to enhance your space with smooth and vibrant lighting.

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PRECAUTIONS FOR NEON LED STRIP INSTALLATION:

Use of Power Supply:
- ✓ Always use an isolated power supply to power the LED strip.
- ✓ Ensure the ripple of the constant voltage source is below 5% for stable performance.
- ✓ Avoid using resistance-capacitance step-down or non-isolated power supplies, as they may damage the strip.

Power Reserve:
- ✓ Reserve at least 20% power margin (use only 80% of the power capacity) to provide sufficient voltage and prevent overloading.

Safe Handling:
- ✓ Avoid touching the AC power terminal while connected to prevent electric shock.
- ✓ Pay attention to the correct polarity of the power connections (positive and negative terminals) to prevent damage.

Installation Care:
- ✓ Prevent scratching, twisting, or irregular bending of the LED strip during installation, as this may cause irreparable damage.
- ✓ Maintain a bending radius of no less than 60mm. A smaller radius may damage the strip.
- ✓ Do not stretch or distort the product excessively.

Length Restrictions:
- ✓ Ensure the total length of the strip does not exceed the maximum specified length, as this can cause overheating, uneven brightness, and product failure.

Eye Protection:
- ✓ Avoid prolonged exposure to the light-emitting surface to prevent eye strain or discomfort.

Professional Installation:
- ✓ Non-professionals should refrain from installing, disassembling, or repairing the product.

Adhesives:
- ✓ Do not use acidic or alkaline adhesives (e.g., glass glue) for mounting. Use only silicone-based adhesives for bonding to prevent chemical reactions and ensure durability.

Waterproofing and IP Ratings:
- ✓ IP67-rated products are not suitable for underwater use in swimming pools.
- ✓ After cutting IP67 products, waterproofing must be re-applied, and the protection level may reduce.

Environmental Conditions:
- ✓ Avoid installing different strips with similar CCT values in the same setup, as slight color deviations may occur due to structural differences.
- ✓ Install in the same environmental conditions to prevent inconsistent color changes caused by exposure or environmental factors.

Storage and Sealing:
- ✓ Properly seal cut sections to prevent exposure to organic chemicals such as aldehydes or benzenes.
- ✓ Store unused products in sealed packaging to maintain their quality.

Solder Points:
- ✓ A maximum of two soldering points per reel (5m) is allowed during production to ensure product consistency.

Material Properties:
- ✓ Slight color changes in the silicone material may occur over time due to environmental exposure. This is normal and does not affect performance.
- ✓ By following these precautions, you ensure safe handling, optimal performance, and long-lasting reliability of the neon LED strips.

No stretching

No distortion

No trampling