



## SPEC SHEET: PIXEL-FREE LED 360° LED TUBE LIGHT

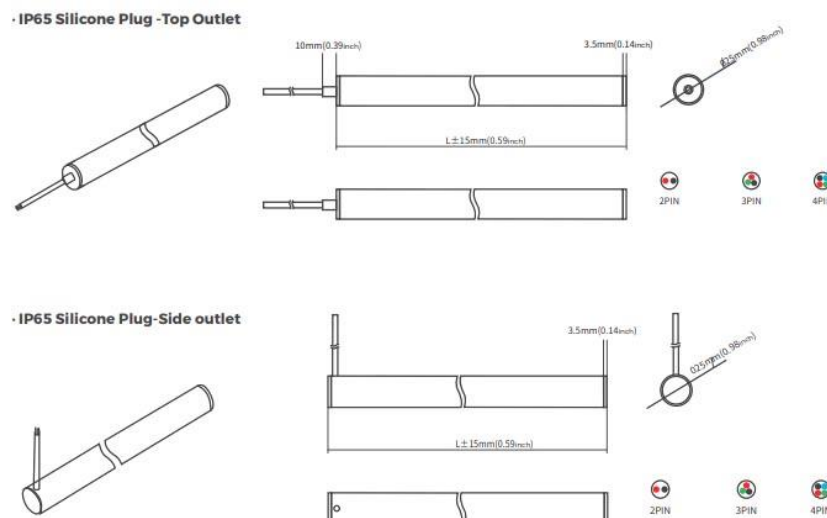
The New Pixel-Free LED 360° is a worldwide premier of one of the most sought-after accomplishments in lighting today. A beautifully diffused, 360° flexible tube of light that truly mimics neon, but provides amazing benefits, customization, quality and more. Use it for signage, retail, room lighting, custom commercial lighting, true 3-Dimensional lighting, or even hanging tube lights, this product can do it all!

The minimum bending diameter of this tube light is 120mm (4.7"), and has a high CRI of >95 for beautiful true color illumination. It is now possible to cut this strip using sharp shears. Make sure to use silicone glue and end cap once cut to avoid moisture and debris from entering the fixture. Custom made lengths direct at nearly any length (lead time generally 4-8 weeks) are also possible. When customizing, connector can be placed either at end or come out of the side (Top Outlet vs. Side Outlet shown below).

Pixel-Free LED lighting is great for use as an architectural accent, to bring life to retail displays, custom signage, indoors or outdoors, or simply creating a clean and professional aesthetic for any project you can dream of. Pixel-Controlled RGB product uses a 3-Wire SPI protocol and can be controlled using the following protocols: WS2815, P943S, UCS1903, TM1804. Every 2 LEDs can be cut, which has a spacing of 11.11mm, and there are 90 pixels per meter.

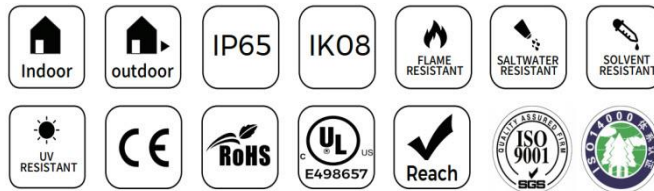
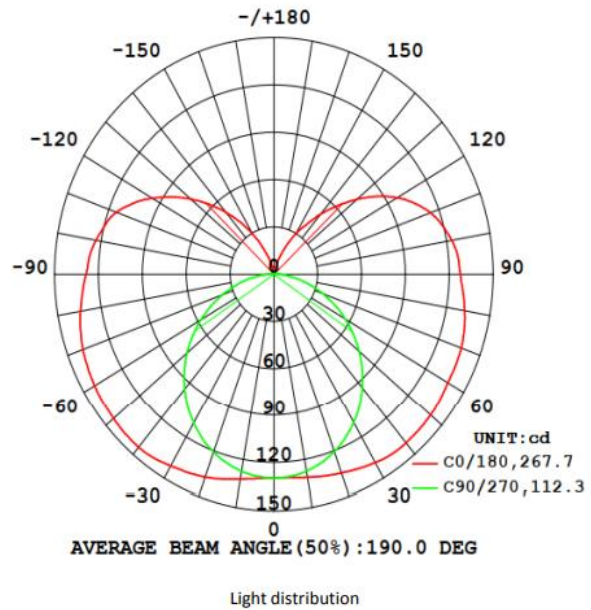
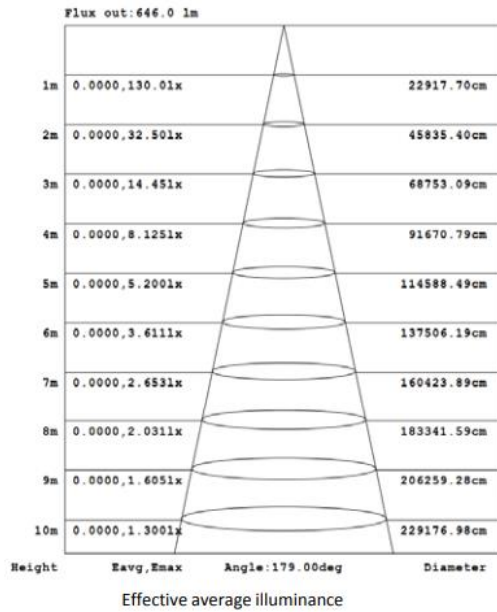
Size	SKU	Color	Voltage	Brightness	Consumption	RATING
--	<b>LDE000</b>	WEB PRODUCT DESIGNATION	--	--	--	--
25mm DIA x 5000mm	LDE002	Natural White (4000K)	24V DC	950 Lumens/m	14.4w/m	IP65
25mm DIA x 5000mm	LDE005	Medium Warm White (3000K)	24V DC	900 Lumens/m	14.4w/m	IP65
25mm DIA x 5000mm	LDE003	Warm White (2700K)	24V DC	850 Lumens/m	14.4w/m	IP65
25mm DIA x 5000mm	LDE004	Very Warm White (2300K)	24V DC	850 Lumens/m	14.4w/m	IP65
25mm DIA x 5000mm	LDX100	RGB (Red, Green, Blue)	24V DC	NA	18w/m	IP65
25mm DIA x 3000mm	LDX200	Pixel-Controlled RGB	12V DC	NA	18w/m	IP65

### STRUCTURAL DIAGRAM:

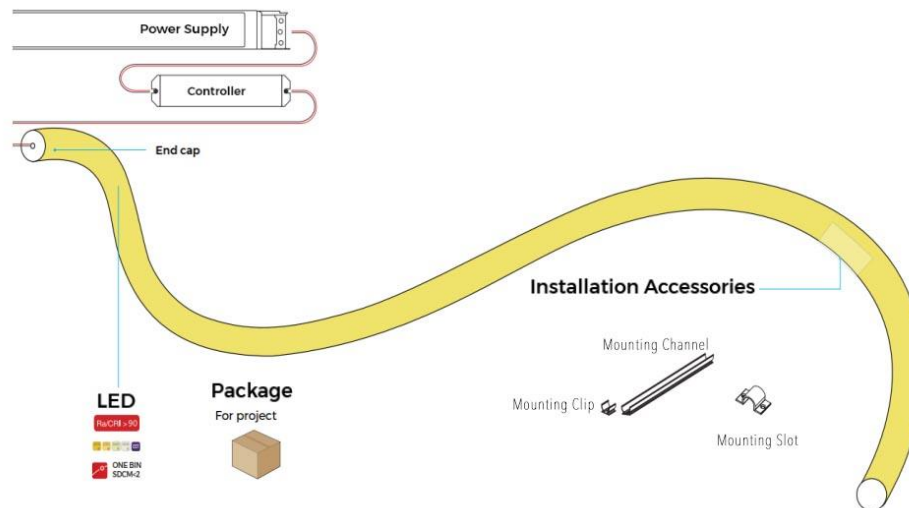


COMPANY	PROJECT	AREA	APPROVED BY	DATE

## LIGHT DISTRIBUTION

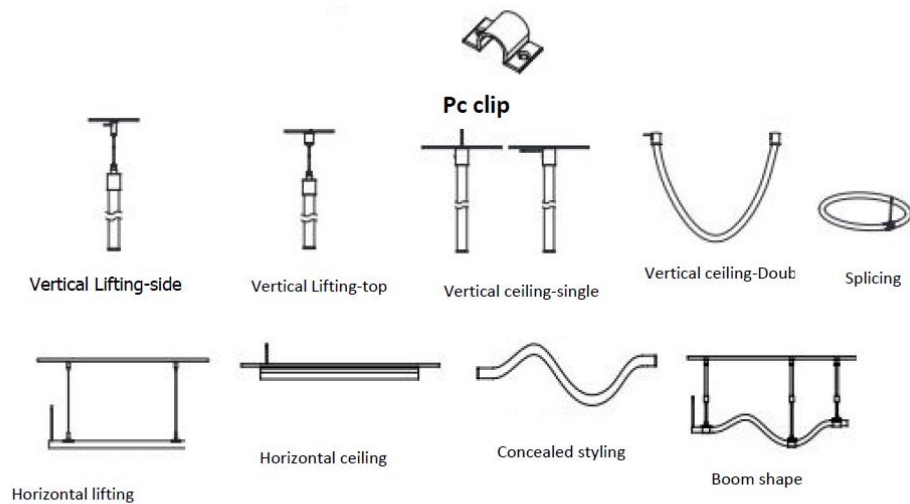


## WIRING DIAGRAM



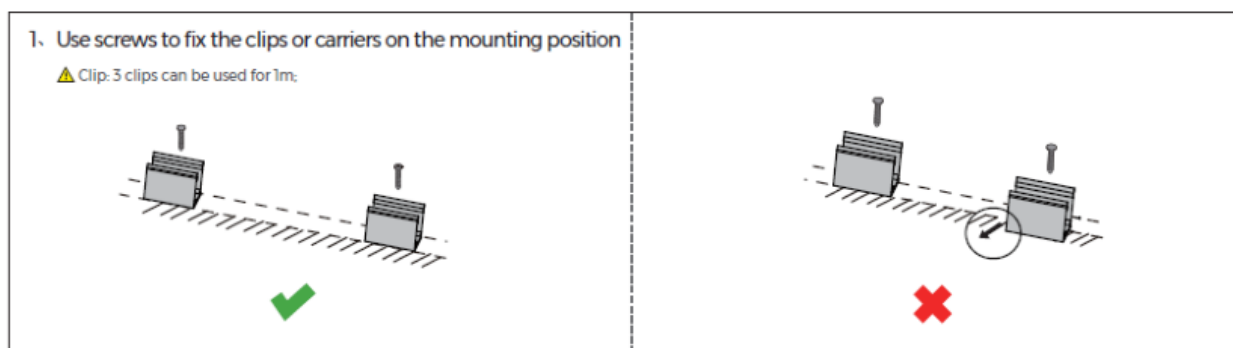
## ACCESSORIES

### Installation

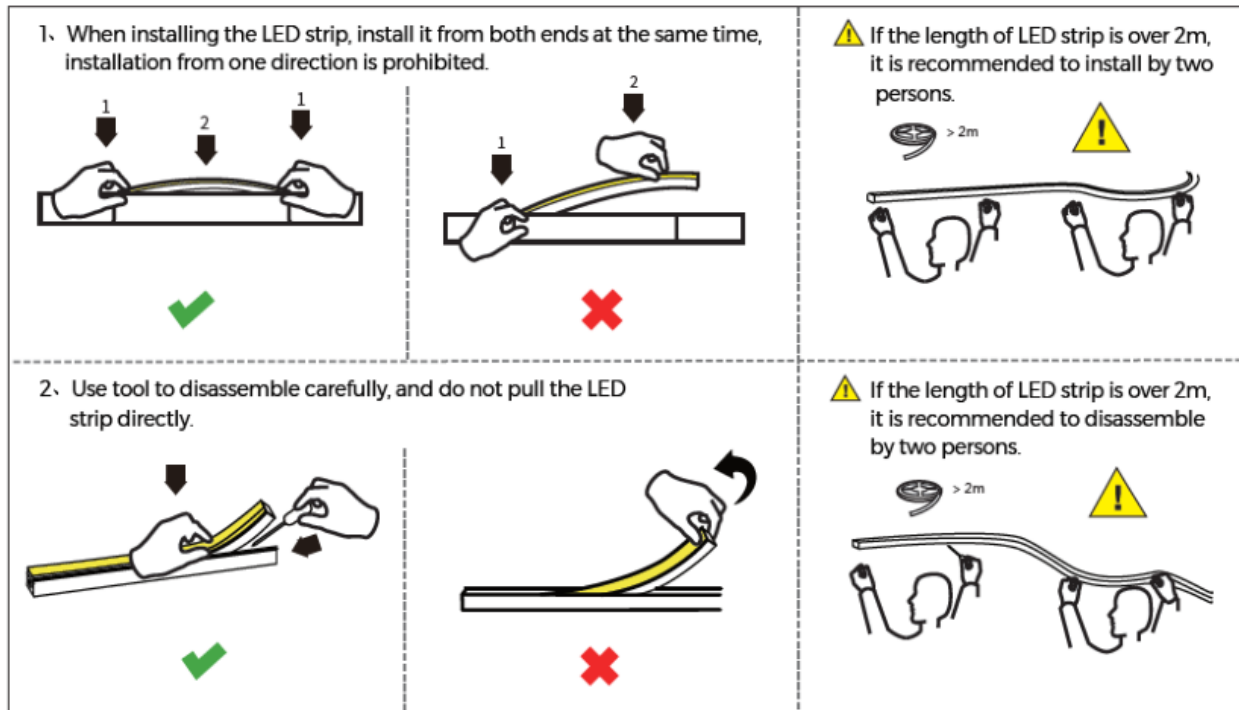


## INSTALLATION INSTRUCTIONS

Using mounting clips - Make sure the mounting clips are on the same plane to avoid awkward bending of the strip. Side to side bending, and 360° bending IS possible with this strip, but be sure to keep a minimum bending diameter of 120mm (4.7").



Installation into linear channels or substrates - It is recommended to use caution when inserting the strip into channels and various substrates. LED is not meant to have sharp bends, so make sure to use extreme caution when inserting or removing the strip from a channel. When installing long lengths, 2-person installation is recommended to avoid damaging the LED Strip.



## RELIABILITY TESTING

test item	Classification	Reference	Test method or condition
Safety test	Mechanical strength	IEC 60598-1; IEC 60598-2-21	The hammer spring Impact energy 0.35J
	IP	IEC 60598-1; IEC 60598-2-21	IP65
	Winding Test	IEC 60598-1; IEC 60598-2-21	φ150mm cylinder, 60N pull, winding 10 times at (-25°C ±2°C), and 10 times after (-15°C ±2°C, 16h).
	Cold Bend Test	IEC 60598-1; IEC 60598-2-21	wound on mandrel, low-temperature (-15°C ±2°C, 16h), around the mandrel for two turns
	Cold Impact test	IEC 60598-1; IEC 60598-2-21	Low-temperature (-15°C ±5°C, 16h), hammer falls from a height of 100mm.
	Insulation Resistance	IEC 60598-1; IEC 60598-2-21	≤ 2MΩ
	Electrical strength	IEC 60598-1; IEC 60598-2-21	500V
Mechanical reliability testing	Bending test	In-House	Each 200mm, bending up and down 100 times
	Bending test	In-House	Each 200mm, bending left and right 100 times
	Torsion test	In-House	Twist clockwise 5 times and then release, repeat 200 times
	Disassembly and assembly test	In-House	Repeat disassembly and assembly, 10 times
Environment Reliability testing	High temperature storing test	IEC 60068-2-2	80°C, 168h
	Low temperature storing test	IEC 60068-2-1	-40°C, 168h
	High temperature and Humidity impact	IEC 60068-2-78	60°C, 85%RH
	Salt Spray test	IEC 60068-2-11	5% salt solution concentration, 24h
	IK	IEC 62262	5 times of impact on each exposed surface
	Lifetime aging test	Colors	35°C, 6000h
	switch test	Colors	10s On, 10s Off, 10000 times

## FAQ

Can Pixel-Free LED 360° be cut?

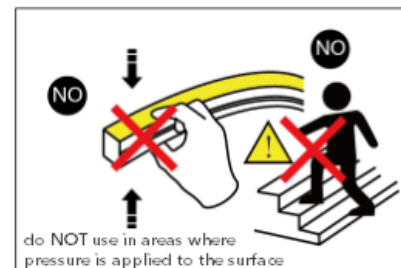
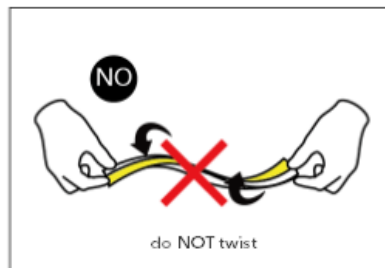
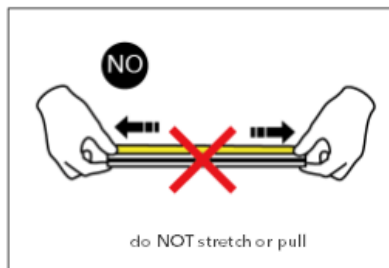
For White colors, the product can be cut anywhere in the line. For RGB or Pixel-Controlled RGB products, it needs to be made to length at our factory and cannot be cut after. If custom lengths are required, we can custom make as few as 1pc for unique linear lighting installations.

Is Pixel-Free LED 360° able to bend back and forth?

While Pixel-Free LED 360° is somewhat flexible and able to bend, back and forth bending can cause premature failure of the strip. We recommend handling the product with care, and bending minimally while the product is placed in its fixed location. Do not try to stretch the LED to pull it taught over long distances, and do not twist or distort the jacket to turn into tight corners. Doing so can cause failure to the strip.

Can You Install Pixel-Free 360° On Walls, Ceilings, and Floors?

Pixel-Free LED 360° has a countless number of mounting and hanging possibilities due to the unique nature of the 360° lighting effects. Mounting on walls or ceilings can be done with the optional mounting accessories like mounting clips, slots or channels. Do not install in areas where it will be walked on or have pressure applied.



## PRECAUTIONS

- Use 24V DC Isolated Power Supply to drive Pixel-Free LED 360° and the confirm ripple wave of constant voltage source is less than 5%. Do not use RC Voltage reduction or non-isolated power supply to drive LED Strip.
- In order to guarantee sufficient voltage is available to drive LED Strip in all conditions, make sure power supply is rated for 20% more than LED Strip consumption.
- Do not touch AC Power Supply when powered on
- Polarity Matters! Make sure to wire positive and negative poles of wires during installation to avoid damage to the strip.
- Avoid scratching, distorting, and repeated bending of product during installation. Not following this can cause irreparable damage to strip.
- Do not bend Pixel-Free LED 360° with a radius less than 120mm (4.7")
- Product is not intended to be submerged and used in swimming pools or hot tubs
- Professional installation recommended