

# Neon Flex Specification

N012120BB1LZ(N1212) Single sided

N012120BC1LZ(N1212) Single sided



IP67

cUL US  
LISTED  
E509505

CE

ROHS

CB  
Scheme

REACH  
NPS

Indoor

Outdoor

UV  
RESISTANT

FLAME  
RESISTANT

SALTWATER  
RESISTANT

SOLVENT  
RESISTANT



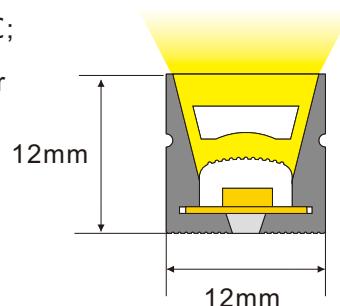
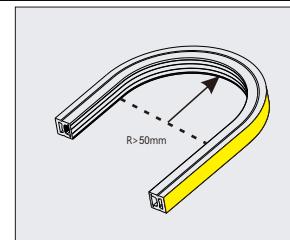
## Product Parameter

12x12 single-sided positive glowing neon strip, which can be bent up and down; Light source: high-efficiency lamp beads;

- Process material: high light transmittance environmental protection grade silicone material, good flexibility of silicone material;
- Optical design: Unique optical light distribution structure design, uniform light on the surface without shadows, No spot, very soft light;
- Appearance design: simple and stylish, exquisite and unique, bringing better lighting performance for indoor/outdoor applications;
- Product certification: UL, CE, RoHS;

Environmental characteristics: resistance to salt liquid, acid and alkali corrosion resistance, flame retardant, UV resistance;

- Working/storage temperature: Ta: -25~55°C / 0°C ~ 60°C;
- Product application: signboard lighting, outdoor/interior decorative lighting, architectural contour applications;
- 3 years warranty, working life ≥ 36000 hours.



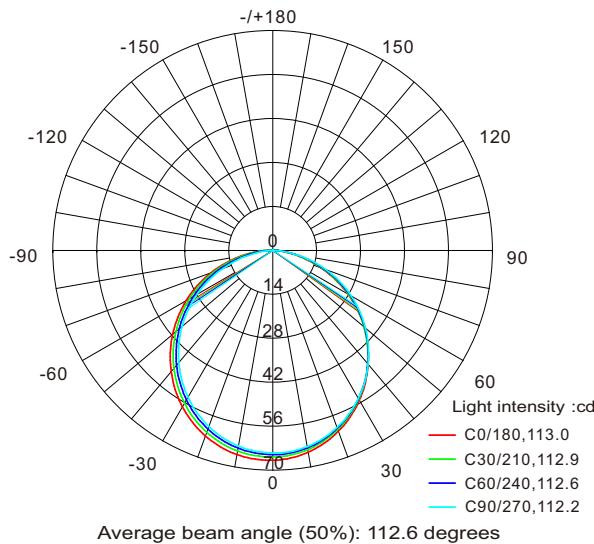
## Photoelectric parameters

PN	Color	CCT	LED Qty/M	Cutting Length	Voltage	Power	CRI	Brightness (lm/m)	Standard Length	Max Length
N012120BB1LZ (N1212) Single sided	W	3000K	SMD2835 120PCS/m	25mm	DC12V	10W/m	≥90	W:540lm/m	5025 ±15mm	10m
N012120BC1LZ (N1212) Single sided	W	4000K								
		6500K		50mm	DC24V					15m

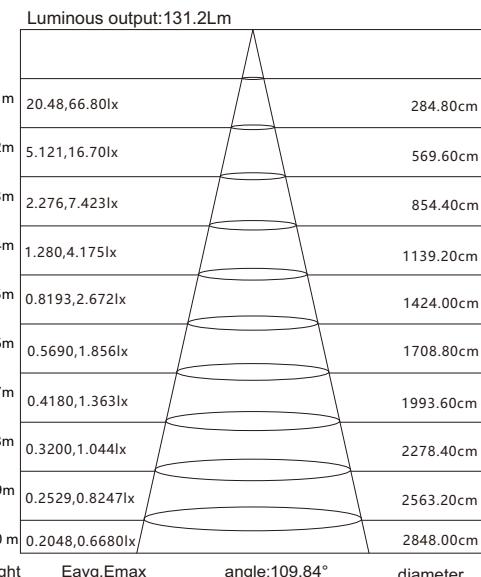
### Remarks:

1. The above parameters are tested based on 1M standard products;
2. The luminous flux is allowed to have an error range of ±10%;
3. The above parameters are typical values;
4. When this neon led is longer than 5 meters, it needs power from both ends;
5. Subject to change without prior notice.
6. Length tolerance applies. Actual product dimensions may vary.

## Product light distribution curve



Note: the above data is based on monochrome 4000K color temperature



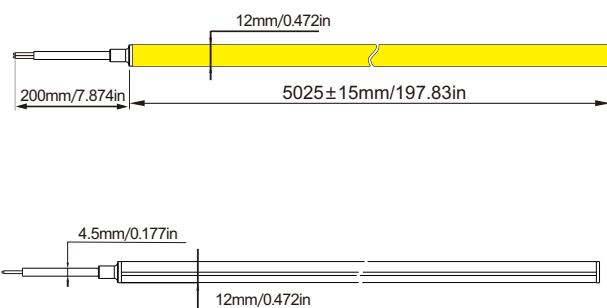
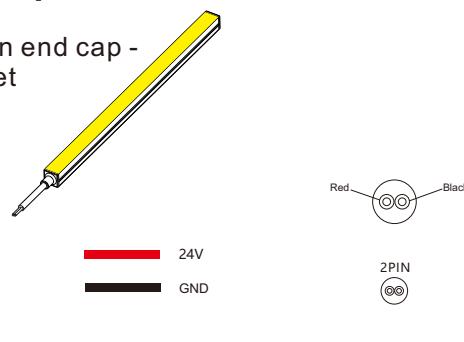
Note: the curve is the illumination area and the average illumination within the area of the lamp under different projection distance

Effective average illumination

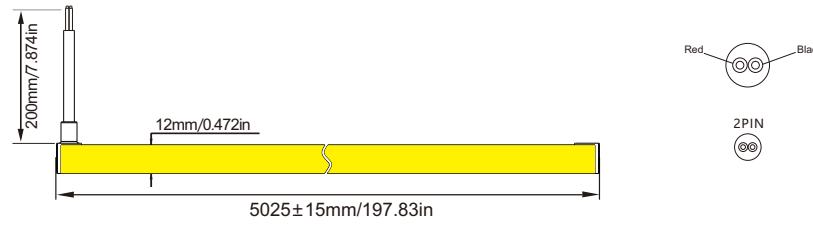
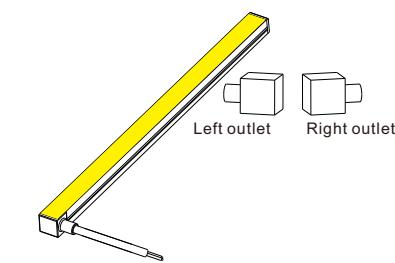
## Mechanical parameters

Unit: mm/in

Mold injection end cap -  
Straight outlet



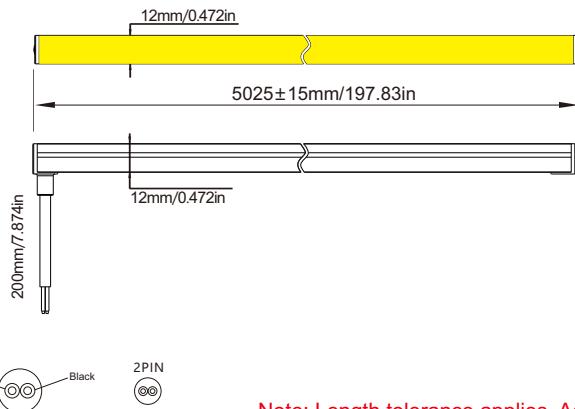
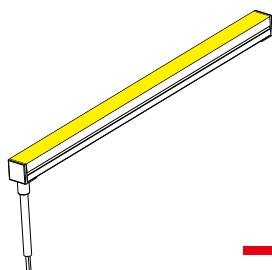
Mold injection end cap - side outlet



Right outgoing line (according to the male input)



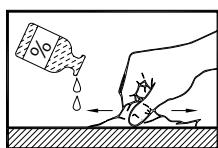
Mold injection end cap -  
bottom outlet



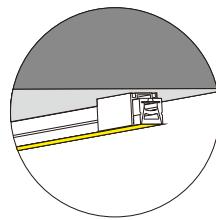
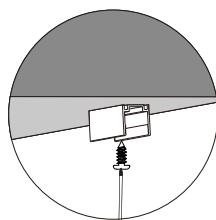
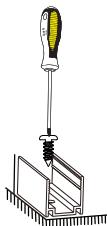
Note: Length tolerance applies. Actual product dimensions may vary.

## 1212 Installation diagram

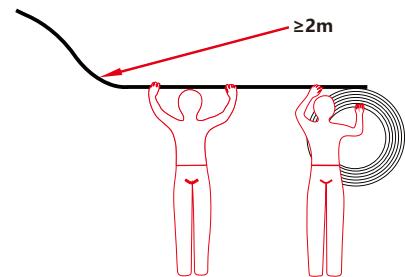
Wipe the dust on the installation luminous surface with clean water.



First fix the buckle with screws, and then clip the neon light strip into the buckle. When the length of the neon light strip is greater than 2 meters, two people are required to install it together. (refer to the figure below)



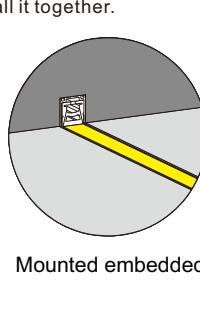
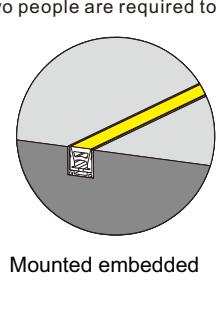
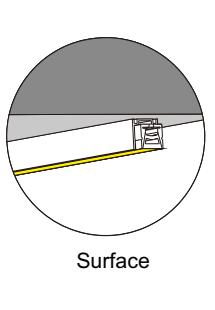
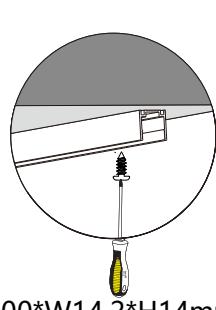
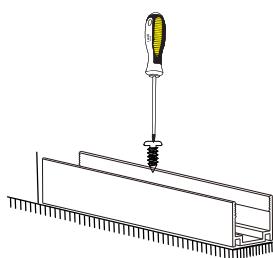
Unit: mm/in



Overall dimension of buckle: L30\*W14.2\*H14mm

L1.181\*W0.559\*H0.551in

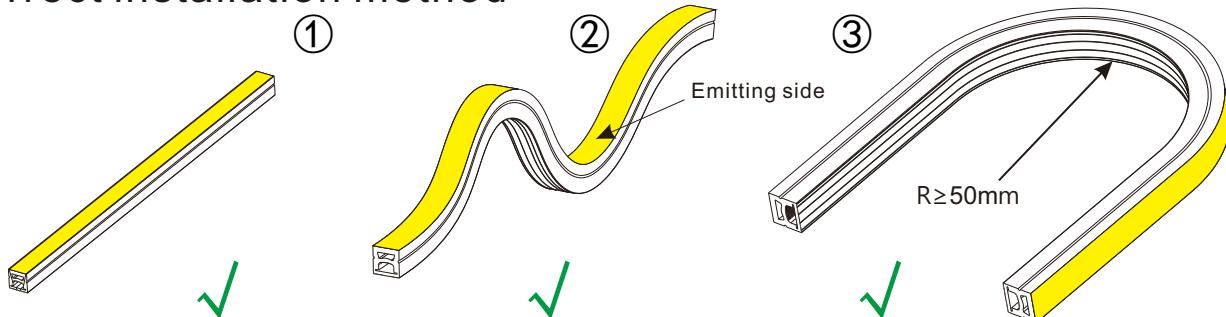
Surface



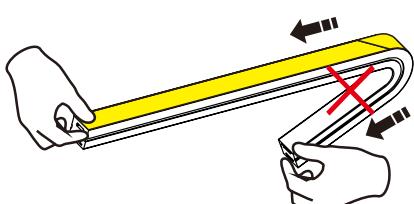
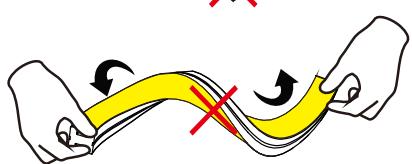
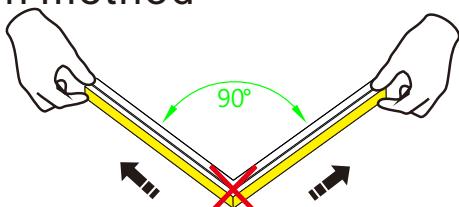
When the length of neon light strip is more than 2 meters, two people are required to install it together.

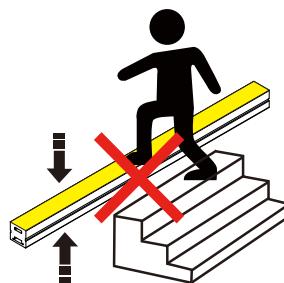
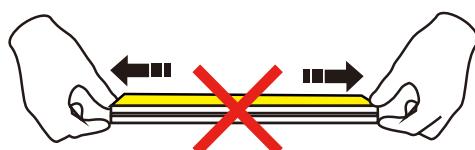
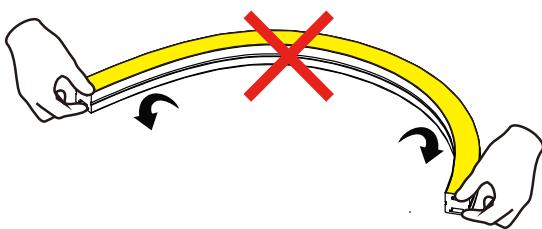
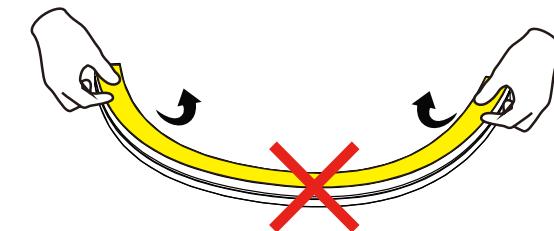
Overall dimension of aluminum profile: L1000\*W14.2\*H14mm  
 L39.37\*W0.559\*H0.551in

## Correct installation method



## Error installation method



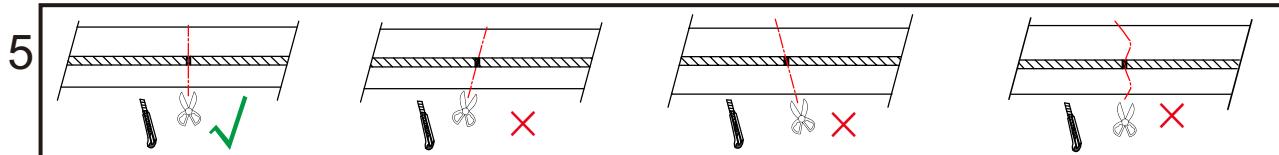
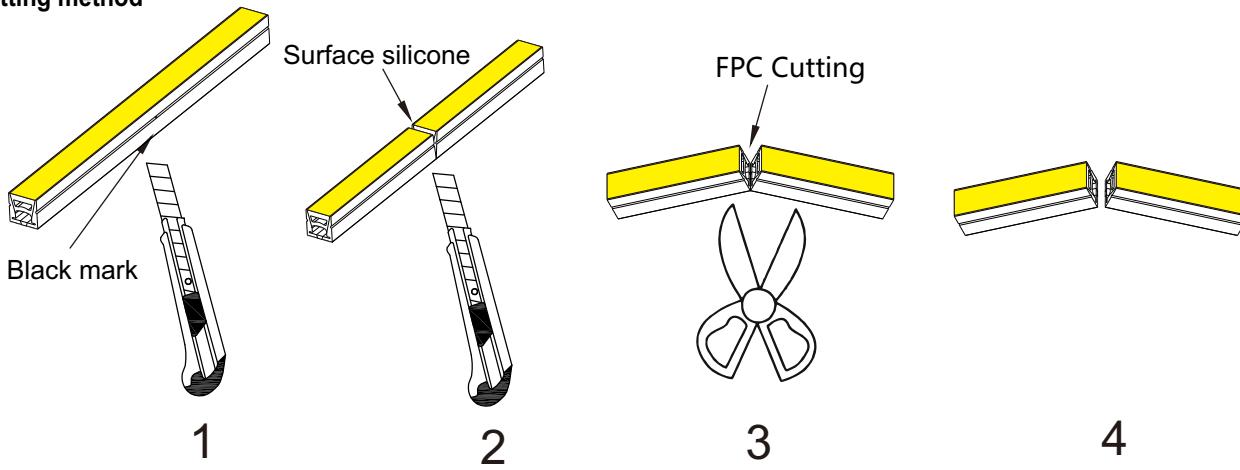


## Cutting and the waterproof treatment of both ends

By default, our products will be shipped in regular lengths according to customer requirements.

If the customer has to cut and assemble on site, we can provide some end caps with holes and end caps without holes (all sections can be used). However, please note that in this case, the front and rear ends must be glued for waterproof treatment.

### Cutting method



### Cutting precautions

## Waterproof treatment after cutting

1. The cut output end is glued and plugged with a non hole end cap (Fig. 1);
2. If there is no welding cable at the head and tail ends after cutting, first thread the male wire through the end cap, then weld it to the head end of the LED neon flex, and then apply glue for waterproof treatment (Fig. 2);
3. If there is no cable at the input end of cutting, and the male input cable must be welded (Fig. 3).

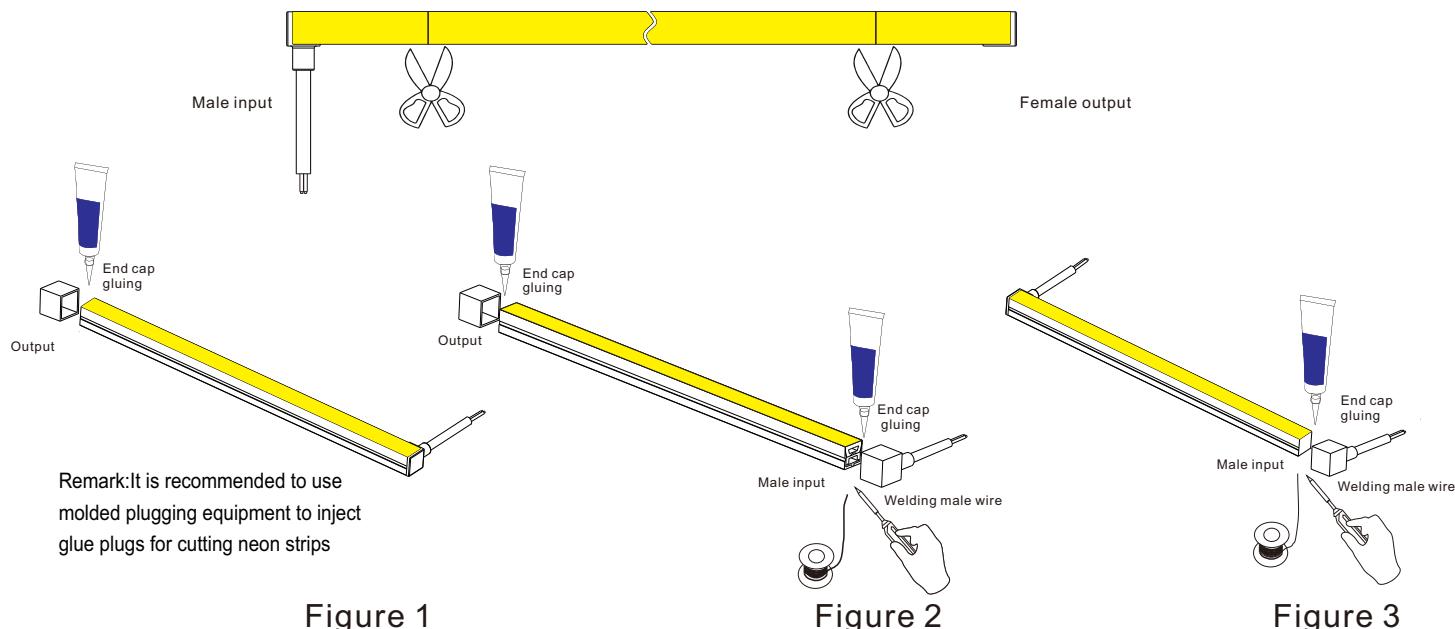
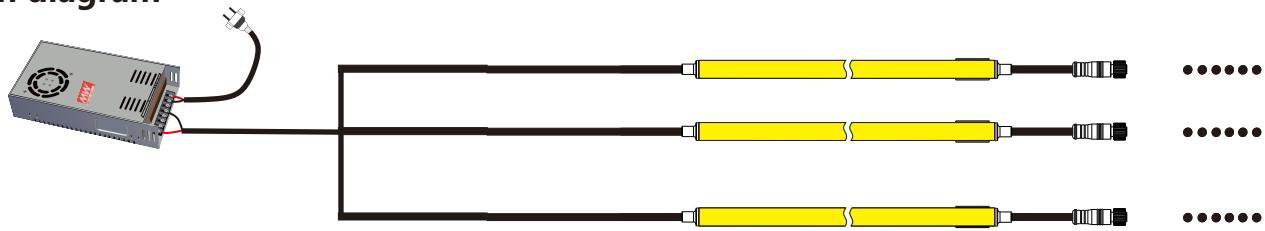


Figure 1

Figure 2

Figure 3

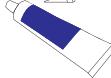
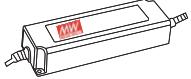
## Connection diagram



## matters needing attention

- Please use DC12V or DC24V isolation power supply according to the actual LED light strip, and the ripple of the constant voltage source is less than 5%. The LED light bar can not be used to use the resistance to lower voltage pressure, non-isolation and other types of power supply.
- In practical application, the power supply should reserve 20% margin (it is recommended to use only 80% power) to ensure sufficient voltage to drive products.
- Please operate carefully. When the power is connected, do not touch the AC power terminal to prevent electric shock.
- Pay attention to the positive and negative poles of the power line. Do not connect them incorrectly. Check whether the voltage of the power supply is consistent with that of the product to avoid product damage.
- Please avoid scratching, twisting and irregular bending of the product during installation, otherwise it may cause irreparable damage to the product.
- In order to ensure the service life and reliability of the led neon flex, please do not bend in the arc with a radius of less than 80 mm. Too small bending radius will damage the product itself.
- If the actual application length exceeds the specified length, it will lead to overload, heating, uneven brightness and other phenomena.
- In order to protect your eyes from injury, try to avoid staring at the luminous surface of the led neon flex for a long time.
- Non professional personnel are forbidden to install, disassemble and repair the product.
- It is strictly prohibited to use any acidic or alkaline adhesive to fix the product (including but not limited to glass adhesive, etc.).
- The use scenarios of different IP grades of products are different, and IP67 is not suitable for immersion environment.
- Due to structural differences of products with different sizes and specifications under the same color temperature value, the final color of the product is slightly deviated, which shall be confirmed before use.
- Please use professional cutting tools when cutting.

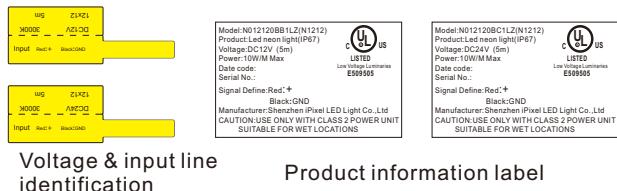
## Product Accessories

Name	Describe	Picture	Net weight (g)	Product size (mm)	Remarks
Alum LED Profile	Pre installation slot		105g	L1000xW14.2xH14	Aluminum
Alum LED Profile	Pre installation slot		3.23g	L30xW14.2xH14	Aluminum
Modeling carrier	Shapable mounting slot		375g	L5000xW13xH9.9	Stainless steel
Straight outlet end cap	Silicone front outlet end cap		1.1g	L14xW14xH20	Silicone
Side outlet end cap	Silicone side outlet end cap		1.7g	L14xW13xH21	Silicone
Seal the end cap	Silicone sealing end cap		1.3g	L14xW14xH12	Silicone
Filling glue	300h mono molecular silica gel		125g	L32xW46xH17	Liquid glue
Female Connector	2PIN connector		23g	φ 15xL200	PVC
Male Connector	2PIN Connector		18g	φ 15xL200	PVC
Connector	2PIN IP65 Connector		/	/	PVC
Power supply	240W waterproof power supply		1.38Kg	L244.2xW68xH38.8	/
Power supply	350W Non-waterproof power supply		0.82Kg	L215xW115xH30	/
Power supply	400W rainproof power supply		1.23Kg	L220.4xW130xH48	/

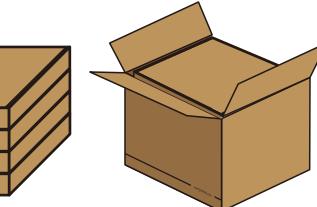
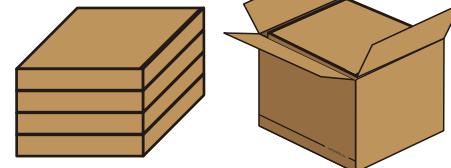
## Product packaging

### · Standard packaging

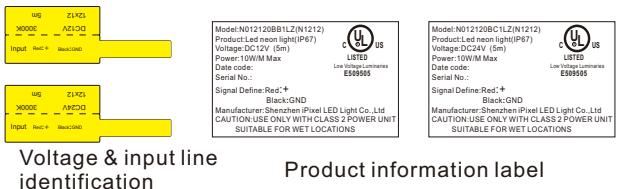
1. For carton packaging, the line label is pasted 80mm away from the end of the line, the information label is pasted on the product, and the product information label and box number label are pasted on the side of the carton, QC inspection stamp.



2. For single carton packaging, the line label is pasted 80mm away from the end of the line, the information label is pasted on the product, and the product information label and box number label are pasted on the side of the carton, QC inspection stamp.



3. For wooden case packaging, the line label is pasted 80mm away from the line end, the information label is pasted on the product, and the product information label and box number label are pasted on the side of the carton, QC inspection stamp.



Name	Size	Quantity / box	Quantity / box	Net weight of single product (kg)	Net weight of each box (kg)	Gross weight (kg)	Outer box size (mm)
Carton	L5000*12*12mm	5m*4	20m	0.66	2.64	2.92	360*360*60
Carton	L5000*12*12mm	5m*16	80m	0.66	10.56	12.46	380*380*265
Wooden case	Customized to order	/	/	0.66	/	/	/

## Reliability testing

Test item	Test requirement	Test standard	Test method or condition
Safety regulation test	Mechanical strength	GB-7000.1	Impact hammer 0.7 J
	Dust and water proof test	GB-7000.1	IP67
	Winding test	GB-7000.1	φ150mm wooden disc, 60N tension, 10 times at room temperature, 10 times after cold treatment (-15°C±2°C, 16h)
	Low temperature winding test	GB-7000.1	Winding the winding shaft, low temperature box -c, after 16h, 15 °C± 2 °C winding the winding shaft for 2 turns
	Low temperature impact test	GB-7000.1	Winding the winding shaft, low temperature box -15°C±5°C, after 16h, winding the winding shaft for 2 turns
	Insulation resistance	GB-7000.1	≤ 2MΩ
	Electrical strength	GB-7000.1	500V
Mechanical reliability test	Neon flex bending test up and down	Internal standards	With an interval of 200mm (including welding points), the up and down neon flex are respectively 100 times
	Distortion test	Internal standards	Twist clockwise for 5 turns and then relax. Repeat for 100 times
	Falling test	Internal standards	100 times of wrestling
Environmental reliability test	High temperature storage	GB/T 2423.2	60°C, 168 hours
	Low temperature storage	GB/T 2423.1	-30°C, 168 hours
	High temperature and humidity operation	GB/T 2423.3	60°C, 85%RH
	Salt spray Test	GB/T 2423.17	5% salt solution concentration, 24h
	IK Test	GB/T 20138	Each exposed surface bears 5 impacts
	Normal temperature aging	Internal standards	25°C, 6000 hours
	Switching impulse	Internal standards	10s on, 10s off, 10000 times