Neon Specification

NNR13S

Indoor | IP65 | IK08 | CE | RoHS | CB | UL E498657

UK CA | Reach | UV RESISTANT | FLAME RESISTANT | SALTWATER RESISTANT | SOLVENT RESISTANT
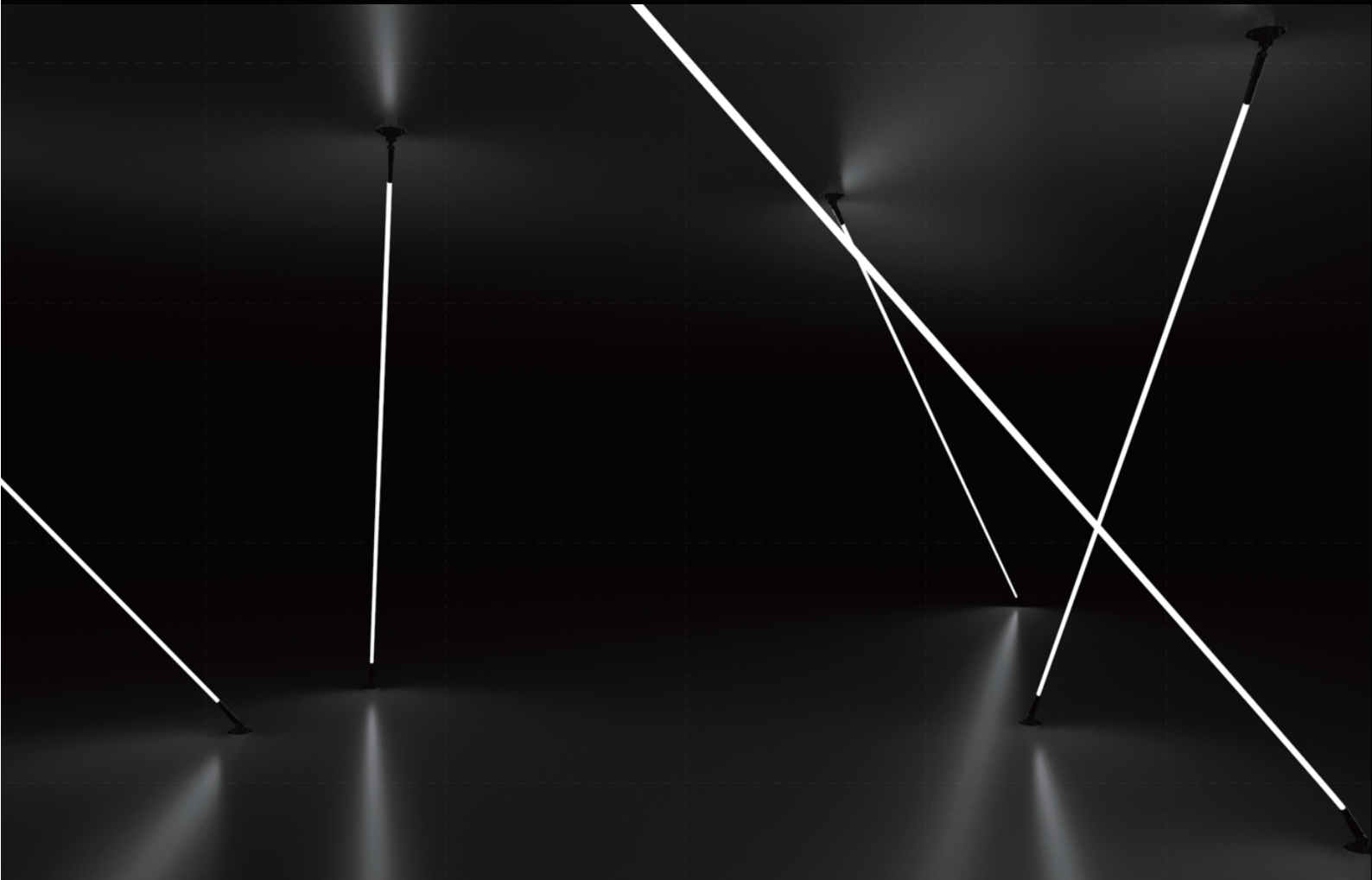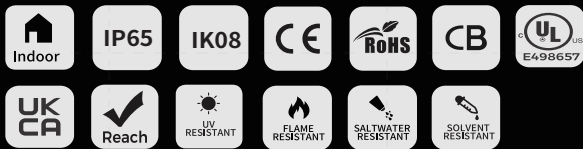
【Features】

· Light source: High luminous efficiency, LM80 test proved.

· Process & Material: high light transmittance, high purity silica gel material, IP65 protection level.

· Optical Design: unique optical light distribution structure design, 360° light output uniformly without shadows.

· Appearance Design: skin-friendly surface treatment, comfortable touch, good flexibility, and simple shape.

· Product Certification: CE、ROHS、UKCA、CB.

· Structure Featrues：the built-in wire take the gravity of this neon strip，the neon strip can be strained,long stretching without need of accessory in between,long stretching without deformation

· Working/Storage Temperature: Ta:-25~55℃ / 0℃～60℃.

· Application:3-dimensional space styling, Indoor decorative lighting.

· 3 years warranty or working life =36000H,whichever comes first.
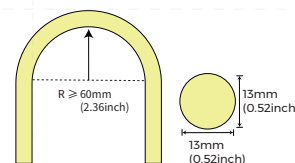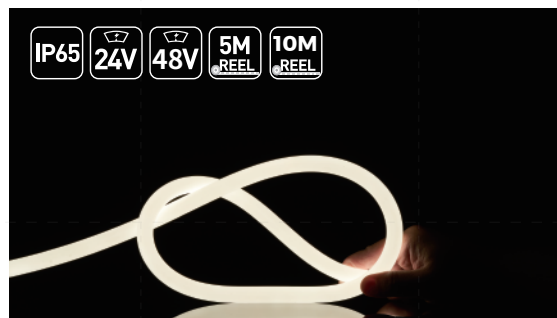
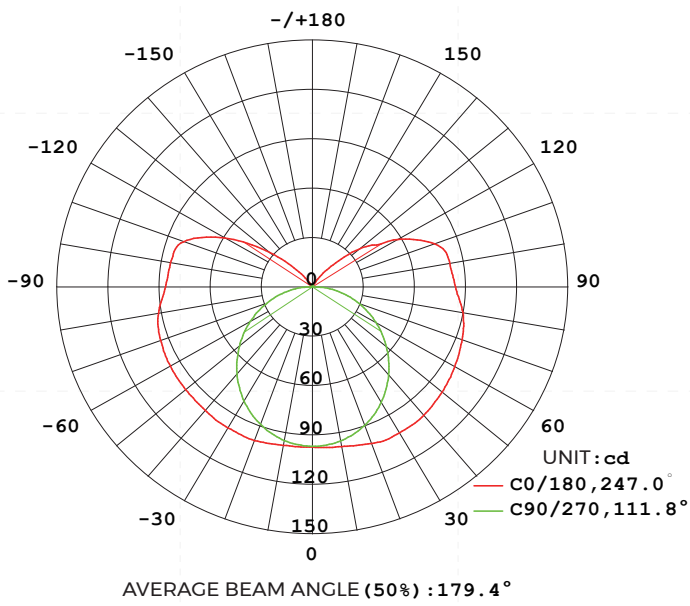## 【Basic Parameters】

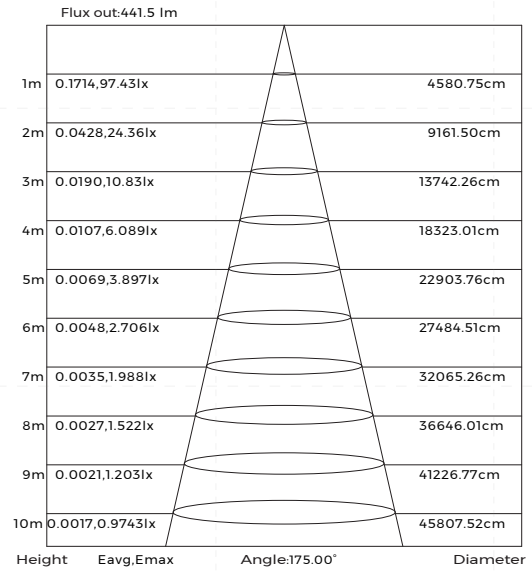| Model	CCT/colors	CRI	Input voltage (V)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark
NNR13S-9XX 24CSN050CC0500-ESD	2300K	>90	24V	0.54 (0.16A/ft)	13 (3.96W/ft)	14.3 (4.36W/ft)	585(178/ft)	5000mm (16.4ft)	No cutting 14LED/25mm
	2700K						675(206/ft)		
	3000K						700(213/ft)		
	4300K						700(213/ft)		
NNR13S-9XX 48CSN050CC1000-ESD	2300K	>90	48V	0.27 (0.082A/ft)			585(178/ft)	10000mm (32.8ft)	No cutting 28LED/50mm
	2700K						675(206/ft)		
	3000K						700(213/ft)		
	4300K						700(213/ft)		

Note：

1、The above data is the testing result of 1M standard product;

2、The lumens of output data can be vary up to ±15%;

3、The above parameters are all typical values.

【Light Distribution】

-/+180
-150 · 150
-120 · 120
-90 · 90
30
60
90
-60 · 60
120
150
-30 · 30
0

UNIT:cd
—— C0/180,247.0°
—— C90/270,111.8°

AVERAGE BEAM ANGLE(50%):179.4°

Light distribution

Flux out:441.5 lm

Height	Eavg,Emax	Angle:175.00°	Diameter
1m	0.1714,97.43lx		4580.75cm
2m	0.0428,24.36lx		9161.50cm
3m	0.0190,10.83lx		13742.26cm
4m	0.0107,6.089lx		18323.01cm
5m	0.0069,3.897lx		22903.76cm
6m	0.0048,2.706lx		27484.51cm
7m	0.0035,1.988lx		32065.26cm
8m	0.0027,1.522lx		36646.01cm
9m	0.0021,1.203lx		41226.77cm
10m	0.0017,0.9743lx		45807.52cm

Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

Effective average illuminance
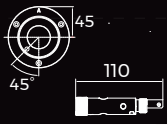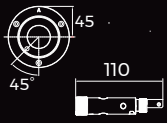
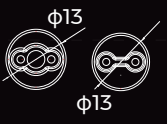Note: The above data is based on 24V monochrome 4000K color temperature. If you need other models of IES files, please download the corresponding models from the IES database.

【Product Mechanical Parameters】

· **IP65 Glued cap -top outlet**

500+15 (mm)
19.69+0.59 (inch)

Ø13mm (0.52inch)

L±15mm (0.59inch)

2PIN
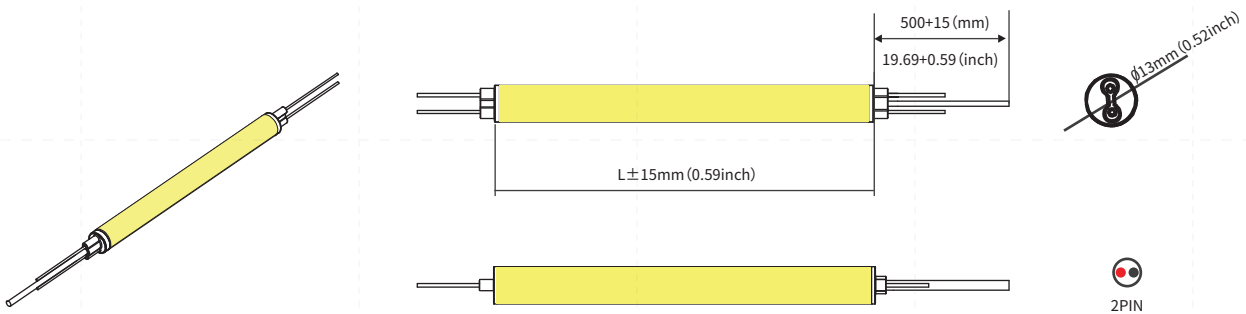
【Accessory Information】

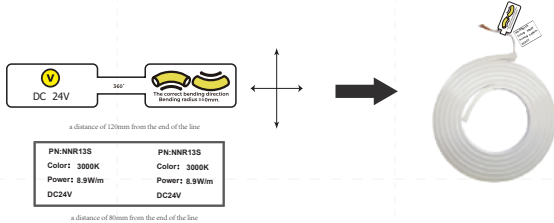| Name	Description	Imgae	Sectional size	Ordering code	Quantity case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Packing (mm)	Remark
accessories	double end suspension kit		45° 45° 110	AS-NNR13SA-182	5	0.443	2.217	3.7	255*255*260	Size: φ90mm*L182mm with screws
accessories	double end suspension kit		45° 45° 110	AS-NNR13SA3-182	5	0.443	2.217	3.7	255*255*260	Size: φ90mm*L182mm with screws
plug	silicone plug and tail plug		φ13 φ13	AS-NNR13SGH0-EC	2400	0.00075	1.8	2.8	250*250*150	Size: φ13mm*L13.5mm
wire	2P wire		/	AS-WS-0030	150	0.0128	1.92	2.92	250*250*150	/
wire	2P wire		/	AS-WS-0029	50	0.0512	2.56	3.56	250*250*150	/
wire	2P wire		/	AS-WS-0032	150	0.0128	1.92	2.92	250*250*150	/
wire	2P wire		/	AS-WS-0031	50	0.0512	2.56	3.56	250*250*150	/

【Product control system solutions】

Product Image	product name	Product number	Order code	Product specifications	Applicable Products
	Monochrome remote	CK1-GBA	402-02-000000-00001	output signal：RF Working voltage：3VDC(CR2032) Remote control distance：30m Working temperature:Ta:0-30 ℃~0+55 ℃	Monochrome light strip (Use with CR1-GBA)
	Monotone light controller	CR1-GBA	402-01-000000-00001	Input voltage：DC12-48V Output current：15A@12V/24V,10A@36V/48V Output Power：Max 180W@12V/Max 360W @24V/Max 360W@36V/Max 480W@48V Working temperature：-30℃— +55℃	Monochrome light strip (Use with CR1-GBA)

【Packaging Solutions】

· 5m Engineering Packaging

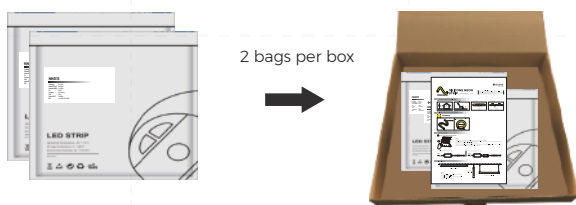1. Line marking, the line marking is affixed at a distance of 80mm from the end of the line;

a distance of 120mm from the end of the line

PN:NNR13S	PN:NNR13S
Color: 3000K	Color: 3000K
Power: 8.9W/m	Power: 8.9W/m
DC24V	DC24V

a distance of 80mm from the end of the line

2. Put the product information label on the back of the static bag inside the marking line;

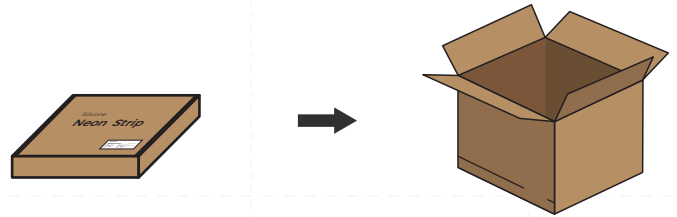product information label

3. Put the light strip into anelectrostatic bag, close the bag;
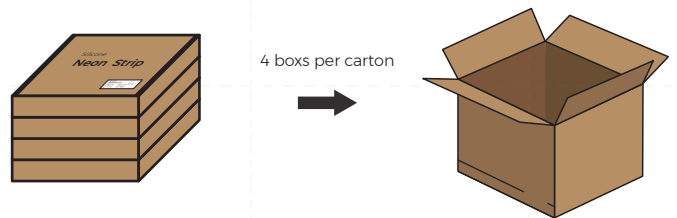

5 meters per bag

4. Put the product into the box,four bag per box, 10 meters in total；

2 bags per box

5. Label the carton and pack it into the carton

6. Pack 4 boxes of products in the carton

4 boxs per carton

7. Put the product information label and the box number label on the side of the carton, and the QC inspection stamp

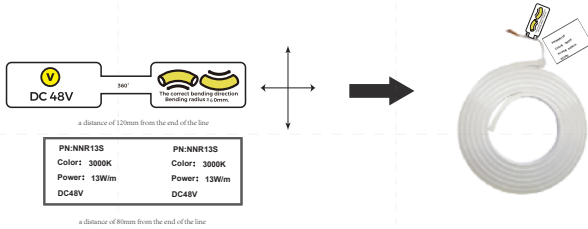Product Information Label   Box number label

8. seal the box with transparent tape，packing tape；

· 10m Engineering Packaging

1. Line marking, the line marking is affixed at a distance of 80mm from the end of the line;

PN:NNR13S
Color: 3000K
Power: 13W/m
DC48V

PN:NNR13S
Color: 3000K
Power: 13W/m
DC48V

a distance of 120mm from the end of the line

a distance of 80mm from the end of the line

2. Put the product information label on the back of the static bag inside the marking line;

product information label

3. Put the light strip into anelectrostatic bag, close the bag；

10 meters per bag

4. Put the product into the box, four bag per box, 10 meters in total；

1 bag per box

5. Label the carton and pack it into the carton

6. Pack 4 boxes of products in the carton

4 boxs per carton

7. Put the product information label and the box number label on the side of the carton, and the QC inspection stamp
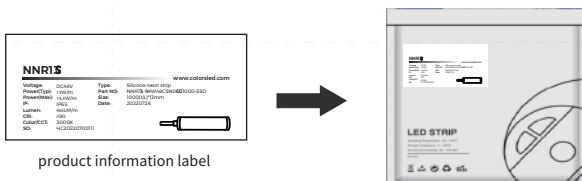
产品信息标签　　　箱号标签
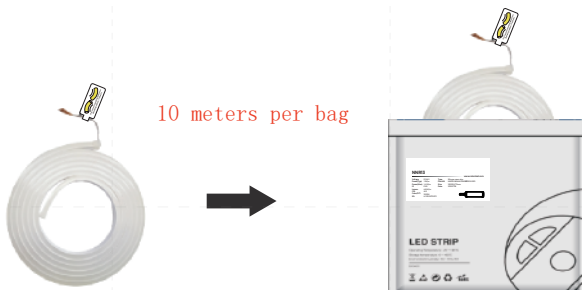
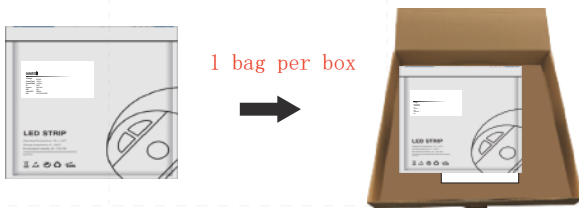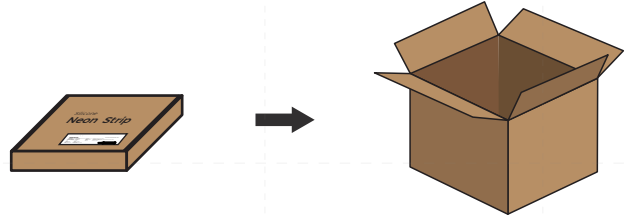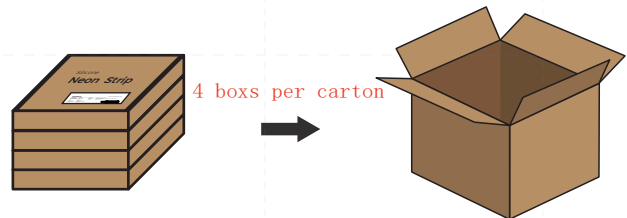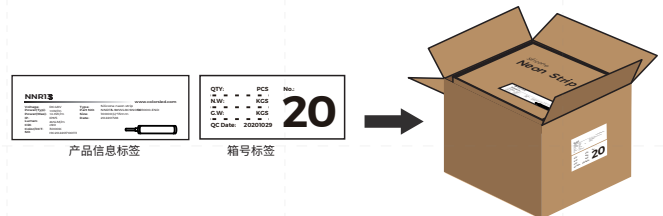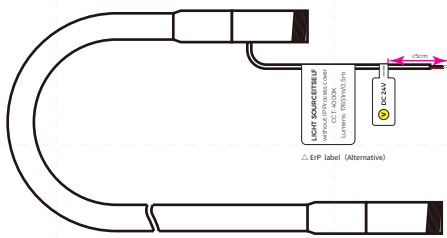**8.** seal the box with transparent tape，packing tape；

NNR13S Distribution Packaging   5m/10m

1.The line marking is affixed at the end of the line;

LIGHT SOURCEITSELF
Without IP Process cover
CCT 4000K
Lumens 7601m/0.5m
DC 24V
△ErP label (Alternative)

2.put the metal parts which installed on the head into the PE bag,   seal with transparent tape

LIGHT SOURCEITSELF
Without IP Process cover
CCT 4000K
Lumens 7601m/0.5m
DC 24V

3.Wrap the product into a circle,stick Velcro on the product。

5m neon：diameter φ≤30cm

10m neon：diameter φ≤31cm

4.Put the product into anelectrostatic bag

5.Put the pearl cotton into the box

5m Package Styles

Placement of accessories

the pearl cotton of accessories
A-type base
A-type rotating rod
B-type rotating rod
B-type base

the pearl cotton of 5 meters style

10m Package Styles

Placement of accessories

the pearl cotton of accessories
A-type base
A-type rotating rod
B-type rotating rod
B-type base
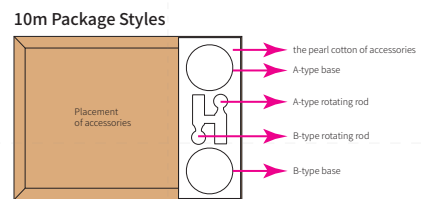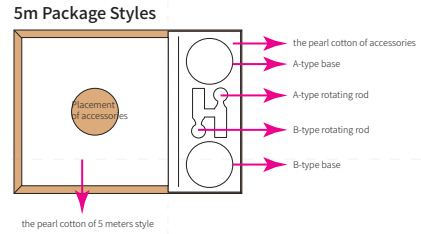
6.Put the bag of accessory into the box，put the product into the box

5m Package Styles   **10m Package Styles**
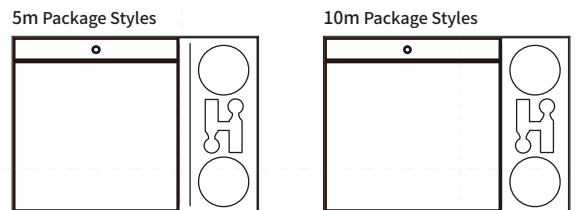
7：Cover the box with thin cotton（attention：use the thin cotton of 5mm thickness）

5m Package Styles   **10m Package Styles**
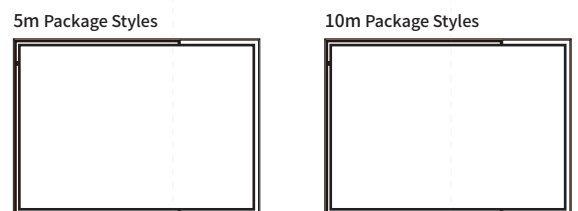
8.Put the brochure on the thin cotton

9.Close the box,stick the product information label on the bottom right corner of the box。

STRAINLESS NEON KITS

Magic Neon

9.Prepare the carton

11.packing,5 box per carton

12.Put the product information label and the box number label on the side of the carton

13.the QC inspection stamp
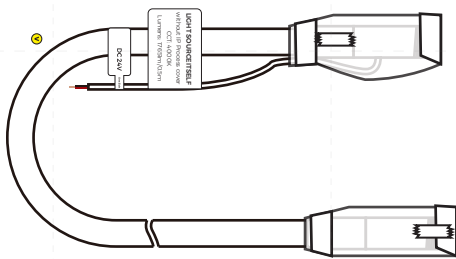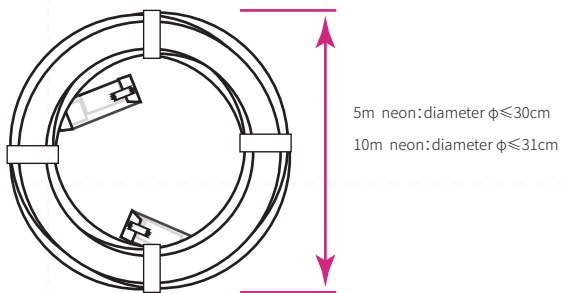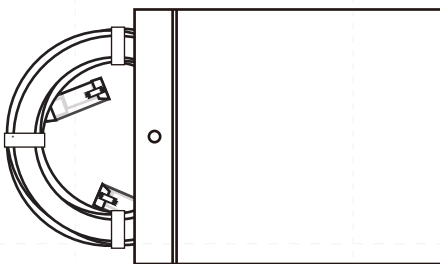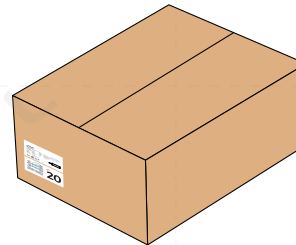

14.seal the box with transparent tape，packing tape。

tape
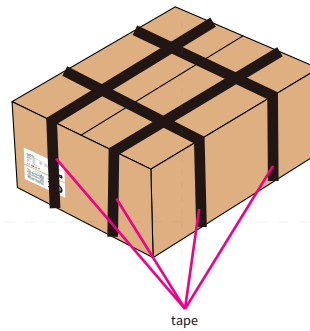
🛠 Tips

● Adjustable range of base length

3.5 cm
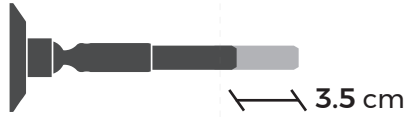
● Distance of installation (Taking the 5-meter neon as an example)

The min distance of installation:**5.3m**

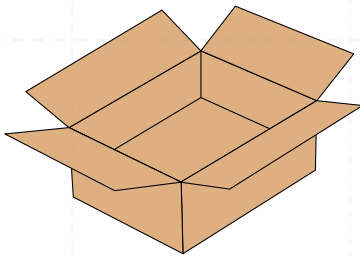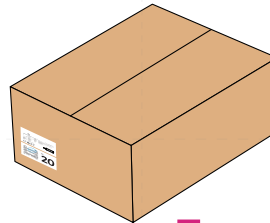| The min distance	The length of neon	The min distance
15 cm	**5**m	**15** cm

The max distance of installation:**5.37m**

The max distance	The length of neon	The max distance
18.5 cm	**5**m	**18.5** cm
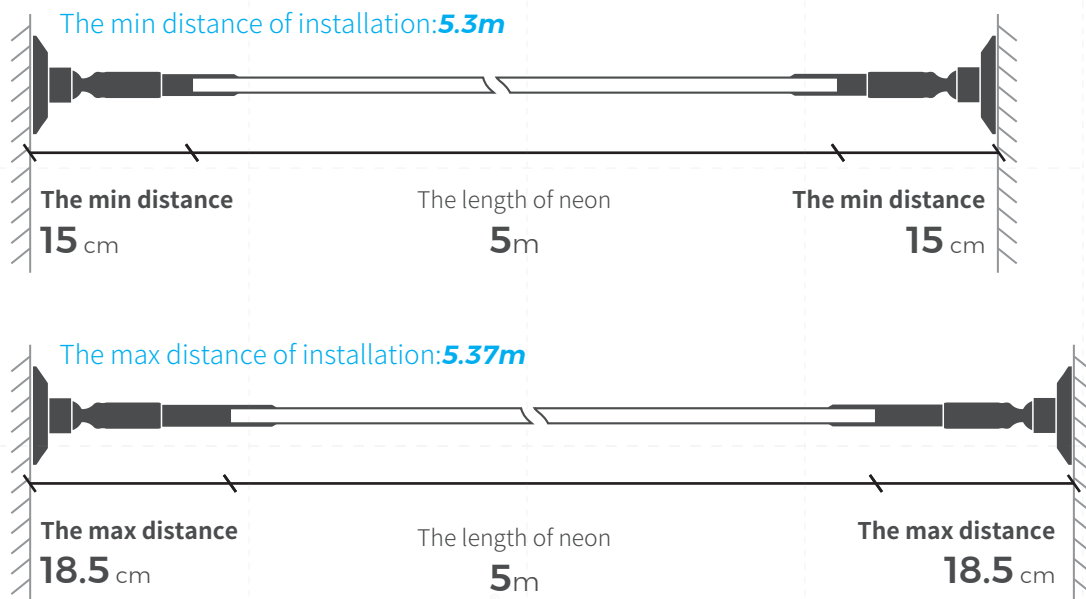
Tip:

1. Neon strip length = distance of installation points - 0.33m

2. 5m, 10m refer to the length of neon strip. The actual installation length should include length of accessories, which is adjustable. Take 5m neon strip for an example. Its whole set of actual installation length, is 5.3m at least, and 5.37m at most.

3. For details of installation, please consult our customer service or sales.

【Packaging Solutions】

Model	Size	Product Quantity (bax)	Product Quantity (case)	Net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size(m)
NNR13S-9XX24CSN050CC0500-ESD	L5000*φ13mm	5M*2	40M	0.937	7.496	9.0	0.41*0.41*0.26
NNR13S-9XX48CSN050CC1000-ESD	L10000*φ13mm	10M*1	40M	1.874	7.496	9.0	0.41*0.41*0.26
NNR13S-9XX24CSN050BC0500-ESD	L5000*φ13mm	5M*1	25M	1.74	8.7	9.6	0.47*0.34*0.3
NNR13S-9XX48CSN050BC1000-ESD	L10000*φ13mm	10M*1	50M	3.69	14.75	15.88	0.47*0.34*0.3

【Reliability test】

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	$\leqq 2M\Omega$
	Electrical strength	IEC 60598-1; IEC 60598-2-21	500V
Mechanical reliability testing	Bending test	Colors	Each 200mm，bending up and down 100 times
	Bending test	Colors	Each 200mm, bending left and right 100 times
	Torsion test	Colors	Twist clockwise 5 times and then release, repeat 200 times
	Disassembly and assembly test	Colors	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

【Precautions】

· Use a 24V DC、48V DC isolated power supply to drive the neon lamp strip and the ripple wave of constant voltage source shall be less than 5%.

 It is not allowed to use RC voltage reduction or non-isolated power supply to drive the neon lamp strip.

· In actual applications, 20% of the power supply shall be kept (only 80% of the power is used) to guarantee that sufficient voltage is available to drive the product.

· Attention shall be paid to safe operation. After powering on, it is not allowed to touch the AC power supply to avoid an electric shock.

· Attention shall be paid to the positive and negative poles of the wires during installation and whether the power supply conforms to required voltages to avoid damages.

· Avoid scratching, distortion and irregular bending of the product during installation; otherwise it may cause irreparable damage to the product.

· Please do not bend the strip into an arc with a diameter less than 60mm to ensure the longevity and reliability, the bending diameter too small will damage the product itself.

· If the actual length of application exceeds the specified using length, it will lead to overload heating and uneven brightness.

· To keep the eyes from being harmed, try to avoid staring at the glowing side of the LED strip for a long time.

· Non-professionals are prohibited from installing, disassembling and repairing the product.

· Do not use any acid or alkaline adhesive to fix products (including not limited to glass cement, etc.)

· Product is not suitable for use in swimming pools and fountains.

· Please confirmed before usage as products of varied sizes show slight differences in their color under same color temperature due to their structural differences.

· Colored products are prohibited from cutting to avoid damage to the lamp body caused by improper operation.

· Due to the characteristics of the silicone material, it is normal for the color of the colloid to change slightly the neon product is used for a long time.

· It is strictly forbidden to use 502/705 and other adhesives that are prone to chemical reactions with silica gel during construction and installation. It is recommended to use silicone sealant for bonding.
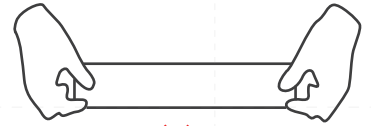
· Long-term storage and the remaining products after cutting and use must be sealed to avoid exposure to organic environments such as aldehydes/benzenes.

· When the product is installed and used, it is recommended that the product as a whole be in the same environ mental conditions to avoid inconsistent color changes of the product colloid due to differences in product exposure and environmental conditions.

· During the installation process, pay attention to the installation in strict accordance with the maximum installation distance defined in the warm tips, first install the B end, then install the A end, and the actual installation distance must not exceed the maximum installation distance.
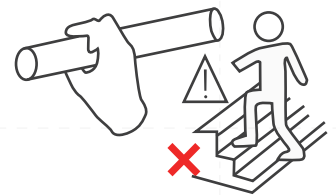
It is forbidden to wrap objects less than 120mm

NO stretching

No trampling