Neon Specification

NNR30

Indoor | **IP65** | **IK08** | **UV RESISTANT**

UL E498657 | **Reach** | **FLAME RESISTANT** | **SALTWATER RESISTANT** | **SOLVENT RESISTANT**
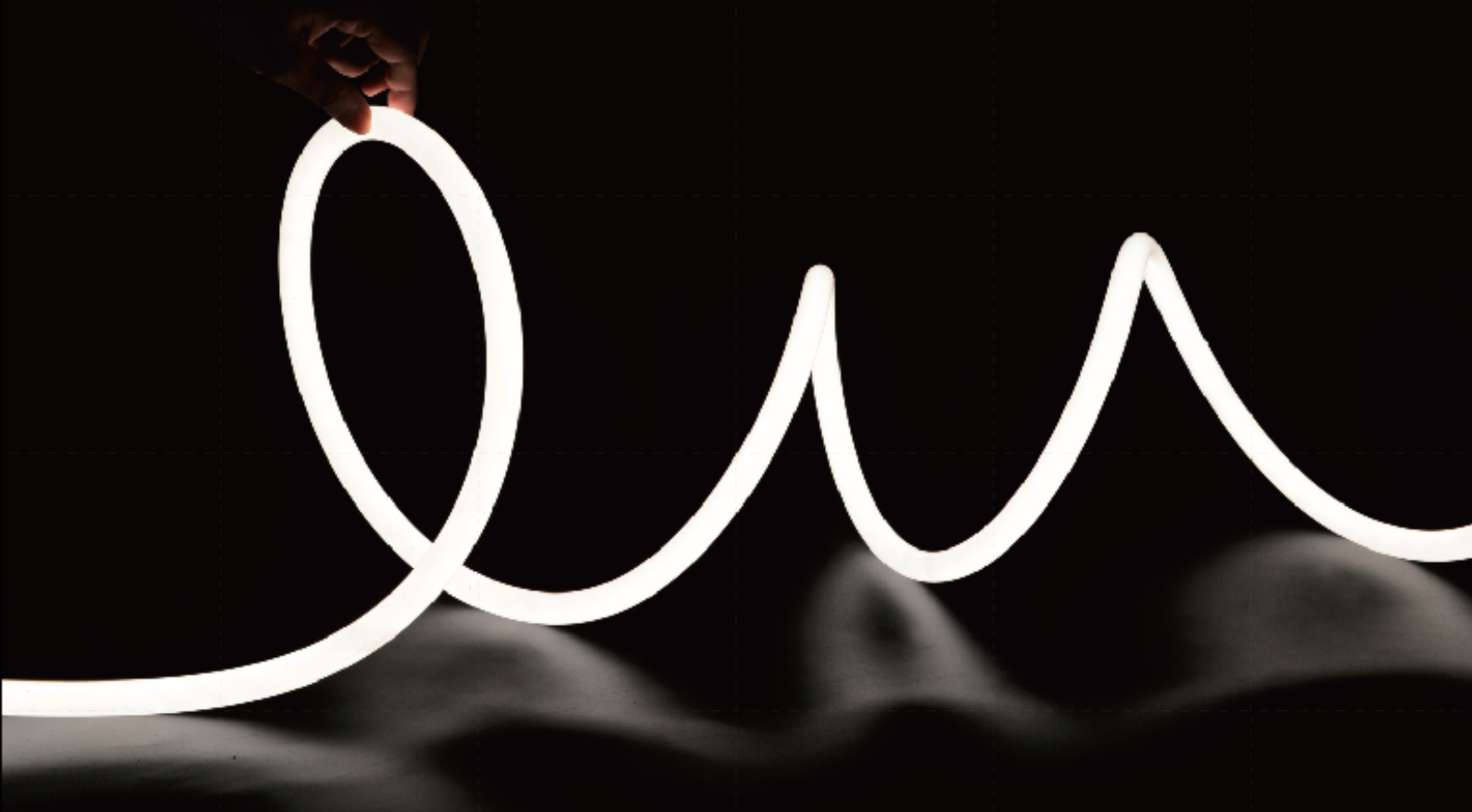
【Features】

· Light source: high luminous efficiency LED lamp beads, LM80 test certification;

· 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;

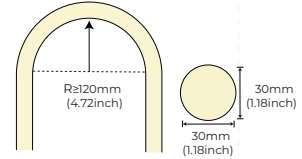· Product certification: UL, CE, ROHS, UKCA, CB;
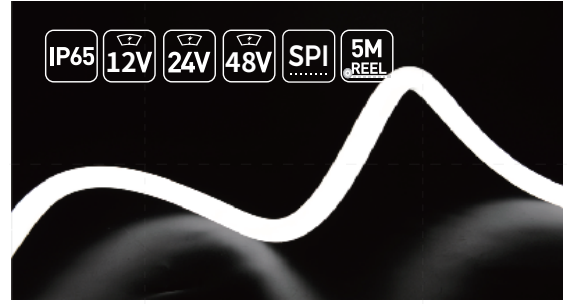
· Environmental characteristics: salt solution resistance, acid and alkali corrosion resistance, flame retardant resistance, UV resistance;

· Working/storage temperature: Ta: -25~55℃ / 0℃～60℃;

Symphony working/storage temperature: Ta: -20~40℃ / 0℃～60℃;

· SPI chip mode and pixel count: R/G/B/RGB: WS2815,90Pixels/m;

· Product application: office lighting, decorative lighting, artistic lighting, modeling contrast;

· White/G/B/CCT/RGB with 3 years warranty or working life =36000H,whichever comes first;SPI with warranty 2 years or workinglife=20000H,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
NNR30-9XX 24CSN050CCXXXX-ESD	2200K	>90	24V	0.6 (0.18A/ft)	14.4 (4.39W/ft)	15.8 (4.82W/ft)	850(259/ft)	1000mm (3.28ft) 2500mm (8.2ft) 5000mm (16.4ft)	Arbitrary cutting 4LED/11.97mm
	2700K						950(290/ft)		
	3000K						950(290/ft)		
	4000K						950(290/ft)		
NNR30-0X 24CSN050CCXXXX-ESD	G 620-630nm	/		0.42 (0.13A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	/		No cutting 14LED/41.67mm
	B 465-470nm	/					/		
NNR30-0RGB 24CSN050CCXXXX-ESD	RGB	/		0.6 (0.18A/ft)	14.4 (4.39W/ft)	15.8 (4.82W/ft)	450(137/ft)		No cutting 14LED/50mm
NNR30-9LWNW 24CSN050CCXXXX-ESD	2200K~4000K	>90		0.6 (0.18A/ft)	14.4 (4.39W/ft)	15.8 (4.82W/ft)	950 (290/ft)		No cutting 24LED/31.25mm
NNR30-0RGBXX 24CSN050CC0500 -ESD	RGB~2300K	/		0.72 (0.22A/ft)	17.2 (5.21W/ft)	19.8 (6W/ft)	/		No cutting 24LED/62.5mm
	RGB~2800K								
	RGB~3200K								
	RGB~4500K								
NNR30-9XX 48CSN050CC2000 -ESD	2200K	>90	48V	0.26 (0.08A/ft)	12.5 (3.81W/ft)	13.7 (4.18W/ft)	850(259/ft)	20000mm (65.6ft)	No cutting 28LED/83.33mm
	2700K						950(290/ft)		
	3000K						950(290/ft)		
	4000K						950(290/ft)		
NNR30-0RGBXW 48CSN050CC1000 -ESD	RGB~(2300K/2800K /3200K/4500K)	/		0.36 (0.11A/ft)	17.2 (5.21W/ft)	19.8 (6W/ft)	/	10000mm (32.8ft)	No cutting 48LED/125mm
NNR30-0RGBX 12CSN050CC0500 -ESD	R	/	12V	1.8 (0.55A/ft)	21.6 (6.5W/ft)	23.8 (7.2W/ft)	/	5000mm (16.3ft)	Arbitrary cutting 2LED/11.11mm IC:(WS2815) 90Pixels/m
	G						/		
	B						/		
	RGB						302(92.1/ft)		

Note:

1. The above parameters are tested based on 1m (3.28ft) standard products;

2. The luminous flux is allowed to have an error range of ±15%;

3. The above parameters are typical values;

【Light Distribution】

UNIT:cd
C0/180,262.5°
C90/270,112.1°
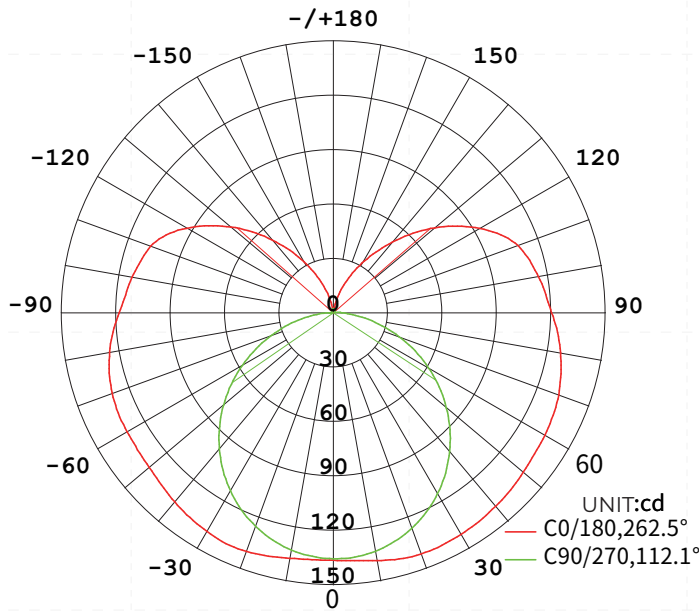
AVERAGE BEAM ANGLE(50%):187.3 DEG

Light distribution

Flux out:630.0 lm

| Height	Eavg,Emax		Diameter
1m	0.0000,136.61x		22917.70cm
2m	0.0000,34.151x		45835.40cm
3m	0.0000,15.181x		68753.09cm
4m	0.0000,8.5371x		91670.79cm
5m	0.0000,5.4641x		114588.49cm
6m	0.0000,3.7941x		137506.19cm
7m	0.0000,2.7881x		160423.89cm
8m	0.0000,2.1341x		183341.59cm
9m	0.0000,1.6861x		206259.28cm
10m	0.0000,1.3661x		229176.98cm

Angle:179.00deg

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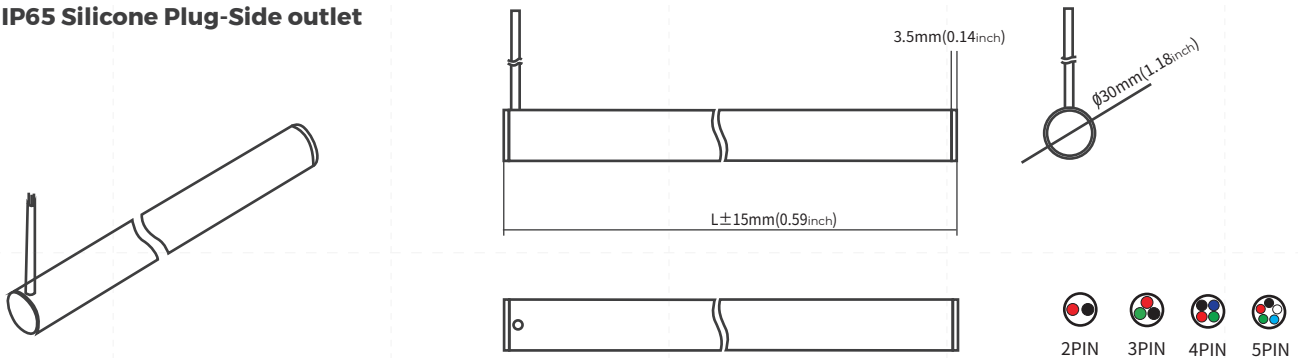
Effective average illuminance

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 Silicone Plug -Top Outlet

10mm(0.39inch)   3.5mm(0.14inch)   Ø30mm(1.18inch)

L±15mm(0.59inch)

2PIN   3PIN   4PIN   5PIN
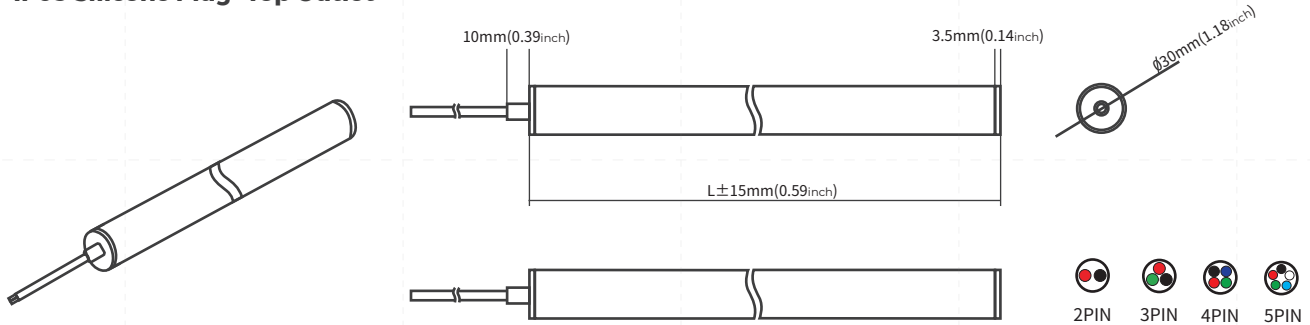
· IP65 Silicone Plug-Side outlet

3.5mm(0.14inch)   Ø30mm(1.18inch)

L±15mm(0.59inch)

2PIN   3PIN   4PIN   5PIN

【Accessory information】

Installation schematic	name	Accessories Picture	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
/	NNR30 N-buckle accessory		AS-NNR30P1-25	100	0.01	1.00	1.20	250*250*150	Appearance size: W53.4*H33.3*L25mm 3pcs/1M;5pcs/2.5M;8pcs/5M
	NNR40 N-groove accessory		AS-NNR30LCX-1000	8	0.31	2.48	3.58	1180*125*115	Appearance size: W53.4*H33.3*L1000mm
	NNR30 Hole Diameter 4.6mm top cap		AS-NNR30GH0-EC	540	0.01	5.4	6.4	410*410*260	suit to: NNR30 white/monochrome light/ CCT/RGB/RGBW
	NNR30 Hole Diameter 4.6mm side cap		AS-NNR30GS0-EC	540	0.01	5.4	6.4	410*410*260	suit to: NNR30 white/monochrome light/ CCT/RGB
	NNR30 Hole Diameter 5.6mm top cap		AS-NNR30GH1-EC	540	0.01	5.4	6.4	410*410*260	suit to: NNR30 SPI
	NNR30 Hole Diameter 5.6mm side cap		AS-NNR30GS1-EC	540	0.01	5.4	6.4	410*410*260	suit to: NNR30 SPI、RGBW
	NNR30 invisible buckle		AS-NNR30DCX-XX	600	0.01	6	6.6	250*250*150	Appearance size: PC：W14.3*H4.9*L32.2mm SUS304：W12.1*H1.5*L17.1mm Recommended dosage:1PCS/0.5M
	NNR30 Ceiling mounting accessory		AS-NNR30VCC-XX-2	36	0.125	4.5	6.8	410*410*260	Appearance size: φ39.6mm*47.2mm
	NNR30 Trimless embedded accessory		AS-NNR30VTD-XX-2	36	0.11	3.96	6.4	410*410*260	Appearance size：φ67.2*H20.2 Mounting hole size：φ45mm
	NNR30 Embedded accessory		AS-NNR30VRD-XX-2	36	0.18	6.48	8.9	410*410*260	Appearance size：φ69.5*H20.2 Mounting hole size：φ45mm

【Accessory information】

| name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
Glue	588G acidic glue		/	AS-PG-0002	150	0.014	2.1	2.4	250*250*150	10ml/pcs
Wire	2P PVC wire (0.5M)		/	AS-WS-0001	150	0.01541	2.31	2.61	250*250*150	Suitable for monochromatic light strips (Use the top-out line)
Wire	2P PVC wire (2M)			AS-WS-0002	125	0.0616	7.7	8	250*250*150	
Wire	4P PVC wire (0.5M)		/	AS-WS-0003	150	0.0194	2.91	3.21	250*250*150	Suitable for RGB strips (Use the top-out line)
Wire	4P PVC wire (2M)			AS-WS-0004	125	0.0776	9.7	10	250*250*150	

【Product control system solutions】

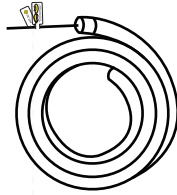| Product Image	product name	Product number	Order code	Product specifications	Applicable Products
	Monochrome remote	CK1-GBA	402-02-000000-00001	output signal：RF Working voltage：3VDC(CR2032) Remote control distance：30m Working temperature:Ta:0-30 ℃~0+55 ℃	Monochrome light strip (Use with CR1-GBA)
	Monotone 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)
	CCT remote control	CK2-GBA	402-02-000000-00002	output signal：RF Working voltage：3VDC(CR2032) Remote control distance：30m Working temperature:Ta:0-30 ℃~0+55 ℃	CCT light strip (Use with CR2-GBA)
	Color temperature controller	CR2-GBA	402-01-000000-00002	Input voltage：DC12-48V Output current：8A Output Power：Max 192W@12V/Max 284W@24V/Max 576W@36V/Max 768W@48V Working temperature：-30℃— +55℃	CCT light strip (Use with CK2-GBA)
	RGB/RGBW remote control	CK4-GBA	402-02-000000-00003	output signal：RF Working voltage：3VDC(CR2032) Remote control distance：30m Working temperature:Ta:0-30 ℃~0+55 ℃	RGB/RGBW light strip (Use with CR3-GBA)
	RGB controller	CR3-GBA	402-01-000000-00003	Input voltage：DC12-48V Output current：18A Output Power：Max 216W@12V/Max 432W@24V/Max 648W@36V/Max 864W@48V Working temperature：-30℃— +55℃	RGB light strip (Use with CK4-GBA)
	Symphony Controller	K-8000C	23-01-00-0050	Power supply：DC 5V-24V input Power consumption：5W Working temperature：Ta:0-20 ℃~0+85 ℃	DMX/SPI magic lights with universal

【Packaging Solutions】

· standard packaging

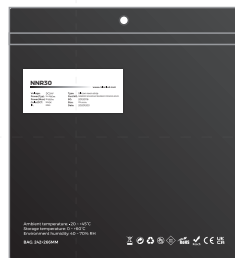**1. Line marking, the line marking is affixed at a distance of 80mm from the end of the line;**

V DC 24V 360° The correct bending direction Bending radius = 120mm.
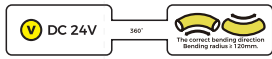
Voltage & bending warning signs

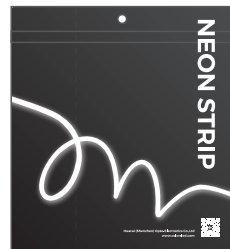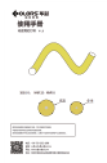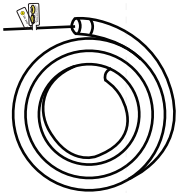**4. Label the carton and pack it into the carton;**

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

NNR30

Voltage	DC24V	Type:	Silicon neon strip
PowerTypi	1s.4W/m	Part NO:	NNR30-9NW24CSN050CC0500-ESD
PowerMaxl	14.4W/m	SO.	20120116
Color/CCT:	9500K	Size	25 mm
IP:	IP65	Date:	20201205

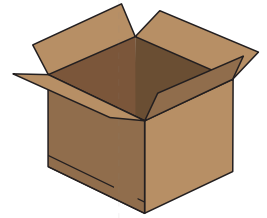Product Information Label

5. Pack 4 boxes of products in the carton;

3.Put the light strip into an electrostatic bag, one roll per bag, and seal the bag;

NEON STRIP
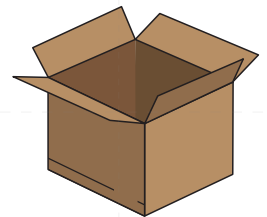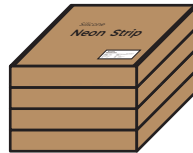
6. Put the product information label and the box number label on the side of the carton, and the QC inspection stamp;

NNR30

Voltage	DC24V	Type:	Silicon neon strip
PowerTypi	1s.4W/m	Part NO:	NNR30-9NW24CSN050CC0500-ESD
PowerMaxl	14.4W/m	SO.	20120116
Color/CCT:	9500K	Size	25 mm
IP:	IP65	Date:	20201205

QTY: ___ PCS
N.W: ___ KGS
G.W: ___ KGS   **20**
QC Date: 20201029
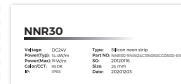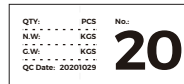
Product Information Label   Box number label

Model	Product size	Product Quantity/ box	Product Quantity/ case	Product net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size (m)
NNR30-XXXX24CSN050CC0500-ESD	L5000*φ30mm	5M*1	20M	4.15	16.6	18.1	0.41*0.41*0.26
NNR30-XXXX48CSN050CC0500-ESD	L5000*φ30mm	5M*1	20M	4.15	16.6	18.1	0.41*0.41*0.26
NNR30-XXXX48CSN050CC1000-ESD	L10000*φ30mm	/	20M	8.3	16.6	18.9	0.365*0.365*0.335
NNR30-9XX48CSN050CC2000 -ESD	L20000*φ30mm	/	20M	16.6	16.6	18.9	0.365*0.365*0.335
NNR30-0RGBX12CSN050CC0500 -ESD	L5000*φ30mm	5M*1	20M	4.15	16.6	18.1	0.41*0.41*0.26

【Reliability test】

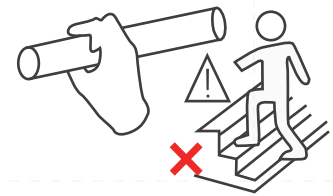| test item	Classification	Reference	Test method or condition
Safety test	Mechanical strength	IEC 60598-1; IEC 60598-2-21	The hammer spring Impact energy 0.35J
	IP	IEC 60598-1; IEC 60598-2-21	IP65
	Winding Test	IEC 60598-1; IEC 60598-2-21	φ150mm cylinder, 60N pull, winding 10 times at（-25℃±2℃）, and 10 times after(-15℃±2℃, 16h).
	Cold Bend Test	IEC 60598-1; IEC 60598-2-21	wound on mandrel, low-temperature (-15℃±2℃, 16h)，around the mandrel for two turns
	Cold Impact test	IEC 60598-1; IEC 60598-2-21	Low-temperature（-15℃±5℃, 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	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℃, 168h
	Low temperature storing test	IEC 60068-2-1	'-40℃, 168h
	High temperature and Humidity impact	IEC 60068-2-78	60℃, 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℃, 6000h
	switch test	Colors	10s On, 10s Off, 10000 times

【Precautions】

·Please use an isolated power supply to drive the LED light bar, and the ripple of the constant voltage source is less than 5%. Do not use resistance-capacitance step-down, non-isolated power supplies to drive the LED light bar.

·In actual applications, the power supply should reserve 20% of the margin (it is recommended to use only 80% of the power) to ensure sufficient voltage to drive the product.

· Please operate carefully, do not touch the AC power terminal when the power is on to prevent electric shock.

·Pay attention to the positive and negative poles of the power cord, and do not connect it wrongly. Whether the voltage of the power supply and the product are the same, so as to avoid damage to the product.

·During the installation process, please avoid scratching, twisting and irregular bending of the product, otherwise it may cause irreparable damage to the product.

· In order to ensure the life and reliability of the light strip, please do not bend it in an arc with a radius of 120mm or less. A too small bending radius will damage the product itself

·If the actual application length exceeds the specified use length, it will cause the lamp belt to overload and heat, and the brightness is uneven.

·In order to prevent your eyes from being hurt, try to avoid staring at the light-emitting surface of the light bar for a long time.

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

· It is strictly forbidden to use any acidic or alkaline adhesives to fix products (including but not limited to glass glue, etc.).

· Different IP grades are used in different scenarios, and IP65 is not suitable for immersed environments.

· Products of different sizes and specifications under the same color temperature value due to structural differences, the final color of the product is slightly deviated, and it needs to be confirmed before use.

· Light strips that can be cut arbitrarily need to be glued or plugged after cutting. Colored light and color temperature are strictly prohibited to be cut to avoid damage to the lamp due to cutting.

· Please use professional cutting tools when cutting.

· Due to the characteristics of the silicone material, it is normal for the color of the colloid to change slightly after 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 environmental conditions to avoid inconsistent color changes of the product colloid due to differences in product exposure and environmental conditions.

It is forbidden to wrap objects less than 120mm

NO stretching

No trampling