

## **Neon Specification**

# NNR25











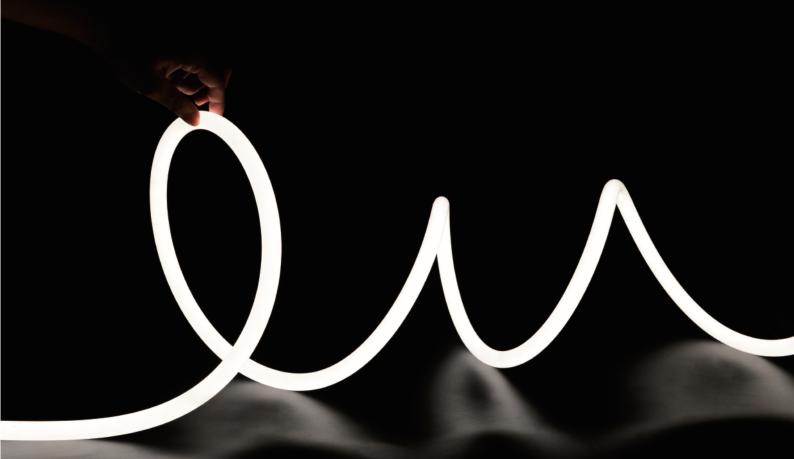






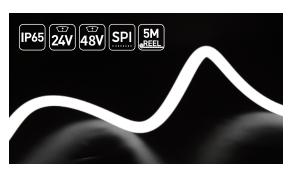






### **[Features]**

- $\cdot$  Light source: high luminous efficiency LED lamp beads, LM80 test certification:
- · Process material: high light transmittance, high purity silica gel material, IP65 protection level;
- $\cdot$  Optical design: unique optical light distribution structure design, 360° light output uniformly without shadows;
- $\cdot$  Appearance design: skin-friendly surface treatment, comfortable touch, good flexibility, and simple shape;
- · Product certification: UL, CE, ROHS, UCKA, CB;
- $\cdot \, \text{Environmental characteristics: salt solution resistance, acid and alkali corrosion resistance, flame retardant resistance, UV resistance;}$
- $\cdot$  Working/storage temperature: Ta: -25~55°C / 0°C $\sim$ 60°C;
- $\cdot \mbox{ Product application: office lighting, decorative lighting, artistic lighting, modeling contrast;} \\$
- $\cdot$  White/G/B/CCT/RGB with 3 years warranty or working life =36000H,whichever comes first;48V/SPI with warranty 2 years or workinglife=20000H, whichever comes first;







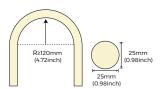












## [Basic Parameters]

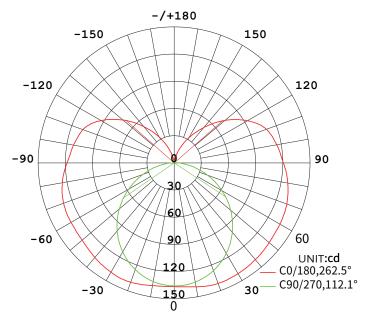
Model	CCT/colors	CRI	Input voltage (\/)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark		
	2300K						750(225/ft)				
NNR25-9XX	2700K	>90		0.6 (0.18A/ft)	14.4	16 (4.88W/ft)	950(285/ft)	1			
24CSN050BCXXXX-ESD	3000K	730			(4.39W/ft)		950(285/ft)		Arbitrary cutting 4LED/11.97mm		
	4000K	]					950(285/ft)	1000mm			
	G 620-630nm	,	1				/	( 3.28ft)	No cutting 14LED/41.67mm		
NNR25-0X 24CSN050BCXXXX-ESD	0 020 000		24V	0.42	10	]] (7.75\\\/\f\)	/	2500mm			
2100110302070001 202	B 465-470nm	/		(0.13A/ft)	(3.05W/ft)	(3.35W/ft)	/	(8.2ft)	No cutting 14LED/50mm		
NNR25-ORGB 24CSN050BCXXXX-ESD	RGB	/		0.6	0.6 14.4 0.18A/ft) (4.39W/ft) (	16	400(120/ft)	(16.4ft)			
NNR25-9LWNW 24CSN050BCXXXX-ESD	2300K~4000K	>90		(0.18A/ft)		(4.88W/ft)	950(285/ft)		No cutting 24LED/31.25mm		
	2300K								810(245/ft)		
NNR25-9XX	2700K	>90	48V	0.26	12.5	13.3	880(265/ft)	20000mm (65.6ft)	No cutting 28LED/83.33mm		
48NSN050BS2000 -ESD	3000K	>90	400	(0.08A/ft)	(3.81W/ft)	(4.05W/ft)	950(285/ft)				
	4000K	]					980(295/ft)				
	R						55(15/ft)	3000mm (9.8ft)			
NNR25-ORGBX	G	1 ,	12V	1.5	18	20	195(55/ft)		Arbitrary cutting		
12CSN050BC0300 -ESD	В	1 ′	IZV	(0.46A/ft)	(5.49W/ft)	(6.1W/ft)	40(10/ft)		4LED/11.11mm IC:(UCS1903)		
	RGB						285(85/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 ±10%;
- 3. The above parameters are typical values;

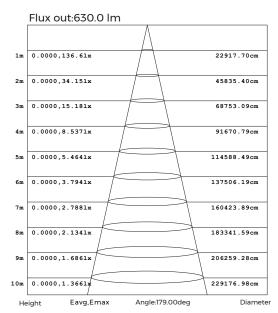
The standard size of 4.24V is 1m (3.28ft), 2.5m (8.2ft), 5m (16.4ft); the standard size of 48V is 20m (65.6ft); the standard size of 12V is 3m (9.8ft);

## **[Light Distribution]**



AVERAGE BEAM ANGLE(50%):187.3 DEG

**Light distribution** 

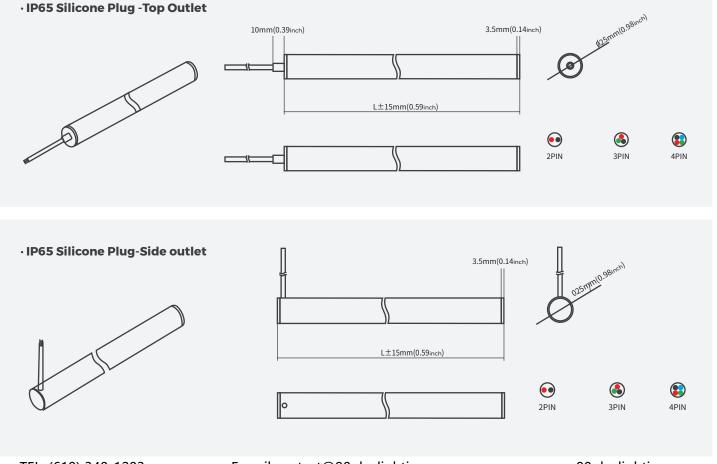


Note:The Curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

#### 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)**



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www.90pluslighting.com

## [Accessory information]

Installation schematic	Accessories Picture	name	Order model	quantity, case (PCS)	/ net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
/		NNR25 ceiling Fixed installation components	AS-NNR25P1-25	100	0.01	1.00	1.20	250*250*150	Size:1.6°H27.8mm , With screws; 3pcs/IM;5pcs/2.5M;8pcs/5M
	••••• <b>~</b> • • • • • • • • • • • • • • • • • • •	Vertical hanging side outlet Install accessory kit (1m)	AS-NNR25VHS- 1000	16	0.28	4.40	5.29	1285*160*160	NNR25-XXXXBC0100 Round tube:1M;Wire rope:2M
	•••• <del>~</del> • • • • •	Vertical hanging side outlet Install accessory kit (2.5m)	AS-NNR25VHS- 2500	16	0.52	8.40	10.12	2580165165	NNR25-XXXXBC0250 Round tube: 2.5M; Wire rope: 2M
	0 0 0 N. 00 *	Hang the top vertically Outlet installation accessory kit (1m)	AS-NNR25VHD- 1000	16	0.31	4.90	5.79	1285*160*160	NNR25-XXXXBC0100 Round tube:1M;Wire rope:2M
	0 0 8 N. 00 *	Vertical hanging from the top Install accessory kit (2.5m)	AS-NNR25VHD- 2500	16	0.55	8.83	10.55	2580*165*165	NNR25-XXXXBC0250; Round tube;2.5M;Wire rope:2M
		Single-ended vertical ceiling Install accessory kit (1m)	AS-NNR25VCC- 1000	16	0.23	3.63	4.52	1285*160*160	NNR25-XXXXBC0100 Round tube:1M;
	<b>9 9 9 1 1 1 1 1 1 1 1 1 1</b>	Single-ended vertical ceiling Install accessory kit (2.5m)	AS-NNR25VCC- 2500	16	0.47	7.57	9.29	2580*165*165	NNR25-XXXXBC0250 Round tube:2.5M;
	IIII 11111	Horizontal ceiling installation components	AS-NNR25LCX- 1000	15	0.08	1.20	1.80	1180*125*115	NNR25-XXXXBC0100 NNR25-XXXXBC0500 PC slot:1M;
		Horizontal hoisting Install components (38mm)	AS-NNR25LHX- 0038	96	0.07	6.75	7.35	365*365*190	NNR25-XXXXBC0100 NNR25-XXXXBC0250 NNR25-XXXXBC0500 Round tube: 38mm; Wire rope 2pcs, L:2M;

## [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
	Horizontal hoisting Install components (1M)	<b>爾爾 6</b> 〇一	AS-NNR25LHX-1000	16	0.18	2.88	3.48	1180*125*115	NNR25-XXXXBC0100 Round tubeL:1M; Wire rope 2pcs, L:2M;
	Horizontal hoisting Install components (2.5M)	g 😂 y v	AS-NNR25LHX-2500	16	0.33	5.28	6.28	2580*165*165	Round tubeL:2.5M; Wire rope 2pcs 2pcs, L:2M;
	Double-ended vertical ceiling Kits	<b>399</b> 99	AS-NNR25VCC-XX-2	48	0.13	6.05	6.65	365*365*190	NNR25-XXXXBC0100 NNR25-XXXXBC0250 NNR25-XXXXBC0500
	Can be spliced Install components	<b>₩</b>	AS-NNR25DHX-XX	48	0.05	2.30	2.91	365*365*190	NNR25-XXXXBC0100 NNR25-XXXXBC0250 NNR25-XXXXBC0500
	Concealed Install components	<b>○○</b>	AS-NNR25DCX-XX	480	0.01	2.40	3.13	365*365*190	NNR25-XXXXBC0100 NNR25-XXXXBC0250 NNR25-XXXXBC0500
	Can be shaped and hoisted Install components		AS-NNR25DHX-0038	15	0.20	3.00	3.62	415*250*230	NNR25-XXXXBC0100 NNR25-XXXXBC0250 NNR25-XXXXBC0500 Round tube L:38mm; Telescopic rodL:0.6M
/	NNR25 Plug set		AS-NNR25GH0-EC	500	0.0004	0.20	1.00	250*250*150	/
/	Connector		AS-FC-0001	512	0.018	9.216	10.2	365*365*190	Suitable for monochromatic light strip
/	Connector	44Ho	AS-FC-0002	512	0.018	9.216	10.2	365*365*190	Suitable for CCT light strip
/	Connector		AS-FC-0003	512	0.018	9.216	10.2	365*365*190	Suitable for RGB light strips

## [Accessory information]

name	describe	Accessories Picture	Section size	Order model	quantity/ case (PCS)		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	0.01543	2.31	2.61	250*250*150	Suitable for monochromatic light strips
Wire	2P PVC wire (2M)		/	AS-WS-0002	125	0.0616	7.7	8	250*250*150	(Use the top-out line)
Wire	4P PVC wire (0.5M)		,	AS-WS-0003	150	0.0194	2.91	3.21	250*250*150	Suitable for RGB strips
Wire	4P PVC wire (2M)			AS-WS-0004	125	0.0776	9.7	10	250*250*150	(Use the top-out line)

## [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(2.4GHz) Working voltage:3VDC(CR2032) Remote control distance:30m Working temperature:Ta:0-30°C-0+55°C	Monochrome light strip (Use with CR1-GBA)
OF THE REAL PROPERTY.	Monotone light controller	CR1-GBA	402-01-000000-00001	Input voltage:12-48VDC Output current:15A@12/24V-10A@36/48V Output Power:180W@12V-360W@24V 360W@36V-480W@48V Working temperature:Ta:0-30°C-0+55°C	Monochrome light strip (Use with CR1-GBA)
	CCT remote control	CK2-GBA	402-02-000000-00002	output signal:RF(2.4GHz) Working voltage:3VDC(CR2032) Remote control distance:30m Working temperature:Ta:0-30 °C-0+55 °C	CCT light strip (Use with CR2-GBA)
AR THE	Color temperature controller	CR2-GBA	402-01-000000-00002	Input voltage:12-36VDC Output current:2CH,8A/CH Output Power:2x(96-288)W Working temperature:Ta:0-30°C-0+55°C	CCT light strip (Use with CK2-GBA)
© © ©	RGB/RGBW remote control	CK4-GBA	402-02-000000-00003	output signal: RF(2.4GHz) Working voltage: 3VDC(CR2032) Remote control distance: 30m Working temperature: Ta: 0-30 °C-0+55 °C	RGB/RGBW light strip (Use with CR3-GBA)
A ROLL OF THE REAL PROPERTY.	RGB controller	CR3-GBA	402-01-000000-00003	Input voltage:12-36VDC Output current:3CH,6A/CH Output Power:3 x (72-216)W Working temperature:Ta:0-30 °C-0+55 °C	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 °C-0+85 °C	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;





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;



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;





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







Model	Product size	Product Quantity/ box	Product Quantity/ case	Product net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size (m)
NNR25-XXXX24CSN050BC0100-ESD	L1000*φ25mm	2M*1	8M	1.5	6	7.5	0.41*0.41*0.26
NNR25-XXXX24CSN050BC0250-ESD	L2500*φ25mm	2.5M*1	10M	1.625	6.5	8	0.41*0.41*0.26
NNR25-XXXX24CSN050BC0500-ESD	L5000*φ25mm	5M*1	20M	3.4	13.5	15	0.41*0.41*0.26
NNR25-9xx48NSN050BS2000 -ESD	L20000*ф25mm	20M*1	20M	12.35	14.7	15	0.365*0.365*0.335
NNR25-ORGBx12CSN050BC0300 -ESD	L3000*φ25mm	3M*4	12M	1.675	8.95	9.5	0.41*0.41*0.26

### [Reliability test]

test item	Classification	Reference	Test method or condition		
	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	$\phi$ 150mm cylinder, 60N pull, winding 10 times at (-25°C $\pm$ 2°C) , and 10 times after(-15°C $\pm$ 2°C, 16h).		
Safety test	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		
	Bending test	Colors	Each 200mm,bending up and down 100 times		
Ada ala sai sal salia latita	Bending test	Colors	Each 200mm, bending left and right 100 times		
Mechanical reliability testing	Torsion test	Colors	Twist clockwise 5 times and then release, repeat 200 times		
	Disassembly and assembly test	Colors	Repeat disassembly and assembly, 10 times		
	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		
Environment Reliability	Salt Spray test	IEC 60068-2-11	5% salt solution concentration, 24h		
testing	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]

·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.

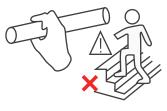
- In actual applications, the power supply should reserve 20% of the margin (it is recommended to use only 80% of the power) to ensure sufficient voltage to drive the product.
- $\cdot$  Please operate carefully, do not touch the AC power terminal when the power is on to prevent electric shock.
- ·Pay 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.
- $\cdot$  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.
- $\cdot$  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.



It is forbidden to wrap objects less than 120mm



NO stretching



No trampling