

## 3D Series Specification

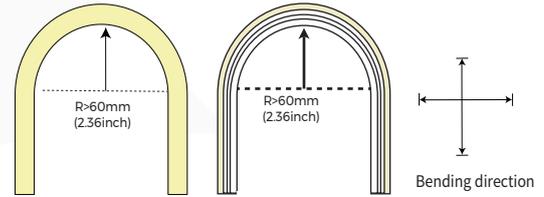
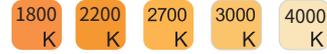
# NM3D1515



.When using dimmer and dimming power supplies like Triac, etc, conduct compatibility tests on the product, dimmers and power supplies to ensure full compatibility. If any issues arise, contact COLORS for technical support.

## 【Features】

- Light source: High luminous efficiency, LM80 proved.
- Process & Material: three-color silicone extrusion technique is applied, Cutting mark more clear.
- Optical Design: Unique optical light distribution structure design, uniform lighting surface and no shadow.
- Appearance Design: Standard ESD oil spray, anti-dust; compared with the traditional neon tube or PVC guardrail tube, the silicone material has good flexibility, the simple and stylish appearance, which is exquisite and unique.
- Product Certification : UL、CE、ROHS、UKCA、CB;
- Environmental Features: Resistance to saline solutions, acids & alkali, corrosive gases and UV.
- Working/Storage Temperature: Ta:-20~55°C / 0°C~60°C.
- Product application : Signage lighting, Outdoor/indoor lighting, Architectural contour lighting.
- Warranty: 5 years warranty or working life =60000H, whichever comes first.



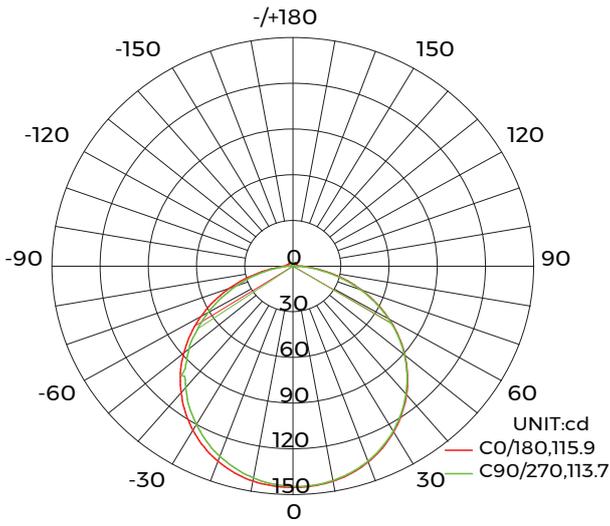
## 【Basic Parameters】

Model	CCT/colors	Color range	CRI	Input voltage (V)	Rated current (A/m)	Rated power (w/m)	Maximum power (w/m)	Lumens (LM/m)	Standard Length	Remark
NM3D1515-9XX 24CXN050XCXXXX	1800K	1700-1900K	90	24V	0.3 (0.09A/ft)	7.2 (2.19W/ft)	7.9 (2.41W/ft)	320(97LM/ft)	5000mm (16.4ft)	7LED/41.6mm
	2200K	2050-2250K						420(128LM/ft)		
	2700K	2550-2850K						490(149LM/ft)		
	3000K	2900-3300K						500(152LM/ft)		
	4000K	3850-4550K						440(134LM/ft)		
NM3D1515-9XX 48CXN050XCXXXX	1800K	1700-1900K	90	48V	0.15 (0.05A/ft)	7.2 (2.19W/ft)	7.9 (2.41W/ft)	320(97LM/ft)	10000mm (32.8ft)	14LED/83.3mm
	2200K	2050-2250K						430(131LM/ft)		
	2700K	2550-2850K						490(149LM/ft)		
	3000K	2900-3300K						480(146LM/ft)		
	4000K	3850-4550K						480(146LM/ft)		

Note:

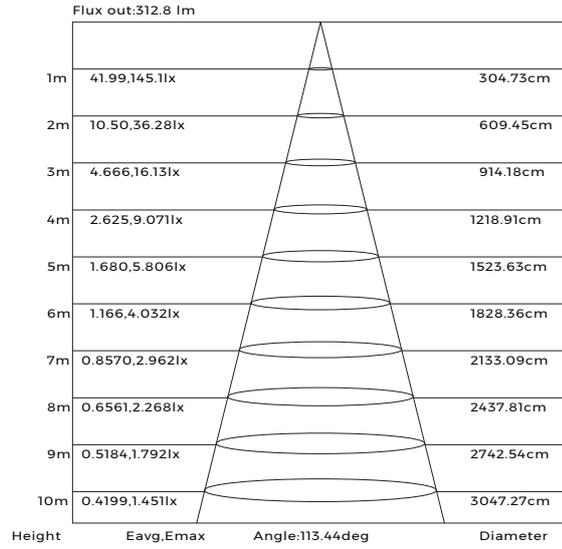
1. The above data is the testing result of 1M standard product;
2. The luminous flux is allowed to have an error range of  $\pm 15\%$ ;
3. The above parameters are all typical values.

## [Light Distribution]



AVERAGE BEAM ANGLE(50%):114.8 DEG

Light distribution

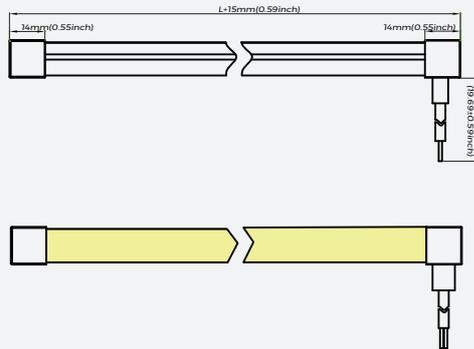
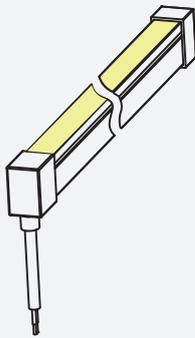


Effective average illuminance

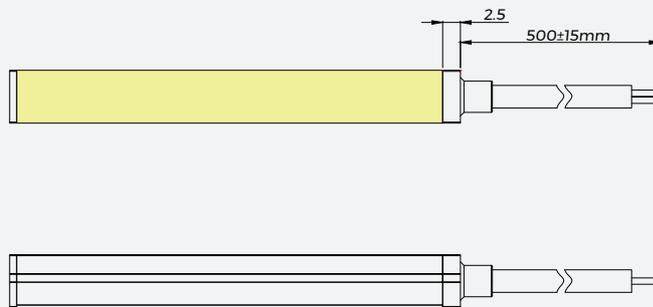
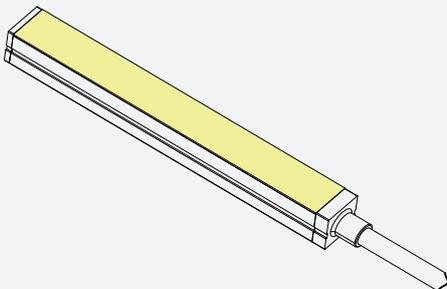
Note: The above data is based on 24V monochrome 4000K color temperature. If you need other models of IES files, please download the corresponding models from the IES database.

## [Product Mechanical Parameters]

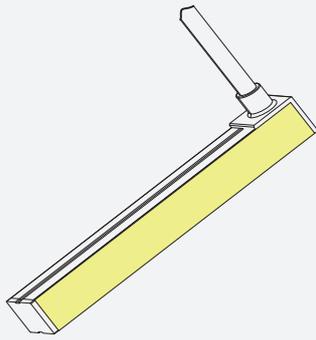
### • IP65 Glued cap-bottom outlet



### • IP67 No dark cap(ENP)- top outlet



• IP67 No dark cap(ENP)- side outlet



**[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
Aluminium clip	Pre installed aluminum groove			AS-NM3D1515A2-1000	40	0.18	7.2	8.2	1180*125*115	Size: L1000*W18.6*H19.3mm with screw Cannot be used upside down
Alumina carrier	Reserved outlet slot			AS-NMT1515A1-1000	48	0.202	9.696	11.1	1140*140*130	Size: L1000*W17.4*H26mm with screw
Moldable carrier	Moldable groovez			AS-NM3D1515M-500	100	0.045	4.5	7.3	500*290*290	Size: L500*W16.4*H14.5mm with screw Cannot be used upside down
End cap set	End cap set, including end cap and plug			AS-NMT1515CDO-EC	400	0.003	1.2	1.5	250*250*150	/
Wire	2P PVC wire (0.5M)		/	AS-WS-0001	150	0.01541	2.31	2.61		Suitable for single color strip
Wire	2P PVC wire (0.5M)			AS-WS-0002	125	0.0616	7.7	8		

Note: AS-NM3D1515A2-25/AS-NM3D1515A2-1000/AS-NM3D1515M-500 cannot be installed with the lighted surface facing downward, if you need to install the lighted surface facing downward, we recommend using AS-NM3D1515A1-1000.

## [Accessory information]

name	describe	Accessories Picture	Section size	Order model	quantity/		Per box net weight (kg)	Gross weight (kg)	Gross weight (mm)	Remark
					case (PCS)	net weight (kg)				
Glue	588G acidic glue		/	AS-PG-0002	150	0.014	2.1	2.4		10ml/pcs
Connector	2PIN IP68 waterproof connector		/	AS-FC-0001	512	0.016	8.192	9.5	365x365x190	Suitable for single color strip

Note: AS-NM3D1515A2-25/AS-NM3D1515A2-1000/AS-NM3D1515M-500 cannot be installed with the lighted surface facing downward, if you need to install the lighted surface facing downward, we recommend using AS-NM3D1515A1-1000.

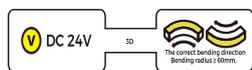
## [Product control system solutions]

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 °C-0+55 °C	Monochrome light strip (Use with CR1-GBA)
	Monochrome 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°C— +55°C	Monochrome light strip (Use with CR1-GBA)

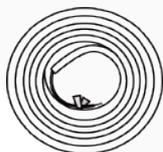
## [Packaging Solutions]

### • Standard Packaging

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



Voltage & bending warning signs



4. Label the carton and pack it into the carton



2. Put the product information label on the back 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	Size	Product Quantity (box)	Product Quantity (case)	Net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size(m)
NM3D1515-9XX24CSN050CC0500	L5000*15*15mm	5M*6	30M	1.13	6.78	9.94	0.41*0.41*0.26
NM3D1515-9XX48CSN050CC1000	L10000*15*15mm	10M*2	20M	2.26	4.52	6.12	0.25*0.25*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 0.7J
	IP	IEC 60598-1; IEC 60598-2-21	IP67
	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	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 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.
  - When IP67 protective products are installed and applied, the waterproofing grade should be degraded after self-processing and cutting.
  - 48V products, can not be used in immersed environments.
  - 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.
- .When using dimmer and dimming power supplies like Triac, etc, conduct compatibility tests on the product, dimmers and power supplies to ensure full compatibility. If any issues arise, contact COLORS for technical support.

