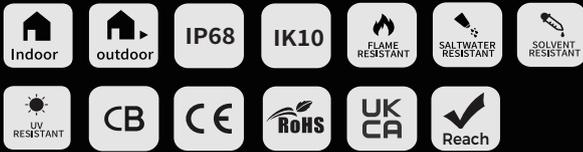


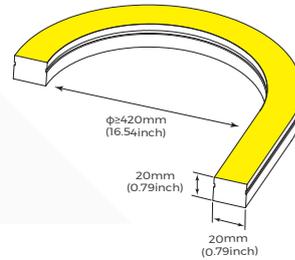
AW Series Specification

# AWS2020



## 【Features】

- Light source: High reliability light source;
- Structure: The lamp body shell is made of environmentally friendly, high-strength special materials;
- Optical design: unique optical light distribution structure design, uniform light emission on the surface without shadows;
- Environmental characteristics: salt resistance, acid and alkali corrosion resistance, resistant to active chlorine in the pool, UV resistance;
- Working/storage temperature: Ta: -20~50°C / 0°C~60°C;
- Product application: swimming pool lighting;
- 5 years warranty or working life =60000H, whichever comes first.



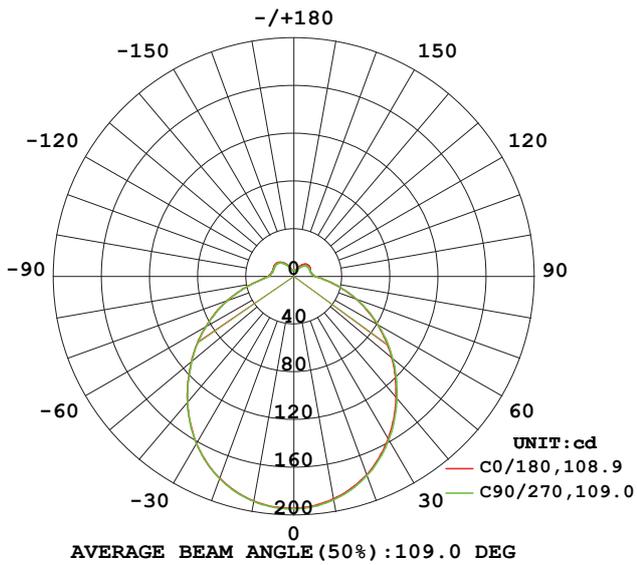
## 【Basic Parameters】

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
AWS2020-9XW24CST200CC0500-CV10-EP	2700K	2450-2750K	>90	24V	0.4 (0.24A/ft)	10 (3.05W/ft)	11 (3.35W/ft)	510(155/ft)	5000mm	16LED/50mm
	3000K	2770-3070K						560(171/ft)		
	3700K	3475-3925K						610(186/ft)		
	6500K	6000-7000K						622(190/ft)		

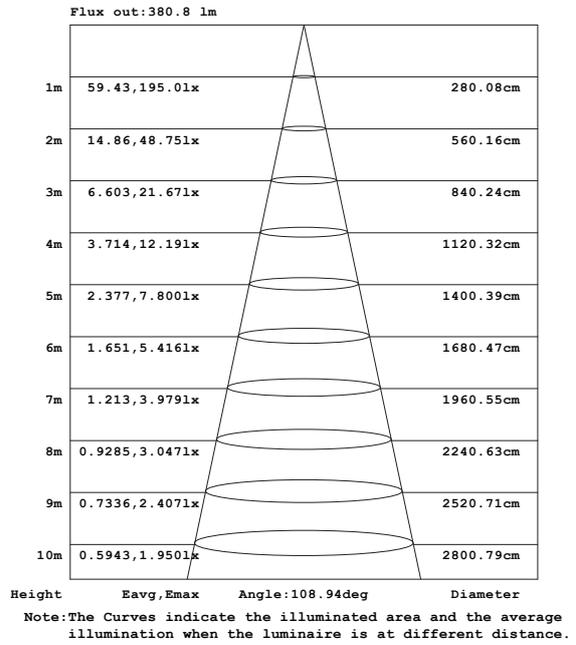
Note:

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]



Light distribution

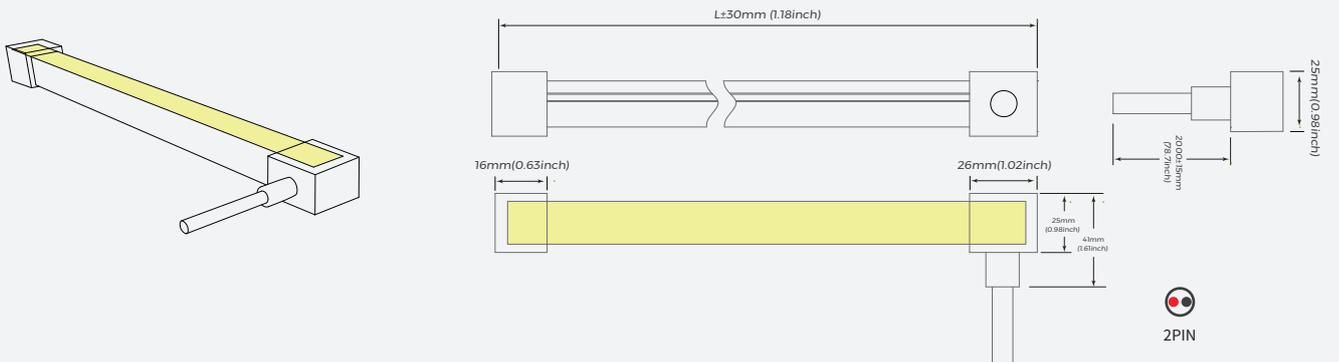


Effective average illuminance

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]

• IP68 Full encapsulated cap(EP)-side outlet



## [Accessory Information]

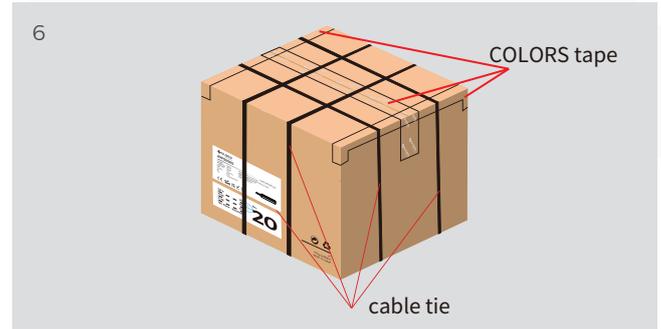
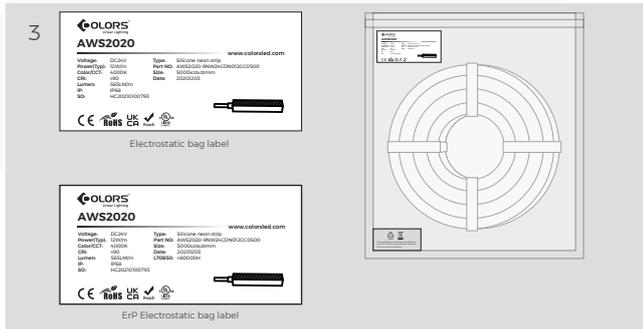
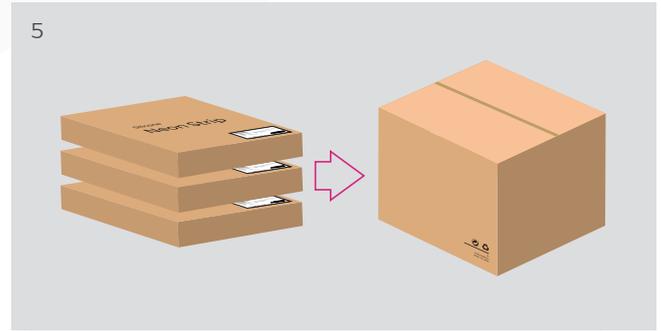
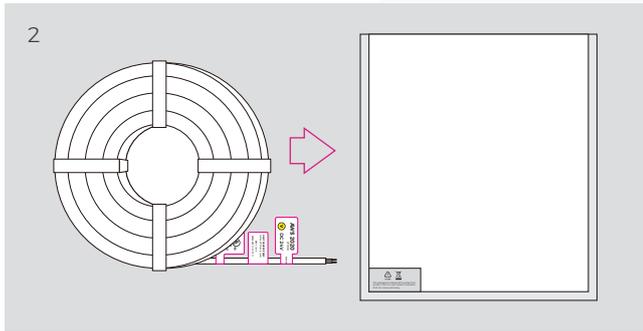
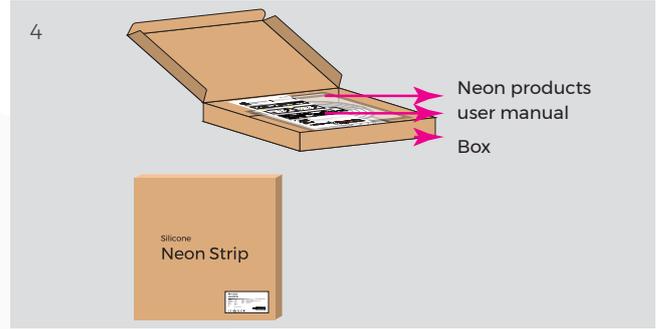
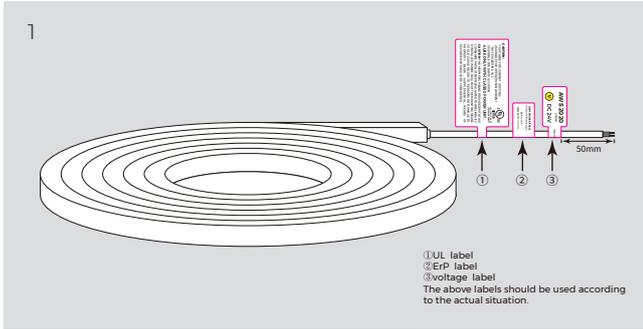
Name	Description	Image	Sectional size	Ordering code	Quantity case (PCS)	net weight (kg)	Per box net weight (kg)	Gross weight (kg)	Packing (mm)	Remark
PC carrier	Flat mount PC slot			AS-AWS-T2020A-950	50	0.18	9	10.8	1180*125*115	Size: L950*W23.9*H27.2mm with screws
PC card	Flat mount PC clip			AS-AWS-T2020A-30	240	0.008	1.92	2.92	250*250*150	Size: L30*W23.9*H27.2mm with screws
Junction box	Waterproof junction box		/	AS-FC-0031	72	0.06	4.32	5.32	250*250*150	/
Glue	Injection molding glue		/	AS-PG-0004	48	0.09	4.32	6.32	365*365*335	/
Wire	2P TPU wire (0.5m)		/	AS-WS-0037	200	0.018	3.6	4.1	250*250*150	Suitable for single color strip
Wire	2P TPU wire (2m)		/	AS-WS-0038	50	0.072	3.6	4.1	250*250*150	Suitable for single color strip

## [Product control system solutions]

Product Image	product name	Product number	Product specifications	Applicable Products
	Monochrome remote	R6-1	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)
	Monotone light controller	CR1-GBA	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 CK1-GBA)

# [Packaging Solutions]

## • Standard Packaging

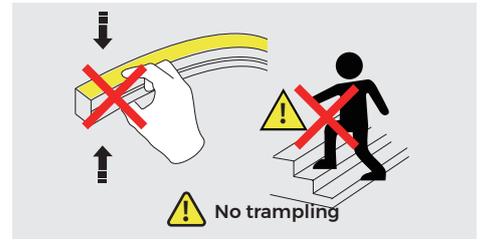
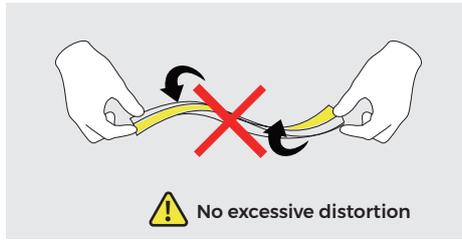
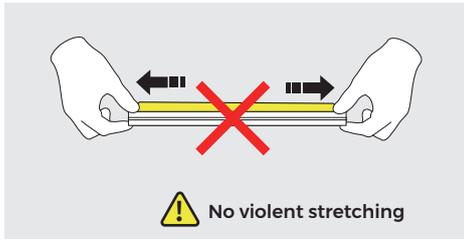


Model	Product size	Product Quantity/ box	Product Quantity/ case	Product net weight (kg)	Net weight per box (kg)	Gross weight (kg)	Carton size (m)
AWS2020-9XW24CST200CC0500-GV10-EP	L5000*20*20mm	5M	15M	2.25	6.75	8.8	0.48*0.48*0.23

## [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	IP68
	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]



- 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 a margin of 20% (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 less than 210mm. 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.).
- 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 must be confirmed before use.
- Due to the characteristics of the material, it is normal for the color of the colloid to change slightly after the neon product is used for a long time.
- 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 connecting the underwater power supply for pool neon products or interconnecting the outlet wires of two products, it is mandatory to use our IP68 potted waterproof junction box.
- 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.