

This product is based on our most popular High Quality SAN'AN LED CHIP. This version offers an excellent combination of high light output with a strong color to provide outstanding results. Available in all primary colors to cover most requirements. Supplied in 12V & 24V DC as standard for more accurate cut lengths. Bin control for LED color to ensure consistent color throughout all off your orders.

 $\frac{24V}{DC}$ $\left[\left(\cdot \right] \left[\right]$

PRODUCT FEATURE & BENEIFTS

- Always using double-layer FPCB, mounted with high quality led Chips
- ◆ Low power requirement & Energy Efficient
- ♦ High color rendering RA>80 & RA>90
- ◆ High-performance FPCB & LED for extremely long life
- ◆ Available in IP20, IP67 rating
- Great design freedom thanks to flexibility and cuttability of module
- ♦ Easy mounting on many smooth surfaces thanks to self-adhesive tape at the back

80/90 **CRI**

bernalLI

LED FLEXIBLE STRIPS

PRODUCT CODE

BF 0922 480 L1 90 S 8 2 65 20

 0922 - COB LED
 480 - 480 LEDs/m
 L1 - 12V DC
 80 - RA>80
 S - SAN'AN LED
 8 - PCB Width 8mm
 2 - PCB 2OZ
 65 - 6500K

 L2 - 24V DC
 90 - RA>90
 40 - 4000K

30 - 3000K 27 - 2700K RE - Red BL - Blue GR - Green **20** - IP20 **67** - IP67

TECHNICAL DATA

LED Brand	SAN'AN LED
Normal Voltage	12V/24V DC
Normal Current per Meter	0.83A(12V DC) / 0.42A(24V DC)
Rated Wattage per Meter [®]	10W/m
Type of Current	Direct Current / Constant Voltage
Light Color®	6500K/4000K/3000K/2700K/R/G/B
Luninous Flux per Meter®	1087.3 lm
Luminous Efficacy [®]	105.36 lm/W
Color Rendering Index / RA	RA>80 / RA>90
Length per Smallest Cutting Unit	25mm(12V DC) / 50mm(24V DC)
LED Number per Smallest Cutting Unit	12 LED Chips (12V DC) / 24 LED Chips (24V DC)
Length per roll for package	5 meters / 10 meters / 20 meters
Width of Printed Circuit Board	8 mm / 10 mm
Color of Printed Circuit Board	White
Thickness of Printed Circuit Board	2 O Z
Double Side Adhesive Tape	3M
Temperature Range in Operation	-20℃ … 70℃
Temperature Range at Storage	-20℃ … 50℃
Dimmable	Yes
Type of Protection	IP20 / IP67
Life Span	> 50000 Hours

^{* &}lt;sup>1</sup> Max. power < 10.8W

^{* ©} Customized color available

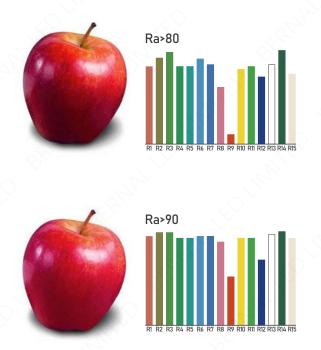
^{* &}lt;sup>®</sup> Tested @4000K RA>90

^{* ®} Tested @4000K RA>90

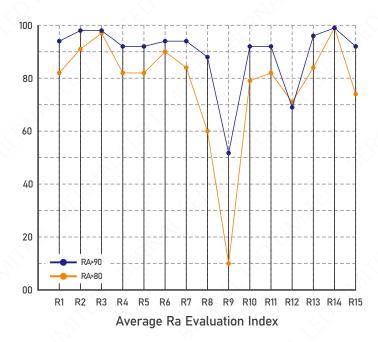
^{*} Testing environment temperature: 25±2°C

 $[\]verb|*The actual data of each single product may differ from above typical data which are subject to change without prior notice.$

COLOR RENDERING INDEX (CRI)



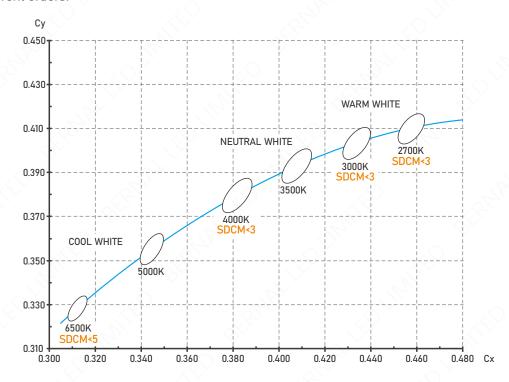
Ra evaluation index is applied to estimate the color rendering index of the lighting product to see the reflection level on natural color compared to those by conventional lighting.



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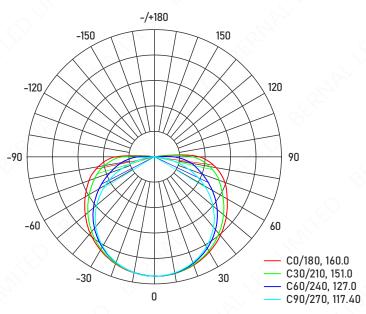
COLOR BIN DEFINITION

Spectroscopic standard complies with CIE 1931(Cx, Cy). The SDCM is less than 3-step to ensure customers to get the same color even for different orders.





LUMINOUS INTENSITY DISTRIBUTION DIAGRAM

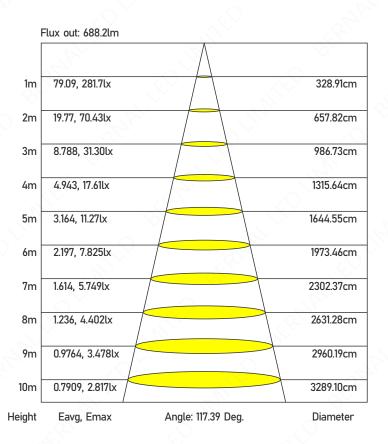


Average Beam Angle (50%): 138.9 Deg.

ELECTRICAL PARAMETERS (Tested Product)

	(Tested Floudci)
Input Voltage	24V DC
Working Current	0.43A
Power Consumption	10.32W
Luninous Flux	1087.3lm
Luminous Efficacy	105.36lm/W
Color Rendering Index	RA91.2
LED Strip Length	1 meter

AAI FIGURE



*The curves indicate the illuminated area and the average illumination when the luminaire is at different distance.

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ACCESSORY - FULL FUNCTION FAST CONNECTOR

Connection details of each function

Function 1: Wire to LED Strip



Function 2: LED Strip to LED Strip



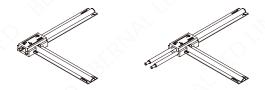
Function 3: LED Strip to LED Strip by wire bridge



Function 4: Wire to wire



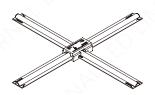
Function 5: L shape with/without wire



Function 6: T shape with/without wire



Function 7: + shape





BCNCCB208FSAW







SPECIFICATION

PCB Width	18	nm
Max. Voltage	3	6V
Max. Current		5A
Max. Temperat	ure 14	0℃
Material	Clear	РС
Lead Wire	Max. 20A\	NG
Dimension	15.6x9.6x5.3r	nm

APPLICATION





ATTENTION

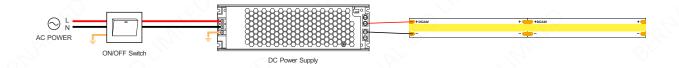
Pay attention on the direction of COB strips, making sure the positive pad connected to positive pad, negative pad connected to negative pad.

* No need to tear off 3M tape before pushing strips into connector.

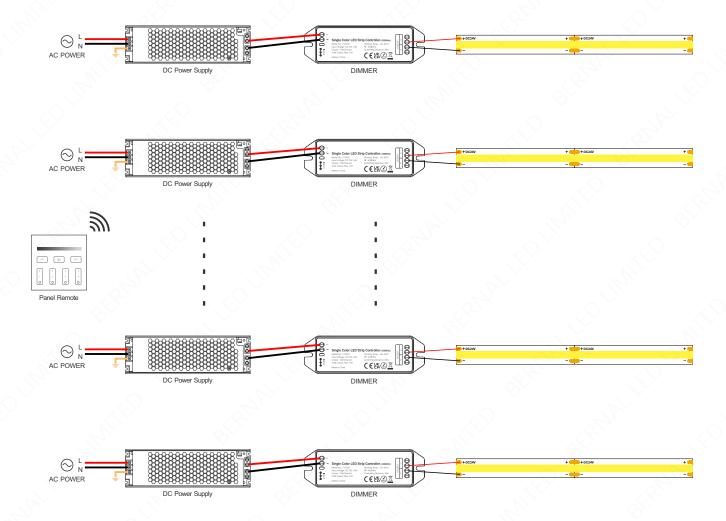
LED FLEXIBLE STRIPS

CONNECTION SYSTEM

- Typical ON/OFF System



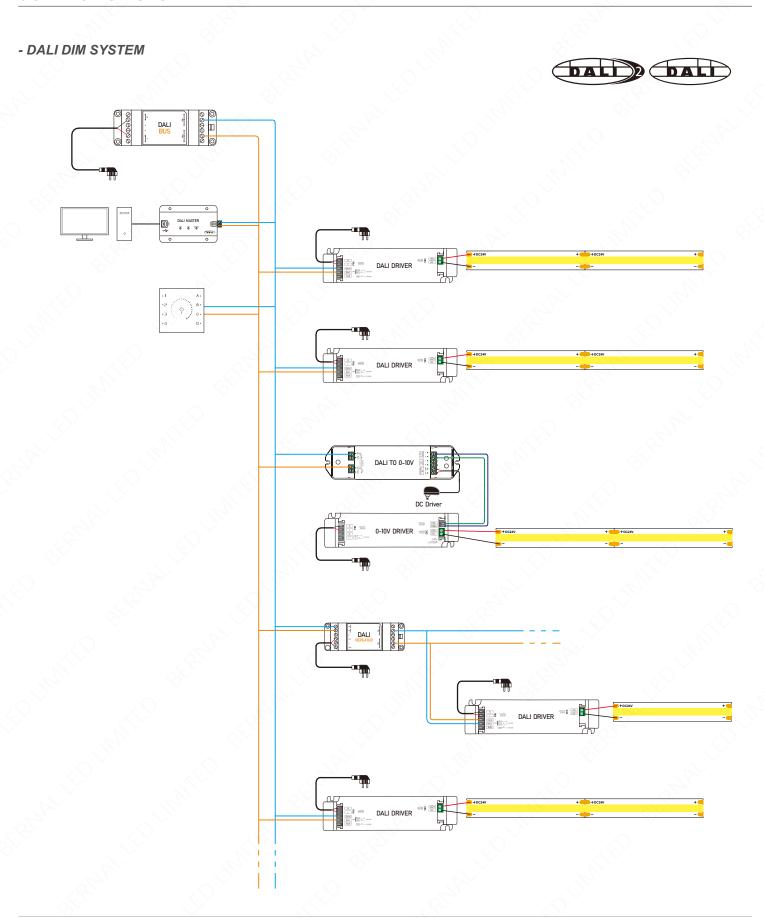
- Basic DIM System



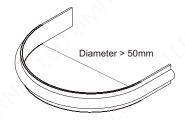
The dimmer can transmit the signals from the remote control to another dimmer within 30 meters. As long as there is a dimmer within 30 meters, the remote control distance can be limitless.



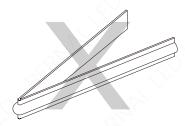
CONNECTION SYSTEM



NOTES ON HANDLING



DO NOT bend LED strip to a diameter less than 50mm.



DO NOT fold or crease LED strip



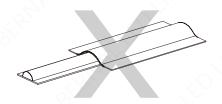
DO NOT bend LED strip on a horizontal plane



DO NOT over twist LED strip



DO NOT put excessive pressure on surface of LED



DO NOT cover LED strip with any materials

INSTALLATION INSTRUCTIONS

- 1. The mounting surface must be clean, dry and free from dust or grease.
- 2. Release the LED strip from the package and unreel.
- 3. Measure and cut the LED strip to the required length (only cut at the cut marks with power OFF).
- 4. Remove the 3M self-adhesive backing tape from the strip gradually during installation.
 - **DO NOT** remove it all at once to avoid the strip becoming entangled and sticking to itself.
- 5. Stick the LED strip to the mounting surface by pressing on the strip in between components only.
 - **DO NOT** press on the LEDs or other components on the strip.
- 6. You can use optional mounting clips to secure the strips at intervals.
- 7. Once the strip is affixed, it is then ready to be wired.



CAUTION - Twisting, pressing on LEDs, over-bending the strip, cutting at non-cut points, incorrectly powering the strip or exposing a standard strip (IP20) to water, particles or direct sunlight will invalidate the warranty.



SAFTY

- 1. Installation must be in accordance with local and national electrical code regulations.
- 2. To ensure safety and correct installation, our strips are intended to be installed by a licensed electrician.
- 3. Only install with a Constant Voltage LED driver.
- **4.** Each maximum run requires a dedicated power feed from the driver.
 - DO NOT extend beyond the recommended maximum run length.
- **5.** Make sure the appropriate gauge wire is installed between driver, LEDs, and any dimmers. When choosing wire, calculate voltage drop, maximum amperage rating, and the location ratings on the wire. Improper wire selection and installation could overheat wires and cause fire.
- 6. DO NOT modify product beyond instructions or warranty will be void.



Questions? Please contact us via info@bernal-led.com