COB LED STRIP SPECIFICATION

DC12V / DC24V 384 LEDS/M 2PIN 8 MM WHITE COB LED STRIP

Product Model: cob-12v/24v-384leds-2pin-8mm-w

PART 1 Product Specification

Product Parameters

Parameter	Value
Voltage	*DC 12V / DC 24 V*
IP Rated	*IP20 / IP67*
LED Quantity	*384 LEDs/m*
Color Temperature (CCT)	*1800K / 2700K / 3000K/ 4000K/ 5000K/ 6000K*
CRI (Ra)	*90*
Beam Angle	*180°*
Operating Temperature	*-20 °C – +80 °C*
Storage Temperature	*-40 °C – +100 °C*
Luminous Efficacy	*90~110 LM/W*

Electrical-optical characteristics（TA=25℃）:

Model-384LED/M 8mm	Color	LEDs Qty.	LEDs Type	Beam angle(°)	Voltage (DC)	RA	Power (W/M)	LM/W (avg.)	LM/M	Min. cut/mm
FCOB-12V-D384-8mm	2700K	384	FCOB	180	12V	Ra>90	8W±10%	90	700	41.66
FCOB-12V-D384-8mm	3000K							95	750	41.66
FCOB-12V-D384-8mm	4000K							100	800	41.66
FCOB-12V-D384-8mm	6000K							110	850	41.66
FCOB-24V-D384-8mm	2700K	384	FCOB	180	24V	Ra>90	10W±10%	90	850	41.66
FCOB-24V-D384-8mm	3000K							95	950	41.66
FCOB-24V-D384-8mm	4000K							100	1000	41.66
FCOB-24V-D384-8mm	6000K							110	1050	41.66

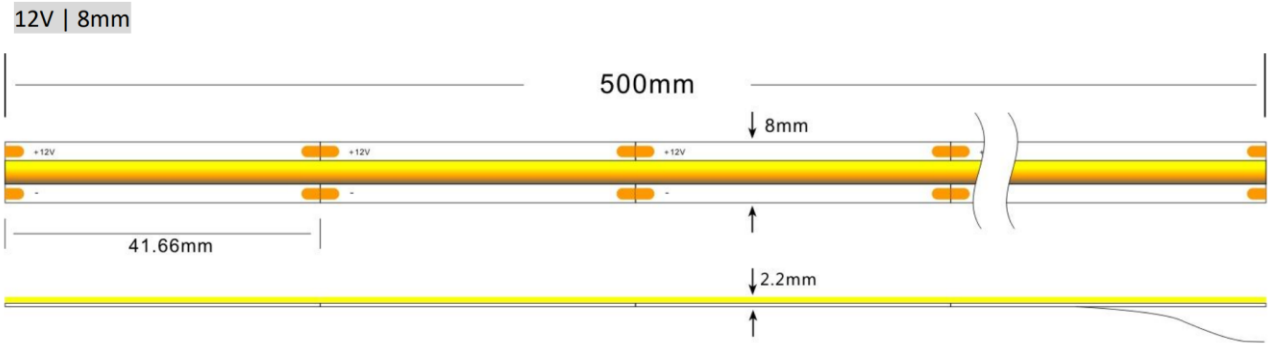
Notes:

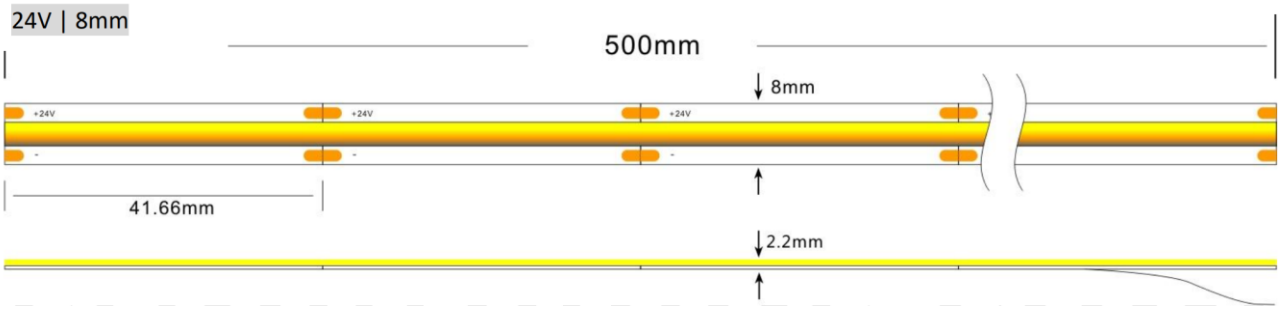
1. Electrical parameters are tested on standard 1-meter strips.

2. Data tolerance: ±10%.

3. IP protection processing may vary dimensions, color temperature and luminous flux.

PART 2 Product Dimensions





PART 3 Product Features

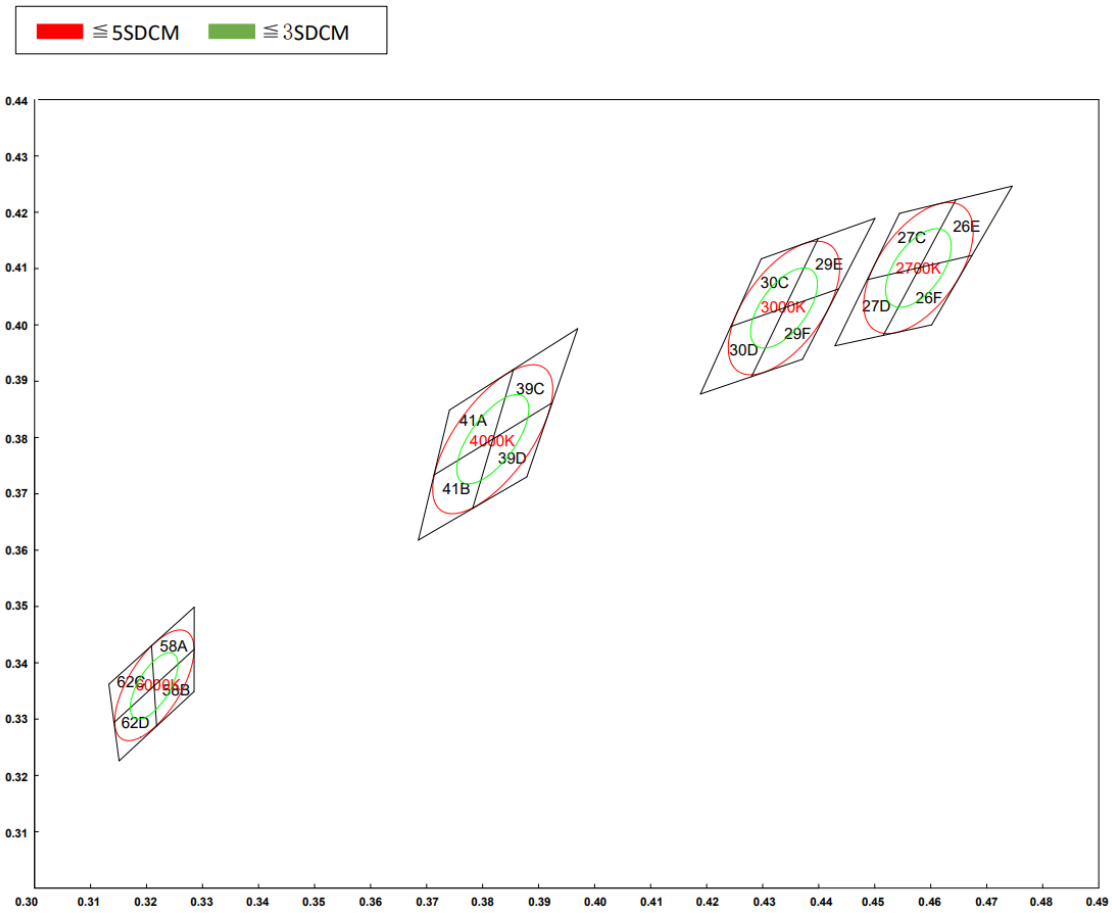
- *Uniform glow with no spots or dark shadows, delivering soft gentle light*
- *Maximum beam angle reaches 180° for wide-area illumination*
- *HBM Class 2 ESD resistance (2000–4000V), tested per MIL-STD-883E*
- *Flexible for easy installation; free of hazardous substances and RoHS compliant*
- *Low heat generation for stable long-term operation*
- *High color consistency to maintain steady CCT performance.*
- *Strong bending tolerance for curved & irregular mounting scenes*

PART 4 Production Application

This COB LED strip works perfectly for illuminated signs, advertising billboards, indoor & outdoor decoration, hotels, bedrooms, guest rooms, corridors, shopping malls, museums and display cabinets. It also fits home accent lighting, bar/wine cabinet backlighting, ceiling indirect lighting, stage ambient lighting, retail shelf display lighting and aquarium landscape lighting.

PART 5 Color Bin Limits

Based on MacAdam Ellipse, compliant with ENERGY-STAR® requirements



PART 6 Color Ranks at VF=24V,Ta=25℃

色温	色区代码	中心坐标		椭圆半径（1step）		角度
		x	y	a	b	
6000K	6000K	0.3214	0.3360	0.00223	0.00095	58.57
4000K	4000K	0.3818	0.3797	0.00313	0.00134	53.72
3000K	3000K	0.4338	0.4030	0.00278	0.00136	53.22
2700K	2700K	0.4578	0.4101	0.00270	0.00140	53.7

2700K	X1	Y1	X2	Y2	X3	Y3	X4	Y4
26E	0.4580	0.4102	0.4645	0.4222	0.4746	0.4246	0.4674	0.4123
26F	0.4515	0.3981	0.4580	0.4102	0.4674	0.4123	0.4602	0.4000
27C	0.4487	0.4080	0.4544	0.4198	0.4645	0.4222	0.4580	0.4102
27D	0.4429	0.3963	0.4487	0.4080	0.4580	0.4102	0.4515	0.3981

3000K	X1	Y1	X2	Y2	X3	Y3	X4	Y4
29E	0.4339	0.4031	0.4399	0.4153	0.4500	0.4189	0.4436	0.4064
29F	0.4280	0.3908	0.4339	0.4031	0.4436	0.4064	0.4371	0.3939
30C	0.4243	0.3997	0.4297	0.4117	0.4399	0.4153	0.4339	0.4031
30D	0.4189	0.3877	0.4243	0.3997	0.4339	0.4031	0.4280	0.3908

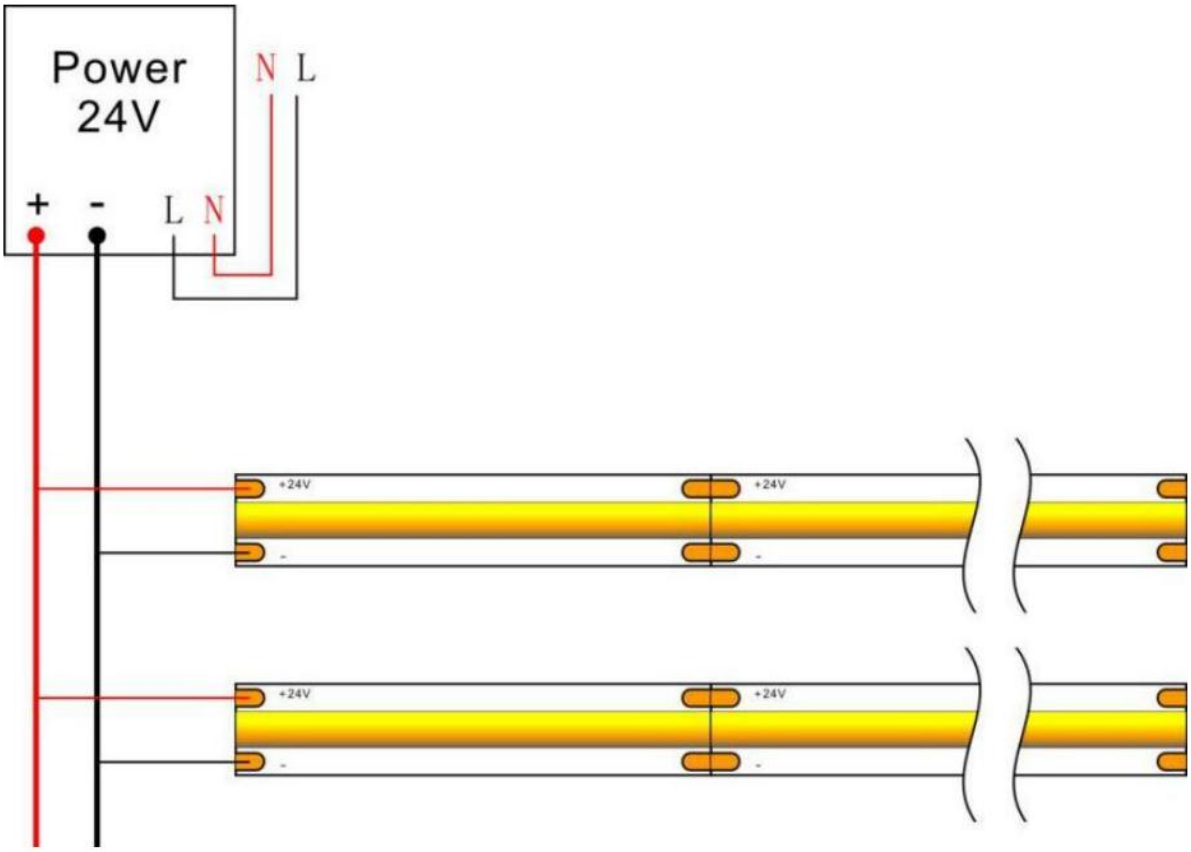
4000K	X1	Y1	X2	Y2	X3	Y3	X4	Y4
39C	0.3819	0.3798	0.3855	0.3921	0.3970	0.3993	0.3924	0.3862
39D	0.3782	0.3674	0.3819	0.3798	0.3924	0.3862	0.3879	0.3730
41A	0.3713	0.3733	0.3741	0.3849	0.3855	0.3921	0.3819	0.3798
41B	0.3685	0.3618	0.3713	0.3733	0.3819	0.3798	0.3782	0.3674

6000K	X1	Y1	X2	Y2	X3	Y3	X4	Y4
58A	0.3213	0.3359	0.3209	0.3430	0.3285	0.3499	0.3285	0.3424
58B	0.3218	0.3287	0.3213	0.3359	0.3285	0.3424	0.3285	0.3349
62C	0.3142	0.3294	0.3133	0.3362	0.3209	0.3430	0.3213	0.3359
62D	0.3151	0.3226	0.3142	0.3294	0.3213	0.3359	0.3218	0.3287

PART 7 Reliability Test Items and Conditions

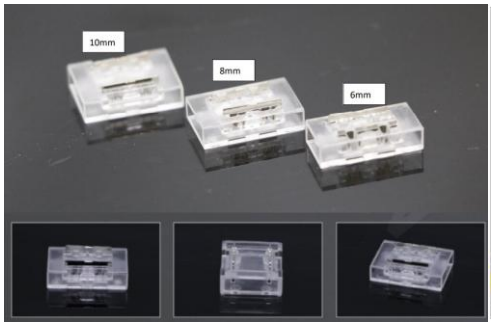
No.	Test Item 测试项目	Test Conditions 测试条件	Note 频次	Number of Damaged
01	Thermal Shock 冷热冲击测试	-25℃ 15min ↑↓ 100℃ 15min	300 cycle	0/22
02	Life Test 常温寿命测试	Ta=25℃ 额定电压	1000 hrs	0/22
03	Temperature Humidity Storage 恒温恒湿贮藏测试	Ta=85℃ RH=85%	1000 hrs	0/22

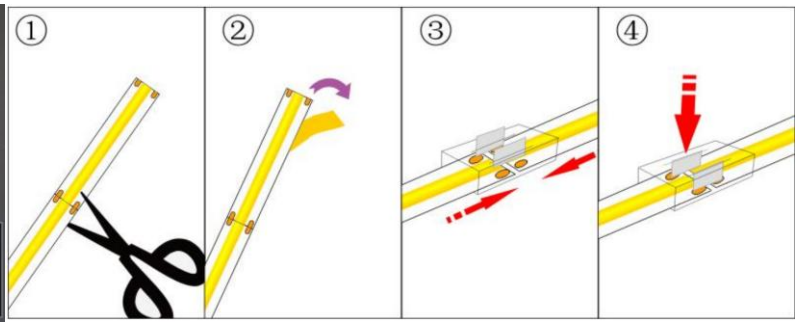
PART 8 Wiring Diagram



PART 9 Accessories

Solderless LED Strip Connector





PART 10 Installation & Usage Notes

1. Choose a suitable LED driver. Strip total power consumption shall be approx. 80 % of driver rated power; avoid full load for stable voltage output.

2. Standard roll length: 5 m. Brightness inconsistency occurs above 5 m. Lengths over 5 m available per customer's agreement.

3. Back adhesive works well on smooth glass, metal and plastic. Fabric / wood surfaces may degrade adhesion. Test before installation.

4. Minimum bending diameter: 60 mm. Prevent damage to FPC and components to avoid strip failure.

5. For waterproof & anti-corrosion performance: fill connectors with one-component silicone gel (neutral glass glue / waterproof grease), seal exposed copper wires after wiring.

6. Non-waterproof strips cannot be used outdoors. Do not touch/install strips when powered.

7. Use safety-certified switching power supplies with short-circuit, over-voltage and over-current protection.