

Specification:3W 12V 90LM 3000K 20MM COB

1. Low-voltage drive, ultra-low power consumption, more than 60%-80% energy saving than traditional energy-saving lighting, and flexible and convenient installation, durable and reliable
2. Green and environmental protection

Light has no ultraviolet rays, no infrared rays, no radiation, soft lighting effect, no flicker, and can be turned on frequently. It is a real green environmental protection lighting source, LED lighting does not generate heat. It does not contain harmful elements such as mercury and xenon, which is conducive to recycling and secondary use.

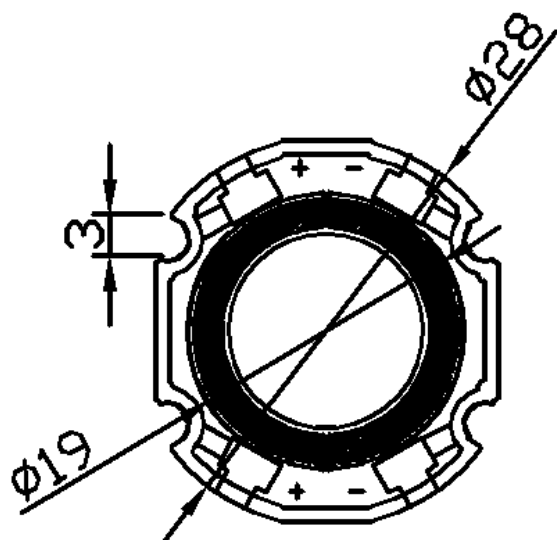
3, super long life

Strong shock resistance, strong dust resistance, low energy consumption, low voltage and current required, low heat, less luminous heat, no safety hazards, high safety factor, LED lighting is a solid light source, epoxy resin encapsulation, and the luminous body part is not easy Looseness. There are no shortcomings such as easy burning of the filament, heat deposition, high light decay, etc., and the service life can reach 30,000 to 50,000 hours, which is 30 times that of ordinary bulbs, which is equivalent to three years of uninterrupted lighting.

4, the scope of application

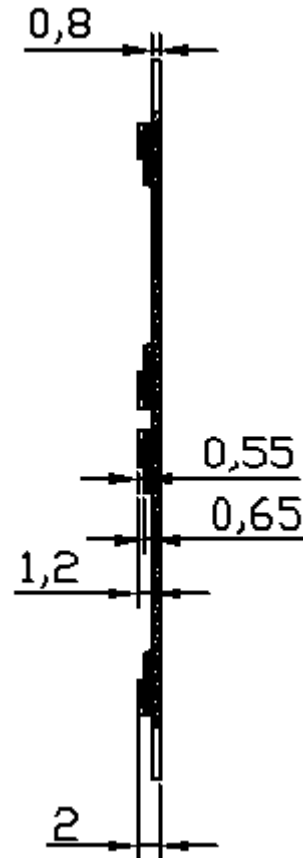
Home lighting, ceiling downlights, office lighting, community lighting, shopping malls, supermarkets, stall shops, restaurants, hotels, bars, coffee shops, western restaurants, entertainment venues, home night lights, festive lights. Solar lighting applications, urban lighting Widely used in landscaping engineering.

Structure chart



Notes:

1. All dimens
2. All dimens



Electrical / Optical Characteristics at Ta=25°C

Parameter	Symbol	Min.	Typ.	Max.	Units	TestConditions
Forward Voltage	VF	12	--	15	V	IF=300mA
Reverse Current	IR	0	--	10	μ A	VR = 5V
Color Coordinates	X	--	0.44	--	--	IF=300mA
	Y	--	0.41	--	--	IF=300mA
Color Temperature	TC	3050	3150	3250	K	IF=300mA
Color Rendering Index	RA	50	70	80	CRI	IF=300mA
lighting effect	Lm/w	65	--	90	LM/W	IF=300mA

Absolute Maximum Ratings at Ta=25°C

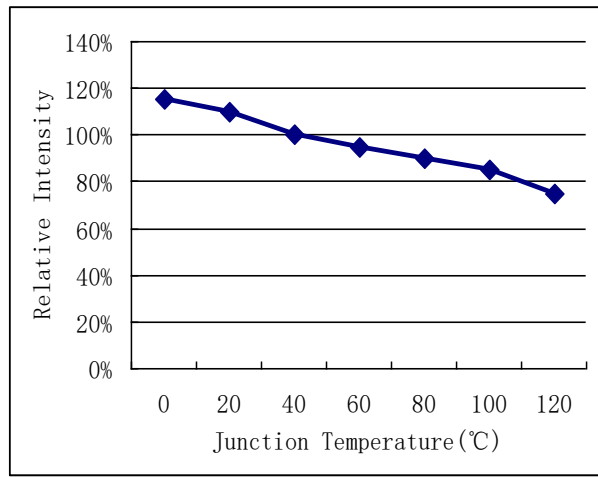
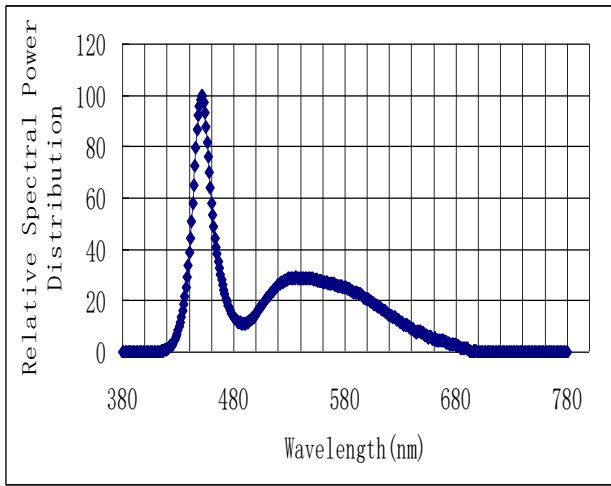
Parameter	Symbol	Rating	Units
Power Dissipation	Pd	3000	MW
DC Forward Current	IF	300	mA
Peak Forward Current [1]	IFP	450	mA
Reverse Voltage	VR	5	V
Electrostatic Discharge (HBM)	ESD	2000	V
Operating Temperature	Topr	-40 ~ +85 °C	°C
Storage Temperature	Tstg	25 °C	°C

Typical optical characteristic curve 典型的光学特性曲线

Spectral characteristic curve TA=25°C

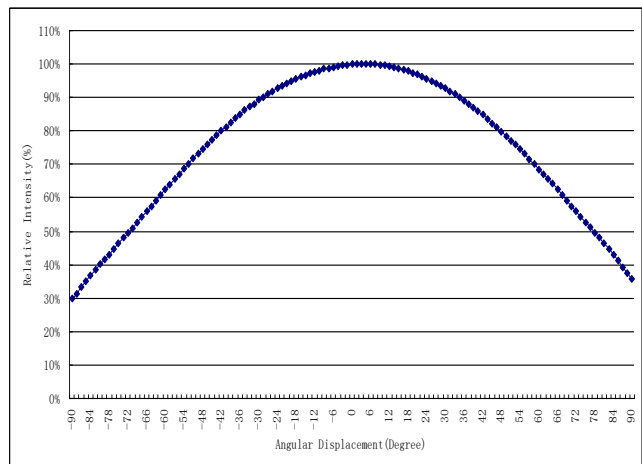
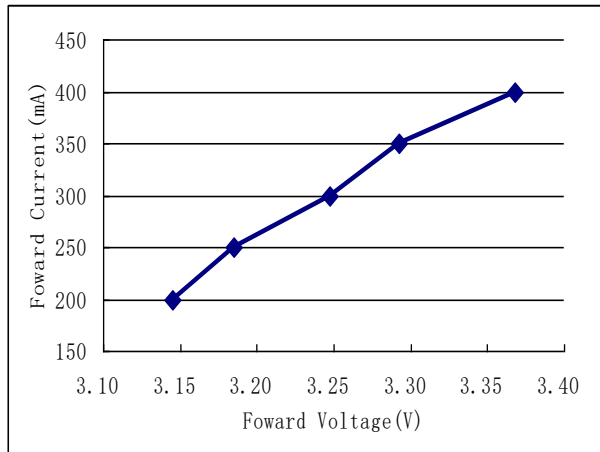
温度与亮度的关系

TA=25°C

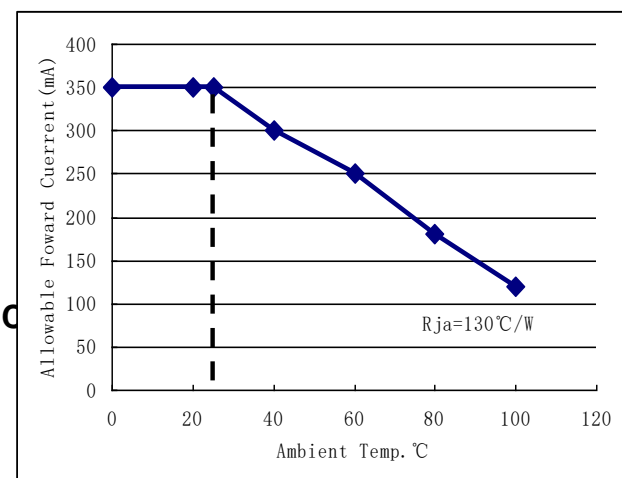


电流与电压的关系 TA=25°C

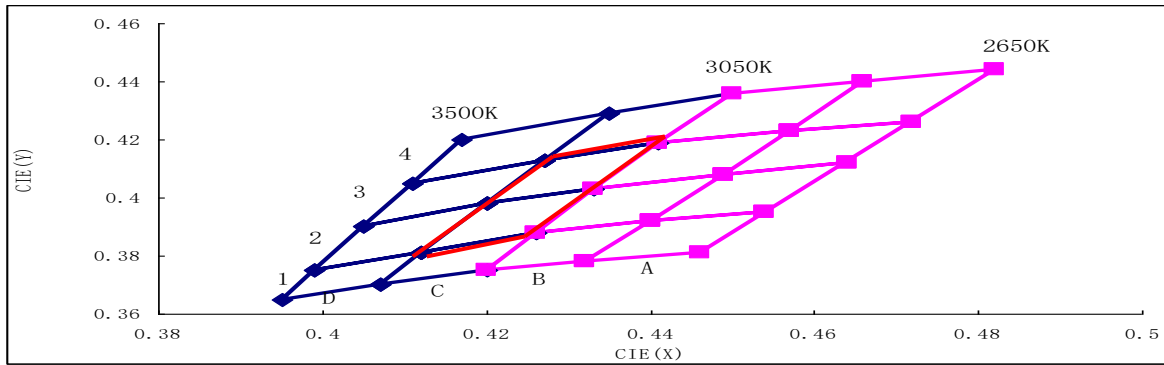
光强分布曲线 (Angle : 120°)



Ambient temperature and forward current



nce is ± 0.005 @ $I_f=300$ mA)



Chromaticity coordinates specifications(tolerance is ± 0.005 @ $I_f=350$ mA)

Bin Code	X	Y	Typical CCT (K)	Bin Code	X	Y	Typical CCT (K)
D4	0.417	0.42	3375	B4	0.45	0.436	2950
	0.435	0.429			0.466	0.44	
	0.411	0.405			0.441	0.419	
	0.427	0.413			0.457	0.423	
D3	0.427	0.413	3375	B3	0.457	0.423	2950
	0.411	0.405			0.441	0.419	
	0.405	0.39			0.433	0.403	
	0.42	0.398			0.449	0.408	
D2	0.42	0.398	3375	B2	0.449	0.408	2950
	0.405	0.39			0.433	0.403	
	0.399	0.375			0.426	0.388	
	0.412	0.381			0.44	0.392	
D1	0.412	0.381	3375	B1	0.44	0.392	2950
	0.399	0.375			0.426	0.388	
	0.395	0.365			0.42	0.375	
	0.407	0.37			0.432	0.378	
C4	0.45	0.436	3250	A4	0.482	0.444	2750
	0.435	0.429			0.466	0.44	
	0.427	0.413			0.457	0.423	
	0.441	0.419			0.472	0.426	
C3	0.441	0.419	3150	A3	0.472	0.426	2750
	0.427	0.413			0.457	0.423	
	0.42	0.398			0.449	0.408	
	0.433	0.403			0.464	0.412	

1. Cleaning

It is recommended to use alcohol as a cleaning solvent for LEDs. When cleaning with other solvents, you need to determine whether it will damage the packaging and silica gel. According to international practice, Freon cannot be used as a solvent for cleaning LEDs. Do not clean LEDs with ultrasonic. When it is really necessary to clean LEDs with ultrasonic, the effect of ultrasonic cleaning LEDs depends on factors such as ultrasonic intensity and related conditions. Before cleaning, it is necessary to test in advance to determine whether it will cause any damage to the LEDs.

2. Static electricity

Static electricity or surge voltage can cause LEDs to fail. We recommend wearing anti-static wrists or anti-static gloves when using LEDs. All devices, equipment and machines must be grounded. It is recommended to take precautions to prevent the surge voltage generated by the equipment from acting on the LEDs. When inspecting the assembly of individual LEDs into a finished product, it is recommended to inspect whether each LEDs has been destroyed by static electricity. The inspection can pass an indicator light test or a forward conduction voltage test at a low current (the current is 20mA is most suitable), and it has been destroyed. The LEDs shows different characteristics from normal LEDs, for example, the forward voltage becomes lower or does not emit light under small current.

3. Heat dissipation and conditional storage

3.0 The heat dissipation design of the end product is extremely important. Please take into account the heat dissipation of LEDs. When designing the system, the increase in the input temperature coefficient of LEDs with electric power is determined by the thermal resistance of the circuit board, the density of LEDs on the circuit board and the original device. Therefore, it is necessary to avoid a large amount of concentrated heat dissipation and operate and use in strict accordance with the parameters given in the specification. Please decide to consider the current ambient temperature and refer to the ambient temperature vs. allowable forward current characteristics in the specification before using the current through each LED. At the same time, take measures to improve the LED's performance by dissipating the heat around the LEDs' heat sink. Operating characteristics.

3.1 Without opening the original packaging, the recommended storage environment is: temperature: 5°C-40°C, humidity: 65% or less.

3.2 After opening the original package, the recommended storage environment is: temperature: 5°C-30°C, humidity: below 60%.

3.3 LED is a humidity sensitive device. In order to prevent the original from absorbing moisture, it is recommended to store it in a closed container with a desiccant or in a nitrogen moisture-proof cabinet after opening the package.

3.4 After opening the package, the original should be used within 12 hours.

3.5 If the desiccant fails or the device is exposed to the air for more than 12 hours, it should be dehumidified: Condition: 60°C/24H.

4. Other

The light emitted by LEDs with sufficient intensity may damage the human eyes. You cannot directly watch the LEDs without wearing eye masks. The glare makes people feel uncomfortable. Therefore, preventive measures can be taken during use, and necessary protective measures should be taken at the same time. Modules assembled from individual LEDs.