



# SPECIFICATION

## 产品规格书

Customer(客户): \_\_\_\_\_

Part No.(型号): CCF50W-L

Description(描述): 5050红绿蓝白LED 10W

Date(日期): \_\_\_\_\_

Customer Approved (客户审核)		Approved (确认)	
Xuyu Approved (旭宇审核)		Approved (确认)	Issued (制定)
<input type="checkbox"/> Sample (样品)		<input type="checkbox"/> Mass Product (量产供货)	

### XUYU OPTOELECTRONICS (SHENZHEN)

Address: A1 Building, Sunshine Industrial Park, Hezhou, Xixiang, Bao'an District Shenzhen City, Guangdong Province

地址: 广东省深圳市宝安区西乡鹤洲阳光工业区A1栋

Tel 电话: 0755-81453318-3328/3338

Fax 传真: 0755-81453199

网址: <http://www.xuyuled.com>



## 目录

Features 特性.....	2
Applications 产品应用.....	2
Package Dimensions 产品外观尺寸.....	2
Optoelectronic Characteristics 光电特性.....	3
Absolute Maximum Ratings 最大额定值.....	4
Forward Current VS Forward Voltage 伏安特性曲线.....	5
Radiant Flux VS • Forward Current 辐射通量与正向电流.....	5
Spectral Power distribution 光谱能量分布图.....	5
Typical Radiation Angle 典型辐射角度.....	5
Relative Radiant Flux VS Ambient Temperature 相对辐射通量与环境温度.....	5
Relative Luminous Intensity VS Wavelength 发光强度与波长.....	5
Packaging Specifications 包装规格.....	6
SMT Reflow Soldering Instructions SMT 回流焊说明.....	7
CAUTIONS 注意事项.....	8



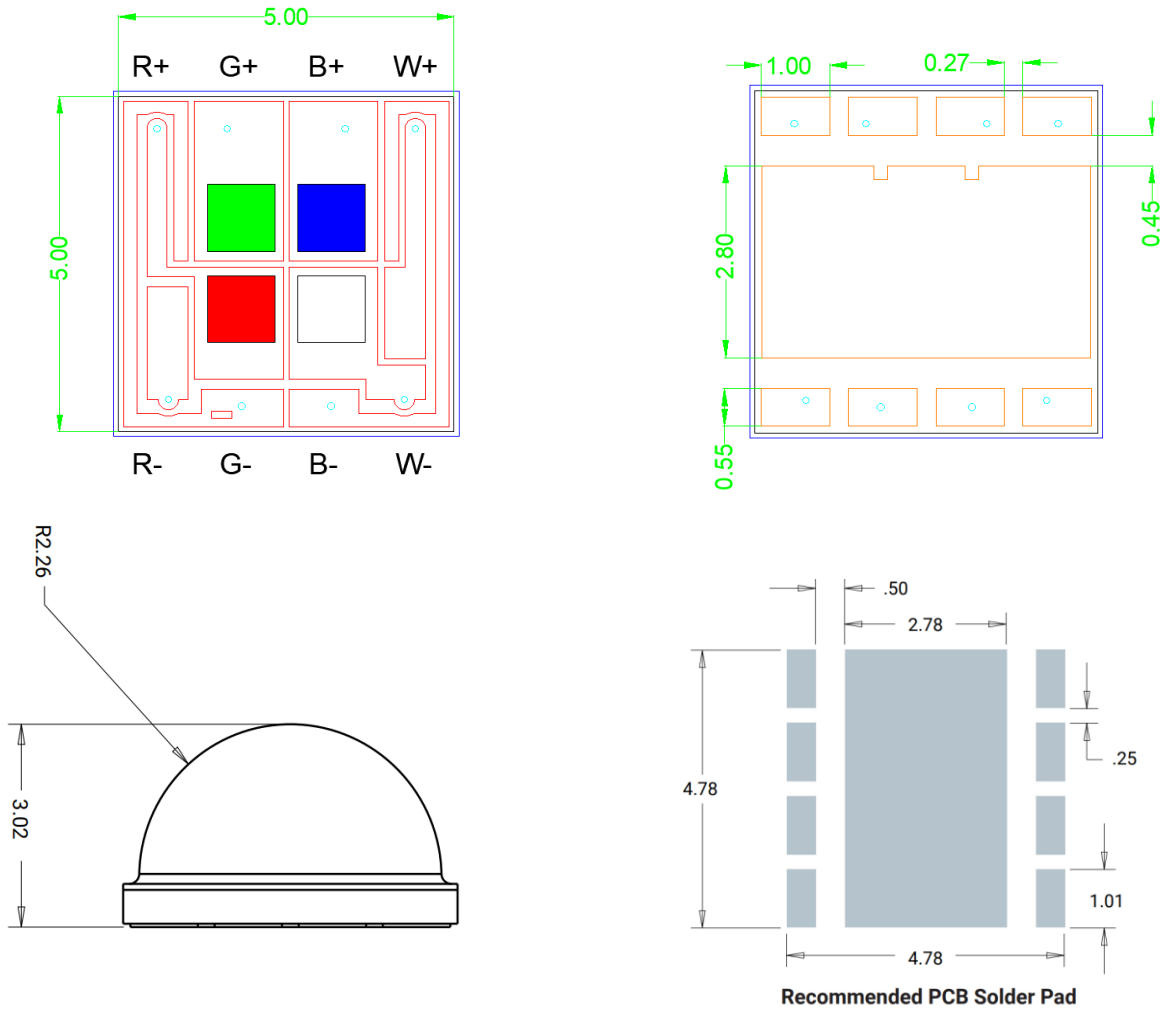
## ◆ Features 特性:

- \*Size(mm): 3.45\*3.45\*3.02 尺寸 (mm) : 3.45\*3.45\*3.02
- \*Ceramic and silicone molding package 陶瓷基板 molding 封装
- \*Viewing Angle: 120° 发光角度: 120°
- \* High reliability 高可靠性
- \* RoHS compliant 通过 RoHS 认证
- \*Suitable for all SMT assembly and solder process 适用所有 SMT 焊接工艺
- \*Pb-free reflow soldering application 无铅回流焊

## ◆ Applications 产品应用:

- \*down light, wall lamp, garden light 投光灯, 洗墙灯, 园林灯
- \* Landscape lighting, lighting engineering 景观照明, 亮化工程

◆ **Package Dimensions** 产品外观尺寸



**Notes:**

1. All dimensions are in mm 所有尺寸单位为毫米。
2. Tolerance is  $\pm 0.05$ mm unless otherwise noted. 非特殊标注，公差为 $\pm 0.05$ 毫米。

◆ **Electrical-Optical Characteristics (Ta=25°C) 光电特性**

Parameter	Symbol	Condition	Color	Min	Avg.	Max	Unit
Forward Voltage (正向电压)	VF	IF=350mA	R	1.8	--	2.2	V
			G	2.6	--	3.2	
			B	2.8	--	3.4	
			W	2.8	--	3.4	
Luminous Flux (光通量)	Φ(lm)		R	50	--	90	lm
			G	80	--	140	
			B	20	--	50	
			W	60	--	120	
Dominant wavelength (主波长)	λd		R	620	--	630	nm
			G	520	--	530	
			B	450	--	475	
Color temperature (色温)	CCT		W1	--	6500	--	k
		W1	--	5000	--		
		W2	--	4000	--		
		W2	--	3500	--		
		W3	--	3000	--		
		W3	--	2700	--		
Thermal resistance (热阻)	RJ-A	R	---	6	---	°C/W	
		G	---	5	---		
		B	---	5	---		
		W	---	5.6	---		

**Note:** the test tolerance 测试公差

$V_F : \pm 1\%$

$\Delta\lambda : \pm 5\%$

$\Phi_e : \pm 10\%$



◆ **Absolute Maximum Ratings (Ta=25°C)** 最大额定值，单路驱动。

Parameter	Symbol	Rating	Unit
DC Forward Current (正向电流)	I <sub>F</sub>	700	m A
Peak pulse Current* (脉冲电流)	I <sub>FP</sub>	1000	m A
Reverse voltage 反向电压	V <sub>R</sub>	5	V
Operating Temperature Range (操作温度)	T <sub>OPR</sub>	-40 ~ +105	°C
Storage Temperature Range (储存温度)	T <sub>STG</sub>	-40~+105	°C
LED Junction Temperature (结点温度)	T <sub>J</sub>	125	°C
Soldering Temperature 回流温度	T <sub>sld</sub>	260°C for 10sec	

**Note1:** Frequency 10KHz, duty ratio ≤10%      频率 10KHz ， 占空比≤10%

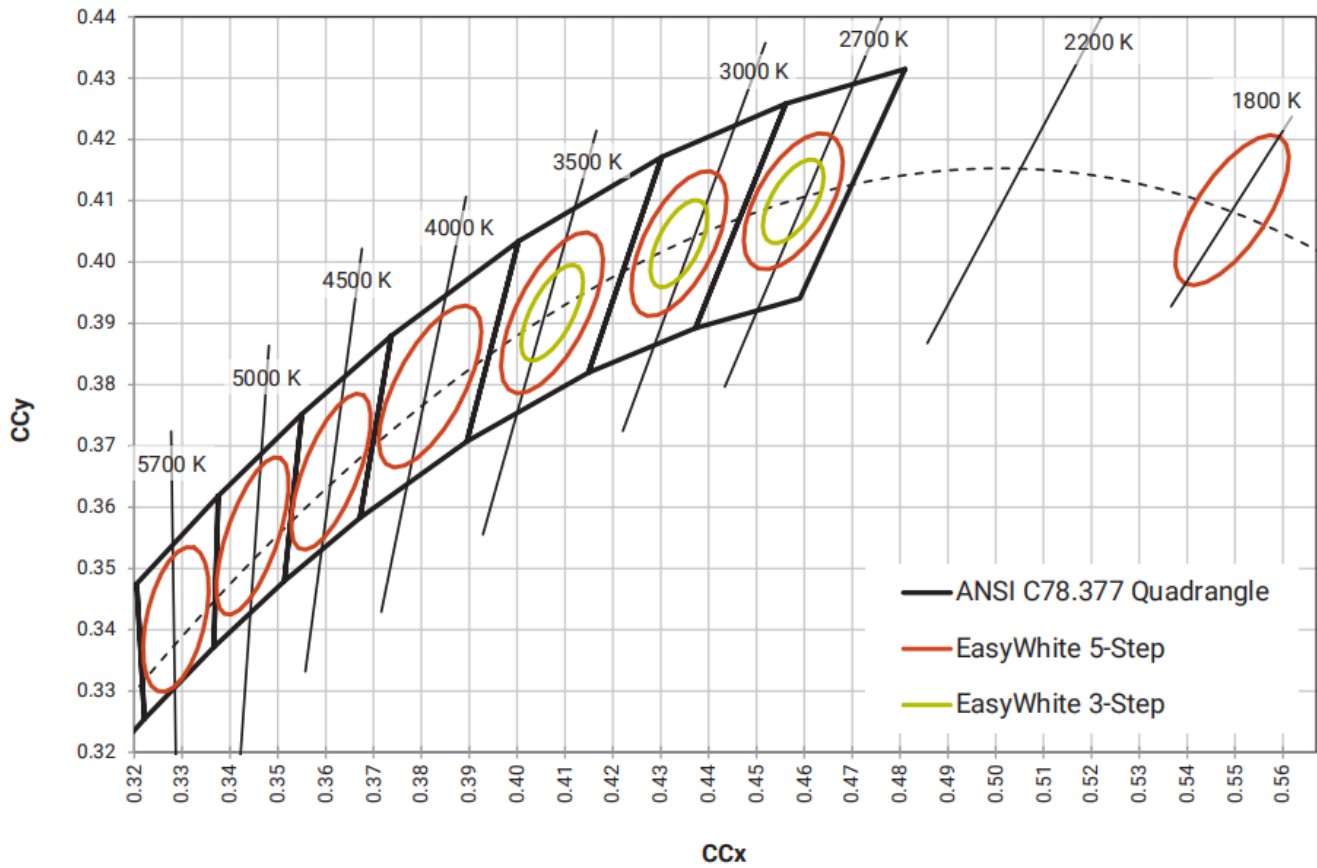


◆ Mass Production List (IF=350mA;TA=25°C) 白光生产目录

Part NO.型号	Color Rendering index 显指	CCT (K) Min	CCT (K) Typ	CCT (K) Max	Φ (lm) Min	Φ (lm) Max
9.CCF50W1F-L	80		6000		110	130
9.CCF50W2F-L	80		5000		110	130
9.CCF50W2F-L	80		4000		110	130
9.CCF50W2F-L	80		3500		100	120
9.CCF50W3F-L	80		3000		100	120
9.CCF50W3F-L	80		2700		90	110

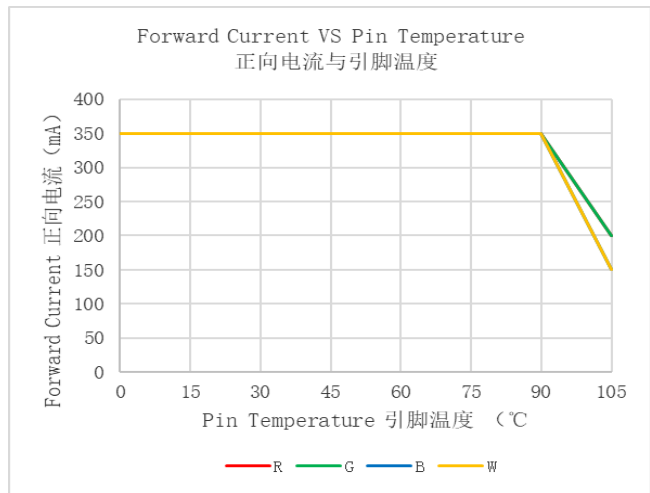
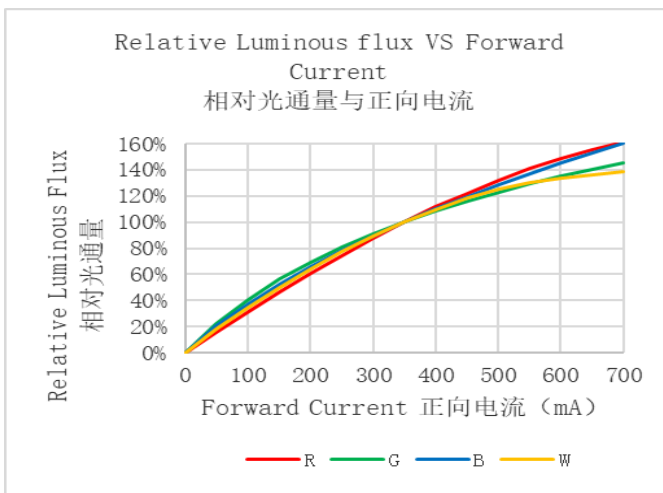
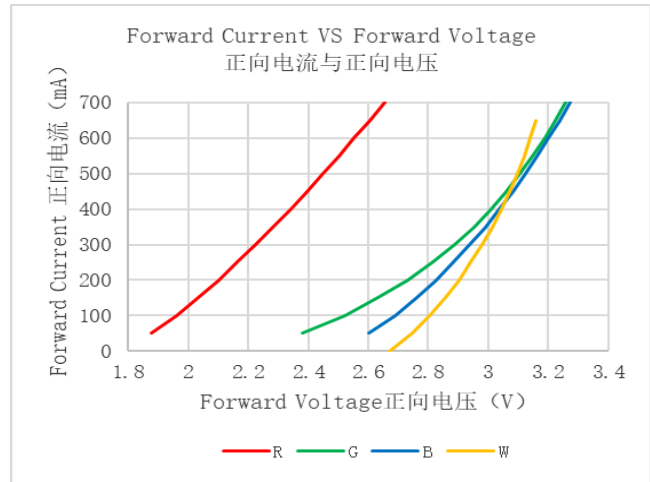
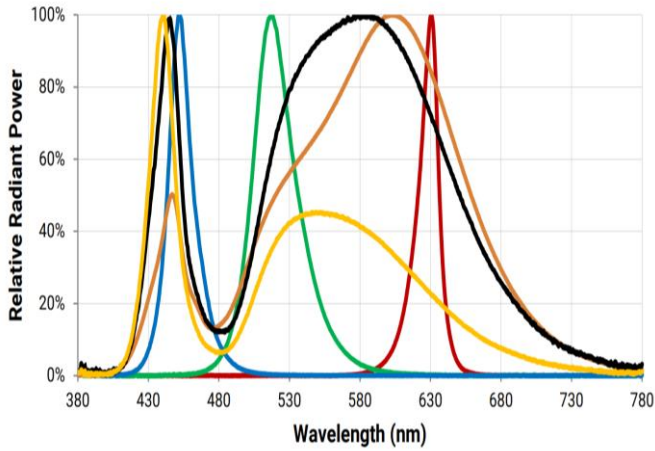


◆ CIE Chromaticity Diagram ( TA=25 °C) CIE 色度图。

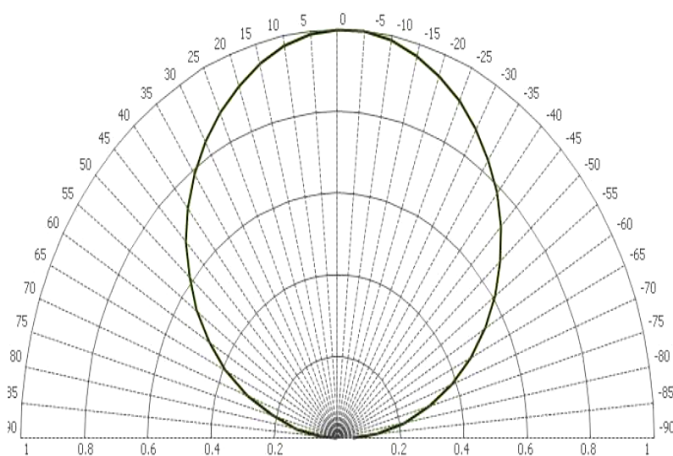




## ◆ Typical Electrical/Optical Characteristic Curves 典型光电特性曲线



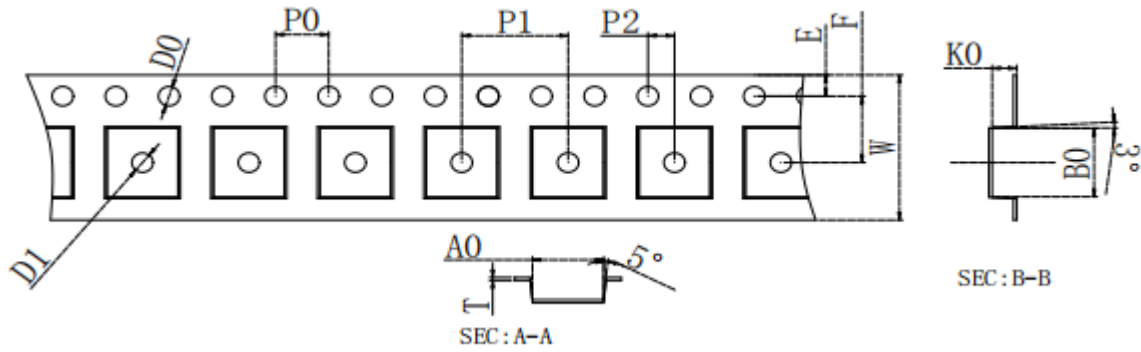
Viewing Angle Distribution 发光角度



### Notes:

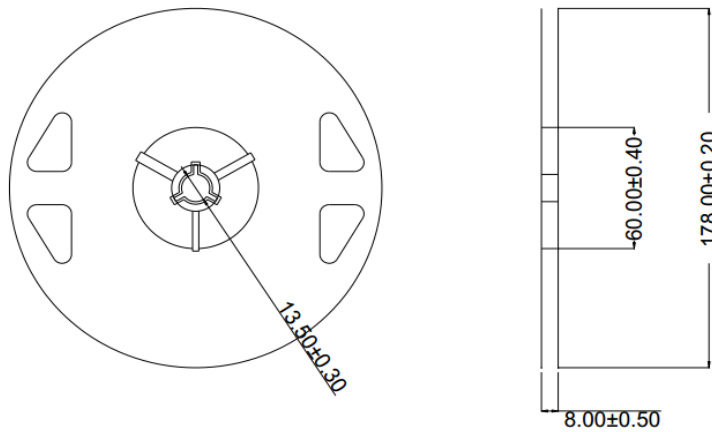
1. Related to the temperature test based on the right current. 与温度相关测试基于额定电流。
2. All measurements were made under the standardized environment of XUYU. 所有测试都是基于旭宇光电 (深圳) 股份有限公司现有的标准测试平台。

◆ Packaging Specifications 包装规格

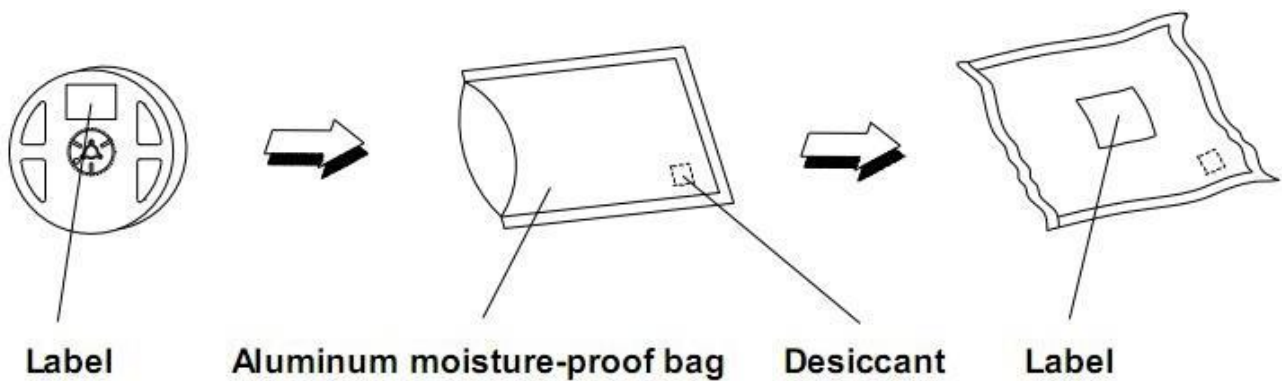


W	12.00±0.10	T	0.20±0.02	D1	1.60±0.10	单位
E	1.75±0.10	F	5.50±0.10	D0	1.60±0.10	mm
P0	4.00±0.10	P1	8.00±0.10	P2	2.00±0.10	
A0	3.75±0.10	B0	3.70±0.10	K0	2.20±0.10	

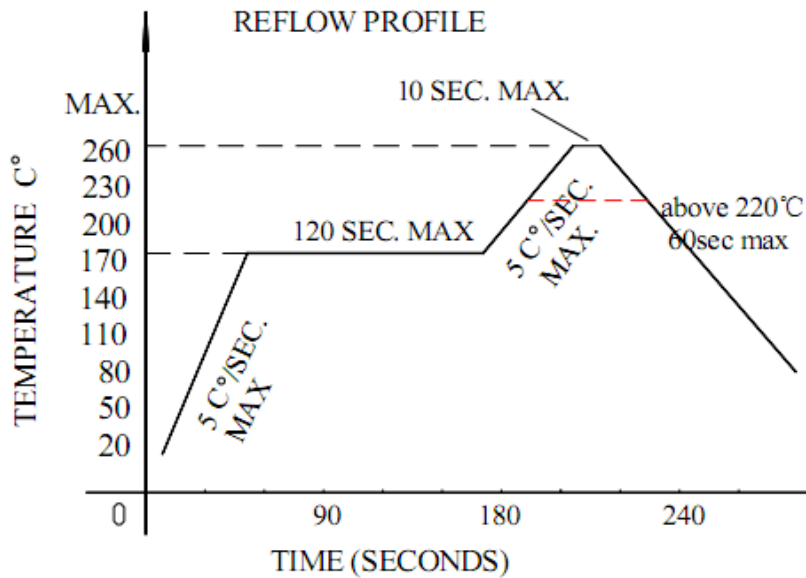
Dimensions of Reel 卷盘规格



Packaging specifications 包装规格



## ◆ SMT Reflow Soldering Instructions SMT 回流焊说明



1. Reflow soldering should not be done more than two times  
回流焊不可以做两次以上
2. When soldering, do not put stress on the LEDs during heating  
当焊接时，材料受热，不可以用力按压胶体表面

## ◆ CARTIONS 注意事项

### 一、Storage/use 储存/使用:

1. In order to avoid moisture absorption, it is suggested to store the products in a drying cabinet with desiccant. The storage temperature is  $5^{\circ}\text{C}\sim 30^{\circ}\text{C}$ , and the humidity is  $\leq 60\%HR$

1. 为避免吸潮建议将产品贮存在放有干燥剂的干燥柜中, 贮存温度为:  $5^{\circ}\text{C}\sim 30^{\circ}\text{C}$ , 湿度:  $\leq 60\%HR$ 。

2. After storage for six months, it is recommended to re-use the spectral separation to prevent changes in photoelectric parameters

2. 储存六个月之后建议重新分光分色后使用, 防止光电参数发生变化。

3. It is recommended to dry products that have been sealed and stored for more than six months before use. The drying condition is  $65^{\circ}\text{C}\pm 5^{\circ}\text{C}$  for 10 hours

3. 密封储存六个月以上的产品使用前, 建议干燥, 干燥条件为:  $65^{\circ}\text{C}\pm 5^{\circ}\text{C}$  10 个小时。

4. The product shall be used within 24h after opening, otherwise it shall be baked at  $65^{\circ}\text{C}$  for 4-6h before reflow welding

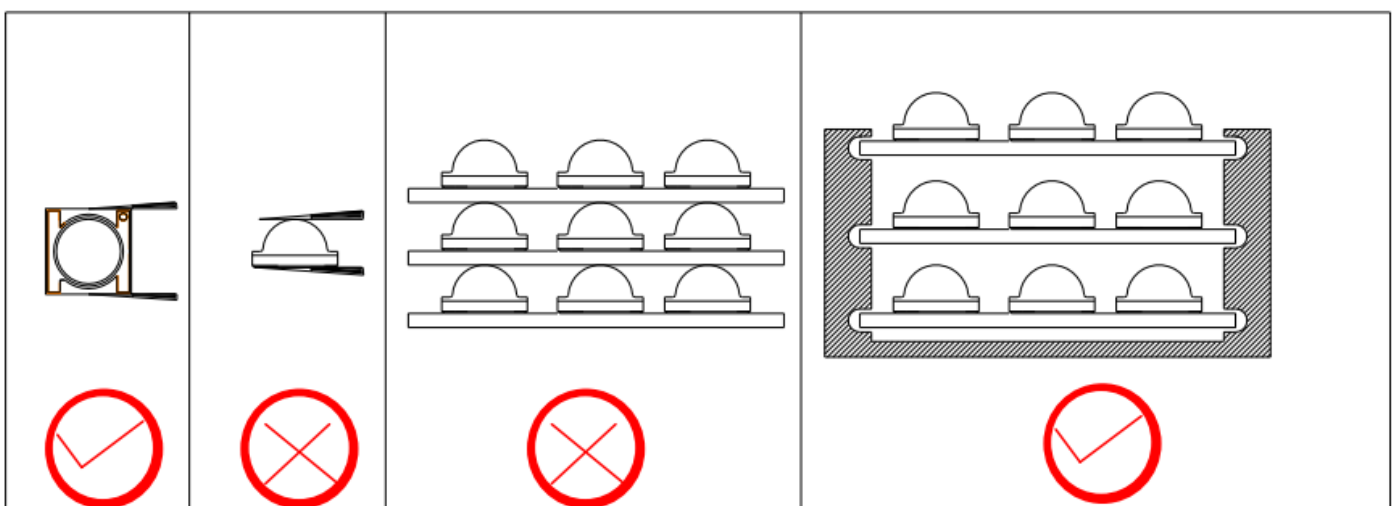
4. 产品开封 24h 内需使用完毕, 否则需  $65^{\circ}\text{C}$  烘烤 4-6h 后再过回流焊。

5. The encapsulated material of the LEDs is silicone. Therefore the LEDs have a soft surface on the top of package. The pressure to the top surface will be influence to the reliability of the LEDs. Precautions should be taken to avoid the strong pressure on the encapsulated part. So when use the picking up nozzle, the pressure on the silicone resin should be proper.

5. LED 封装为硅胶, 故 LED 胶体表面较软, 用力按压胶体表面会影响 LED 可靠性。应避免使用较大压力按压胶体表面, 在使用吸嘴时, 作用于胶体表面的力应适宜。

6. Handle the component along the side surface by using forceps or appropriate tools; do not directly touch or Handle the silicone lens surface, it may damage the internal circuitry.

6. 采用合适的工具从侧面夹取材料, 不要用手或尖锐金属按压胶体表面, 否则可能导致内部电路损坏。





7. Electrostatic protection. LED is a chip sensitive electronic component. Various measures should be taken to avoid static electricity, such as wearing an electrostatic bracelet or anti-static gloves during use. All devices, equipment and instruments should be well grounded.

7. 静电防护。LED 是晶片敏感电子元器件，应采取各种措施避免静电，诸如在使用过程中戴静电手环或防静电手套。所有的装置、设备仪器应良好接地。