

RoHS

Specification

Client Name:

客户名称: _____

Client P/N.:

客户品号: _____

Product Name:

品 名: 220V35W 倒装线性光源

Product P/N.:

产品型号: XY1-56CD0F-54SF35-1

Sending Date:

送样日期: _____

客户签名栏		新月光电审核栏		
Approval	Audit	Approval	Audit	Confirmation
核准	确认	核准	确认	制作
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 2. 此规格书的最终解释权归新月光电(深圳)股份有限公司。
 3. 此规格书的有效期限为两年,自盖章或签字之日起计算,期满时双方可以续签协议,但应采用书面形式。

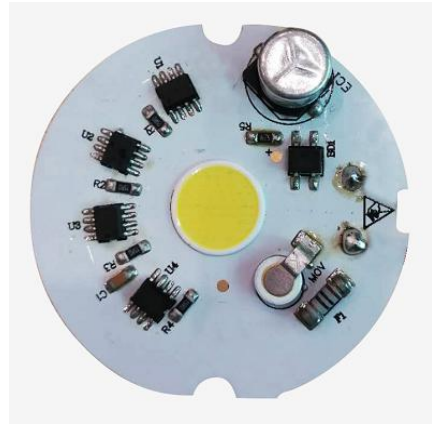
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1、Part code 产品型号命名原则

XY1-56C D 0F-54S F 35-2
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

- | | | |
|---|-----------------------|--------|
| ① | Product line | 产品类别 |
| ② | Substrate Type | 支架种类 |
| ③ | Chip Code | 芯片品牌 |
| ④ | Chip Size | 芯片尺寸 |
| ⑤ | CCT | 发光颜色代码 |
| ⑥ | CRI | 显色指数代码 |
| ⑦ | Power Code | 功率代码 |
| ⑧ | VOL | 使用电压代码 |



2、Features 特点

- Dimension : $\phi 56\text{mm} \times 1.0\text{mm}$
尺寸: $\phi 56\text{mm} \times 1.0\text{mm}$
- Integration and AC technology
集成和 AC 技术的组合
- Long lifetime
寿命长
- PF>0.60 THD<25%
功率因素>0.60 谐波<25%
- CE/EMC+CE/LVD
通过 CE 认证电磁兼容指令及低电压指令
- RoHS compliant
符合 RoHS 标准
- Hipot Test >3750V
耐压测试大于 3750V

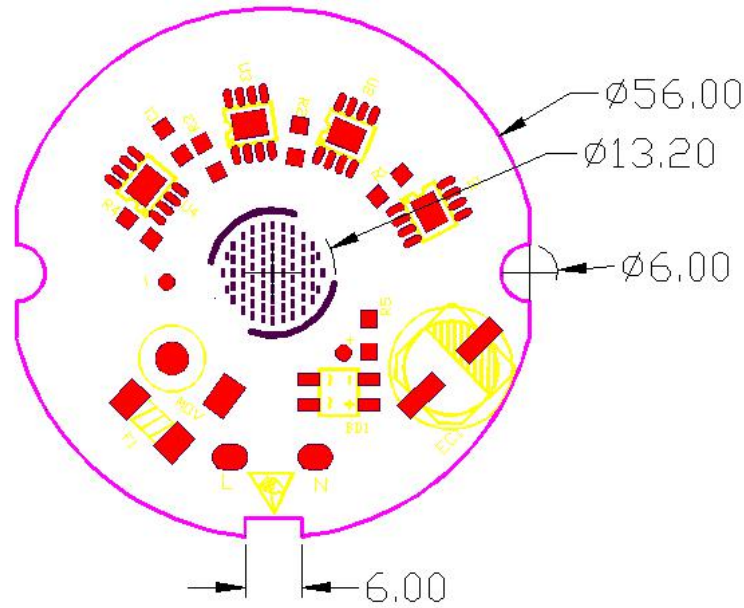


- Applications 应用
indoor lighting 室内亮化照明



ATTENTION 注意
OBSERVE PRECAUTIONS
FOR HANDLING
ELECTROSTATIC
DISCHARGE
SENSITIVE
DEVICES
请勿裸手接触器件

4、Package Dimensions 封装尺寸:



备注:

1. PCB 板厚: 1.0MM
2. 所有尺寸单位为毫米 (mm), 尺寸公差为 0.2mm;

5、产品光电参数 (Tc=25°C): (Electrical-Optical Characteristics)

Power 功率 (W)	Product Code 产品型号	CCT 色温 (K)	Chip 芯片	Voltage 电压 (V)	Current 电流 (Ma)	Efficacy 光效 (lm/w)	CRI 显指
35W	XY1-56CD0F-54SF35-2	5400±250	XY 1031	AC210-240V	/	65-75	≥80

Notes for Table

- (1) The capacity of heat sink : $T_{j-IC} < 125^{\circ}\text{C}$
 $T_{j-IC} = T_p + PIC * RIC$ (PIC=2.5W RIC=9°C/W T_p : surface temperature of IC)
 散热器散热能力: $T_{j-IC} < 125^{\circ}\text{C}$ 为要求
 $T_{j-IC} = T_p + PIC * RIC$ 其中 PIC=2.5W RIC=9°C/W T_p =IC 表面温度
- (2) All extreme conditions need to be satisfied.
 所有极限条件需同时满足。

6、最大限度值(Absolute Maximum Ratings)TA=25±5℃

项目 Item	符号 Symbol	最大额定值 Absolute Maximum Rating	单位 Unit
Peak Voltage 峰值电压	Vf(AC)	240	V
正向脉冲电流 Pulse Forward Current	IFP	400	mA
反向电压 Rreverse Voltage	VR	禁止反向驱动	V
功率消耗 Power Dissipation	PD	35	W
工作温度 Operating Temperature	Topr	-35℃ TO +80℃	℃
贮藏温度 Storage Temperature	Tstf	-40℃ TO +80℃	℃
焊接温度 Soldering Temperature	Tsld	Hand Soldering:350℃/5S	/

Notes for Table

①.Operating Voltage doesn't indicate the maximum voltage which customers use but means tolerable voltage according to each country's voltage variation rate.

客户不能在最大电压下正常使用，最大电压定义为不同国家的电压波动情况。

②.Color bins are defined at transient operation

该产品通过瞬态点亮测试，分光分色。

③.The tolerance of measurement at our tester is $\Phi v \pm 10\%$ and $Ra \pm 2$.

测试仪测量的公差 流明 $\pm 10\%$ 和显指 ± 2 。

④.Tolerance of ± 0.005 on x,y coordinates.

色坐标的测量误差允许在 ± 0.005 。

⑤.Tolerance of $\pm 5\%$ on Power dissipation.

功率的测试误差允许在 $\pm 10\%$

⑥. Φv is the total luminous flux output measured with an integrated sphere.

总光通量在积分球内测量。

⑦.Surge is defined as damage that may occur when an electronic device is subjected to a voltage that is beyond the maximum specification limits of the device.

Refer to the note 3 .

当启动电压干扰尖峰超过最大电压时，会对模组造成损坏。

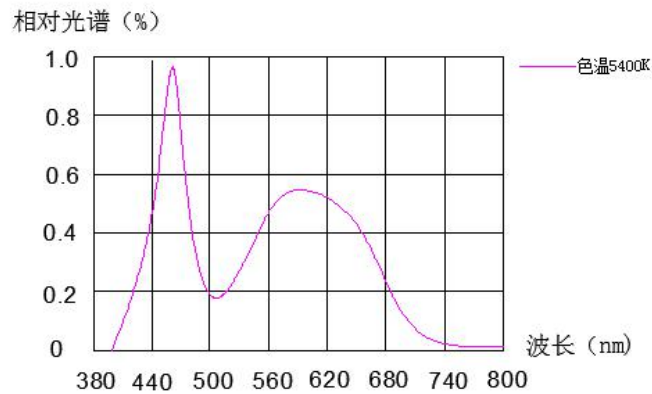
参考注意事项 3。

⑧. Base Board: 1.0mm aluminum substrate, Thermal resistance 1 W/(m.K)

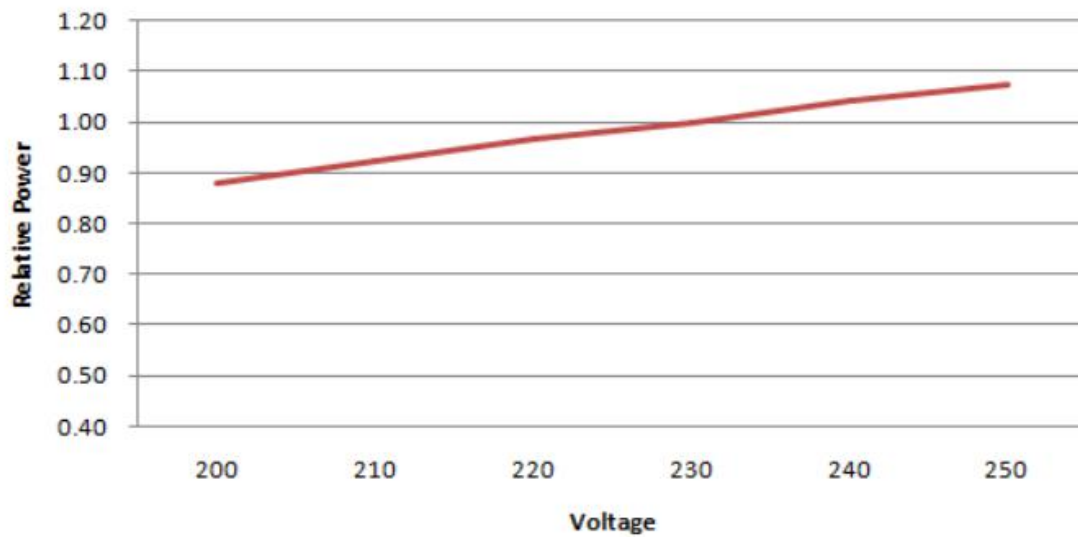
基板材质: 1.0mm 厚度铝基板, 导热系数 1 W/(m.K)

7、光电特性曲线图:

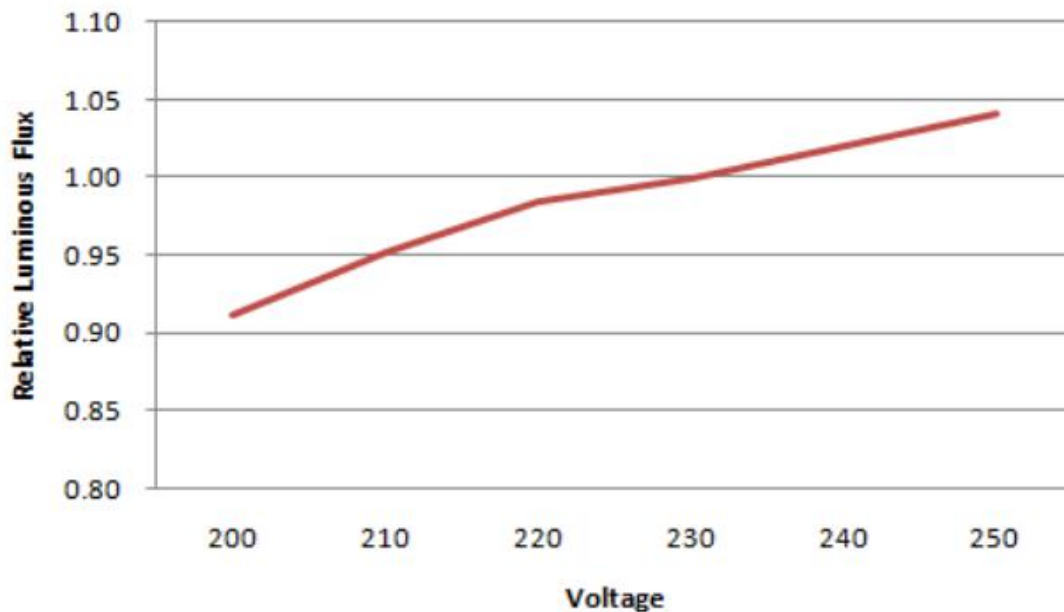
7.1、Relative Spectral Distribution



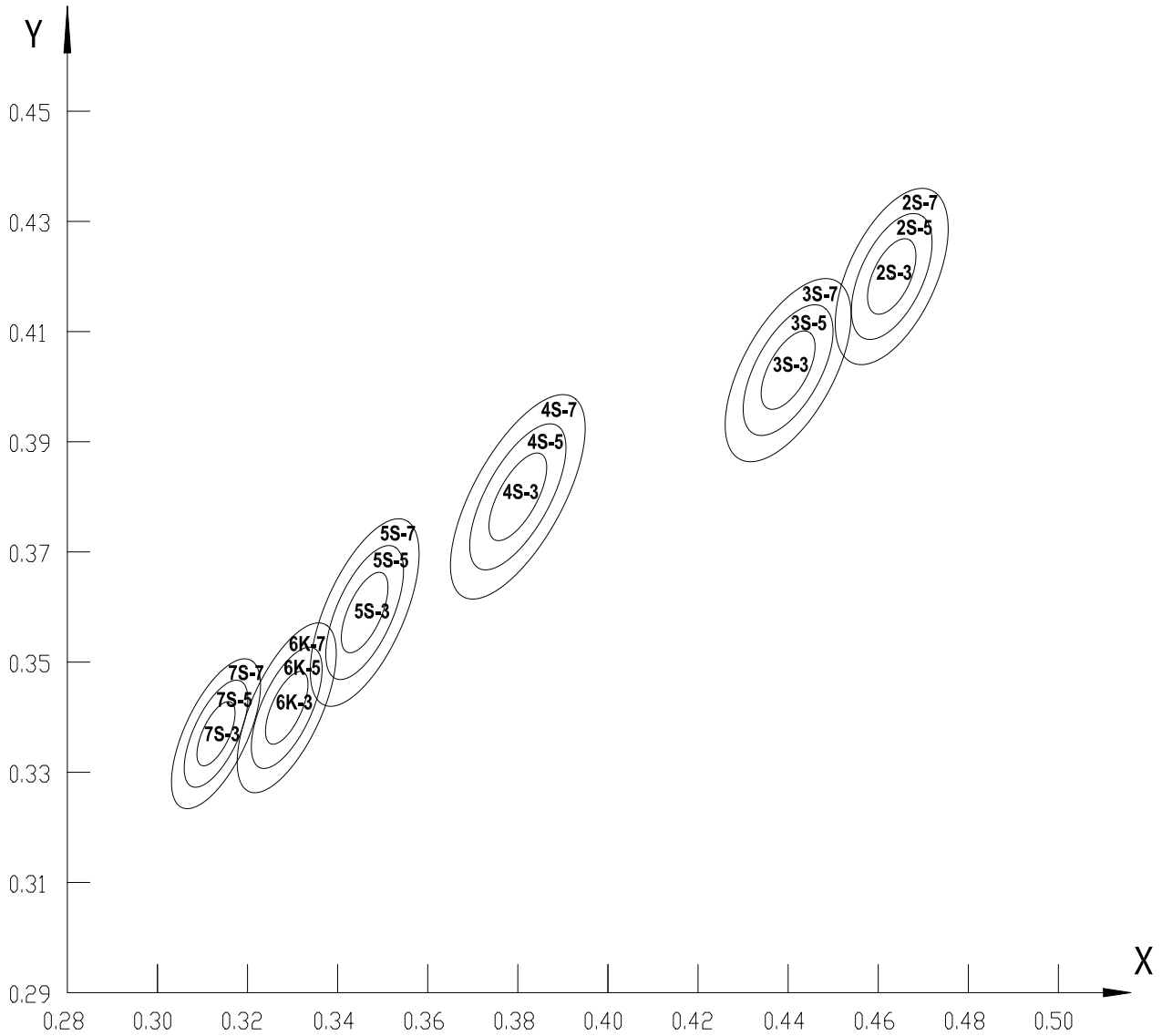
7.2、Relative Power Distribution vs. Voltage at Ta=25°C



7.3、Relative Luminous flux vs. Voltage at Ta=25°C



8.TheChromaticity Diagram色度图



色温	中心点		θ
2700k	0.4578	0.4101	57.28
	色区代码	3-step	
		a	b
	2S-3	0.007733	0.004011
	色区代码	5-step	
		a	b
	2S-5	0.012889	0.006685
	色区代码	7-step	
		a	b
	2S-7	0.0180446	0.009359

色温	中心点		θ
3000k	0.4338	0.4030	53.16
	色区代码	3-step	
		a	b
	3S-3	0.008346	0.004098
	色区代码	5-step	
		a	b
	3S-5	0.01391	0.006831
	色区代码	7-step	
		a	b
	3S-7	0.019474	0.009563

色温	中心点		θ
4000k	0.3818	0.3797	54
	色区代码	3-step	
		a	b
	4S-3	0.009386	0.004035
	色区代码	5-step	
		a	b
	4S-5	0.015644	0.006725
	色区代码	7-step	
		a	b
	4S-7	0.0219016	0.009415

色温	中心点		θ
5000k	0.3447	0.3553	59.62
	色区代码	3-step	
		a	b
	5S-3	0.0082	0.0036
	色区代码	5-step	
		a	b
	5S-5	0.01365	0.006
	色区代码	7-step	
		a	b
	5S-7	0.01911	0.0084

色温	中心点		θ
5700k	0.3287	0.3417	59.09
	色区代码	3-step	
		a	b
	6K-3	0.00746	0.0032
	色区代码	5-step	
		a	b
	6K-5	0.01243	0.00533
	色区代码	7-step	
		a	b
	6K-7	0.017402	0.007462


色温	中心点		θ
6500k	0.3123	0.3282	58.38
	色区代码	3-step	
		a	b
	7S-3	0.006617	0.002855
	色区代码	5-step	
		a	b
	7S-5	0.011029	0.004758
	色区代码	7-step	
		a	b
	7S-7	0.015441	0.006661

9、可靠性实验

Serial No. 序号	Test Item 项目	Test Condition 测试条件	Test Cycle 测试周期	Test Qty. 样本数量	Ac/Re
1	Continuous Operation Test 光通亮维持率	Tc:28-30℃ VF= AC220V	1000H	10	0/1
2	Low/High Temperature Storage Test (COB light source) 冷热冲击实验 (COB 光源部 分)	-40℃ 30min ↓ ↑ 5sec 125℃ 30min	200 Cycles	10	0/1
3	Moisture-proof Test 高温高湿测试	TC:85℃ RH:85%	1000H	10	0/1
4	ESD Test 抗静电测试	2000V HBM	1min	10	0/1
5	Surge Test 浪涌测试	L-N: ±1000V 0度, 90 度, 180度, 270度	10sec	10	0/1
6	Insulation withstand Test 绝缘耐压测试	3750V	1min	10	0/1

10、包装规格

10.1、内箱标签格式 & 外箱标签格式

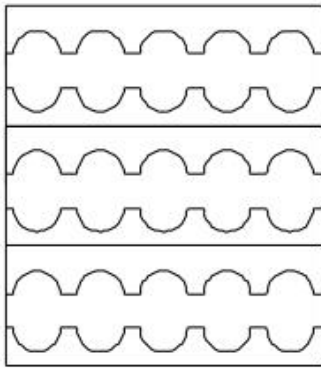
 新月光电(深圳)股份有限公司 Shenzhen Crescent Optoelectronic co.,LTD			RoHS
XY-PN			
XY-TYPE			
VF(V)		IF(mA)	
Φ(lm)		Ra	
CCT (K)		BIN	
QC		QTY(PCS)	

Φ: Luminous Flux rank 光通亮档次典型值

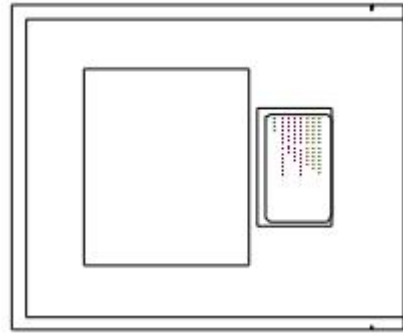
CCT: Color temperature 色温

VF: Conditions of voltage 条件电压

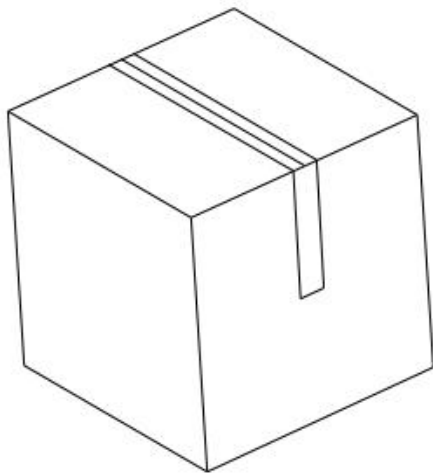
10.2、Packing method and instructions 包装方式以及说明



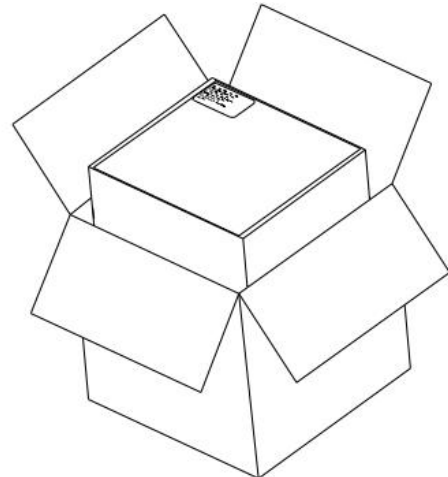
Blister pack



Label each plate



Label per carton



11、Precautions (注意事项)

11.1. Storage 储存

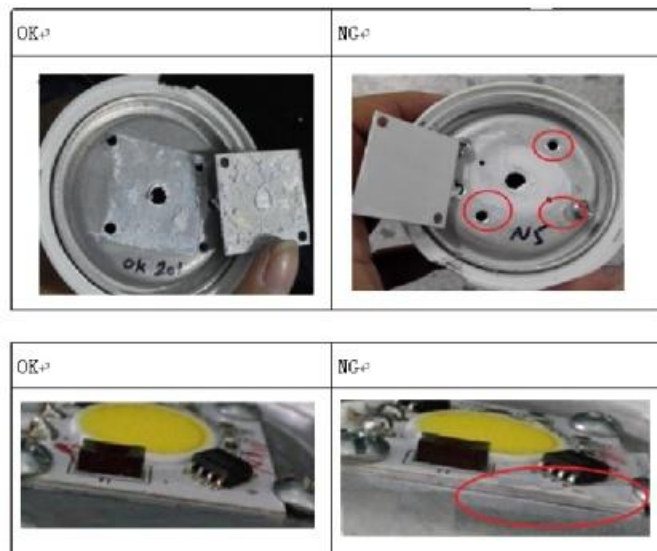
■ To avoid moisture, we recommend storage conditions for the unopened LED +5 ~ +30 ° C, relative humidity <60%.

为避免受潮的影响，我司建议产品在未开包装前储存条件为 5-30° C，相对湿度小于 60%。

11.2. The soldering precautions 组装注意事项

■ ■ During assembly, please ensure that a good quality thermal paste is applied and distributed evenly over the surface. While using thermal pad (Heat Sink), make sure LED is firmly tightened and there is no gap between surfaces.

为确保在组装时降低接触热阻，请注意导热膏涂布均匀且分布面积合理，不可出现导热膏太少或涂抹高低不平等现象。如使用导热胶垫时，请确保螺丝安装后基板与导热胶垫的完全接触，不可存在中空现象。



■ ■ The product shall align with the outlet groove when welding wire materials; Note that the wire must not have copper wire or other conductive material contact the side of the PCB plate or shell. Avoid rosin spatter on the surface of lamp beads when welding wire materials;

本产品焊接线材时应对准出线口；注意线材不能有铜丝或者其他导体接触到 PCB 板边或者外壳。焊接线材时要避免松香溅到灯珠表面；

Please make sure of not getting short during the welding process.

焊接完毕后，请确保无短路现象，以免烧毁器件。

Due to connecting high voltage, pay attention to safety when installing and/or testing.

由于该产品接高压，因此在该产品安装调试时请务必注意安全。

Do not touch the module without any reasonable ESD protection while circuit is active.

当电源工作时，不要触碰模组任何地方，如 PCB 板，器件等。

Hot-plug test is not recommended.

不建议做热插拔测试。

11.3、Cautions for use 使用注意事项

■ Faults, lightning, or switching transients can cause voltage surges in excess of the normal ratings.

故障，闪电或者开关短路可能引起电压瞬态升高，超过额定值。

■ Internal component failure can cause excessive voltages.

内部元器件失效有可能导致电压超高。

■ Electrical Over-Stress (EOS) is defined as damage that may occur when an electronic device is subjected to a current or voltage that is beyond the maximum specification limits of the device.

EOS 损坏发生在电流或电压超过最大限制。

11.4、 Anti-Static Measures 防静电措施:

■ Please take adequate measures to prevent electrostatic generation, such as wearing electrostatic ring or anti-static fingerstall etc; any relative products like plant equipment, machinery, carrier and transportation units shall be connected to discharging unit/ ground. The ESD sensitivity of this product is > 1000V, after assembly the final lamp, please make sure to discharge Static Electricity by proper ESD equipment.

请采取足够的措施来防止静电产生，比如带静电环或防静电手指套等；每个制造厂关于产品（工厂、设备、机器、载波机和运输单位）应当连接到底面，请避免产品电气带电；本产品的防静电敏感度超过 1000V，装配后的最终灯具产品（S）建议检查是否损坏 LED（漏电现象）。

11.5. Temperature Control 温度控制:

■ Recommended temperature conditions for enhanced product life: Be sure to Tp point (The top of IC) controlled below 100 °C;LED recommendation solder surface temperature control ≤90 °C.

保证散热前提条件为：请务必将 Tp 点（IC 顶部）控制在 100°C 以下；建议 LED 焊点表面温度控制 ≤90°C。

11.6. Other 其他:

■ Product is not suitable to use in following conditions

本产品不可在以下条件下使用，如果产品在以下条件下使用，评估其使用效果和风险是有必要的：

Touch the Led colloidal surface area with sharp objects such as pincett (tweezers).

用尖锐的物体，如钳子（镊子）接触 Led 胶状表面区域。。

Excessive force more than 3000gf on the silicone lens.

胶体上按压大于等于 3000gf 的力。

Cover the Led colloidal surface area with any other resins such as epoxy, urthane, etc

用其它树脂材料，如环氧树脂、聚氨酯等覆盖在 LED 胶体表面。

Assemble/use in conditions of high moisture and/or strong oxidizing gas such as Cl, H₂S, NH₃, SO₂, NO_x, etc.

在高湿或者强氧化气体，如 Cl, H₂S, NH₃, SO₂, NO_x 的环境下使用。

Use with substance containing sulfur.

与含硫元素物质一起使用。

Long time exposure to sunlight or UV can cause silicone discolored.

长时间暴露在太阳或 UV 底下，会使胶发生变色。

Exposed to dust, liquids or oils.

被暴露于粉尘、液体或油