

# SPECIFICATION

## (产品规格书)

CUSTOMER : \_\_\_\_\_  
(客户)

\_\_\_\_\_

(产品型号)

\_\_\_\_\_

(规格书编号)

DESCRIPTION : \_\_\_\_\_ LED \_\_\_\_\_  
(产品描述)

DATE : \_\_\_\_\_ 07/10/2008 \_\_\_\_\_  
(日期)

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R&D DEPARTMENT (技术部)		
APPROVED (核准)	CHECKED (审核)	PREPARED (制定)
		谷明江

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深圳市立洋光电有限公司

Part NO.:

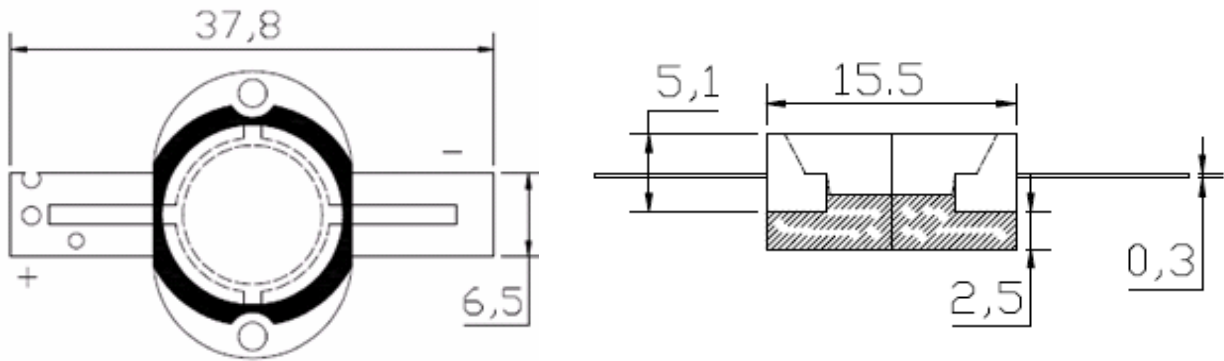
## ■ Feature

### (特性)

- ◆ 10W High Power LED  
(10W 大功率 LED)
- ◆ Package : SMT Package  
(贴片式外形)
- ◆ Half Angle ( $2\theta_{1/2}$ ):  $120^\circ$   
(视角:  $120^\circ$ )
- ◆ Lens Color : Water Clear  
(透镜颜色: 无色透明)

## ■ Package Dimensions

### (外观尺寸)



### Notes:

1. All dimensions are in millimeters.  
(所有尺寸以毫米为单位)
2. Tolerance is  $\pm 0.25$  unless otherwise noted  
(未标注公差为:  $\pm 0.25$ )

Part NO. (产品型号)	LED Chip		LED Emitted Color (LED 发光颜色)	Lens Color (透镜颜色)	Description (描述)
	Material (材质)	Emitted Color (发光颜色)			
LY-W9910W120D-A01	InGaN / GaN	Blue(蓝色)	White(白色)	Clear(透明)	Water Clear (无色透明)

Part NO.:

**■ Electrical/Optical Characteristics (At T<sub>A</sub>=25°C)**  
**(光电参数)**

Parameter (参数)	Symbol (符号)	Conditions (测试条件)	Min. (最小值)	Avg. (平均值)	Max. (最大值)	Units (单位)
Luminous Flux (发光强度)	Φ	I <sub>F</sub> =1.05A	750	--	900	lm
Color Temperature (色温)	CCT	I <sub>F</sub> =1.05A	6000	--	6500	K
Forward Voltage (正向压降)	V <sub>F</sub>	I <sub>F</sub> =1.05A	9	--	10	V
Thermal Resistance Junction To Board (热阻)	Rθ <sub>J-B</sub>	I <sub>F</sub> =1.05A	--	10	--	°C/W
Reverse Current (反向漏电流)	I <sub>R</sub>	V <sub>R</sub> =5V	--	--	1	μA
Viewing Angle <sup>[1]</sup> (发光角度)	2θ <sub>1/2</sub>	I <sub>F</sub> =1.05A	--	120	--	Deg

**■ Absolute Maximum Rating(At T<sub>A</sub>=25°C)**  
**(极限参数)**

Parameter (参数)	Symbol (符号)	Ratings (数值)	Units (单位)
Power Dissipation (功率)	P <sub>D</sub>	10	W
Continuous Forward Current (正向输入电流)	I <sub>F</sub>	1050	mA
LED Junction Temperature (结点温度)	T <sub>J</sub>	120	°C
Reverse Voltage (反向电压)	V <sub>R</sub>	5	V
Operating Temperature Range (工作温度)	T <sub>OPR</sub>	-30°C To +60°C	
Storage Temperature Range (储存温度)	T <sub>STG</sub>	-40°C To +100°C	
Manual Soldering Temperature (手工焊接温度)	T <sub>SOL</sub>	350°C± 20°C For 3~5 Seconds	
ESD Sensitivity (抗静电能力)	ESD	2000V HBM	

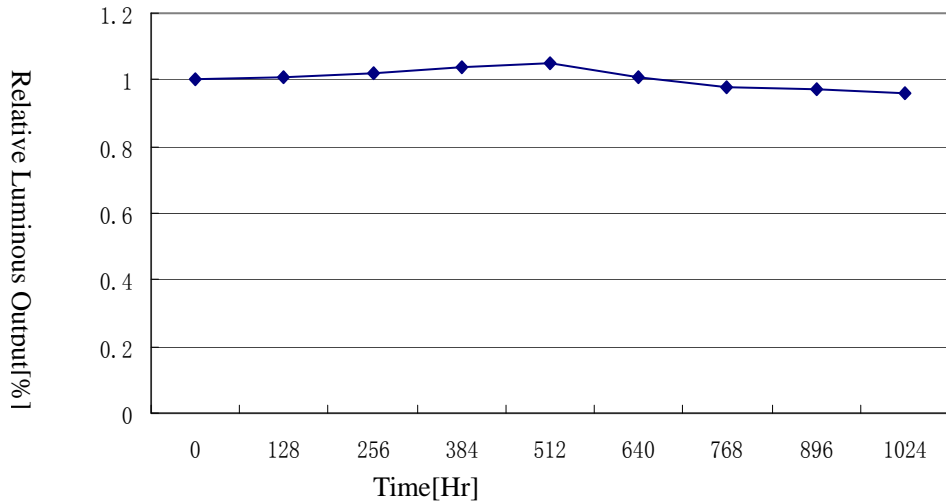
Part NO.:

## Room Temperature Operating Life Reliability Test Result

### 常温点亮信耐性结果

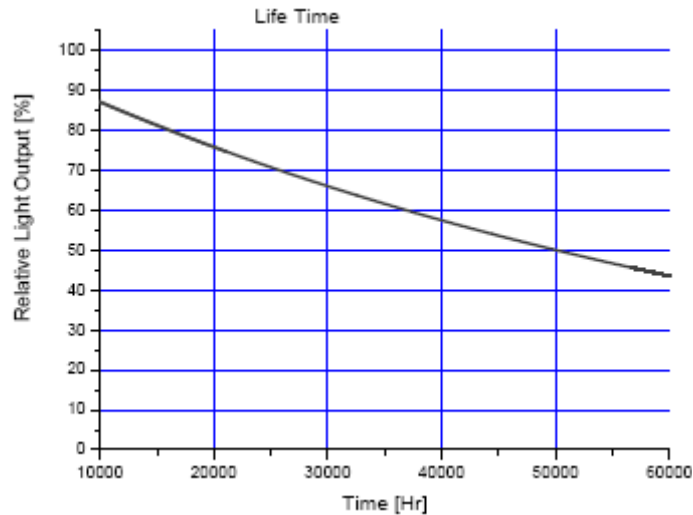
( $T_a=25^{\circ}\text{C}$ ,  $I_f=1000\text{mA}$ ) Use SSC circuit board & heat sink ( $T_j=50^{\circ}\text{C}$ )

使用 SSC 带热沉电路板 ( $T_j=50^{\circ}\text{C}$ )



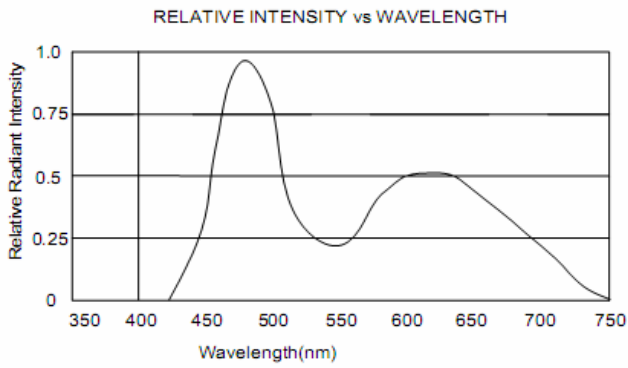
1000HR 2.5% degradation (1000 小时衰减 2.5%)

### Life Time graph (使用寿命)

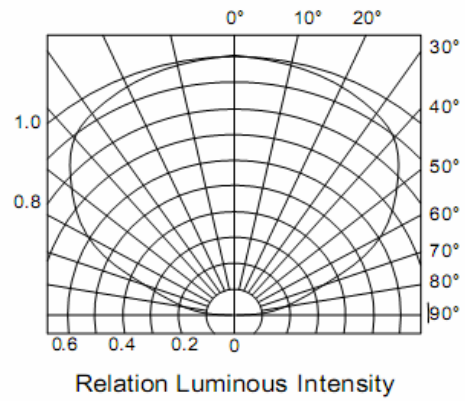


50000HR 50% degradation (50000 小时衰减 50%)

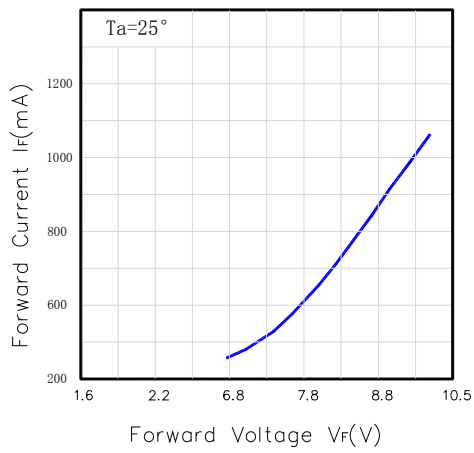
## Spectrum Distribution(光谱分布图)



## Radiation Diagram(角度图)



## V<sub>F</sub>-I<sub>F</sub> Characteristics(V<sub>F</sub>-I<sub>F</sub> 曲线)



## Precautions For use

### (1) Storage

In order to avoid absorption of moisture it is recommended that the products are stored in the dry box (or dessicator ) with a dessicant. Alternatively the following environment is recommended:

Storage temperature :5°C~30°C      Humidity:60% HR max.

(2) Any mechanical force or any excess vibration should be avoided during the cooling process after soldering.

(3) Components should not be mounted on distorted Printed Circuit Boards.

(4) Devices should not be used in any type of fluid such as water,oil,organic solvents etc.  
When cleaning is required,IPA should be used.

(5) Devices should be soldered within 7 days after opening the moisture-proof packing.

(6) ESD Precautions.Static Electricity and surge damages LEDs.

It is recommended that wrist bands or anti-electrostatic gloves be used when handling the LEDs.All devices,equipment and machinery should be properly grounded.

(7) It is recommended to use individual resistors when LEDs are used in parallel circuits in order to improve performance.

## 使用 说 明

### 一、贮存：

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°C~30°C，湿度： $\leq 60\%HR$ 。

二、产品在焊锡后冷却过程中避免机械压力和过大震动。

三、禁止焊接在变形PCB板上。

四、产品不得接触水、油、有机溶液。

五、打开防潮包装后7天内产品使用完毕。

### 六、防静电要求：

使用产品时，必须戴防静电环或防静电手套，所有设备、装置、机台必须有效接地。

七、将产品与电阻配合使用效果更佳