



# Product Specification

## 产品规格书

**Product Name:** LED Spot Grow Light  
**产品名称:** LED 射灯型植物生长灯

**Product P / N:** OH-GL-016  
**产品编号:**

<b>Product size</b> 产品尺寸	Φ120x125mm
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<b>Customer Approval:</b> 客户确认:	
<b>Date:</b> 日期:	

Prepared by 制作人	Checked by 审核人	Approved by 审批人
<b>Name:</b> 姓名:	<b>Name:</b> 姓名:	<b>Name:</b> 姓名:
<b>Date:</b> 日期:	<b>Date:</b> 日期:	<b>Date:</b> 日期:
<b>Dept.:</b> 部门:	<b>Dept.:</b> 部门:	<b>Dept.:</b> 部门:

<b>Updated version number:</b> 更新的版本号:	
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1.0 Product  
产品

1.1 Product Photo  
产品图片



1.2 Product Definition  
产品定义

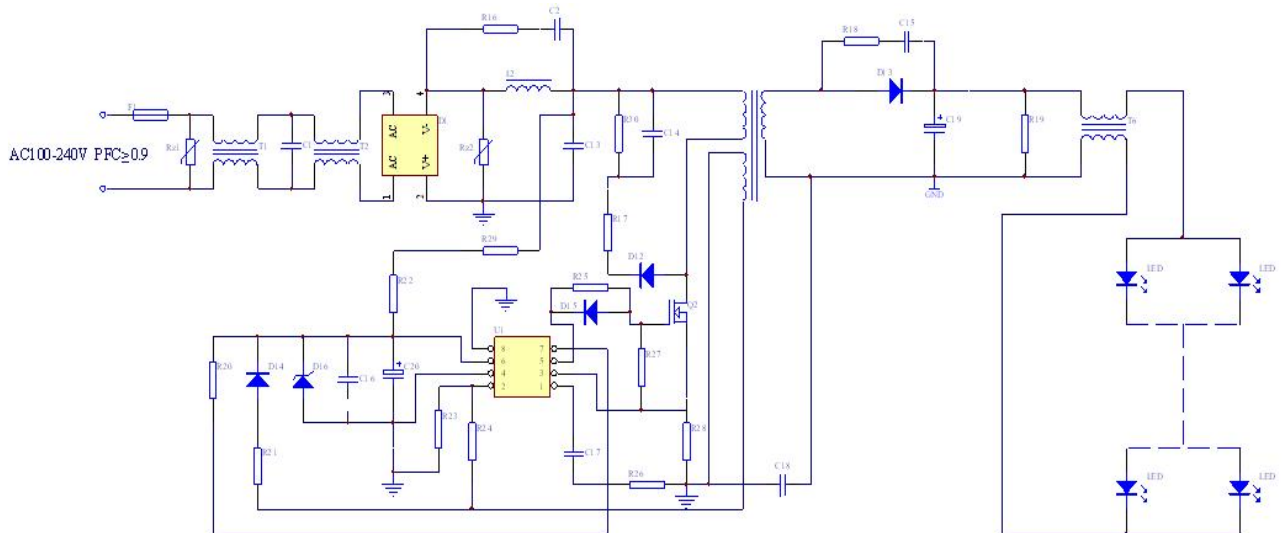
- LED grow light belongs to new generation grow and assistant grow light for plants. The big difference compared with traditional grow light, whether it is HPS or fluorescent or other kinds, that is LED grow light can provide plants special requirement for different light wavelength and light intensity in their different grow phases to maximize the satisfaction for plant light necessity  
LED 植物灯为新一代的植物生长助长灯，其与传统植物生长灯的最大差别在于能根据不同植物在不同的生长过程对光波的特殊要求，量身定做，提供植物需要的光波及光强，从而实现最大程度满足植物生长对光的要求

2.0 Product Features  
产品应用特色

- 1w high power LEDs  
用 1w 大功率灯珠
- Suitable for the family plant growth  
适用于家庭植物生长使用

### 3.0 Product Properties 产品技术参数

#### 3.1 Product working circuit schematic diagram 产品工作原理图



Attention: This diagram is for reference only, We have the right for the designing changes at any time in case we deem it necessary and will not be notified by our company!

#### 3.2 Product basic working technical data 产品基本工作参数

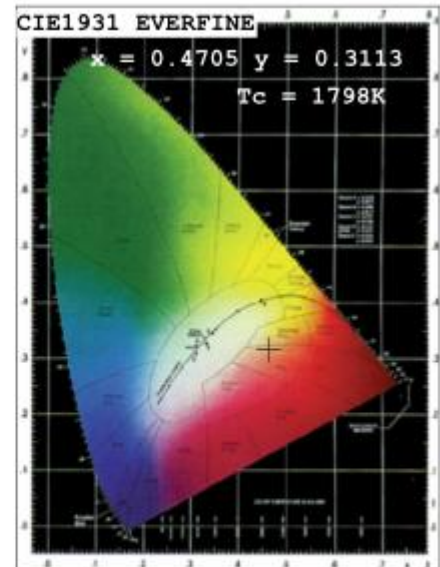
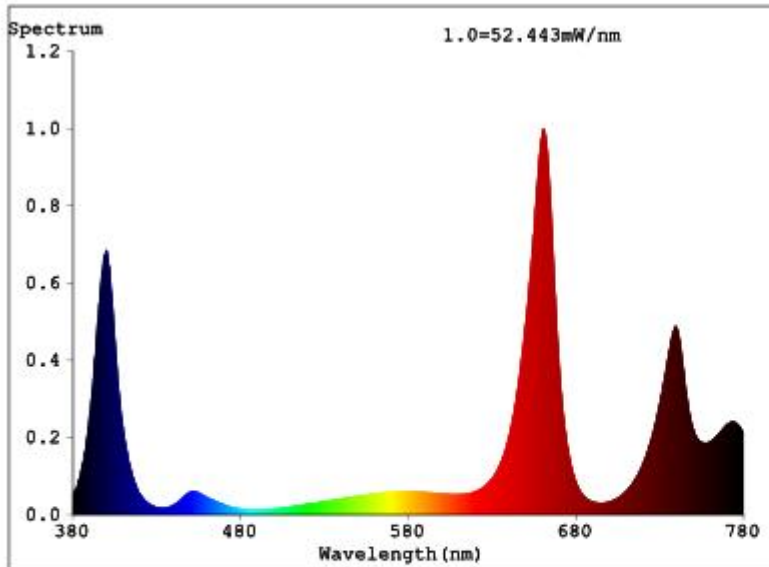
Power 功率	Real Consumption 实际功耗	Input Voltage 输入电压	Working Frequency 工作频率	LEDs 灯珠
15W	110V: 13.78W 220V: 13.74W	AC100 - 240V	50/60Hz	1W High Power leds
Flux 光通量	PF 功率因数	Type of lens 灯罩	Main Wavelength 主要波长	Color Ratio 光波比
≥130LM	≥0.9	PMMA	Red: 660nm UV: 440nm IR: 730nm	Five Colors
Fe 幅射通量	PAR W/m <sup>2</sup> 光合有效辐射	PPFD umol/m <sup>2</sup> s 光量子通量密度	Life-Span 寿命	Warranty 质保期
3.5w	5.88	0.15m: 160	50,000 H	3 Years

#### 3.3 PPFD Measuring Value 光量子通量密度实测数据

Distance 距离	PPFD Value PPFD 值 (umol/m <sup>2</sup> • s)
0.1m	500
0.2m	89
0.3m	49
0.5m	18
0.6m	15

### 3.4 Product photoelectrical testing data 产品光电参数测试数据

- Photoelectrical testing data by voltage setting 220V  
输入电压为 220V 时产品的光电测试参数



#### Color Parameters:

Chromaticity Coordinate:  $x=0.4705$   $y=0.3113$  /  $u'=0.3247$   $v'=0.4835$

Tc=1798K Dominant WL:Ld =661.5nm Purity=34.5%

Red Ratio:R=41.0% Peak WL:Lp=660.8nm HWL:Lhd=18.9nm

Render Index:Ra=57.7

R1 =55	R2 =75	R3 =81	R4 =56	R5 =49	R6 =78	R7 =65	
R8 =3	R9 =0	R10=51	R11=50	R12=17	R13=55	R14=87	R15=28

#### Photo Parameters:

Flux = 232.8 lm Eff. : 19.44 lm/W Fe = 3.220 W

#### Electrical parameters:

V = 221.1 V I = 0.05729 A P = 11.98 W PF = 0.9456

LEVEL:OUT WHITE:OUT

Status: Integral T = 347 ms Ip = 53127 (81%)

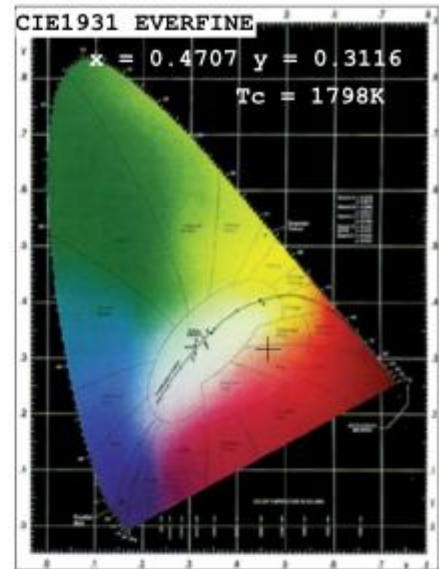
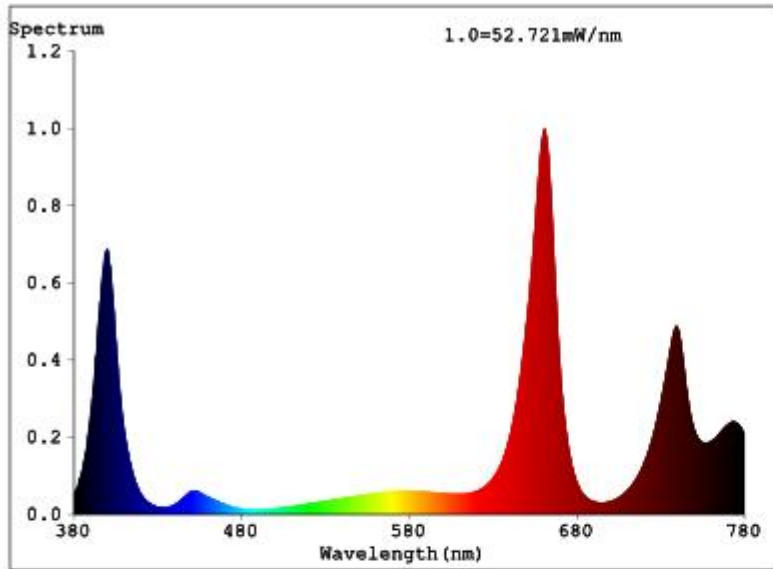
Test Type: Fast Test; Delicacy = Low; Tecool: ON

Model:OH-GL-016  
Tester:YL Liao  
Temperature:24Deg  
Manufactory:OHMAX

Number:  
Date:2014-03-21  
Humidity:60%  
Remarks:220V



- Photoelectrical testing data by voltage setting 110V  
输入电压为 110V 时产品的光电测试参数



**Color Parameters:**

Chromaticity Coordinate:  $x=0.4707$   $y=0.3116$  /  $u'=0.3247$   $v'=0.4837$

$T_c=1798K$  Dominant WL:Ld =658.2nm Purity=34.7%

Red Ratio:R=41.0% Peak WL:Lp=660.8nm HWL:Lhd=18.8nm

Render Index:Ra=57.7

R1 =55	R2 =75	R3 =81	R4 =56	R5 =49	R6 =78	R7 =65	
R8 =3	R9 =0	R10=51	R11=50	R12=17	R13=55	R14=87	R15=28

**Photo Parameters:**

Flux = 234.5 lm Eff. : 19.60 lm/W Fe = 3.236 W

**Electrical parameters:**

V = 110.6 V I = 0.1089 A P = 11.96 W PF = 0.9933

LEVEL:OUT WHITE:OUT

Status: Integral T = 347 ms Ip = 53411 (81%)

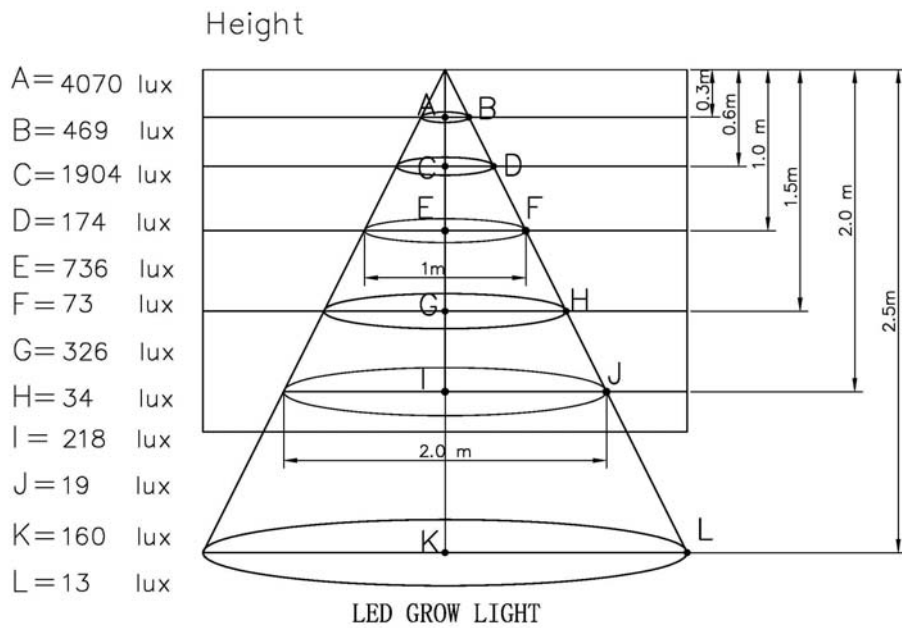
Test Type: Fast Test; Delicacy = Low; Tecool: ON

Model:OH-GL-016  
Tester:YL Liao  
Temperature:24Deg  
Manufactory:OHMAX

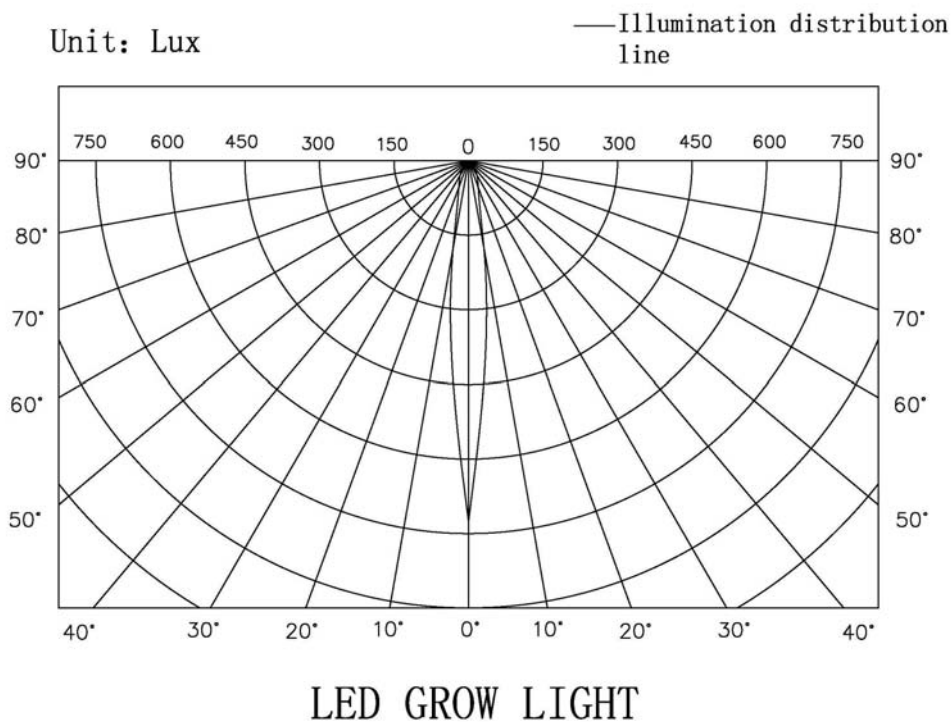
Number:  
Date:2014-03-21  
Humidity:60%  
Remarks:110V

3.5 Product illumination testing data & Graphic  
产品照度测试参数

➤ Illumination graph



➤ Illumination curve line graph



**4.0 Product Main Material**  
产品主要材料及关键配件

**4.1 Driver**  
电源

- Wide voltage design, AC100V - 240V, 50/60Hz, meets all countries input voltage requirement  
宽电压设计， 适合全世界各国家使用
- Isolating power supply design, ensures safety in usage  
隔离电源设计， 使用安全

**4.2 LEDs**  
灯珠

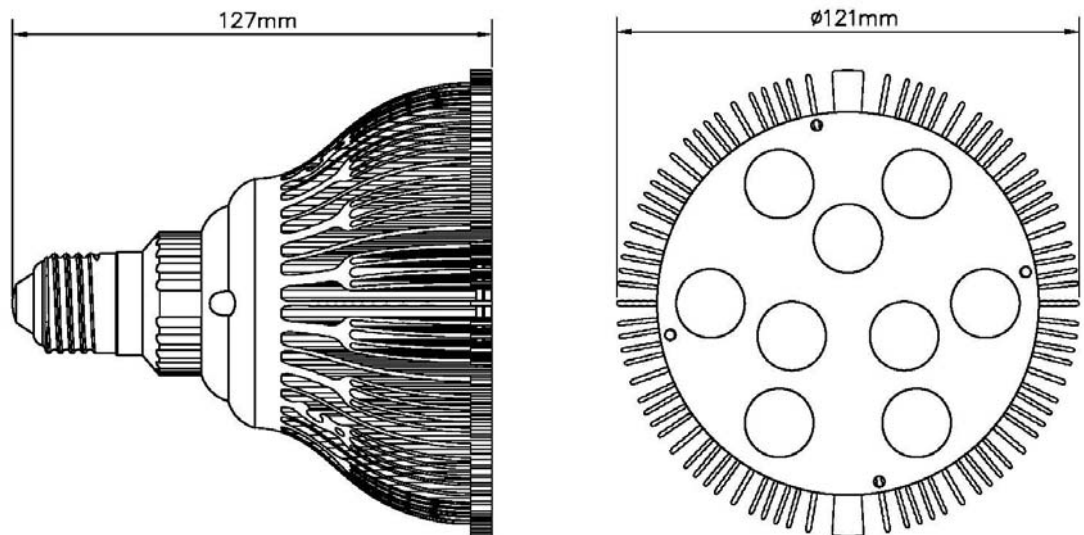
- Using EpiLED chips, self-encapsulated LEDs
- 台湾光宏芯片自我封装灯珠

**4.3 Heat Dissipation**  
散热

- Adopting high heat conductive materials: AL6063,  
采用高导热铝材： AL6063,

**5.0 Product Size & Package**  
产品尺寸与包装

**5.1 Product size illustration**

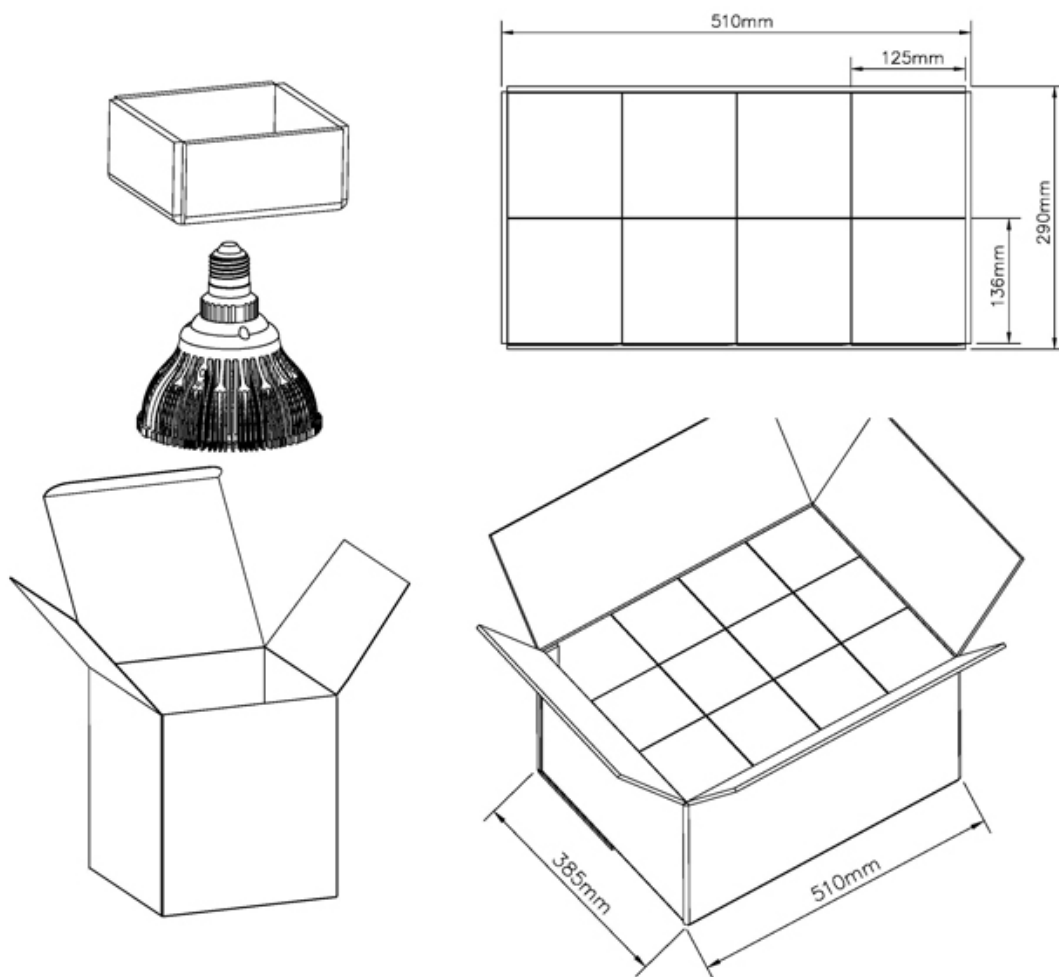


**5.2 Product packing info**  
产品包装尺寸

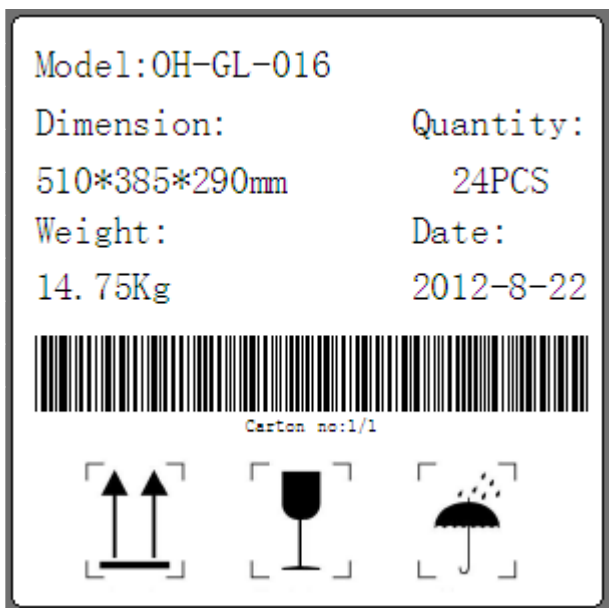
Product P/N 产品编号	Product NW. 产品净重	Box Size 纸盒尺寸	Carton Size 纸箱尺寸		
			Size 尺寸	GW. 毛重	Qty/ Carton 每箱产品数量
OH-GL-016	547g	125x125x136mm	510x385x290mm	14.75kg	24 pieces



5.3 Product packing illustration  
产品包装图示

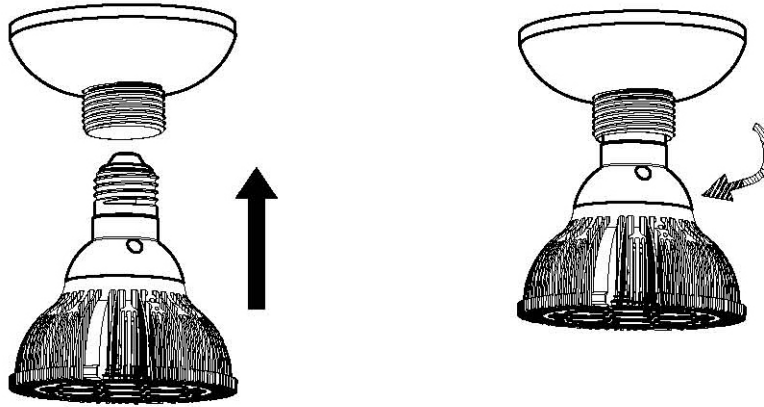


5.4 Carton label  
纸箱标签



## 6.0 Product Installation Illustration 产品安装图示

1. Put the screw end into the E27 socket  
将射灯的螺纹底端对准E27孔位
2. Turn the lamp into the socket till tight  
旋转灯具，将灯具安装紧



## 7.0 QA & Safety Standard QA 及安全标准

### 7.1 Quality control per ISO9001 -2008 Standard 质量控制依据 ISO9001 – 2008 标准

- Product quality control  
产品质量控制
  - ◇ Finish product QC inspection standard: MIL-STD-105E C=0  
产成品 QC 检验标准: MIL-STD-105E C=0
  - ◇ Production processing QC standard: GB 2829—87 -  
Periodical checking and sampling procedures  
生产过程 QC 检验标准: GB 2829-87 - 定时抽检和打样程序
  - ◇ QC confirm every production step and keep record  
QC 记录生产的每个步骤并保留记录
- Raw material & Components quality control  
原材料及配件质量控制
  - ◇ Driver: Per MIL-STD-105E C=0  
驱动: 依据 MIL-STD-105E C=0
  - ◇ LEDs : Per MIL-STD-105E C=0  
灯珠: 依据 MIL-STD-105E C=0
  - ◇ Heat dissipation: Per MIL-STD-105E C=0  
散热: 依据 MIL-STD-105E C=0

## 7.2 Quality Controlling Items 质量控制项目

- **Switching Test:** Switch on/off for 10 times with interval time 10 sec.  
开关测试：间隔 10 秒种 10 以上开关测试
- **Reliability Tests:**  
可靠性测试：

	Conditions 条件
High Temperature Operation Test 高温运行测试	Ta=50°C, 240hrs
Low Temperature Operation Test 低温运行测试	Ta=-20°C, 240hrs
High Temperature Storage Test 高温存放测试	Ta=70°C, 240hrs
Low Temperature Storage Test 低温存放测试	Ta=-30°C, 240hrs
High Temperature and High Humidity Test	Ta=40°C, 95%RH, 240hrs

- **Aging Test:** Default two days or Per customer requirement  
老化测试：通常为两天也可按客户要求

Voltage 电压	Testing Condition 测试条件	Duration Time 测试时间
110V	Room Temperature 室温	72 H
220V	Room Temperature 室温	24 H

- **Safety Test:** Leakage current test, Grounding test  
安全测试工：漏电流测试，接地测试
- **Illumination Test**  
照度测试

## 7.3 Product Safety Certificates 产品安全证书

- CE, RoHS, FCC

## 7.4 Product Warranty Statement 产品质保声明

- LED light life span is usually about 50,000 hours, Base on following terms, Ohmax warrants Ohmax LED lamps to be free from defects in material and workmanship and to operate from the date of manufacture for the time period of 3 years.  
奥马斯依据下列条款郑重承诺：LED 灯的使用寿命一般在 50,000 小时，基于以下条款，奥马斯 LED 灯提供客户三年的质保产品使用期。

**Terms and Conditions:**  
条款和条件：

This warranty will not apply in the event of conditions demonstrating abnormal use or stress, such as operating temperatures in excess of maximum rated temperatures, under/over voltage conditions, excessive switching cycles or operating hours, dirty or broken sockets, or improper lamp installation. Replacement of LED driver board provided by Ohmax with any other product will void entire warranty.  
本质保承诺当在非正常使用或因超过某些极限条件的情况下不予认可。如使用温度超过最大额定温度，低于或超过电压允许范围，插座污损造成漏电等意外情况，灯具的不正确安装。不管用任何其它产品更换奥马斯产品上的 LED 电源都不适用于本质保范围。

The user shall promptly return the product at the user's expense to Ohmax after receiving instructions as if, when and where to ship product. Failure to follow this procedure shall void this warranty  
客户在收到奥马斯退回产品的通知后，应在规定的时间内自费退回给奥马斯指定的地址。客户未能按照要求做到，则本质保承诺不予生效。

NO labor allowance is made for any lamp replacement during the warranty period. Any labor option or cost that is not pre-approved by Ohmax will not be eligible for reimbursement.

在质保期内任何人为的对奥马斯产品的任何配件或材料的更换，奥马斯对出现的产品质量问题不负任何赔偿责任。

Ohmax reserves the right to examine all failed lamps and reserves the right to be the sole judge as to whether any lamps are defective and covered under this warranty.

奥马斯保留对质量问题产品的检查权利，保留对产品质量事故是否符合本质保条件的唯一合法的解释权。

## 8.0 Product Usage Attention Items 产品使用注意事项

- Please cut off the power before installation and maintenance.  
在安装和维护前，请先切断电源。
- LED product is much more durable for collision, knocking, but do not do it for longer life  
LED 产品坚固耐用，但有意的碰撞、敲打对产品寿命是有影响的，应避免这种做法。
- Plug in and the light is on working, do not intentionally connect the light to other electronic components, such as, ballast, transformer, etc.  
即插即用，不要有意或无意用镇流器或变压器相连使用。
- Indoor use, forbid to expose to the out-door or get wet.  
室内使用，不可在露天或潮湿的环境中使用。