

**ATTENTION**  
OBSERVE PRECAUTIONS  
FOR HANDLING  
ELECTROSTATIC  
DISCHARGE  
SENSITIVE  
DEVICES

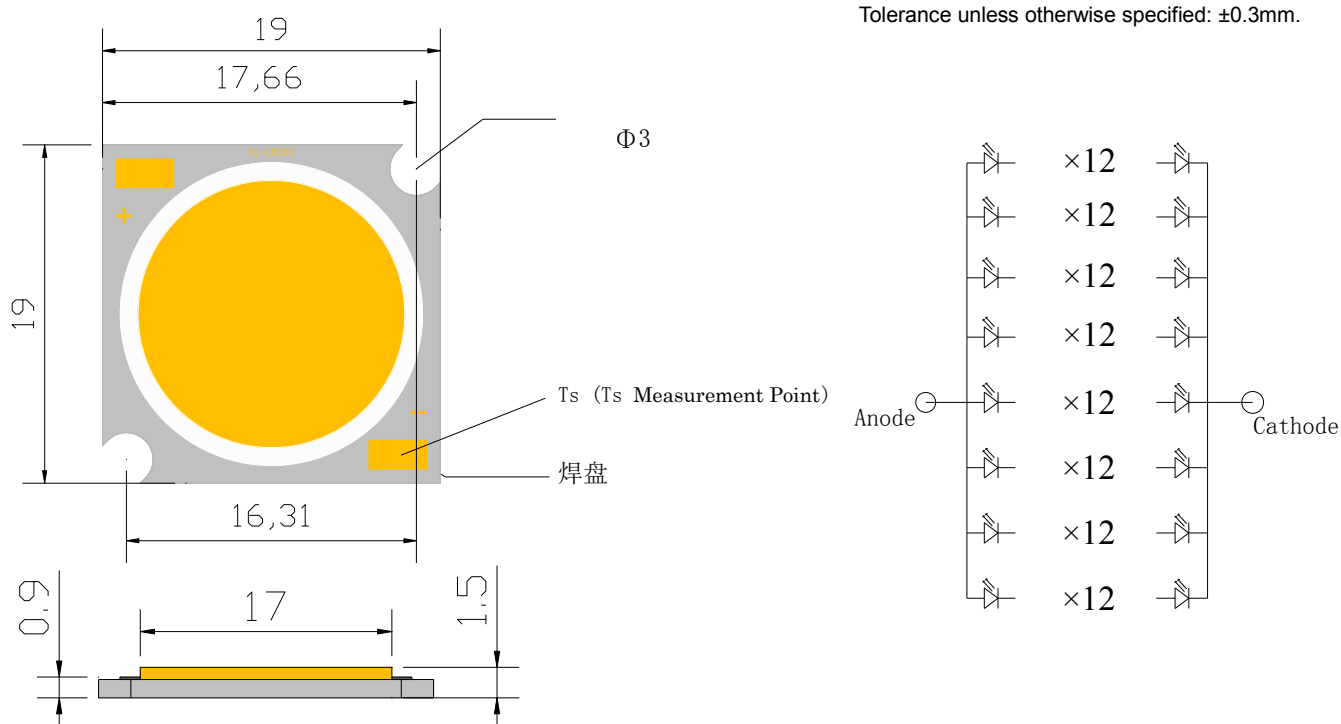
## 2.Features

- Dimension 19mm×19mm×1.5mm
- CRI: Ra 80
- Wide viewing angle : 120°
- RoHS compliant
- sulphation corrosion resistance
- Manual Soldering

## 3.Applications

- Down light
- Track light

#### 4.Package Dimensions:



## 5. Performance

### (1) Absolute Maximum Ratings

| Parameter参数                       | Symbol            | Rating Value             | Units |
|-----------------------------------|-------------------|--------------------------|-------|
| Input power 输入功率                  | Pi                | 34.3                     | W     |
| Maximum operating current 最大工作电流  | IF <sub>max</sub> | 960                      | mA    |
| Junction Temperature结温            | Tj                | 115                      | °C    |
| Operating Temperature Range工作温度   | Top               | -20°C To +85°C           |       |
| Storage Temperature Range储藏温度     | Tstg              | -40°C To +100°C          |       |
| Lead Soldering Temperature*引线焊接温度 | T <sub>SOL</sub>  | Max. 350°C for 5sec Max. |       |

Notes for Table:

1. The temperature of Aluminum PCB do not exceed **85°C**. If the input power reach 80% max Pi, the temperature of Aluminum PCB should be control below **75°C**

2. When hand soldering, keep the temperature of iron below less 350°C less than 5 seconds

3.D.C. Current :  $T_j = T_s + R_{j-c} \times P_i$

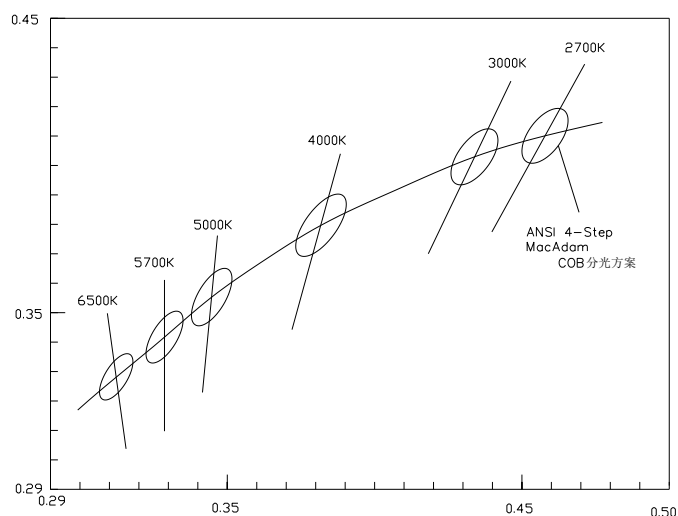
## (2) Electro-Optical Characteristics

at Tc=25°C

| Parameter参数              | Symbol   | Condition    | Min. | Typ. | Max. | LM/W<br>(typ) | Unit |
|--------------------------|----------|--------------|------|------|------|---------------|------|
| Forward Voltage<br>正向电压  | VF       | IF=700mA     | 34   | 36   | 38   | —             | V    |
| Luminous Flux<br>光通量     | $\Phi_v$ | TC=2700K     | 2250 | 2380 | 2856 | 98            | Lm   |
|                          |          | TC=3000K     | 2370 | 2500 | 3000 | 102           |      |
|                          |          | TC=4000K     | 2520 | 2650 | 3180 | 108           |      |
|                          |          | TC=5000K     | 2640 | 2770 | 3324 | 114           |      |
|                          |          | TC=5700K     | 2730 | 2860 | 3432 | 118           |      |
|                          |          | TC=6000±300K | 2730 | 2860 | 3432 | 118           |      |
|                          |          | TC=6500K     | 2730 | 2860 | 3432 | 118           |      |
| CRI 显色指数                 | Ra       | IF=700mA     | 80   | —    | —    | —             | —    |
| Thermal Resistance<br>热阻 | R (j-c)  | IF=700mA     | —    | 1.2  | —    | —             | °C/W |

## 6.Product bins

### Chromaticity bins



|           |                  |                 |                  |                  |                 |                  |
|-----------|------------------|-----------------|------------------|------------------|-----------------|------------------|
| Center TC | 2725K            | 3045K           | 3985K            | 5028K            | 5665K           | 6530K            |
| X, Y      | 0. 4578, 0. 4101 | 0. 4338, 0. 403 | 0. 3818, 0. 3797 | 0. 3447, 0. 3553 | 0. 329, 0. 3417 | 0. 3123, 0. 3282 |

Notes for Table

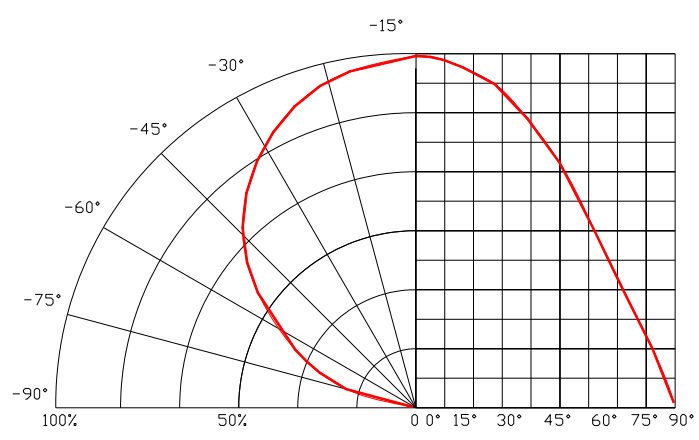
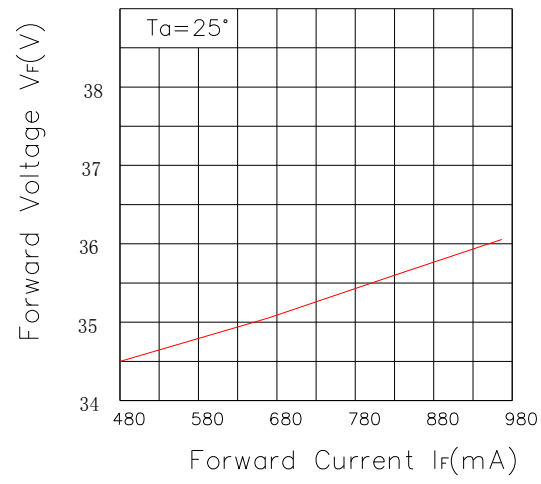
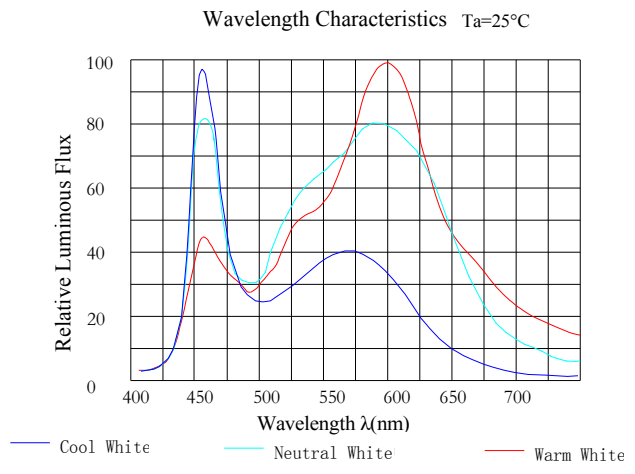
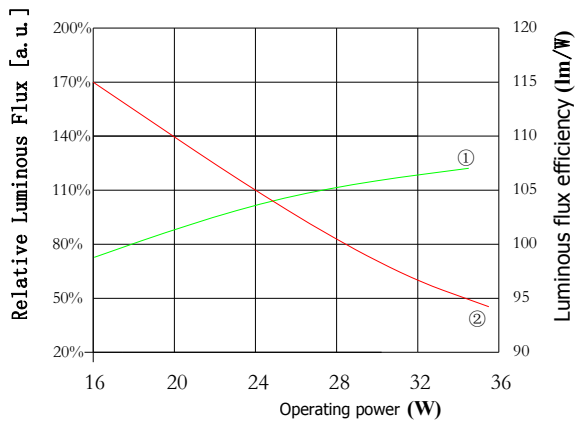
\*1.Color bins are defined at IF=700mA operation. If use different forward current, it may cause the change of chromaticity and forward voltage.

\*2.The instrument errors of different light source test standards : VF+/-3% ,  $\Phi_v$ +/-10% and Ra+/-2.

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

4.Color region stay within MacAdam "4-step" ellipse from the chromaticity center. but does not contain the color temperature 6000±300K. The chromaticity center refers to ANSI C78.377-2008.

# 7.Characteristics



## 8.Packing Specifications

|             |         |            |
|-------------|---------|------------|
| <b>RoHS</b> |         |            |
| TYPE:       |         | QTY:       |
| VF:         | IF:     | $\phi V$ : |
| TC:         | X/Y:    |            |
| SDCM<       | Ra:     |            |
| DATE:       | LOT.NO: |            |

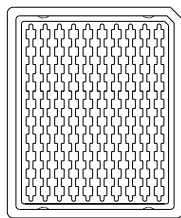
Label on ESD shielding

$\Phi V$ : Luminous Flux rank

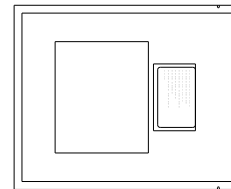
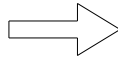
VF: Forward voltage rank

TC: Color temperature

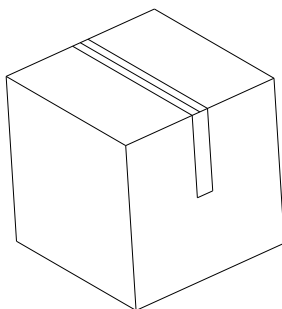
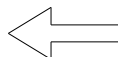
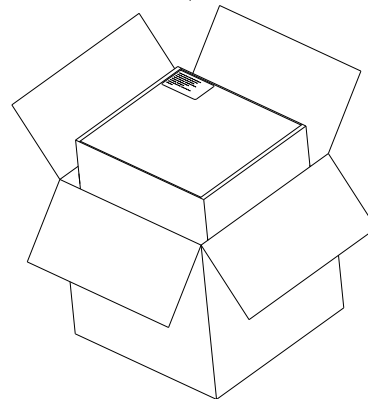
### ■ Packing figure



Tray: 45pcs



1Tray/ESD Shieding Bag: 270pcs



4Inner Box/Outer Box:2160pcs

2ESD Shieding Bag/Inner Box: 540pcs

## Precaution for use

### 1. Storage

To avoid moisture, we recommend storage conditions for the unopened LED  $+5 \sim +30^{\circ}\text{C}$ , relative humidity  $<60\%$ . LED should be used within 168 Hrs. of opening the package. Please make sure to dehumidify and vacuum pack the remaining/ unused LED. Dehumidifying condition:  $+120^{\circ}\text{C} \pm 5^{\circ}\text{C}$ , 04 Hrs. Effective age for the sealed led is one year.

### 2. The soldering precautions

Soldering conditions: Reflow soldering is not recommended for this LED. If hand soldering, set soldering iron temperature at  $350^{\circ}\text{C}$  and soldering time not More than 5 seconds, after the first soldering, make sure the substrate surface temperature returns to ambient temperature before a second soldering. Please make sure when soldering, there is no external force on the soldering surface (such as pressure, friction or sharp metal nails, etc.), to avoid gold wire deformation or damage and other abnormalities. If beyond recommended conditions, we cannot guarantee the LED stability, please do the risk assessment first.

### 3. Anti-Static Measures

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  $> 1000\text{V}$ , after assembly the final lamp, please make sure to discharge Static Electricity by proper ESD equipment.

#### 4. Temperature Control

Recommended temperature conditions for enhanced product life: TS (Cathode Point) is  $<85^{\circ}\text{C}$  and glue surface temperature  $<160^{\circ}\text{C}$ . 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. This product Heating conditions, tested at 500V with medium surface contact.

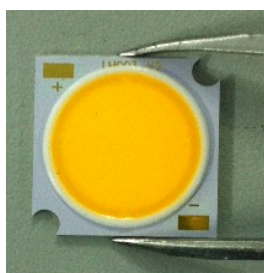
#### 5. The drive control

Drive this product at constant current. Output current range specifications should be according to the operational and other conditions, as mentioned in data sheet. Before using a constant voltage source or altered specifications other than recommended, please consider risk factors.

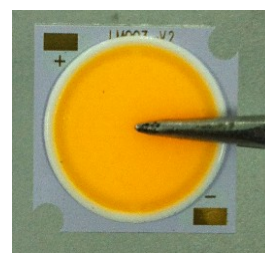
#### 6. Other

Product is not suitable to use in following conditions

- Direct or indirect wet / damp conditions, such as rain, etc.;
- In contact with sea water and erosive materials
- Exposed to corrosive gases (e.g.,  $\text{Cl}_2$ ,  $\text{H}_2\text{S}$ ,  $\text{NH}_3$ ,  $\text{SO}_x$ ,  $\text{NO}_x$ , etc.);
- Exposed to dust, liquids or oils;



**OK**



**NG**