# SPECIFICATION FOR ZHONGZHOU LED LAMP

**Model No :** **ZL-503YCA2**
**Spec No :** ZZ-GY-S0002B

## **Descriptions**:

- 5mm Round Type
- Emitting Color: Yellow
- Viewing Angle: 30°
- Lens: Water Clear
- No Stopper


| CUSTOMER APPOVED SIGNATURES | SALES APPROVED | APPROVED BY | CHECKED BY | PREPARED BY |
|---|---|---|---|---|
| | **Dingmudan** | **Landy** | **Yehuming** | **Jinqiaoyun** |

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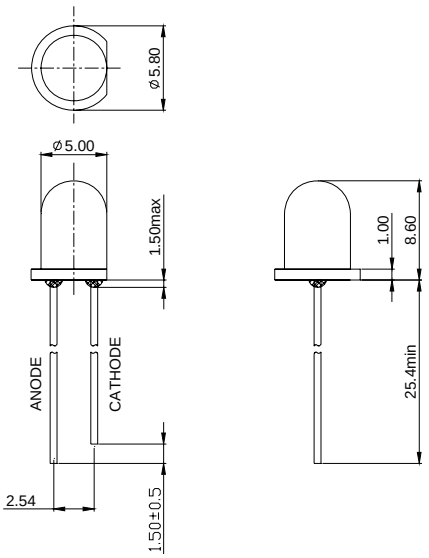
## ■ Dimension Drawing




Note:
1.All dimensions in mm tolerance is ±0.2mm unless otherwise noted.
2.An epoxy meniscus may extend about 1.5mm down the leads.
3.Burr around bottom of epoxy may be 0.5mm max.

## ■ Applications:

- Toys
- Lighting
- Traffic light
- Automotive
- Commercial Outdoor Advertising
- Front Panel Indicator

## ■ Absolute Maximum Ratings(Ta = 25℃)

| Items | Symbol | Absolute maximum Rating | Unit |
|---|---|---|---|
| Forward Current( DC ) | $I_F$ | 50 | mA |
| Peak Forward Current* | $I_{FP}$ | 100 | mA |
| Reverse Voltage | $V_R$ | 5 | V |
| Power Dissipation | $P_D$ | 150 | mW |
| Operation Temperature | $T_{opr}$ | -20 ~ +95 | ℃ |
| Storage Temperature | $T_{stg}$ | -40 ~ +100 | ℃ |
| Lead Soldering Temperature | $T_{sol}$ | Max.260°C for 5 sec Max. (3mm from the base of the epoxy bulb) | |

*pulse width ≦0.1msec duty ≦1/10

## ■ Typical Electrical & Optical Characteristics ( Ta = 25℃)

| Items | Symbol | Condition | Min. | Typ. | Max. | Unit |
|---|---|---|---|---|---|---|
| Forward Voltage | $V_F$ | $I_F$ = 20mA | 1.8 | --- | 2.4 | V |
| Reverse Current | $I_R$ | $V_R$ = 5V | --- | --- | 10 | μA |
| Dominant Wavelength | $\lambda_D$ | $I_F$ = 20mA | 586 | --- | 596 | nm |
| Luminous Intensity | $I_V$ | $I_F$ = 20mA | 1700 | --- | 3500 | mcd |
| 50% Power Angle | $2\theta½$ | $I_F$ = 20mA | --- | 30 | --- | deg |

## ■ Ranks Combination (IF = 20mA)

| Rank | 0C | 0D | 0E | 0F | 0G |
|---|---|---|---|---|---|
| Dominant Wavelength (nm) | 586-588 | 588-590 | 590-592 | 592-594 | 594-596 |
| Rank | 0Q | 1R | 2R | 0S | --- |
| Luminous Intensity (mcd) | 1700-2000 | 2000-2500 | 2500-3000 | 3000-3500 | --- |

| Rank | 0G | 0H | 0J | 0K | 0L | 0M |
|---|---|---|---|---|---|---|
| Forward Voltage(V) | 1.8-1.9 | 1.9-2.0 | 2.0-2.1 | 2.1-2.2 | 2.2-2.3 | 2.3-2.4 |

**Important Notes:**

1) All ranks will be included per delivery.
2) Tolerance of measurement of luminous intensity is ±15%.
3) Tolerance of measurement of dominant wavelength is ±1nm.
4) Tolerance of measurement of forward voltage is ±0.05 V.
5）Pb content＜1000PPM.

## ■ Typical Electrical/ Optical Characteristics Curves

(Ta=25°C Unless Otherwise Noted)

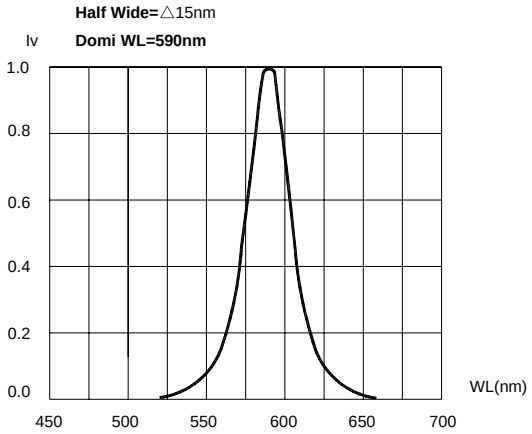



**Fig.1 Relative Luminous Intensity vs. Wavelength**

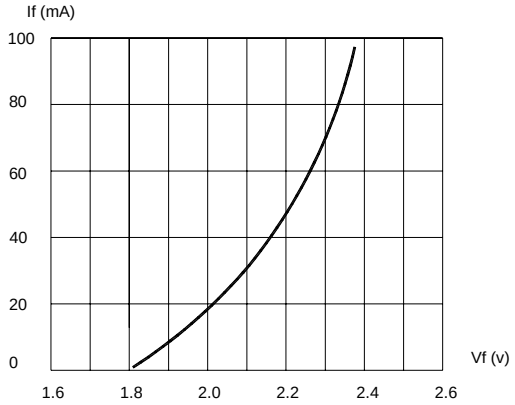



**Fig.2 Forward Current vs. Forward Voltage**

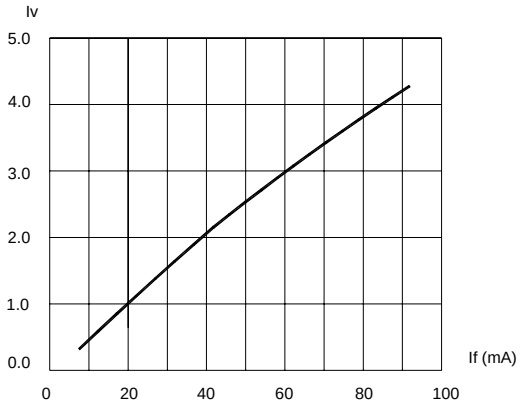



**Fig.3 Relative Luminous Intensity vs. Forward Current**

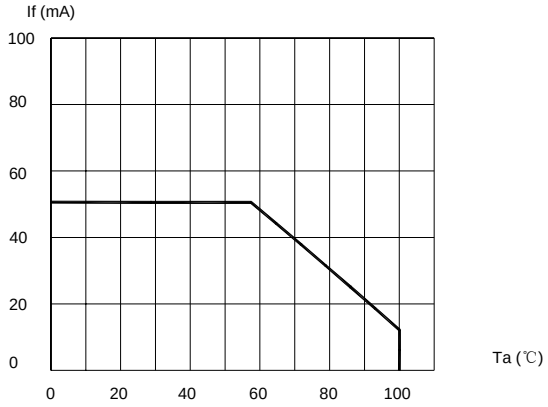



**Fig.4 Maximum Forward Current vs.Ambient Temperature**

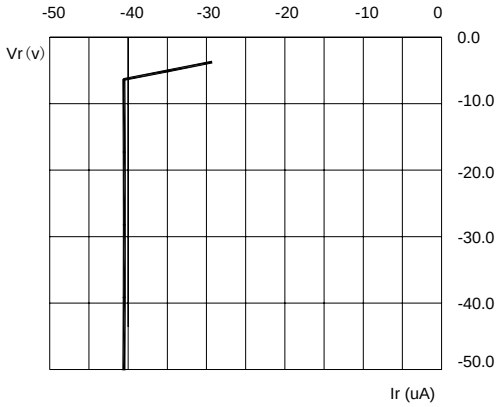



**Fig.5 Reverse Current vs.Reverse Voltage**

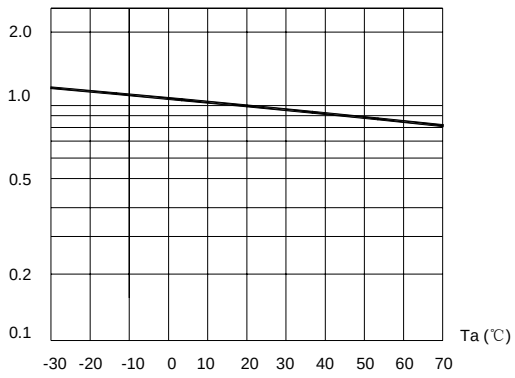
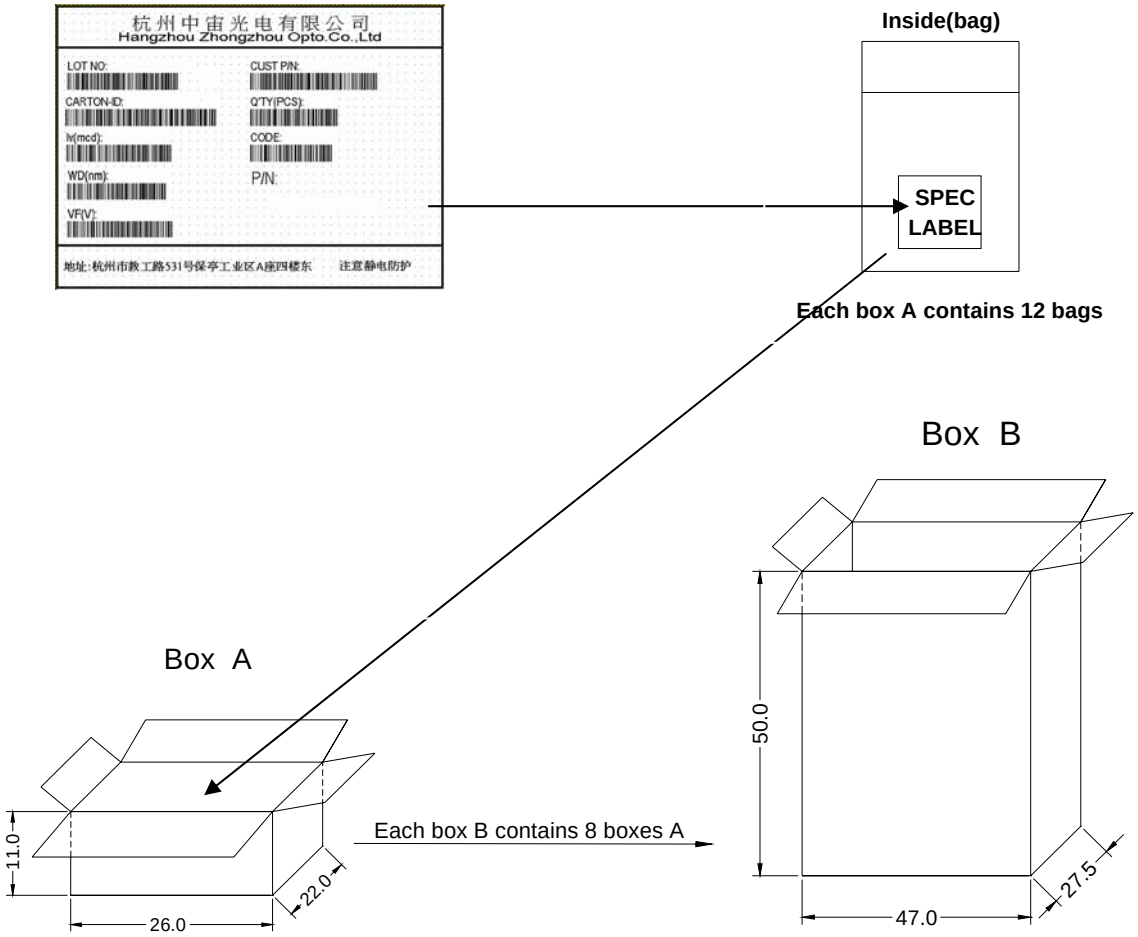



**Fig.6 Relative Luminous Intensity vs.Ambient Temperature**

## ■ Package Specification:




**NOTE:**

1) The LED shall be used under allowed conditions. ZhongzhouOpto. can not take any responsibility for any troubles that are caused by using the LEDs at conditions exceeding our specifications.

2) The LED must be used as soon as tore open, otherwise the plank will be oxygenated.

3)The Blue、Green、White products shall be care of the static electricity.

4)3.0mm From Body For 5 Seconds below 260℃.

Please avoid the soldered LEDs from clashing or librating before the lens' temperature cool down.

5) The circuit shall be designed according to certain current or relative operating voltage.

6) These LEDs are designed and manufactured for standard applications such as electric home appliances, communication equipment, office equipment, electronic instrumentation and so on. It is recommended to consult with ZhongzhouOpto. in advance if user's application requires any particular quality or reliability that concerns human life. Examples would be medical equipment, aerospace applications, traffic signals, safety system equipment and so on.

7) We reserve the right to make technical changes without prior notice.

8) All the content interpretation reserved to zhongzhouOpto.