

# TX-H1512SW11A-2860V36-02H90

## PRODUCT SPECIFICATION

### Features:

- ◆ Excellent transiting heat from LED chip operating under 600mA.
- ◆ Provide uniform cross distribution of positive white and warm white dual color scheme, mixed pure.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

### Chip Material:

- ◆ GaInN

### Emitting Color:

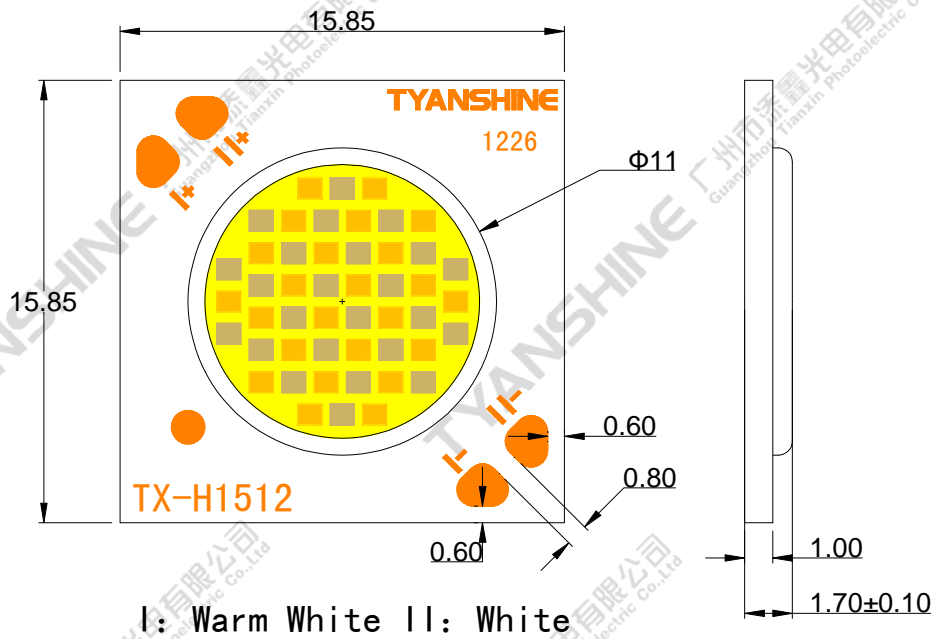
- ◆ White
- ◆ Warm white

### Applications:

- ◆ Commercial lighting
- ◆ General Lighting

|          |                             |          |            |      |         |
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**Package Dimensions:**



**Notes:**

- 1. All dimensions are in millimeters .
- 2. Tolerances unless otherwise mentioned are  $\pm 0.25\text{mm}$  .

**Code Formats:**

TX-H1512SW11A-2860V36-02H90

|           |   |              |        |             |             |     |         |   |      |       |   |     |     |
|-----------|---|--------------|--------|-------------|-------------|-----|---------|---|------|-------|---|-----|-----|
| TX        | — | H            | 15     | 12          | SW          | 11  | A       | — | 2860 | V36   | — | 02  | H90 |
| TYANSHINE | — | high density | series | watt<br>typ | performance | LES | texture | — | CCT  | VOLTs | — | BOM | Ra  |

|          |                             |          |            |      |         |
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**Absolute Maximum Ratings**

| Parameter                               | Symbol           | Ratings                            | Unit |    |
|---|------------------|------------------------------------|------|----|
| Forward Current                         | IF               | 600                                | mA   |    |
| Reverse Voltage                         | V <sub>R</sub>   | Not designed for reverse operation | V    |    |
| Power Dissipation                       | P <sub>D</sub>   | W                                  | 20   | W  |
|   |                  | S                                  | 20   |    |
| Junction Temperature                    | T <sub>j</sub>   | W                                  | 135  | °C |
|   |                  | S                                  | 135  |    |
| Case Temperature (C)                    | T <sub>c</sub>   | 85                                 | °C   |    |
| Electrostatic Discharge Threshold (ESD) | ESD              | 2000                               | V    |    |
| Storage Temperature                     | T <sub>stg</sub> | -30~+100                           | °C   |    |
| Operation Temperature                   | T <sub>opr</sub> | -30~+80                            |      |    |

**Notes:**

- Specifications are subject to change without notice.
- The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.
- Precautions for ESD:  
STATIC SHIELD Electricity and surge damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

**Electrical Optical Characteristics (Tc=25°C)**

| Parameter                           | Symbol          | Condition | Emitting color | Min.  | Typ. | Max.  | Units   |
|-------------------------------------|-----------------|-----------|----------------|-------|------|-------|---------|
| Luminous Flux                       | $\phi_v$        | If=350mA  | S              | —     | 1250 | —     | lm      |
|                                     |                 |           | W              | —     | 1400 | —     |         |
| Forward Voltage                     | $V_f$           |           | S              | 32    | 34   | 36    | V       |
|                                     |                 |           | W              | 32    | 34   | 36    |         |
| Correlated Colour Temperature       | CCT             |           | S              | —     | 2800 | —     | K       |
|                                     |                 |           | W              | —     | 6000 | —     |         |
| Viewing Angle at 50 % IV            | $2\theta_{1/2}$ |           | S              | —     | 115  | —     | Deg     |
|                                     |                 |           | W              | —     | 115  | —     |         |
| Reverse Current                     | $I_R$           |           | —              | —     | —    | —     | $\mu A$ |
| Thermal Resistance Junction to Case | $R\theta_{J-C}$ |           | S              | —     | 0.71 | —     | K/W     |
|                                     |                 | W         | —              | 0.71  | —    |       |         |
| Temperature Coefficient of Voltage  | $V\Delta F/T$   | S         | —              | -12.3 | —    | mV/°C |         |
|                                     |                 | W         | —              | -12.3 | —    |       |         |
| Color Rendering Index               | Ra              | S         | —              | 90    | —    | —     |         |
|                                     |                 | W         | —              | 90    | —    |       |         |

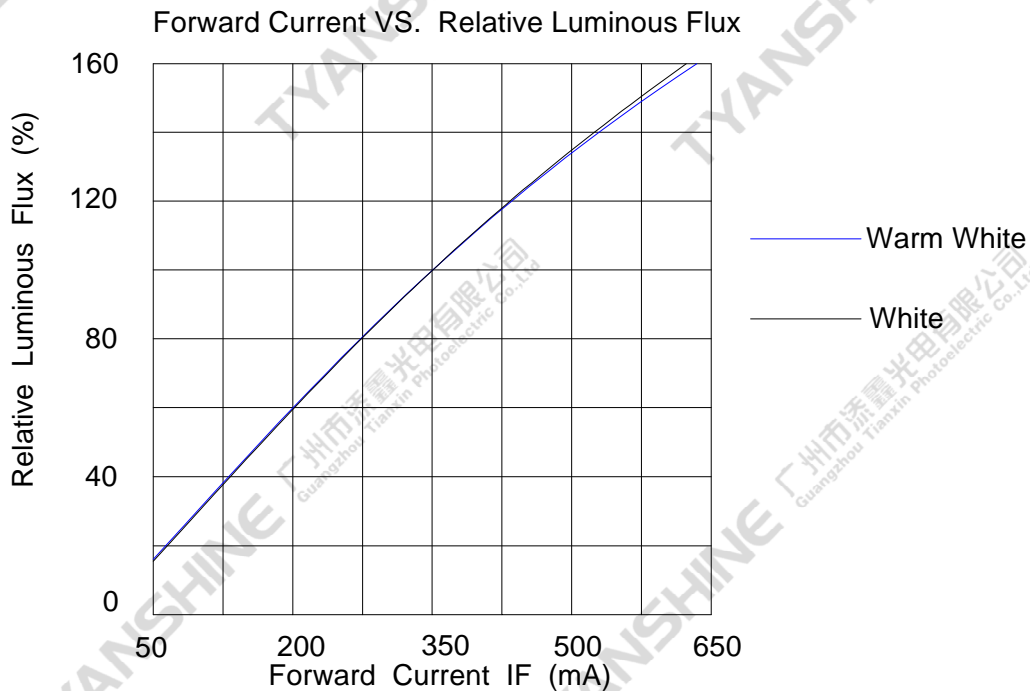
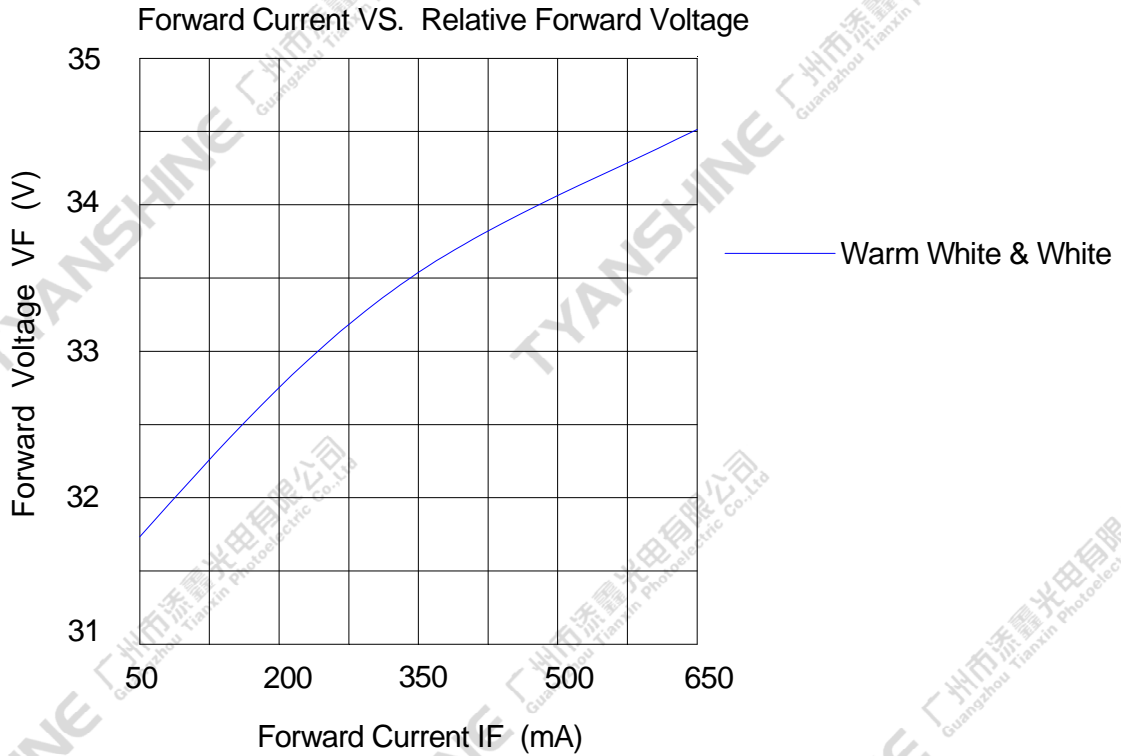
**Notes:**

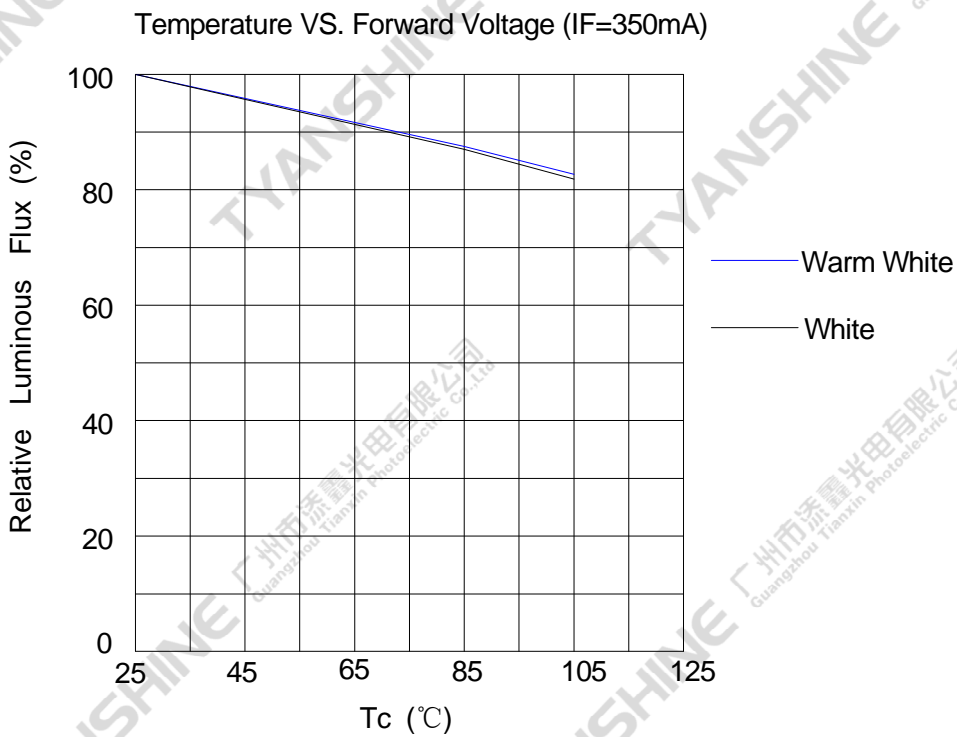
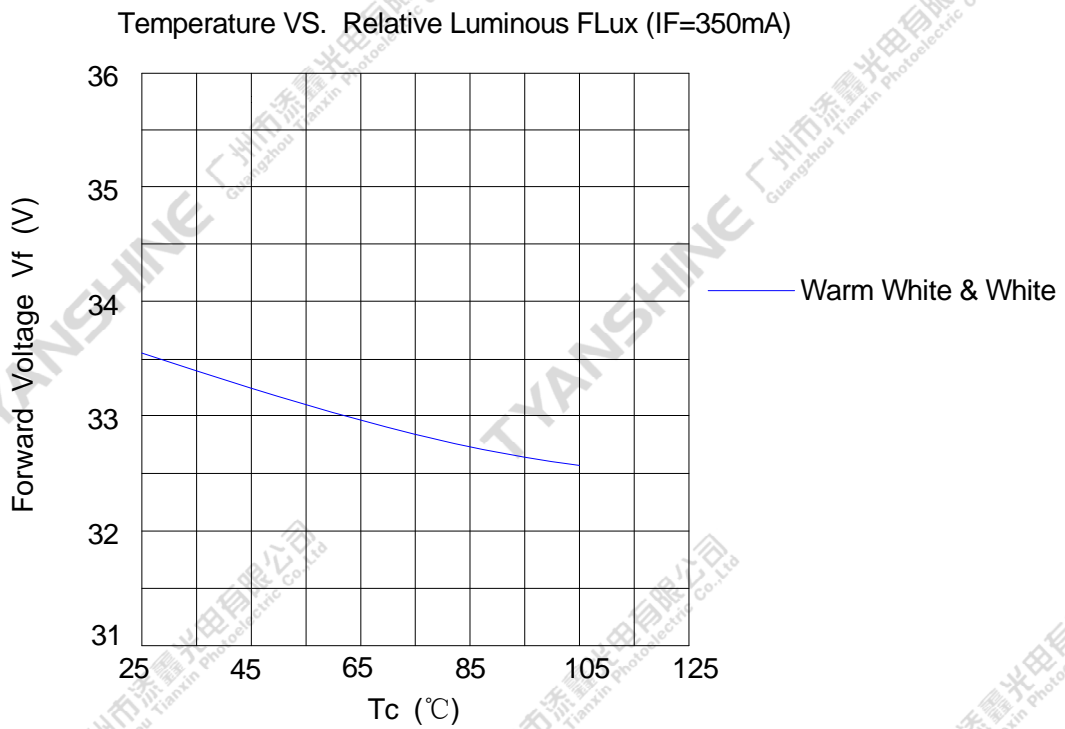
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.Luminous flux measurement tolerance:±15%.
- 4.Forward voltage measurement tolerance:±0.15V.

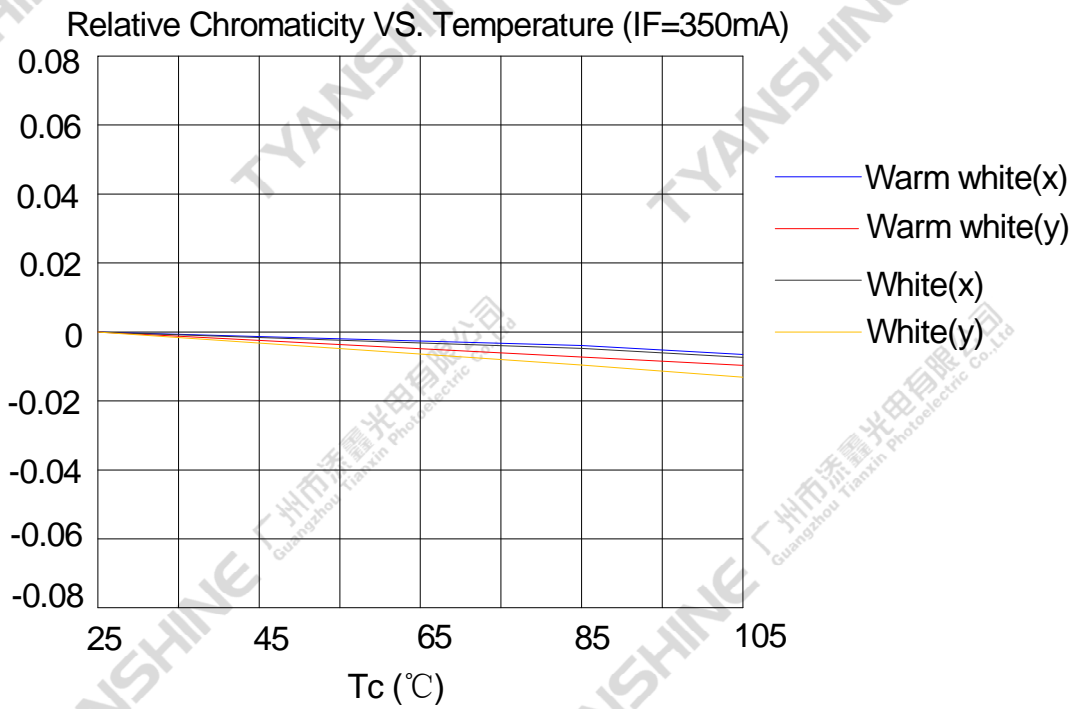
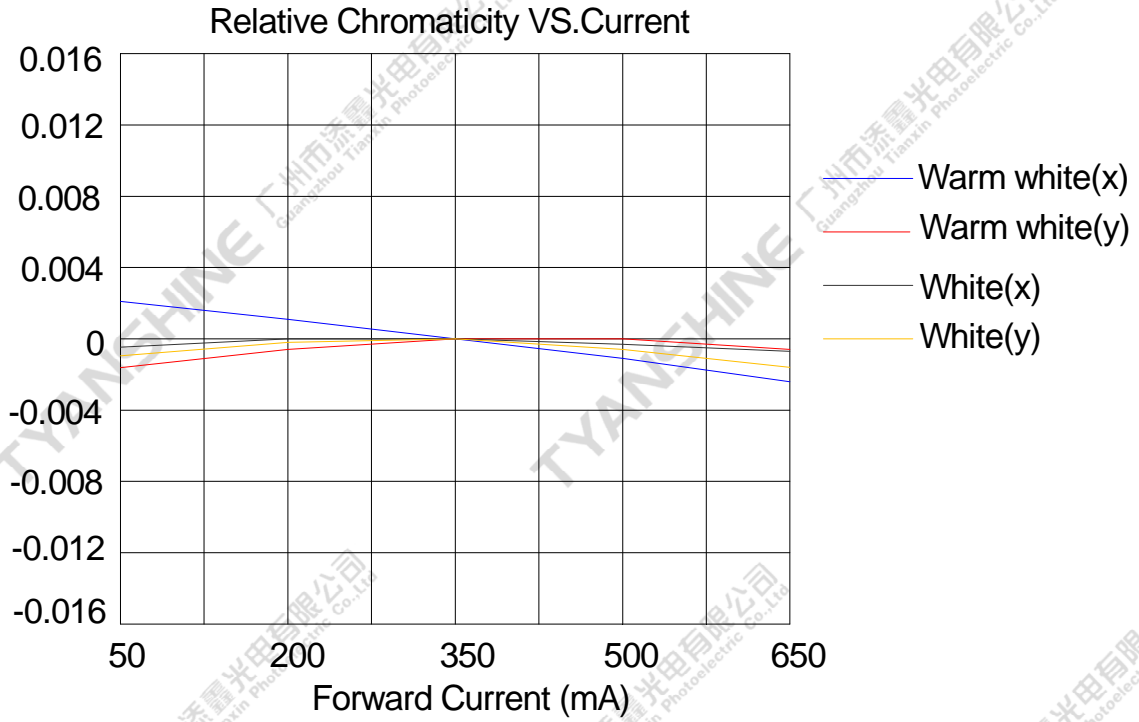
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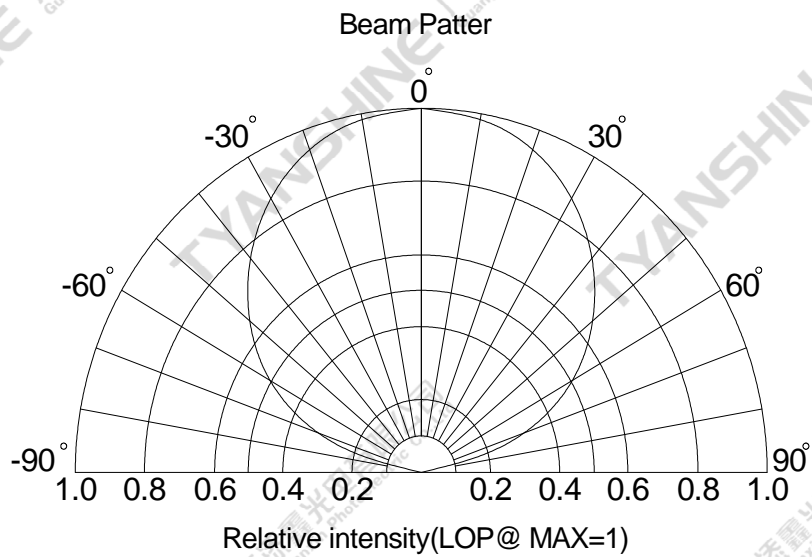
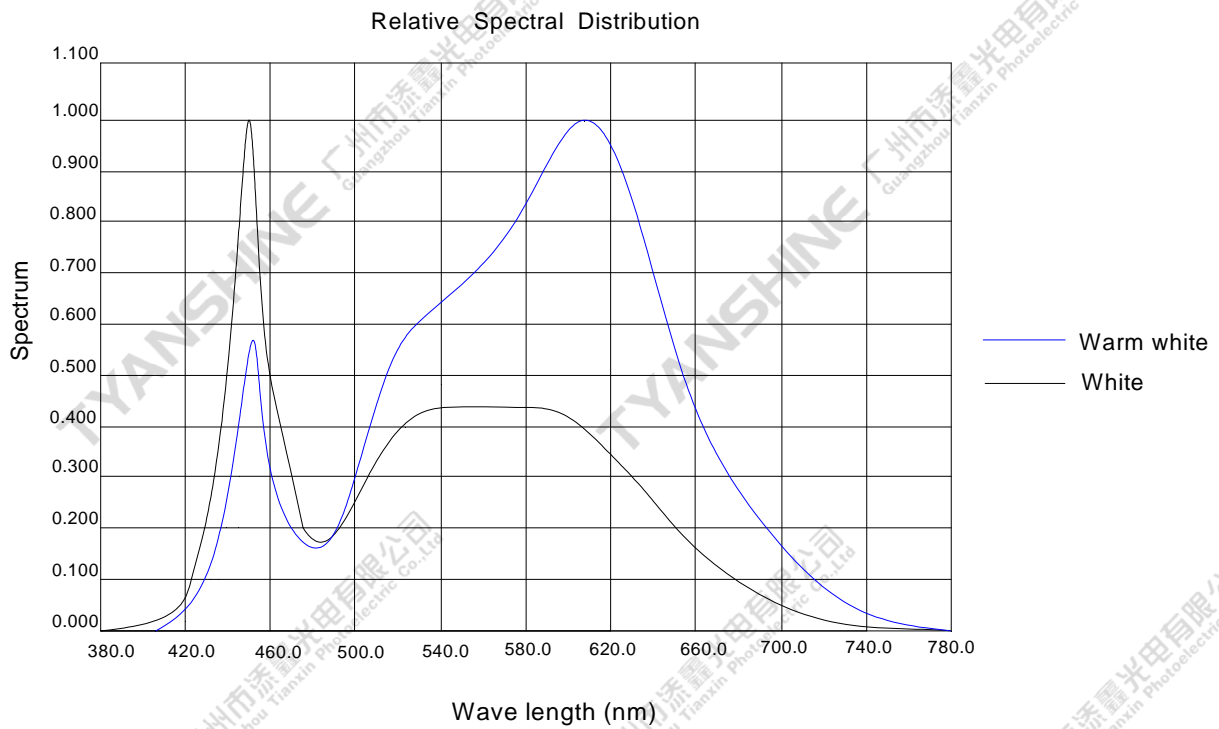
## Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)







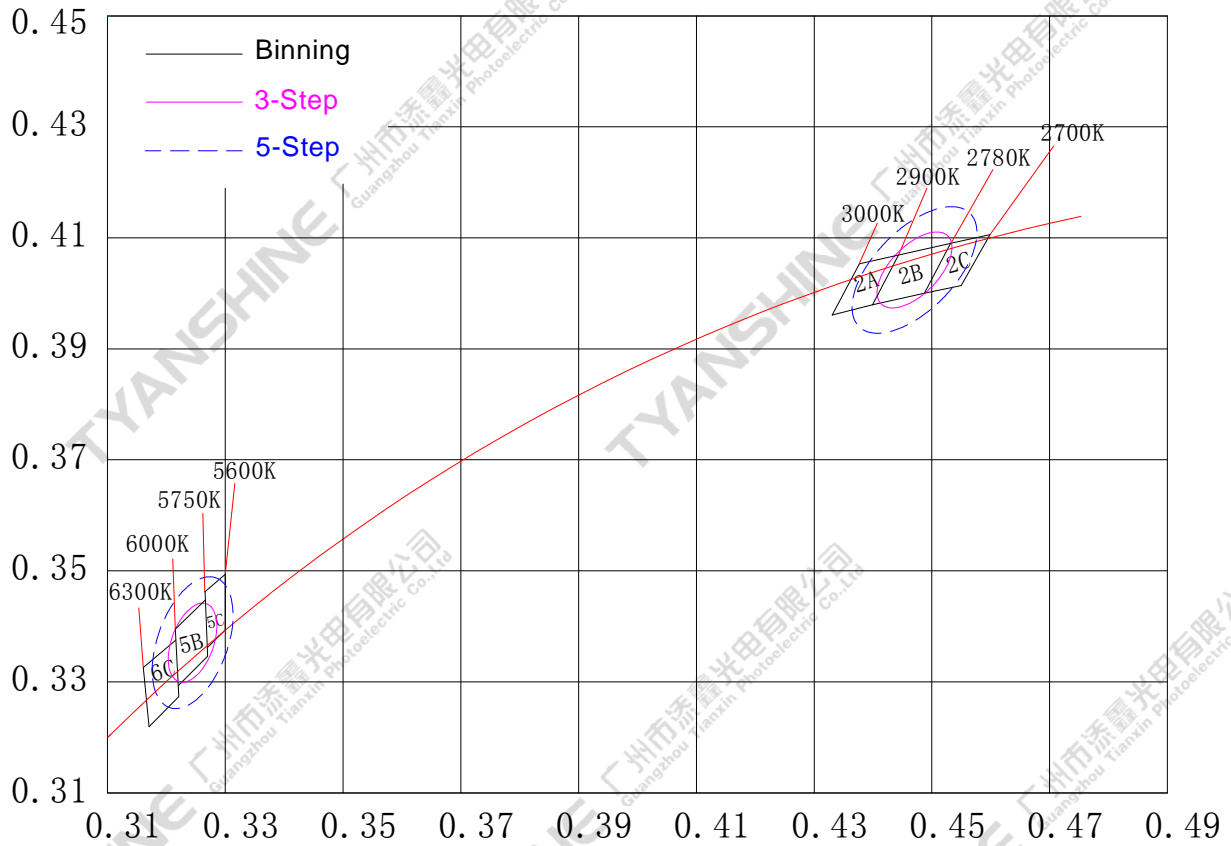


**Notes:**

1.  $2\theta_{1/2}$  is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is  $\pm 5^\circ$ .



**Chromaticity Coordinates ( Condition : IF=350mA , Tc=25°C )**

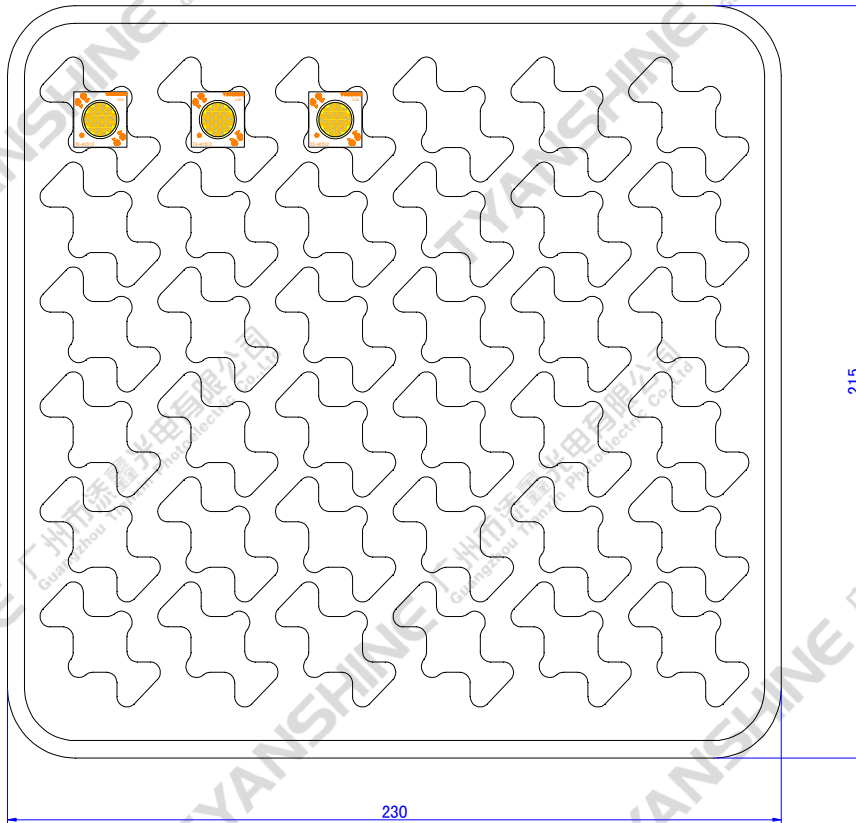


**Reliability Test**

| Test Item                     | Test Condition                                       |
|-------------------------------|--|
| Continuous Operation Test     | IF=350mA Ta=25°C ×1000hrs                            |
| Low Temperature Storage Test  | -30°C × 1000 hours                                   |
| High Temperature Storage Test | 100 °C × 1000 hours                                  |
| Moisture-proof Test           | 85 °C, 85 %RH for 500 hours                          |
| Thermal Shock Test            | -30 °C × 30 minutes – 100 °C × 30 minutes, 100 cycle |

**Dimensions For Cannulation And Packaging**

**Quantity: 36PCS**



**Notes:**

1. All dimensions are in millimeters.
2. Tolerances are  $\pm 2.0$  mm unless otherwise noted.
3. The products are packaged together with silica gel, Transport, not to the weight of welding LED light-emitting area, As a result of the weight of LED light-emitting zone in the quality of, Irresponsible of the Company.

|          |                             |          |            |      |          |
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