

# TX-1919RGBWS70A16V12-30H90

## PRODUCT SPECIFICATION

### Features:

- ◆Excellent transiting heat from LED chip operating under R:400mA, G/B:450mA, W/S: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:

- ◆Red:AlGaInP
- ◆Green:GaInN
- ◆Blue:GaN
- ◆Warm White:GaN
- ◆White:GaN

### Emitting Color:

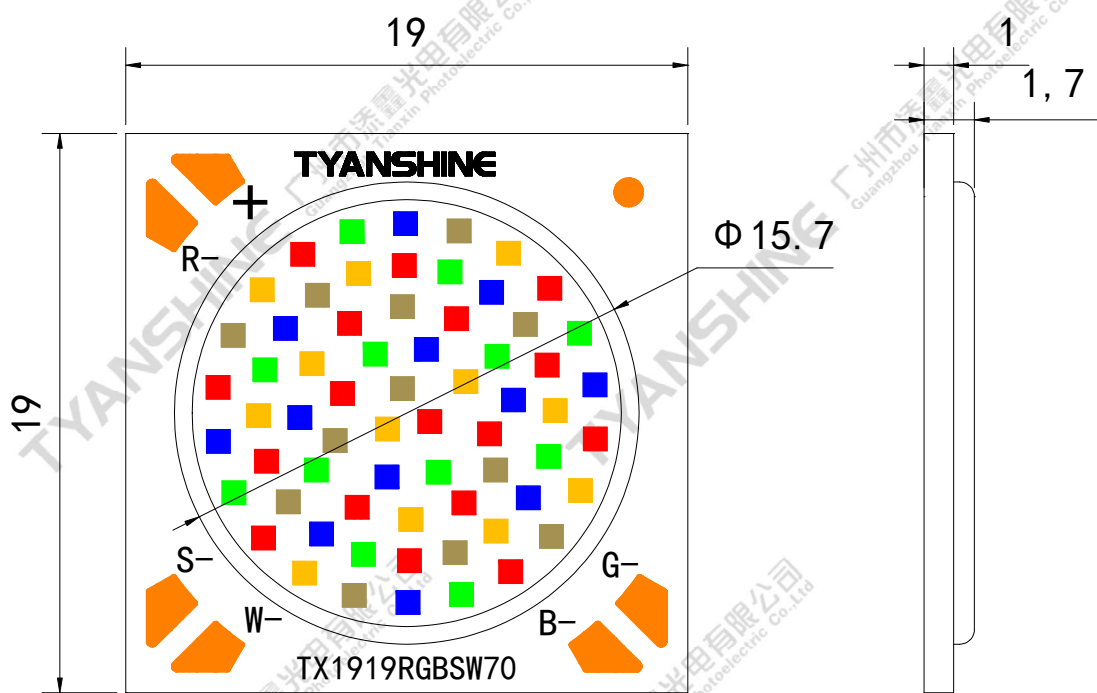
- ◆Red
- ◆Green
- ◆Blue
- ◆Warm White
- ◆ White

### Applications:

- ◆Indoor lighting
- ◆Outdoor lighting
- ◆Industrial lighting
- ◆General Lighting
- ◆Commercial lighting

|          |                            |          |            |      |        |
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Package Dimensions:



R-Red; G-Green; W-White; S-Warm white; B-Blue

Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are ±0.25mm .

## Absolute Maximum Ratings

| Parameter                               | Symbol    |           | MAX.                                 | Unit               |
|-----------------------------------------|-----------|-----------|--------------------------------------|--------------------|
| LED Junction Temperature                | $T_j$     |           | $R \leq 115$ ;<br>$G/B/W/S \leq 150$ | $^{\circ}\text{C}$ |
| Power Dissipation                       | $P_D$     | R         | 15                                   | W                  |
|                                         |           | G         | 16                                   |                    |
|                                         |           | B         | 17                                   |                    |
|                                         |           | W         | 23                                   |                    |
|                                         |           | S         | 23                                   |                    |
|                                         |           | R+B+G+W+S | 70                                   |                    |
| Continuous Forward Current              | $I_F$     | R         | 400                                  | mA                 |
|                                         |           | G         | 450                                  |                    |
|                                         |           | B         | 450                                  |                    |
|                                         |           | W         | 600                                  |                    |
|                                         |           | S         | 600                                  |                    |
| Reverse Voltage                         | $V_R$     |           | —                                    | V                  |
| Case Temperature (C)                    | $T_c$     |           | 85                                   | $^{\circ}\text{C}$ |
| Electrostatic Discharge Threshold (ESD) | ESD       |           | 2000                                 | V                  |
| Operating Temperature Range             | $T_{opr}$ |           | -30 to +85                           | $^{\circ}\text{C}$ |
| Storage Temperature Range               | $T_{spr}$ |           | -30 to +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.

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**Electrical Optical Characteristics**(T<sub>c</sub>=25°C,R/G/B/W/S:IF=350mA)

| Parameter                           | Symbol           | Emitting Color | Values |      |      | Units |
|-------------------------------------|------------------|----------------|--------|------|------|-------|
|                                     |                  |                | Min.   | Typ. | Max. |       |
| Luminous Flux                       | $\Phi_v$         | R              | 790    | 890  | 1000 | lm    |
|                                     |                  | G              | 830    | 930  | 1050 |       |
|                                     |                  | B              | 190    | 210  | 240  |       |
|                                     |                  | W              | 870    | 970  | 1100 |       |
|                                     |                  | S              | 660    | 740  | 840  |       |
| Viewing Angle at 50 % IV            | $2\theta_{1/2}$  | R              | —      | 115  | —    | Deg   |
|                                     |                  | G              | —      | 115  | —    |       |
|                                     |                  | B              | —      | 115  | —    |       |
|                                     |                  | W              | —      | 115  | —    |       |
|                                     |                  | S              | —      | 115  | —    |       |
| Peak Emission Wavelength            | $\lambda_p$      | R              | 625    | 630  | 635  | nm    |
|                                     |                  | G              | 515    | 518  | 525  |       |
|                                     |                  | B              | 445    | 449  | 455  |       |
| Dominant Wavelength                 | $\lambda_d$      | R              | 619    | 622  | 625  | nm    |
|                                     |                  | G              | 520    | 525  | 530  |       |
|                                     |                  | B              | 450    | 454  | 460  |       |
| Spectral Line Half-Width            | $\Delta\lambda$  | R              | 12     | 17   | 22   | nm    |
|                                     |                  | G              | 27     | 32   | 37   |       |
|                                     |                  | B              | 15     | 20   | 25   |       |
| Forward Voltage                     | $V_f$            | R              | 33     | 36   | 39   | V     |
|                                     |                  | G              | 32     | 34   | 38   |       |
|                                     |                  | B              | 33     | 36   | 39   |       |
|                                     |                  | W              | 33     | 36   | 39   |       |
|                                     |                  | S              | 33     | 36   | 39   |       |
| Correlated Colour Temperature       | CCT              | W              | 6000   | —    | 6500 | K     |
|                                     |                  | S              | 2670   | —    | 2780 |       |
| Thermal Resistance Junction to Case | R $\theta_{J-C}$ | —              | —      | 1.17 | —    | K/W   |
| Color Rendering Index               | Ra               | W              | 90     | —    | —    | —     |
|                                     |                  | S              | 90     | —    | —    |       |

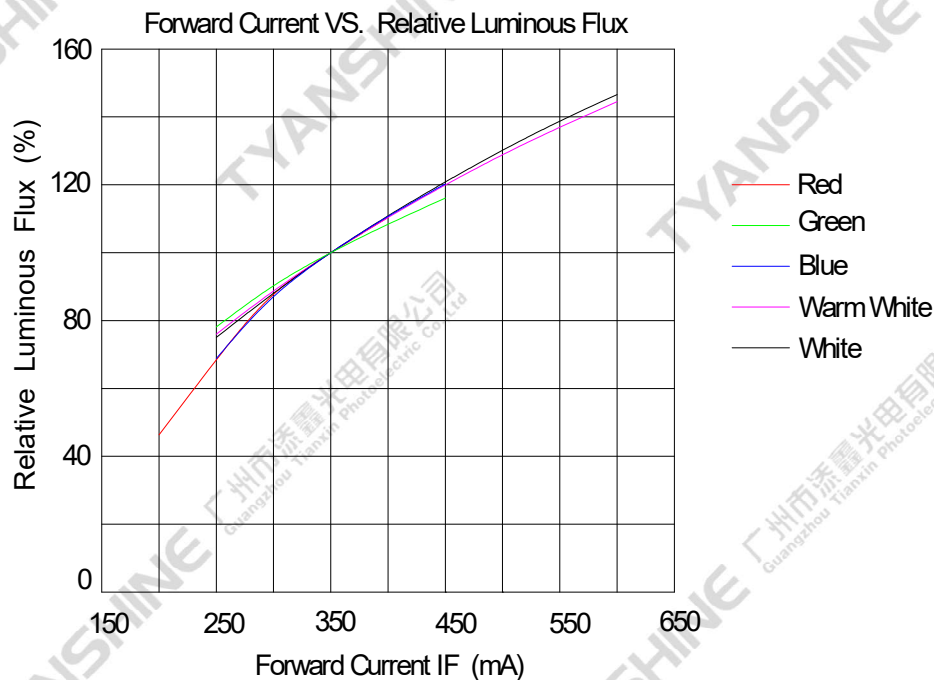
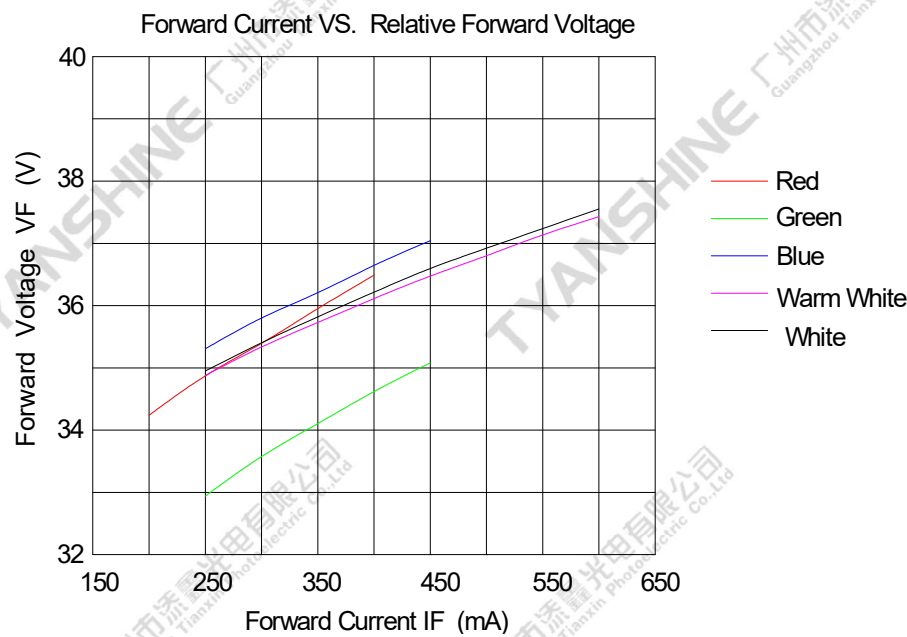
**Notes:**

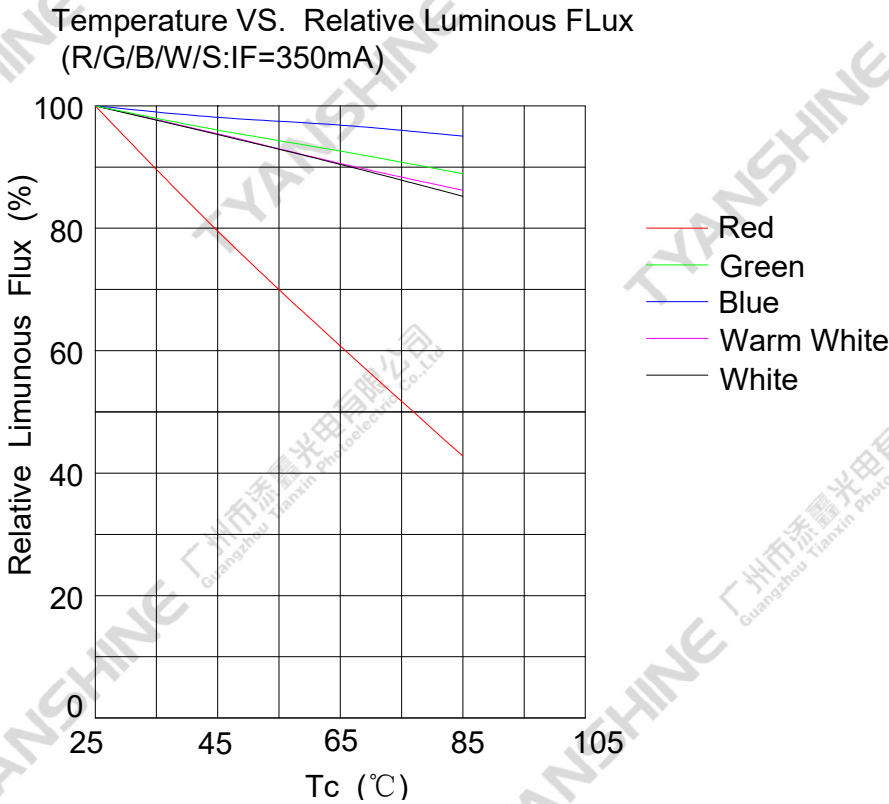
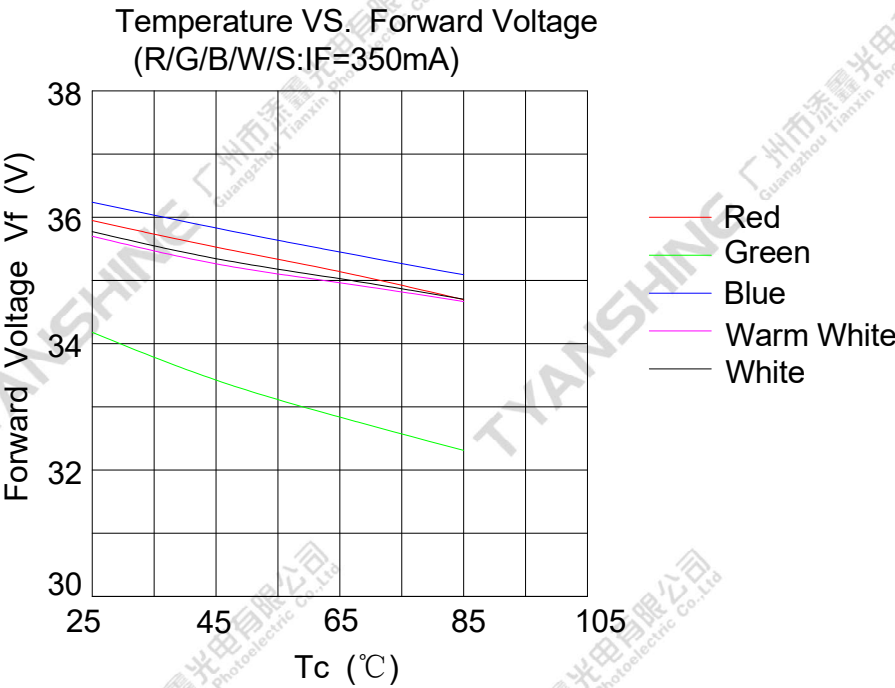
- 1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$  is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
- 3.The dominant wavelength ( $\lambda_d$ ) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- 4.Flux is measured with an accuracy of  $\pm 15\%$ .
- 5.Forward voltage is measured with an accuracy of  $\pm 3\%$ .

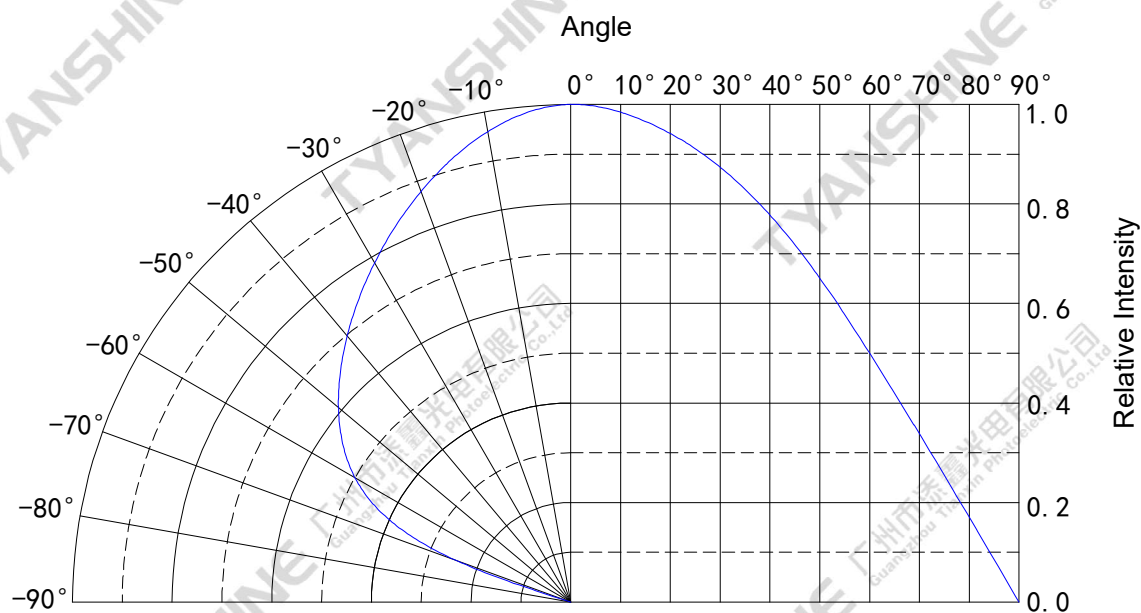
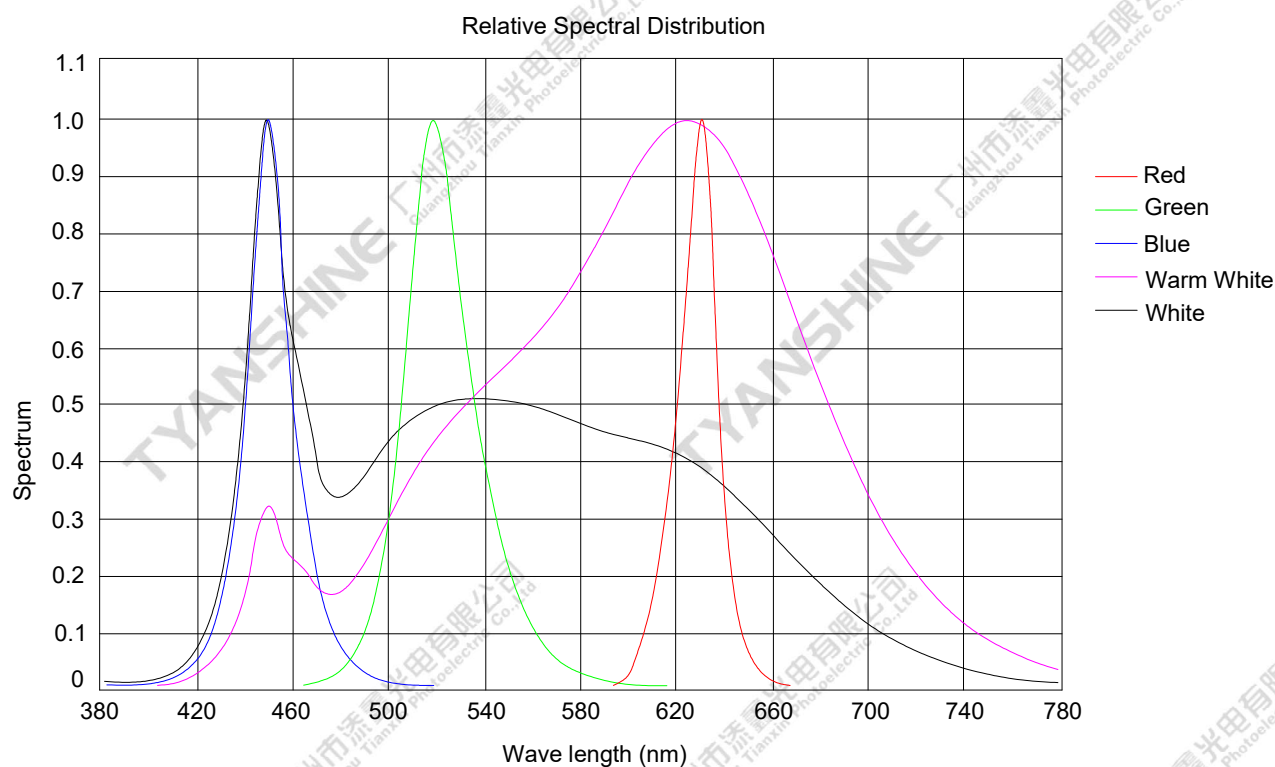
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Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)







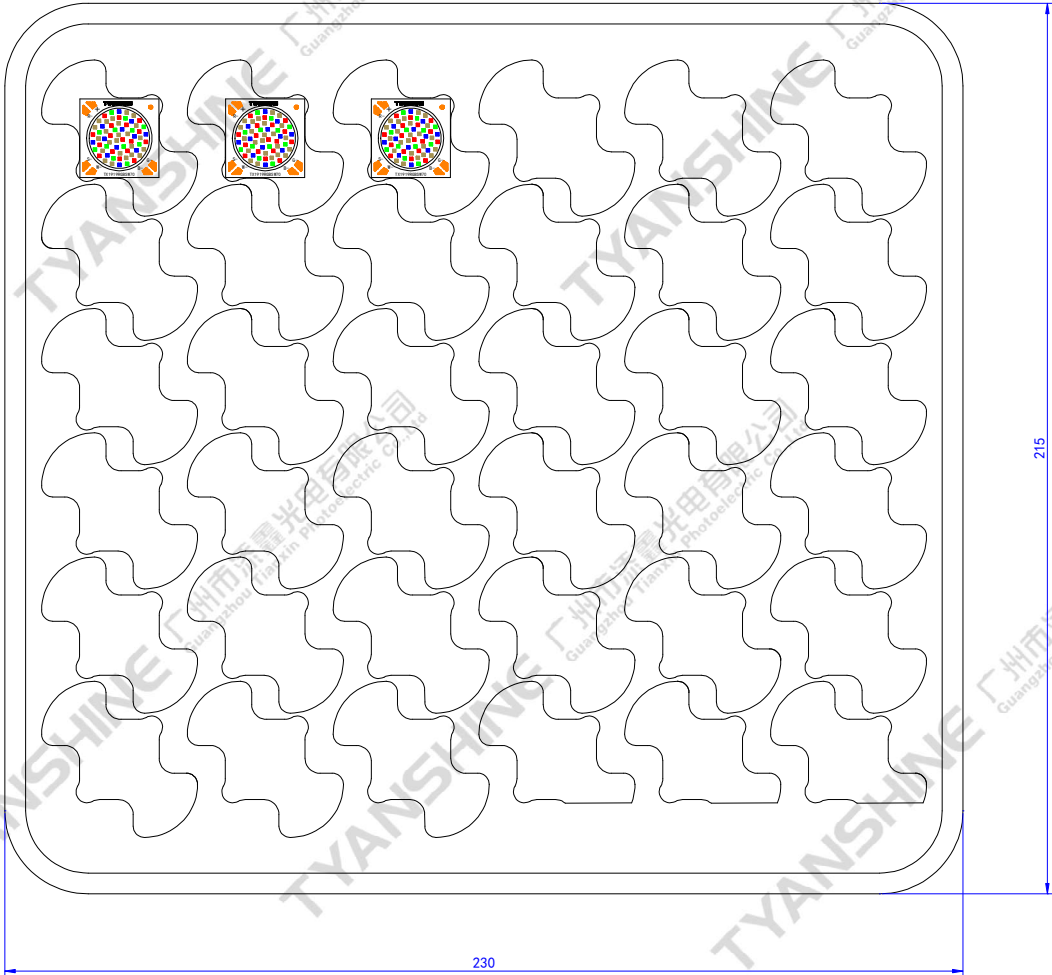
Notes:

- 20 1/2 is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
- View angle tolerance is  $\pm 5$ .

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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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