

# TX-4575RGBLAC400FC120-NUVENG-01

## PRODUCT SPECIFICATION

### Features:

- ◆Excellent transiting heat from LED chip operating under 1.3A.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

### Chip Material:

- ◆Red: AlInGaP
- ◆Green: GaInN
- ◆Blue: GaN
- ◆Lemon light: GaN
- ◆PC Amber:GaN
- ◆Cyan:GaN

### Emitting Color:

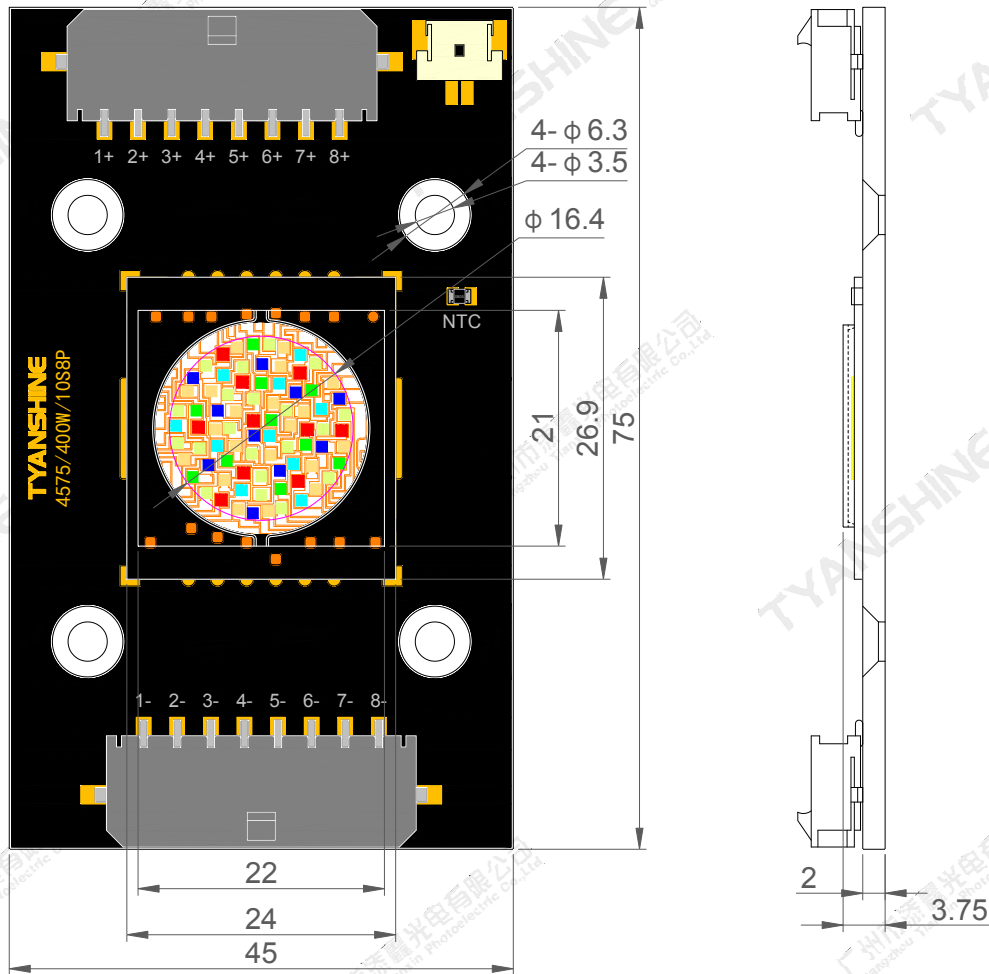
- ◆Red (R)
- ◆Green (G)
- ◆Blue (B)
- ◆Lemon light (L)
- ◆PC Amber (A)
- ◆Cyan (C)

### Applications:

- ◆Stage lighting
- ◆Landscape Lighting
- ◆Entertainment lighting

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**Package Dimensions:**



PC Amber : (1+)-(A1+) / (1-)-(A1-) ;  
 Lemon light : (3+)-(L1+) / (3-)-(L1-) ;  
 Lemon light : (5+)-(L2+) / (5-)-(L2-) ;  
 Green : (7+)-(G+) / (7-)-(G-);

Cyan : (2+)-(C+) / (2-)-(C-) ;  
 Blue : (4+)-(B+) / (4-)-(B-) ;  
 Red : (6+)-(R+) / (6-)-(R-) ;  
 PC Amber : (1+)-(A2+) / (1-)-(A2-) ;

**Notes:**

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are  $\pm 0.1$ mm .

**Absolute Maximum Ratings (Tc=25°C)**

Parameter	Symbol	Ratings	Unit	
Forward Current	IF	R	2.0	A
		G	2.5	
		B	2.5	
		L1	2.2	
		L2	2.2	
		A1	2.2	
		A2	2.2	
		C	2.2	
Reverse Voltage	VR	Not designed for reverse operation	V	
Power Dissipation	PD	R	53	W
		G	83	
		B	86	
		L1	73	
		L2	73	
		A1	73	
		A2	73	
		C	76	
Junction Temperature	Tj	R	115	°C
		G	150	
		B	150	
		L1	150	
		L2	150	
		A1	150	
		A2	150	
		C	150	
Electrostatic Discharge Threshold (ESD)	ESD	2000	V	
Storage Temperature	T <sub>stg</sub>	-20~+70	°C	
Operation Temperature	T <sub>opr</sub>	-30~+85		

**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 IF=1.3A ,Tc=25°C**

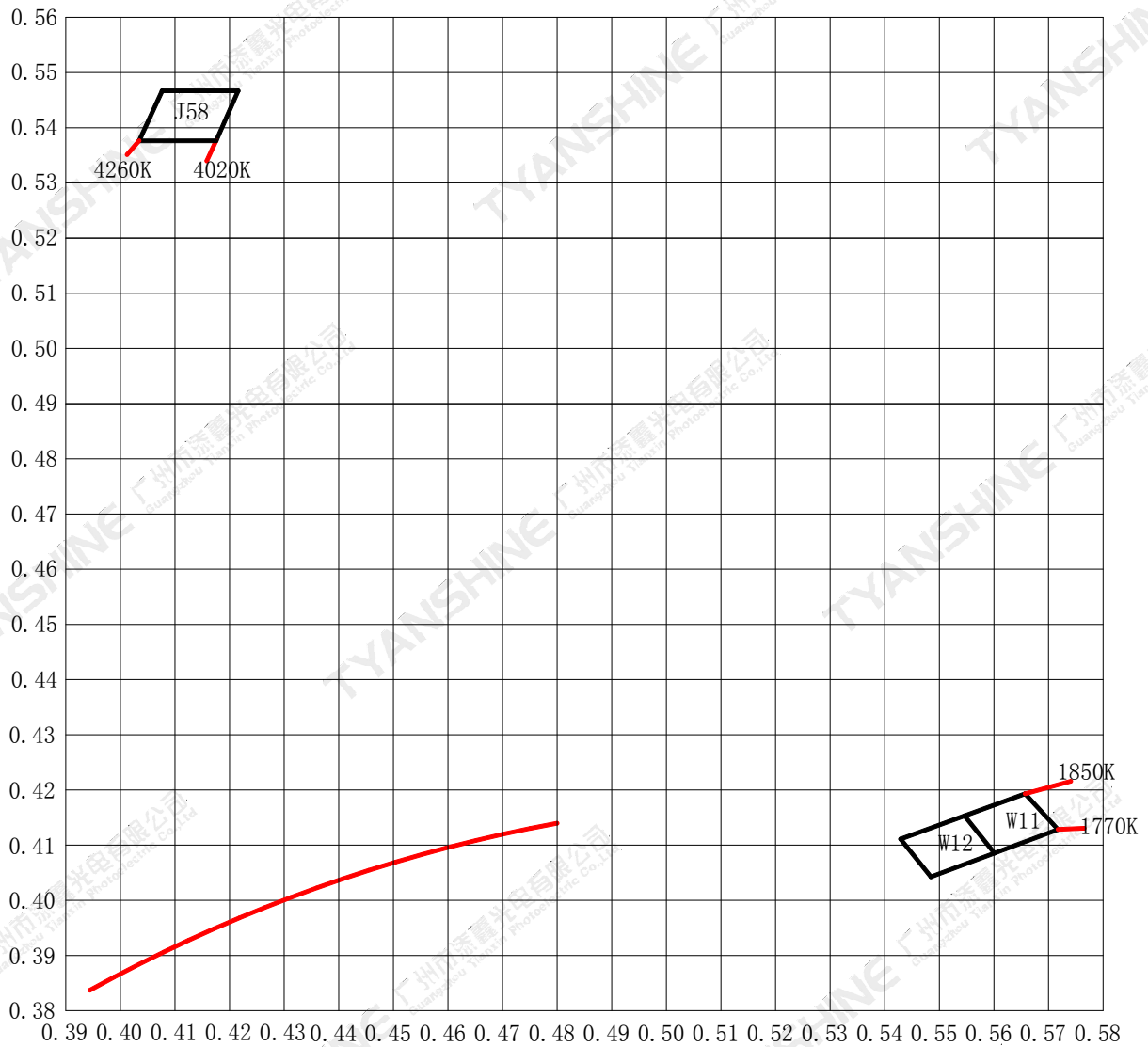
Parameter	Symbol	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	$\Phi_v$	R	1300	1550	1800	lm
		G	2500	2800	3100	
		B	530	580	620	
		L1	3300	3750	4100	
		L2	3300	3750	4100	
		A1	1600	1850	2100	
		A2	1600	1850	2100	
		C	1000	1200	1400	
Dominant Wavelength	$\lambda_d$	R	618	623	628	nm
		G	520	525	532	
		B	450	455	460	
		C	485	487.5	490	
		L	565	567	569	
Peak-emission Wavelength	$\lambda_p$	R	625	630	635	nm
		G	515	520	525	
		B	444	449	454	
		C	480	485	490	
		L	542	546	550	
Correlated Colour Temperature	CCT	L	4020	—	4260	K
		A	1770	—	1850	
Forward Voltage	$V_f$	R	21	23.5	25	V
		G	28	30.5	33	
		B	29	31.5	34	
		L1	29	31	33	
		L2	29	31	33	
		A1	29	31	33	
		A2	29	31	33	
		C	30	32.5	35	
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	—	120	—	Deg
Reverse Current	$I_R$	—	—	—	—	$\mu A$

Thermal Resistance Junction to Case	R $\theta_{J-C}$	R	—	0.41	—	K/W
		G	—	0.9	—	
		B	—	0.9	—	
		L1	—	0.9	—	
		L2	—	0.9	—	
		A1	—	0.9	—	
		A2	—	0.9	—	
		C	—	0.9	—	
		Total thermal resistance	—	0.12	—	
Temperature Coefficient of Voltage	V $\Delta$ F/T	R	—	-17	—	mV/°C
		G	—	-31	—	
		B	—	-16.3	—	
		L1	—	-15.7	—	
		L2	—	-15.7	—	
		A1	—	-14.7	—	
		A2	—	-14.7	—	
		C	—	-22.7	—	
Thermistor(NTC)	Rt25	—	—	10	—	K $\Omega$

**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.

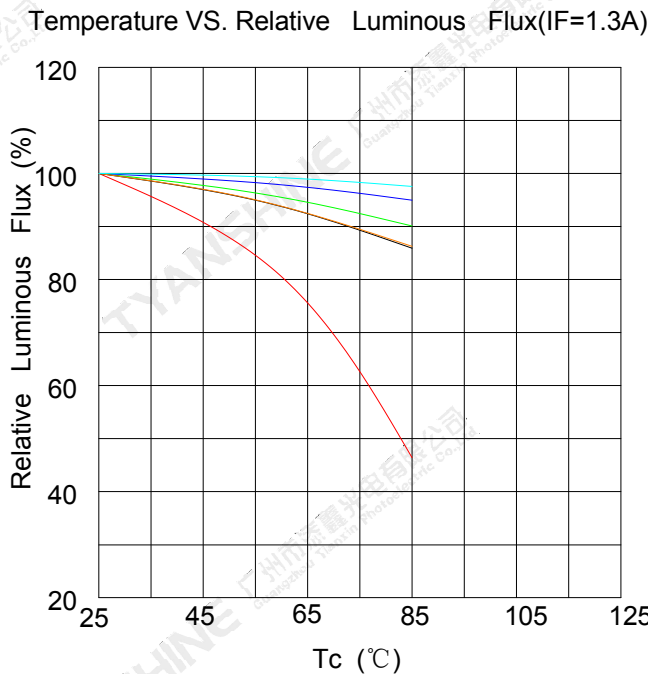
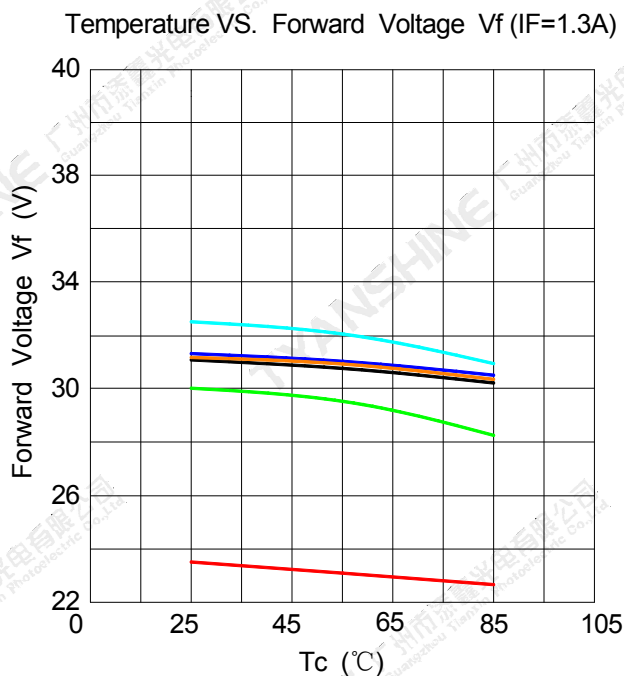
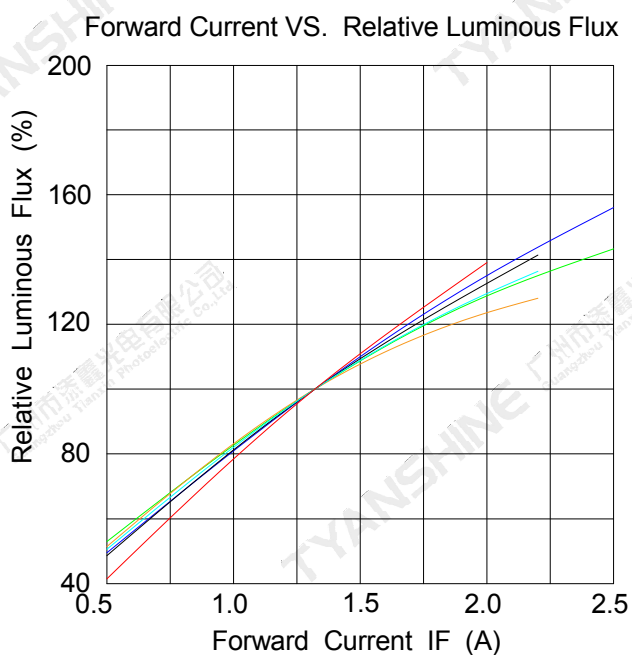
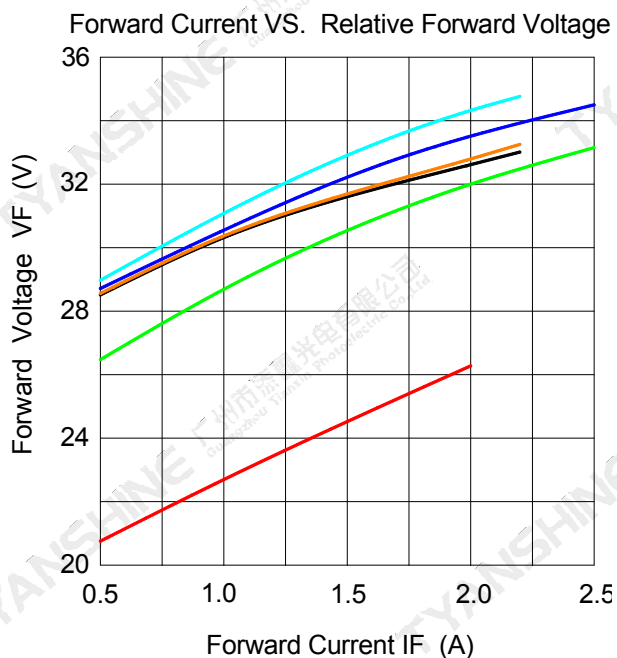
**White light Color coordinate filing (IF=1.3A, Tc=25°C)**



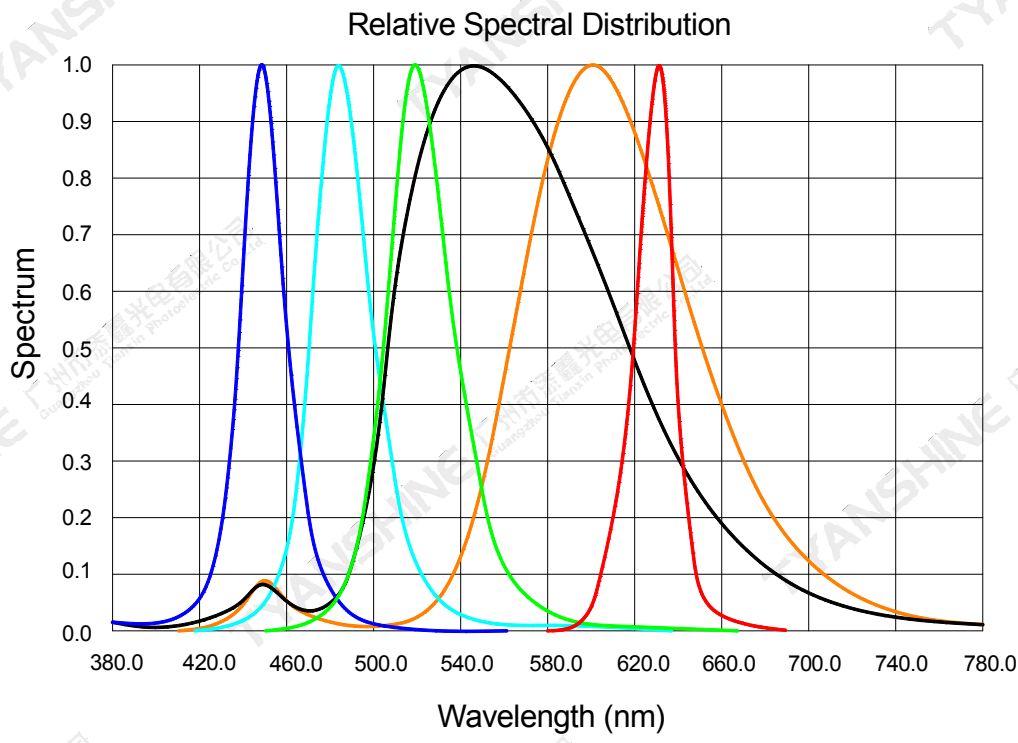
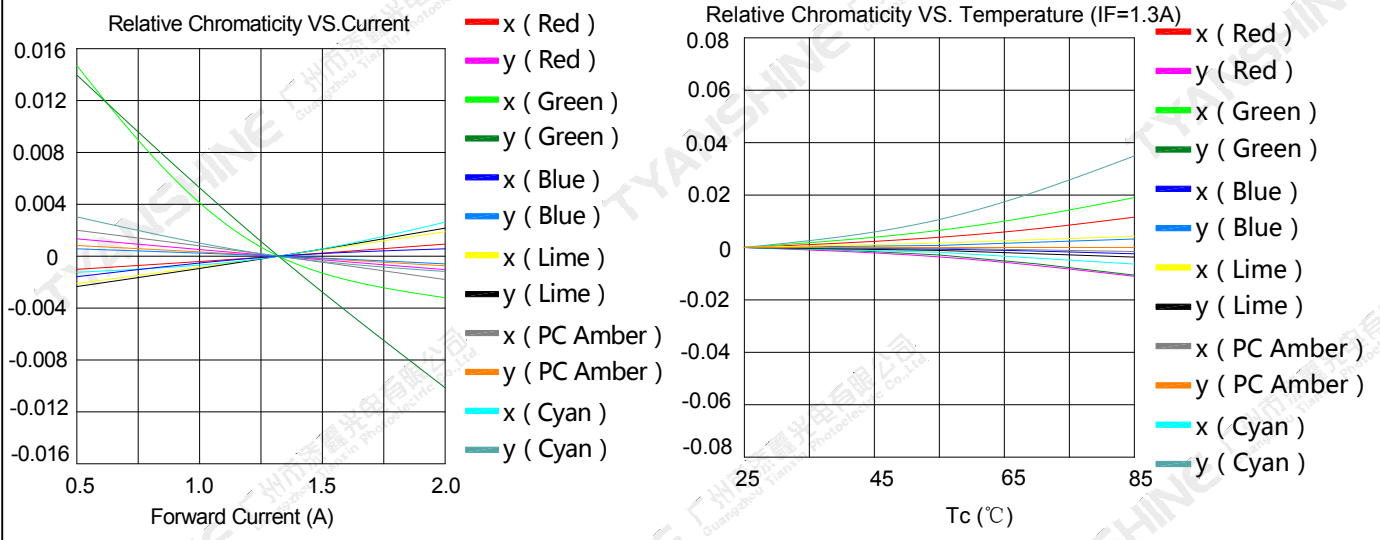
Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
J58	4020-4260K	0.4035	0.5378	0.4176	0.5378	0.4216	0.5468	0.4077	0.5468
W11	1770-1850K	0.5546	0.4154	0.56	0.4088	0.5718	0.413	0.5658	0.4194
W12	1770-1850K	0.5429	0.4112	0.5485	0.4044	0.56	0.4088	0.5546	0.4154

## Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



**Notes:** — Red; — Green; — Blue; — Lemon light (L1/L2); — Cyan — PC Amber (A1/A2);



**Notes:** ■ Red; ■ Green; ■ Blue; ■ Lemon light (L1/L2); ■ Cyan ■ PC Amber (A1/A2);

**Notes:**

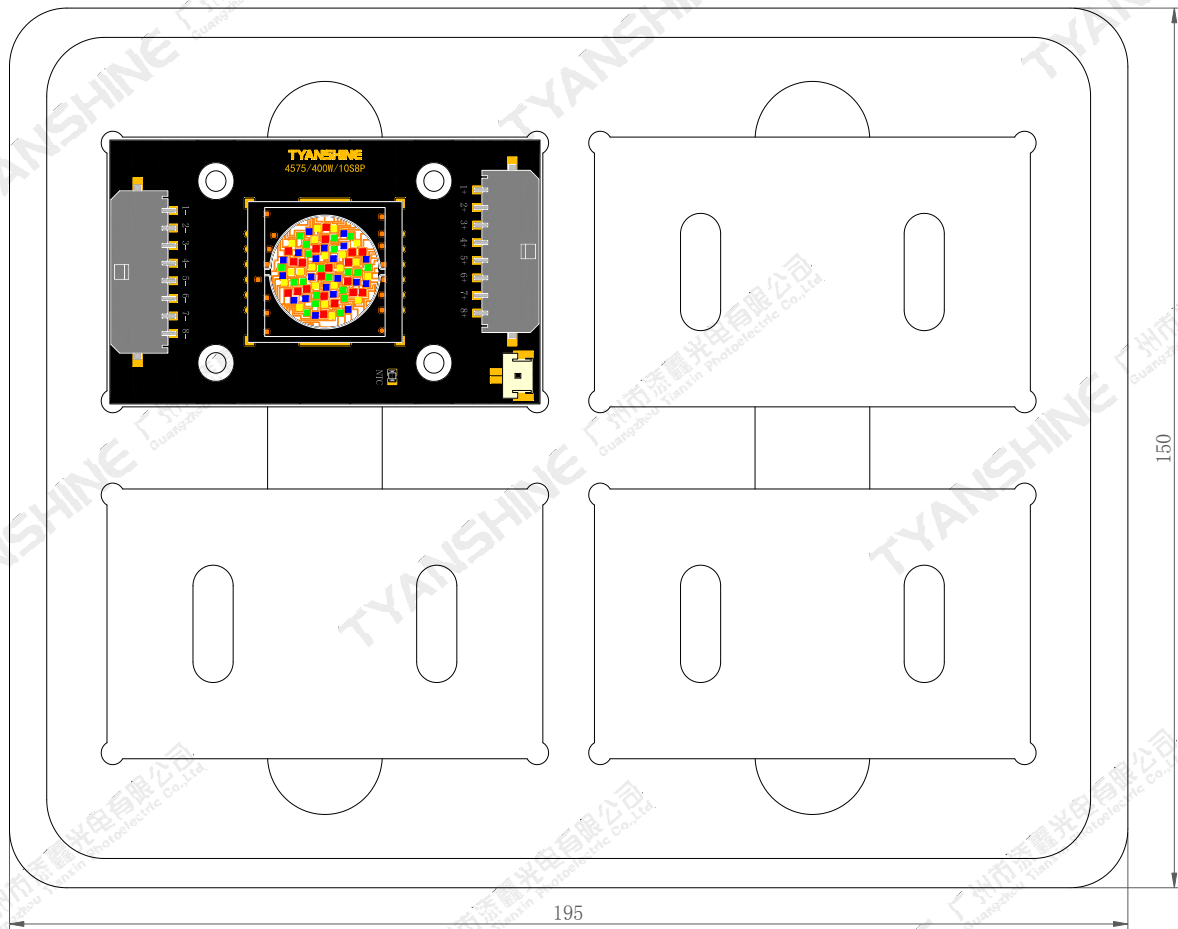
1. 2θ 1/2 is the off axis angle from lamp centerline where the luminous intensity is 1/2 of the peak value.
2. View angle tolerance is ± 5°.

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**Dimensions For Cannulation And Packaging**

**Quantity: 4PCS**



**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.