

**TX-70100RGLAC800FC120-NUVENG-01****PRODUCT SPECIFICATION****Features:**

- ◆ 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

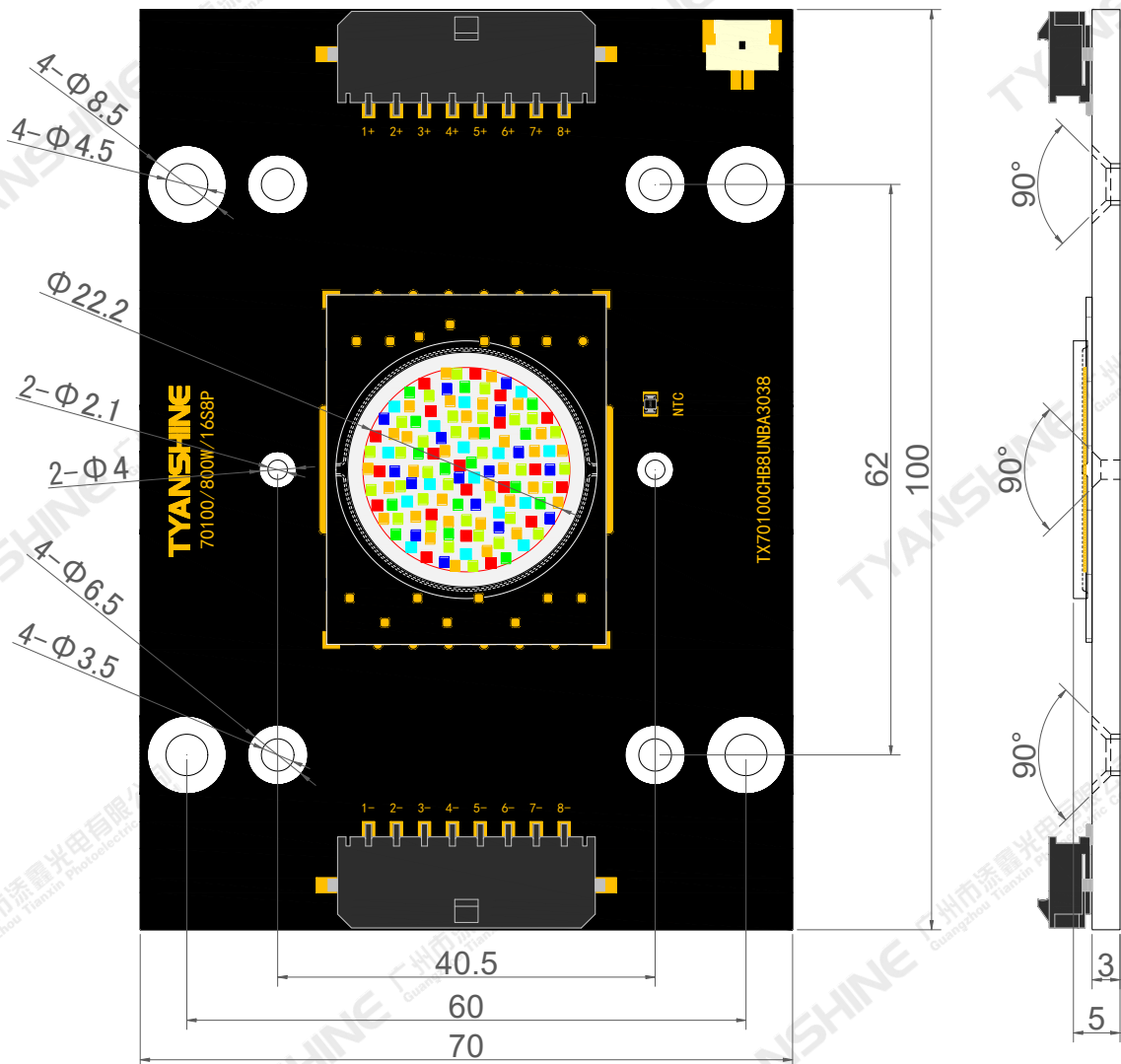
**Emitting Color:**

- ◆ Red (R)
- ◆ Green (G)
- ◆ Blue (B)
- ◆ Lemon light (L1/L2)
- ◆ PC Amber (A1/A2)
- ◆ Cyan (C)

**Applications:**

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

**Package Dimensions:**



- Red: (8+)-(R+) / (8-)-(R-);
- Green: (3+)-(G+) / (3-)-(G-);
- Blue: (5+)-(B+) / (5-)-(B-);
- Lemon light: (1+)-(L1+) / (1-)-(L1-); (2+)-(L2+) / (2-)-(L2-);
- PC Amber: (4+)-(A1+) / (4-)-(A1-); (6+)-(A2+) / (6-)-(A2-);
- Cyan: (7+)-(C+) / (7-)-(C-);

**Notes:**

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are  $\pm 0.2\text{mm}$  .

**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	2.0	
Reverse Voltage	VR	Not designed for reverse operation	V	
Power Dissipation	PD	R	96	W
		G	130	
		B	130	
		L1	115	
		L2	115	
		A1	115	
		A2	115	
		C	115	
Junction Temperature	Tj	R	115	°C
		G	150	
		B	150	
		L1/L2	150	
		A1/A2	150	
		C	150	
Electrostatic Discharge Threshold (ESD)	ESD	2000	V	
Storage Temperature	Tstg	-20~+70	°C	
Operation Temperature	Topr	-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 Tc=25°C**

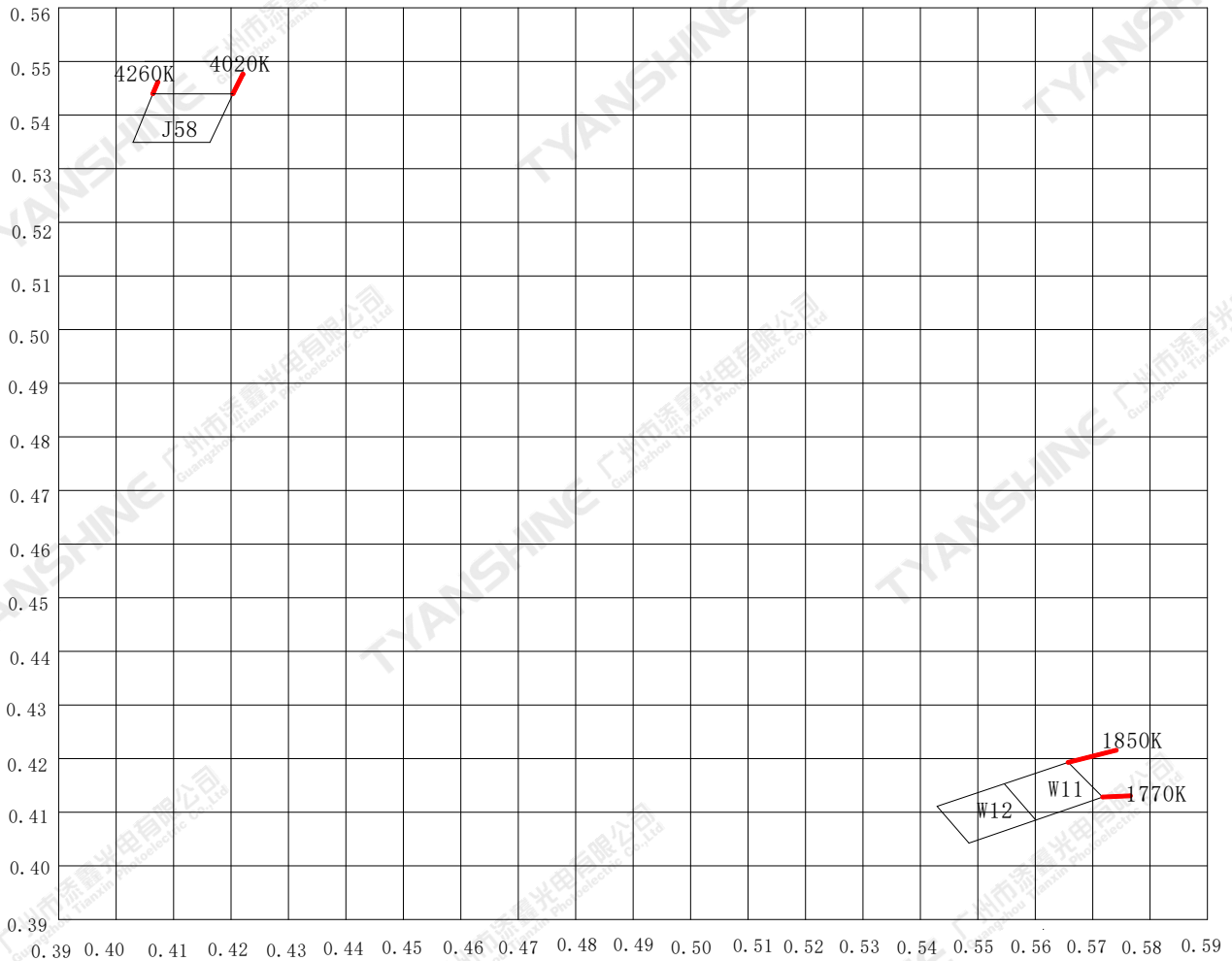
Parameter	Symbol	Condition	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	$\phi_v$	IF=1.3A	R	1800	2200	2600	lm
			G	4000	4500	5000	
			B	800	900	1000	
			L1	5100	6250	7400	
			L2	5100	6250	7400	
			A1	2800	3300	3800	
			A2	2800	3300	3800	
			C	1600	1900	2200	
Dominant Wavelength	$\lambda_d$	IF=1.3A	R	628	633	638	nm
			G	520	525	530	
			B	447	452	457	
			C	479	484	489	
Peak-emission Wavelength	$\lambda_p$	IF=1.3A	R	640	645	650	nm
			G	515	520	525	
			B	441	446	451	
			C	477	482	487	
Correlated Colour Temperature	CCT	IF=1.3A	L1/L2	4020	—	4260	K
			A1/A2	1770	—	1850	
Forward Voltage	$V_f$	IF=1.3A	R	42	45	48	V
			G	43	46	49	
			B	44	47	50	
			L1	46	49	52	
			L2	46	49	52	
			A1	46	49	52	
			A2	46	49	52	
			C	47	50	53	
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	—	0.25	—	K/W
			G	—	0.36	—	

		B	—	0.34	—	
		L1	—	0.17	—	
		L2	—	0.17	—	
		A1	—	0.17	—	
		A2	—	0.17	—	
		C	—	0.36	—	
		Total thermal resistance	—	0.05	—	
Temperature Coefficient of Voltage	$V\Delta F/T$	R	—	-28.5	—	mV/°C
		G	—	-61.5	—	
		B	—	-22.7	—	
		L1	—	-26.5	—	
		L2	—	-26.5	—	
		A1	—	-25.1	—	
		A2	—	-25.1	—	
		C	—	-57.3	—	
Thermistor(NTC)	Rt25	—	—	10	—	KΩ

**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.

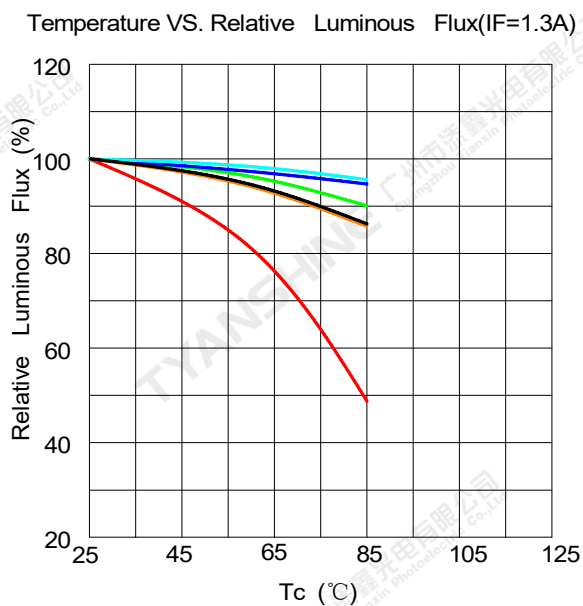
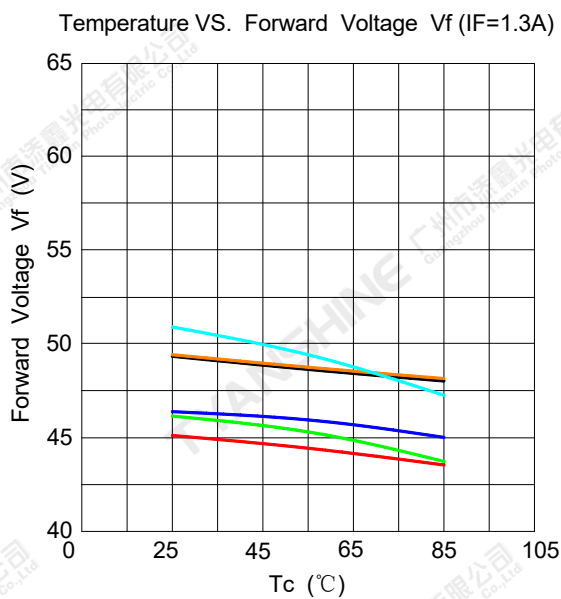
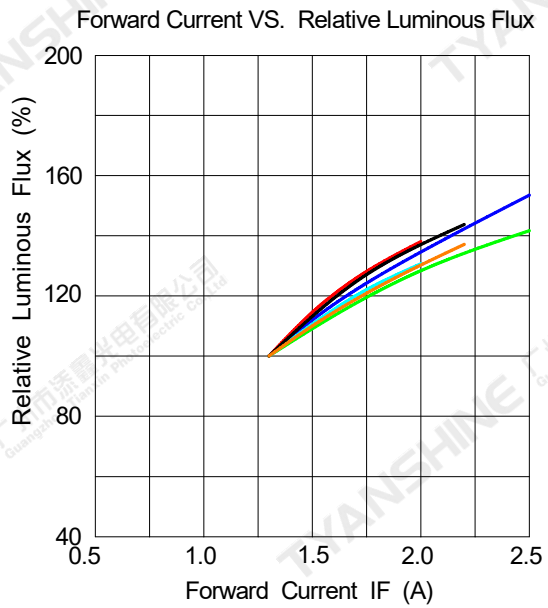
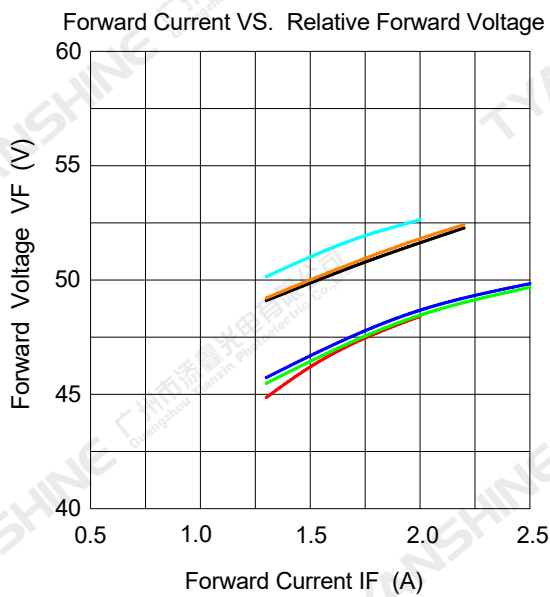
**White light Color coordinate filing (IF=1.3A;Tc=25°C)**



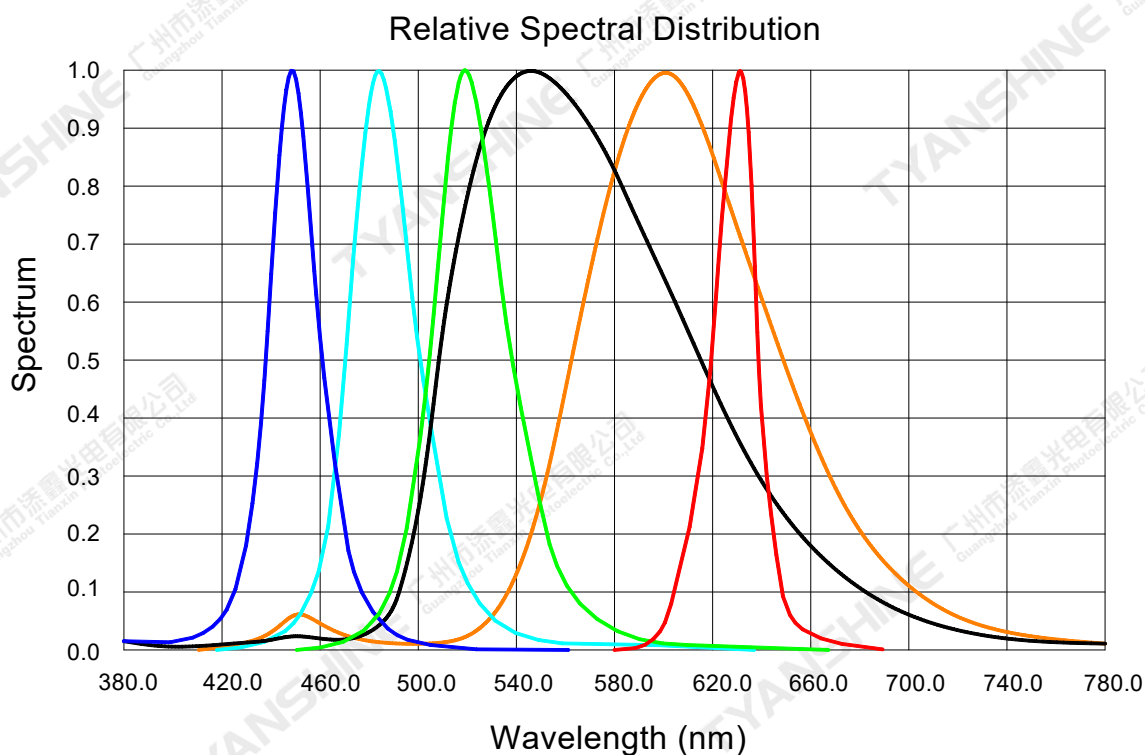
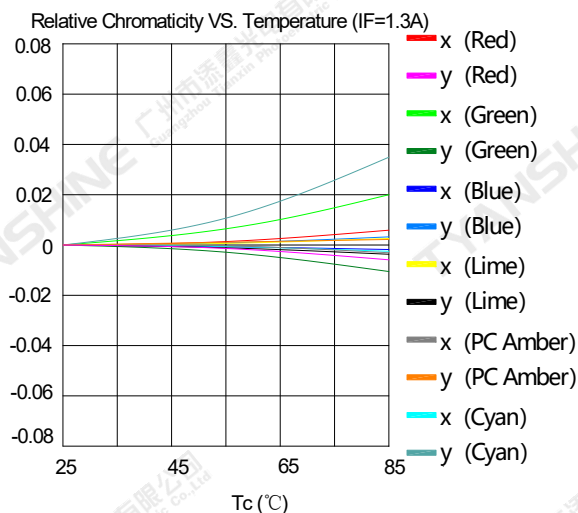
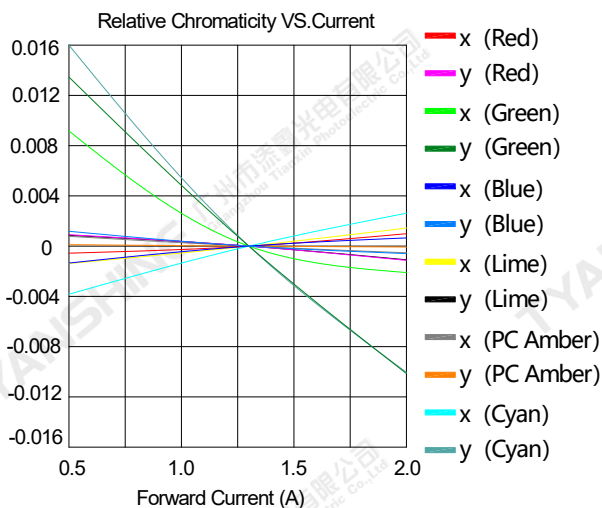
Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
J58	4020-4260K	0.4164	0.5350	0.4204	0.5441	0.4064	0.5441	0.4030	0.5350
W11	1770-1850K	0.5601	0.4087	0.5718	0.4130	0.5658	0.4194	0.5546	0.4154
W12	1770-1850K	0.5485	0.4044	0.5601	0.4087	0.5546	0.4154	0.5429	0.4112

# Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



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



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

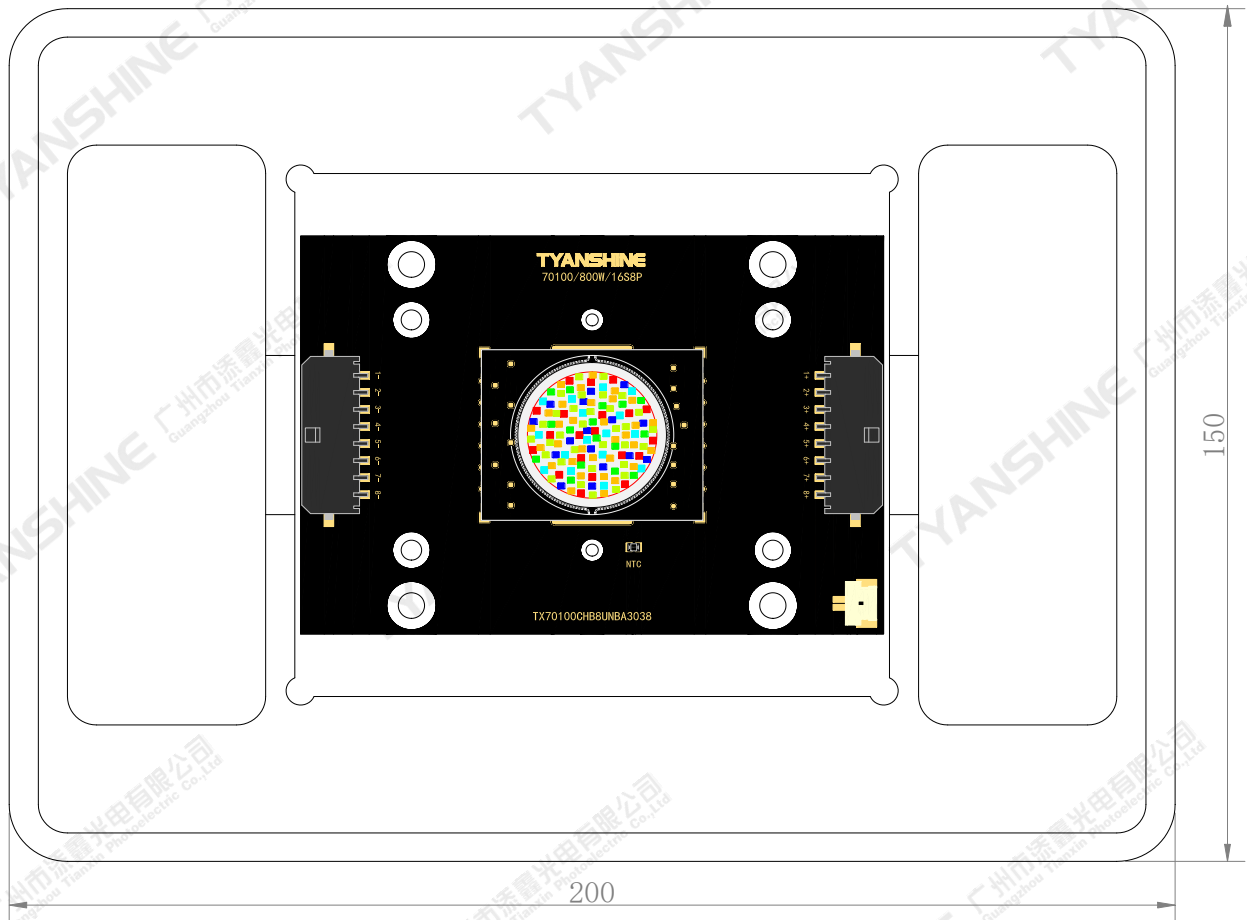
**Notes:**

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  $\pm 5^\circ$ .



**Dimensions For Cannulation And Packaging**

**Quantity: 1PCS**



**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.

Part No.	TX-70100RGLAC800FC120-NUVENG-01	Spec No.	WKF-FA0123	Page	9 of 10
----------	---------------------------------	----------	------------	------	---------

# 产品规格书变更履历表

版本	变更内容描述		生效日期
	变更前内容	变更后内容	
1.0	初次发行	-	