TX-70100RGBLAC1200FC120-NUVENG-01A

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（R1/R2）

◆Green（G1/G2）

◆Blue（B1/B2）

◆Lemon light（L1/L2/L3/L4）

◆PC Amber（A1/A2/A3/A4）

◆Cyan（C1/C2）

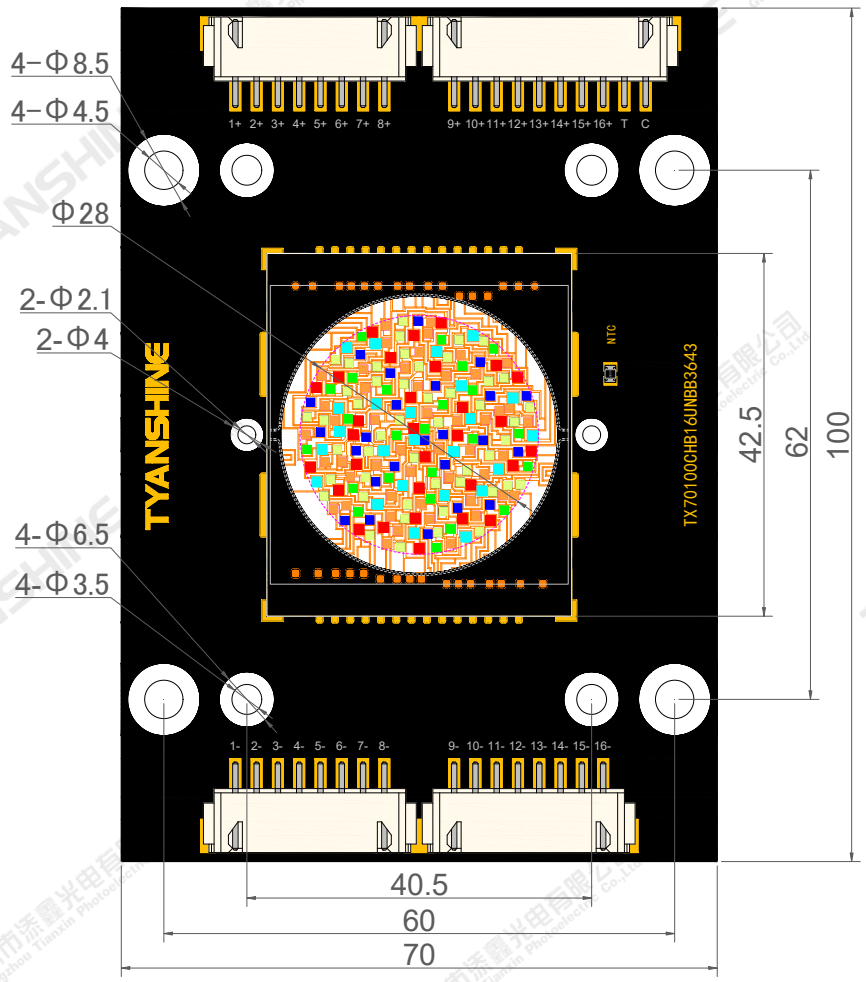
Applications:

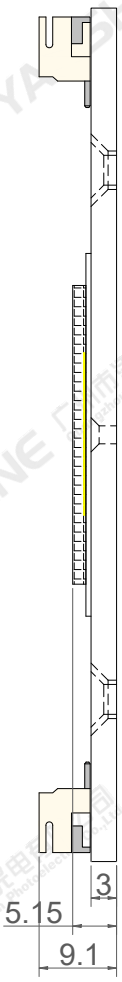
◆Stage lighting

◆Landscape Lighting

◆Entertainment lighting

Package Dimensions:





Red：(4+)-(R1+) / (4-)-(R1-)；(8+)-(R2+) / (8-)-(R2-)；
Green：(3+)-(G1+) / (3-)-(G1-)；(13+)-(G2+) / (13-)-(G2-)；
Blue：(1+)-(B1+) / (1-)-(B1-)；(14+)-(B2+) / (14-)-(B2-)
Lemon light：(2+)-(L1+) / (2-)- (L1-)；(7+)-(L2+) / (7-)- (L2-)；
(11+)-(L3+) / (11-)- (L3-)；(15+)-(L4+) / (15-)- (L4-)；
PC Amber：(5+)-(A1+) / (5-)-(A1-)；(9+)-(A2+) / (9-)-(A2-)；
(12+)-(A3+) / (12-)-(A3-)；(16+)-(A4+) / (16-)-(A4-)；
Cyan：(6+)-(C1+) / (6-)-(C1-)； (10+)-(C2+) / (10-)-(C2-)；

Notes:

1.All dimensions are in millimeters .

2.Tolerances unless otherwise mentioned are ±0.1mm .

Absolute Maximum Ratings (Tc=25℃)

Parameter	Symbol		Ratings	Unit
Forward Current	IF	R1+R2	4.0	A
		G1+G2	5.0	
		B1+B2	5.0	
		L1+L2+L3+L4	7.2	
		A1+A2+A3+A4	7.2	
		C1+C2	4.4	
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R1+R2	148	W
		G1+G2	196	
		B1+B2	205	
		L1+L2+L3+L4	278	
		A1+A2+A3+A4	278	
		C1+C2	168	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		L	150	
		A	150	
		C	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature	T_{stg}		-20~+70	℃
Operation Temperature	T_{opr}		-30~+85	

Notes:

1.Specifications are subject to change without notice.

2.The data on this specification is for reference only and the actual data is in accordance with the acknowledgment.

3.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℃

Parameter	Symbol	Condition	Emitting Color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	IF=2.6A	R1+R2	2800	3200	3600	lm
		IF=2.6A	G1+G2	5800	6500	7000	
		IF=2.6A	B1+B2	2400	2700	3000	
		IF=5.2A	L1+L2+L3+L4	19800	22000	24200	
		IF=5.2A	A1+A2+A3+A4	11200	12500	13800	
		IF=2.6A	C1+C2	2500	3000	3500	
Dominant Wavelength	λd	IF=2.6A	R1/R2	625	630	635	nm
		IF=2.6A	G1/G2	520	525	532	
		IF=2.6A	B1/B2	449	453	459	
		IF=2.6A	C1/C2	485	488	492	
		IF=5.2A	L1/L2/L3/L4	565	567	569	
Peak-emission Wavelength	λp	IF=2.6A	R1/R2	635	640	645	nm
		IF=2.6A	G1/G2	515	520	525	
		IF=2.6A	B1/B2	444	449	454	
		IF=2.6A	C1/C2	480	485	490	
		IF=5.2A	L1/L2/L3/L4	540	543	547	
Correlated Colour Temperature	CCT	IF=5.2A	L1/L2/L3/L4	4150	—	4450	K
		IF=5.2A	A1/A2/A3/A4	1780	—	1950	
Forward Voltage	V_f	IF=1.3A	R1/R2	32	35	38	V
		IF=1.3A	G1/G2	33	36	39	
		IF=1.3A	B1/B2	35	37.5	39	
		IF=1.3A	L1/L2/L3/L4	35	37	39	
		IF=1.3A	A1/A2/A3/A4	35	37	39	
		IF=1.3A	C1/C2	38	40.5	43	
Viewing Angle at 50％ IV	$2\theta_{1/2}$		—	—	120	—	Deg
Reverse Current	I_R		—	—	—	—	μA
Thermal Resistance Junction to Case	$R\theta_{J-C}$		R1+R2	—	0.15	—	K/W
			G1+G2	—	0.37	—	
			B1+B2	—	0.37	—	
			L1+L2+L3+L4	—	0.19	—	

		A1+A2+A3+A4	—	0.19	—	
		C1+C2	—	0.38	—	
		Total thermal resistance	—	0.05	—	
Temperature Coefficient of Voltage	V△F/T	R1/R2	—	-23.8	—	mV/℃
		G1/G2	—	-37.2	—	
		B1/B2	—	-17.5	—	
		L1/L2/L3/L4	—	-20.83	—	
		A1/A2/A3/A4	—	-23.83	—	
		C1/C2	—	-31.5	—	
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.

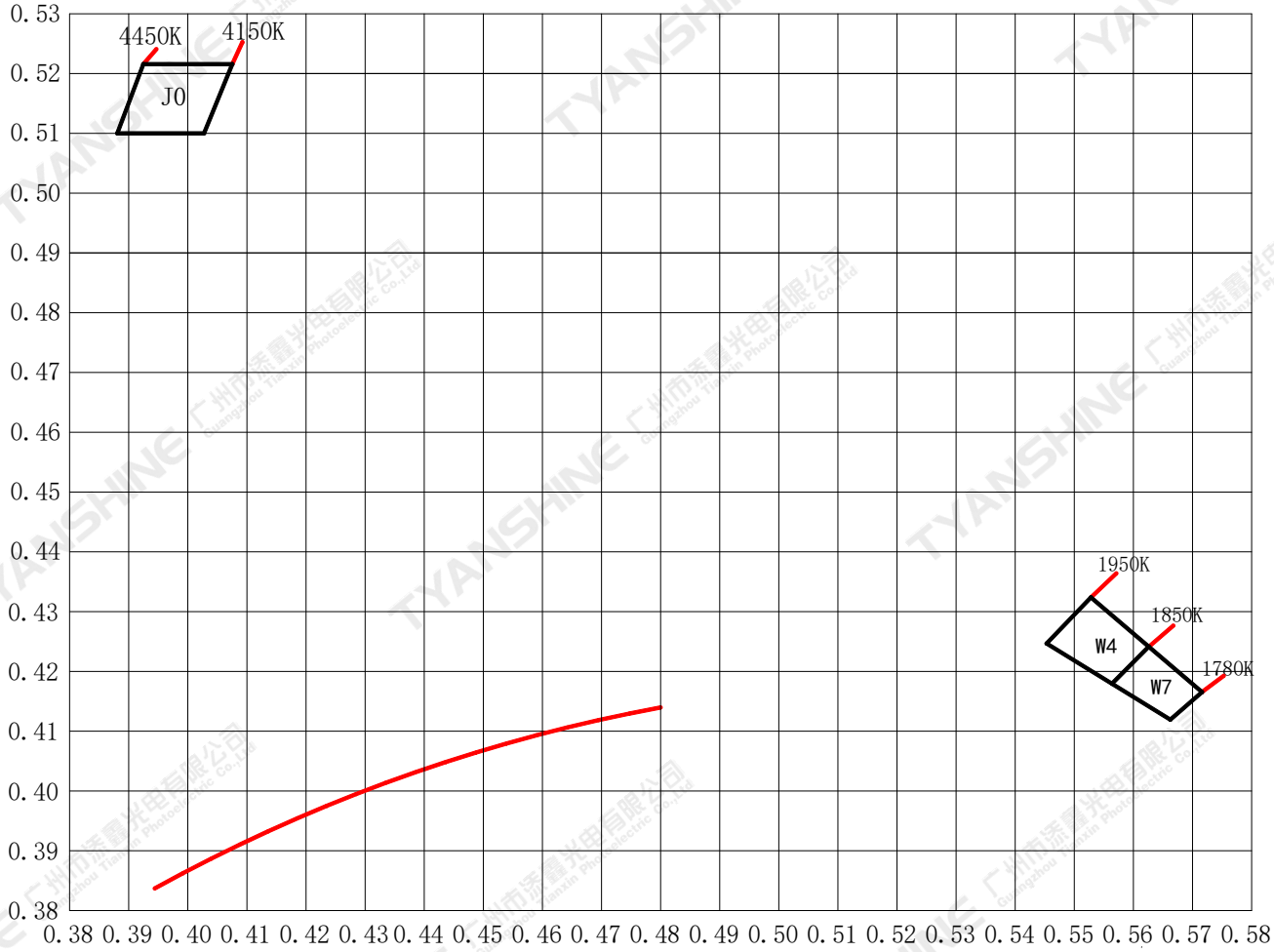
2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3.Luminous flux measurement tolerance:±15%.

4.Forward voltage measurement tolerance:±0.15V.

White light Color coordinate filing

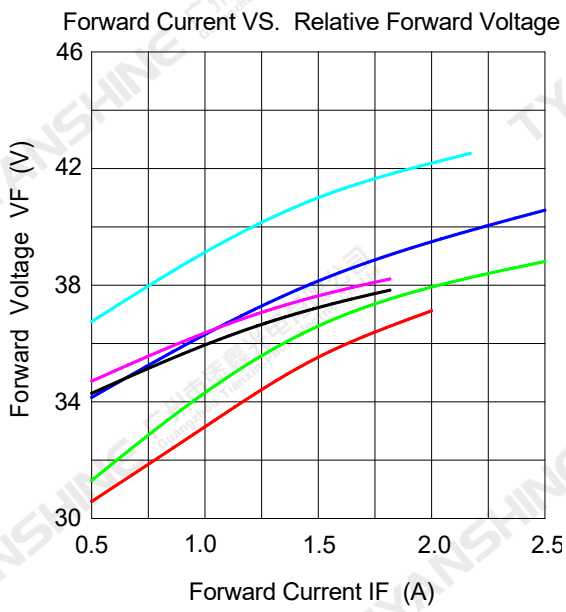
(**L1/L2/L3/L4** IF=1.3A;**A1/A2/A3/A4** IF=1.3A;Tc=25℃)

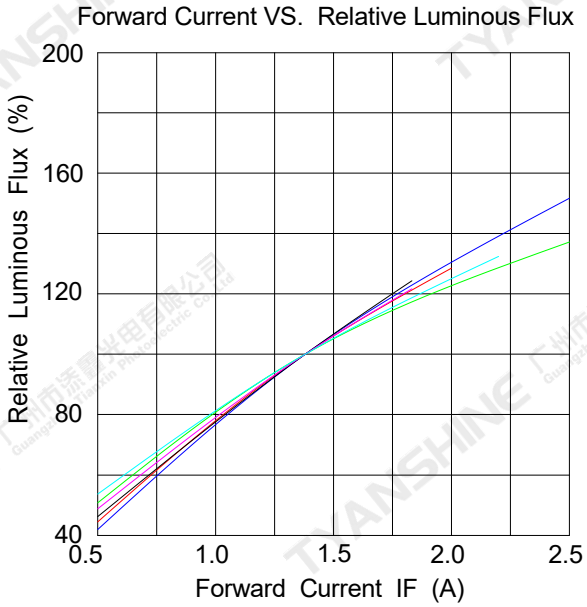


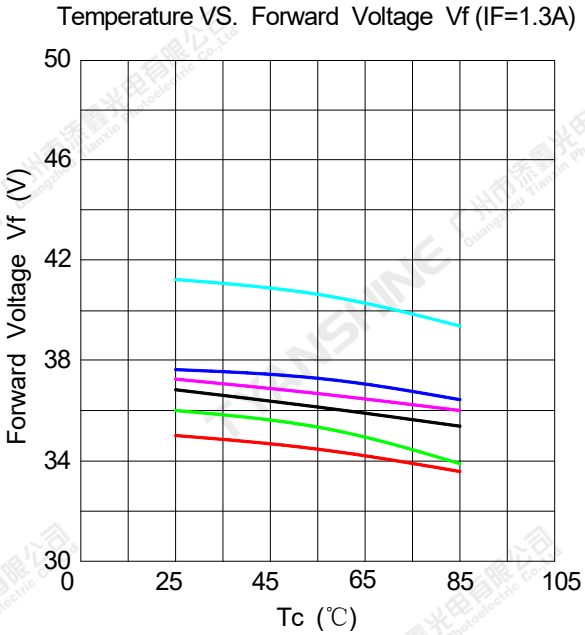
Grade	TC	P1		P2		P3		P4	
		X1	Y1	X2	Y2	X3	Y3	X4	Y4
J0	4150-4450K	0.4028	0.5101	0.4076	0.5217	0.3925	0.5217	0.3881	0.5101
W4	1850-1950K	0.5564	0.4181	0.5626	0.4243	0.5528	0.4325	0.5453	0.4248
W7	1780-1850K	0.5663	0.4121	0.5716	0.4167	0.5626	0.4243	0.5564	0.4181

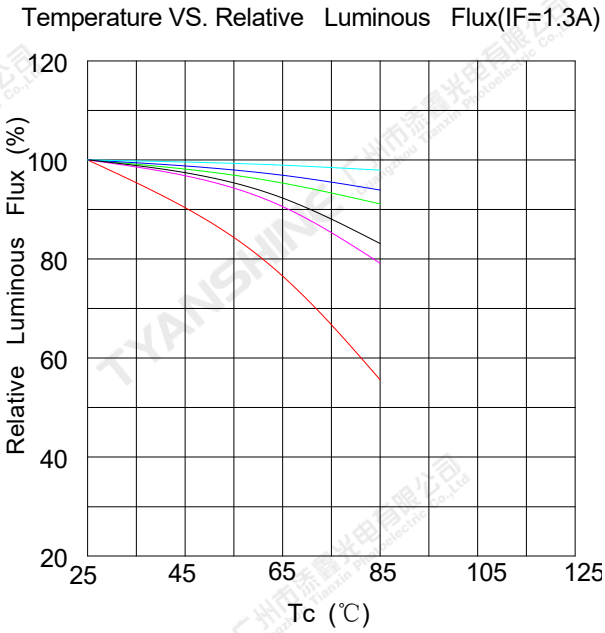
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)



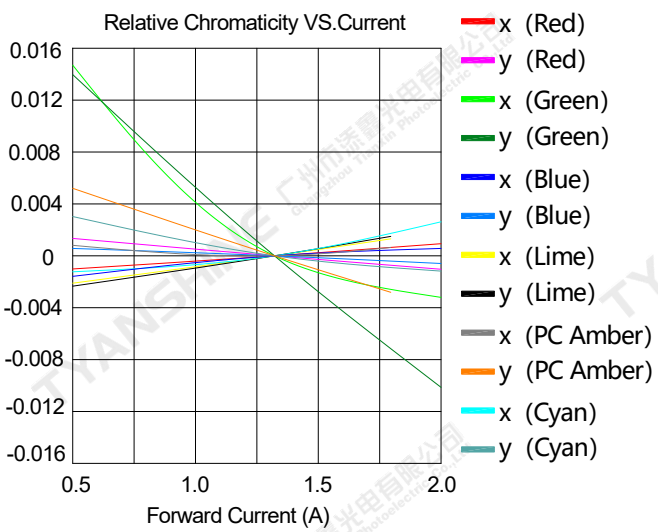


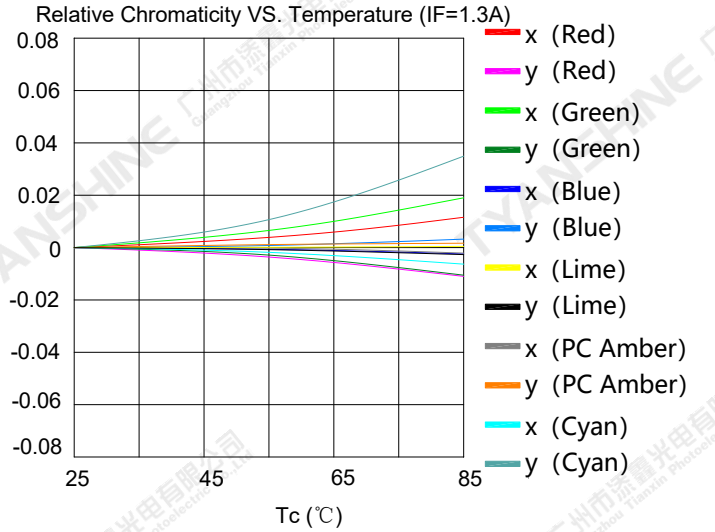


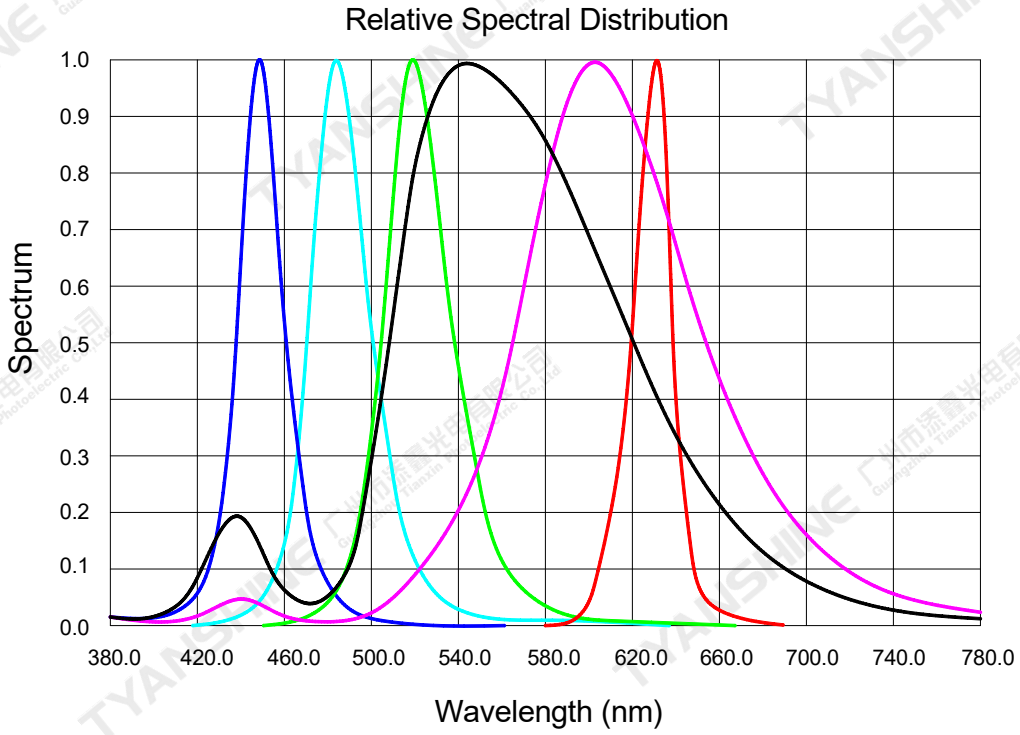


Red(R1/R2); Green(G1/G2); Blue(B1/B2); Lemon light(L1/L2/L3/L4); PC Amber(A1/A2/A3/A4); Cyan(C1/C2).

Notes:







Red (R1/R2) ; Green (G1/G2) ; Blue (B1/B2) ; Lemon light (L1/L2/L3/L4) ; PC Amber (A1/A2/A3/A4) ; Cyan (C1/C2) .

Notes:

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°.