

TX-5050W20FC180-NUVCNG-B01

PRODUCT SPECIFICATION

Features:

- ◆Excellent transiting heat from LED chip operating under 5.0A.
- ◆High luminous output.
- ◆No UV.
- ◆Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ThinGaN

Emitting Color:

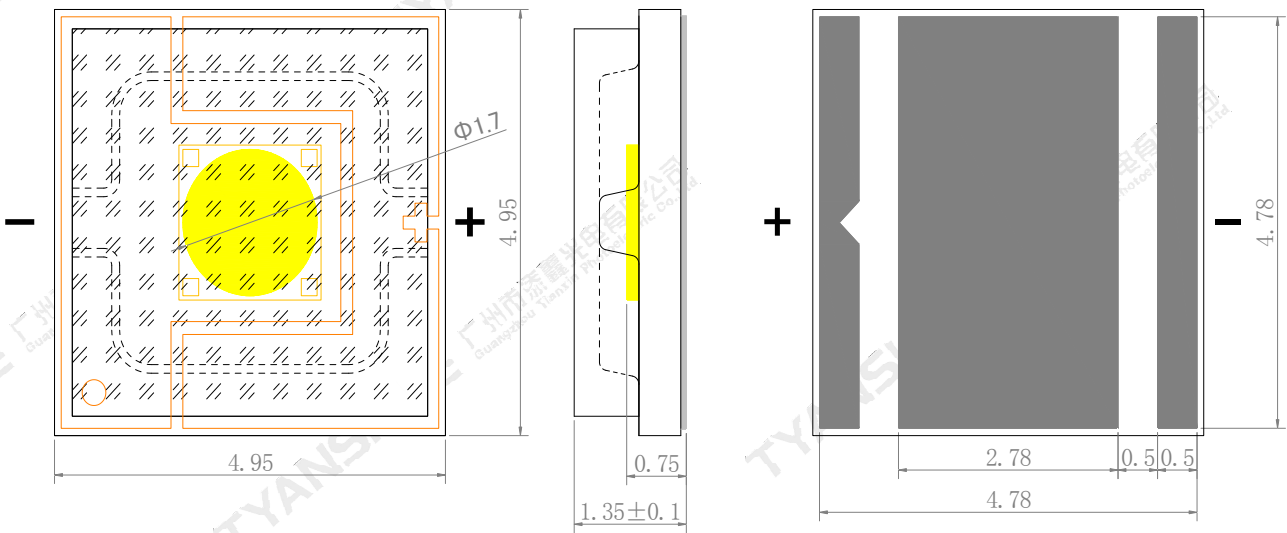
- ◆White (W)

Applications:

- ◆Auxiliary lighting
- ◆Ambient lighting
- ◆Architectural lighting

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Package Dimensions:



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	5.0	A
Reverse Voltage	VR	Not designed for reverse operation	V
Power Dissipation	PD	20	W
Junction Temperature	Tj	150	℃
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Storage Temperature	Tstg	-40~+70	℃
Operation Temperature	Topr	-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.

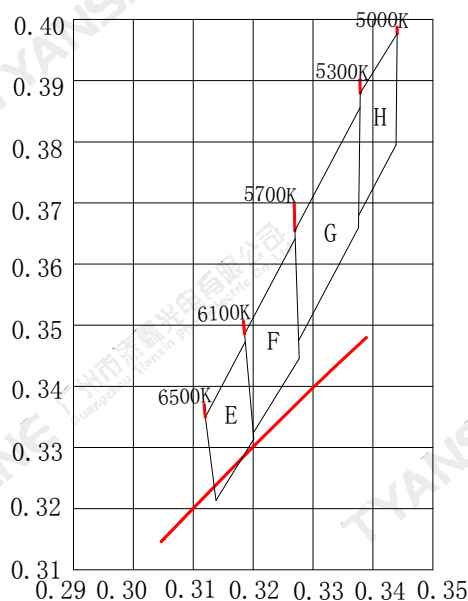
Electrical Optical Characteristics (Tc=25°C)

Parameter	Symbol	Condition	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	Φ_v	If=1.0A	W	400	425	450	lm
		If=5.0A	W	1320	1430	1550	
Forward Voltage	V_f	If=1.0A	W	2.8	—	4.0	V
		If=5.0A	W	3.0	—	4.5	
Viewing Angle at 50 % IV	$2\theta_{1/2}$	—	W	—	120	—	Deg
Correlated Colour Temperature	CCT	If=1.0A	W	5000	—	6500	K
		If=5.0A	W	5200	—	7400	
Reverse Current	I_R	—	W	—	—	—	μA
Temperature Coefficient of Voltage	$V \Delta F/T$	If=1.0A	W	—	-2.8	—	mV/°C
		If=5.0A	W	—	-2.95	—	

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: $\pm 15\%$.
- 4.Forward voltage measurement tolerance: $\pm 0.15V$.

White light Color coordinate filing (IF=1.0A,Tc=25°C)

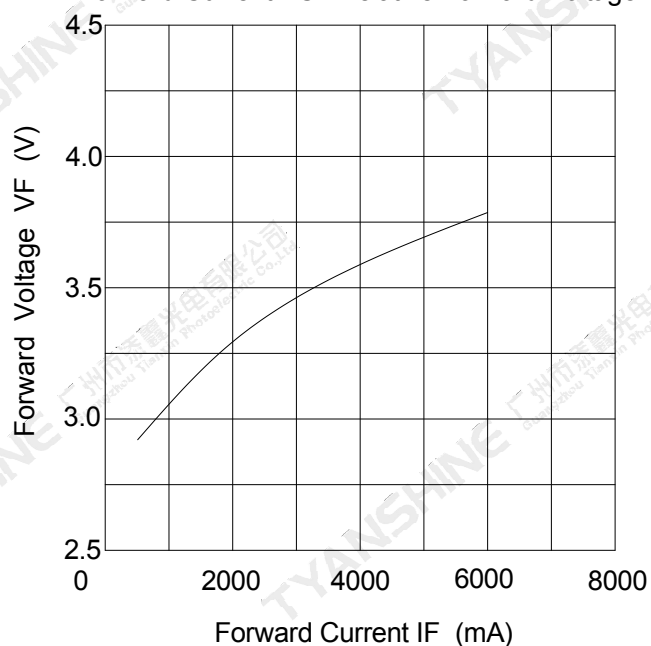


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
H	5000K	5300K	0.3439	0.3795	0.3441	0.3977	0.3379	0.388	0.3376	0.368
G	5300K	5700K	0.3376	0.3659	0.3379	0.3856	0.327	0.3655	0.3276	0.3475
F	5700K	6100K	0.3277	0.3445	0.327	0.3642	0.3186	0.3486	0.32	0.3324
E	6100K	6500K	0.3201	0.3314	0.3187	0.3473	0.312	0.335	0.3138	0.3213

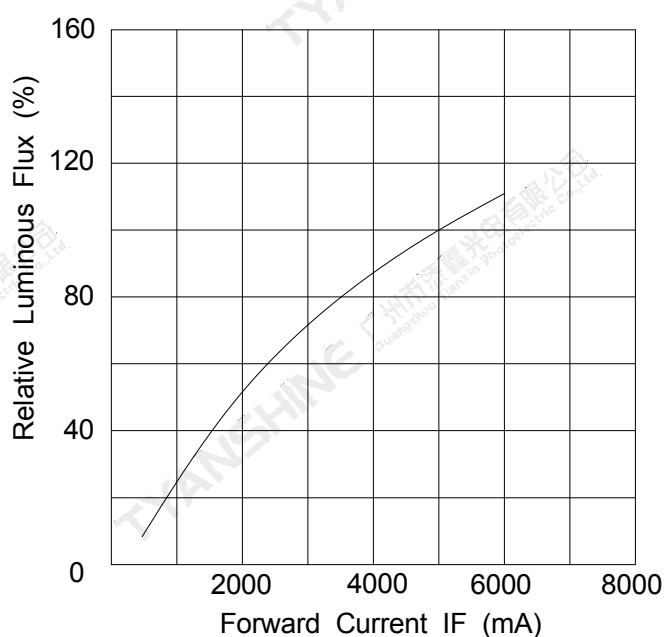
Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)

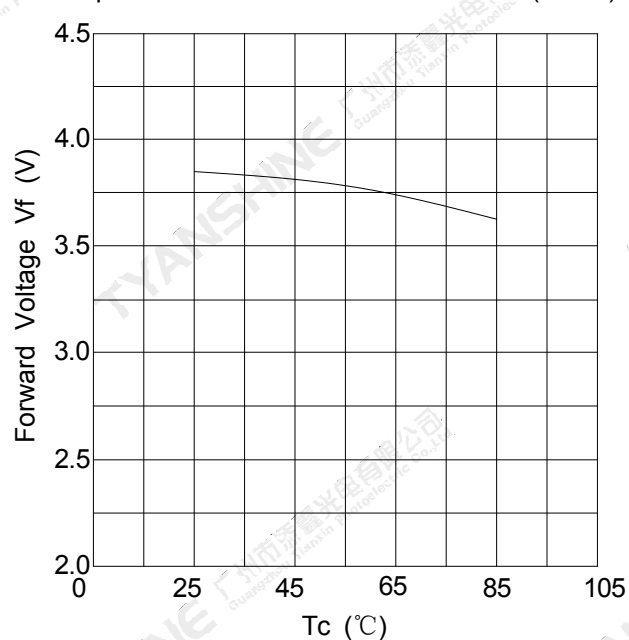
Forward Current VS. Relative Forward Voltage



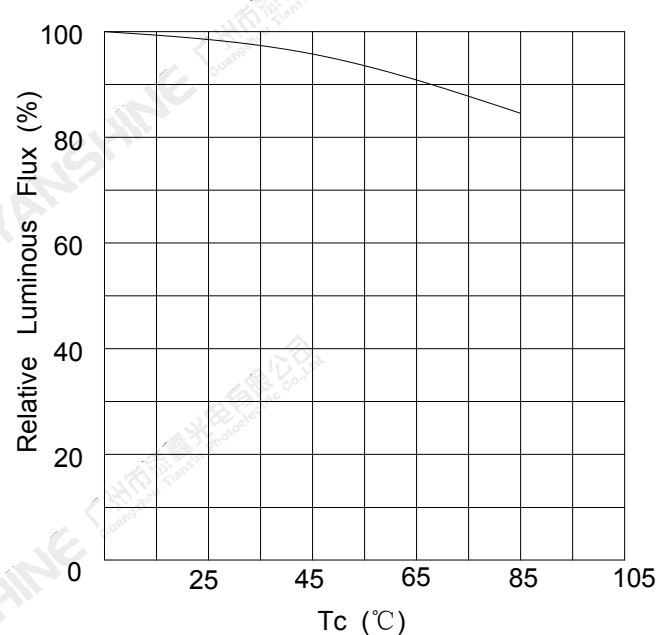
Forward Current VS. Relative Luminous Flux

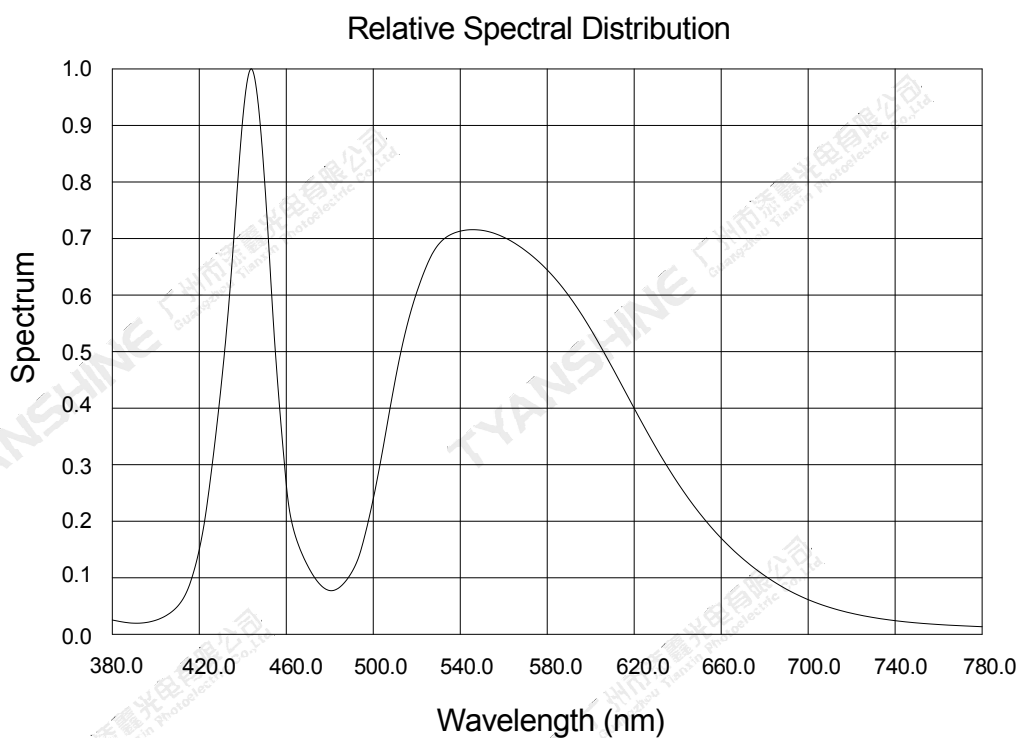
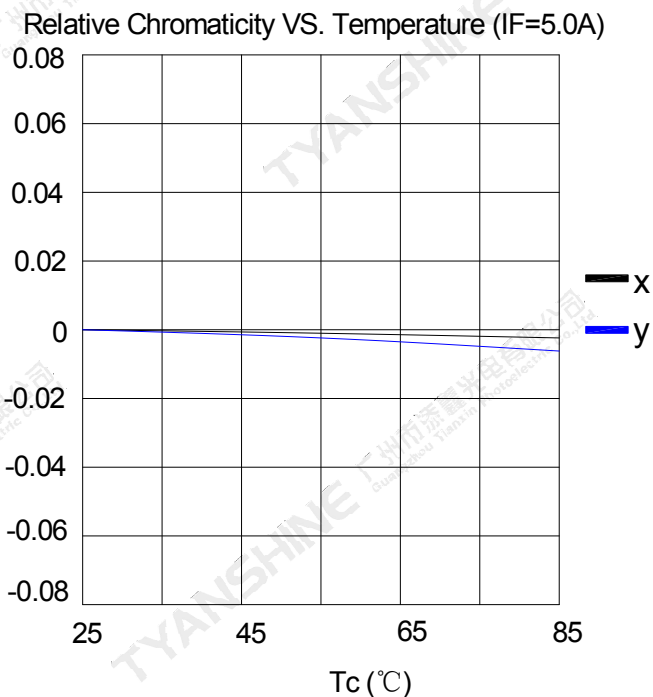
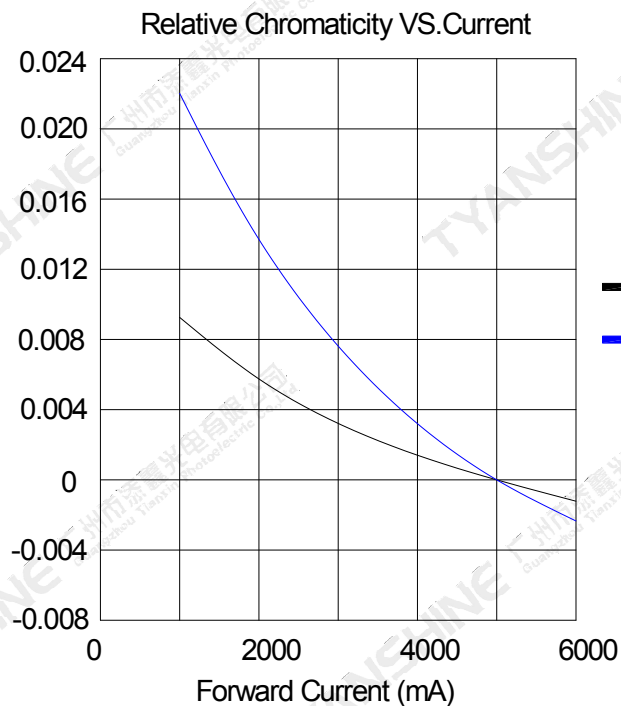


Temperature VS. Relative Luminous FLux (IF=5A)



Temperature VS. Forward Voltage (IF=5.0A)





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 $\pm 5^\circ$.

Usage Precautions

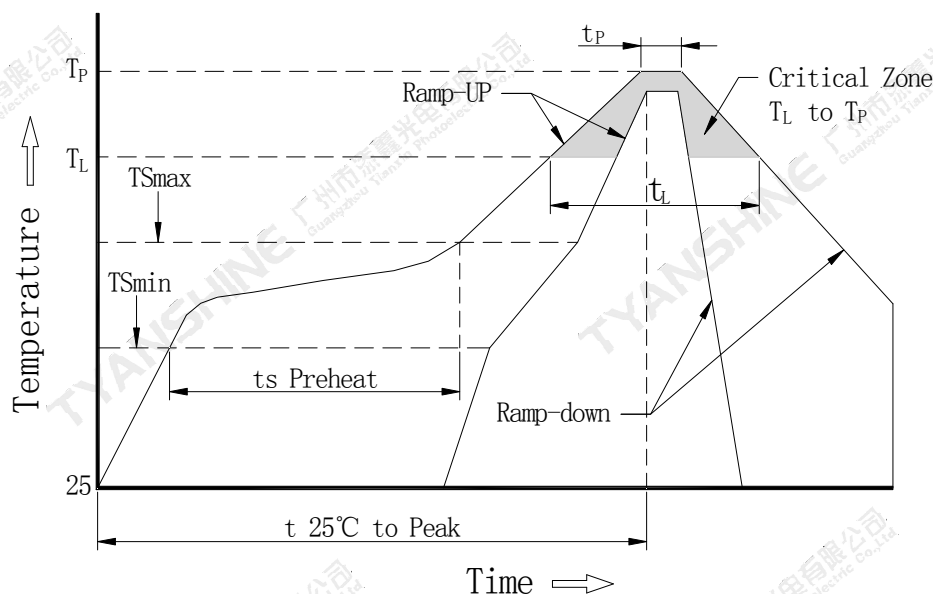
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



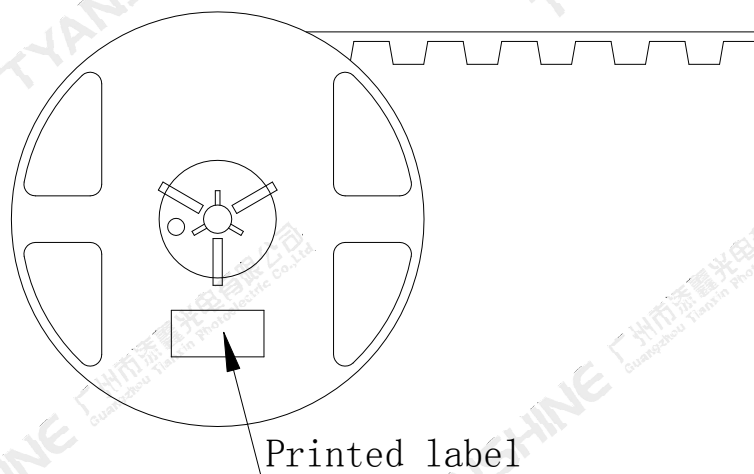
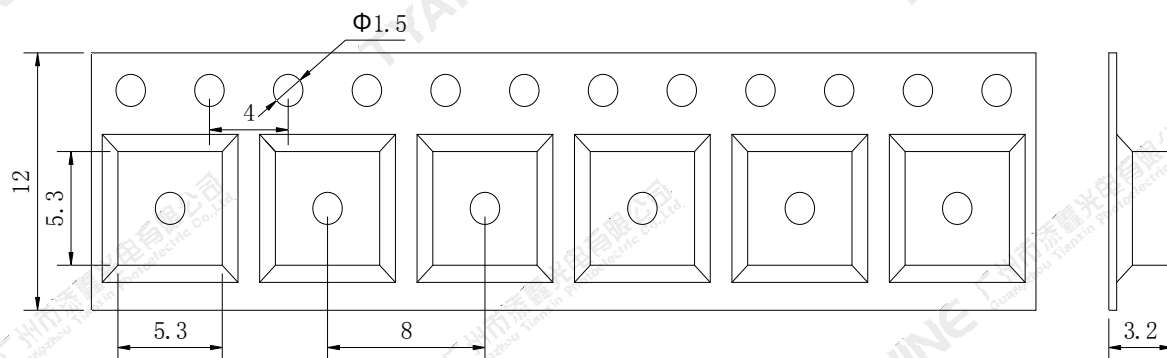
Profile Feature	Lead-Based Solder
Average Ramp-Up Rate (T_{Smax} to T_P)	3°C/second max.
Preheat: Temperature Min (T_{Smin})	100°C
Preheat: Temperature Max (T_{Smax})	150°C
Preheat: Time (T_{Smin} to T_{Smax})	60-120 seconds
Time Maintained Above: Temperature (T_L)	183°C
Time Maintained Above: Time (T_L)	60-150 seconds
Peak/Classification Temperature (T_P)	225°C
Time Within 5°C of Actual Peak Temperature (T_P)	10-30 seconds
Ramp-Down Rate	6°C/second max.
Time 25°C to Peak Temperature	6 minutes max.

Note:

All temperatures refer to topside of the package, measured on the package body surface.

Dimensions For Cannulation And Packaging

Quantity:500PCS



Notes:

1. All dimensions are in millimeters.
2. Tolerances are ± 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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