TX-5060RGBL20FC120-NUVCNG-02AN

PRODUCT SPECIFICATION

Features:

◆Excellent transiting heat from LED chip operating under R/G/B/L:IF=1.0A.

◆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:AlInGaP

◆Green: GaInN

◆Blue:GaInN

◆Lime:GaInN

Emitting Color:

◆Red（R）

◆Green（G）

◆Blue（B）

◆Lime（L）

Applications:

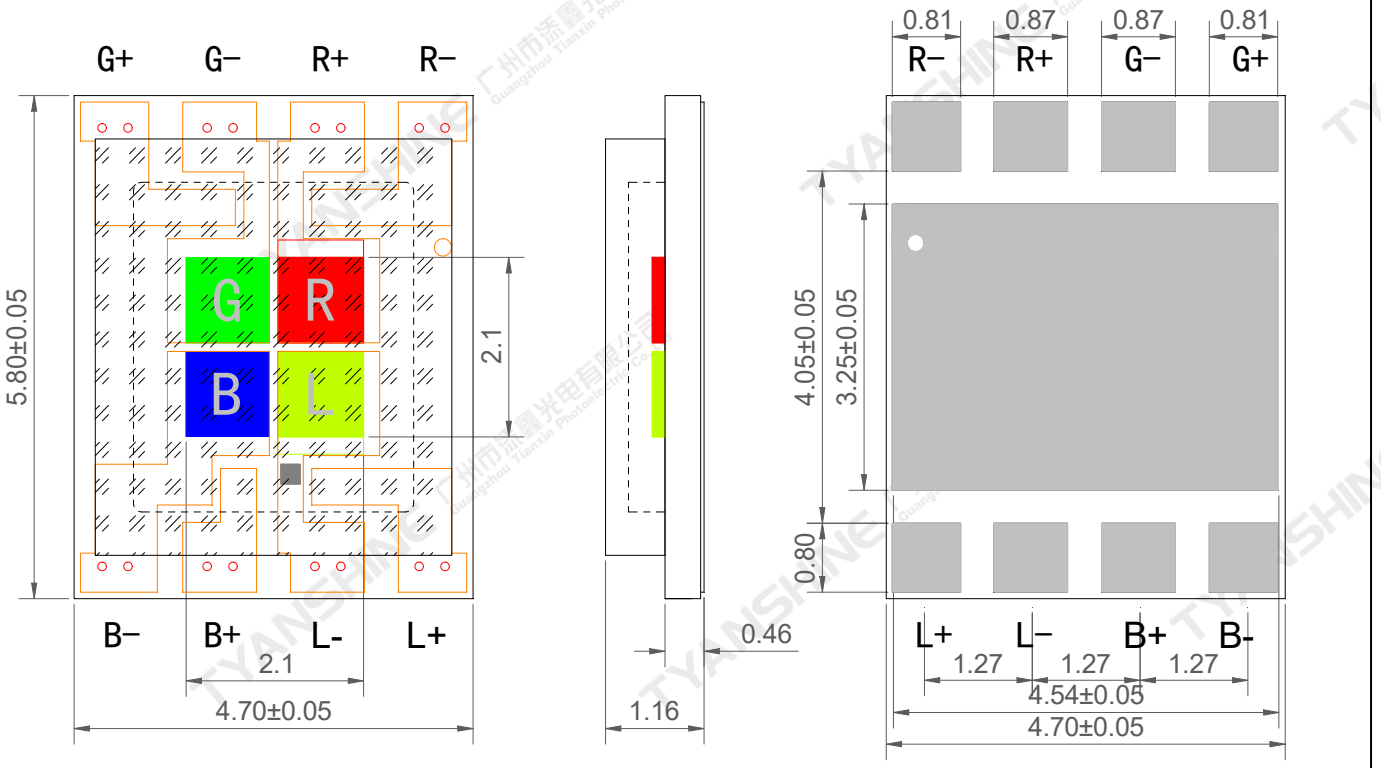
◆Auxiliary lighting

◆Ambient lighting

◆Architectural lighting

◆Entertainment lighting

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	R	1.5	A
		G	1.5	
		B	1.5	
		L	2.0	
Reverse Voltage	V_R		Not designed for reverse operation	V
Power Dissipation	P_D	R	3.8	W
		G	5.4	
		B	5.1	
		L	6.7	
Junction Temperature	Tj	R	115	℃
		G	150	
		B	150	
		L	150	
Electrostatic Discharge Threshold (ESD)	ESD		2000	V
Storage Temperature(Only for LED, not including packaging)	T_{stg}		-40~+85	℃
Operation Temperature	T_{opr}		-40~+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,IF=1.0A)

Parameter	Symbol	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	φ_v	R	95	105	115	lm
		G	185	205	225	
		B	40	45	50	
		L	295	325	355	
Forward Voltage	V_f	R	2.0	2.4	2.8	V
		G	2.8	3.2	3.6	
		B	2.8	3.2	3.6	
		L	2.8	3.2	3.6	
Dominant Wavelength	λd	R	618	623	628	nm
		G	520	525	530	
		B	448	453	458	
Peak-emission Wavelength	λp	R	628	633	638	nm
		G	513	518	523	
		B	443	448	453	
Correlated Colour Temperature	CCT	L	4250	—	4500	K
Viewing Angle at 50％IV	$2\theta_{1/2}$	—	—	120	—	Deg
Reverse Current	I_R : V_R=10V	R	—	—	2	μA
	I_R: V_R=7V	G	—	—	2	
		B	—	—	2	
	I_R	L	Not designed for reverse operation			
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	0.8	—	K/W

Notes:

1.Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.

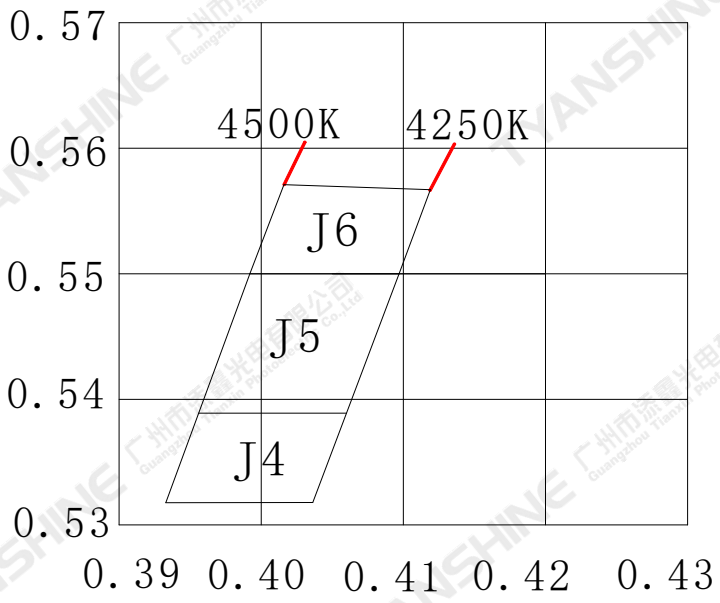
2.$\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.

3.Luminous flux measurement tolerance:±10%.

4.Forward voltage measurement tolerance:±3%.

5.Ra measurement tolerance:±2.

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

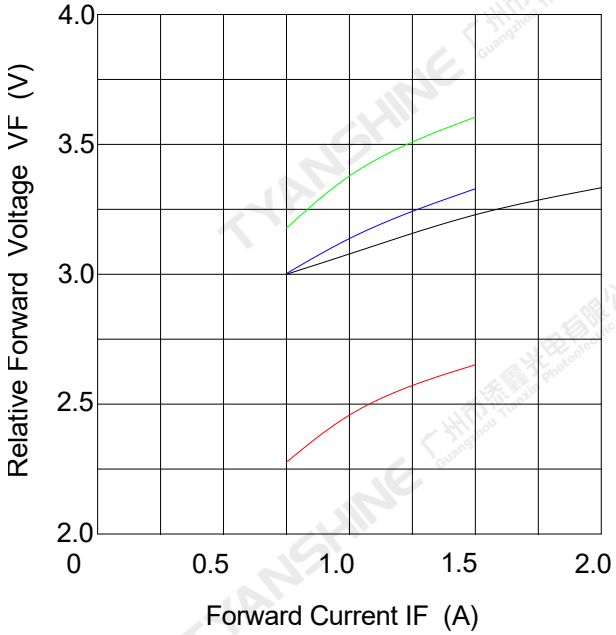


Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
J4	4250K	4500K	0.4036	0.5318	0.4060	0.5389	0.3956	0.5389	0.3933	0.5318
J5	4250K	4500K	0.4060	0.5389	0.4097	0.5500	0.3992	0.5500	0.3956	0.5389
J6	4250K	4500K	0.4097	0.5500	0.4119	0.5567	0.4016	0.5571	0.3992	0.5500

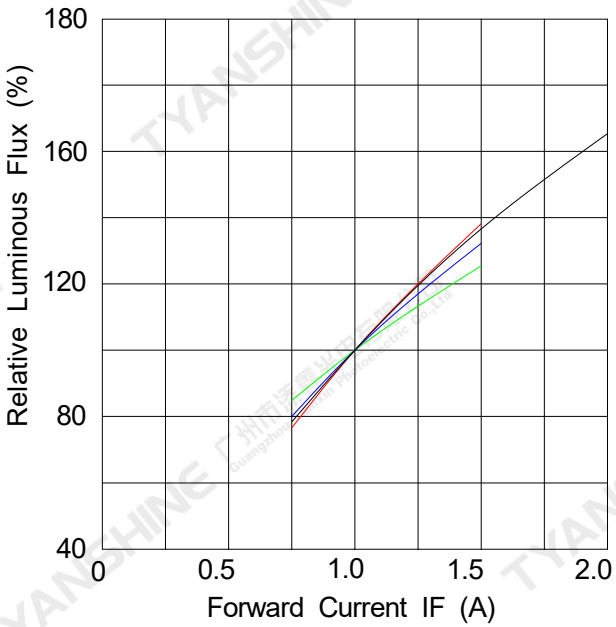
Typical Electrical/Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

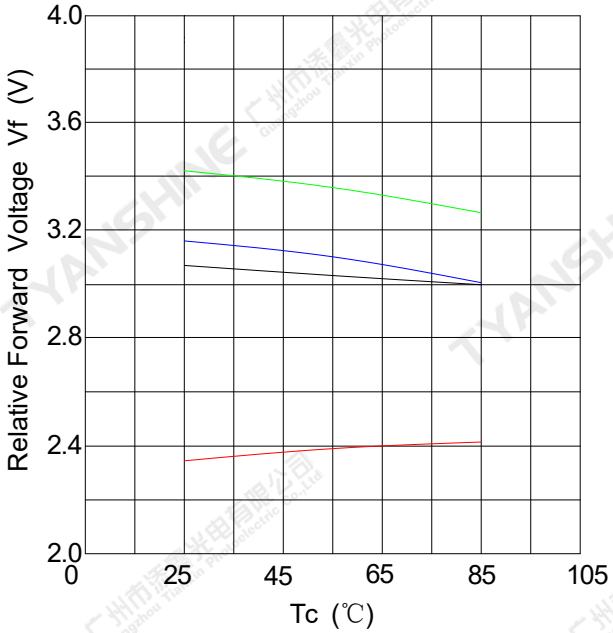
Forward Current VS. Relative Forward Voltage



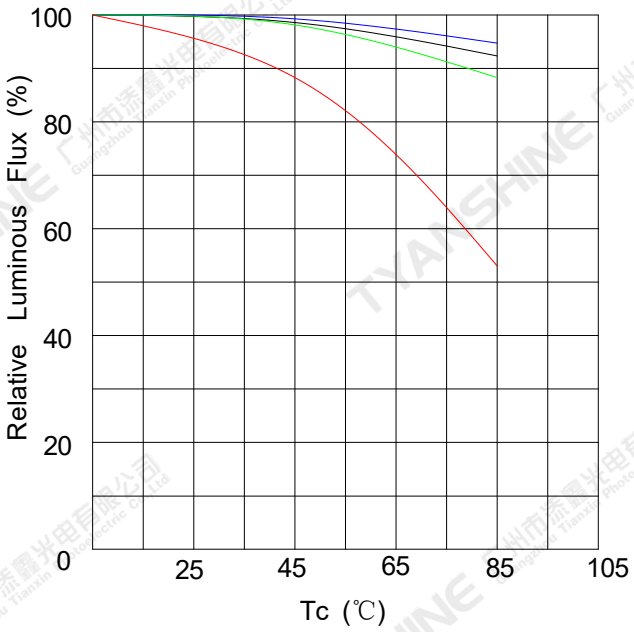
Forward Current VS. Relative Luminous Flux



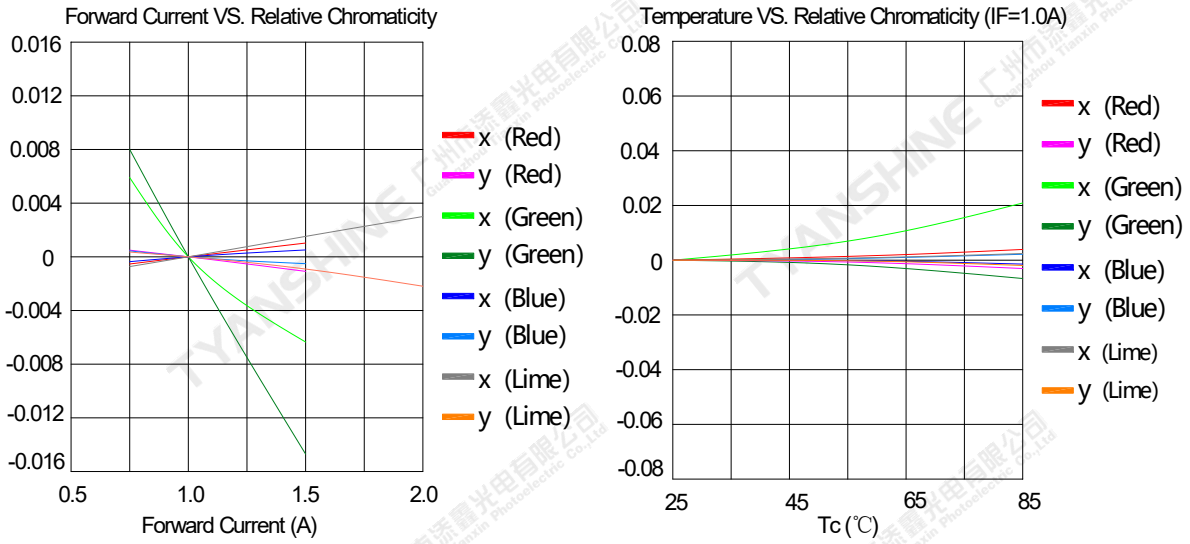
Temperature VS. Relative Forward Voltage (IF=1.0A)

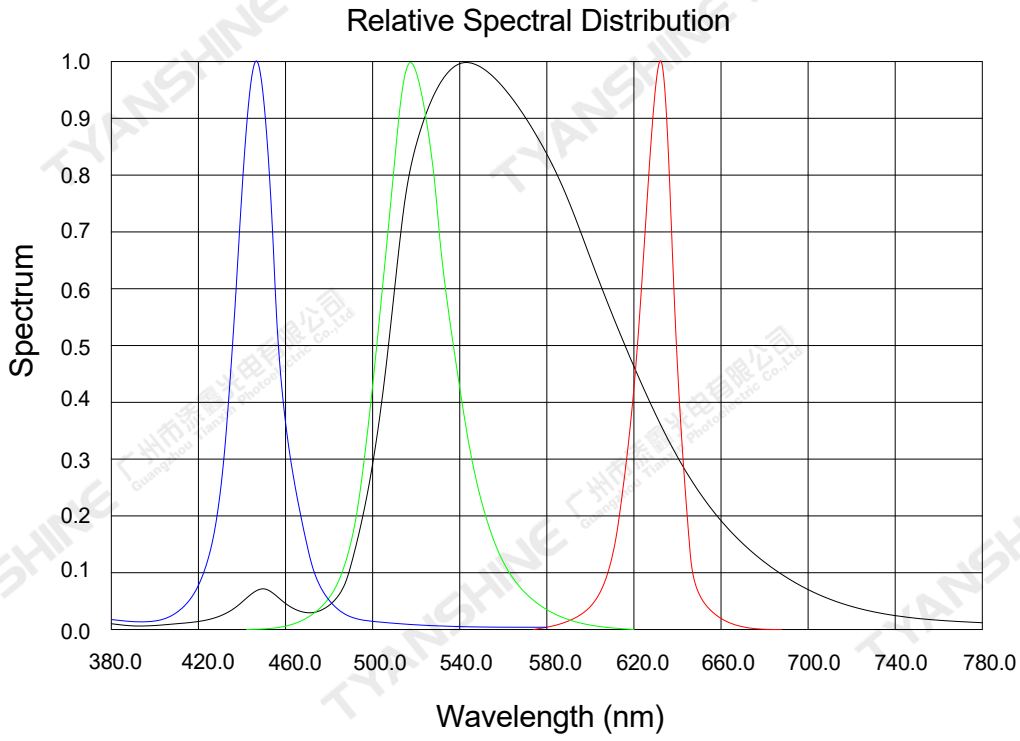


Temperature VS. Relative Luminous Flux (IF=1.0A)



Notes: Red (R); Green (G); Blue (B); Lime (L);





Notes: Red（R）; Green（G）; Blue（B）; Lime（L）;

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°.

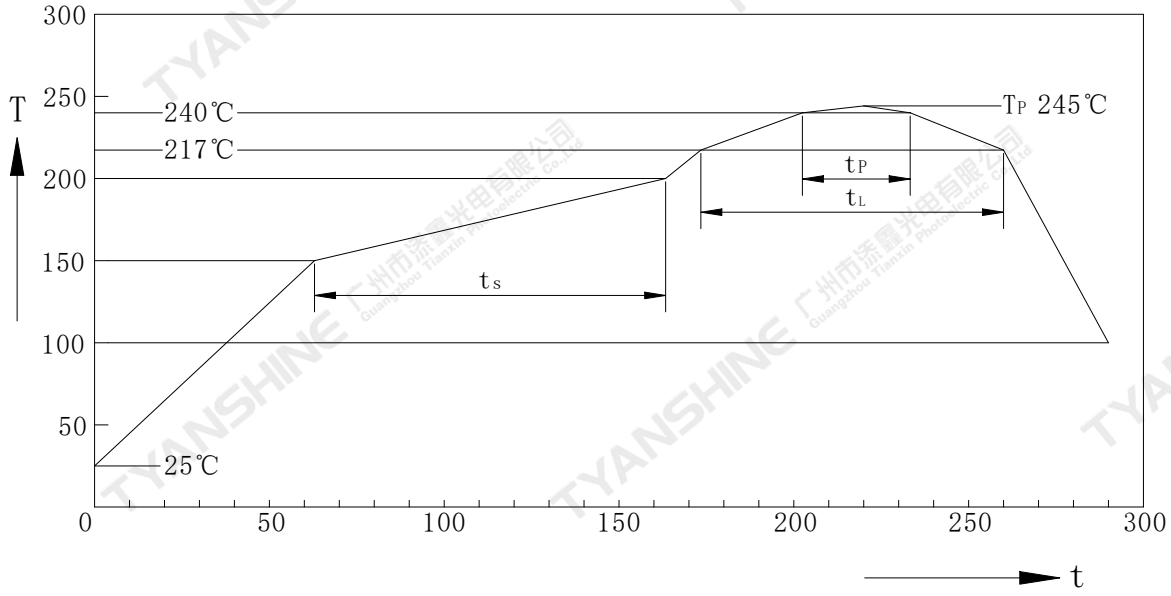
Usage Precautions

Storage Environment Condition

Temperature: 5℃ ~ 30℃ (41℉ ~ 86℉)

Humidity: 60% RH Max.

Soldering Condition



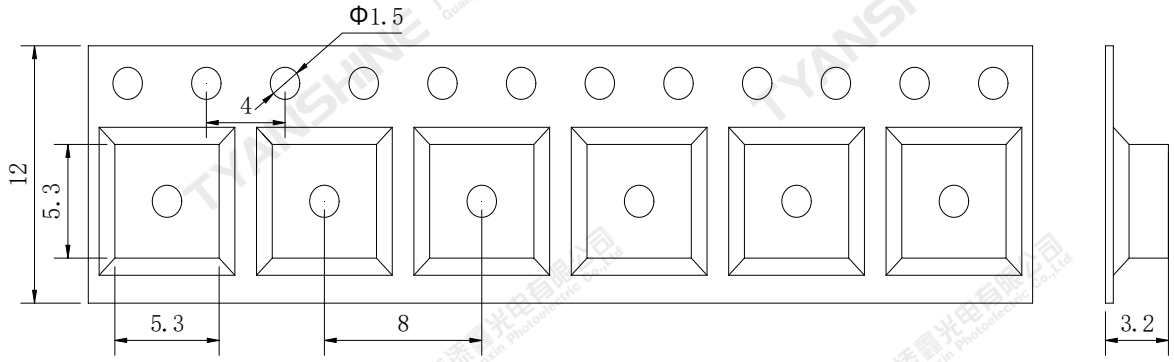
Profil-Charakteristik Profile Feature	Symbol	Pb-Free(SnAgCu)Assembly			Einheit Unit
		Minimum	Recommendation	Maximum	
Ramp-up Rate to Preheat 25℃ to 150℃	-	-	2	3	K/s
Time t_s T_{Smin} to T_{Smax}	t_s	60	100	120	s
Ramp-up Rate to Peak T_{Smax} to T_p	-	-	2	3	K/s
Liquidus Temperature	T_L	217			℃
Time above Liquidus temperature	t_L	-	80	100	s
Peak Temperature	T_P	-	245	255	℃
Time within 5℃ of the specified peak temperature T_p-5 K	t_P	10	20	30	s
Ramp-down Rate T_p to 100℃	-	-	3	6	K/s
Time 25℃ to T_p	-	-	-	480	-

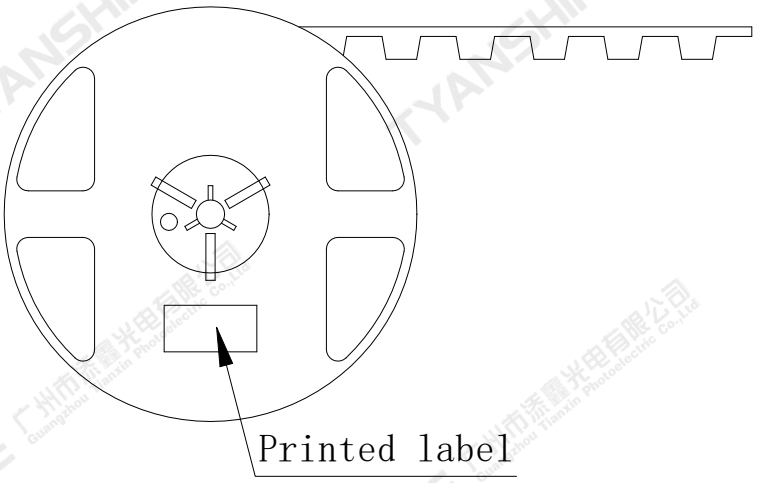
Note:

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

Dimensions For Cannulation And Packaging

Quantity:1000PCS





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.

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	-	
1.1	1、Luminous Flux：L（295lm-335lm）， 2、Dominant Wavelength：G（518nm-528nm）， 3、Correlated Colour Temperature：（4030K-4280K）。	1、Luminous Flux：L（295lm-355lm）， 2、Dominant Wavelength：G（520nm-530nm）， 3、Correlated Colour Temperature：（4250K-4500K）。	2023/11/16