

TX-5060RGBW20FC120-NUVCNG-02AN

PRODUCT SPECIFICATION

Features:

- ◆ 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
- ◆ White: GaInN

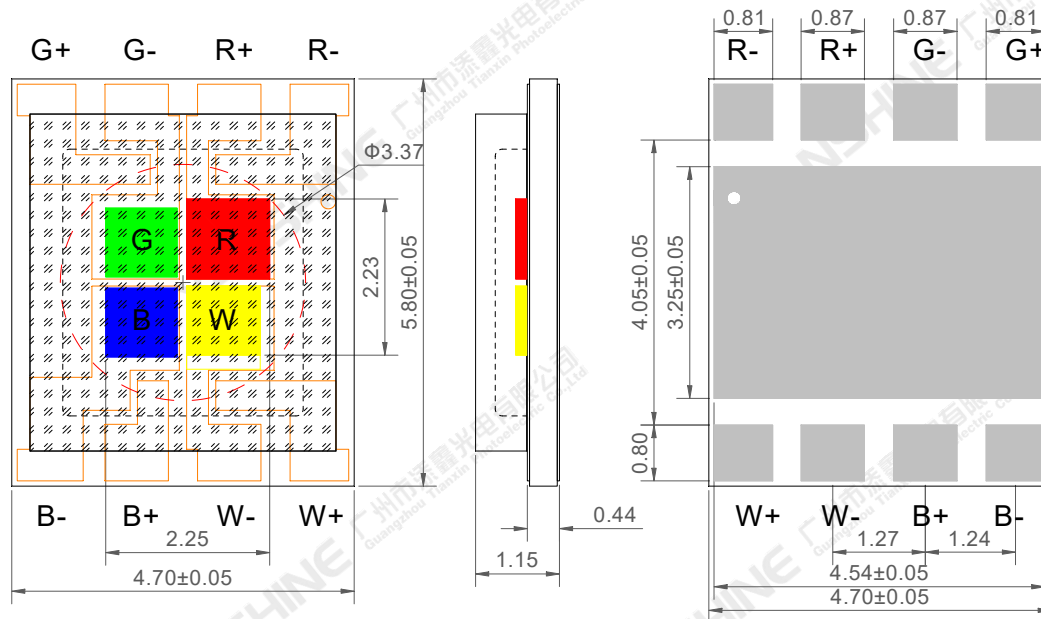
Emitting Color:

- ◆ Red (R)
- ◆ Green (G)
- ◆ Blue (B)
- ◆ White (W)

Applications:

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

Package Dimensions:



Notes:

- 1.All dimensions are in millimeters .
- 2.Tolerances unless otherwise mentioned are ± 0.1 mm .

Absolute Maximum Ratings (Tc=25°C)

Parameter	Symbol	Ratings	Unit	
Forward Current	IF	R	1.5	A
		G	1.5	
		B	1.5	
		W	2.0	
Reverse Voltage	V _R	Not designed for reverse operation	V	
Power Dissipation	P _D	R	4.2	W
		G	5.7	
		B	5.7	
		W	7.6	
Junction Temperature	T _j	R	115	°C
		G	150	
		B	150	
		W	150	
Electrostatic Discharge Threshold (ESD)	ESD	2000	V	
Storage Temperature	T _{stg}	-20~+70	°C	
Operation Temperature	T _{opr}	-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)

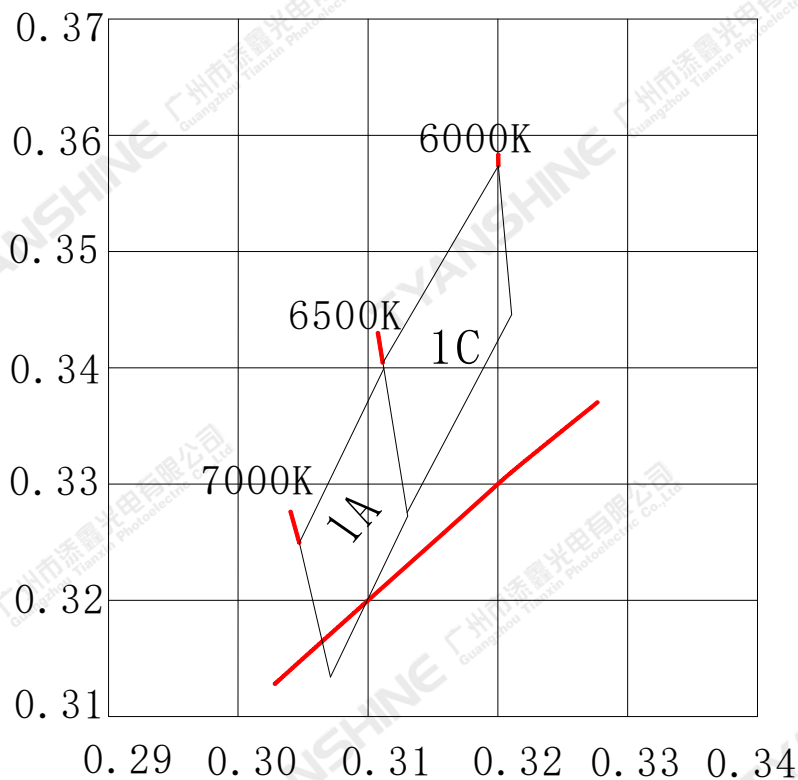
Parameter	Symbol	Condition	Emitting color	Min.	Typ.	Max.	Units
Luminous Flux	ϕ_v	If=1.0A	R	80	—	110	lm
		If=1.0A	G	185	—	235	
		If=1.0A	B	30	—	40	
		If=1.0A	W	250	—	300	
		If=1.2A	R	100	—	140	
		If=1.5A	G	240	—	310	
		If=1.5A	B	50	—	60	
		If=1.5A	W	380	—	420	
Forward Voltage	V_f	If=1.0A	R	1.8	—	2.6	V
		If=1.0A	G	2.8	—	3.6	
		If=1.0A	B	2.8	—	3.6	
		If=1.0A	W	2.8	—	3.6	
		If=1.2A	R	2.0	—	2.8	
		If=1.5A	G	3.0	—	3.8	
		If=1.5A	B	3.0	—	3.8	
		If=1.5A	W	3.0	—	3.8	
Dominant Wavelength	λ_d	If=1.0A	R	618	622	628	nm
		If=1.0A	G	522	527	532	
		If=1.0A	B	448	452	458	
Peak-emission Wavelength	λ_p	If=1.0A	R	625	630	635	nm
		If=1.0A	G	516	521	526	
		If=1.0A	B	442	447	452	
Correlated Colour Temperature	CCT	If=1.0A	W	6000	—	7000	K
Color Rendering Index	Ra	—	W	—	—	—	—
Viewing Angle at 50% IV	$2\theta_{1/2}$	—	—	—	120	—	Deg
Reverse Current	$V_R=5V$	—	R	—	—	2	μA
		—	G	—	—	2	
		—	B	—	—	2	
	—	W	Not designed for reverse operation				
Thermal Resistance Junction to Case	$R\theta_{J-C}$	—	—	—	0.8	—	K/W
Temperature Coefficient of Voltage	$V\Delta F/T$	If=1.0A	R	—	-3.12	—	mV/°C
		If=1.0A	G	—	-4.5	—	
		If=1.0A	B	—	-2.52	—	
		If=1.0A	W	—	-4.15	—	

Notes:

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- 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: $\pm 10\%$.
- 4.Forward voltage measurement tolerance: $\pm 3\%$.
- 5.Ra measurement tolerance: ± 2 .

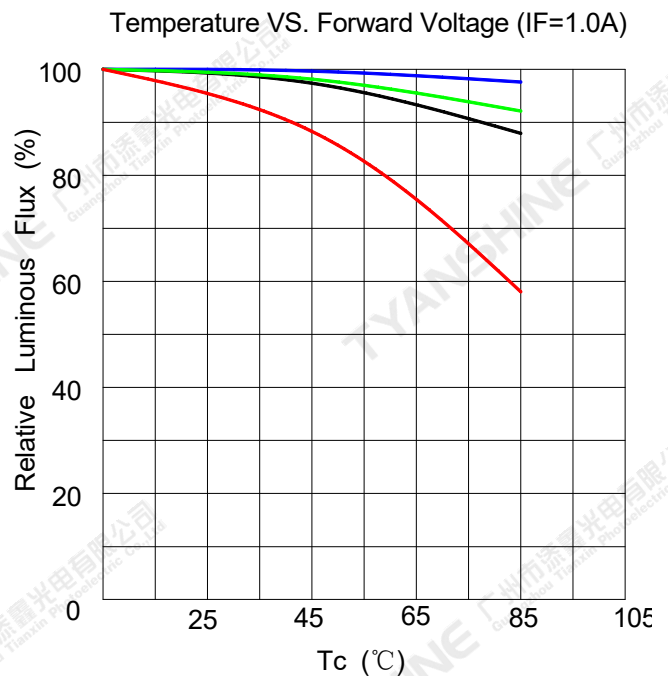
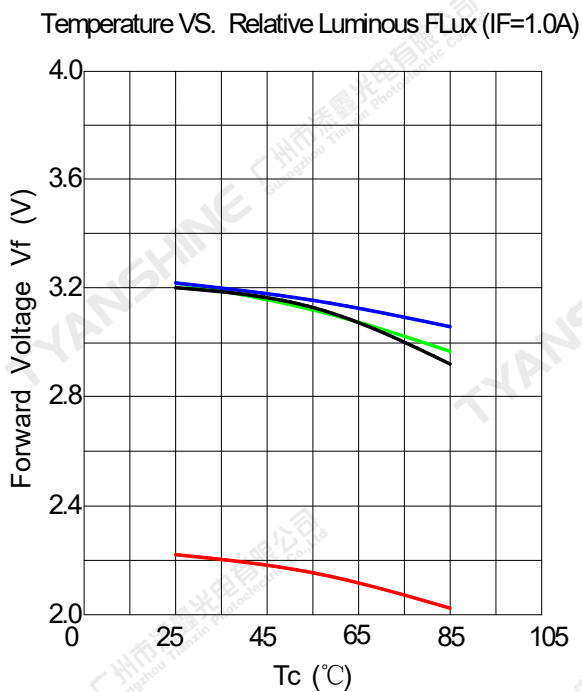
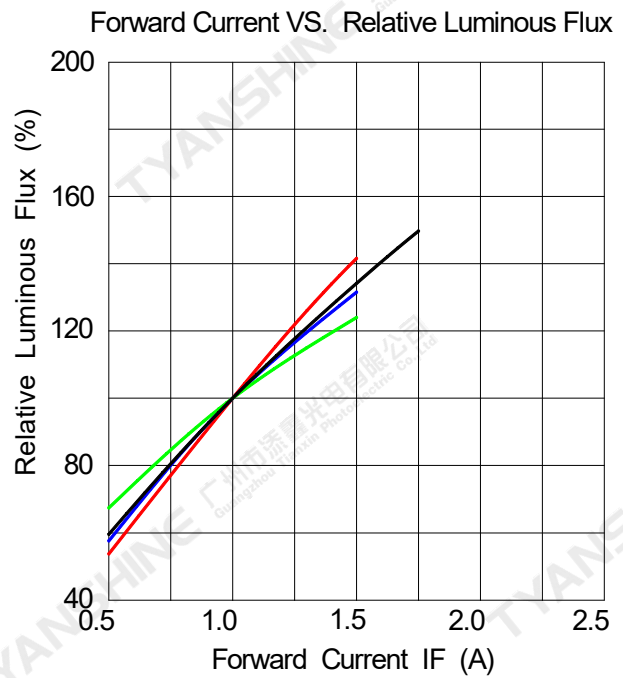
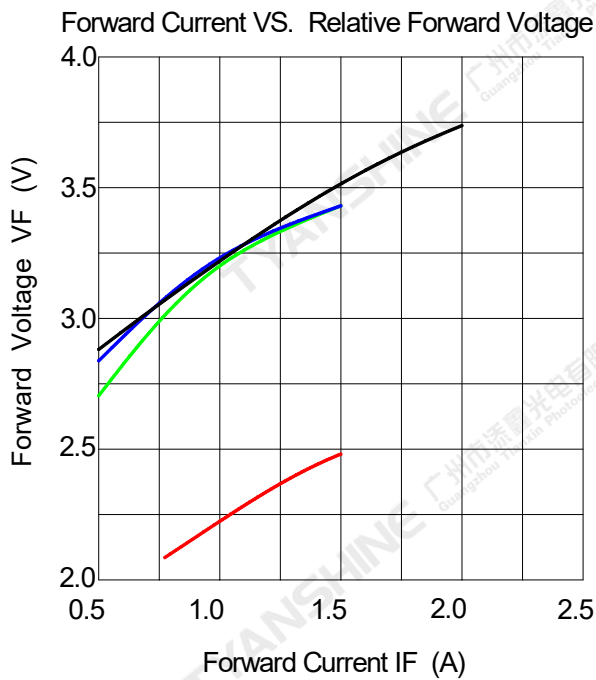
White light Color coordinate filing Tc=25°C,IF=1.0A



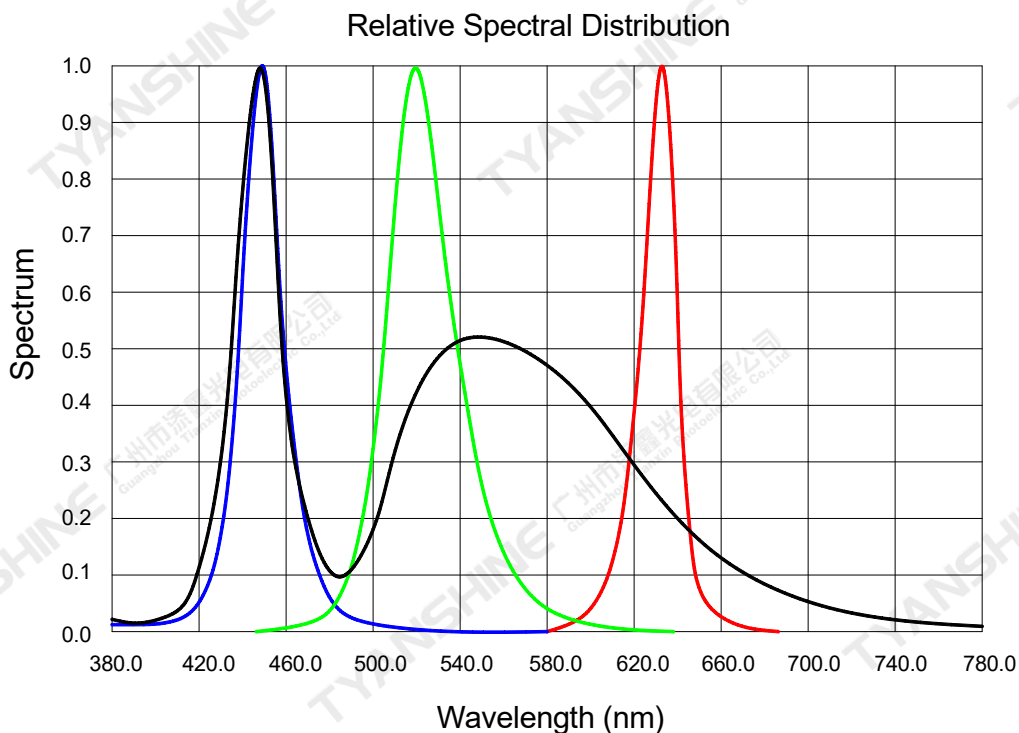
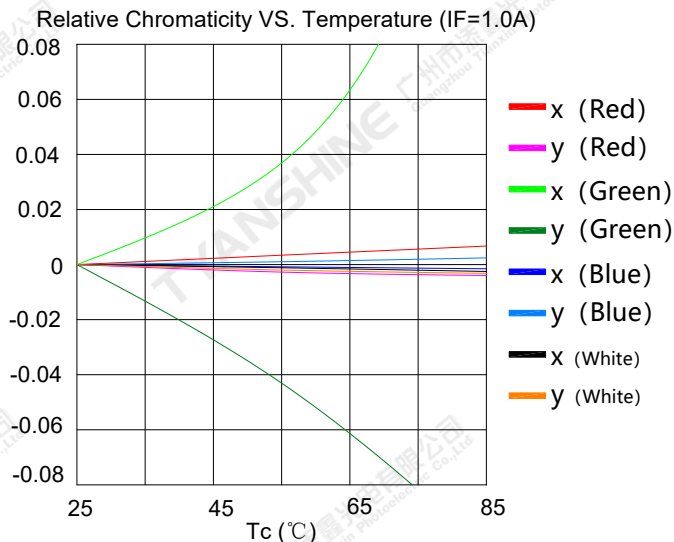
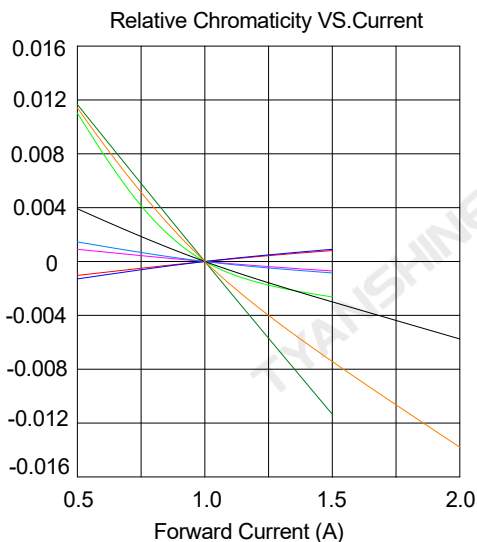
Region	CCT Range		X1	Y1	X2	Y2	X3	Y3	X4	Y4
	Min	Max								
1C	6000K	6500K	0.3211	0.3446	0.32	0.3574	0.3111	0.3404	0.313	0.3276
1A	6500K	7000K	0.3131	0.3272	0.3112	0.3399	0.3047	0.325	0.3071	0.3134

Typical Electrical/Optical Characteristics Curves

(25°C Ambient Temperature Unless Otherwise Noted)



Notes: — Red (R) ; — Green (G) ; — Blue (B) ; — White (W) ;



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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

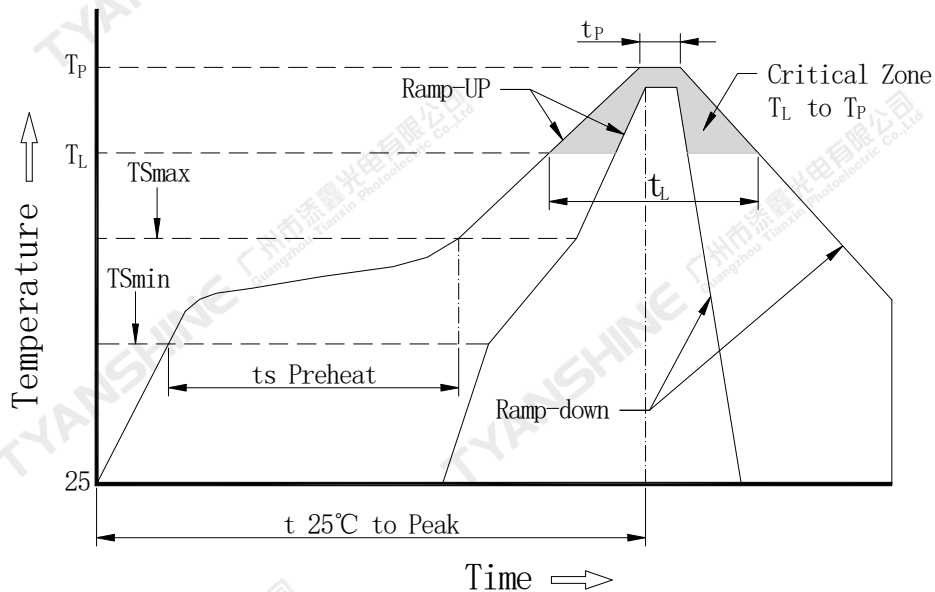
Storage Environment Condition

Temperature: 5°C ~ 30°C (41°F ~ 86°F)

Humidity: 60% RH Max.

Soldering Condition

Use the conditions shown to the under figure.



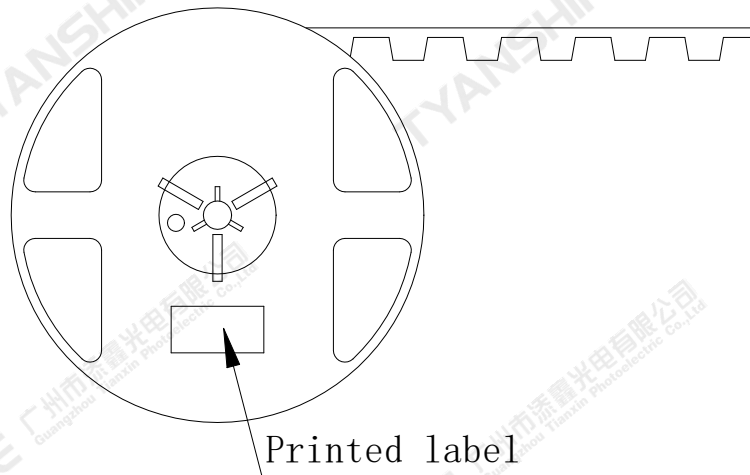
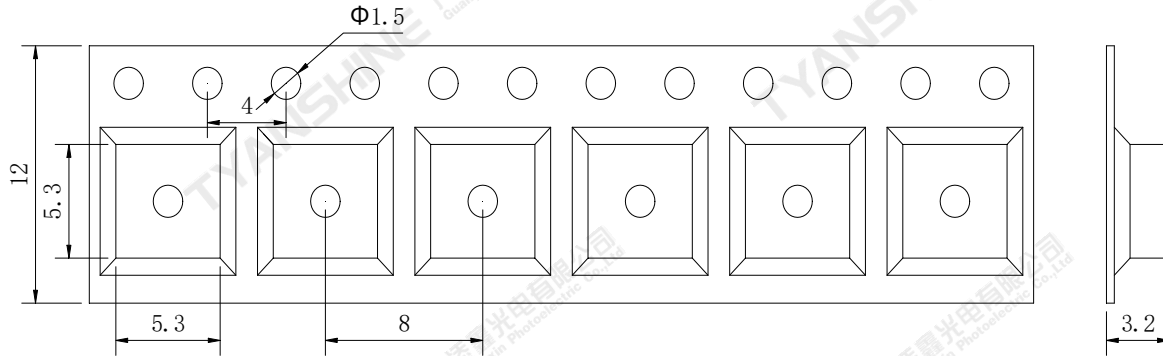
Profile Feature	Pb-Free Solderr(SnBi35Ag0.3)
Average Ramp-Up Rate (TS _{max} to TP)	3°C/second max.
Preheat: Temperature Min (TS _{min})	100°C
Preheat: Temperature Max (TS _{max})	150°C
Preheat: Time (TS _{min} to TS _{max})	60-120 seconds
Time Maintained Above: Temperature (TL)	183°C
Time Maintained Above: Time (tL)	60-150 seconds
Peak/Classification Temperature (TP)	225°C
Time Within 5°C of Actual Peak Temperature (TP)	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: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.

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