

TX-1515RGBWS40A11M08-01H90

PRODUCT SPECIFICATION (R&D version)

Features:

- ◆ Excellent transiting heat from LED chip operating under R: 450mA, GBWS: 600mA.
- ◆ Mixing any two colors of light, there will be no partial color and color spots uneven phenomenon.
- ◆ High luminous output.
- ◆ No UV.
- ◆ Encapsulated materials are environmentally certified and meet environmental requirements.

Chip Material:

- ◆ Red: AlGaInP
- ◆ Green: GaInN
- ◆ Blue: GaN
- ◆ Warm White: GaN
- ◆ White: GaN

Emitting Color:

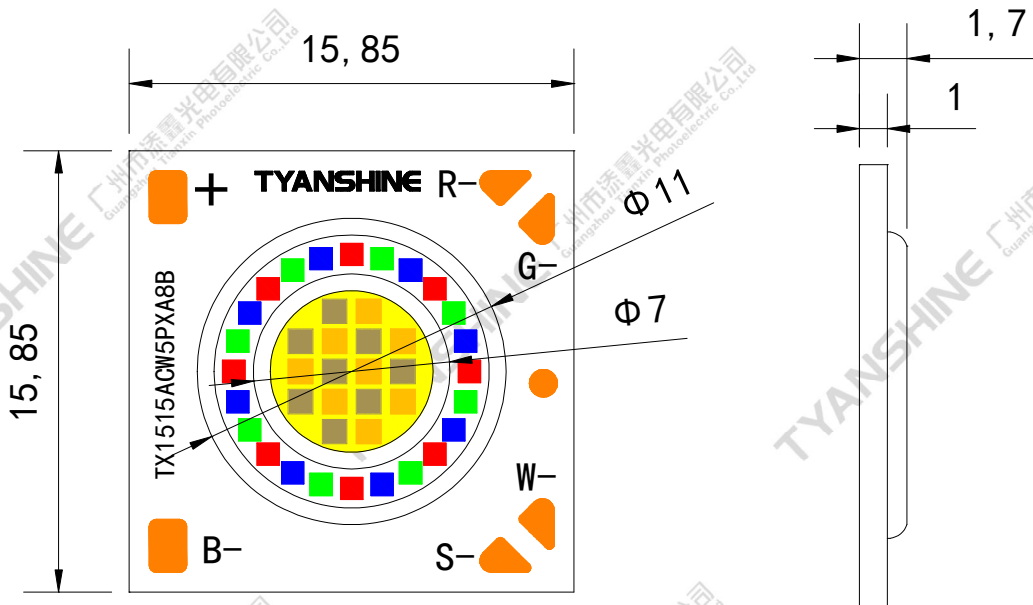
- ◆ Red
- ◆ Green
- ◆ Blue
- ◆ Warm White
- ◆ White

Applications:

- ◆ Indoor lighting
- ◆ Outdoor lighting
- ◆ Industrial Lighting
- ◆ Consumer Lighting
- ◆ Consumer Lighting

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Package Dimensions:



R-red; G-green; W-white;S-warm white;B-blue

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ± 0.25 mm (0.01") unless otherwise noted.

Absolute Maximum Ratings at Ta=25°C

Parameter	Symbol	MAX.	Unit
LED Junction Temperature	T _j	110	°C
Power Dissipation	P _D	R	8000
		G	14400
		B	14400
		W	14400
		S	14400
Continuous Forward Current	I _F	R	450
		G	600
		B	600
		W	600
		S	600
Reverse Voltage	V _R	—	V
Case Temperature (C)	T _c	85	°C
Electrostatic Discharge Threshold (ESD)	ESD	2000	V
Operating Temperature Range	T _{opr}	-30 to +70	°C
Storage Temperature Range	T _{spr}	-30 to +80	

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.

Characteristics (Ta=25°C,R/G/B/W/S:IF=350mA):

Parameter	Symbol	Emitting Color	Values			Units
			Min.	Typ.	Max.	
Luminous Flux	ϕ_v	R	220	250	—	lm
		G	550	650	—	
		B	110	140	—	
		W	750	900	—	
		S	580	680	—	
Viewing Angle at 50 % IV	$2\theta_{1/2}$	R	—	115	—	Deg
		G	—	115	—	
		B	—	115	—	
		W	—	115	—	
		S	—	115	—	
Peak Emission Wavelength	λ_p	R	630	635	640	nm
		G	515	520	525	
		B	445	450	455	
Dominant Wavelength	λ_d	R	620	625	630	nm
		G	520	525	530	
		B	450	455	460	
Thermal Resistance Junction to Case	$R\theta_{J-C}$	R	—	4.60	—	K/W
		G	—	4.60	—	
		B	—	4.60	—	
		W	—	3.90	—	
		S	—	3.90	—	
Spectral Line Half-Width	$\Delta\lambda$	R	15	20	25	nm
		G	25	30	35	
		B	15	20	25	
Forward Voltage	V_f	R	15	17	19	V
		G	20	22	24	
		B	22	24	26	
		W	22	24	26	
		S	22	24	26	
Correlated Colour Temperature	CCT	W	6000	6300	6700	K
		S	2620	2700	2780	
Color Rendering Index	Ra	W	90	—	—	—
		S	90	—	—	

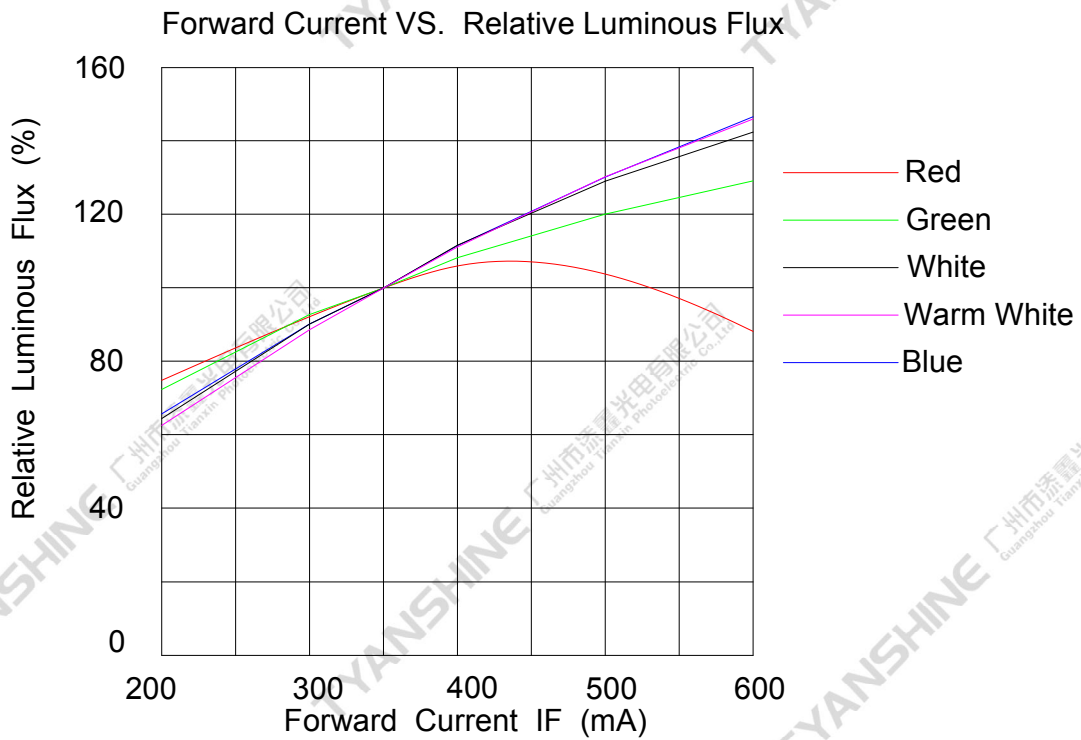
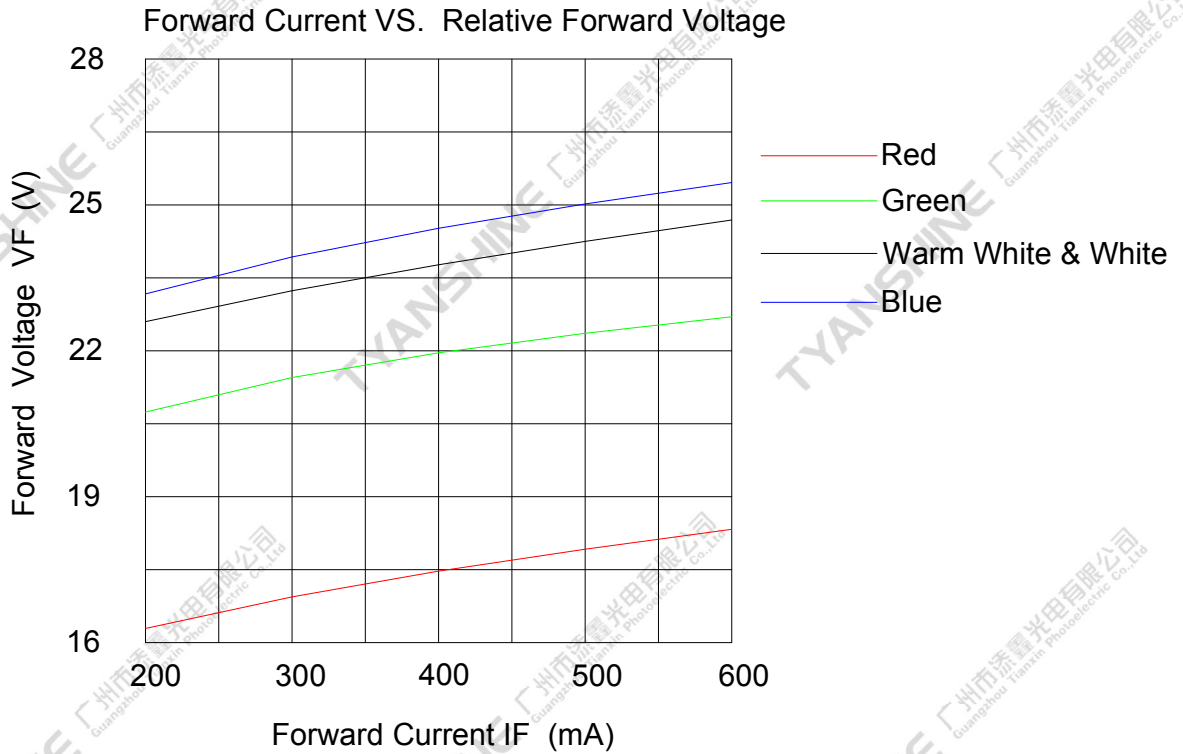
Notes:

- 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
- The dominant wavelength (λ_d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.
- Flux is measured with an accuracy of $\pm 15\%$.
- Forward voltage is measured with an accuracy of $\pm 0.15V$.

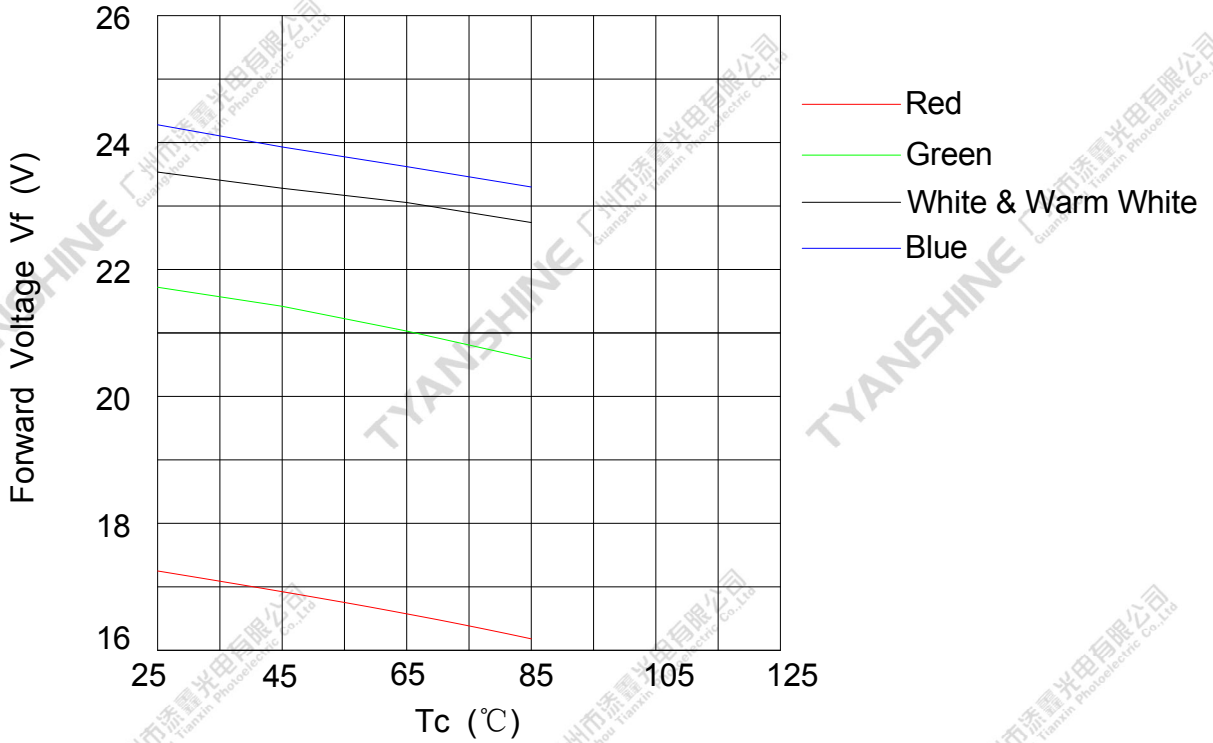
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Typical Electrical / Optical Characteristics Curves

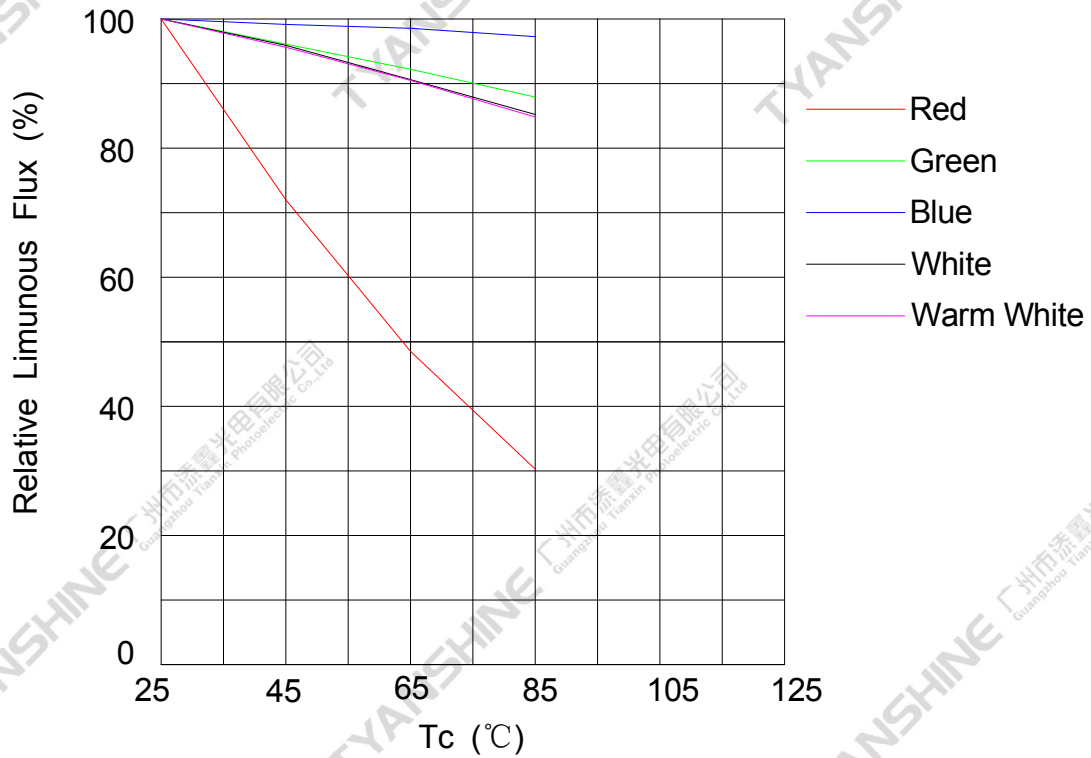
(25°C Ambient Temperature Unless Otherwise Noted)



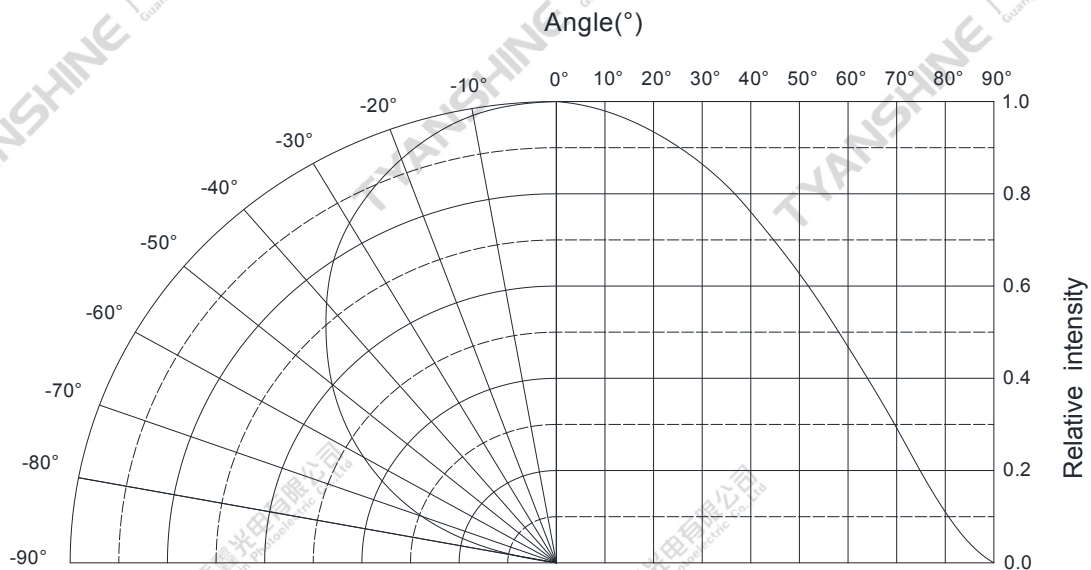
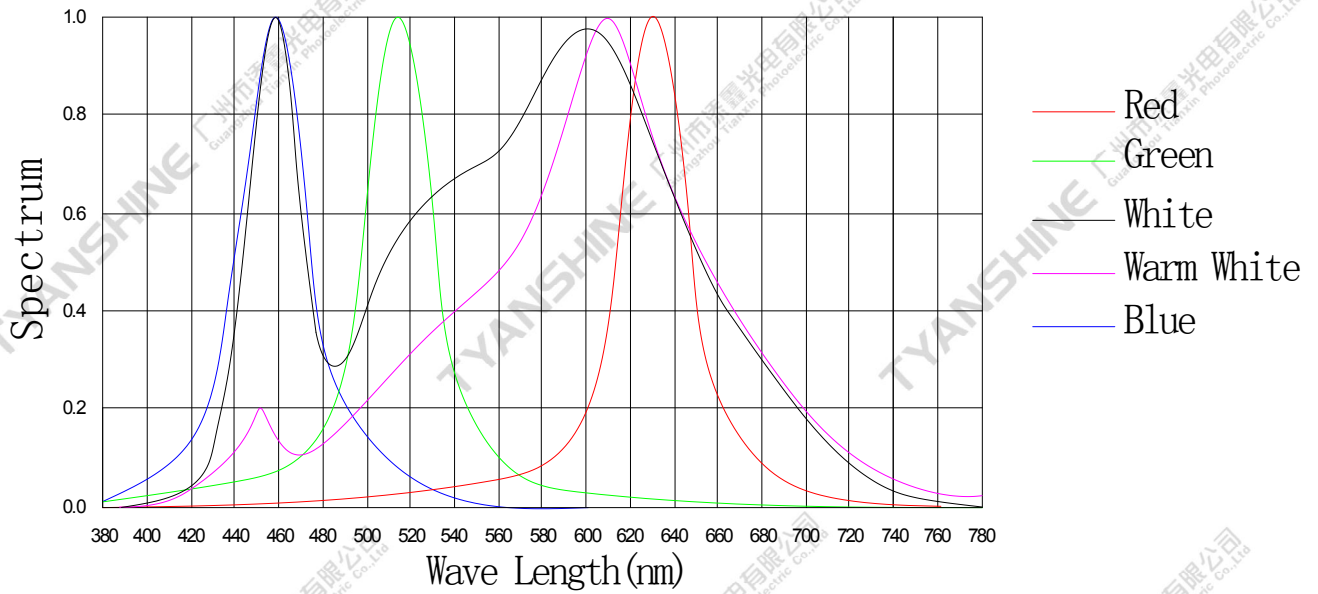
Temperature VS. Forward Voltage (IF=350mA)



Temperature VS. Relative Luminous FLux (IF=350mA)



Relative Spectral Distribution



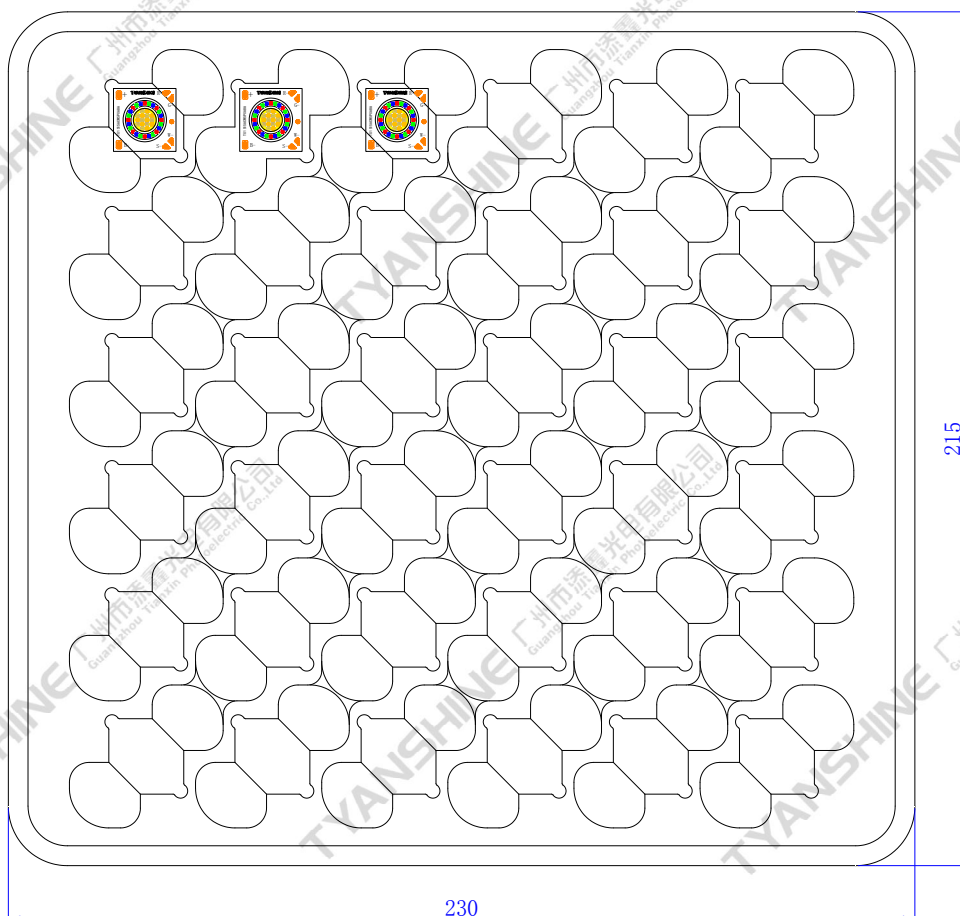
Notes:

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 $\pm 5^\circ$.

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Dimensions For Cannulation And Packaging

Quantity: 36PCS



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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