



HUIYUAN ELECTRONIC CO.,LTD.  
慧源电子有限公司

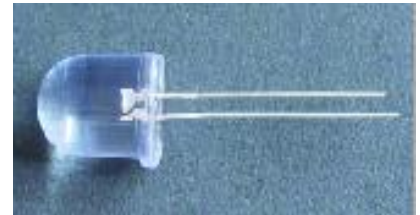
## TECHNOLOGY DATA SHEET & SPECIFICATIONS

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MODEL: 10mm Round LED

### Features

- High efficiency
- Low Power consumption
- General purpose leads
- Selected minimum intensities
- Available on tape and reel
- Pb free



### Descriptions

- The series is specially designed for applications requiring higher brightness
- The LED lamps are available with different colors, intensities, epoxy colors, etc
- Superior performance in outdoor environment



### Usage Notes:

- Surge will damage the LED
- When using LED, it must use a protective resistor in series with DC current about 20mA

### Applications

- Status indicators
- Commercial use
- Advertising Signs
- Back lighting



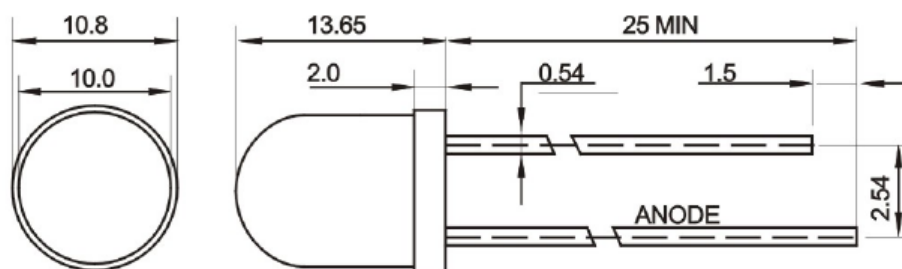
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### Device Selection Guide

LED Part No.	Chip		Lens Color
	Material	Emitted Color	
10003R1C-CSA-A	AlGaInP	Red	Water clear
10003R1C-CSB-B			
10034R1C-CSC-C			
10034R1C-CSE-E			
10003Y1C-CSA-A		Yellow	
10003Y1C-CSB-B			
10034Y1C-CSC-C			
10034Y1C-CSE-E			
10034G3C-CSC-A	InGaN	Green	
10034G3C-CSE-B		Blue	
10034B2C-CSB-A			
10034B2C-CSC-B			
10034B2C-CSD-C			
10034W2C-CSB-A			
10034W2C-CUA-C			

### Package Dimensions



UNIT:mm

### Notes:

- \*Other dimensions are in millimeters, tolerance is 0.25mm except being specified.
- \*Protruded resin under flange is 1.5mm Max LED.
- \*Bare copper alloy is exposed at tie-bar portion after cutting.



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### Electro-Optical Characteristics (T<sub>a</sub>=25°C)

Parameter	Symbol	Part No.	Parameter	Unit	Test Condition
Luminous Intensity	I <sub>v</sub>	10003R1C-CSA-A	800-1200	mcd	IF=20mA(Note1)
		10003R1C-CSB-B	1500-2000		
		10034R1C-CSC-C	3000-4000		
		10034R1C-CSE-E	8000-9000		
		10003Y1C-CSA-A	800-1200		
		10003Y1C-CSB-B	1500-2000		
		10034Y1C-CSC-C	3000-4000		
		10034Y1C-CSE-E	8000-9000		
		10034G3C-CSC-A	3000-4800		
		10034G3C-CSE-B	8000-9600		
		10034B2C-CSB-A	1500-2000		
		10034B2C-CSC-B	2000-4000		
		10034B2C-CSD-C	6000-6800		
		10034W2C-CSB-A	2000-3500		
10034W2C-CUA-C	10000-12000				
Viewing Angle	2θ <sub>1/2</sub>	---	25	Deg	(Note 2)
Peak Emission Wavelength	λ <sub>p</sub>	Red	620-635	nm	IF=20mA
		Yellow	580-595		
		Green	520-535		
		Blue	460-470		
		White	---		
Spectral Line Half-Width	Δλ	---	15	nm	IF=20mA
Forward Voltage	V <sub>F</sub>	Red & Yellow	1.9-2.3	V	IF=20mA
		Green, Blue, White	2.9-3.3		
Reverse Current	I <sub>R</sub>	---	10	μA	VR=5V

### Note:

- Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
- θ<sub>1/2</sub> is the off-axis angle at which the luminous intensity is half the axial luminous intensity.



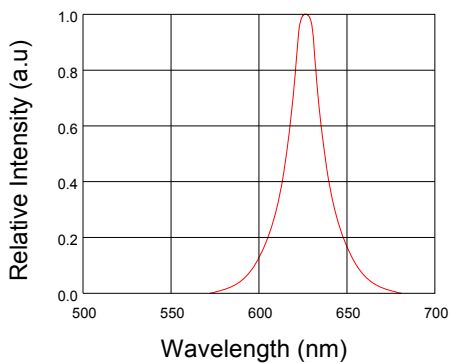
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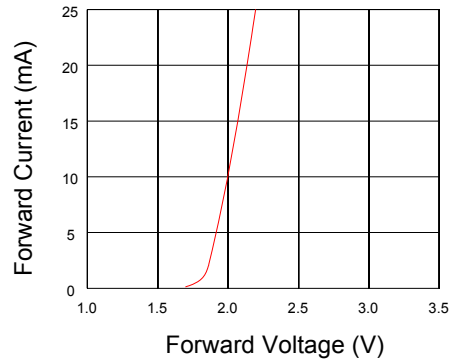
### Typical Electro-Optical Characteristics Curves

Red

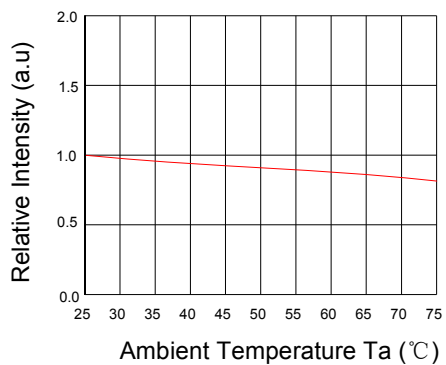
Relative Intensity VS. Wavelength



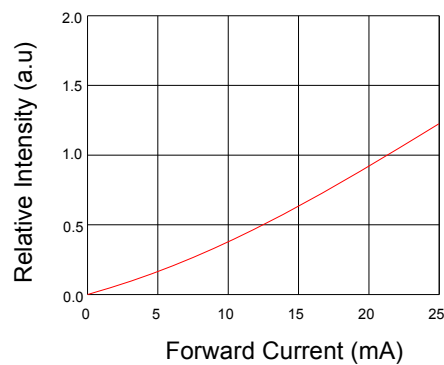
Forward Current VS. Forward Voltage



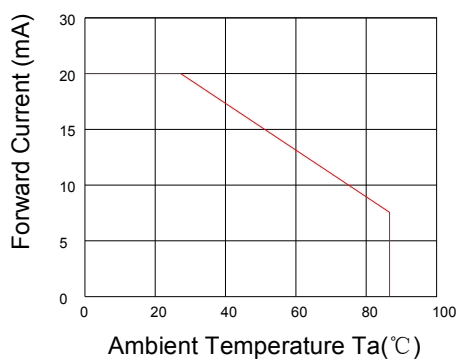
Relative Intensity VS. Ambient Temp



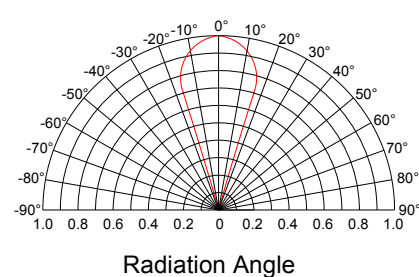
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics



ADD: Yuanshanzai Industrial Areas, Xinchang Village, Tangxia, Jiangmen City, Guangdong, China.

ZIP:529000

Tel: 0086-0750-3599880

Fax: 0086-0750-3599848

E-mail: [sales@hyledchina.com](mailto:sales@hyledchina.com)

Homepage: <http://www.hyledchina.com>

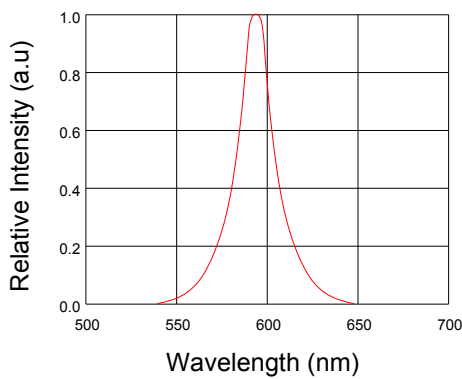


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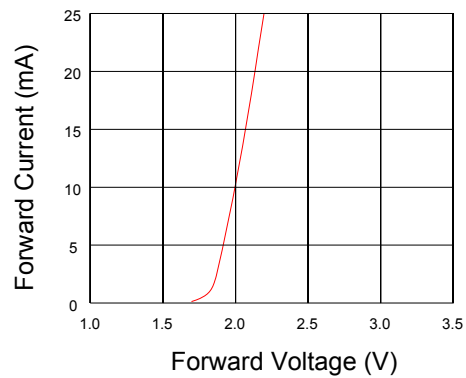
### MODEL: 10mm Round LED

Yellow

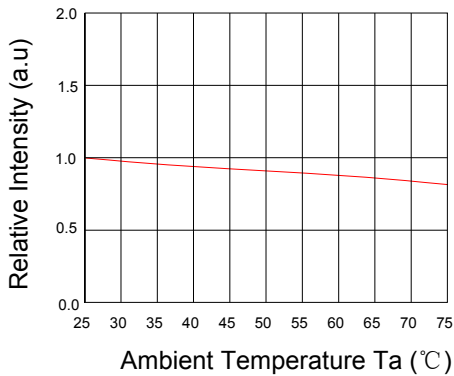
Relative Intensity VS. Wavelength



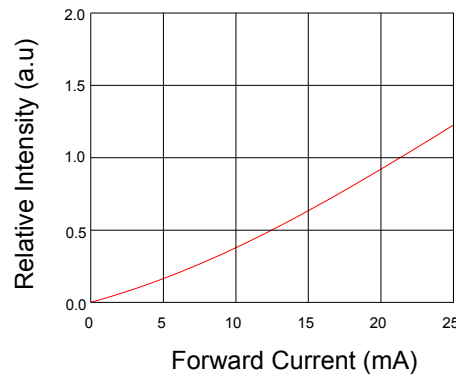
Forward Current VS. Forward Voltage



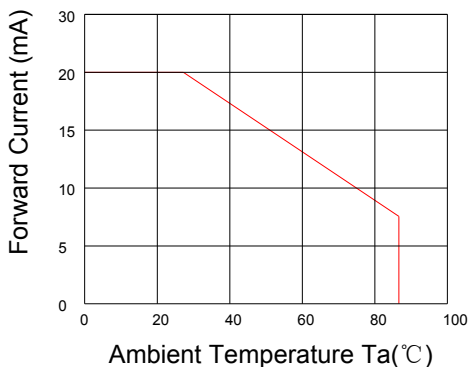
Relative Intensity VS. Ambient Temp



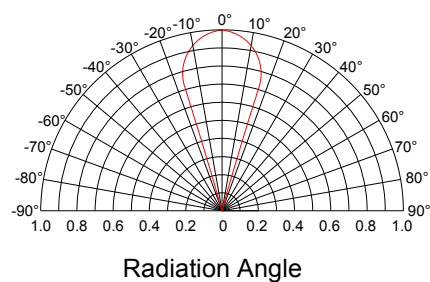
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics



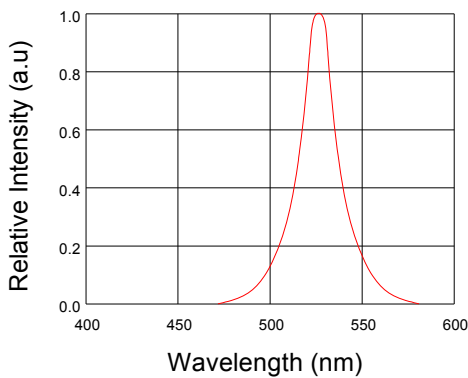


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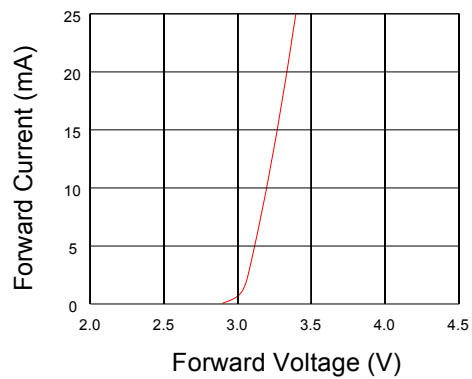
### MODEL: 10mm Round LED

Green

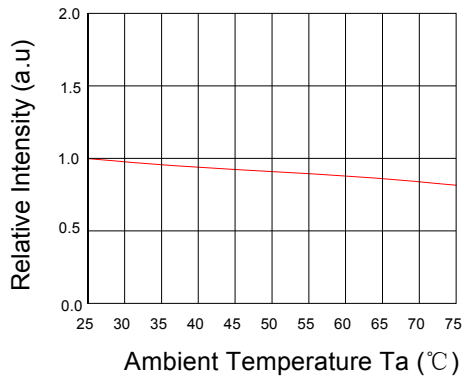
Relative Intensity VS. Wavelength



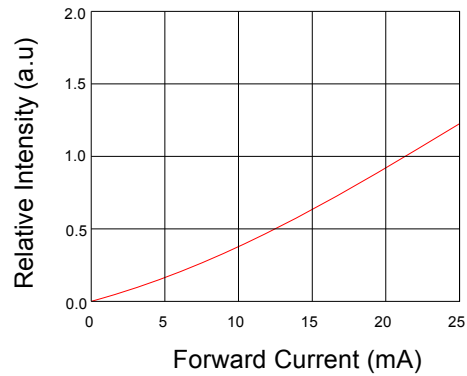
Forward Current VS. Forward Voltage



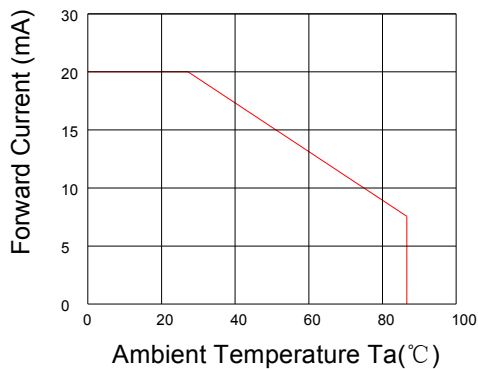
Relative Intensity VS. Ambient Temp



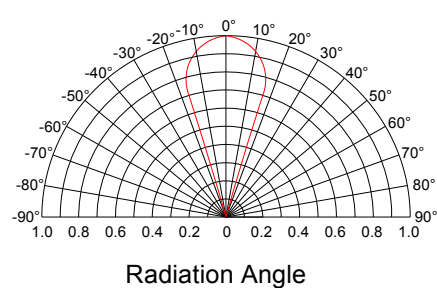
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



Radiation Characteristics



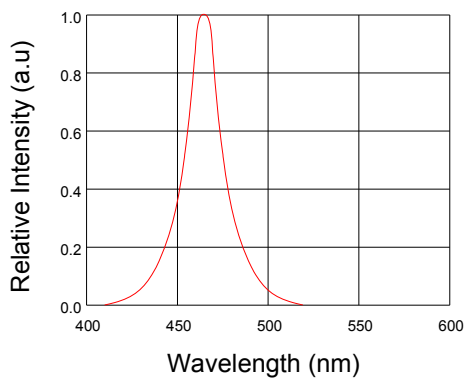


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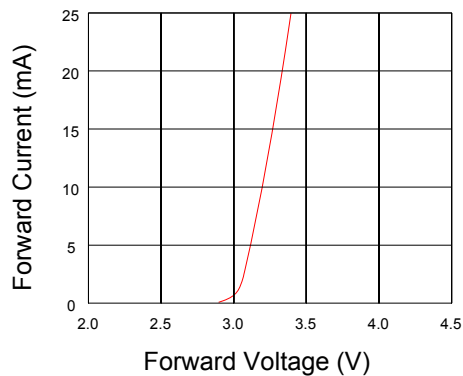
### MODEL: 10mm Round LED

Blue

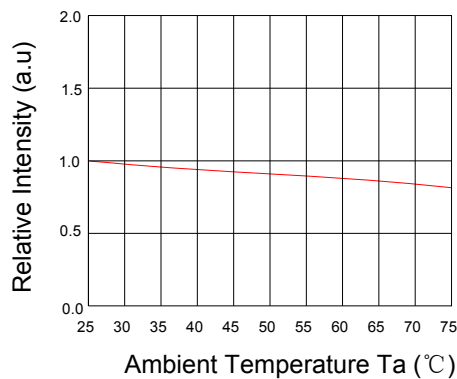
Relative Intensity VS. Wavelength



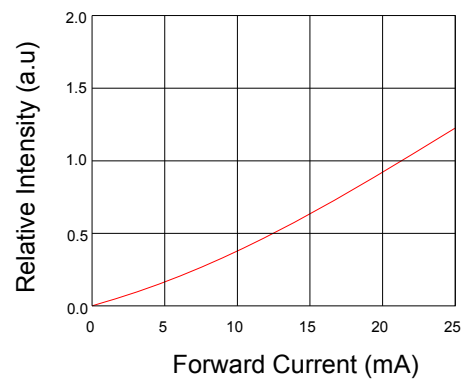
Forward Current VS. Forward Voltage



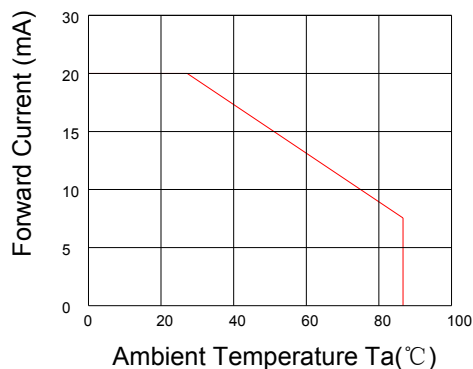
Relative Intensity VS. Ambient Temp



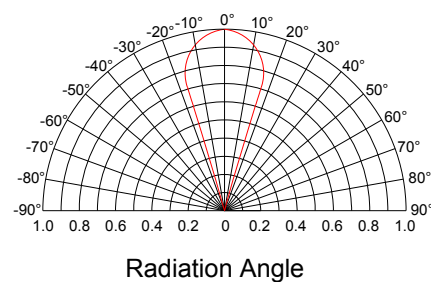
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



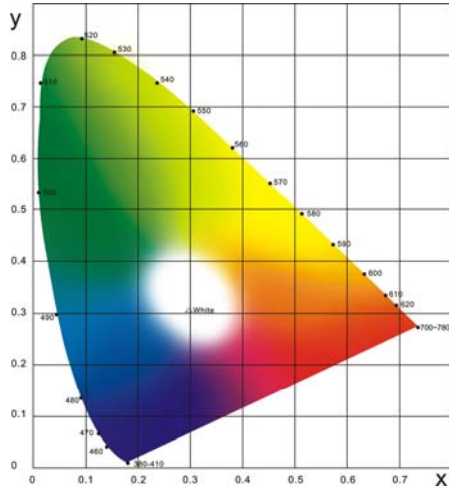
Radiation Characteristics





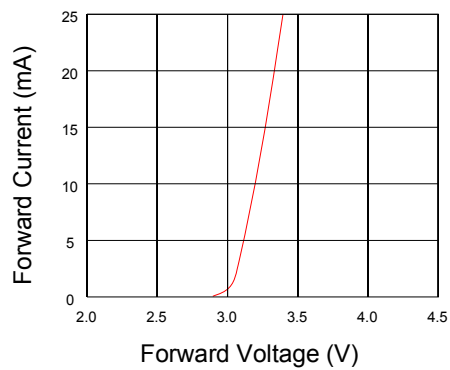
## TECHNOLOGY DATA SHEET & SPECIFICATIONS

White

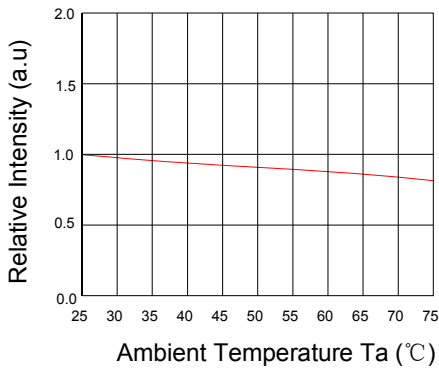


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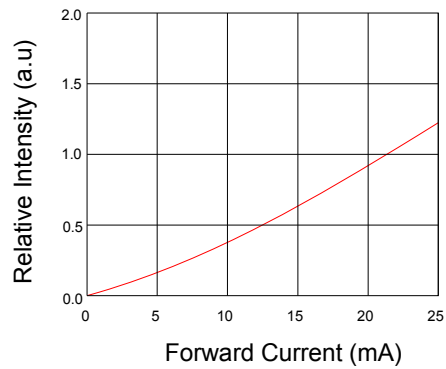
Forward Current VS. Forward Voltage



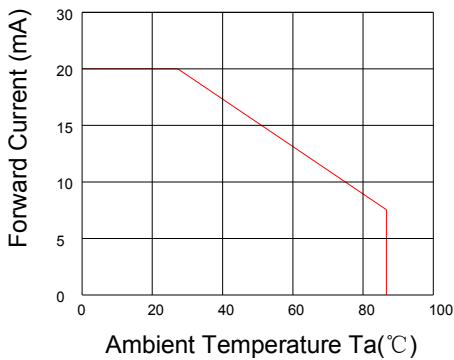
Relative Intensity VS. Ambient Temp



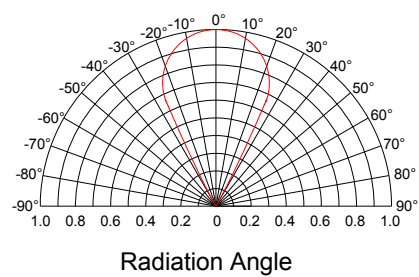
Forward Current VS. Relative Intensity



Forward Current VS. Ambient Temp.



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### Notes

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