

Ultra Bright White LED Lamp

YZ-WS 3 series

Y	Z	-	W	S	3	N	30	N
Product Code			Color	Color Note	Size	Shape	Angle 2θ ½	Stand-Off
			White	Sunny	3 mm	Normal	30°	No

FEATURES

- Highly Luminous Ultra Bright
- InGaN Technology Chip
- YAG Phosphor
- Super Luminous Intensity 4500 mcd
- High Luminous Flux 2.4 lm
- Extremely Uniform White Light
- Water Clear Resin Package
- Precise A, B, C, D Color Bin Selections
- 5mm Resin Mold with 3mm size option
- Wide Viewing Angles 23°, 30°, 60°

BENEFITS

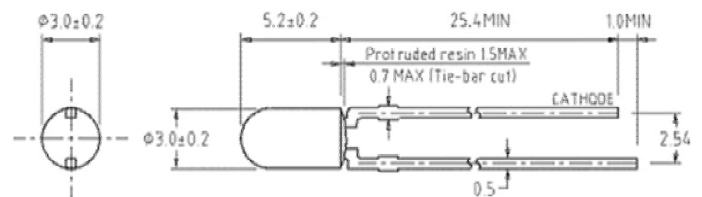
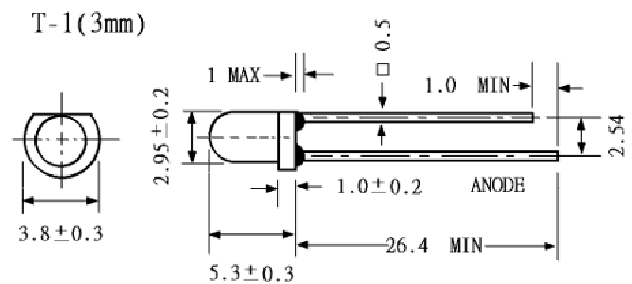
- Low Energy Consumptions
- Low Maintenance Costs
- High Application Design Flexibility
- High Reliability
- Prompt Shipment
- Very Competitive prices

APPLICATIONS

- Torch / Miniature Flash Lights
- Garden Lights
- Microscope Illuminators (Ring Lights)
- Electronic Displays and Signals
- Legend Back Lights
- Optical Indicator Lights
- Display / Decoration Lights
- Cavity Lights/ Effect Lights
- Desk Lamp Lights

- Channel Letter Lights
- Lantern Lights
- Solar Energy Lights
- Traffic Lights and Signals
- Automotive Interior Lights

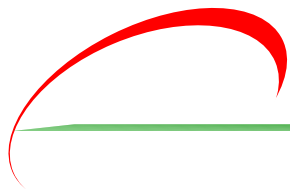
Package Dimensions



Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance ± 0.25 (0.01") mm unless otherwise noted.
3. Protruded resin under flange is 1.0mm (0.04") max.
4. Lead spacing is measured where the leads emerge from the package
5. Specifications are subject to change without prior notice.

CAUTION: YZ-WS 3 series LEDs are **Class 1 ESD** sensitive. Static Electricity and surge damage the LEDs. It is recommended to use a wristband or anti-electrostatic glove when handling LEDs. All devices, equipment and machinery must be properly grounded.



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			White	Sunny	3 mm	Normal	30°	No

Absolute Maximum Ratings at Ta = 25°C

Forward Voltage	V _f	3.2 ± 0.3 V
Continuous Forward Current	I _f	30 mA
Power Dissipation	P _d	120 mW
Peak Forward Current	I _{fp}	150 mA
Derating Factor		0.40 mA/ °C
Reverse Voltage	V _r	5 V
Operating Temperature	T _{op}	-25 ~ +85°C
Storage Temperature	T _{stg}	-35 ~ +100°C
Soldering Temperature	T _{sd}	260°C / 5 Sec

Luminous Intensity I_v at I_f = 20 mA

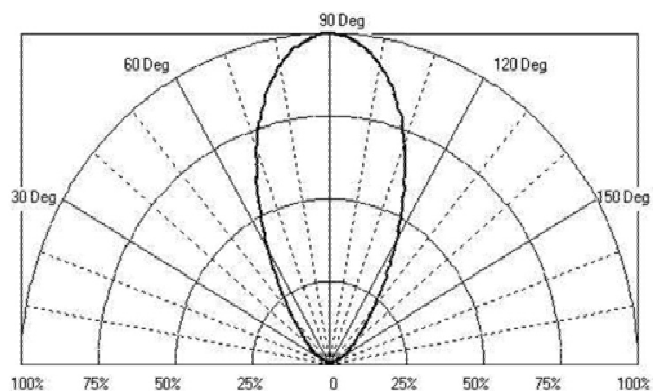
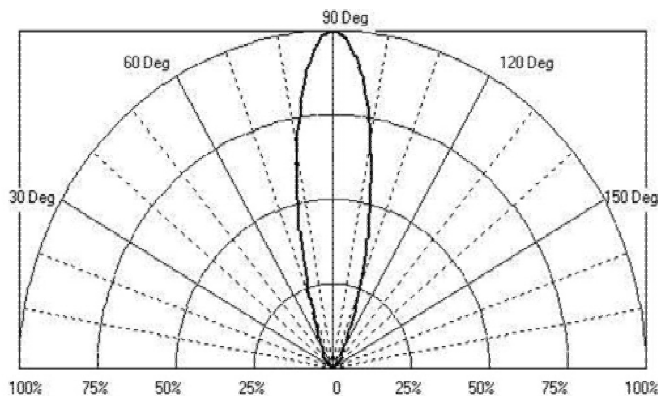
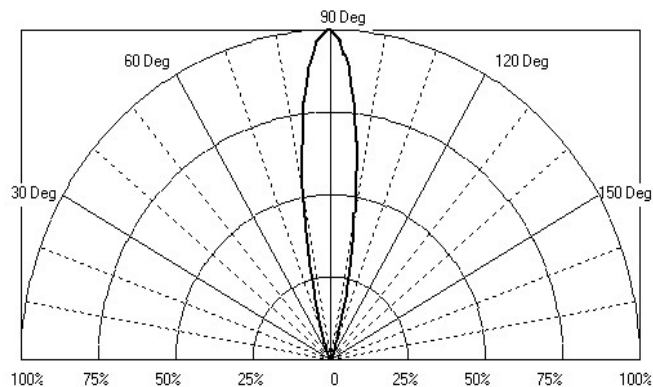
Type	Rank R			Rank S		
<i>Unit: mcd</i>	<i>Min.</i>	<i>Typ.</i>	<i>Max/Min.</i>	<i>Typ</i>	<i>Max</i>	
YZ-WS 3N23	2700	3200	3500	4000	4500	
YZ-WS 3N30	1700	2000	2400	2900	3500	
YZ-WS 3N60	850	1000	1200	1500	1800	

Luminous Flux Φ_v at I_f = 20 mA

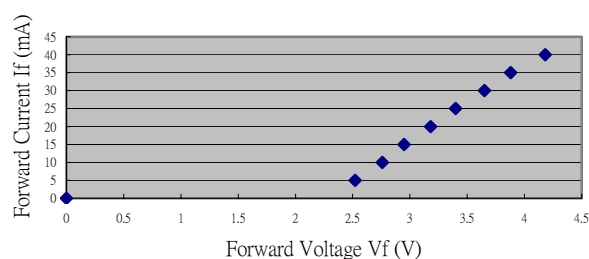
Type	Rank R			Rank S		
<i>Unit: lm</i>	<i>Min.</i>	<i>Typ.</i>	<i>Max/Min.</i>	<i>Typ</i>	<i>Max</i>	
YZ-WS 3N23	1.8	2.0	2.2	2.4	2.6	
YZ-WS 3N30	1.8	2.0	2.2	2.4	2.6	
YZ-WS 3N60	1.8	2.0	2.2	2.4	2.6	

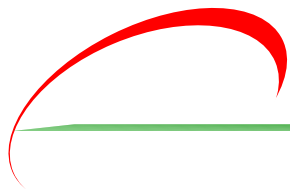
Typical Electrical / Optical Characteristics Curves at Ta = 25°C

Beam Pattern



Forward Current v.s. Forward Voltage





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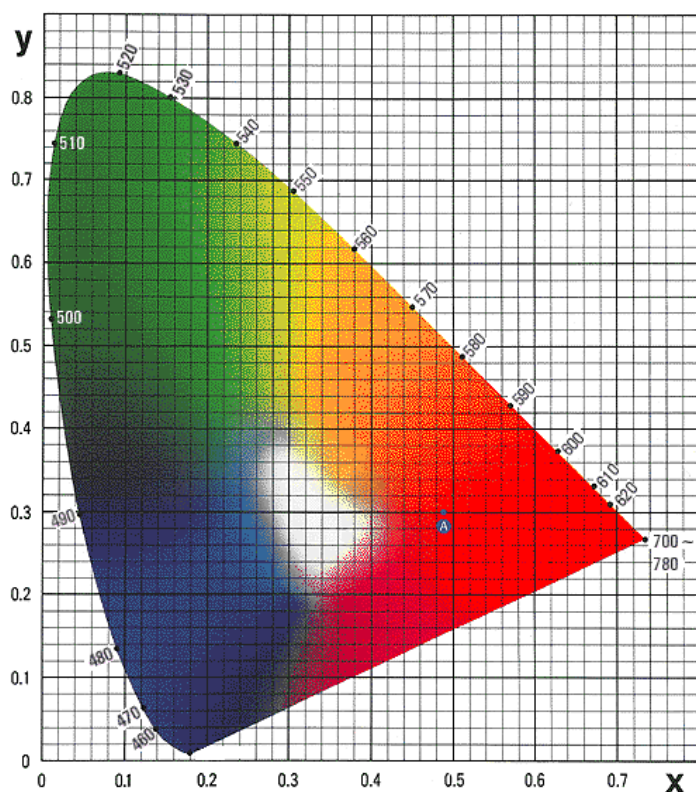
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Sunny White Color Coordinates

X	0.441	0.443	0.485	0.481
Y	0.462	0.426	0.427	0.463

ICI Chromaticity Diagram



Notes:

1. The luminous intensity is measured by the CIE 1931 eye-response method with Tolerance $\pm 15\%$.
2. The chromaticity coordinates are derived from the CIE 1931 chromaticity diagram and represent the perceived colors of the device.
3. Color Note:
Sunny White
4. Lens Size:
5: 5mm standard / 3: 3mm Option
5. Lens Shape:
N: Normal Shape
6. Angle 2θ ½:
23: $23 \pm 3^\circ$ / 30: $27^\circ \pm 3^\circ$ / 60: $57^\circ \pm 3^\circ$
7. Stand Off:
N: Non Stand-Off

Note: All data showing in this product specification are measured by proper experiment conditions and instruments. However, those data may be different due to variations of testing instruments and conditions.