Ultra Bright White LED Lamp YZ-W 5 series

W	5	S	20
Color	*Size*	*Shape*	*Angle 2θ ½*
White	5 mm	Sharp	20°

FEATURES

- Highly Luminous Ultra Bright
- InGaN Technology Chip
- YAG Phosphor
- Super Luminous Intensity 9200 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
- Shape Options with Normal or Sharp
- Wide Viewing Angles 20°, 30°, 40°
- Stand-Off Options

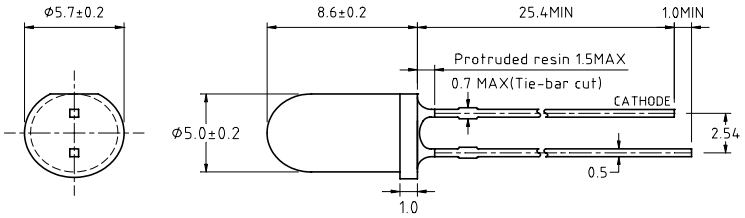
BENEFITS

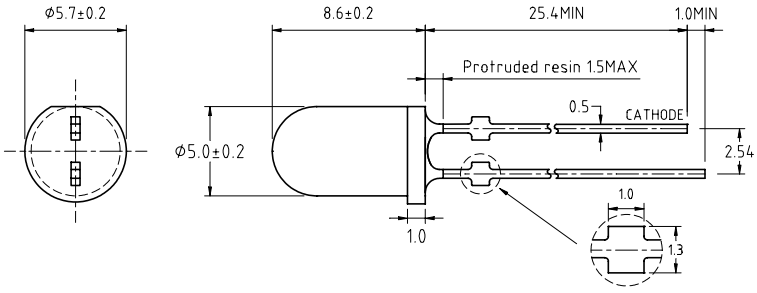
- Low Energy Consumptions
- Low Maintenance Costs
- High Application Design Flexibility
- High Reliability
- Prompt Shipment
- Very Competitive prices

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-W*** 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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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	
Unit: mcd	*Min.*	*Typ.*	*Max/Min.*	*Typ*	*Max*
YZ-W 5S20	5600	6800	8000	9200	11000
YZ-W 5N30	3500	4200	5100	5500	6200
YZ-W 5N40	1500	1800	2300	2800	3600

Luminous Flux Φv at I_f = 20 mA

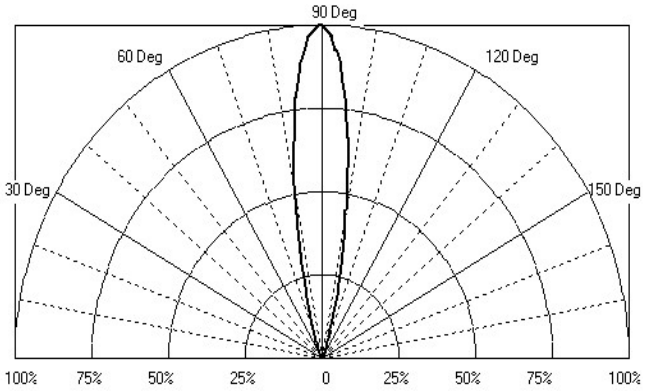
Type	Rank R			Rank S	
Unit: lm	*Min.*	*Typ.*	*Max/Min.*	*Typ*	*Max*
YZ-W 5S20	1.8	2.0	2.2	2.4	2.6
YZ-W 5N30	1.8	2.0	2.2	2.4	2.6
YZ-W 5N40	1.8	2.0	2.2	2.4	2.6

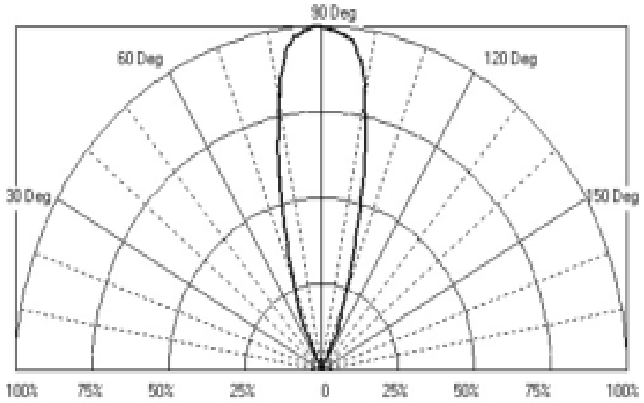
Color Bin Limits at I_f = 20 mA

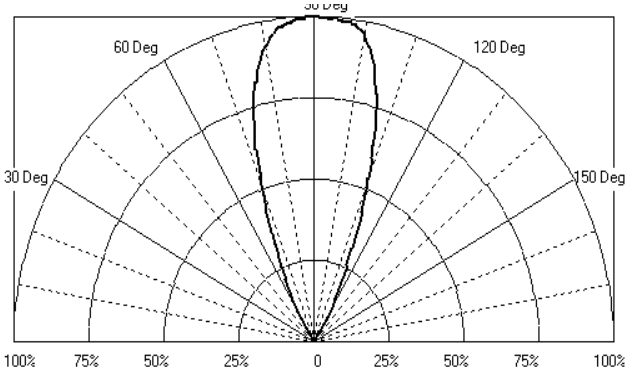
Bin	*Color Rendering Index*	*Approximate Color Temperature °K*
A	*50 ~ 65*	*6500 ~ 10000*
B	*70 ~ 95*	*5500 ~ 6500*
C	*85 ~ 100*	*4500 ~ 5500*
D	*70 ~ 85*	*3500 ~ 4500*

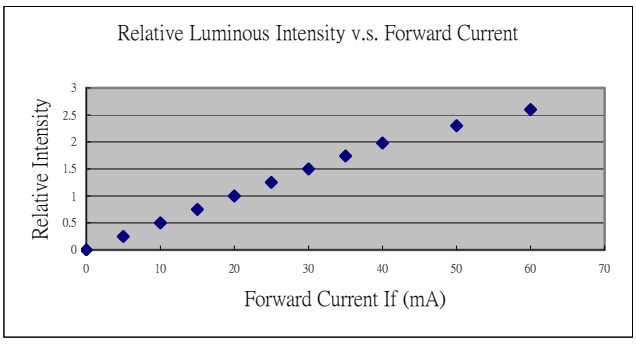
Typical Electrical / Optical Characteristics Curves at Ta = 25°C

Beam Pattern









Ultra Bright White LED Lamp — YZ-W 5 series

W	5	S	20
Color	*Size*	*Shape*	*Angle 2θ ½*
White	5 mm	Sharp	20°

Color Ranks

Conventional A-Rank, Approximate Color Temperature = 6500 ~ 10000°K

	Rank A			
X	0.280	0.264	0.283	0.296
Y	0.248	0.267	0.305	0.276

Conventional B-Rank, Approximate Color Temperature = 5500 ~ 6500°K

	Rank B0			
X	0.287	0.283	0.330	0.330
Y	0.295	0.305	0.360	0.339
	Rank B1			
X	0.296	0.287	0.330	0.330
Y	0.276	0.295	0.339	0.318

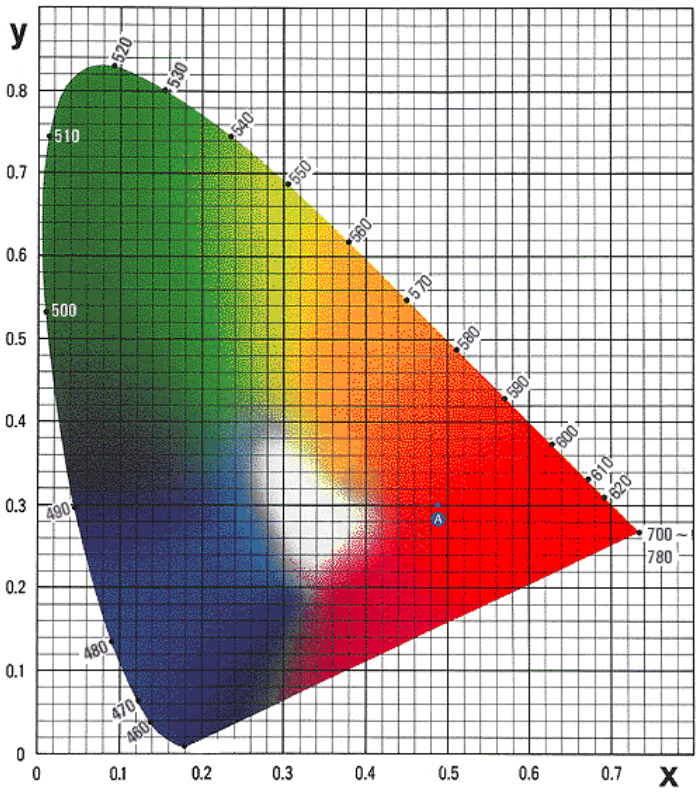
Conventional C-Rank, Approximate Color Temperature = 4500 ~ 5500°K

	Rank C			
X	0.330	0.330	0.361	0.356
Y	0.318	0.360	0.385	0.351

Conventional D-Rank, Approximate Color Temperature = 3500 ~ 4500°K

	Rank D			
X	0.350	0.382	0.443	0.393
Y	0.310	0.451	0.481	0.340

ICI Chromaticity Diagram



Notes:

1. The luminous intensity is measured by the CIE 1931 eye-response method with Tolerance ±15%.
2. The chromaticity coordinates are derived from the CIE 1931 chromaticity diagram and represent the perceived colors of the device.
3. Color Note:
   A: A Bin / B: B Bin / C: C Bin / D: D Bin
4. Lens Size:
   5: 5mm standard / 3: 3mm Option
5. Lens Shape:
   N: Normal Shape / S: Sharp Shape
6. Angle 2θ ½:
   20: 18°±3° / 30: 30±3° / 40: 42°±3°
7. Stand Off:
   N: No Stand-Off / Y: With 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.