YOLDAL
Innovation Power

Y	Z	-	W	S	3	N	30	N
YOLight	Product Code		Color	Color Note	Size	Shape	Angle 2θ ½	Stand-Off
			White	**S**unny	**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
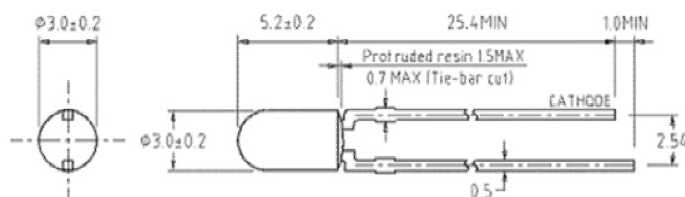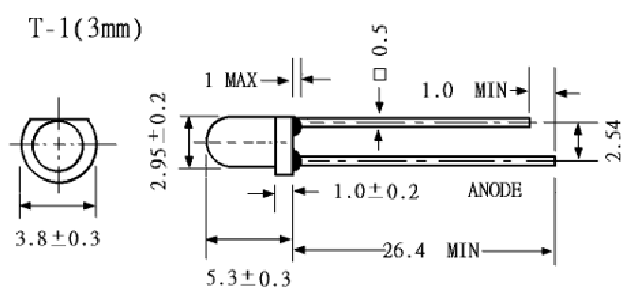
Notes:
1. All dimensions are in millimeters (inches).
2. Tolerance ± 0.25 (0.01") mm unless otherwise noted.
3. Protruded resin under flange is 1.0mm (0.04") max.
4. Lead spacing is measured where the leads emerge from the package
5. Specifications are subject to change without prior notice.

Delivery

- **Bulk, 500 pieces per bag standard**
- **Ammo or Reel are available upon request**

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.

YOLight™ Ultra Bright White LED Lamp   YZ-WS 3 series

Y	Z	-	W	S	3	N	30	N
YOLight	Product Code		Color	Color Note	Size	Shape	Angle 2θ ½	Stand-Off
			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	
Unit: mcd	Min.	Typ.	Max/Min.	Typ	Max
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 Φv at I_f = 20 mA

Type	Rank R			Rank S	
Unit: lm	Min.	Typ.	Max/Min.	Typ	Max
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
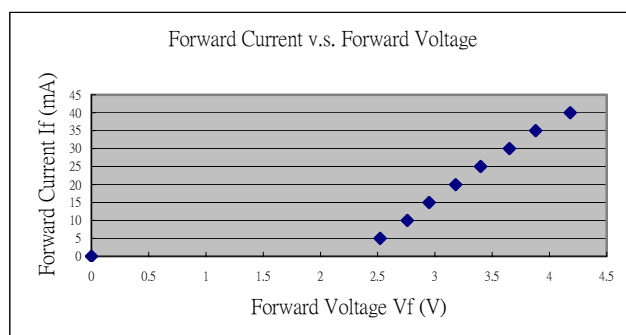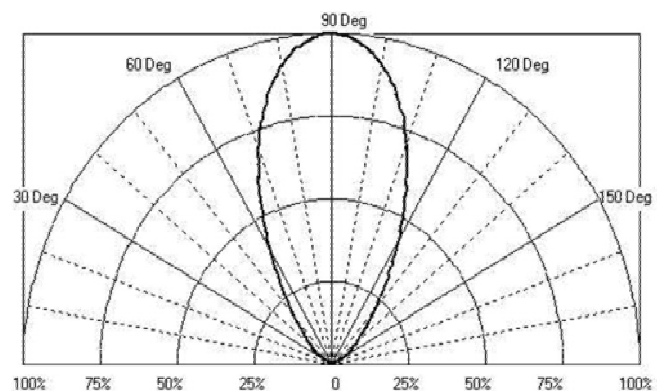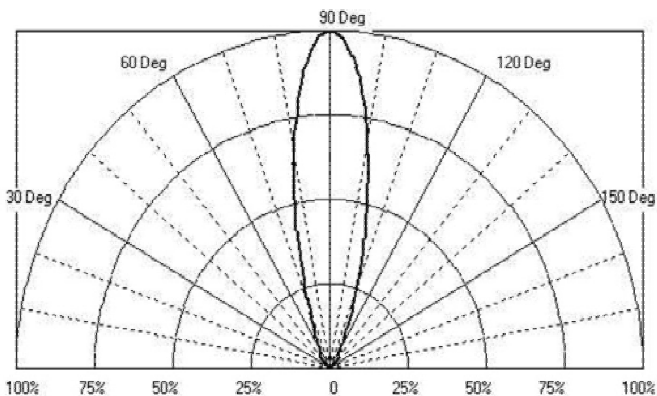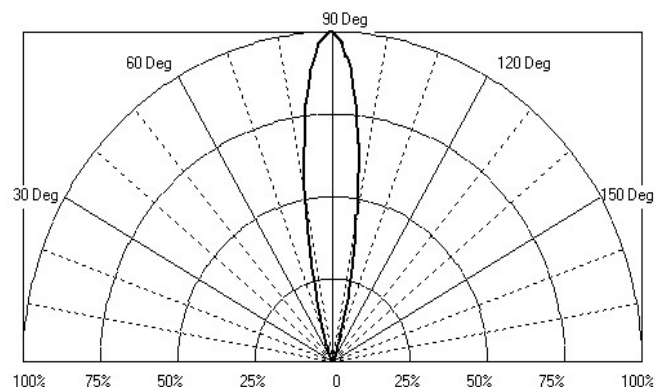
Forward Current v.s. Forward Voltage

YOLight™ **U**ltra **B**right **W**hite LED Lamp **YZ-WS 3** series

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

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
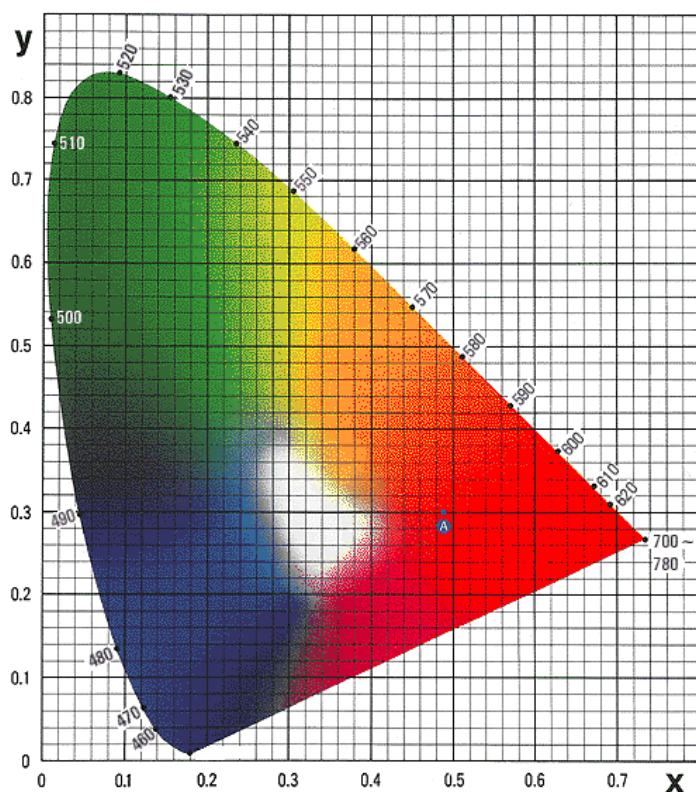
Notes:

1. The luminous intensity is measured by the CIE 1931 eye-response method with Tolerance ±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±3° / 30: 27°±3° / 60: 57°±3°
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.