

深圳市昱申科技有限公司

CHINA YOUNG SUN LED TECHNOLOGY CO., LTD.

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**Model No.: YSL-R596CR3G4B5W-F12**  
**RED/GREEN/BLUE Triple Color LED white diffused lens**

**Applications:**

- Moving Message Display
- Full Color Display
- Banking Board
- Score Boards
- Digital Display



**LED Chip Absolute Maximum Ratings: (Ta=25 °C)**

Parameter	Symbol	Red	Green	Blue	Unit
Forward current	I <sub>F</sub>	20	20	20	mA
Peak forward current (Duty Cycle=1/10, 10KHz)	I <sub>PF</sub>	30	30	30	mA
Reverse voltage (V <sub>R</sub> =5V)	I <sub>R</sub>	10	10	10	μ A
Operating temp	T <sub>OPR</sub>	-25 - 85	-25 - 85	-25 - 85	°C
Storage temp	T <sub>STG</sub>	-30-85	-30-85	-30-85	°C
Peak Emission Wavelength	λ PH	625	520	467.5	nm

\* Soldering Bath: not more than 5 seconds @260°C. The bottom ends of the plastic reflector should be at least 2mm above the solder surface

Soldering Iron: not more than 3 seconds @300°C under 30W

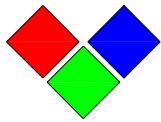
**LED Chip Typical Electrical & Optical Characteristics: (Ta=25 °C)**

ITEMS	Color	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	Red	V <sub>F</sub>	I <sub>F</sub> =20mA	1.8	2.0	2.2	V
	Green			3.0	3.2	3.4	
	Blue			3.0	3.2	3.4	
Luminous Intensity	Red	I <sub>v</sub>	I <sub>F</sub> =20mA	---	---	2800	mcd
	Green			---	---	6500	
	Blue			---	---	1200	
Wavelength	Red	Δ λ	I <sub>F</sub> =20mA	620	623	625	nm
	Green			520	521	522.5	
	Blue			465	466	467.5	
Light Degradation after 1000 hours	Red	-4.68% ~ -8.27%					
	Green	-11.37% ~ -15.30%					
	Blue	-8.23% ~ -16.81%					

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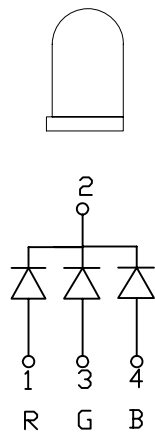
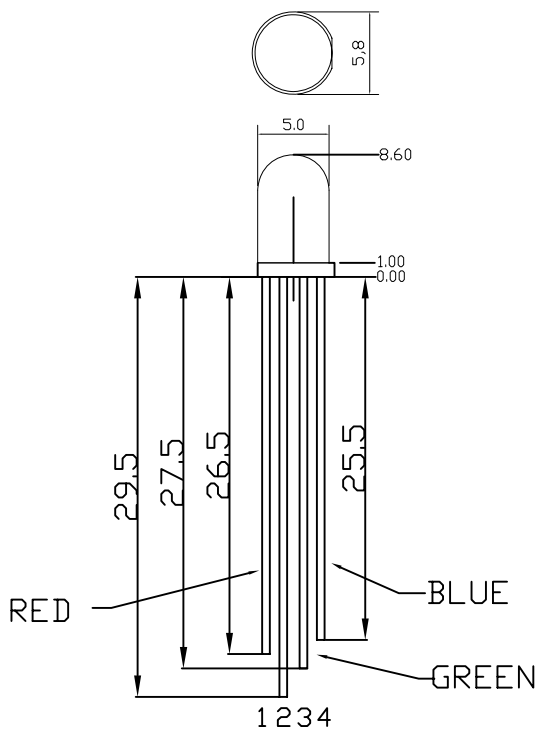
### Light Degradation in mcd: (I<sub>F</sub>=20mA)

Hours Colors	Light Degradation in mcd after Different Hours					
	216 Hrs	360 Hrs	792 Hrs	1104 Hrs	1992 Hrs	2328 Hrs
Red	1.52%	-1.22%	-3.10%	-4.68%	-5.72%	-8.27%
Green	-8.02%	-9.78%	-10.25%	-11.37%	-13.79%	-15.30%
Blue	3.13%	-0.33%	-3.84%	-8.23%	-14.32%	-16.81%

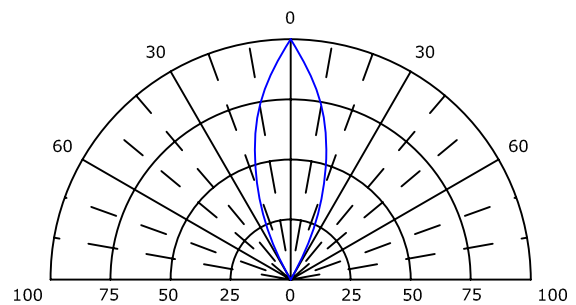
### Mechanical Dimensions:

- ☐ All dimension are in mm, tolerance is  $\pm 0.2\text{mm}$  unless otherwise noted
- ☐ An epoxy meniscus may extend about 1.5mm down the leads.
- ☐ Burr around bottom of epoxy may be 0.5mm Maximum

Unit: mm



☐ Viewing Angle Drawing



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