



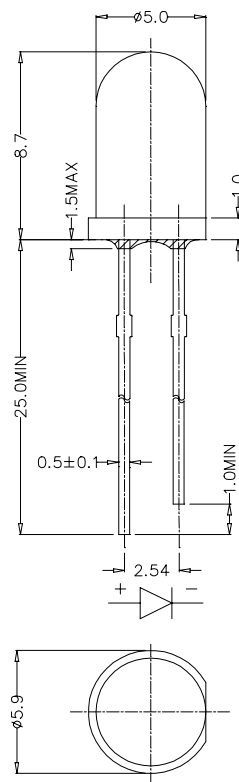
COTCO LUMINANT DEVICE (HUIZHOU) LTD

**Part #: LC503MYL1-30Q**

Product Description: Yellow 30° 5mm LED lamp with water transparent lens

**Resin:** Epoxy**Lens Color:** Water Transparent**Lead Frame:** Ag Plating Iron Alloy**Dice:** AlGaInP

## DIMENSION DRAWING



- NOTES: 1. ALL DIMENSIONS ARE IN mm TOLERANCE IS.  $\pm 0.25$ mm UNLESS OTHERWISE NOTED.
2. AN EPOXY MENISCUS MAY EXTEND ABOUT 1.5mm DOWN THE LEADS.
3. BURR AROUND BOTTOM OF EPOXY MAY BE 0.5 mm MAX.

COTCO-D-074 REV.0

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**Pricing and Delivery Information Contact:****Marktech Optoelectronics\***

120 Broadway, Menands, NY 12204  
 Phone: 800.984.5337 FAX: 518.432.7454  
 Web Site: [www.marktechopto.com](http://www.marktechopto.com)

\*Marktech is the exclusive North American Technical Sales and Marketing office for COTCO LED products

## SPECIFICATION

Absolute Maximum Rating (T<sub>a</sub> = 25°C)

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I <sub>F</sub>	50	mA
Peak Forward Current pulse width ≤ 0.1msec duty ≤ 1/10	I <sub>FP</sub>	200	mA
Reverse Voltage	V <sub>R</sub>	5	V
Power Dissipation	P <sub>D</sub>	150	mW
Operation Temperature	T <sub>opr</sub>	-40 ~ + 95	°C
Storage Temperature	T <sub>stg</sub>	-40 ~ +100	°C
Lead Soldering Temperature	T <sub>sol</sub>	260°C for 5sec (3mm from the base of the epoxy bulb)	

Initial Electrical/Optical Characteristics (T<sub>a</sub> = 25°C)

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V <sub>F</sub>	I <sub>F</sub> = 20mA	1.7	2.0	2.5	V
Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 5V	---	---	100	μ A
Wavelength	λ <sub>D</sub>	I <sub>F</sub> = 20mA	---	591	---	nm
Luminous Intensity	I <sub>V</sub>	I <sub>F</sub> = 20mA	770	1300	---	mcd
50% Power Angle	2θ <sub>½</sub>	I <sub>F</sub> = 20mA	---	30	---	deg

Ranks Combination

Dominant Wavelength	Intensity		
	Rank S 770-1100 mcd	Rank T 1100-1520 mcd	Rank U 1520-2130 mcd
X3 587-590 nm	☒	☒	☒
X4 590-593 nm	☒	☒	☒
X5 593-596 nm	☒	☒	☒

\*One normal delivery will include all ranks listed above.

The quantity ratio of the ranks is decided by COTCO.

Upper and lower tolerance limit of the Luminous flux ±15%

Upper and lower tolerance limit of the Dominant Wavelength ±1.0nm

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GRAPHS

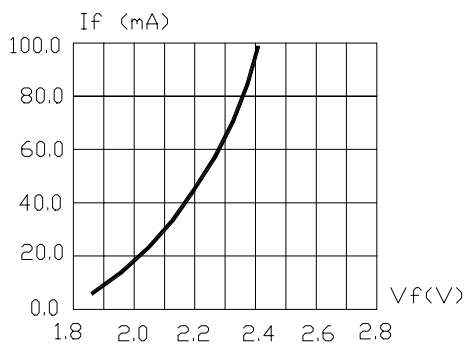


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

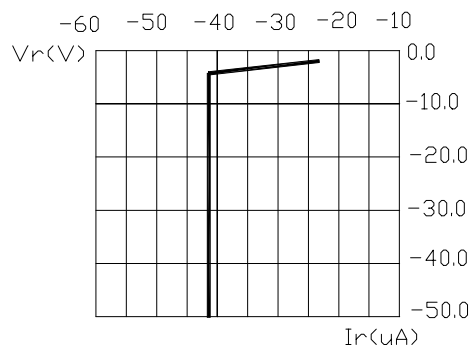


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

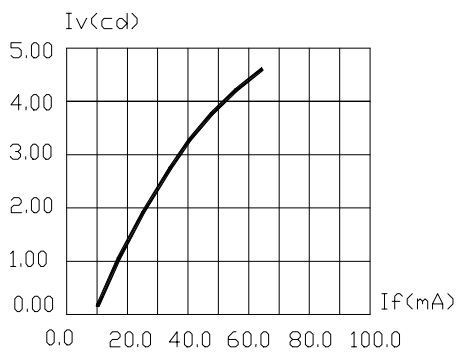


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT.

Half Power  $\Delta\lambda = 20\text{nm}$   
Domi  $\lambda = 591\text{nm}$

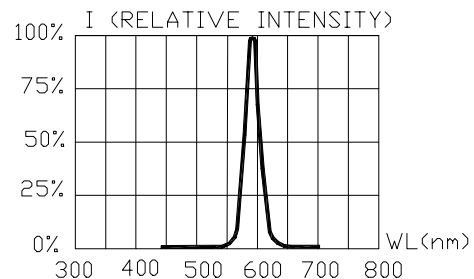


FIG.4 RELATIVE INTENSITY VS. WAVE LENGTH.

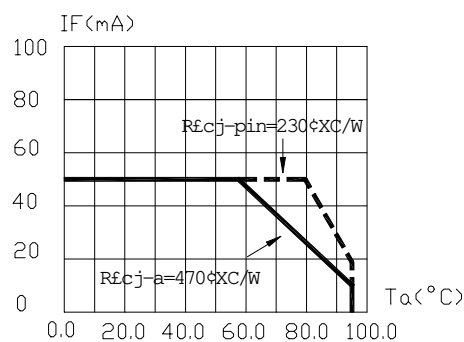


FIG.5 MAXIMUM FORWARD DC CURRENT VS TEMPERATURE. DERATING BASED ON  $T_{jmax} = 105^\circ\text{C}$

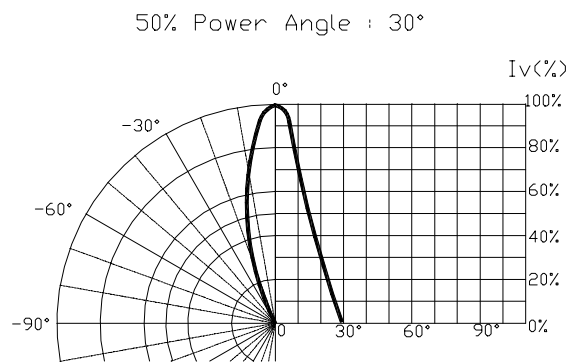


FIG.6 SPATIAL DISTRIBUTION.

1. Cathode PAD Area ( $0.18 \times 0.18\text{inch}^2$ )
2. Height above nominal seating plane in inches (0.3inch)

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