

**SPECIFICATION FOR COTCO LED LAMP**

Document No: SPE/LP379PBL1-C0G-03  
Model No : LP379PBL1-C0G-03  
Rev. No: 02  
Date: 2005-07-07

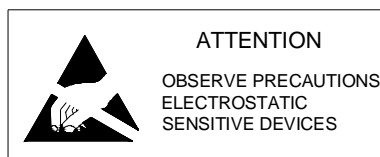
Description:

120 Degree 7.6 x 7.6mm LED Lamp in Blue Color  
with Water Transparent Lens and Stopper

Dice Material: InGaN

Confirmed  
by Customer: \_\_\_\_\_

Date: \_\_\_\_\_



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**Applications:**

- Advertising Signs
- Indicators
- Message Board

**Absolute Maximum Ratings at Ta = 25°C**

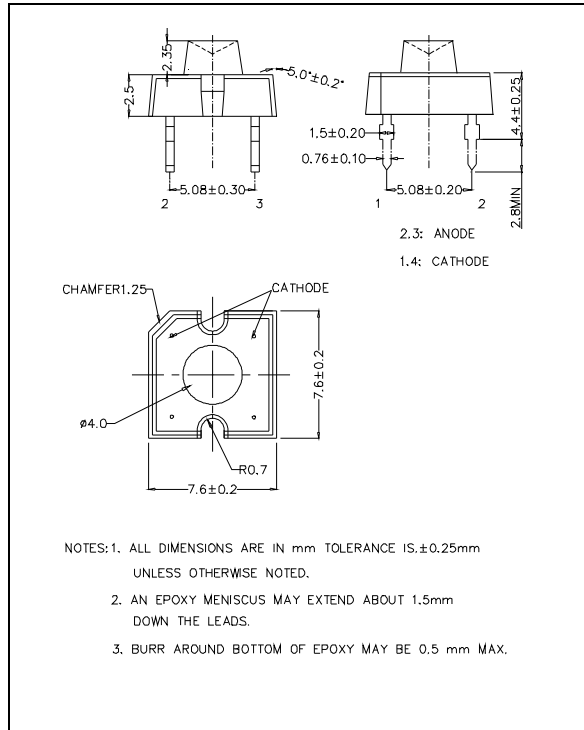
Items	Symbol	Absolute maximum Rating	Unit
Forward Current	$I_F$	30	mA
Peak Forward Current*	$I_{FP}$	100	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	132	mW
Operation Temperature	$T_{opr}$	-40 ~ +100	°C
Storage Temperature	$T_{stg}$	-40 ~ +100	°C
Lead Soldering Temperature	$T_{sol}$	Max.260°C for 3 sec Max. (3mm from the base of the epoxy bulb)	

\*pulse width <=0.1msec duty <=1/10

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 30mA$	---	3.6	4.4	V
Reverse Current	$I_R$	$V_R = 5V$	---	---	100	μA
Dominant Wavelength	$\lambda_D$	$I_F = 30mA$	462	470	475	nm
Luminous Flux	$\Phi_V$	$I_F = 30mA$	400	800	---	mlm
50% Power Angle	$2\theta_{\frac{1}{2}}$	$I_F = 30mA$	---	120	---	deg

**Dimension Drawing**



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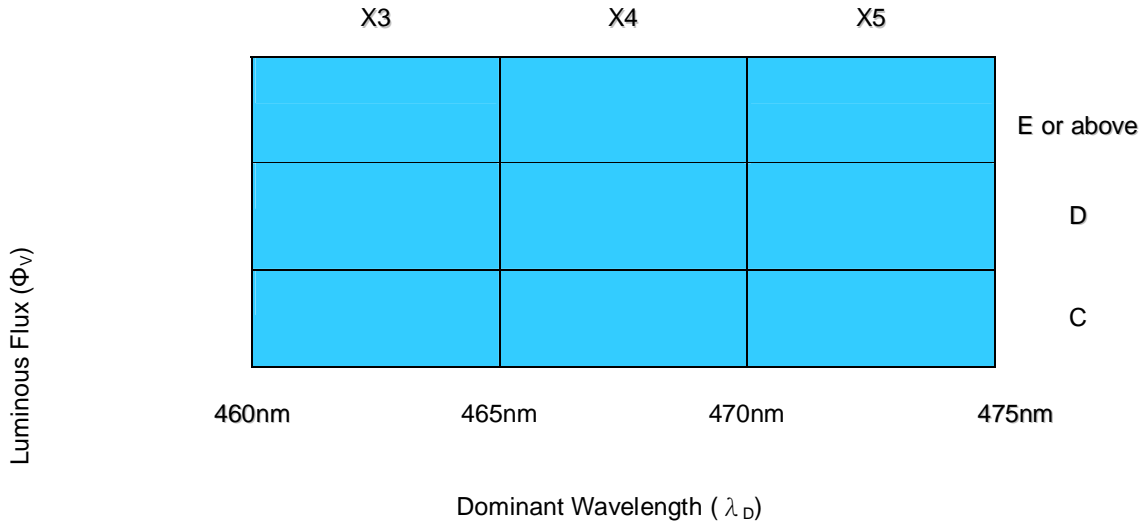
**Standard bins for LP379PBL1-C0G-03 ( $I_F = 30\text{mA}$ ):**

Lamps are sorted to Luminous Flux  $-\Phi_V$ ,  $V_F$  & Dominant Wavelength  $-\lambda_D$  bins shown.

Orders for LP379PBL1-C0G-03 may be filled with any or all bins contained as below.

All Luminous Flux  $-\Phi_V$ ,  $V_F$  & Dominant Wavelength  $-\lambda_D$  values shown and specified are at  $I_F=30\text{mA}$ .

\* **C+**



Rank	C	D
Luminous Flux	400-800 mlm	600-1200 mlm

\* C+ indicates Luminous Flux is at C bin or above.

**Forward Voltage ( $V_F$ )**

Rank	V7	V8	V9	V10	V11	V12	V13	V14
Voltage	2.8-3.0V	3.0-3.2V	3.2-3.4V	3.4-3.6V	3.6-3.8V	3.8-4.0V	4.0-4.2V	4.2-4.4V

**Important Notes:**

- 1) All ranks will be included per delivery; rank ratio will be based on the Dices distribution.
- 2) No tolerance in the measurement of luminous flux.
- 3) Tolerance of measurement of dominant wavelength is  $\pm 1\text{nm}$ .
- 4) Tolerance of measurement of  $V_f$  is  $\pm 0.05\text{ V}$ .
- 5) Packaging methods are available for selection, Please refer to PACKAGING STANDARD.
- 6) Please refer to LED LAMP RELIABILITY TEST STANDARD for reliability test conditions.
- 7) Please refer to APPLICATION NOTES for Application.

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### Graphs

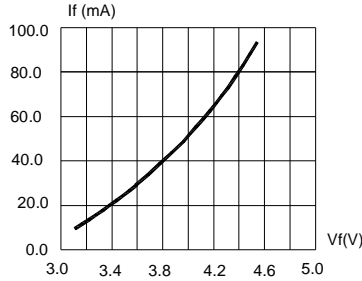


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

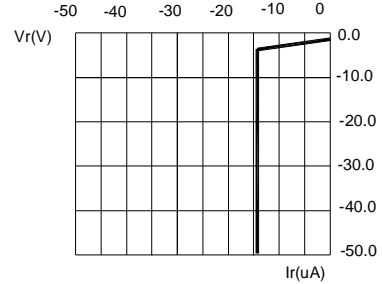


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

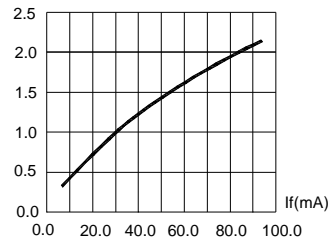


FIG.3 RELATIVE LUMINOUS FLUX VS. FORWARD CURRENT

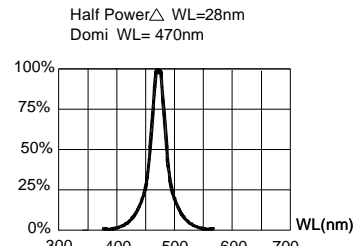


FIG.4 RELATIVE LUMINOUS FLUX VS. WAVELENGTH.

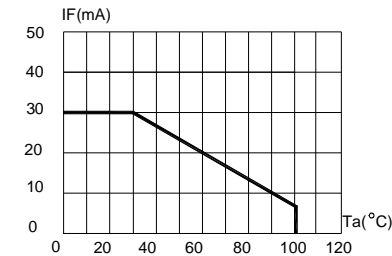


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE ( $T_{jmax}=120^{\circ}C$ )

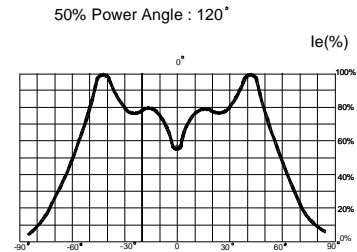


FIG.6 FAR FIELD PATTERN

Items	Signatures	Date
Prepared by	LiuZM	2005-07-07
Checked by	Aldosin	2005-07-07
Approved by	David	2005-07-07
FCN#	FCN20050221	

Revision History		
Rev. No	Date	Change Description
02	2005-07-07	Release.

Data is subject to change without prior notice; please refer to COTCO Website for the latest version.

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