

SPECIFICATION FOR COTCO LED LAMP

Document No: SPE/LP368PWN1-D0G-MT
Model No : LP368PWN1-D0G-MT
Rev. No: 02
Date: 2006-04-18

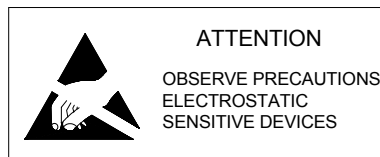
Description:

130 Degree 7.6 x 7.6mm LED Lamp in White
Color with Water Transparent Lens and
Stopper

*This specification is only for MT
Dice Material: InGaN

Confirmed
by Customer: _____

Date: _____



Applications:

- Indicators
- Illuminations

Absolute Maximum Ratings at Ta = 25°C

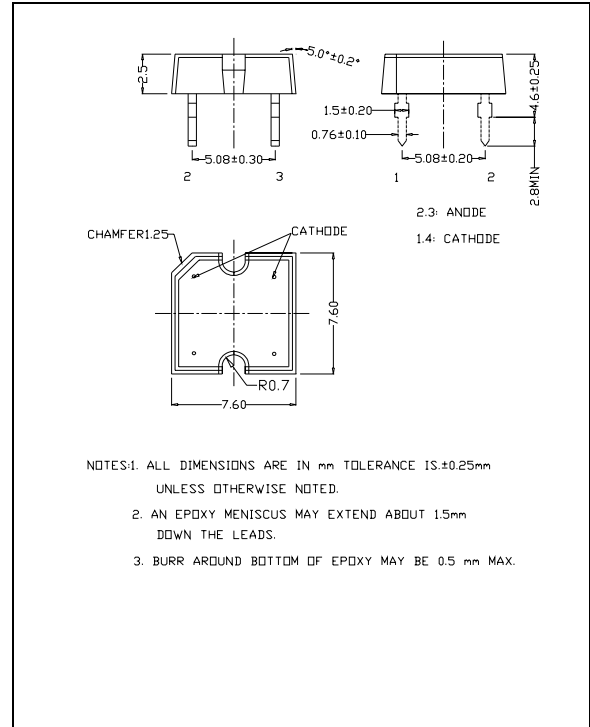
Items	Symbol	Absolute maximum Rating	Unit
Forward Current	I_F	30	mA
Peak Forward Current*	I_{FP}	100	mA
Reverse Voltage	V_R	5	V
Power Dissipation	P_D	132	mW
Operation Temperature	T_{opr}	-40 ~ +95	°C
Storage Temperature	T_{stg}	-40 ~ +100	°C
Lead Soldering Temperature	T_{sol}	Max.260°C for 3 sec Max. (3mm from the base of the epoxy bulb)	

*pulse width $\leq 0.1\text{msec}$ duty $\leq 1/10$

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	V_F	$I_F = 30\text{mA}$	---	3.6	4.4	V
Reverse Current	I_R	$V_R = 5\text{V}$	---	---	100	μA
Luminous Intensity	I_V	$I_F = 30\text{mA}$	280	400	---	mcd
Luminous Flux	Φ_V	$I_F = 30\text{mA}$	---	1100	---	mlm
Chromaticity Coordinates	x	$I_F = 30\text{mA}$	---	0.31	---	---
	y	$I_F = 30\text{mA}$	---	0.32	---	---
50% Power Angle	$2\theta_{\frac{1}{2}H-H}$	$I_F = 30\text{mA}$	---	130	---	deg

Dimension Drawing

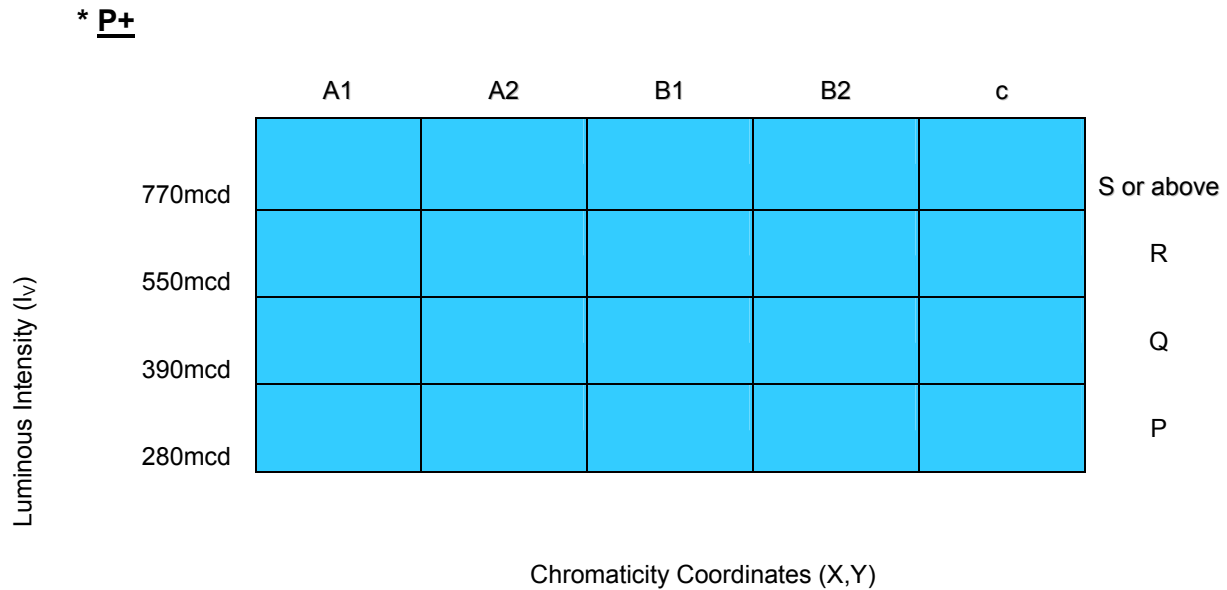


Standard bins for LP368PWN1-D0G-MT (I_F = 30mA):

Lamps are sorted to Luminous Intensity –I_V, V_F & Chromaticity Coordinates –(X,Y) bins shown.

Orders for LP368PWN1-D0G-MT may be filled with any or all bins contained as below.

All Luminous Intensity –I_V, V_F & Chromaticity Coordinates –(X,Y) values shown and specified are at I_F=30mA.



* P+ indicates Luminous Intensity is at P bin or above.

Rank		A1				A2				B1			
Chromaticity Coordinates	x	0.245	0.264	0.280	0.264	0.264	0.283	0.296	0.280	0.283	0.307	0.313	0.296
	y	0.229	0.267	0.248	0.220	0.267	0.305	0.276	0.248	0.305	0.337	0.297	0.276

Rank		B2				c			
Chromaticity Coordinates	x	0.307	0.330	0.330	0.313	0.330	0.361	0.356	0.330
	y	0.337	0.360	0.318	0.297	0.360	0.385	0.351	0.318

Forward Voltage (V_F)

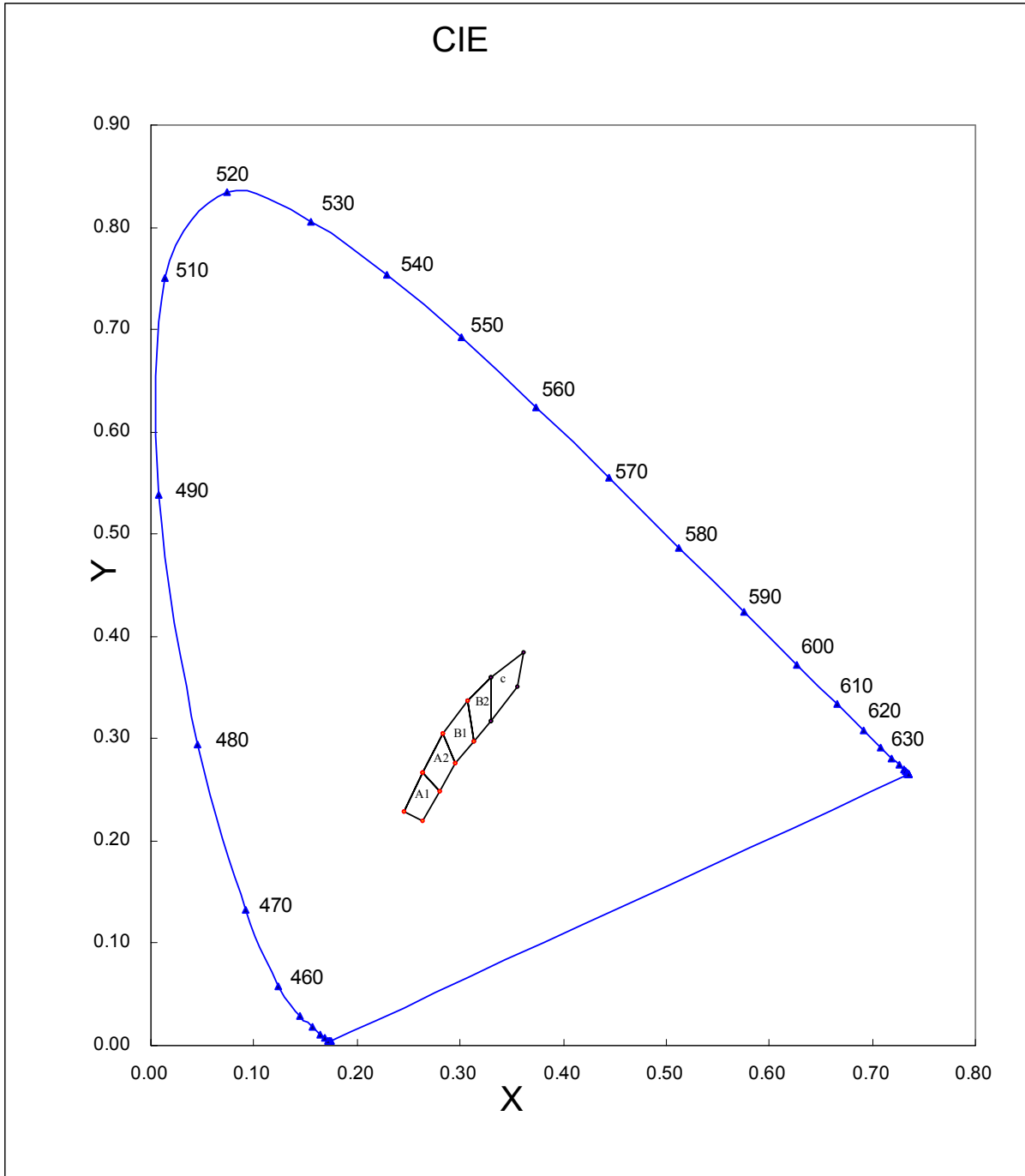
Rank	V7	V8	V9	V10	V11	V12	V13	V14
Voltage	2.8-3.0V	3.0-3.2V	3.2-3.4V	3.4-3.6V	3.6-3.8V	3.8-4.0V	4.0-4.2V	4.2-4.4V

*Majority VF bins are highlighted in Yellow.

Important Notes:

- 1) All ranks will be included per delivery, rank ratio will be based on the Dices distribution.
- 2) Pb content <1000PPM.
- 3) Tolerance of measurement of luminous intensity is ±15%.
- 4) Tolerance of measurement of the Color Coordinates is ± 0.015.
- 5) Tolerance of measurement of Vf is ±0.05 V.
- 6) Packaging methods are available for selection, Please refer to PACKAGING STANDARD.
- 7) Please refer to LED LAMP RELIABILITY TEST STANDARD for reliability test conditions.
- 8) Please refer to APPLICATION NOTES for Application.

CIE Chromaticity Diagram



Graphs

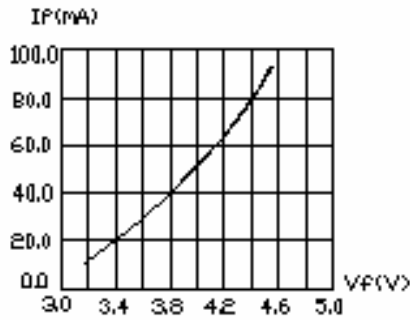


FIG1 FORWARD CURRENT VS. FORWARD VOLTAGE

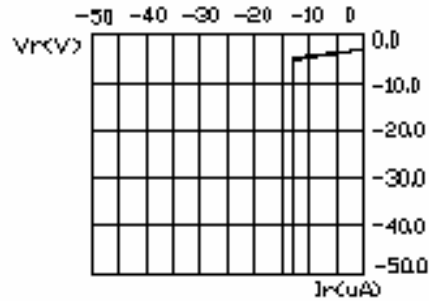


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE

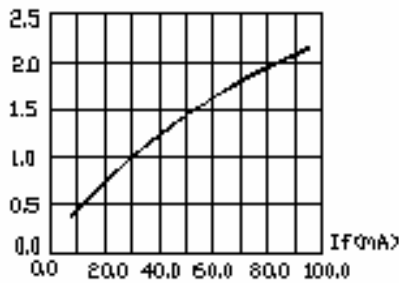


FIG3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

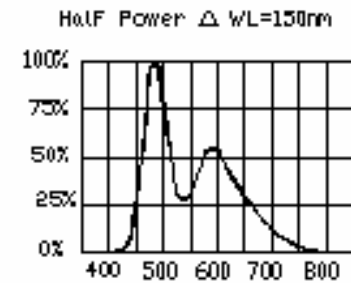


FIG4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH

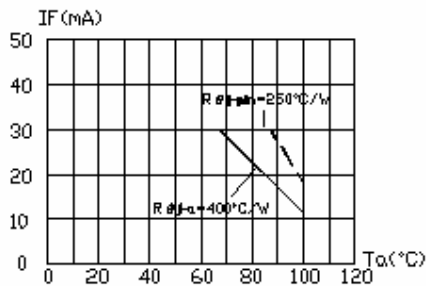


FIG5 MAXIMUM FORWARD CURRENT VS. AMBIENT TEMPERATURE ($T_{jmax}=120^{\circ}$ C)

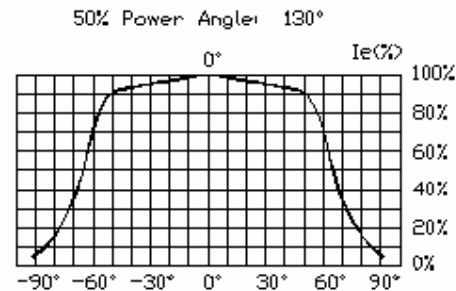


FIG.6 FAR FIELD PATTERN

1. Cathode PAD Area (0.18 X 0.18 X 2inch²)
2. Height above nominal seating plane in inches(0.3inch)

Items	Signatures	Date
Prepared by	LiuZM	2006-04-18
Checked by	HuangJD	2006-04-18
Approved by	David	2006-04-18
FCN#	FCN20060205	

Revision History		
Rev. No	Date	Change Description
02	2006-04-18	Highlight V9~V12.

Data is subject to change without prior notice.

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