

**Model: L-5T2CTW-D1**  
 15 Degree 5mm LED Lamp in Daylight Color with Water Transparent Lens and No Stopper

**Dice Material:**  
 InGaN

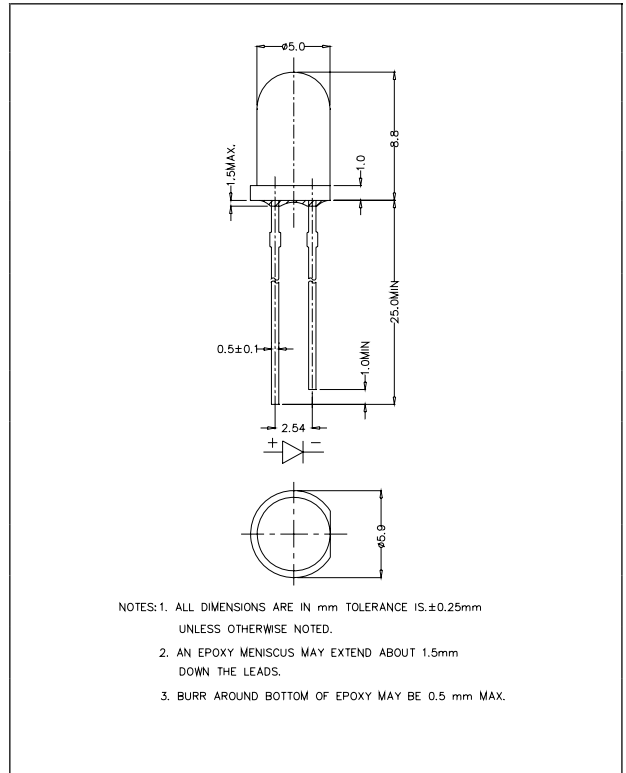
**Applications:**

- Advertising Signs
- Indicators
- LCD Back Light
- Illuminations

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

Items	Symbol	Absolute maximum Rating	Unit
Forward Current	$I_F$	25	mA
Peak Forward Current*	$I_{FP}$	100	mA
Reverse Voltage	$V_R$	5	V
Power Dissipation	$P_D$	100	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)	

**Dimension Drawing**



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

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

Items	Symbol	Condition	Min.	Typ.	Max.	Unit
Forward Voltage	$V_F$	$I_F = 20$ mA	---	3.4	4.0	V
Forward Voltage	$V_F$	$I_F = 1.0$ $\mu$ A	1.7	---	2.5	V
Reverse Current	$I_R$	$V_R = 5$ V	---	---	100	$\mu$ A
Luminous Intensity	$I_V$	$I_F = 20$ mA	5860	11000	---	mcd
Chromaticity Coordinates	x	$I_F = 20$ mA	---	0.31	---	---
	y	$I_F = 20$ mA	---	0.32	---	---
50% Power Angle	$20\frac{1}{2}$ H-H	$I_F = 20$ mA	---	15	---	deg

**Standard bins for L-5T2CTW-D1 (I<sub>F</sub> = 20mA):**

Lamps are sorted to Luminous Intensity –I<sub>v</sub>, V<sub>F</sub> & Chromaticity Coordinates –(X,Y) bins shown.

Orders for L-5T2CTW-D1 may be filled with any or all bins contained as below.

All Luminous Intensity –I<sub>v</sub>, V<sub>F</sub> & Chromaticity Coordinates –(X,Y) values shown and specified are at I<sub>F</sub> =20mA.

\* **Y+**

		A1	A2	B1	B2	c			
Luminous Intensity (I <sub>v</sub> )	16800mcd						Z1		
	12000mcd								Z
	8200mcd								
	5860mcd								Y

**Chromaticity Coordinates (X,Y)**

\* Y+ indicates Luminous Intensity is at Y 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

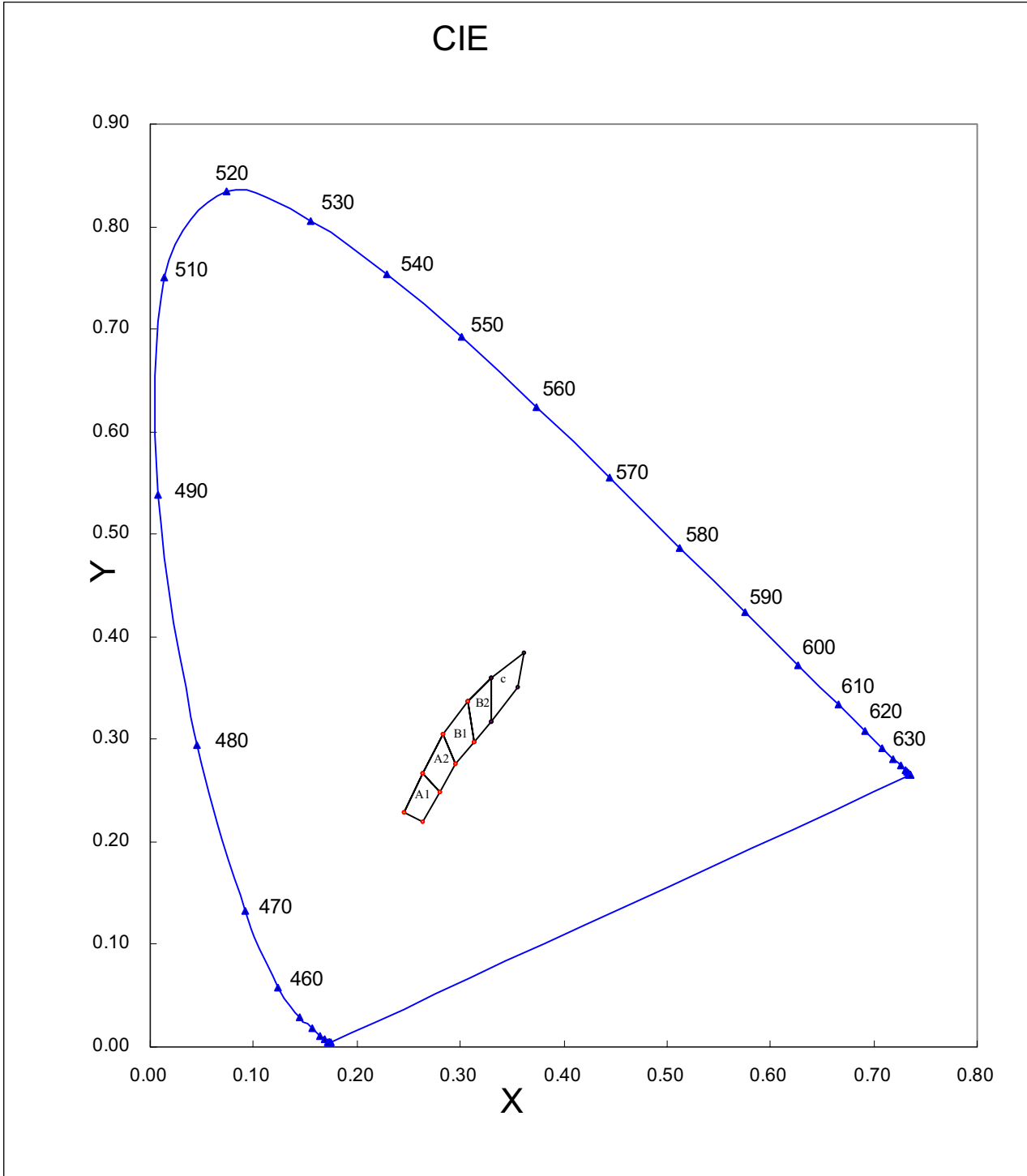
**Forward Voltage (V<sub>F</sub>)**

Rank	V6	V7	V8	V9	V10	V11	V12
Voltage	2.6-2.8V	2.8-3.0V	3.0-3.2V	3.2-3.4V	3.4-3.6V	3.6-3.8V	3.8-4.0V

**Important Notes:**

- 1) All ranks will be included per delivery, rank ratio will be determined by the factory
- 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 V<sub>f</sub> is ±0.05 V.

## CIE Chromaticity Diagram



### Graphs

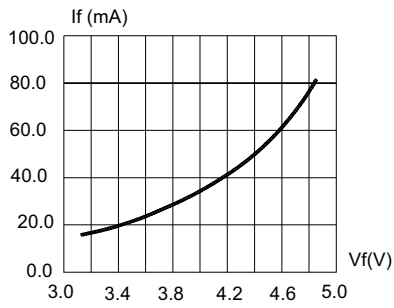


FIG.1 FORWARD CURRENT VS. FORWARD VOLTAGE.

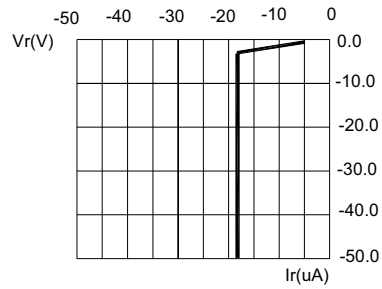


FIG.2 REVERSE CURRENT VS. REVERSE VOLTAGE.

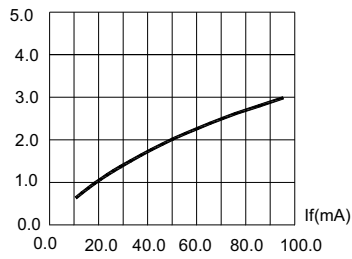


FIG.3 RELATIVE LUMINOUS INTENSITY VS. FORWARD CURRENT

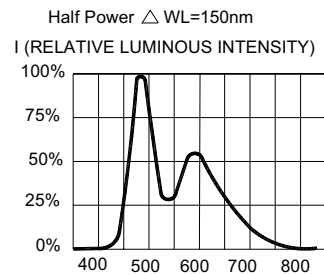


FIG.4 RELATIVE LUMINOUS INTENSITY VS. WAVELENGTH.

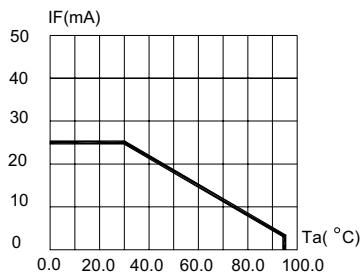


FIG.5 MAXIMUM FORWARD DC CURRENT VS AMBIENT TEMPERATURE (Tjmax=105 °C)

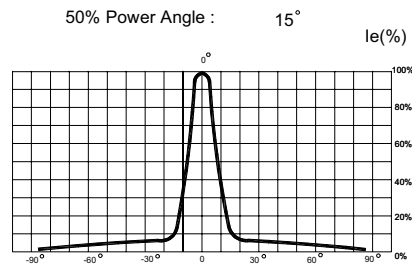


FIG.6 FAR FIELD PATTERN