LEDTRONICS, INC.®

23105 Kashiwa Court, Torrance, CA 90505
Phone: (800) 579-4875 or (310) 534-1505 Fax: (310) 534-1424
E-mail: webmaster@ledtronics.com
Website: http://www.ledtronics.com

L180-XPW-110D-LL

White

4.8mm, Shallow-Domed Cylindrical, 4.7mm Height
95° viewing angle

DWG BY: LL / GP 08-20-07
CHK BY: PL 09-11-07
QA: __ __-__-__
MFG: __ __-__-__
REVISION: - 09-10-07

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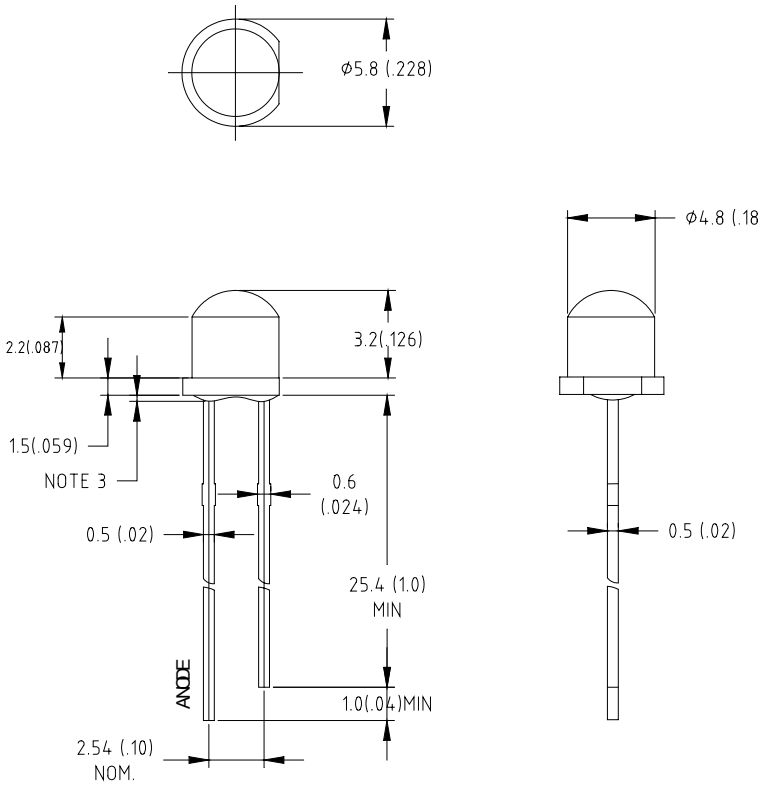
Features:

- High intensity
- 4.8mm diameter package
- Tin plated copper leads
- Pb-free

Package Dimensions:



Part NO.	Chip Material	Lens Color	Emission Color
L180-XPW-110D-LL	InGaN	Water Clear	White

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25mm (.010”) unless otherwise noted.
3. Protruded resin under flange is 1.0mm (.04”) max.
4. Lead spacing is measured where the leads emerge from the package.
5. Specifications are subject to change without notice.
6. Precautions for ESD: Static electricity and surge can damages the LED. It is recommended to use a wrist band or anti-electrostatic glove when handling the LED. All devices, equipment and machinery must be properly grounded.

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Absolute Maximum Ratings at Ta=25ºC

Parameter	MAX.	Unit
Power Dissipation	80	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	20	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Electrostatic Discharge (ESD)	600	V
Operating Temperature Range	-30°C to +80°C	
Storage Temperature Range	-40°C to +100°C	
Lead Soldering Temperature [4mm (.157") From Body]	280°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25 °C

Parameter	Symbol	Min.	Typ	Max.	Unit	Test Condition
Luminous Intensity	I_V	690	1700	---	mcd	I_F=20mA (Note 1)
Viewing Angle	$2\theta_{1/2}$	---	95	---	Deg	(Note 2)
Forward Voltage	V_F	---	3.1	3.8	V	I_F=20mA
Reverse Current	I_R	---	---	10	μA	V_R=5V
SCP	---	---	---	---	---	---
Lumens	---	---	---	---	lm	---
Radiant Intensity	I_e	---	---	---	mW/sr	---
Color Rendering Index	CRI	---	---	---	---	---

Color Rank	BIN PWT			
X	0.338	0.386	0.400	0.352
Y	0.339	0.387	0.373	0.324

Notes:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. $\theta_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. Forward voltage measurement allowance is ±0.1V
4. Luminous Intensity Measurement Allowance is ± 10%.

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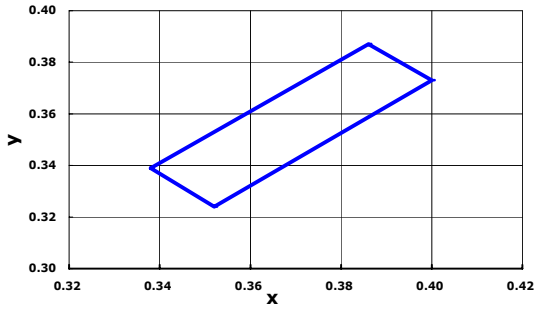
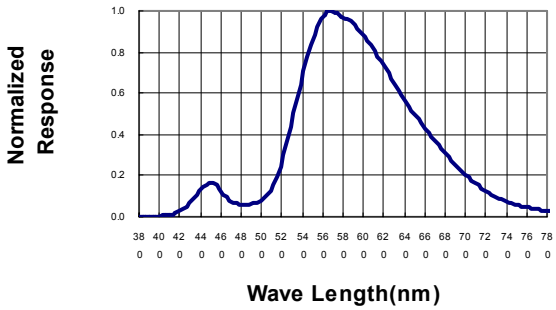
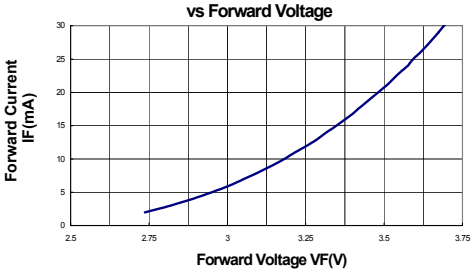
Typical Electrical / Optical Characteristics Curves
(25ºC Ambient Temperature Unless Otherwise Noted)

CIE 1931 Chromaticity Diagram

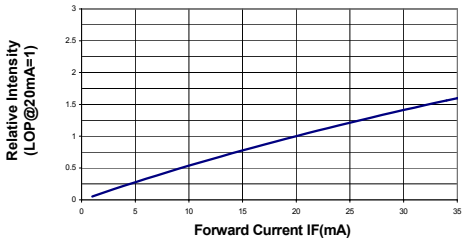




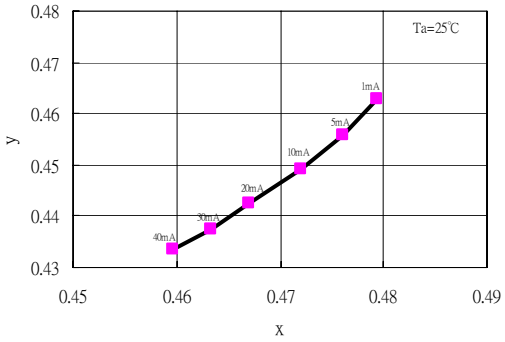
Forward Current vs Forward Voltage



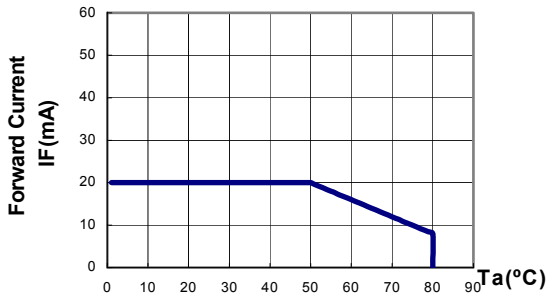
Relative Luminous Intensity vs Forward Current



Forward Current VS. Chr omaticity coordinate



Forward Cureent Derating Curve



Beam Pattetn