LUCKY LIGHT

LL-AR180GD

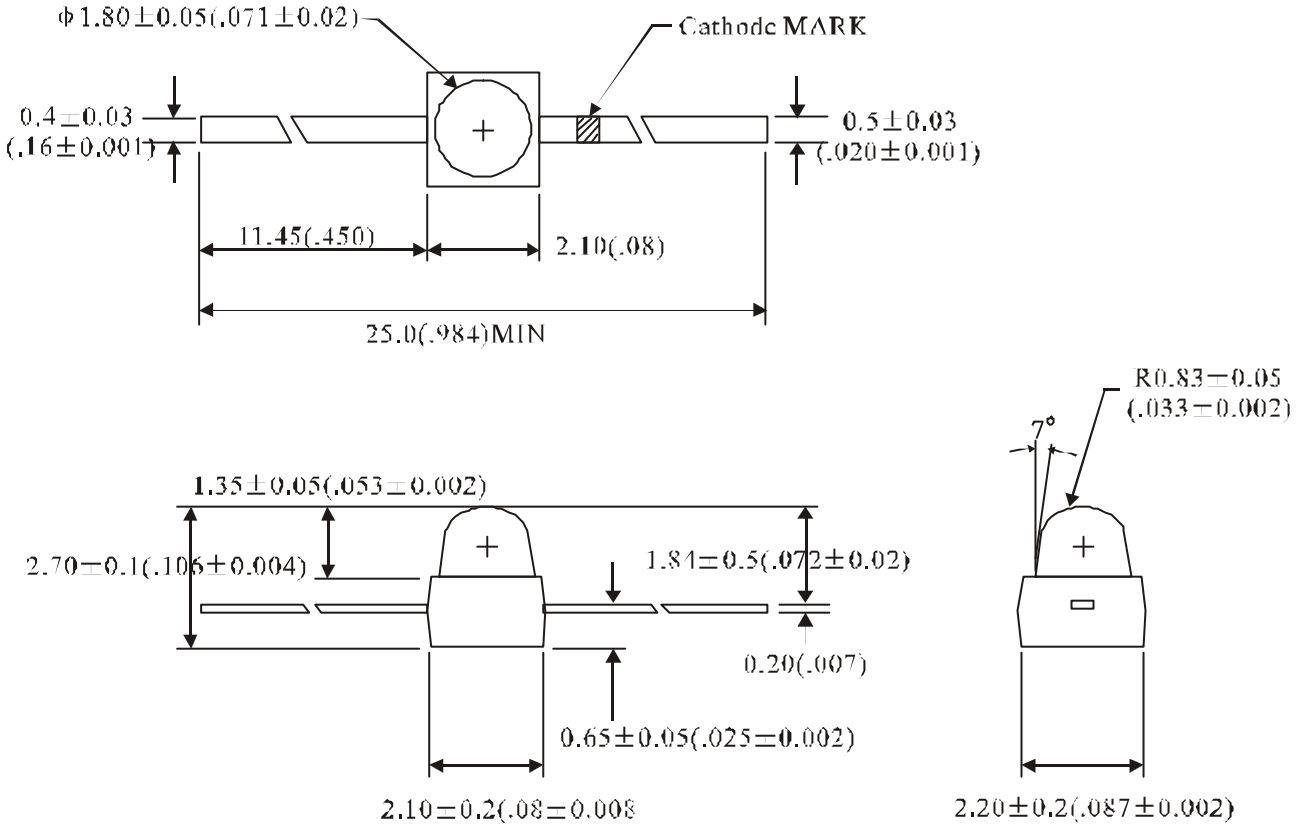
DATA SHEET

QC: ENG: Prepared By:

Features

- High intensity
- 1.8mm Round Subminiature Axial LEDs
- General purpose leads
- Reliable and rugged

Package Dimension:



Part NO.	Chip Material	Lens Color	Source Color
LL-AR180GD	GaP	Green Diffused	Green

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.10(.004") unless otherwise specified.
3. Specifications are subject to change without notice
4. Caution in ESD:

   Siatic Electricity and surge damages the LED. lt is recommend to use a wrist band or anti-electrostatic glove when handling the LED.All devices, equipment and machinery must be properly grounded.

Absolute Maximum Ratings at Ta=25?

Parameter	MAX.	Unit
Power Dissipation	100	mW
Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width)	100	mA
Continuous Forward Current	35	mA
Derating Linear From 50°C	0.4	mA/°C
Reverse Voltage	5	V
Operating Temperature Range	-40°C to +80°C	
Storage Temperature Range	-40°C to +80°C	
Lead Soldering Temperature [4mm(.157") From Body]	260°C for 5 Seconds	

Electrical Optical Characteristics at Ta=25°C

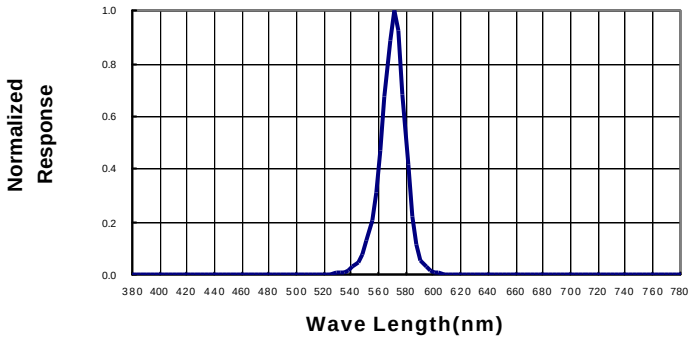
Parameter	Symbol	Min.	Typ.	Max.	Unit	Test Condition
Luminous Intensity	Iv	---	12.5	---	mcd	I_F=20mA (Note 1)
Viewing Angle	$2\theta_{1/2}$	---	60	---	Deg	(Note 2)
Peak Emission Wavelength	λp	566	572	576	nm	I_F=20mA
Dominant Wavelength	λd	565	570	576	nm	I_F=20mA (Note 3)
Spectral Line Half-Width	△λ	13	18	23	nm	I_F=20mA
Forward Voltage	V_F	1.7	2.2	2.8	V	I_F=20mA
Reverse Current	I_R	---	---	100	μA	V_R=5V

Note:

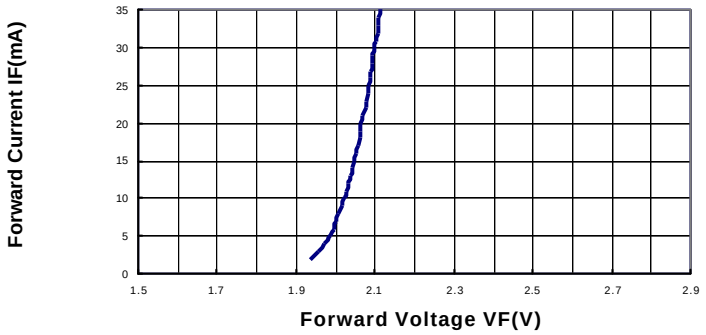
1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. ? $_{1/2}$ is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. The dominant wavelength (? d) is derived from the CIE chromaticity diagram and represents the single wavelength which defines the color of the device.

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

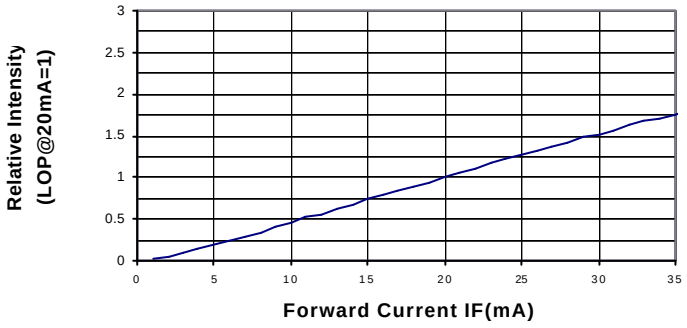
Spectral Radiance (Peak @ 572nm)



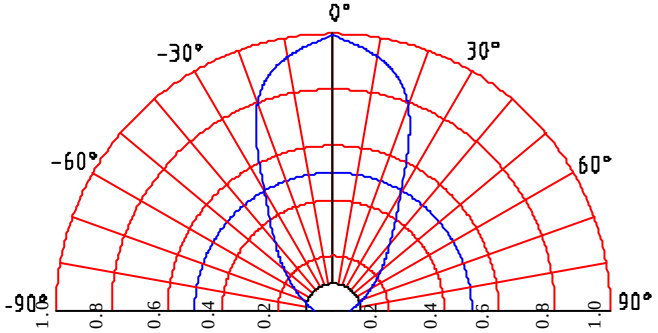
Forward Current
vs Forward Voltage



Relative Luminous Intensity
vs Forward Current



Beam Pattern



Relative Intensity (LOP @ MAX=1)