LUCKY LIGHT

# LL-504BC2L-001

## DATA SHEET

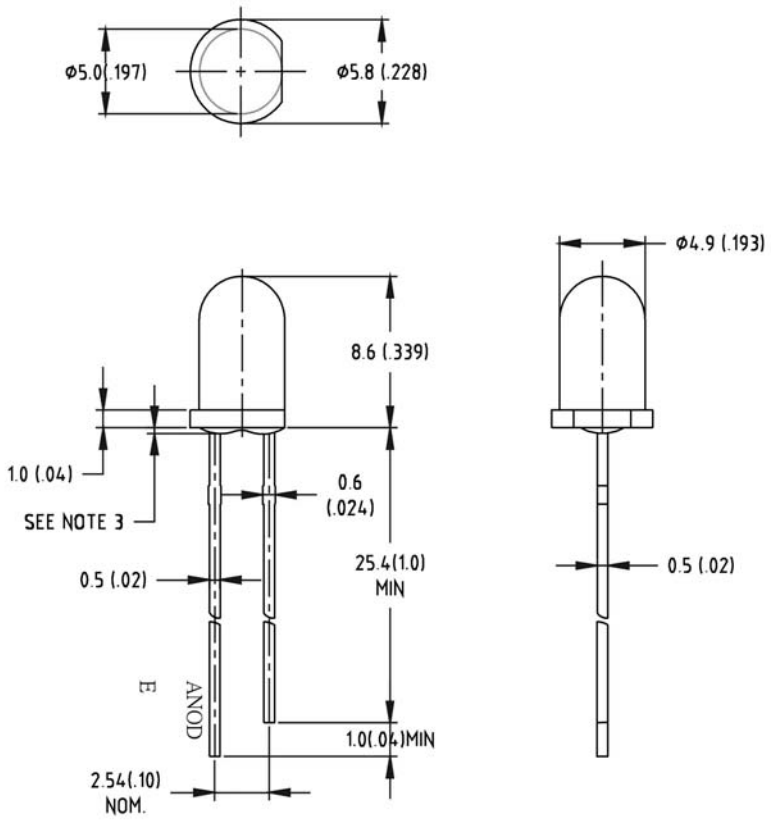
QC:　　ENG:　　Prepared By:

LUCKY LIGHT

## Features

- High intensity
- Standard T-1 3/4 diameter package
- Wide viewing angle
- General purpose leads
- Reliable and rugged

## Package Dimension:




| Part NO. | Material | Lens Color | Source Color |
|---|---|---|---|
| LL-504BC2L-001 | GaN/SiC | Water Clear | Blue |

**Notes:**

1. All dimensions are in millimeters (inches).
2. Tolerance is ±0.25(.010")mm 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. 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 | 120 | mW |
| Peak Forward Current (1/10 Duty Cycle, 0.1ms Pulse Width) | 100 | mA |
| Continuous Forward Current | 35 | mA |
| Derating Linear From 50℃ | 0.4 | mA/℃ |
| Reverse Voltage | 5 | V |
| Operating Temperature Range | -40℃ to +80℃ | |
| Storage Temperature Range | -40℃ to +80℃ | |
| Lead Soldering Temperature [4mm(.157") From Body] | 260℃ for 5 Seconds | |

## Electrical Optical Characteristics at Ta=25℃

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
|---|---|---|---|---|---|---|
| Luminous Intensity | Iv | 600 | 1200 | 2000 | mcd | $I_F$=20mA (Note 1) |
| Viewing Angle | $2\theta_{1/2}$ | --- | 25 | 30 | Deg | (Note 2) |
| Peak Emission Wavelength | $\lambda$ p | 460 | 465 | 470 | nm | $I_F$=20mA $I_F$=20mA (Note 3) |
| Spectral Line Half-Width | $\triangle\lambda$ | --- | 25 | --- | nm | $I_F$=20mA |
| Forward Voltage | $V_F$ | 2.8 | 3.6 | 4.0 | V | $I_F$=20mA |
| Reverse Current | $I_R$ | --- | --- | 100 | μA | $V_R$=5V |

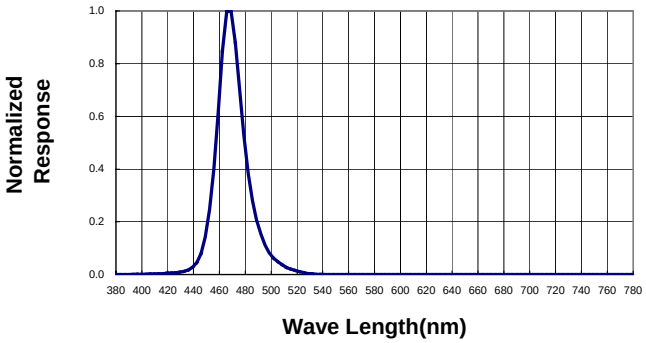
Note:

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

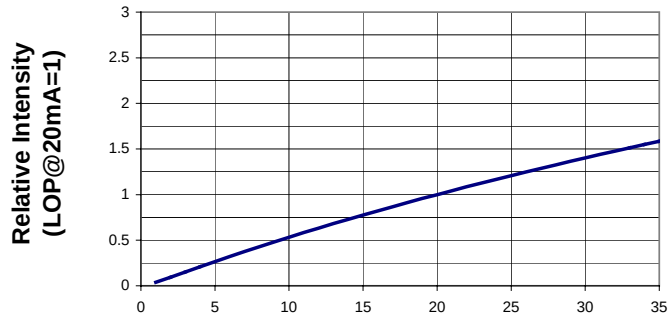
Typical Electrical / Optical Characteristics Curves

(25℃ Ambient Temperature Unless Otherwise Noted)

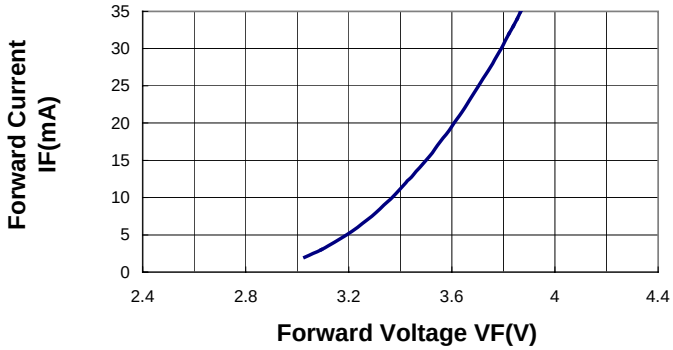
**Spectral Radiance ( Peak @ 470nm)**




**Relative Luminous Intensity vs Forward Current**




**Forward Current vs Forward Voltage**




Beam Pattern