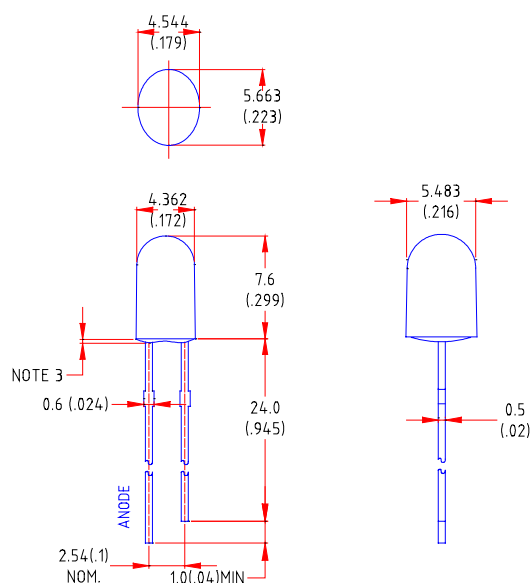


Features

- ◆ High intensity
- ◆ 5x4mm diameter ellipse package
- ◆ Wide viewing angle
- ◆ General purpose leads
- ◆ Reliable and rugged

Package Dimension:



| Part NO. | Lens Color | Source Color |
|----------------|-------------|--------------|
| LL-543WC1Q-001 | Water Clear | White |

Notes:

1. All dimensions are in millimeters (inches).
2. Tolerance is $\pm 0.25(.010)$ 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:

Static Electricity and surge damages the LED. It 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°C

| 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 | |

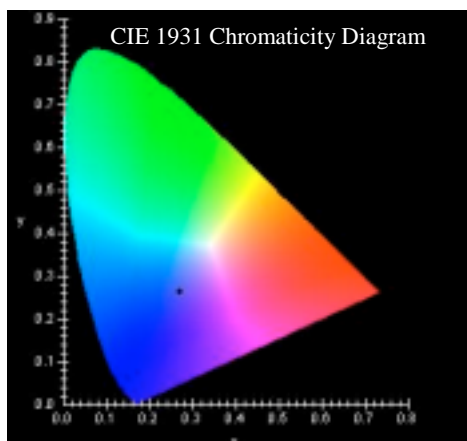
Electrical Optical Characteristics at Ta=25°C

| Parameter | Symbol | Min. | Typ. | Max. | Unit | Test Condition |
|--|-----------------------|------|------|------|------|-------------------------------|
| Luminous Intensity | I _v | --- | 800 | --- | mcd | I _F =20mA (Note 1) |
| Viewing Angle | 2θ _{X(Axis)} | --- | 60 | --- | Deg | (Note 2) |
| | 1/2 Y(Axis) | --- | 30 | --- | | |
| $x = \frac{X}{X+Y+Z} = \frac{\text{Red}}{\text{Red} + \text{Green} + \text{Blue}}$ | x | --- | 0.27 | --- | --- | I _F =20mA (Note 3) |
| $y = \frac{Y}{X+Y+Z} = \frac{\text{Green}}{\text{Red} + \text{Green} + \text{Blue}}$ | y | --- | 0.27 | --- | --- | I _F =20mA (Note 3) |
| Forward Voltage | V _F | 2.8 | 3.7 | 4.5 | V | I _F =20mA |
| Reverse Current | I _R | --- | --- | 100 | μA | V _R =5V |

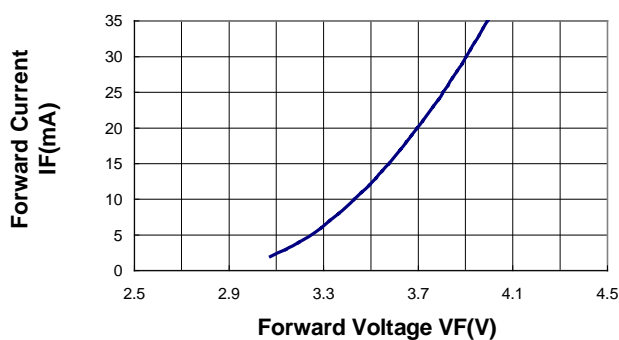
Note:

1. Luminous intensity is measured with a light sensor and filter combination that approximates the CIE eye-response curve.
2. θ_{1/2} is the off-axis angle at which the luminous intensity is half the axial luminous intensity.
3. It use many parameters that correspond to the CIE 1931 2°. X, Y, and Z are CIE 1931 2° values of Red, Green and Blue content of the measurement.

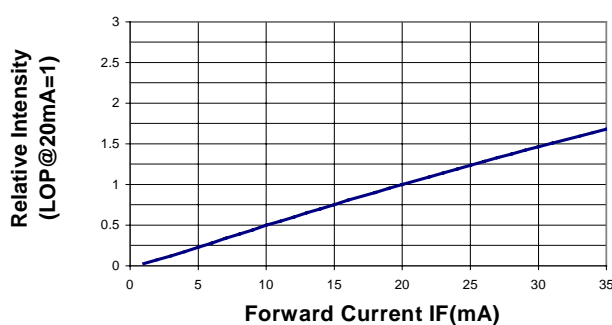
Typical Electrical / Optical Characteristics Curves (25°C Ambient Temperature Unless Otherwise Noted)



**Forward Current
vs Forward Voltage**



**Relative Luminous Intensity
vs Forward Current**



Beam Pattern

