



# Technical Data Sheet

## 5.0 mm Round LED (T-1 3/4 )

**334-15UTC/S400-X10**

### Features

- Popular T-1 colorless 5mm package.
- High luminous power.
- Typical chromaticity coordinates  $x=0.29, y=0.28$  according to CIE1931.
- Bulk, available taped on reel.
- Pb free .
- The product itself will remain within RoHS compliant version.

### Descriptions

- The series is designed for application required high luminous intensity.
- The phosphor filled in the reflector converts the blue emission of InGaN chip to ideal white.

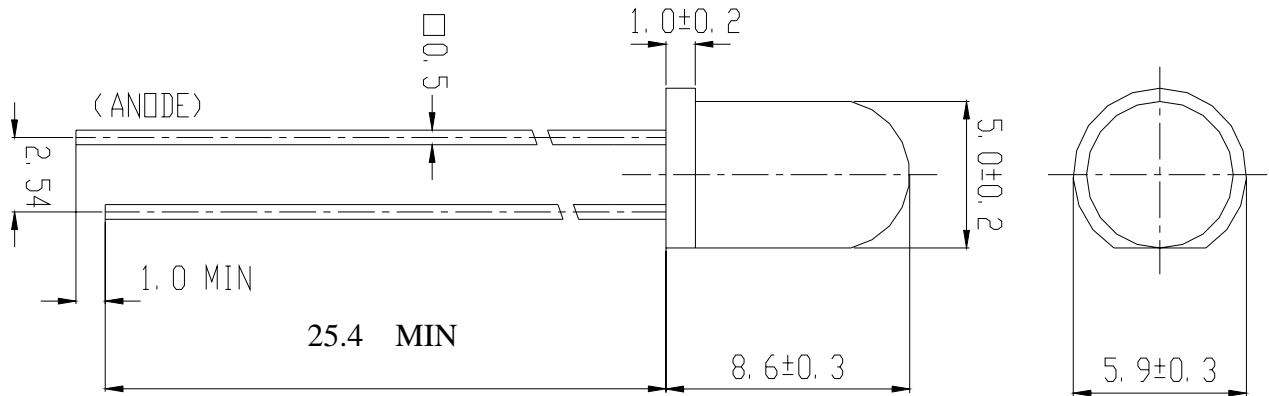
### Applications

- Outdoor Displays
- Optical Indicators
- Backlighting
- Marker Lights

### Device Selection Guide

| PART NO.           | Chip           |               | Lens Color  |
|--------------------|----------------|---------------|-------------|
|                    | Material       | Emitted Color |             |
| 334-15UTC/S400-X10 | InGaN/Sapphire | White         | Water Clear |

**Package Dimensions**



**Notes:**

1. All dimensions are in millimeters, and tolerance is 0.25mm except being specified.
2. Lead spacing is measured where the lead emerges from the package.
3. Protruded resin under flange is 1.5mm Max. LED.

**Absolute Maximum Ratings (Ta=25°C)**

| Parameter                       | Symbol           | Rating     | Unit |
|---------------------------------|------------------|------------|------|
| Continuous Forward Current      | I <sub>F</sub>   | 25         | mA   |
| Reverse Voltage                 | V <sub>R</sub>   | 5          | V    |
| Operating Temperature           | T <sub>opr</sub> | -30 ~ +85  | °C   |
| Storage Temperature             | T <sub>stg</sub> | -40 ~ +100 | °C   |
| Soldering Temperature (T=5 sec) | T <sub>sol</sub> | 260 ± 5    | °C   |
| Power Dissipation               | P <sub>d</sub>   | 120        | mW   |
| Electrostatic Discharge         | ESD              | 150        | V    |

**Electro-Optical Characteristics (Ta=25°C)**

| Parameter                | Symbol    | Condition  | Min. | Typ.  | Max. | Units |
|--------------------------|-----------|------------|------|-------|------|-------|
| Forward Voltage          | $V_F$     | $I_F=20mA$ | --   | 3.2   | 4.0  | V     |
| Reverse Current          | $I_R$     | $V_R=5V$   | --   | --    | 50   | uA    |
| Luminous Intensity       | $I_V$     | $I_F=20mA$ | 8500 | 12000 | --   | mcd   |
| Viewing Angle            | $2\theta$ | $I_F=20mA$ | --   | 20    | --   | deg   |
| Chromaticity Coordinates | x         | $I_F=20mA$ | --   | 0.29  | --   |       |
|                          | y         | -----      | --   | 0.28  | --   |       |

**Luminous Intensity Combination (mcd at 20mA)**

| $I_V$ Ranks | Y     | Z     | Z1    |
|-------------|-------|-------|-------|
| Min.        | 8500  | 12750 | 19125 |
| Max.        | 12750 | 19125 | 28688 |

Measurement Uncertainty of Luminous Intensity:  $\pm 15\%$

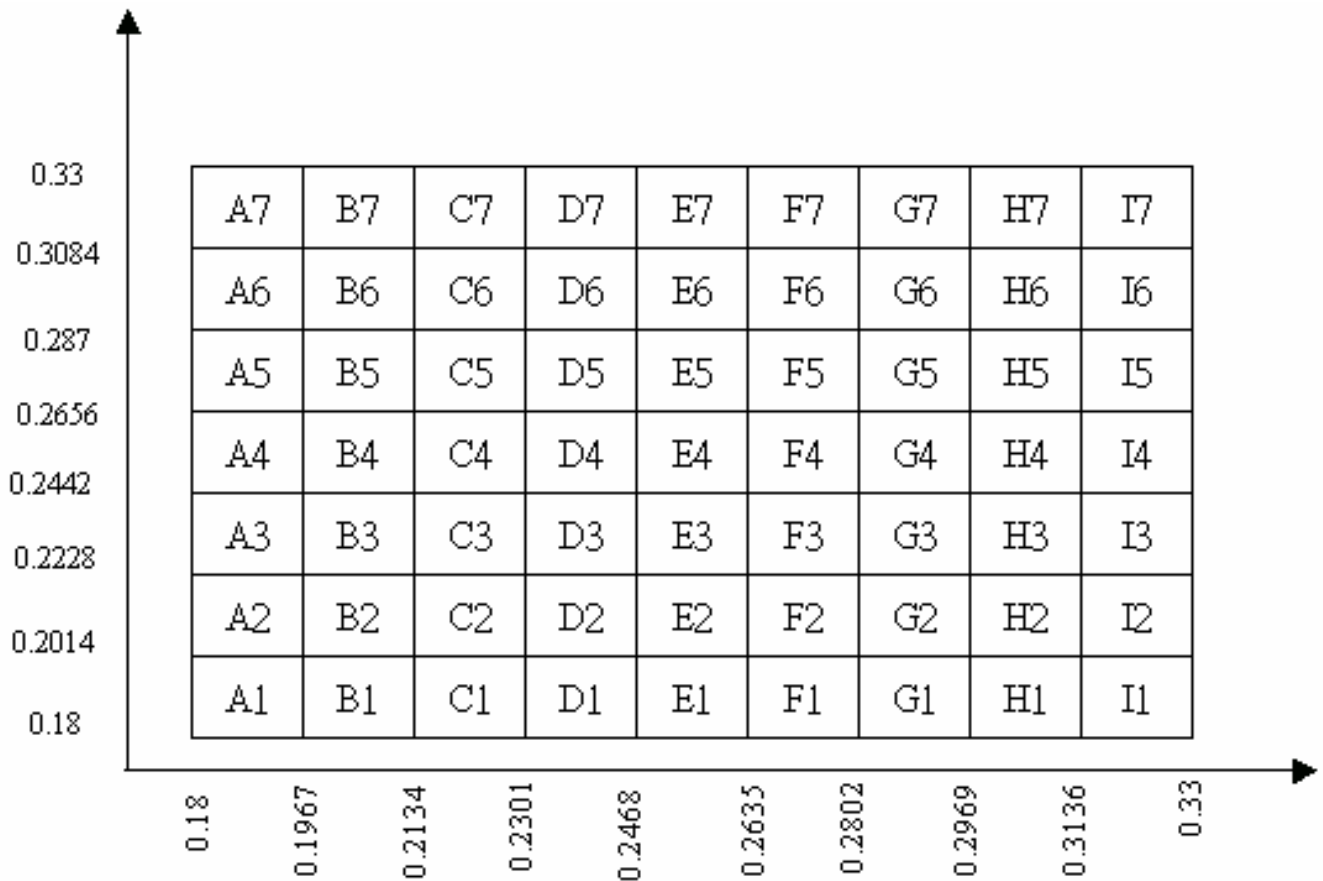
**Forward Voltage Combination (V at 20mA)**

| $V_F$ Rank | 1   | 2   | 3   |
|------------|-----|-----|-----|
| Min.       | 2.8 | 3.2 | 3.6 |
| Max.       | 3.2 | 3.6 | 4.0 |

\*Measurement Uncertainty of Forward Voltage :  $\pm 0.1V$

**CIE Chromaticity Diagram ]**

**Color Ranks (IF=20mA , Ta=25°C)**



Measurement uncertainty of the color coordinates :  $\pm 0.01$

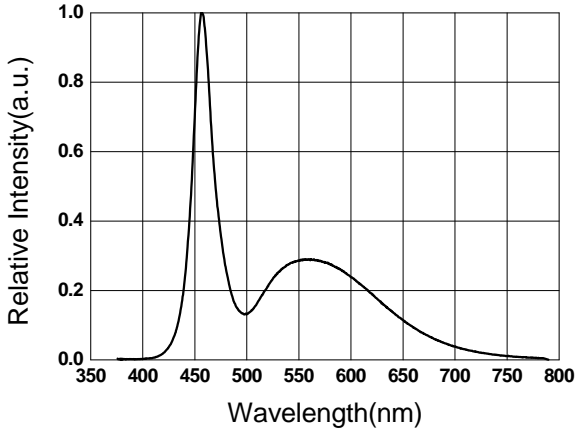
Note:

The setting and inspection for this device please flow the area of x y chromaticity diagram.

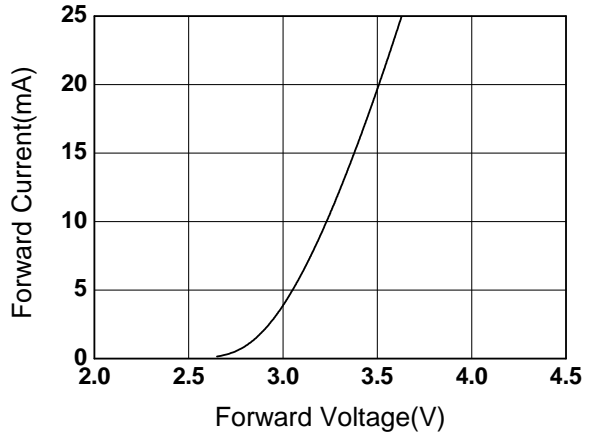
Take the upper and lower point for x-axis and y-axis and then put it same parts, x-axis divide into 9 section, y-axis divide into 6 section, total is 63 bins.

**Typical Electro-Optical Characteristics Curves**

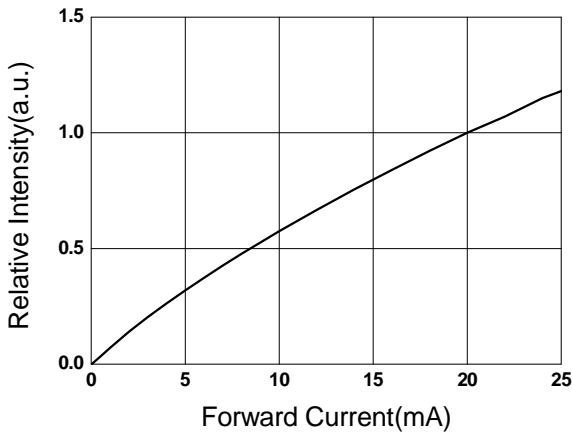
**Relative Intensity vs. Wavelength**



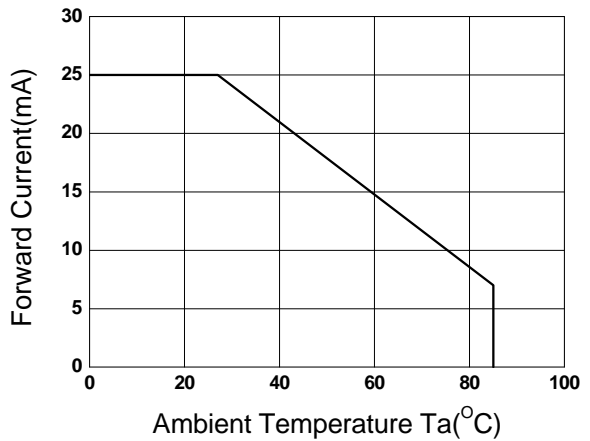
**Forward Current vs. Forward Voltage**



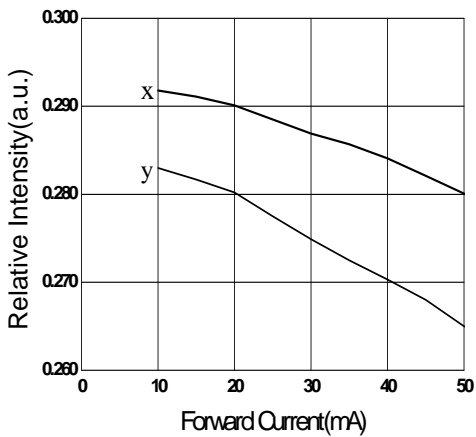
**Relative Intensity vs. Forward Current**



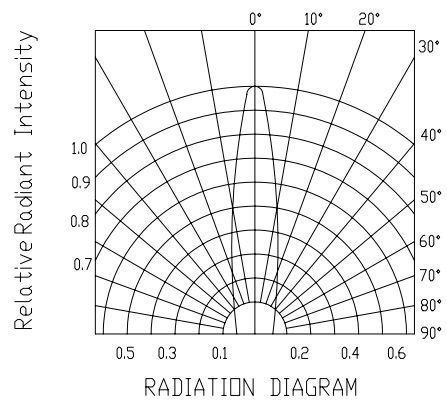
**Forward Current vs. Ambient Temp.**



**Chromaticity Coordinate vs. Forward Current**



**Relative Intensity vs. Angle Dispacemen**





## 334-15UTC/S400-X10

### Label Form Specification

|                    |      |
|--------------------|------|
| <b>EVERLIGHT</b>   |      |
| CPN:               |      |
| P/N:               |      |
| 334-15UTC/S400-X10 |      |
| QTY :              | CAT: |
| LOT NO :           | HUE: |
|                    | REF: |
| MADE IN TAIWAN     |      |

CPN: Customer's Production Number  
P/N : Production Number  
QTY: Packing Quantity  
CAT: IV&VF Rank  
HUE: Color Rank  
REF: Reference  
LOT No: Lot Number  
MADE IN TAIWAN: Production Place

### Notes

1. Above specification may be changed without notice. EVERLIGHT will reserve authority on material change for above specification.
2. When using this product, please observe the absolute maximum ratings and the instructions for using outlined in these specification sheets. EVERLIGHT assumes no responsibility for any damage resulting from use of the product which does not comply with the absolute maximum ratings and the instructions included in these specification sheets.
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