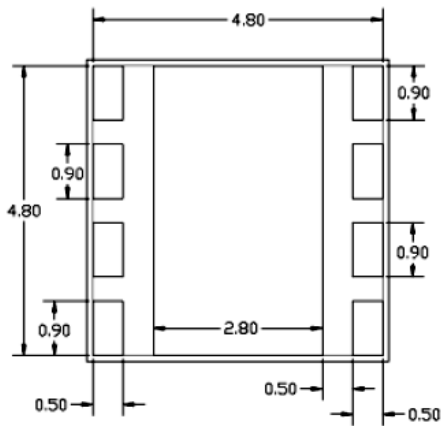
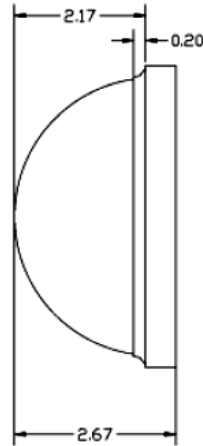
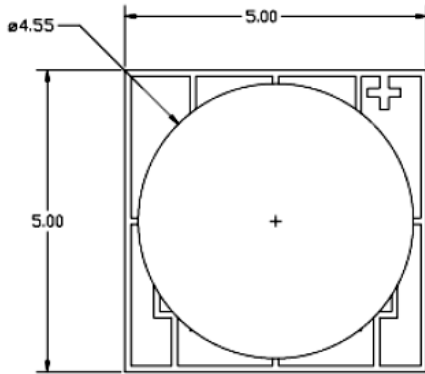


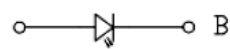
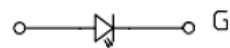
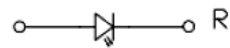
## SPECIFICATION FOR APPROVAL

Part No. : YLE-5050RGBNW-3WMU

### Package Dimensions

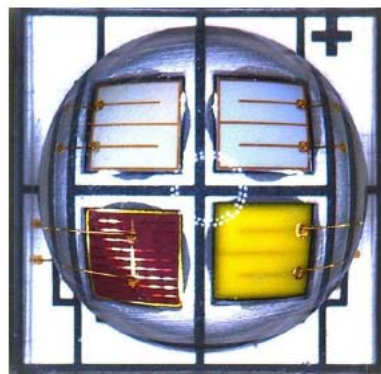


Circuit Diagram



Anode(+)

Cathode(-)



| Part NO.           | Chip Material |         |       |       | Lens Color  | Emission Color              |
|--------------------|---------------|---------|-------|-------|-------------|-----------------------------|
|                    | White         | Red     | Green | Blue  |             |                             |
| YLE-5050RGBNW-3WMU | InGaN         | AlGaInP | InGaN | InGaN | Water Clear | White & Red<br>&Green& Blue |
|                    |               |         |       |       |             |                             |

#### Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.25\text{mm} (.010\text{'})$  unless otherwise noted.

## ➤ Electrical/Optical Characteristics (IF= 350mA Ta=25°C)

| Color        | Dominate Wavelength (nm) |               | Luminous Flux (lm) |               | Forward Voltage (V) |            | View angle |
|--------------|--------------------------|---------------|--------------------|---------------|---------------------|------------|------------|
|              | Color Temperature        |               | Radiant Flux (mW)  |               | Min.                | Max.       |            |
|              | Min.                     | Max.          | Min.               | Max.          | Min.                | Max.       |            |
| <b>Red</b>   | <b>620 nm</b>            | <b>630 nm</b> | <b>50 lm</b>       | <b>80 lm</b>  | <b>2.0</b>          | <b>2.8</b> | 140°       |
| <b>Green</b> | <b>520 nm</b>            | <b>535 nm</b> | <b>90 lm</b>       | <b>130 lm</b> | <b>3.0</b>          | <b>3.6</b> |            |
| <b>Blue</b>  | <b>450 nm</b>            | <b>460 nm</b> | <b>450 mW</b>      | <b>550 mW</b> | <b>3.0</b>          | <b>3.6</b> |            |
| <b>White</b> | <b>5300K</b>             | <b>8000K</b>  | <b>80 lm</b>       | <b>120 lm</b> | <b>3.0</b>          | <b>3.6</b> |            |

## ➤ Absolute Maximum Rating (Ta=25°C)

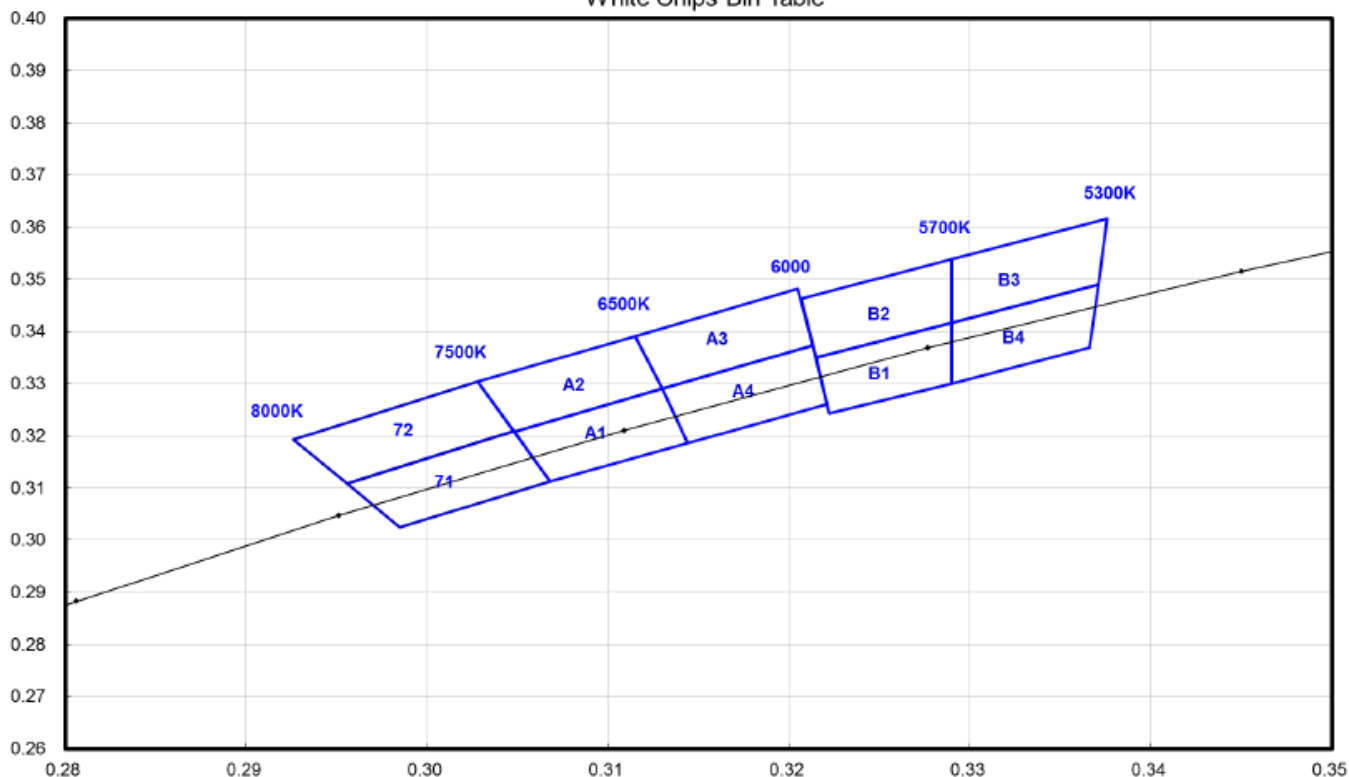
| Parameter                        | Symbol           | Ratings                    | Units |
|----------------------------------|------------------|----------------------------|-------|
| Power Dissipation                | P <sub>D</sub>   | 10                         | W     |
| Continuous Forward Current-Red   | I <sub>F</sub>   | 1000                       | mA    |
| Continuous Forward Current-Green | I <sub>F</sub>   | 1000                       | mA    |
| Continuous Forward Current-Blue  | I <sub>F</sub>   | 1000                       | mA    |
| Continuous Forward Current-White | I <sub>F</sub>   | 1000                       | mA    |
| Operating Temperature Range      | T <sub>OPR</sub> | -30°C To +80°C             |       |
| Storage Temperature Range        | T <sub>STG</sub> | -40°C To +100°C            |       |
| Manual Soldering Temperature     | T <sub>SOL</sub> | 260°C±20°C For 3-5 Seconds |       |

### Notes

[1]. Tolerance Ⓟ:10°

## BIN Structure

White Chips Bin Table



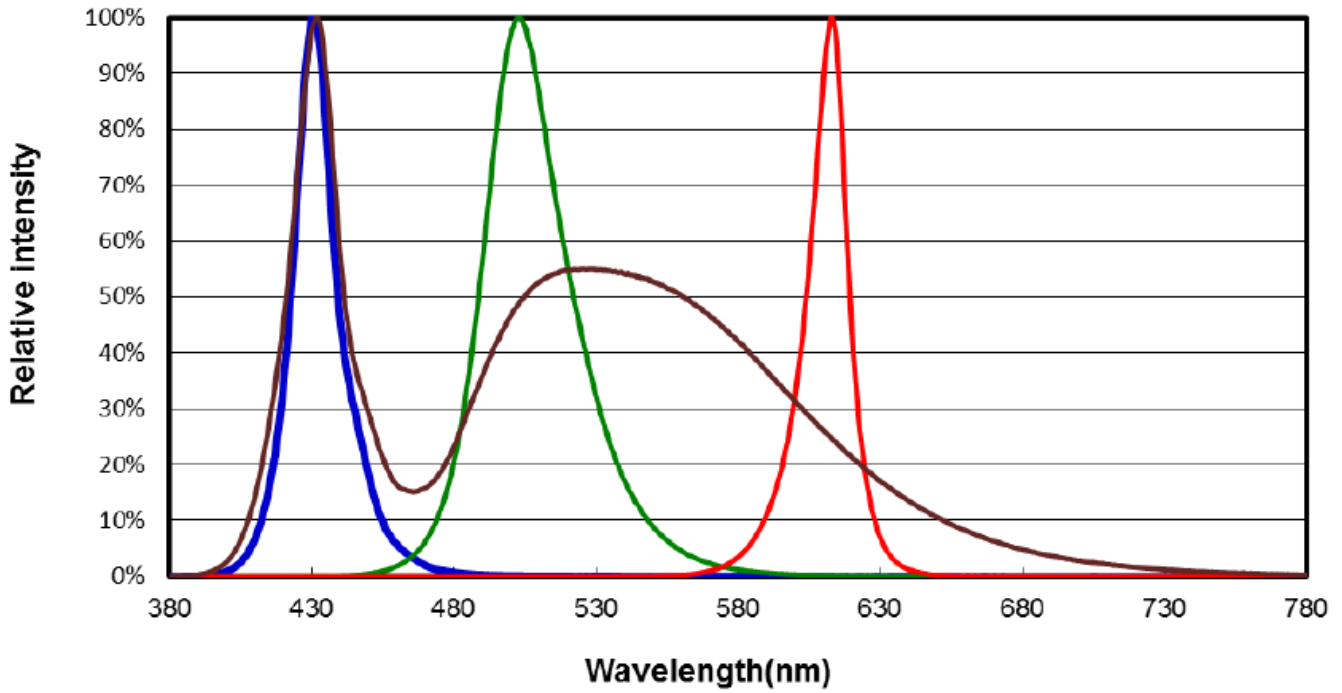
## Bin Coordinates

| CCT       | 分檔代碼 | x      | y      |
|-----------|------|--------|--------|
| 5650~6000 | B1   | 0.3215 | 0.3350 |
|           |      | 0.3290 | 0.3417 |
|           |      | 0.3290 | 0.3300 |
|           |      | 0.3222 | 0.3243 |
|           | B2   | 0.3207 | 0.3462 |
|           |      | 0.3290 | 0.3538 |
| 5300~5650 | B3   | 0.3290 | 0.3538 |
|           |      | 0.3376 | 0.3616 |
|           |      | 0.3371 | 0.3490 |
|           |      | 0.3290 | 0.3417 |
|           | B4   | 0.3290 | 0.3417 |
|           |      | 0.3371 | 0.3490 |
|           |      | 0.3366 | 0.3369 |
|           |      | 0.3290 | 0.3300 |

| CCT       | 分檔代碼 | x      | y      |
|-----------|------|--------|--------|
| 6500~7000 | A1   | 0.3048 | 0.3207 |
|           |      | 0.3130 | 0.3290 |
|           |      | 0.3144 | 0.3186 |
|           |      | 0.3068 | 0.3113 |
|           | A2   | 0.3028 | 0.3304 |
|           |      | 0.3115 | 0.3391 |
| 6000~6500 | A3   | 0.3130 | 0.3290 |
|           |      | 0.3048 | 0.3207 |
|           |      | 0.3115 | 0.3391 |
|           |      | 0.3205 | 0.3481 |
|           | A4   | 0.3213 | 0.3373 |
|           |      | 0.3130 | 0.3290 |
|           |      | 0.3130 | 0.3290 |
|           |      | 0.3213 | 0.3373 |

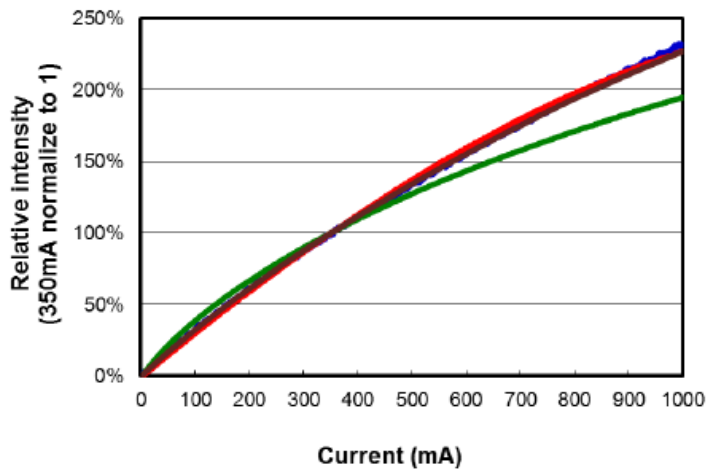
| CCT       | 分檔代碼 | x      | y      |
|-----------|------|--------|--------|
| 7000~8000 | 71   | 0.2926 | 0.3193 |
|           |      | 0.2956 | 0.3109 |
|           |      | 0.3048 | 0.3209 |
|           |      | 0.3028 | 0.3304 |
|           | 72   | 0.2956 | 0.3109 |
|           |      | 0.2985 | 0.3025 |
|           |      | 0.3068 | 0.3113 |
|           |      | 0.3048 | 0.3209 |

## ↻ Spectrum Distribution

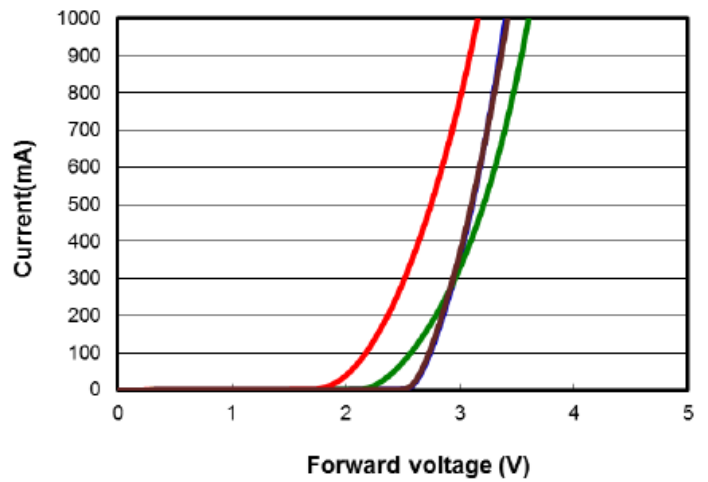


## ↻ Characteristic Curves

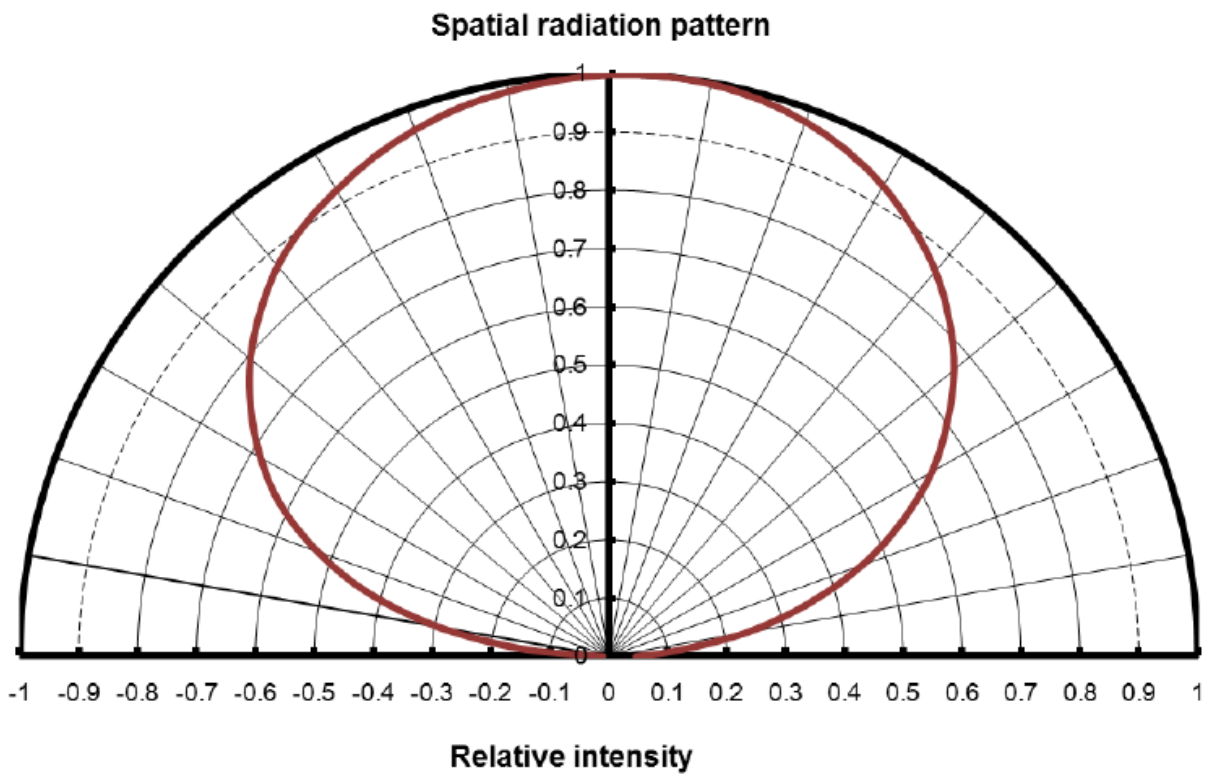
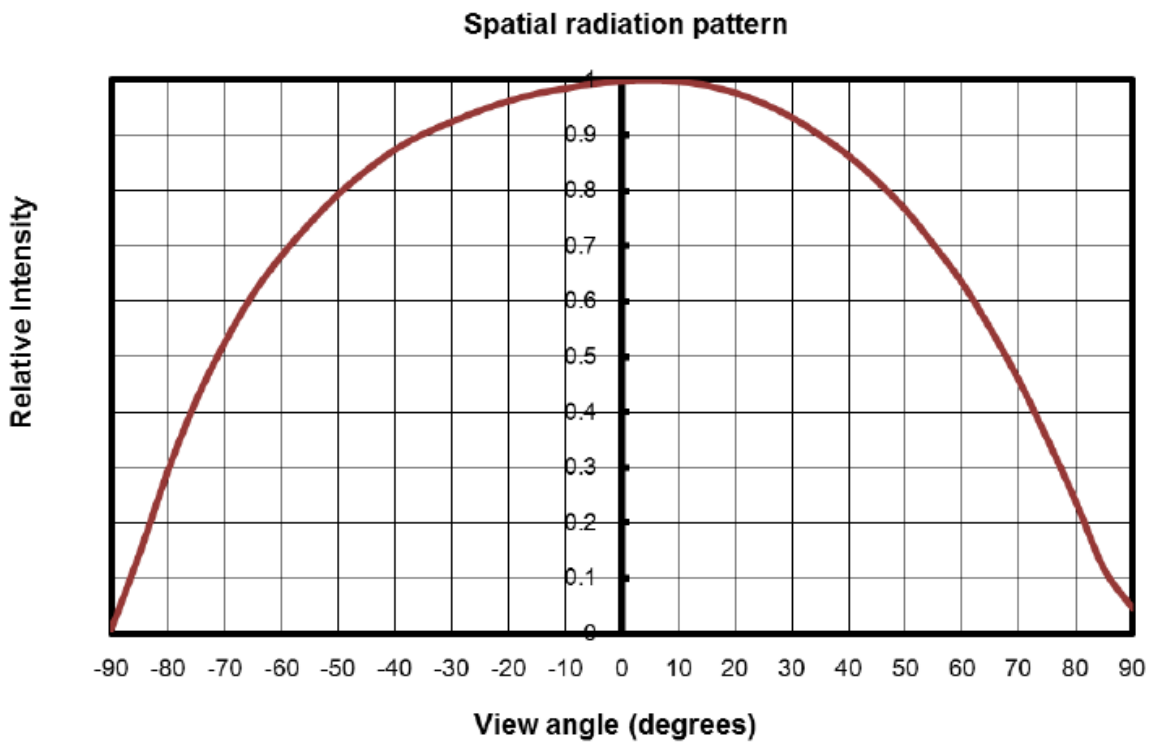
Luminous flux ( $\Phi_v$ ) vs Current ( $I_F$ )



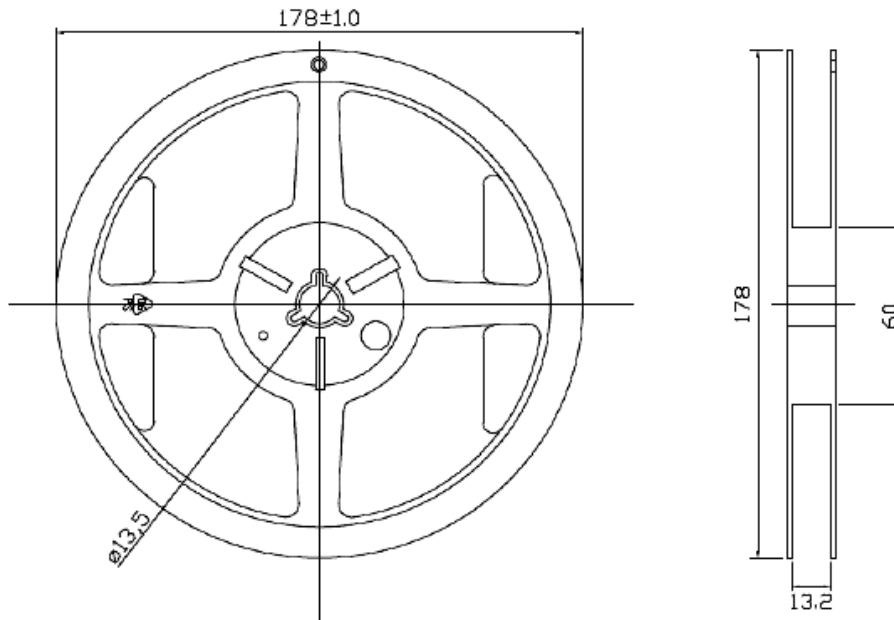
Current ( $I_F$ ) vs Voltage ( $V_F$ )



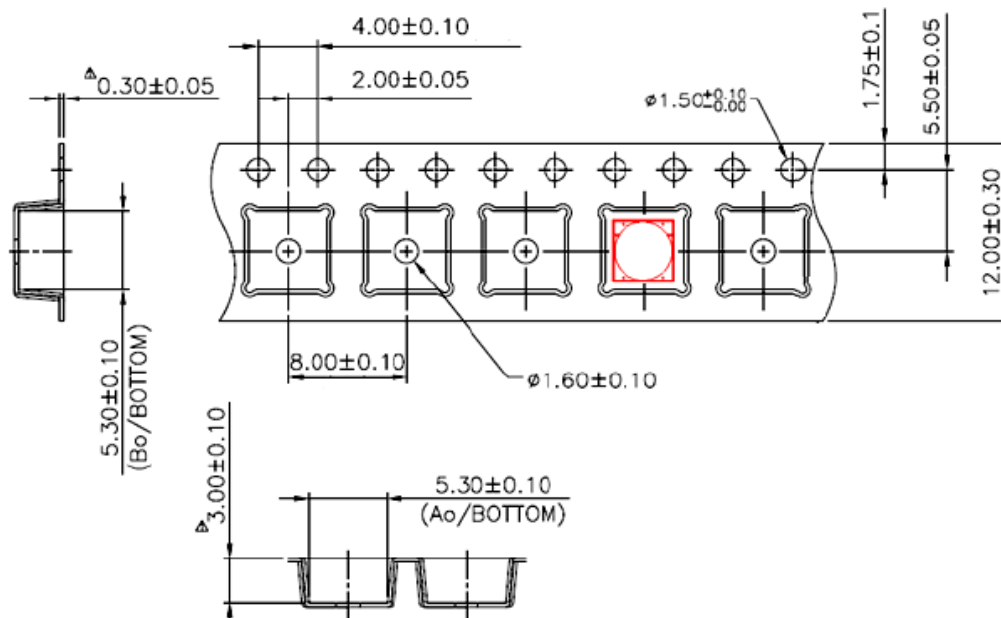
➤ Typical Radiation Pattern



- **Packing**  
Tape -and- Reel packing
- **Reel dimensions**



- **Carrier tape dimensions**



Unit : mm

## ☞ Notice

1. In order to avoid absorption of moisture, it is recommended that the products are stored in the dry box (or desiccators) with a desiccants. Alternatively the following environment is recommended:  
Storage temperature: 5°C~30°C Humidity: 60% HR max.
2. If the storage conditions are of high humidity the product should be dried before use. Recommended drying conditions: 12 hours at 100°C±5°C
3. Any mechanical force or any excess vibration should be avoided during the cooling process after soldering.
4. Reflow rapidly cooling should be avoided.
5. Components should not be mounted on distorted Printed Circuit Boards.
6. Devices should not contact with any types of fluid, such as water, oil, organic solvents.... etc.
7. The maximum ambient temperature should be taken into consideration when determining the operating current.
8. Devices should be soldered within 7 days after opening the moisture-proof packing.
9. Repack unused product in anti-moisture packing, fold to close any opening and store in a dry place.
10. The appearance and specifications of devices may be modified for improvement without notice.
11. ESD Precautions Static Electricity and surge damages LEDs. It is recommended that wrist bands or anti-electrostatic gloves be used when handling the LEDs. All devices, equipment and machinery should be properly grounded.
12. This product must be driven by constant power supplier.