

# PRODUCT SPECIFICATION



**Part No.: WL-P50EP4545RB140-440**  
**High Power LED**

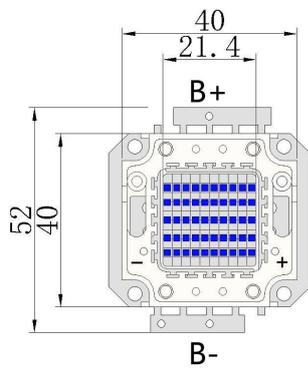
## Catalog

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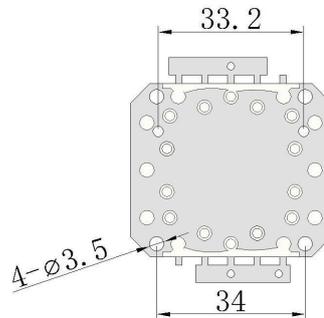
## 1.Product Features

- High Brightness Blue LED Plane
- Chip Material: InGaN AlGaInP
- Package
- Viewing Angle 140 Degree
- RoHS Compliant

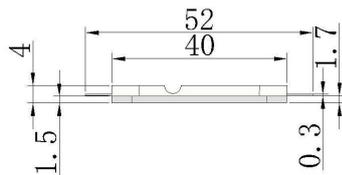
## 2.Dimensions



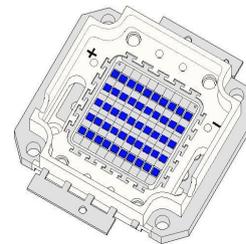
Top view



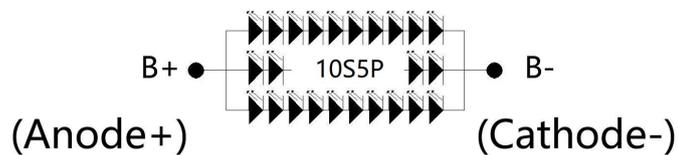
Bottom view



Side view



Perspective view



Circuit diagram

### Notes:

1. All dimensions are in millimeters.
2. Tolerance is  $\pm 0.1\text{mm}$  unless otherwise noted.

### 3. Absolute Maximum Rating @ Ta=25° C

| Parameter  | Symbol | Maximum Rating  | Unit |
|--|--------|-----------------|------|
| Continuous Forward Current                                   | IF     | 1750            | mA   |
| Peak Forward Current<br>(1/10 Duty Cycle, 0.1ms Pulse Width) | IFp    | 2000            | mA   |
| Reverse Voltage  | VR     | 36              | V    |
| Power Dissipation  | PD     | 50              | W    |
| Electrostatic Discharge                                      | ESD    | 1000            | V    |
| Operating Temperature Range                                  | TOPR   | -25°C to +80°C  |      |
| Storage Temperature Range                                    | TSTG   | -35°C to +100°C |      |
| Lead Soldering Temperature                                   | TSOL   | 260°C           |      |

### 4. Optical Character @ Ta=25° C

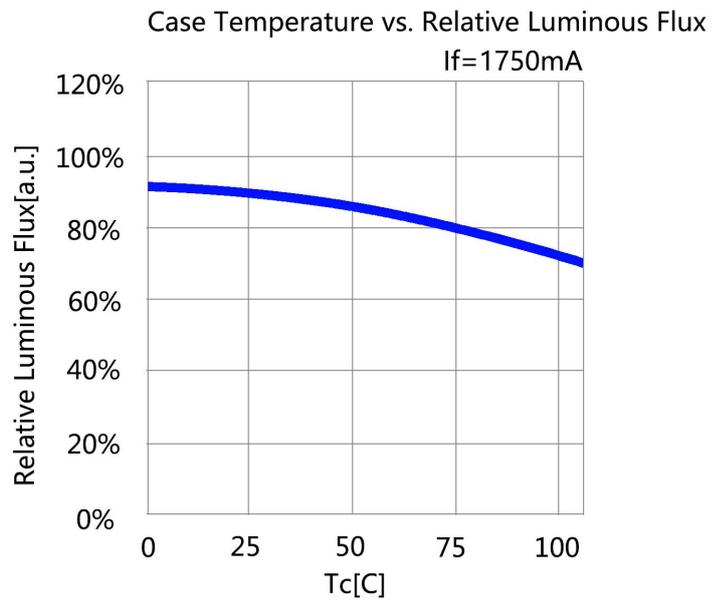
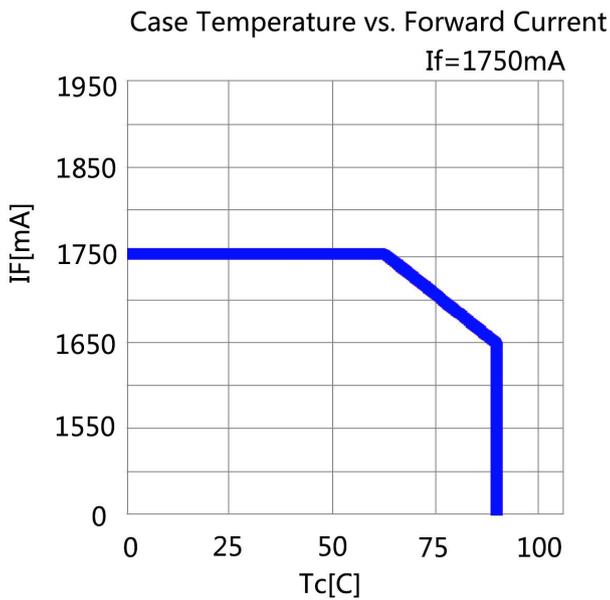
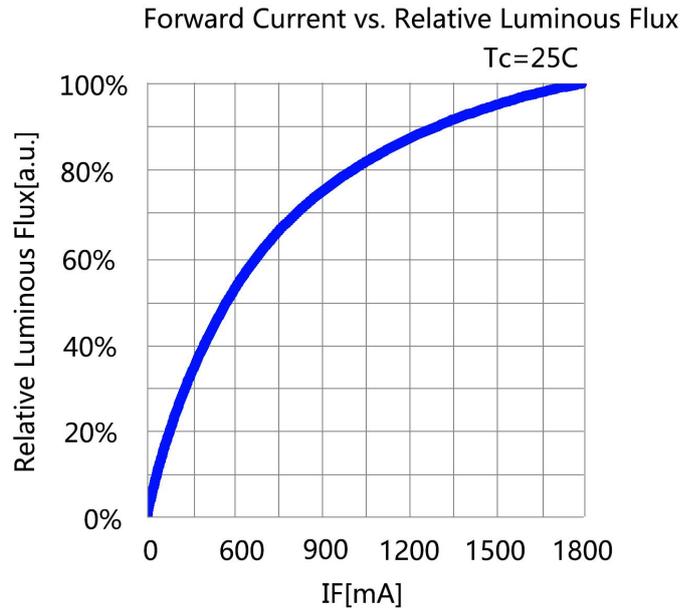
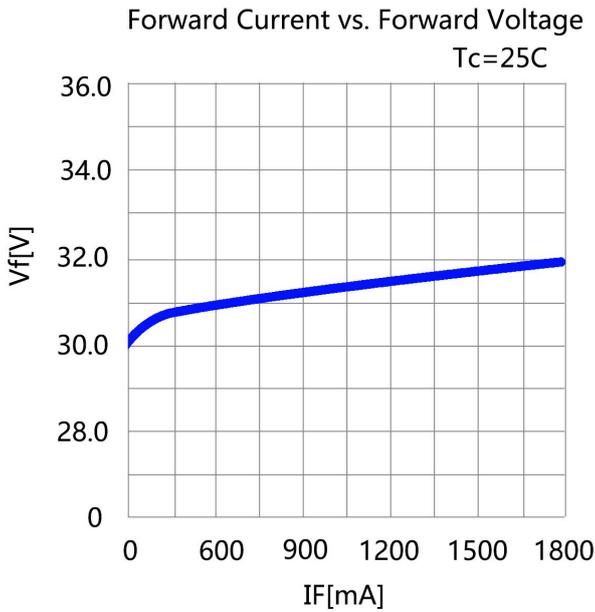
| Parameter                 | Symbol  | Color | Min. | Typ.  | Max. | Unit | Test Condition |
|---------------------------|---------|-------|------|-------|------|------|----------------|
| Forward Voltage           | VF      | B     | 30   | 31    | 32   | V    | IF=1750mA      |
| Luminous Flux             | Φ       | B     | 400  | 500   | 600  | Lm   | IF=1750mA      |
| Dominant Wavelength       | Wld     | B     | 435  | 437.5 | 440  | nm   | IF=1750mA      |
| Reverse Current           | IR      |       | 0    |       | 10   | μA   | VR=36V         |
| Viewing Angle             | 2θ1/2   |       |      |       | 140  | deg  | IF=1750mA      |
| Recommend Forward Current | IF(rec) | B     |      |       | 1750 | mA   |                |

#### Notes:

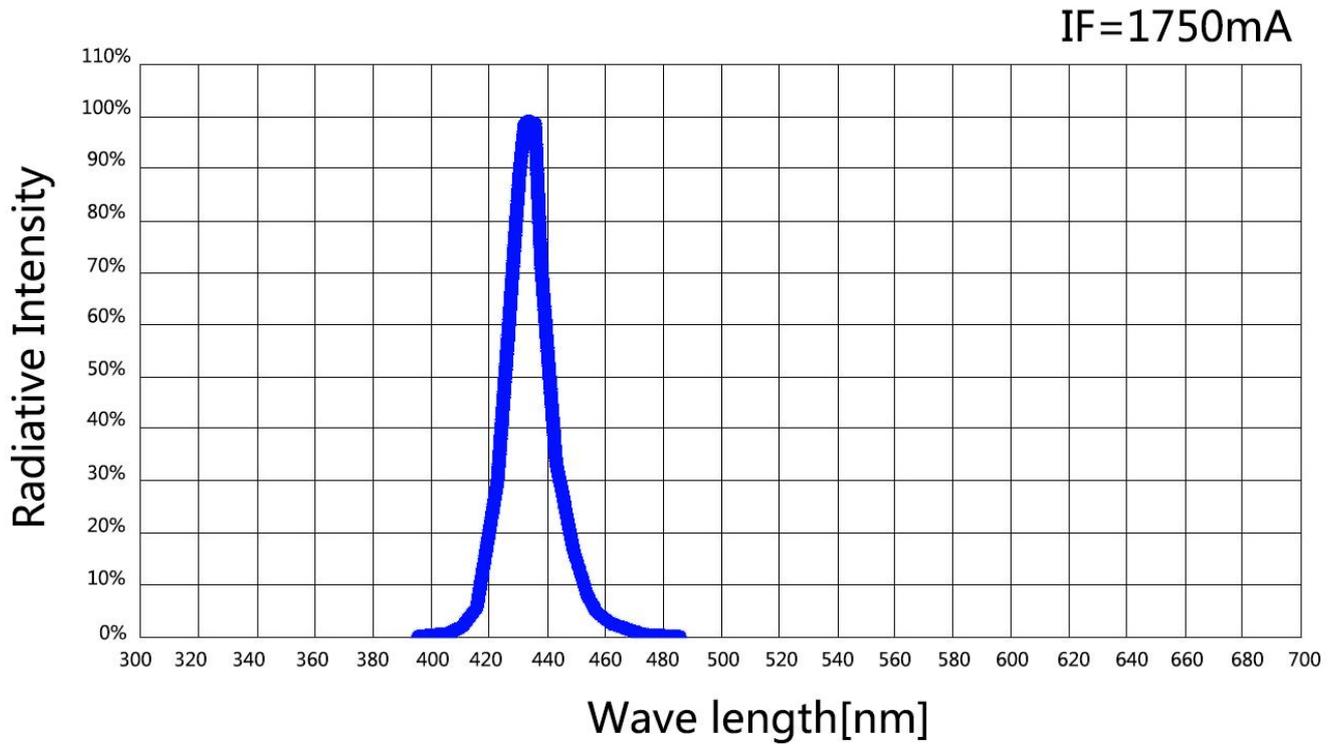
Measurement tolerance of forward voltage ±0.1V

## 5. Optical Character Curves

( 25 ° Ambient Temperature Unless Otherwise Noted )



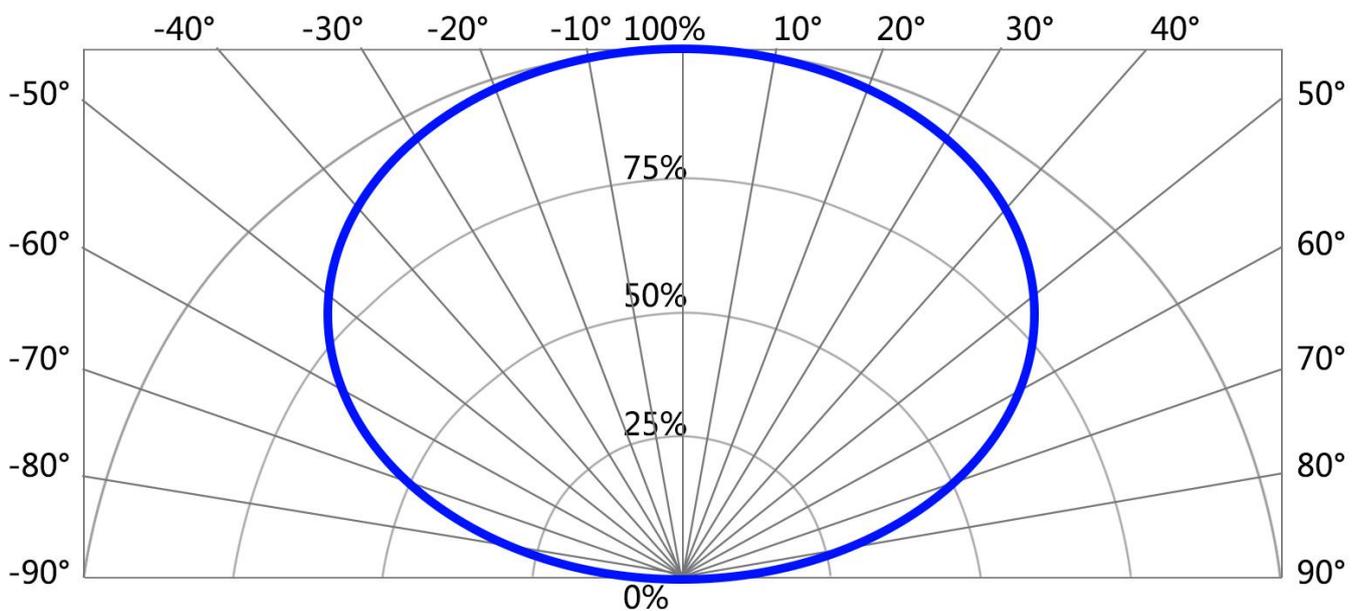
## 6. Spectrum Curves



## 7. Viewing Angle Curves

Radiation Characteristic

IF=1750mA



## 8.Cautions

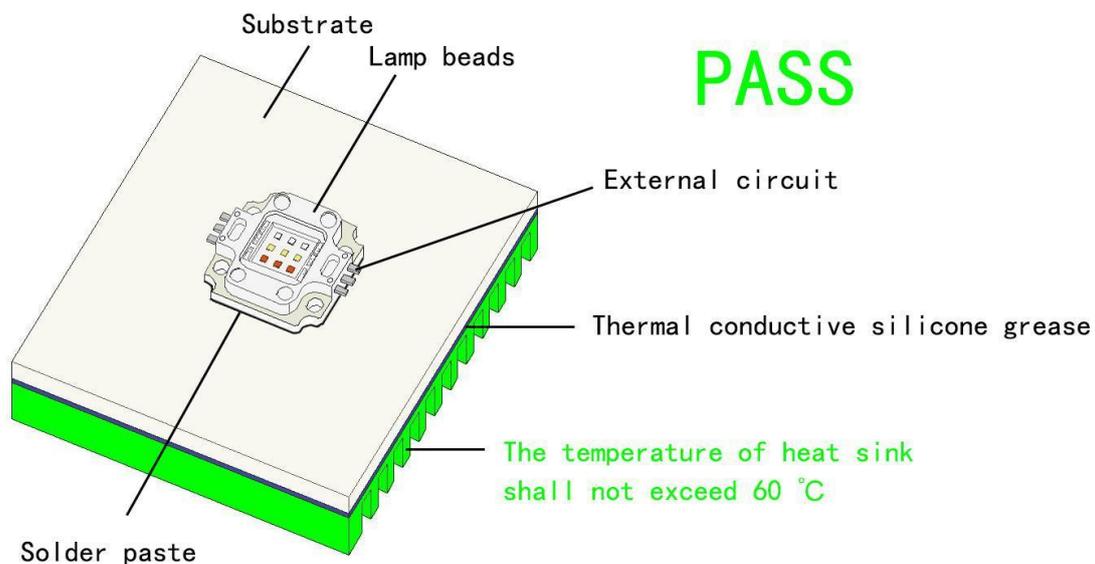
### 1. Electrostatic Treatment

Do a full range of anti-static measures (such as: anti-static ring, anti-static clothes, machine, equipment grounding wire, etc.)



### 2. Heat Dissipation

- A、 It is recommend to configure reasonable heat dissipation device for the product.
- B、 The best working temperature range of the product is 40-60°. It is recommended to control the working temperature of the product within a reasonable range.



**PASS**

**OK**

