

## TINA2-W

~45° wide beam. Assembly with holder, installation tape and location pins.

### TECHNICAL SPECIFICATIONS:

|                |           |
|----------------|-----------|
| Dimensions     | Ø 16.0 mm |
| Height         | 9.5 mm    |
| Fastening      | tape, pin |
| ROHS compliant | yes ⓘ     |

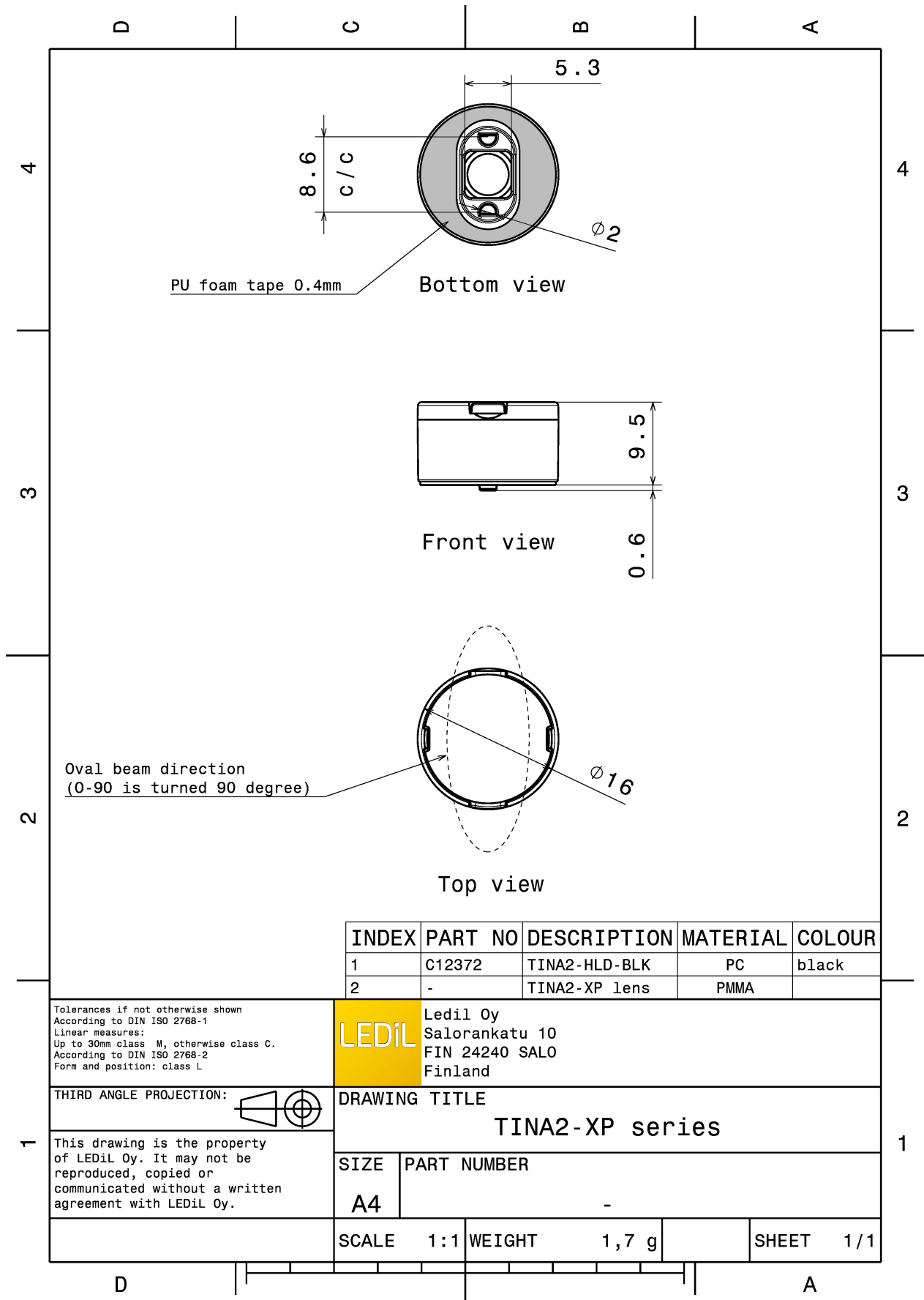
### MATERIAL SPECIFICATIONS:

| Component     | Type        | Material     | Colour | Finish |
|---------------|-------------|--------------|--------|--------|
| TINA2-W-XP    | Single lens | PMMA         | clear  |        |
| TINA2-HLD-BLK | Holder      | PC           | black  |        |
| TINA-TAPE3    | Tape        | Acrylic foam | black  |        |

### ORDERING INFORMATION:

| Component       |             | Qty in box | MOQ | MPQ | Box weight (kg) |
|-----------------|-------------|------------|-----|-----|-----------------|
| CA12378_TINA2-W | Single lens | 4140       | 230 | 230 | 8.3             |
| » Box size:     |             |            |     |     |                 |





| INDEX | PART NO | DESCRIPTION   | MATERIAL | COLOUR |
|-------|---------|---------------|----------|--------|
| 1     | C12372  | TINA2-HLD-BLK | PC       | black  |
| 2     | -       | TINA2-XP lens | PMMA     |        |

Tolerances if not otherwise shown  
According to DIN ISO 2768-1  
Linear measures:  
Up to 30mm class M, otherwise class C.  
According to DIN ISO 2768-2  
Form and position: class L

**LEDiL** LediL Oy  
Salorankatu 10  
FIN 24240 SALO  
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE  
**TINA2-XP series**

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| SIZE | PART NUMBER |
|------|-------------|
| A4   | -           |

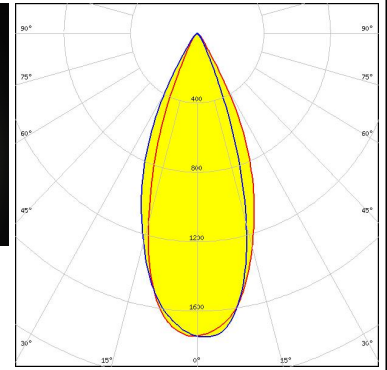
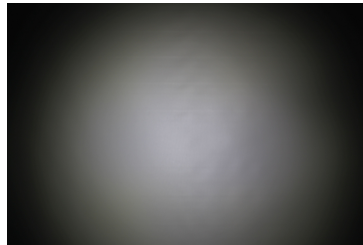
| SCALE | 1:1 | WEIGHT | 1,7 g | SHEET | 1/1 |
|-------|-----|--------|-------|-------|-----|
|-------|-----|--------|-------|-------|-----|

See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

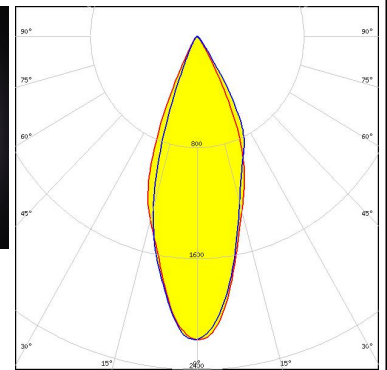
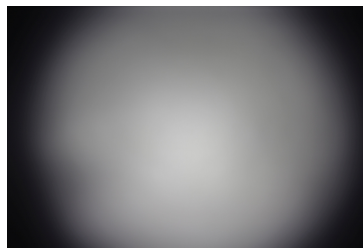
#### PHOTOMETRIC DATA (MEASURED):



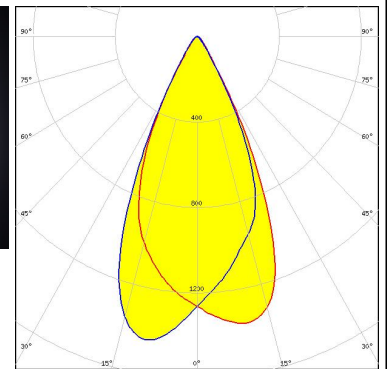
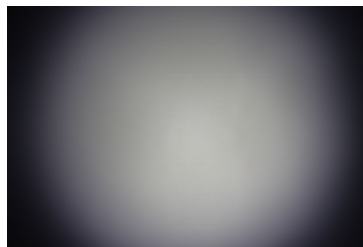
LED XD16  
 FWHM / FWTM 40.0° / 61.0°  
 Efficiency 83 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



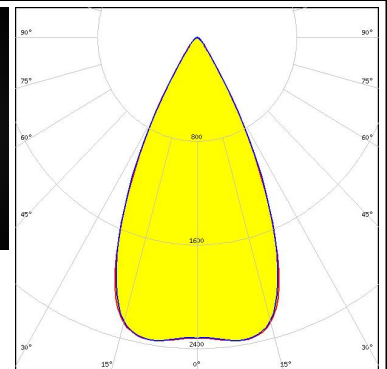
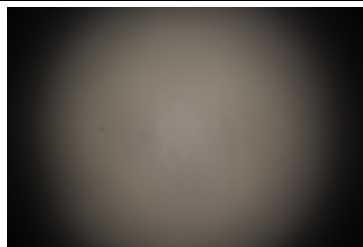
LED LUXEON CZ  
 FWHM / FWTM 39.0° / 61.0°  
 Efficiency 92 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



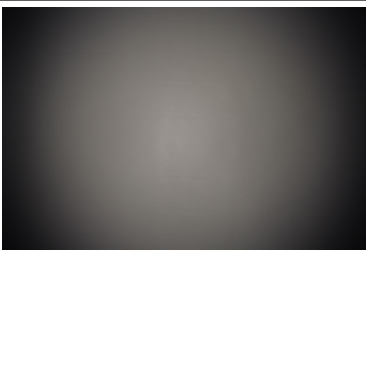
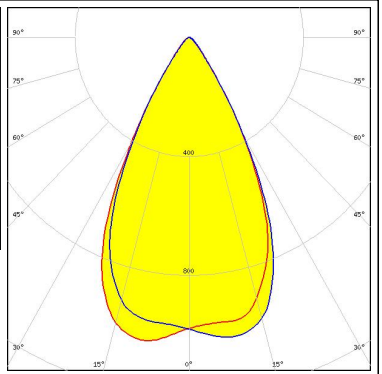

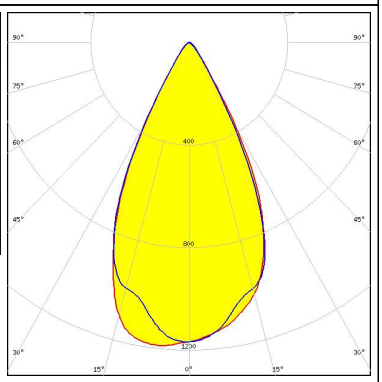

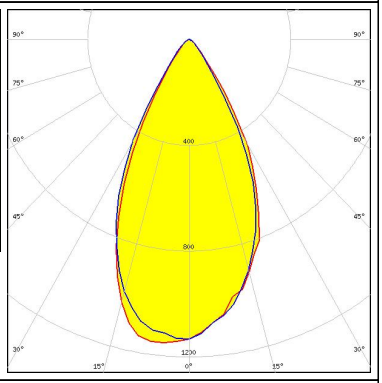

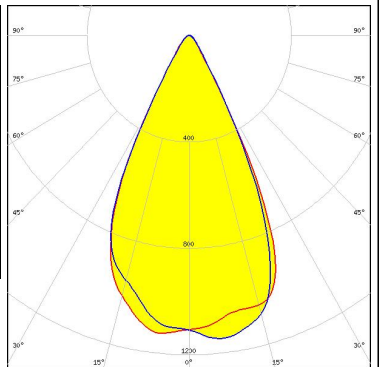
LED LUXEON TX  
 FWHM / FWTM 49.0° / 68.0°  
 Efficiency 88 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED NVSxx19B/NVSxx19C  
 FWHM / FWTM 52.0° / 70.0°  
 Efficiency 87 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>NICHIA</b></p> <p>LED NWSx229A<br/>           FWHM / FWTM 55.0° / 77.0°<br/>           Efficiency 84 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>                                 |    |    |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED OSLOM Square EC<br/>           FWHM / FWTM 52.0° / 72.0°<br/>           Efficiency 85 %<br/>           Peak intensity 1.2 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |   |   |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED OSLOM Square EC<br/>           FWHM / FWTM 50.0° / 73.0°<br/>           Efficiency 84 %<br/>           Peak intensity 1.1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |  |  |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED OSLOM SSL 150<br/>           FWHM / FWTM 53.0° / 70.0°<br/>           Efficiency 85 %<br/>           Peak intensity 1.2 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>   |  |  |

#### PHOTOMETRIC DATA (MEASURED):

##### OSRAM

Opto Semiconductors

LED SFH 4170S  
 FWHM / FWTM 38.0° / 61.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:

##### OSRAM

Opto Semiconductors

LED SFH 4180S  
 FWHM / FWTM 34.0° / 60.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:

##### OSRAM

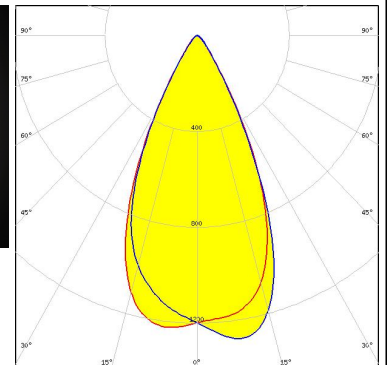
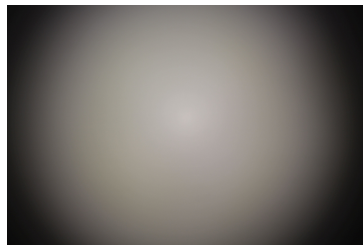
Opto Semiconductors

LED SFH 4715S  
 FWHM / FWTM 36.0° / 80.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour White  
 Required components:



##### SEOUL SEMICONDUCTOR

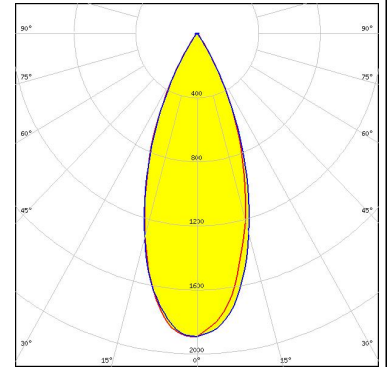
LED Z5M3  
 FWHM / FWTM 50.0° / 72.0°  
 Efficiency 86 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



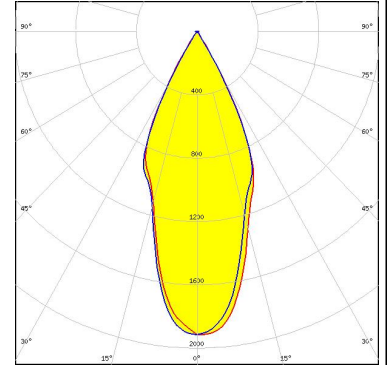
#### PHOTOMETRIC DATA (SIMULATED):



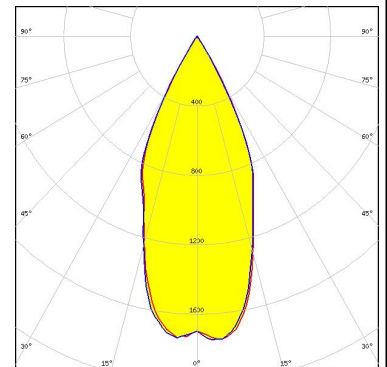
LED XB-D White  
 FWHM / FWTM 40.0° / 64.0°  
 Efficiency 89 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED XQ-E HI  
 FWHM / FWTM 42.0° / 64.0°  
 Efficiency 92 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED LUXEON C  
 FWHM / FWTM 44.0° / 65.0°  
 Efficiency 91 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



LED LUXEON IR Compact  
 FWHM / FWTM 51.0° / 64.0°  
 Efficiency 84 %  
 LEDs/each optic 1  
 Light colour White  
 Required components:

#### PHOTOMETRIC DATA (SIMULATED):

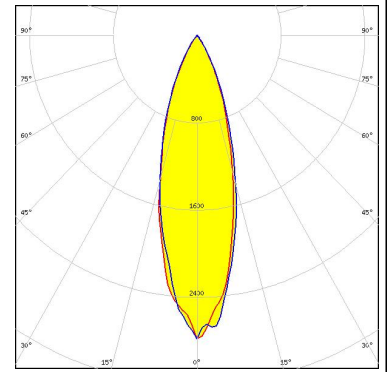
|   |  |
|---|--|
| <p><b>LUMILEDS</b></p> <p>LED LUXEON Z ES</p> <p>FWHM / FWTM 43.0° / 62.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>                              |  |
| <p><b>NICHIA</b></p> <p>LED NCSxE17A</p> <p>FWHM / FWTM 29.0° / 56.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>                                   |  |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED SFH 4770S</p> <p>FWHM / FWTM 32.0° / 61.0°</p> <p>Efficiency 88 %</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>   |  |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED Synios P2720 1 mm</p> <p>FWHM / FWTM 31.0° / 60.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 2.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> |  |

#### PHOTOMETRIC DATA (SIMULATED):

#### OSRAM

Opto Semiconductors

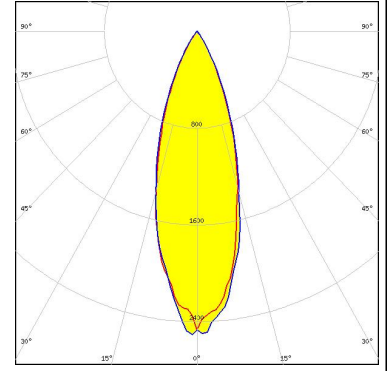
LED Synios P2720 1/2 mm  
 FWHM / FWTM 30.0° / 58.0°  
 Efficiency 92 %  
 Peak intensity 2.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OSRAM

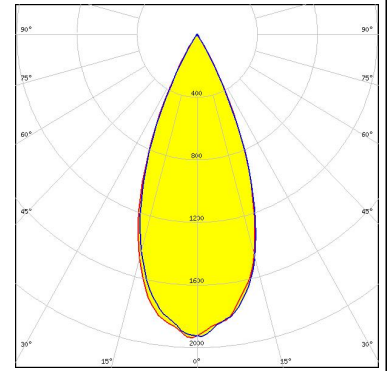
Opto Semiconductors

LED Synios P2720 1/4 mm  
 FWHM / FWTM 31.0° / 60.0°  
 Efficiency 92 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### SAMSUNG

LED LH181B  
 FWHM / FWTM 43.0° / 61.0°  
 Efficiency 93 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:





### GENERAL INFORMATION:

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

### MATERIALS:

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