

## LISA3-WW-PIN

~45° wide beam with location pin installation

### SPECIFICATION:

|                |          |
|----------------|----------|
| Dimensions     | Ø 9.9 mm |
| Height         | 7 mm     |
| Fastening      | pin      |
| ROHS compliant | yes ⓘ    |

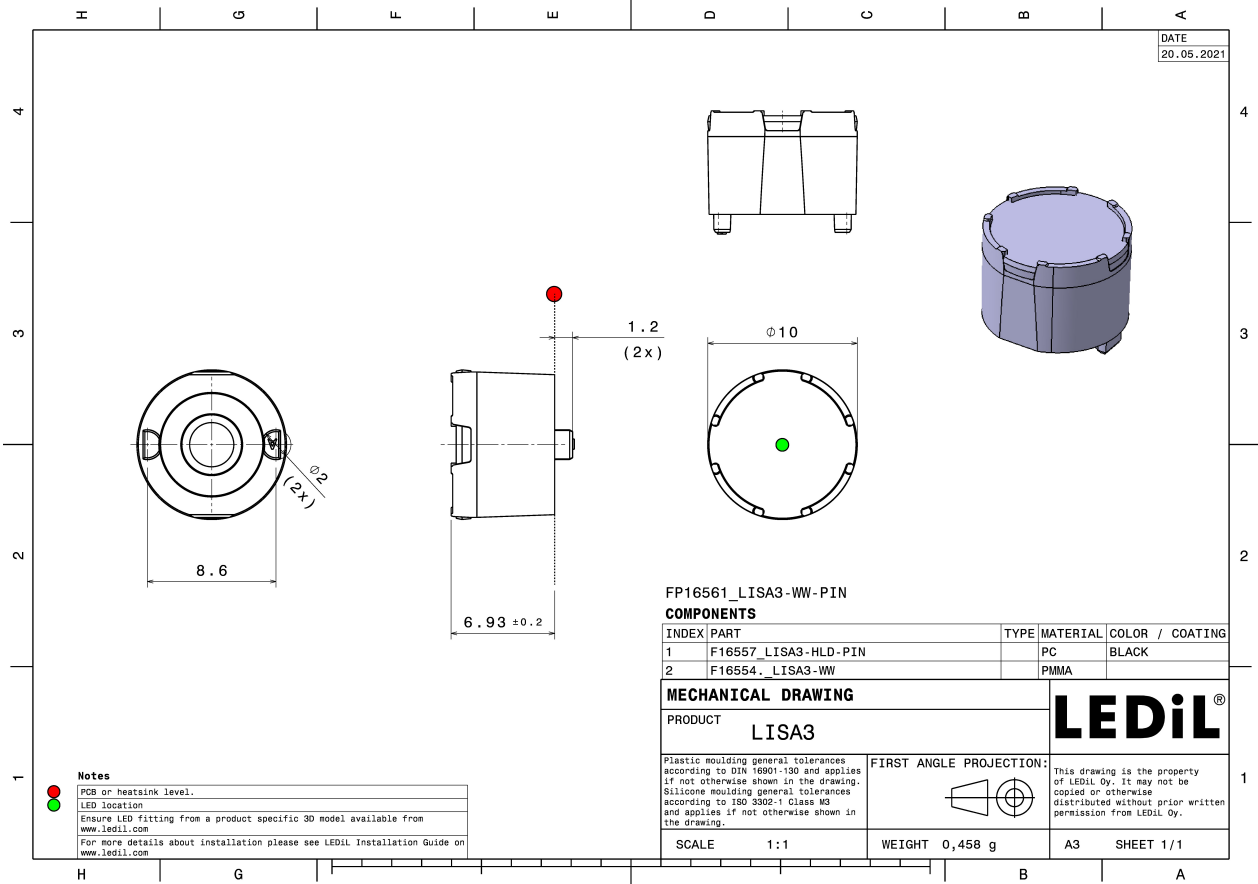
### MATERIALS:

| Component     | Type        | Material | Colour | Finish |
|---------------|-------------|----------|--------|--------|
| LISA3-WW      | Single lens | PMMA     | clear  |        |
| LISA3-HLD-PIN | Holder      | PC       | black  |        |

### ORDERING INFORMATION:


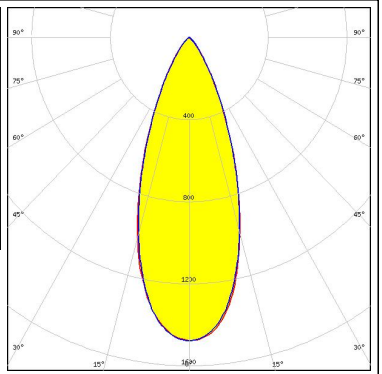

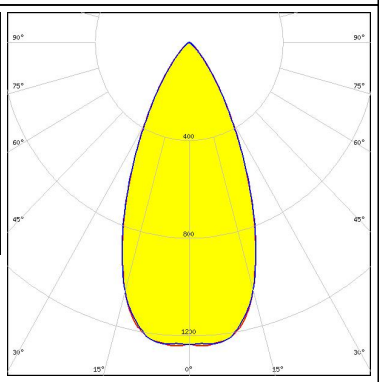

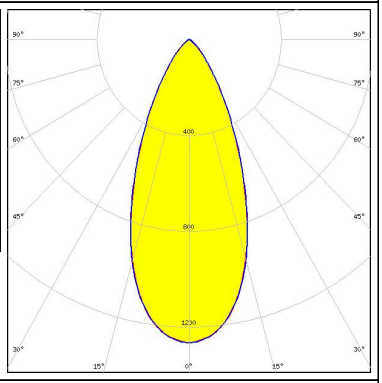

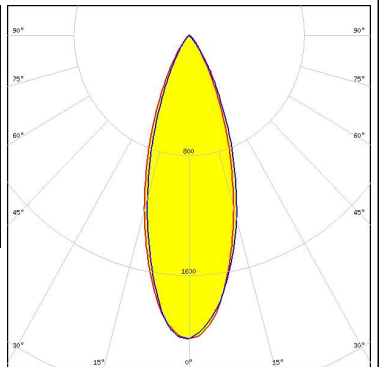
| Component                     |             | Qty in box | MOQ | MPQ | Box weight (kg) |
|-------------------------------|-------------|------------|-----|-----|-----------------|
| FP16561_LISA3-WW-PIN          | Single lens | 2000       | 300 | 100 | 1.4             |
| » Box size: 310 x 230 x 60 mm |             |            |     |     |                 |




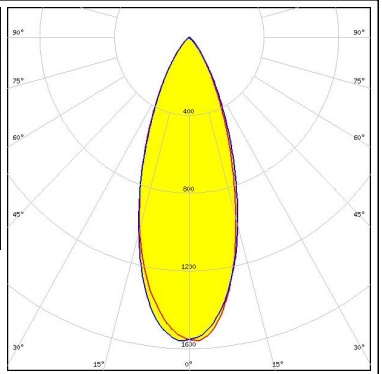

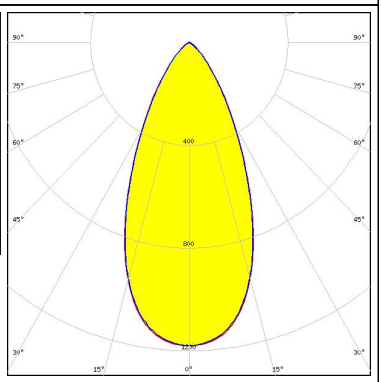

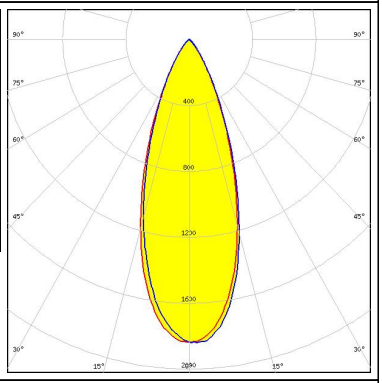

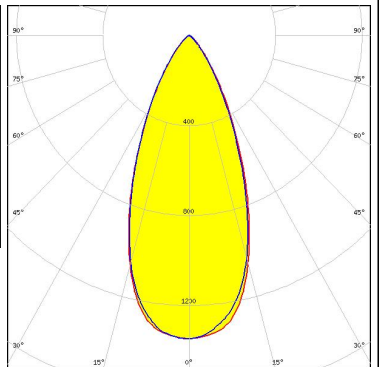


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

|  |  |   |
|--|--|---|
| <p><b>CREE</b><br/>LEDs</p> <p>LED XD16<br/>           FWHM / FWTM 39.0° / 69.0°<br/>           Efficiency 75 %<br/>           Peak intensity 1.5 cd/m<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>  |    |    |
| <p><b>CREE</b><br/>LEDs</p> <p>LED XP-E2<br/>           FWHM / FWTM 46.0° / 79.0°<br/>           Efficiency 88 %<br/>           Peak intensity 1.4 cd/m<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |   |   |
| <p><b>CREE</b><br/>LEDs</p> <p>LED XP-G3<br/>           FWHM / FWTM 44.0° / 79.0°<br/>           Efficiency 83 %<br/>           Peak intensity 1.3 cd/m<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |  |  |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CZ<br/>           FWHM / FWTM 35.0° / 65.0°<br/>           Efficiency 88 %<br/>           Peak intensity 2 cd/m<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>    |  |  |

#### OPTICAL RESULTS (MEASURED):

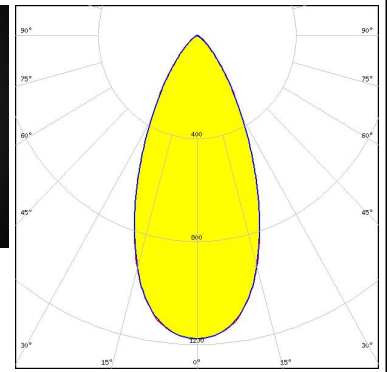
|  |  |   |
|--|--|---|
| <p><b>NICHIA</b></p> <p>LED NF2x757G<br/>           FWHM / FWTM 38.0° / 71.0°<br/>           Efficiency 79 %<br/>           Peak intensity 1.6 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>  |    |    |
| <p><b>NICHIA</b></p> <p>LED NVSW219F<br/>           FWHM / FWTM 48.0° / 84.0°<br/>           Efficiency 87 %<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/> <small>Opto Semiconductors</small></p> <p>LED OSCONIQ C 2424<br/>           FWHM / FWTM 37.0° / 67.0°<br/>           Efficiency 86 %<br/>           Peak intensity 1.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>             |  |  |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED OSLON Square CSSRM2/CSSRM3<br/>           FWHM / FWTM 45.0° / 77.0°<br/>           Efficiency 87 %<br/>           Peak intensity 1.4 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |  |  |



**OPTICAL RESULTS (MEASURED):**

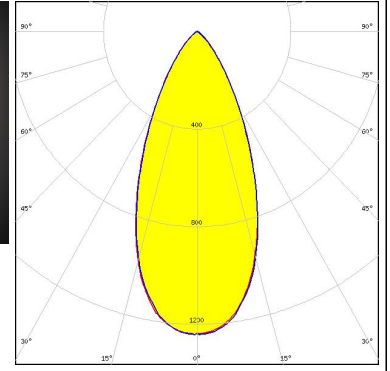
**SAMSUNG**

LED LH351C  
 FWHM / FWTM 47.0° / 83.0°  
 Efficiency 87 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

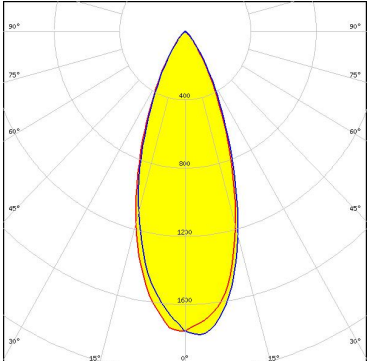
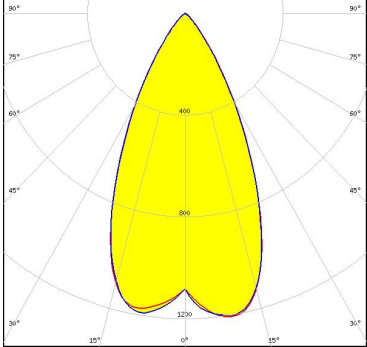
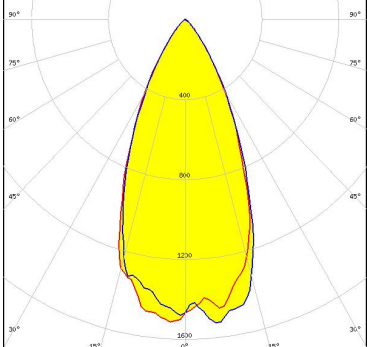
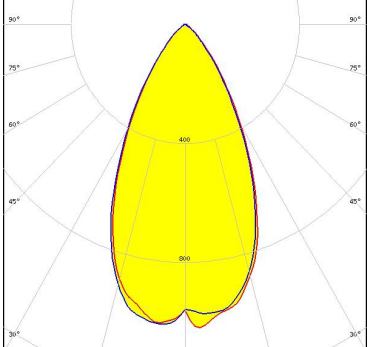


SEOUL SEMICONDUCTOR

LED Z5M4  
 FWHM / FWTM 46.0° / 81.0°  
 Efficiency 86 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



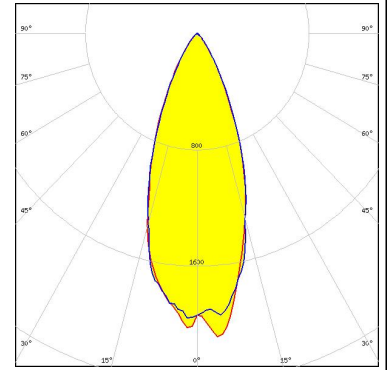
#### OPTICAL RESULTS (SIMULATED):

|   |   |
|---|---|
| <p><b>CREE</b><br/>LEDs</p> <p>LED J Series 2835<br/>           FWHM / FWTM 38.0° / 69.0°<br/>           Efficiency 88 %<br/>           Peak intensity 1.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p> |    |
| <p><b>CREE</b><br/>LEDs</p> <p>LED XP-E<br/>           FWHM / FWTM 51.0° / 79.0°<br/>           Efficiency 91 %<br/>           Peak intensity 1.2 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>          |   |
| <p><b>CREE</b><br/>LEDs</p> <p>LED XP-G2<br/>           FWHM / FWTM 49.0° / 78.0°<br/>           Efficiency 90 %<br/>           Peak intensity 1.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>         |  |
| <p><b>CREE</b><br/>LEDs</p> <p>LED XP-G2 HE<br/>           FWHM / FWTM 53.0° / 87.0°<br/>           Efficiency 86 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:</p>        |  |

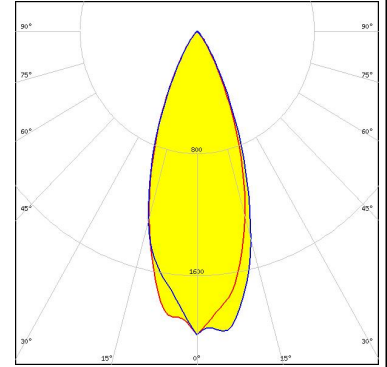
#### OPTICAL RESULTS (SIMULATED):



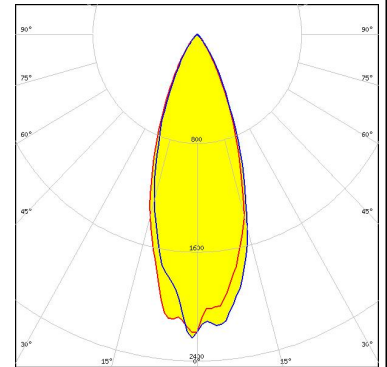
**LED** XT-E  
**FWHM / FWTM** 44.0° / 73.0°  
**Efficiency** 87 %  
**Peak intensity** 1.5 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



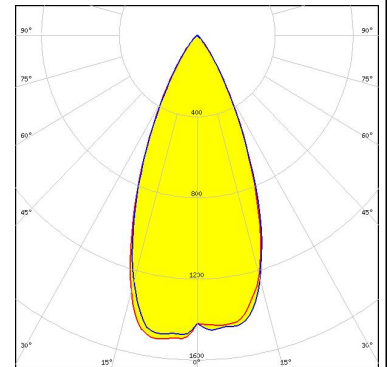
**LED** LUXEON 3014  
**FWHM / FWTM** 38.0° / 65.0°  
**Efficiency** 90 %  
**Peak intensity** 2 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



**LED** LUXEON 3030 2D (Round LES)  
**FWHM / FWTM** 37.0° / 65.0°  
**Efficiency** 86 %  
**Peak intensity** 1.9 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



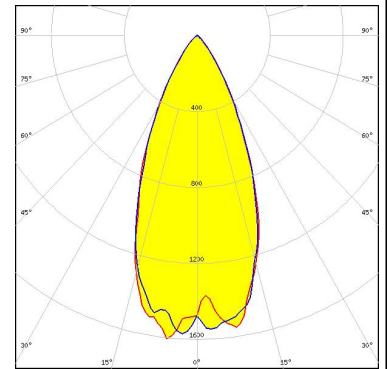
**LED** LUXEON Rubix  
**FWHM / FWTM** 46.0° / 72.0°  
**Efficiency** 91 %  
**Peak intensity** 1.5 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**



#### OPTICAL RESULTS (SIMULATED):

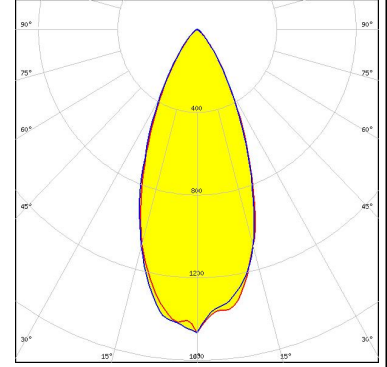
##### LUMILEDS

LED LUXEON TX  
 FWHM / FWTM 45.0° / 74.0°  
 Efficiency 87 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



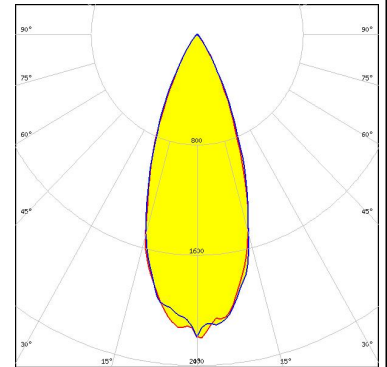
##### LUMILEDS

LED LUXEON V2  
 FWHM / FWTM 44.0° / 76.0°  
 Efficiency 89 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



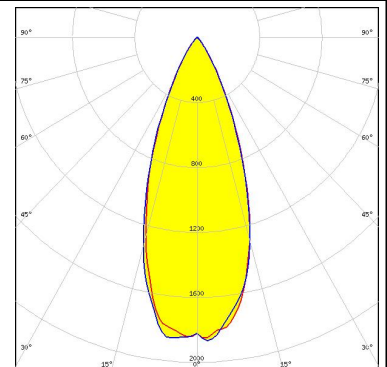
##### LUMILEDS

LED LUXEON Z  
 FWHM / FWTM 38.5° / 63.0°  
 Efficiency 89 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

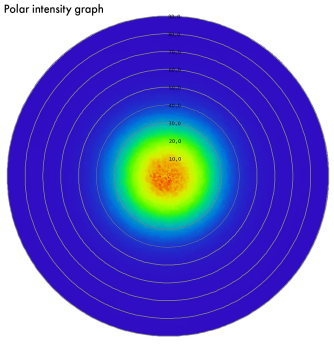
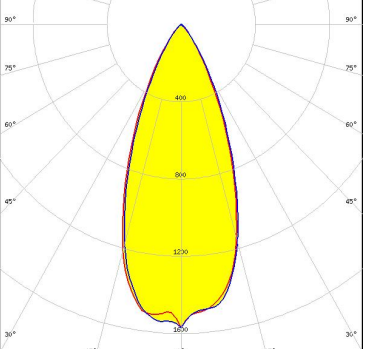
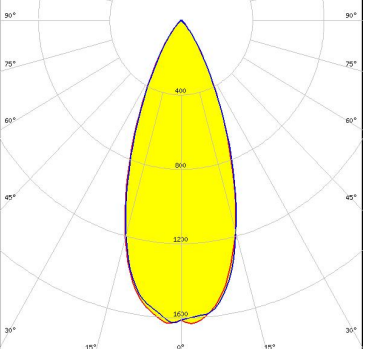
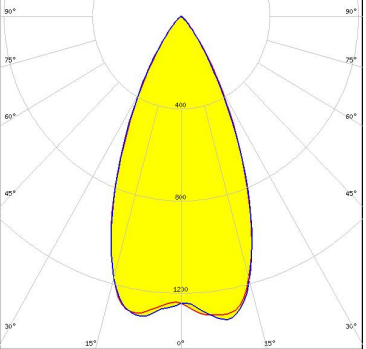
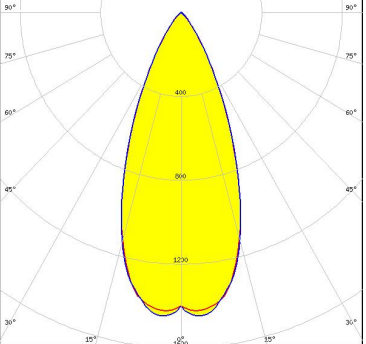


##### LUMILEDS

LED LUXEON Z ES  
 FWHM / FWTM 40.0° / 66.0°  
 Efficiency 90 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

|   |   |   |
|---|---|---|
| <p><b>LUMINUS</b></p> <p>LED: SST-10-B130<br/>           FWHM / FWTM: 42.0° / 70.0°<br/>           Efficiency: 88 %<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>                                      | <p>Polar intensity graph</p>  |    |
| <p><b>LUMINUS</b></p> <p>LED: SST-20<br/>           FWHM / FWTM: 41.0° / 70.0°<br/>           Efficiency: 88 %<br/>           Peak intensity: 1.6 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>  |   |   |
| <p><b>NICHIA</b></p> <p>LED: NCSU276C<br/>           FWHM / FWTM: 49.0° / 77.0°<br/>           Efficiency: 91 %<br/>           LEDs/each optic: 1<br/>           Light colour: UV-A<br/>           Required components:</p>   |   |  |
| <p><b>NICHIA</b></p> <p>LED: NCSxx19B<br/>           FWHM / FWTM: 44.0° / 72.0°<br/>           Efficiency: 84 %<br/>           Peak intensity: 1.5 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p> |   |  |

#### OPTICAL RESULTS (SIMULATED):

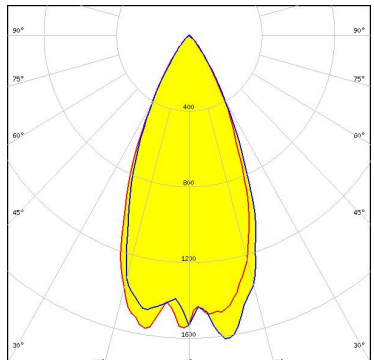
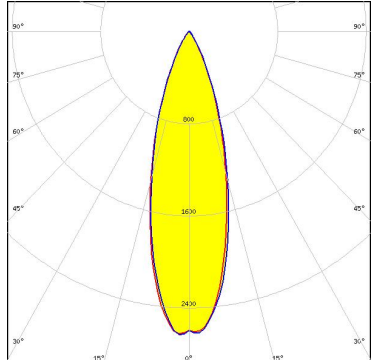
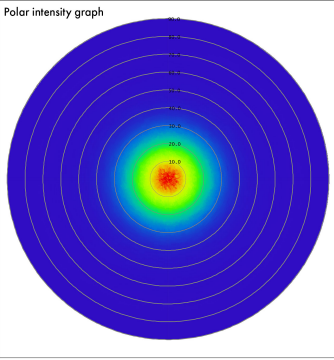
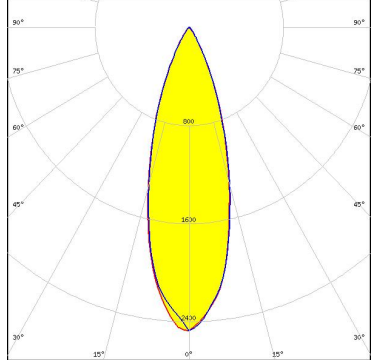
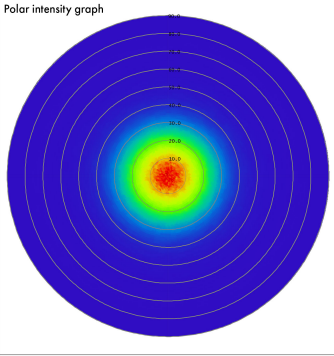
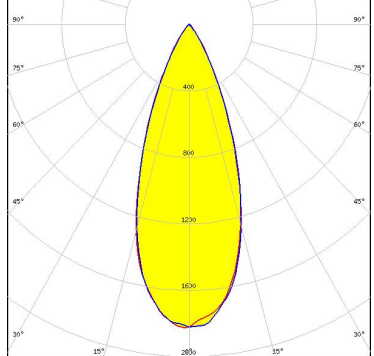
|  |  |
|--|--|
| <p><b>NICHIA</b></p> <p>LED: NVSW219D<br/>           FWHM / FWTM: 50.0° / 80.0°<br/>           Efficiency: 86 %<br/>           Peak intensity: 1.1 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>  |  |
| <p><b>NICHIA</b></p> <p>LED: NVSxx19B/NVSxx19C<br/>           FWHM / FWTM: 45.0° / 78.0°<br/>           Efficiency: 85 %<br/>           Peak intensity: 1.3 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>   |  |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED: Duris S5 (2 chip)<br/>           FWHM / FWTM: 36.0° / 66.0°<br/>           Efficiency: 88 %<br/>           Peak intensity: 1.9 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p>      |  |
| <p><b>OSRAM</b><br/> <small>Opto Semiconductors</small></p> <p>LED: Duris S5 (Single chip)<br/>           FWHM / FWTM: 37.0° / 64.0°<br/>           Efficiency: 86 %<br/>           Peak intensity: 1.9 cd/lm<br/>           LEDs/each optic: 1<br/>           Light colour: White<br/>           Required components:</p> |  |



#### OPTICAL RESULTS (SIMULATED):

|   |  |
|---|--|
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED OSCONIQ P 3030</p> <p>FWHM / FWTM 38.0° / 66.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.9 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 OSLOK Black</p> <p>FWHM / FWTM 33.0° / 60.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.4 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 OSLOK Black Flat (LUW HWQP)</p> <p>FWHM / FWTM 36.0° / 64.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Red</p> <p>Required components:</p> |  |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED OSLOK Square EC</p> <p>FWHM / FWTM 44.0° / 75.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>           |  |

#### OPTICAL RESULTS (SIMULATED):

|   |   |   |
|---|---|---|
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED: OSLOM SSL 150</p> <p>FWHM / FWMT: 45.0° / 73.0°</p> <p>Efficiency: 90 %</p> <p>Peak intensity: 1.4 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 4715AS</p> <p>FWHM / FWMT: 30.0° / 57.0°</p> <p>Efficiency: 89 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: IR</p> <p>Required components:</p>  |   |   |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED: SFH 4715S</p> <p>FWHM / FWMT: 31.0° / 58.0°</p> <p>Efficiency: 89 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: IR</p> <p>Required components:</p>   | <p>Polar intensity graph</p>  |  |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED: SFH 4716S</p> <p>FWHM / FWMT: 38.0° / 65.0°</p> <p>Efficiency: 87 %</p> <p>LEDs/each optic: 1</p> <p>Light colour: IR</p> <p>Required components:</p>   | <p>Polar intensity graph</p>  |  |

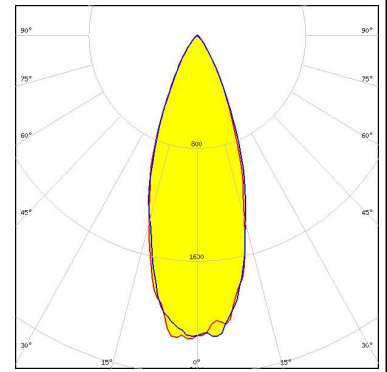
#### OPTICAL RESULTS (SIMULATED):

|   |  |
|---|--|
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED Synios P2720 1 mm</p> <p>FWHM / FWTM 37.0° / 64.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Red</p> <p>Required components:</p>     |  |
| <p><b>OSRAM</b><br/>Opto Semiconductors</p> <p>LED SYNIOS S2222</p> <p>FWHM / FWTM 37.0 + 38.0° / 66.0°</p> <p>Efficiency 97 %</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>SAMSUNG</b></p> <p>LED LH351B</p> <p>FWHM / FWTM 47.0° / 80.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>                                  |  |
| <p><b>SAMSUNG</b></p> <p>LED LH351D</p> <p>FWHM / FWTM 47.0° / 86.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>                                  |  |

#### OPTICAL RESULTS (SIMULATED):

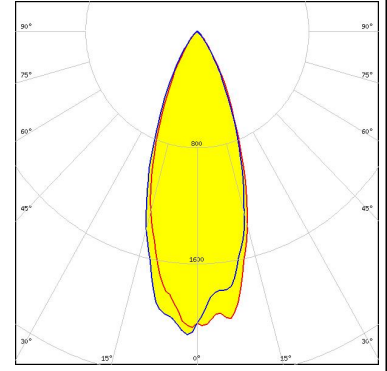
### SAMSUNG

LED LM301A  
 FWHM / FWTM 36.0° / 76.0°  
 Efficiency 88 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



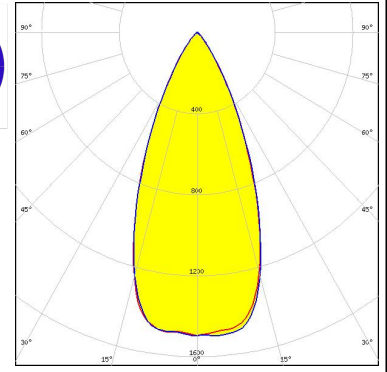
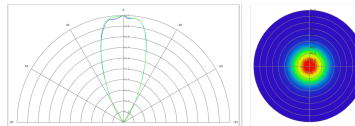
### SAMSUNG

LED LM302A  
 FWHM / FWTM 38.0° / 68.0°  
 Efficiency 88 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



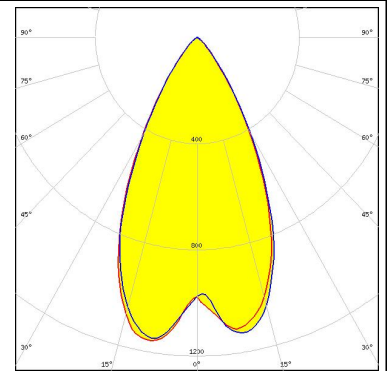
### STANLEY

LED FWR1108MS  
 FWHM / FWTM 44.0° / 71.0°  
 Efficiency 90 %  
 LEDs/each optic 1  
 Light colour IR  
 Required components:

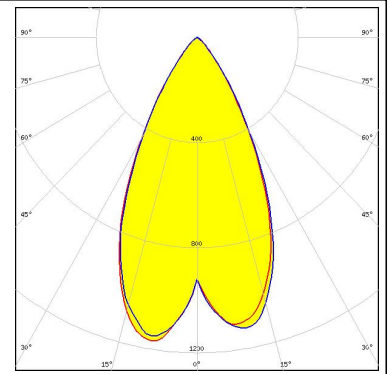
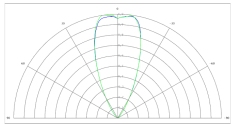
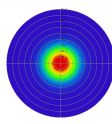
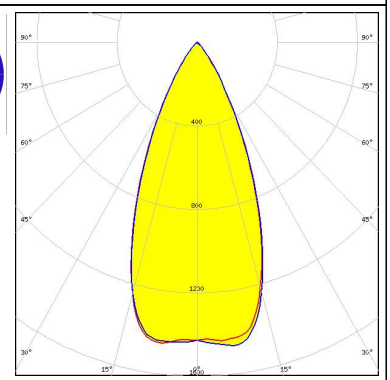


### STANLEY

LED MFN1108MS  
 FWHM / FWTM 54.0° / 82.0°  
 Efficiency 92 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour IR  
 Required components:



#### OPTICAL RESULTS (SIMULATED):

|  |   |  |
|--|---|--|
| <p><b>STANLEY</b></p> <p>LED MGN1108MS</p> <p>FWHM / FWTM 54.0° / 82.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p> |   |   |
| <p><b>STANLEY</b></p> <p>LED MJN1108MS</p> <p>FWHM / FWTM 45.0° / 71.0°</p> <p>Efficiency 91 %</p> <p>LEDs/each optic 1</p> <p>Light colour IR</p> <p>Required components:</p>                                 |   |  |