

## ANGELINA-W

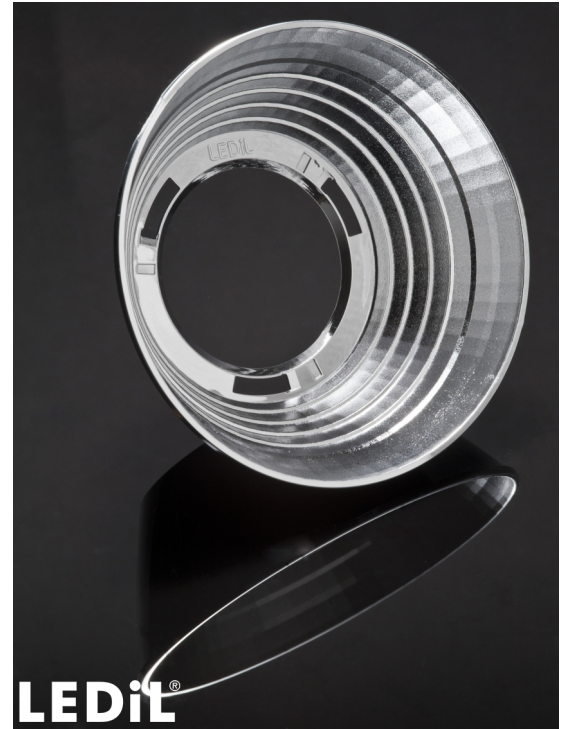
~50° wide beam

### TECHNICAL SPECIFICATIONS:

|                |           |
|----------------|-----------|
| Dimensions     | Ø 82.0 mm |
| Height         | 31 mm     |
| Fastening      | socket    |
| ROHS compliant | yes ⓘ     |

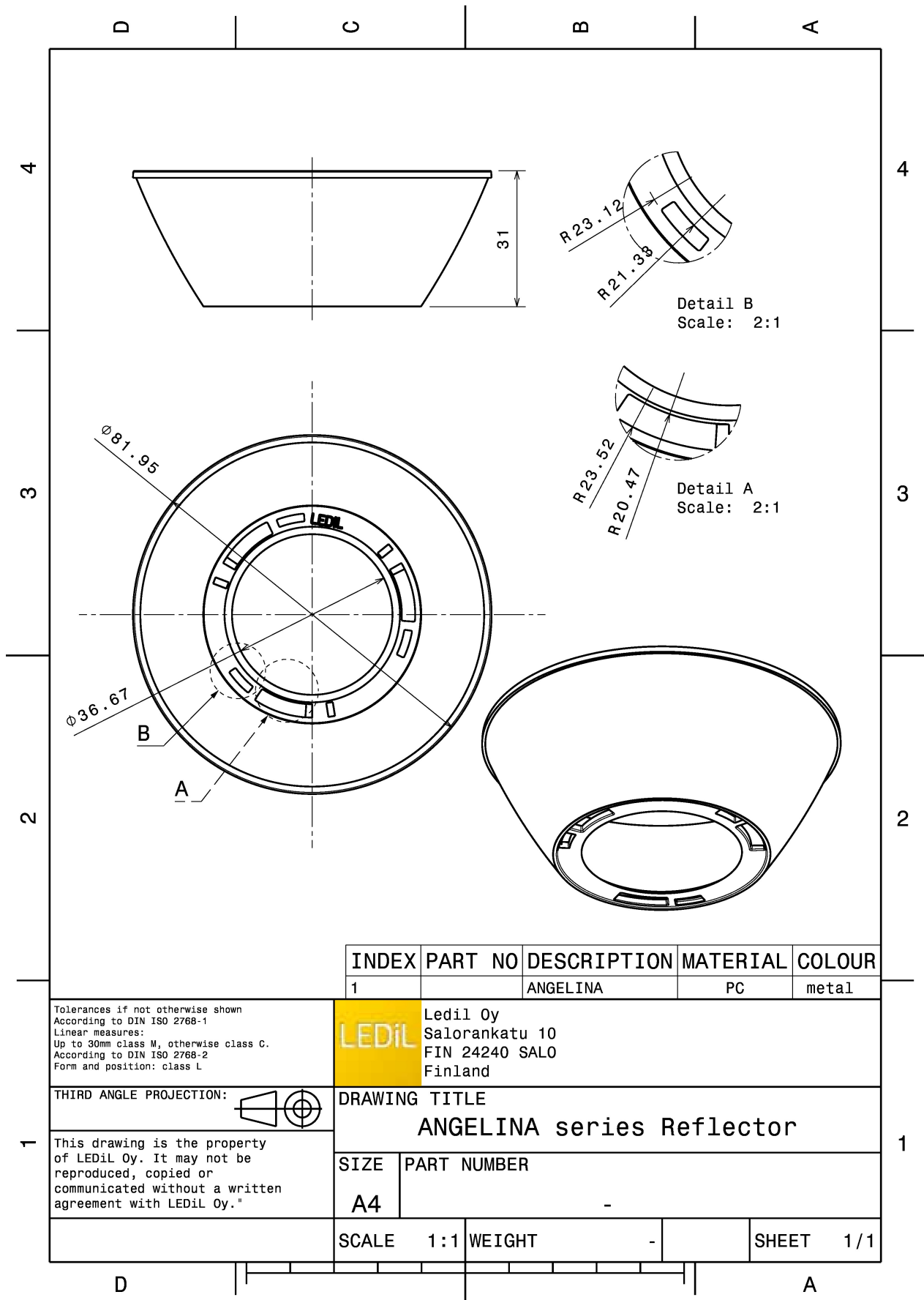
### MATERIAL SPECIFICATIONS:

| Component  | Type      | Material | Colour | Finish | Coating |
|------------|-----------|----------|--------|--------|---------|
| ANGELINA-W | Reflector | PC       | metal  |        | HMDS    |



### ORDERING INFORMATION:

| Component   | Qty in box | MOQ | MPQ | Box weight (kg) |
|---|------------|-----|-----|-----------------|
| F13402_ANGELINA-W<br>» Box size: 480 x 280 x 300 mm | 900        | 120 | 60  | 11.3            |



| INDEX | PART NO | DESCRIPTION | MATERIAL | COLOUR |
|-------|---------|-------------|----------|--------|
| 1     |         | ANGELINA    | PC       | metal  |

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  
**ANGELINA series Reflector**


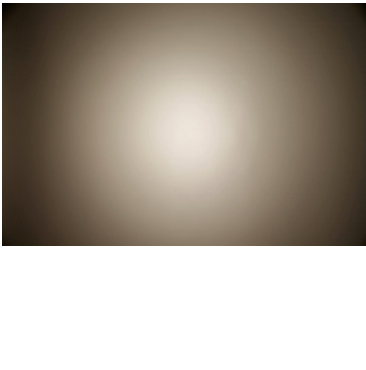
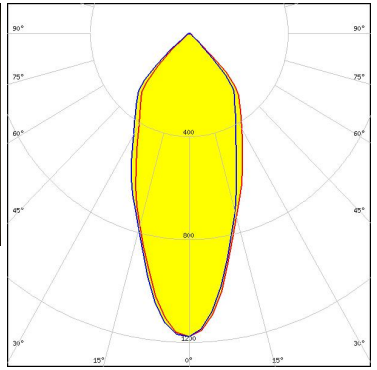


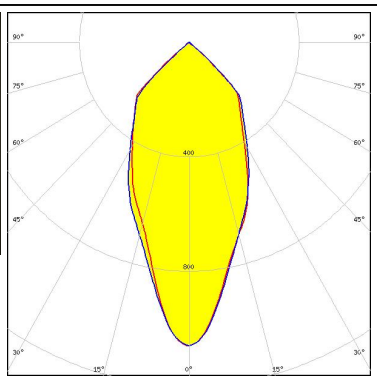


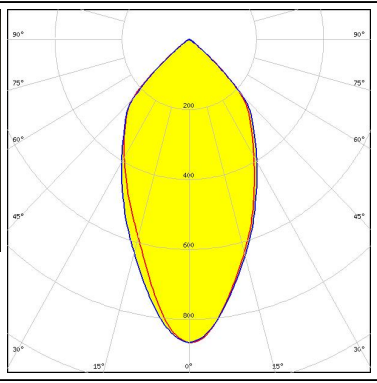


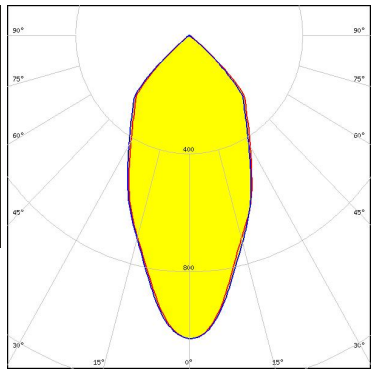
This drawing is the property of LEDiL Oy. It may not be reproduced, copied or communicated without a written agreement with LEDiL Oy."

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





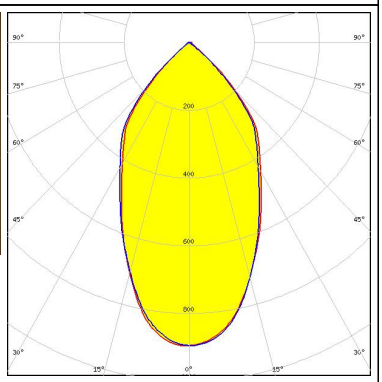


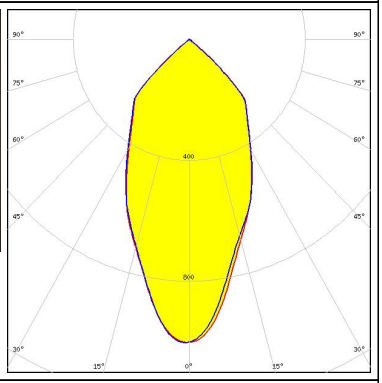


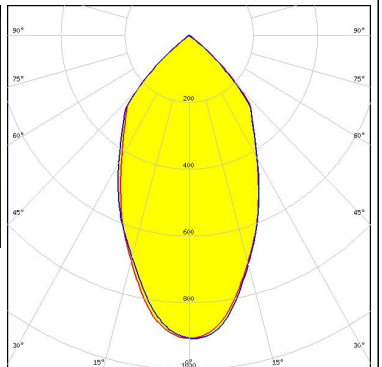
| SCALE | 1:1 | WEIGHT | - | SHEET | 1/1 |
|-------|-----|--------|---|-------|-----|
|-------|-----|--------|---|-------|-----|

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


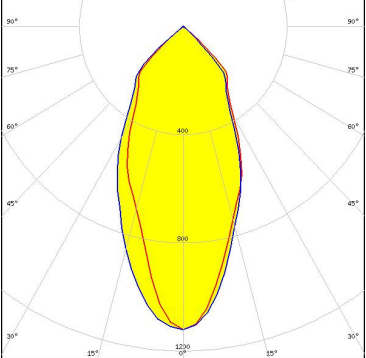

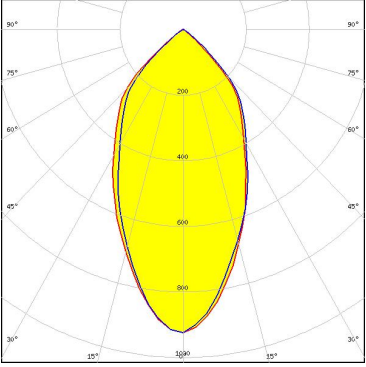
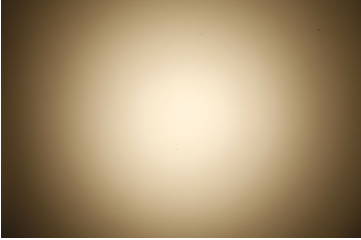
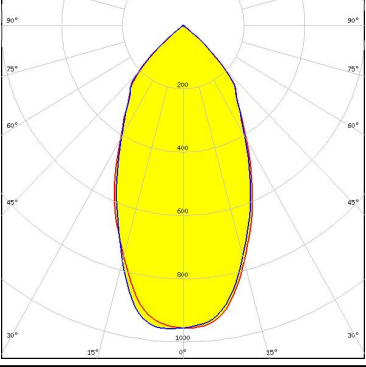
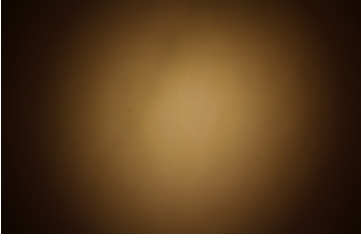
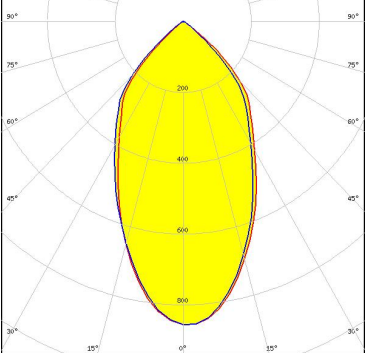
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p></p> <p>LED BXRA ES Rectangle<br/>           FWHM / FWTM 43.0° / 95.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1.2 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           IDEAL: 50-2100BL + 50-2100AN</p>  |    |    |
| <p></p> <p>LED V10 Gen7<br/>           FWHM / FWTM 47.0° / 98.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1.1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           Bender Wirth: 434 Typ L1</p>                                       |   |   |
| <p></p> <p>LED V10 Gen7<br/>           FWHM / FWTM 54.0° / 100.0°<br/>           Efficiency 87 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           F13671_ANGE-RZ-LENS<br/>           Bender Wirth: 434 Typ L1</p> |  |  |
| <p></p> <p>LED V13 Gen7<br/>           FWHM / FWTM 50.0° / 98.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>  |  |  |


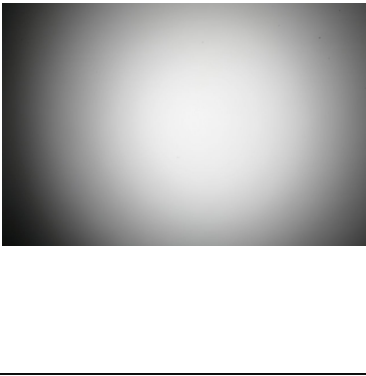
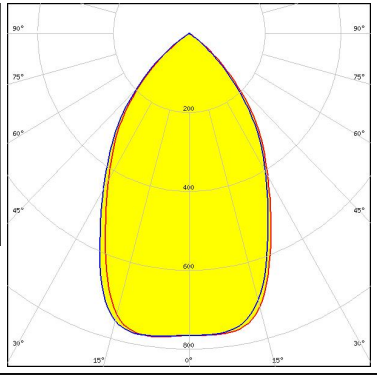


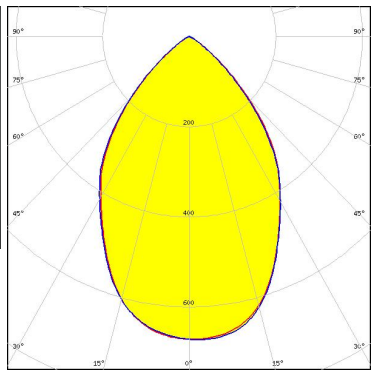

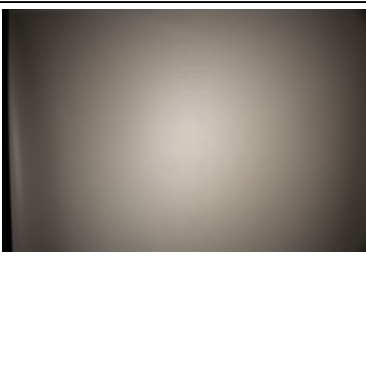
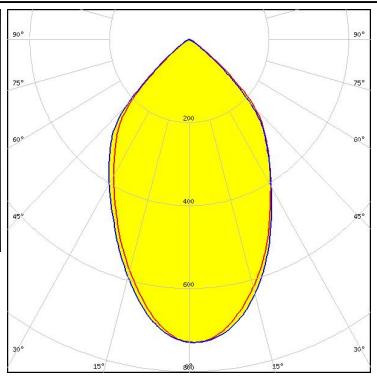

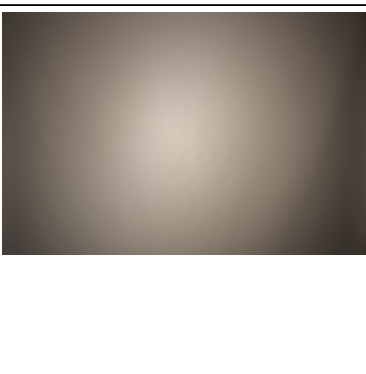
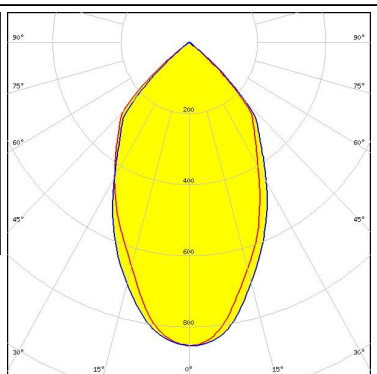
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p></p> <p>LED V15 Gen6<br/>           FWHM / FWTM 51.0° / 102.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1.1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           Bender Wirth: 456 Typ L2</p> |    |   |
| <p></p> <p>LED V22 Gen6<br/>           FWHM / FWTM 57.0° / 98.0°<br/>           Efficiency 92 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           IDEAL: 50-2204-CT + 50-2100AN</p>                                   |   |   |
| <p></p> <p>LED Vero SE 13<br/>           FWHM / FWTM 51.0° / 99.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           C16402_CLAMP-VEROSE-13-18</p>                                     |  |  |
| <p></p> <p>LED Vero SE 18<br/>           FWHM / FWTM 57.0° / 100.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           C16402_CLAMP-VEROSE-13-18</p>                                  |  |  |


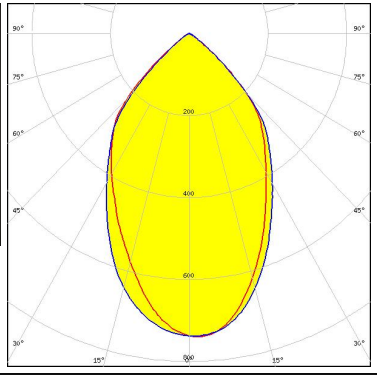

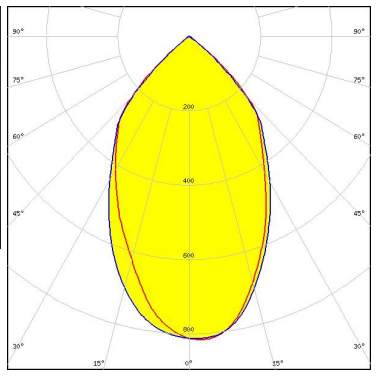

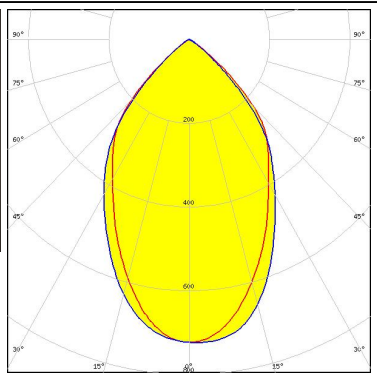
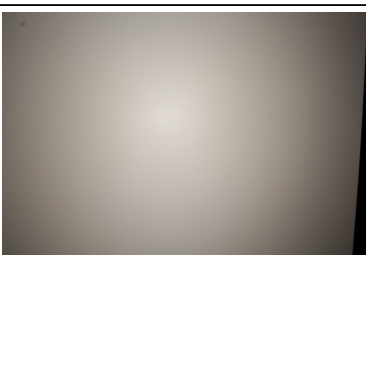
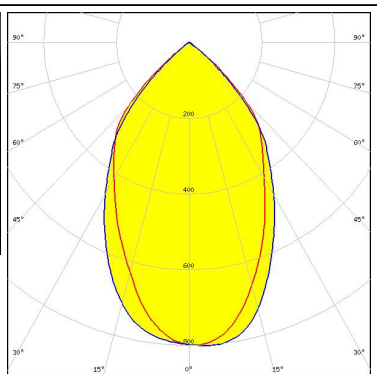
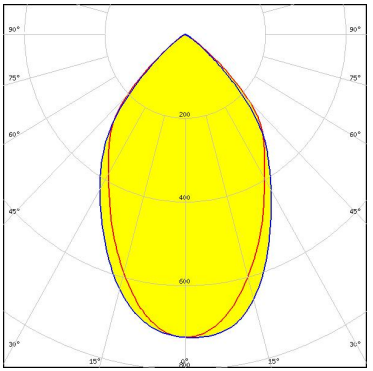


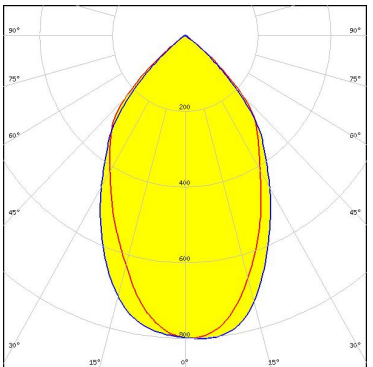
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p>bridgelux.</p> <p>LED VERO13<br/>           FWHM / FWTM 49.0° / 97.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1.1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18</p>                                     |    |    |
| <p>bridgelux.</p> <p>LED VERO13<br/>           FWHM / FWTM 53.0° / 101.0°<br/>           Efficiency 89 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           F13671_ANGE-RZ-LENS</p> |   |   |
| <p>bridgelux.</p> <p>LED VERO18<br/>           FWHM / FWTM 55.0° / 98.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18</p>                                       |  |  |
| <p>bridgelux.</p> <p>LED VERO18<br/>           FWHM / FWTM 56.0° / 101.0°<br/>           Efficiency 90 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           F13671_ANGE-RZ-LENS</p> |  |  |

#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p></p> <p>LED VERO29<br/>           FWHM / FWTM 64.0° / 102.0°<br/>           Efficiency 89 %<br/>           Peak intensity 0.8 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13584_CLAMP-VERO29</p>   |    |    |
| <p></p> <p>LED VERO29<br/>           FWHM / FWTM 73.0° / 106.0°<br/>           Efficiency 88 %<br/>           Peak intensity 0.7 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13584_CLAMP-VERO29<br/>           F13671_ANGE-RZ-LENS</p>  |   |   |
| <p></p> <p>LED Vesta TW 15mm DP<br/>           FWHM / FWTM 67.0° / 104.0°<br/>           Efficiency 88 %<br/>           Peak intensity 0.7 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour Tunable White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           F13671_ANGE-RZ-LENS<br/>           Bender Wirth: 482 Typ L2</p> |  |  |
| <p></p> <p>LED Vesta TW 15mm DP<br/>           FWHM / FWTM 62.0° / 101.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour Tunable White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           Bender Wirth: 482 Typ L2</p>                                    |  |  |

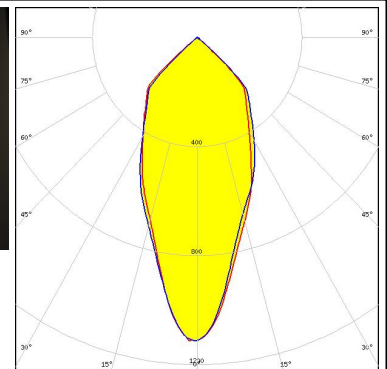
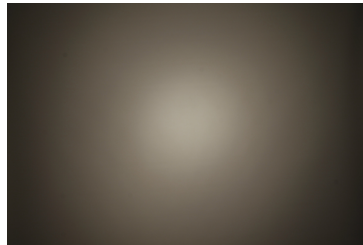
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p></p> <p>LED Vesta TW 18mm (31W) DP</p> <p>FWHM / FWTM 66.0° / 103.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components:</p> <ul style="list-style-type: none"> <li>C13584_CLAMP-VERO29</li> <li>F13671_ANGE-RZ-LENS</li> <li>Bender Wirth: 483 Typ L3</li> </ul> |    |    |
| <p></p> <p>LED Vesta TW 18mm (31W) DP</p> <p>FWHM / FWTM 63.0° / 101.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components:</p> <ul style="list-style-type: none"> <li>C13584_CLAMP-VERO29</li> <li>Bender Wirth: 483 Typ L3</li> </ul>                              |   |   |
| <p></p> <p>LED Vesta TW 22mm DP</p> <p>FWHM / FWTM 67.0° / 103.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components:</p> <ul style="list-style-type: none"> <li>C13584_CLAMP-VERO29</li> <li>F13671_ANGE-RZ-LENS</li> <li>Bender Wirth: 494 Typ L3</li> </ul>     |  |  |
| <p></p> <p>LED Vesta TW 22mm DP</p> <p>FWHM / FWTM 65.0° / 102.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components:</p> <ul style="list-style-type: none"> <li>C13584_CLAMP-VERO29</li> <li>Bender Wirth: 494 Typ L3</li> </ul>                                  |  |  |

#### PHOTOMETRIC DATA (MEASURED):

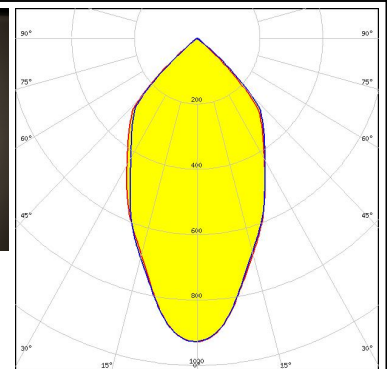
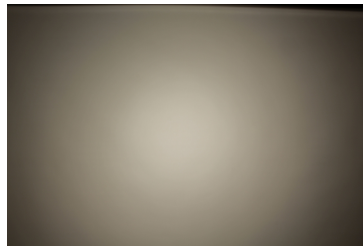
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 45.0° / 98.0°  
 Efficiency 93 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



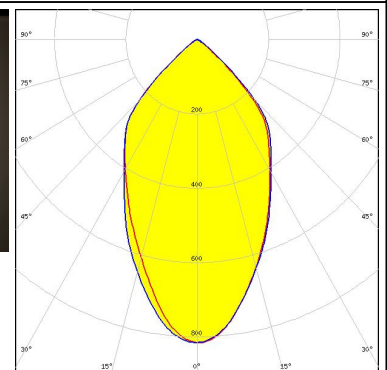
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 57.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16791\_CLAMP-Z45-A  
 TE Connectivity: 2325807-3



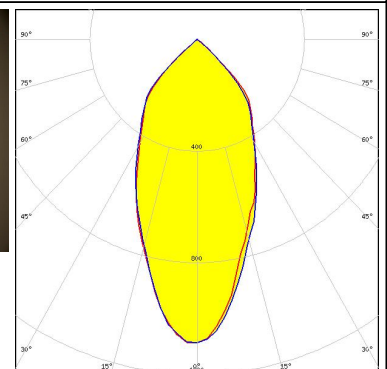
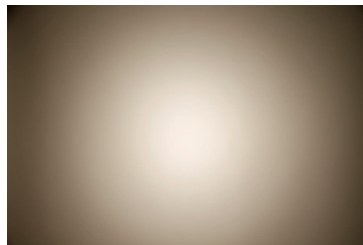
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 60.0° / 101.0°  
 Efficiency 89 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16791\_CLAMP-Z45-A  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2325807-3



#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 48.0° / 97.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1

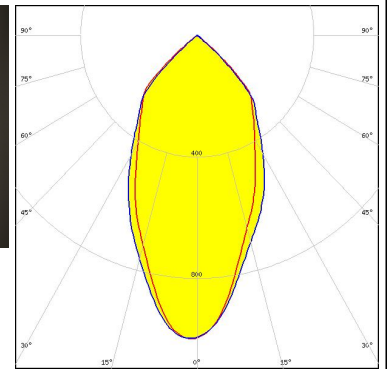
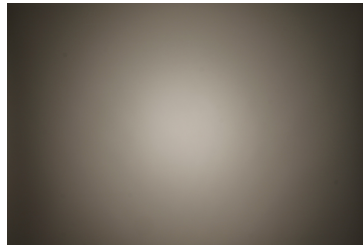




#### PHOTOMETRIC DATA (MEASURED):

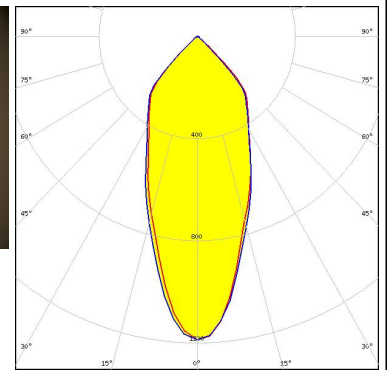
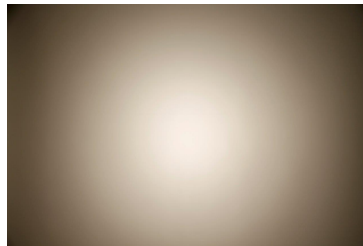
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 52.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1



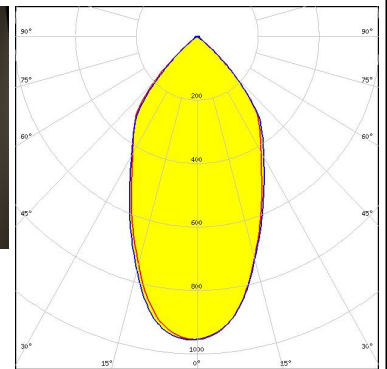
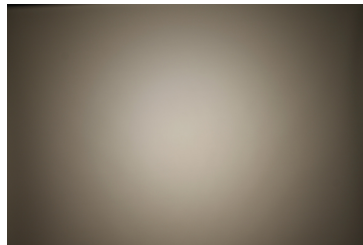
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 43.0° / 94.0°  
 Efficiency 93 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



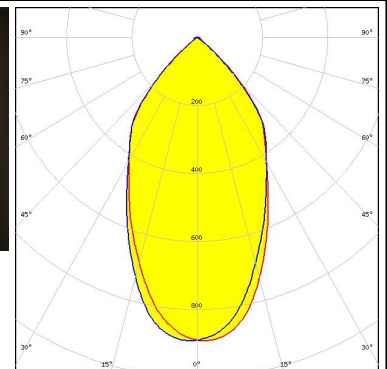
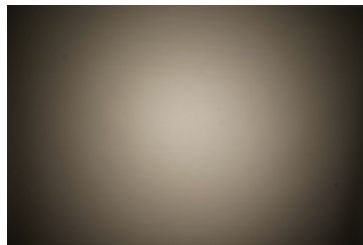
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 54.0° / 97.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



#### CITIZEN

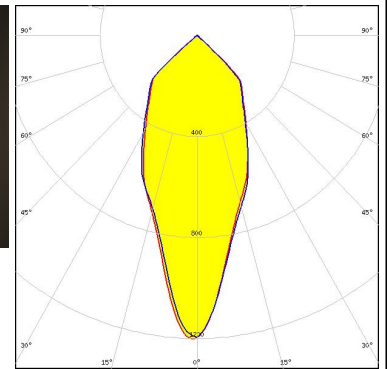
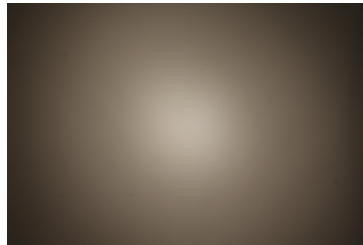
LED CLL04x/CLU04x  
 FWHM / FWTM 43.0° / 96.0°  
 Efficiency 91 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



#### PHOTOMETRIC DATA (MEASURED):

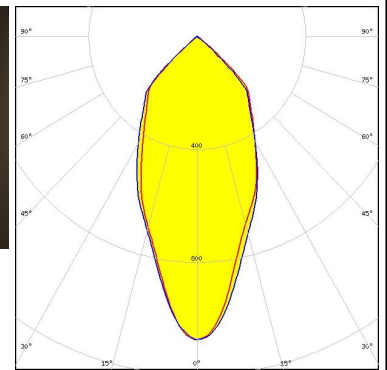
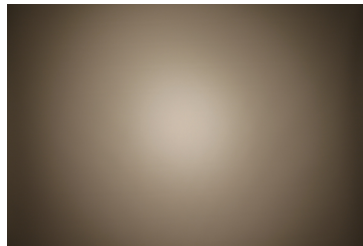
#### CITIZEN

LED CLU700/701/702  
 FWHM / FWTM 42.0° / 97.0°  
 Efficiency 92 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



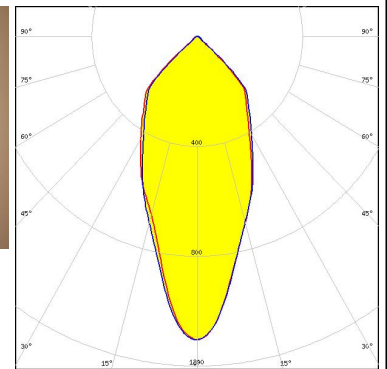
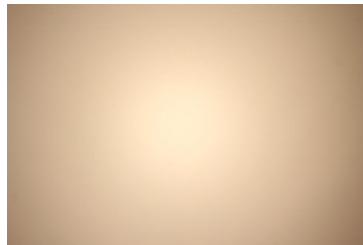
#### CITIZEN

LED CLU720/721  
 FWHM / FWTM 48.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18



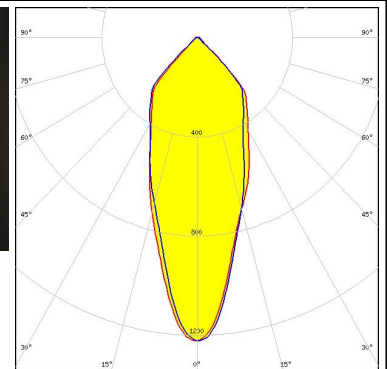
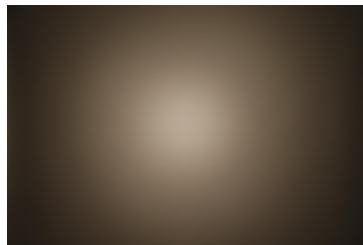
#### CITIZEN

LED CLU720/721  
 FWHM / FWTM 45.0° / 97.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### CITIZEN

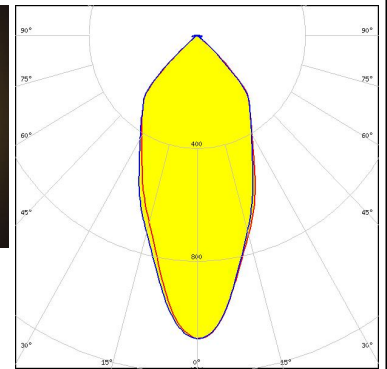
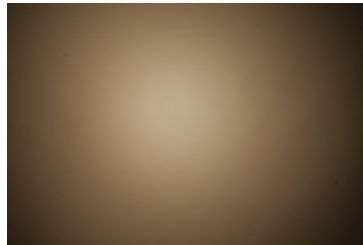
LED CLU720/721  
 FWHM / FWTM 38.0° / 94.0°  
 Efficiency 93 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



#### PHOTOMETRIC DATA (MEASURED):

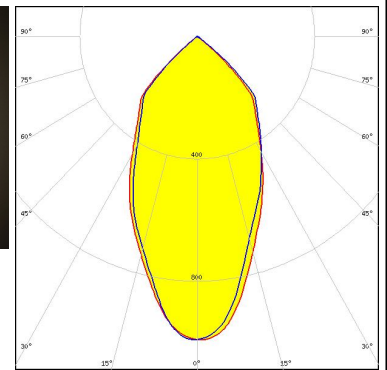
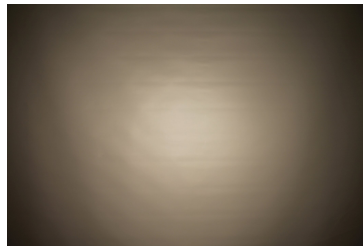
### CITIZEN

LED CLU730/731  
 FWHM / FWTM 56.0° / 96.0°  
 Efficiency 91 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



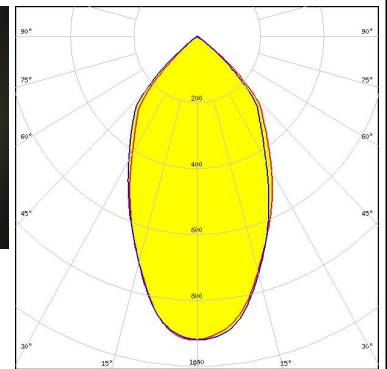
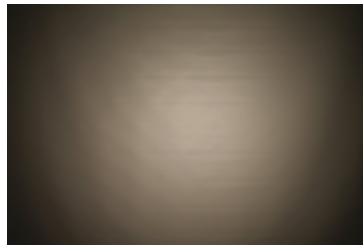
### CREE

LED CMA1840  
 FWHM / FWTM 53.0° / 100.0°  
 Efficiency 95 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



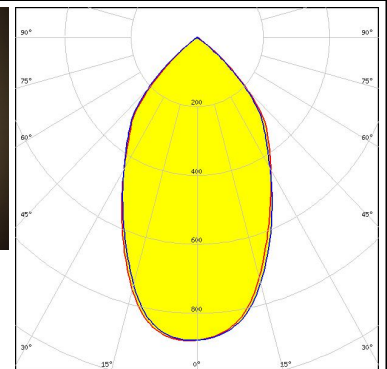
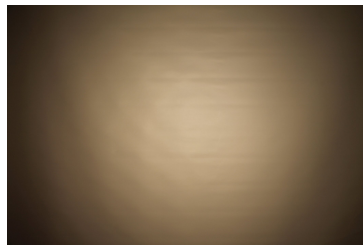
### CREE

LED CMA2550  
 FWHM / FWTM 57.0° / 100.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



### CREE

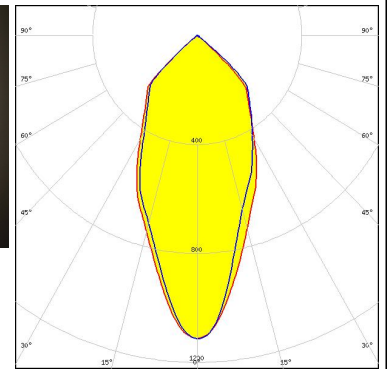
LED CMA3090  
 FWHM / FWTM 60.0° / 100.0°  
 Efficiency 95 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



#### PHOTOMETRIC DATA (MEASURED):

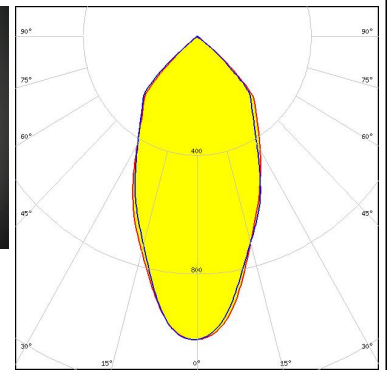
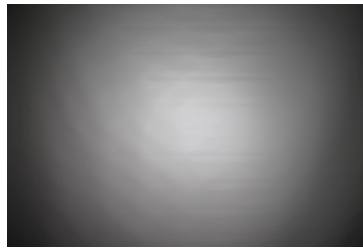
#### CREE

LED CMT14xx  
 FWHM / FWTM 47.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



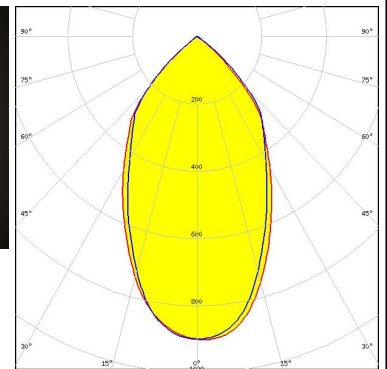
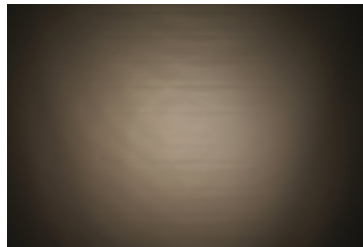
#### CREE

LED CMT19xx  
 FWHM / FWTM 51.0° / 99.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 477 Typ L1



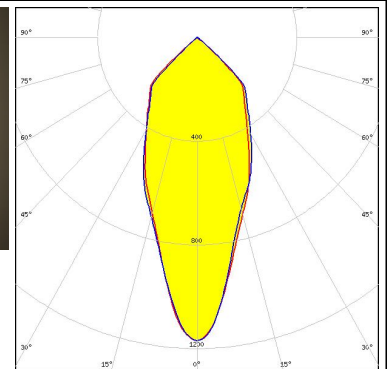
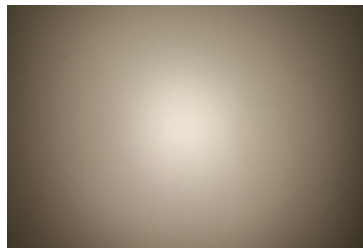
#### CREE

LED CMT28xx  
 FWHM / FWTM 58.0° / 100.0°  
 Efficiency 94 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 471 Typ L3



#### CREE

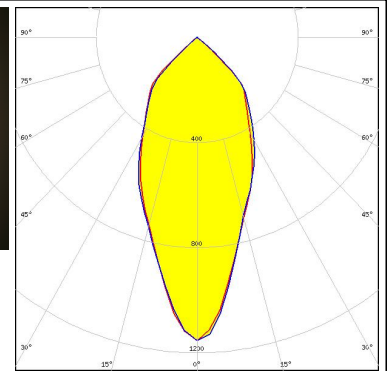
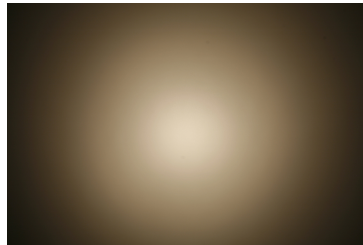
LED CXA/B 15xx  
 FWHM / FWTM 42.0° / 97.0°  
 Efficiency 93 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 441 Typ L1



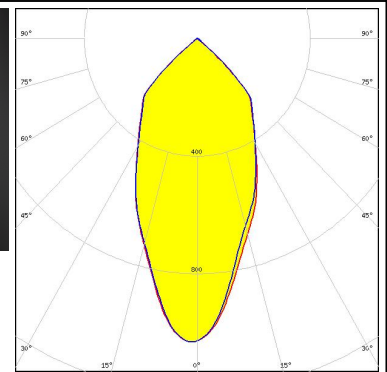
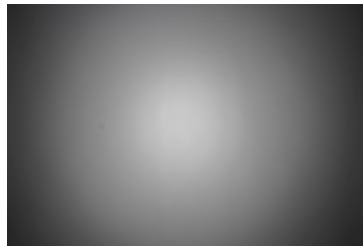
### PHOTOMETRIC DATA (MEASURED):



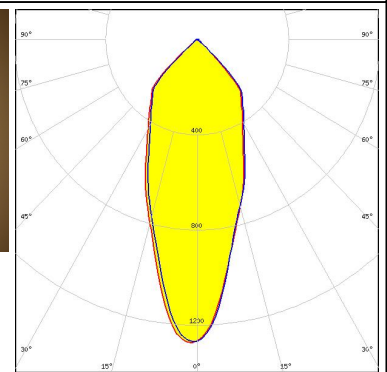
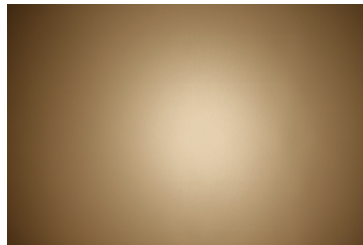
LED CXA/B 15xx  
 FWHM / FWTM 46.0° / 99.0°  
 Efficiency 93 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



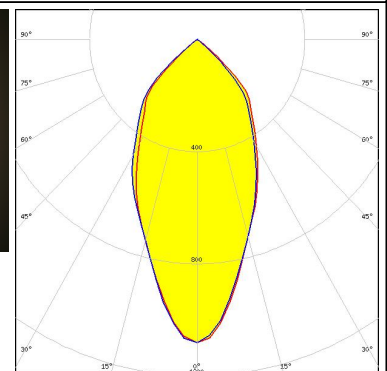
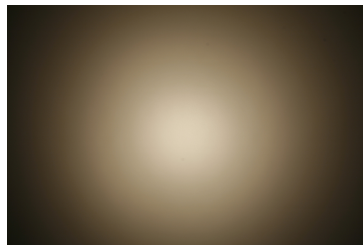
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 49.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 39.0° / 94.0°  
 Efficiency 94 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2101CR + 50-2100AN



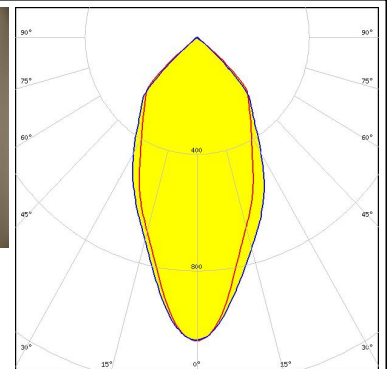
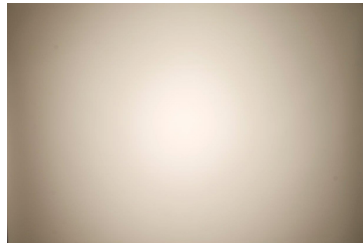
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 50.0° / 100.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



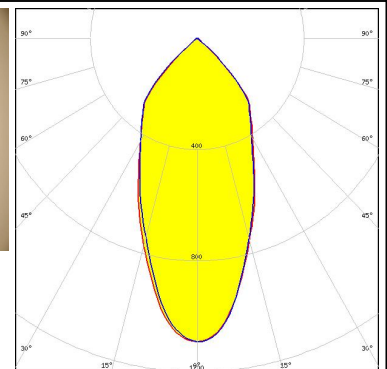
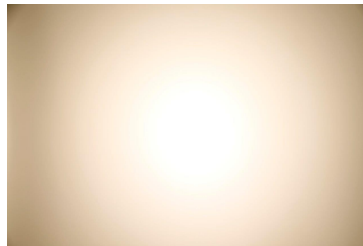
#### PHOTOMETRIC DATA (MEASURED):



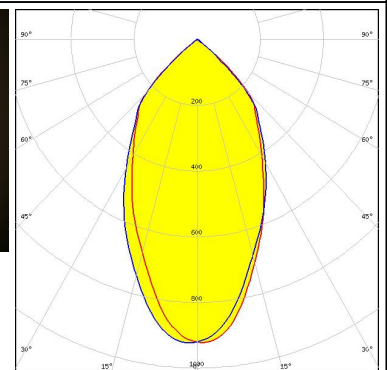
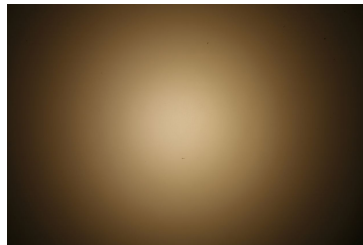
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 50.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1



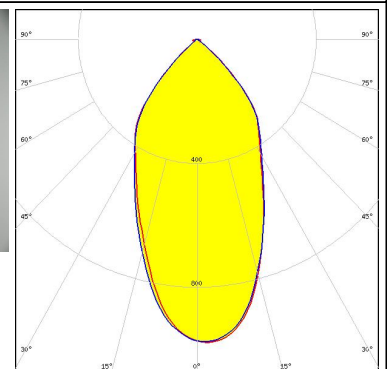
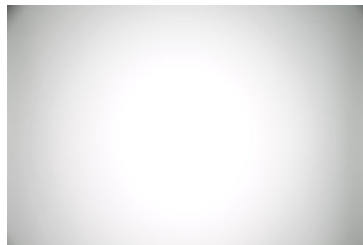
LED CXA/B 25xx  
 FWHM / FWTM 47.0° / 96.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2102CR + 50-2100AN



LED CXA/B 25xx  
 FWHM / FWTM 56.0° / 100.0°  
 Efficiency 93 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



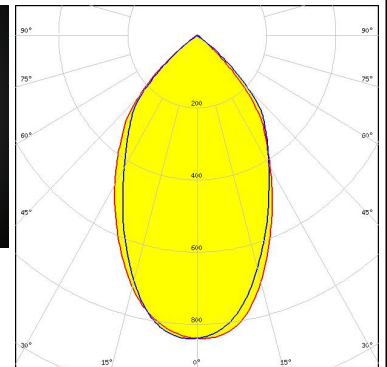
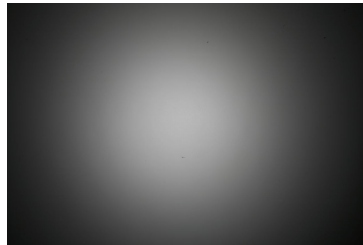
LED CXA/B 30xx  
 FWHM / FWTM 52.0° / 97.0°  
 Efficiency 93 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2234C + 50-2100AN



#### PHOTOMETRIC DATA (MEASURED):

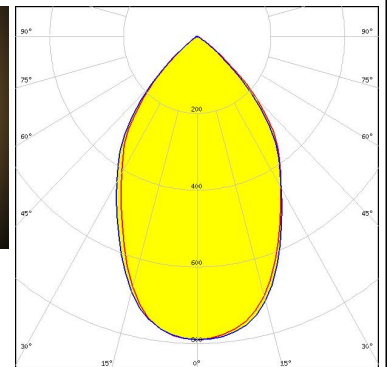
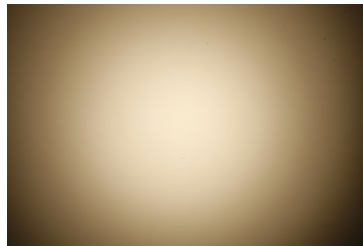
#### CREE

LED CXA/B 30xx  
 FWHM / FWTM 61.0° / 101.0°  
 Efficiency 92 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



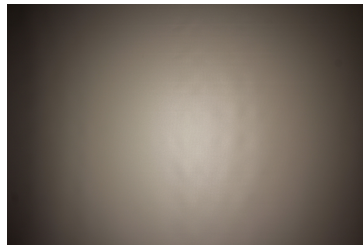
#### CREE

LED CXA/B 3590  
 FWHM / FWTM 66.0° / 103.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2303CR + 50-2300AN



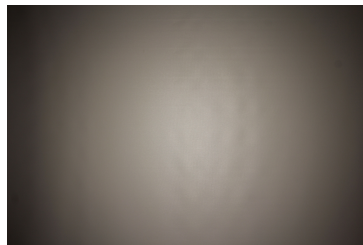
#### EVERLIGHT

LED CHI3030 19W  
 FWHM / FWTM 54.0° / 100.0°  
 Efficiency 88 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3

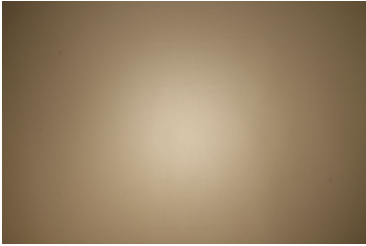
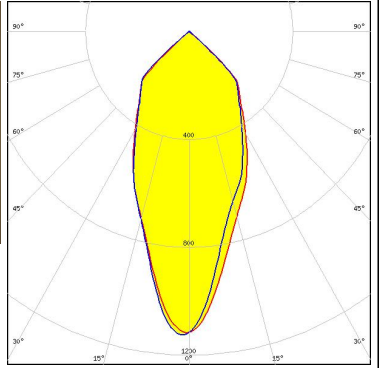
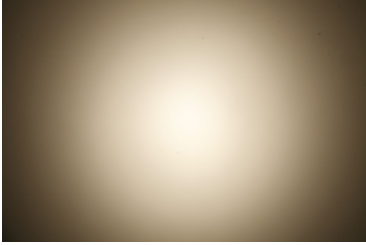
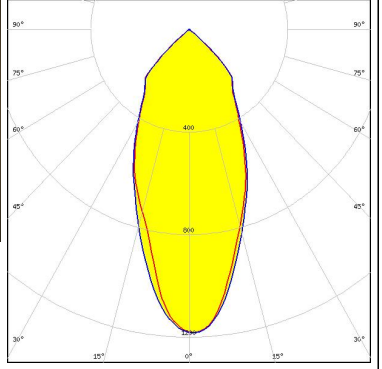
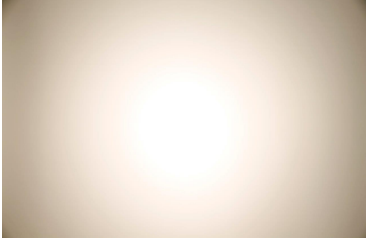
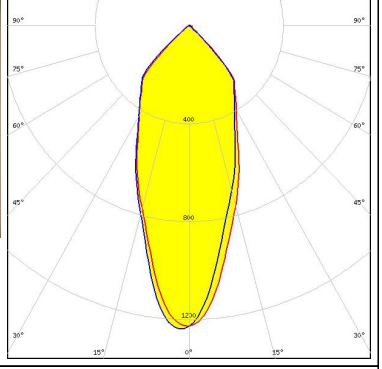

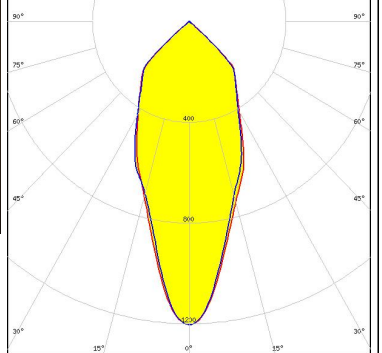


#### EVERLIGHT

LED CHI3030 29W  
 FWHM / FWTM 62.0° / 104.0°  
 Efficiency 87 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3

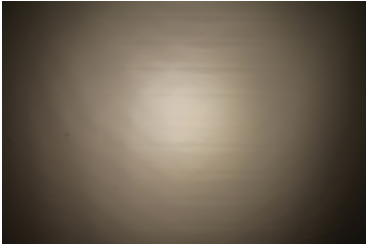
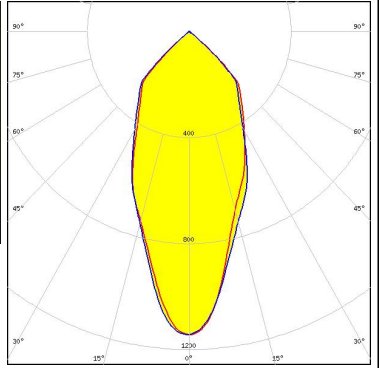
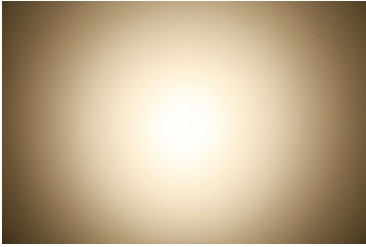
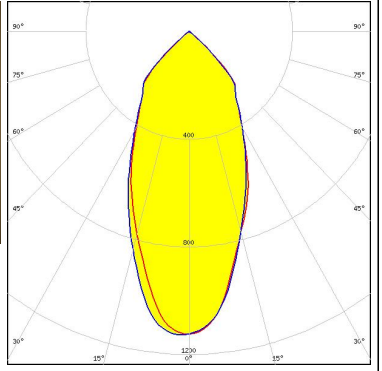
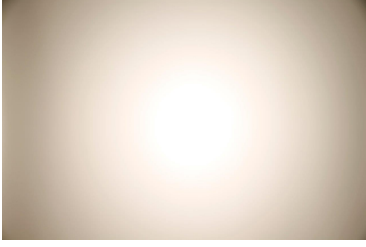
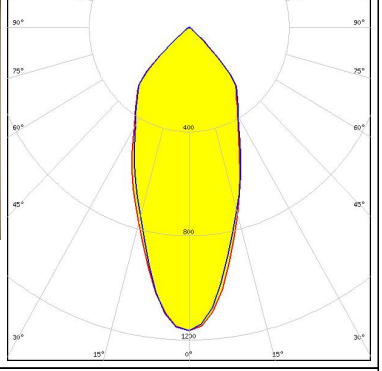

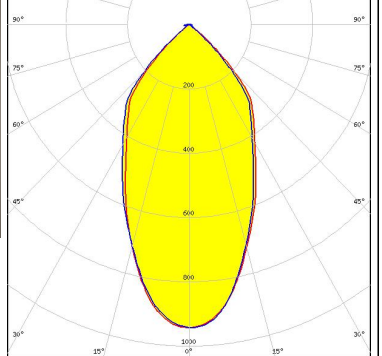


#### PHOTOMETRIC DATA (MEASURED):

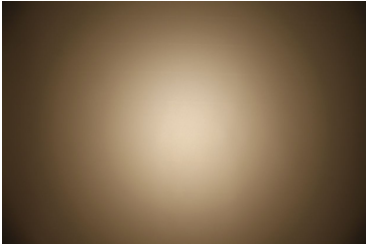
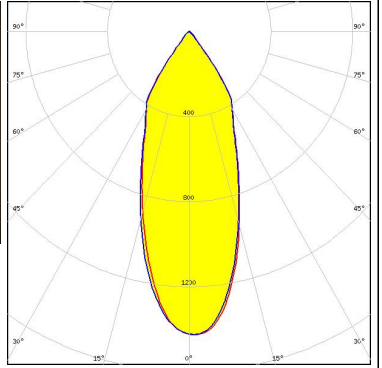
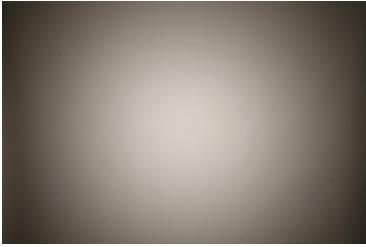
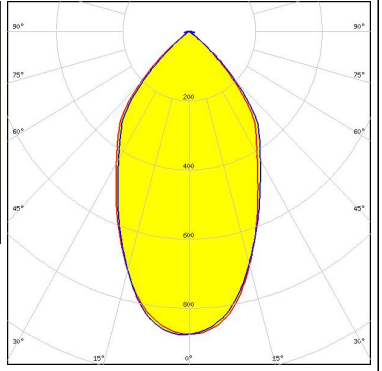
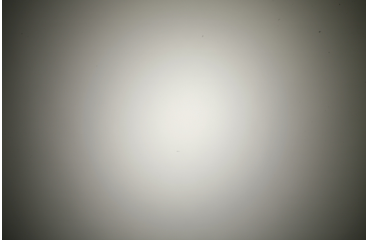
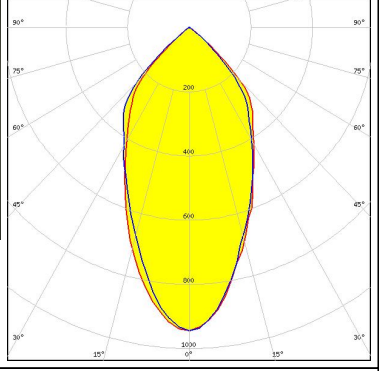
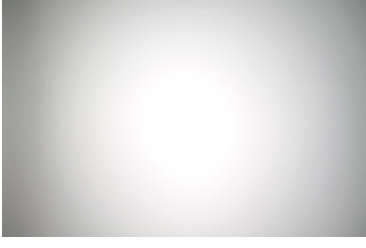
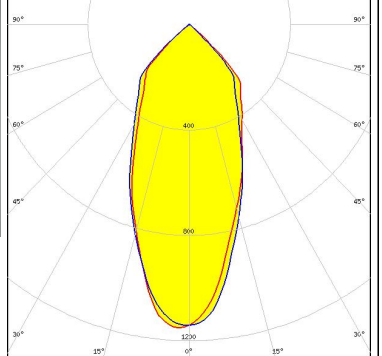
|   |  |   |
|---|--|---|
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 45.0° / 98.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>Bender Wirth: 438 Typ L1</p>         |    |    |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 45.0° / 96.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |   |   |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 40.0° / 94.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>IDEAL: 50-2100SH + 50-2100AN</p>                                |  |  |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM / FWTM 43.0° / 97.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>    |  |  |




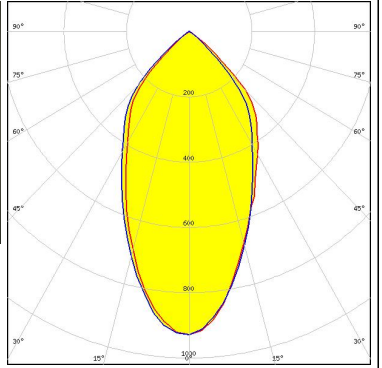
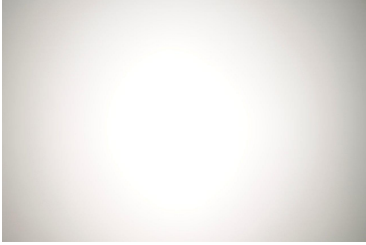
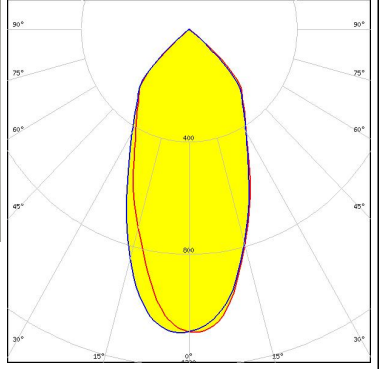
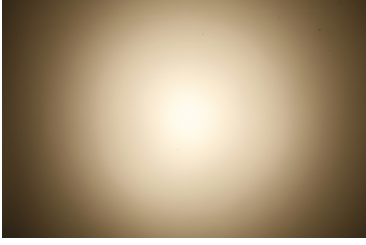
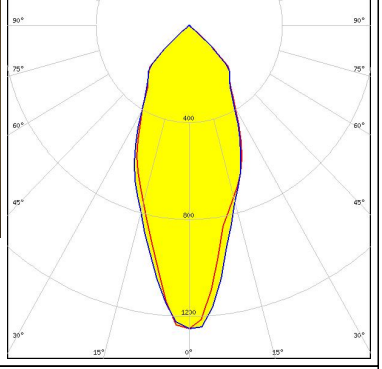
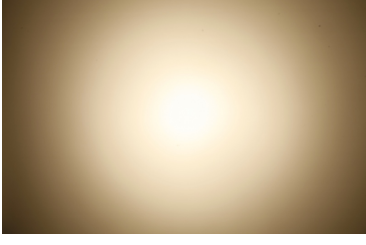
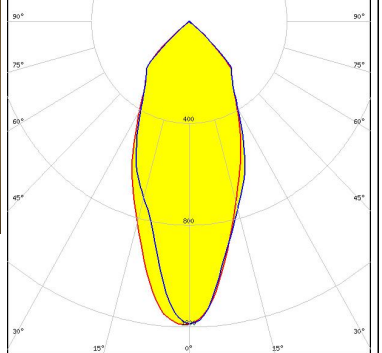
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 46.0° / 97.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>   |    |    |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 48.0° / 96.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |   |   |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 44.0° / 95.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>IDEAL: 50-2100SH + 50-2100AN</p>                                |  |  |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 53.0° / 97.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>IDEAL: 50-2204-CT + 50-2100AN</p>                               |  |  |


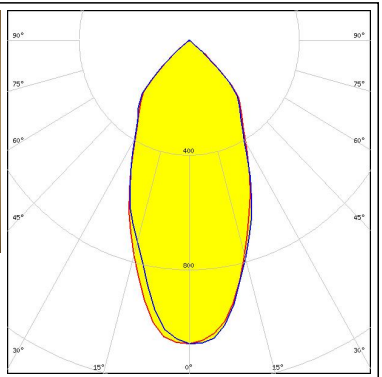
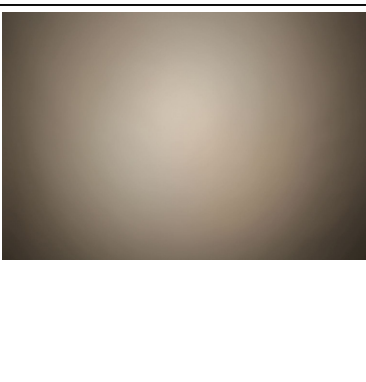
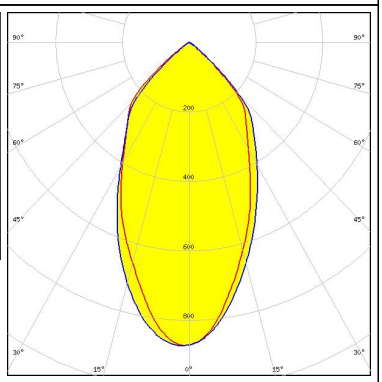

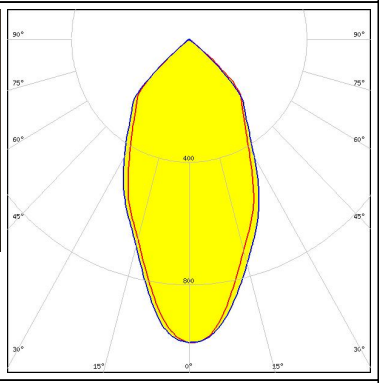

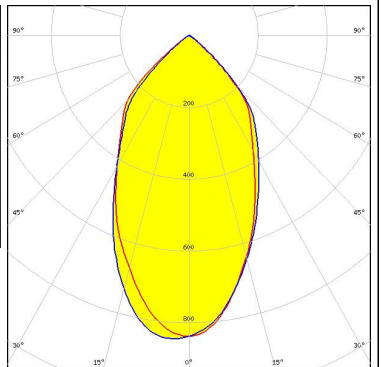
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 55.0° / 99.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>Bender Wirth: 431 Typ L3</p>                              |    |    |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 58.0° / 99.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>IDEAL: 50-2204-CT + 50-2100AN</p>  |   |   |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON K12</p> <p>FWHM / FWTM 54.0° / 100.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>F13671_ANGE-RZ-LENS<br/>TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |  |  |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON K12</p> <p>FWHM / FWTM 45.0° / 97.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>                        |  |  |


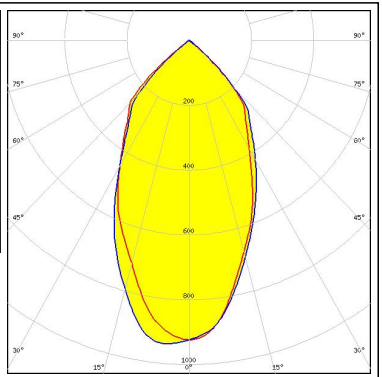

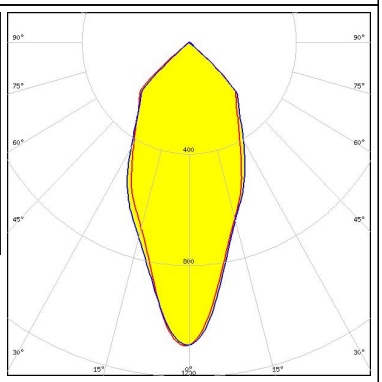

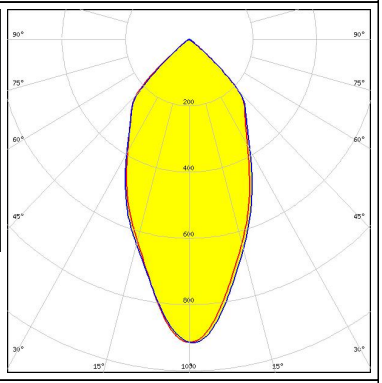
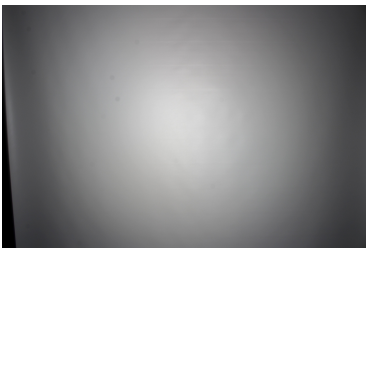
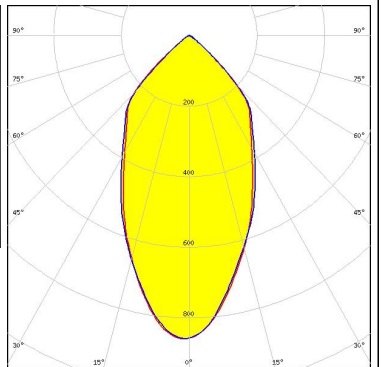
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p><b>LUMILEDS</b></p> <p>LED LUXEON K16</p> <p>FWHM / FWTM 54.0° / 100.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>F13671_ANGE-RZ-LENS<br/>TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |    |    |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON K16</p> <p>FWHM / FWTM 48.0° / 97.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>                            |   |   |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON S2000</p> <p>FWHM / FWTM 42.0° / 96.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13395_CLAMP-S2000</p>   |  |  |
| <p><b>LUMILEDS</b></p> <p>LED LUXEON S3000</p> <p>FWHM / FWTM 44.0° / 96.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13397_CLAMP-S3000</p>   |  |  |

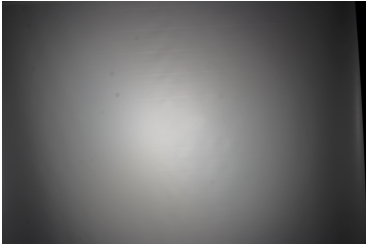
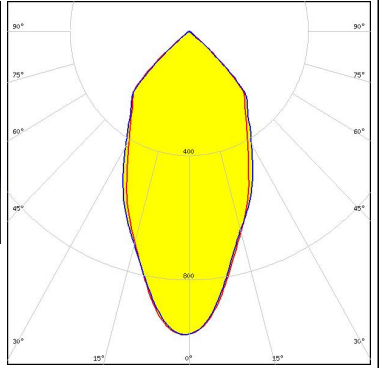


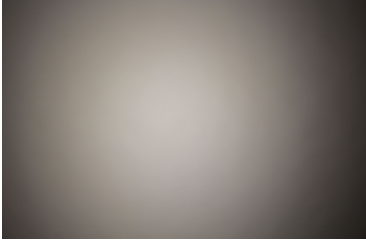
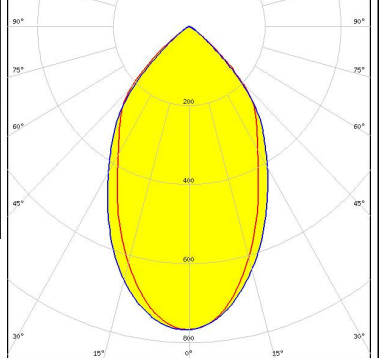
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>LUMILEDS</b></p> <p>LED LUXEON S5000</p> <p>FWHM / FWTM 49.0° / 97.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13399_CLAMP-S5000</p>  |    |    |
| <p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 55.0° / 101.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 491 Typ L2</p> |   |   |
| <p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 53.0° / 99.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>Bender Wirth: 491 Typ L2</p>                            |  |  |
| <p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 58.0° / 101.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 491 Typ L2</p> |  |  |


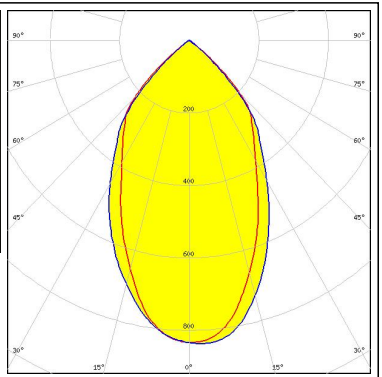

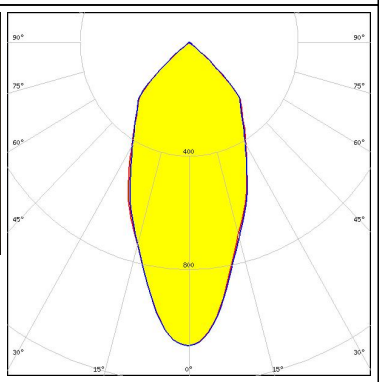

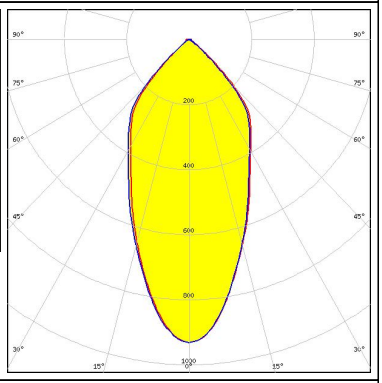
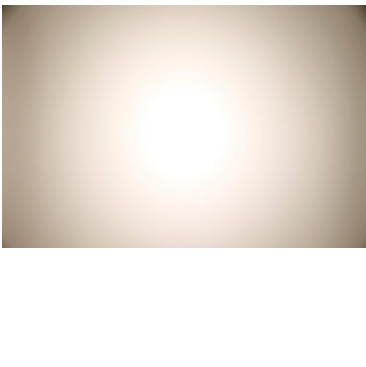
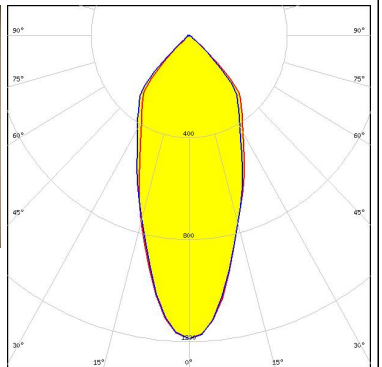
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 56.0° / 100.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>Bender Wirth: 491 Typ L2</p>                        |    |    |
| <p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 46.0° / 98.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>Bender Wirth: 490 Typ L1</p>                          |   |   |
| <p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 51.0° / 100.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 490 Typ L1</p> |  |  |
| <p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 54.0° / 100.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 442 Typ L3</p> |  |  |

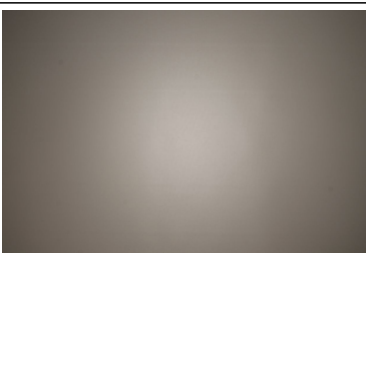
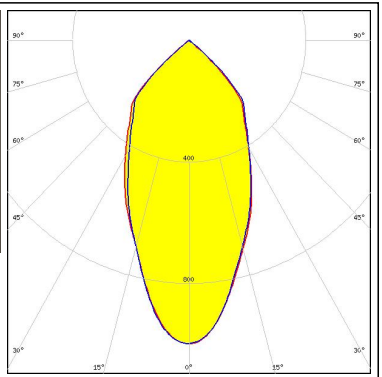
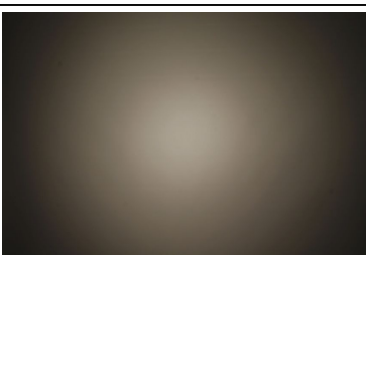
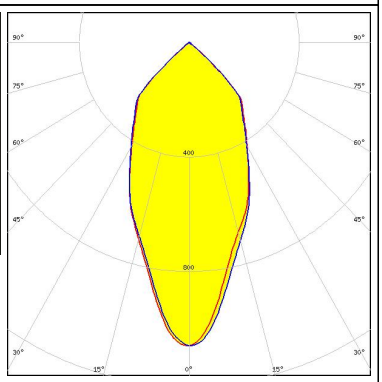
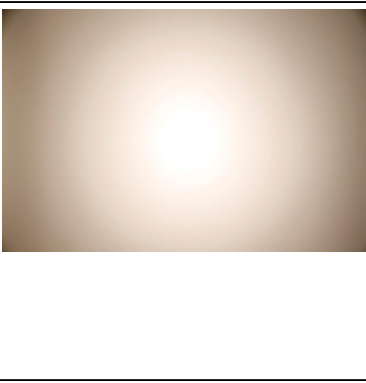
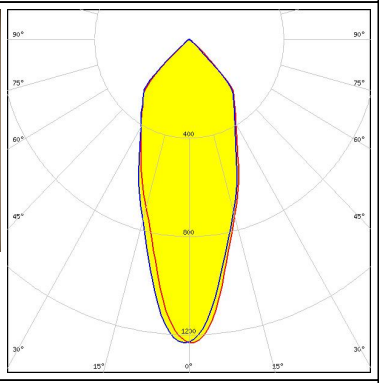
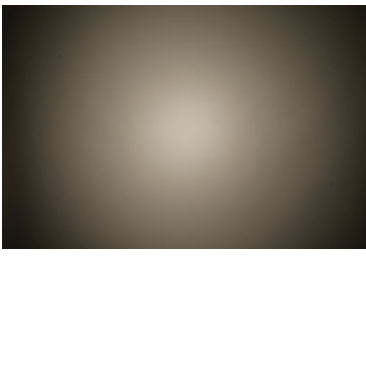
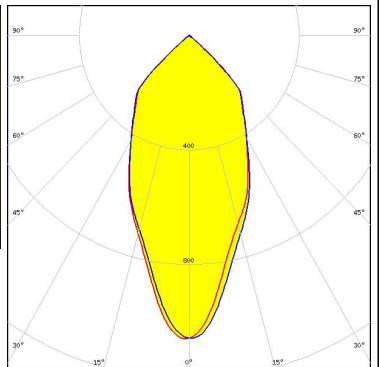
#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 51.0° / 98.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>Bender Wirth: 442 Typ L3</p>                            |    |    |
| <p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 48.0° / 98.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>Bender Wirth: 500 Typ L3-1</p>                                    |   |   |
| <p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 52.0° / 99.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 0.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 500 Typ L3-1</p>            |  |   |
| <p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 61.0° / 102.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 494 Typ L3</p> |  |  |

#### PHOTOMETRIC DATA (MEASURED):


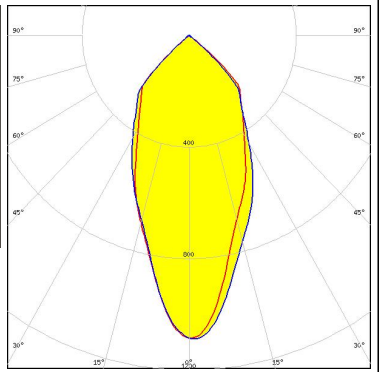

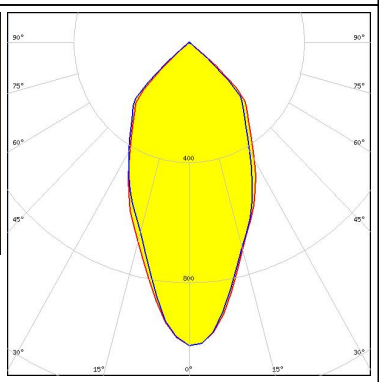

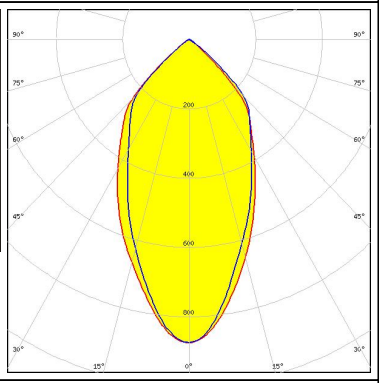

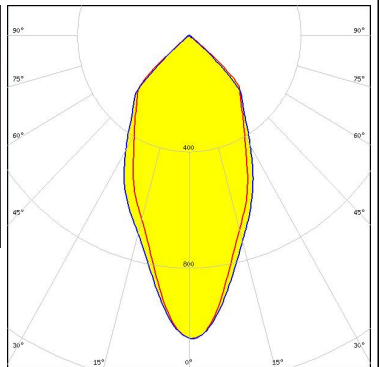
|  |  |   |
|--|--|---|
| <p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 60.0° / 101.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13584_CLAMP-VERO29<br/>Bender Wirth: 494 Typ L3</p>   |    |    |
| <p><b>LUMINUS</b></p> <p>LED CxM-14 (19x19)</p> <p>FWHM / FWTM 48.0° / 98.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |   |   |
| <p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 48.0° / 98.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>F13671_ANGE-RZ-LENS<br/>IDEAL: 50-2103NC + 50-2100AN</p>             |  |  |
| <p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 43.0° / 95.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>IDEAL: 50-2103NC + 50-2100AN</p>                                     |  |  |

#### PHOTOMETRIC DATA (MEASURED):

|   |  |   |
|---|--|---|
| <p><b>NICHIA</b></p> <p>LED COB J-Type<br/>           FWHM / FWTM 51.0° / 99.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           Bender Wirth: 463 Typ L2</p>         |    |    |
| <p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)<br/>           FWHM / FWTM 48.0° / 97.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1.1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |   |   |
| <p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)<br/>           FWHM / FWTM 39.0° / 94.0°<br/>           Efficiency 91 %<br/>           Peak intensity 1.2 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           IDEAL: 50-2100NC + 50-2100AN</p>                                |  |  |
| <p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)<br/>           FWHM / FWTM 48.0° / 97.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1.1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White</p> <p>Required components:<br/>           TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p> |  |  |



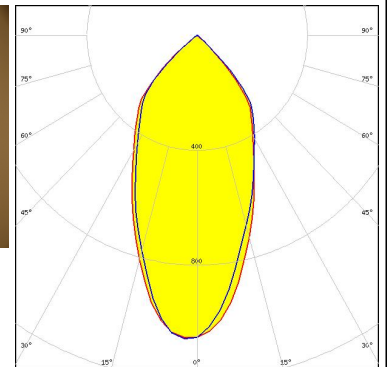
#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 47.0° / 98.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>Bender Wirth: 438 Typ L1</p>   |    |    |
| <p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 51.0° / 99.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>Molex: 180580-0005</p>  |   |   |
| <p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 57.0° / 102.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>F13671_ANGE-RZ-LENS<br/>Bender Wirth: 498 Typ L2</p> |  |  |
| <p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 53.0° / 100.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:<br/>C13658_CLAMP-VERO13-18<br/>Bender Wirth: 498 Typ L2</p>                           |  |  |

#### PHOTOMETRIC DATA (MEASURED):

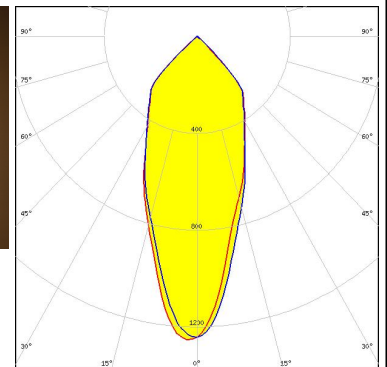
#### OSRAM

LED PrevaLED Core AC (LEP-2000)  
 FWHM / FWTM 49.0° / 96.0°  
 Efficiency 93 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



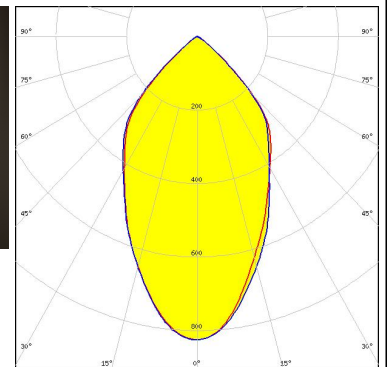
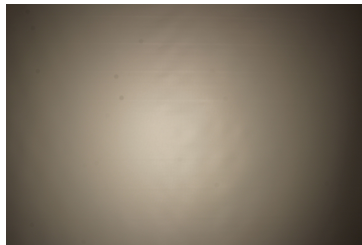
#### OSRAM

LED PrevaLED Core AC (LEP-800)  
 FWHM / FWTM 40.0° / 94.0°  
 Efficiency 93 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



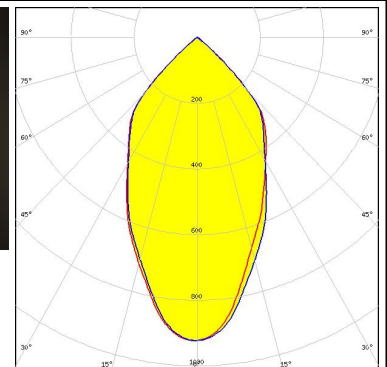
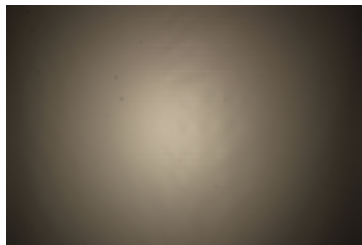
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 60.0° / 101.0°  
 Efficiency 90 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A  
 F13671\_ANGE-RZ-LENS



#### OSRAM

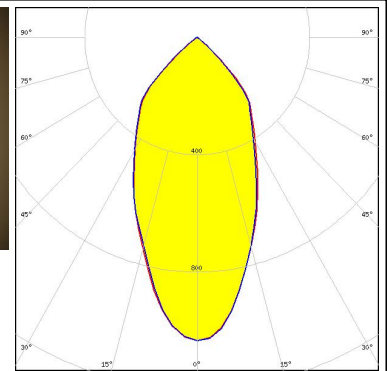
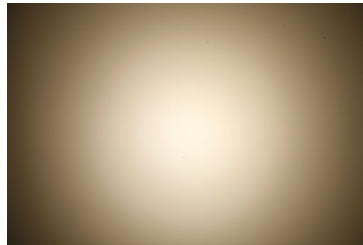
LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 57.0° / 98.0°  
 Efficiency 93 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A



#### PHOTOMETRIC DATA (MEASURED):

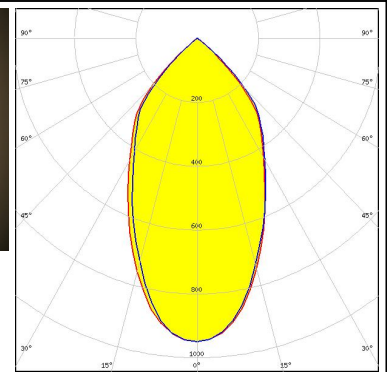
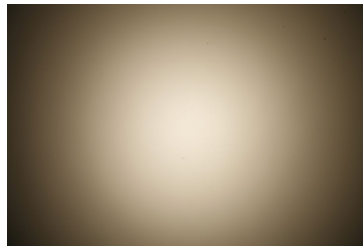
#### OSRAM

LED PrevaLED Core Z3 LES19  
 FWHM / FWTM 50.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



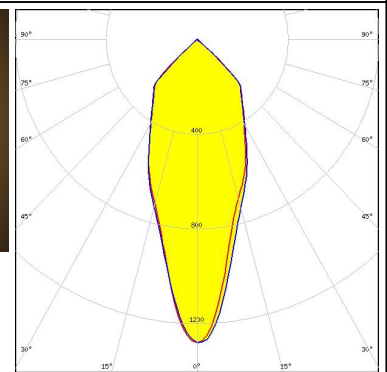
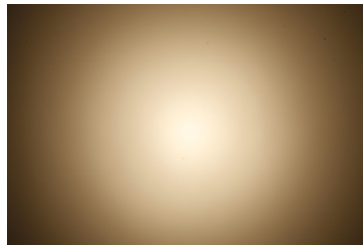
#### OSRAM

LED PrevaLED Core Z3 LES23  
 FWHM / FWTM 55.0° / 99.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



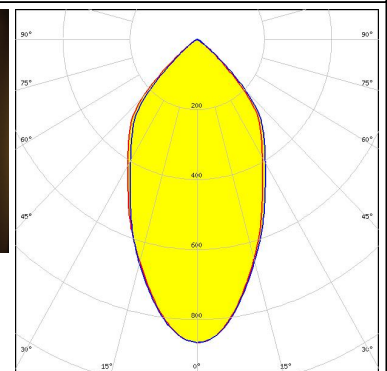
#### OSRAM

LED PrevaLED Core Z3 LES9  
 FWHM / FWTM 38.0° / 96.0°  
 Efficiency 93 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OSRAM

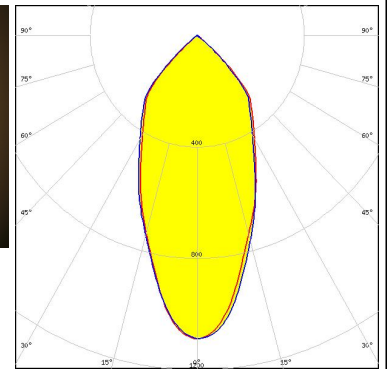
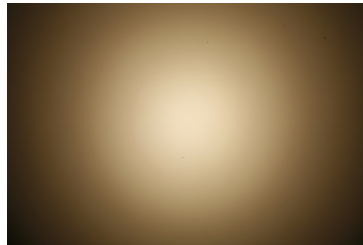
LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 55.0° / 100.0°  
 Efficiency 88 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHOTOMETRIC DATA (MEASURED):

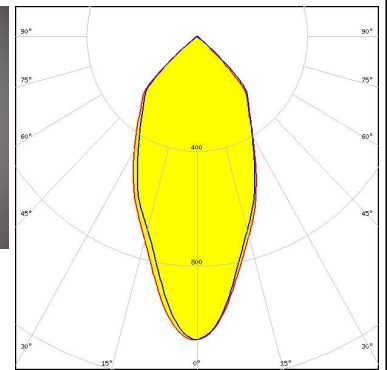
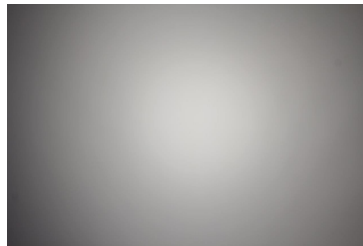
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 47.0° / 96.0°  
 Efficiency 93 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



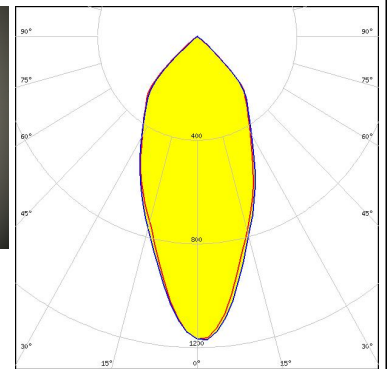
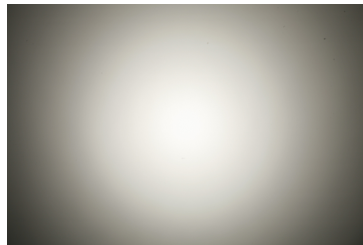
#### OSRAM

Opto Semiconductors  
 LED Soleriq S13  
 FWHM / FWTM 49.0° / 97.0°  
 Efficiency 92 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1



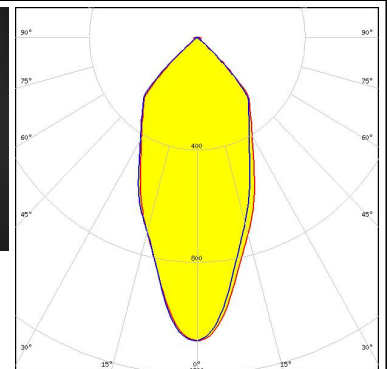
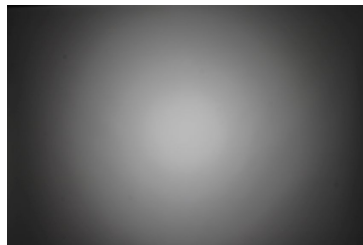
#### OSRAM

Opto Semiconductors  
 LED Soleriq S13  
 FWHM / FWTM 47.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### OSRAM

Opto Semiconductors  
 LED Soleriq S13 19x19  
 FWHM / FWTM 45.0° / 96.0°  
 Efficiency 91 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



#### PHOTOMETRIC DATA (MEASURED):

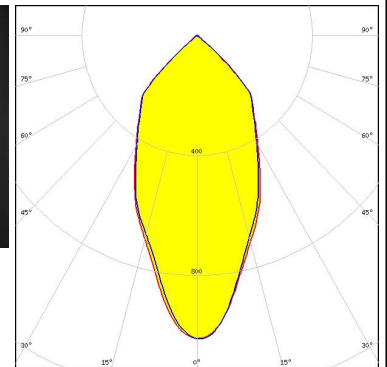
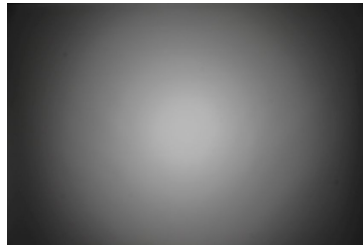
#### OSRAM

Opto Semiconductors

LED Soleriq S13 19x19  
 FWHM / FWTM 51.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



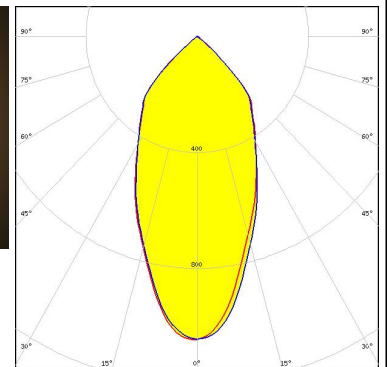
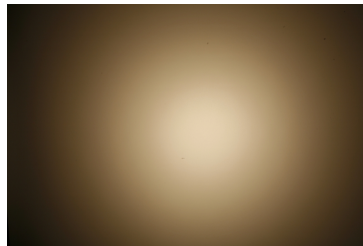
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 49.0° / 97.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### OSRAM

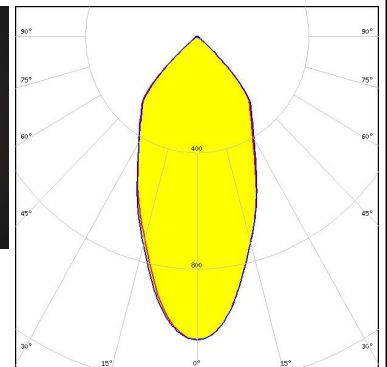
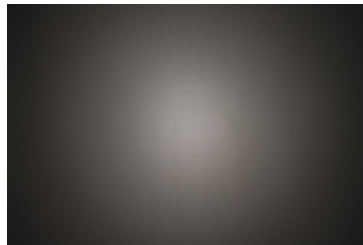
Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 48.0° / 96.0°  
 Efficiency 91 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13584\_CLAMP-VERO29

Bender Wirth: 462 Typ L3

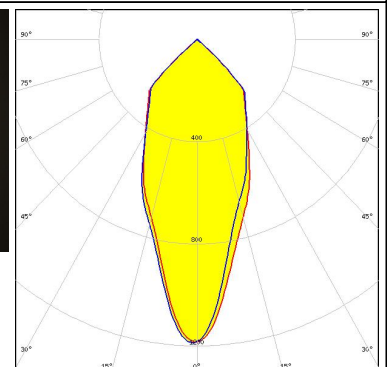
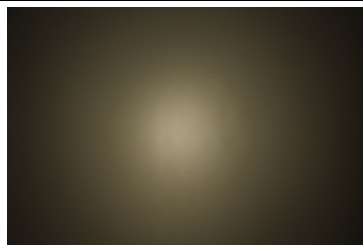


#### PHILIPS

LED Fortimo SLM L09 + SLM holder  
 FWHM / FWTM 42.0° / 96.0°  
 Efficiency 92 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

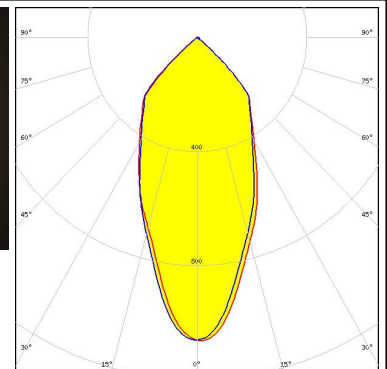
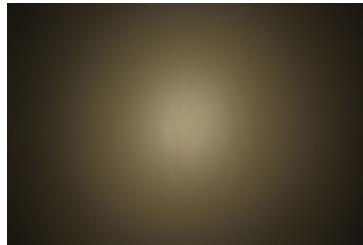
TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHOTOMETRIC DATA (MEASURED):

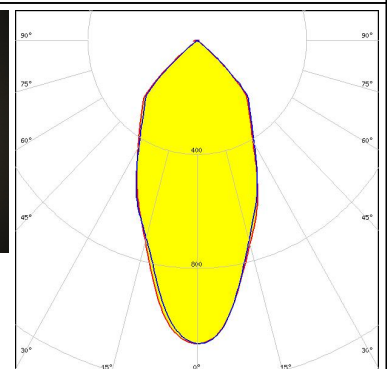
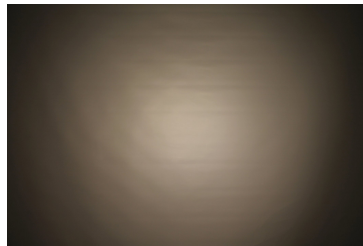
### PHILIPS

LED Fortimo SLM L13 + SLM holder  
 FWHM / FWTM 48.0° / 96.0°  
 Efficiency 92 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



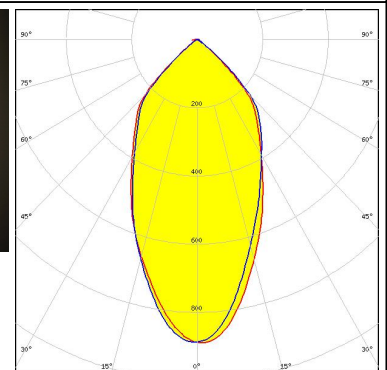
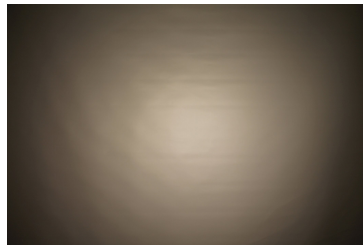
### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 49.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



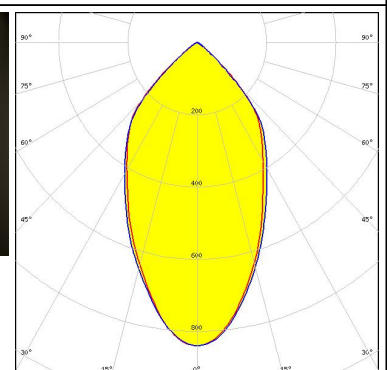
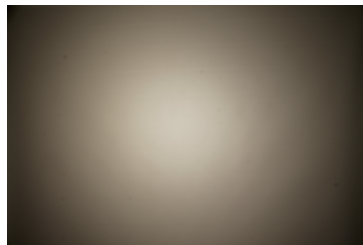
### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 54.0° / 100.0°  
 Efficiency 88 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



### PHILIPS

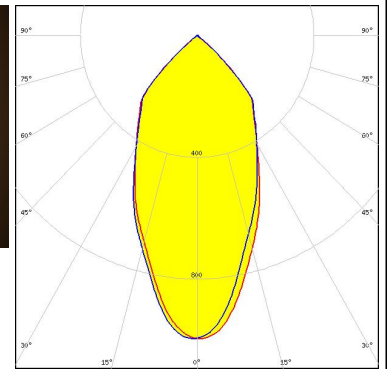
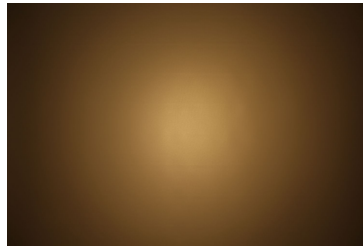
LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 57.0° / 100.0°  
 Efficiency 87 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHOTOMETRIC DATA (MEASURED):

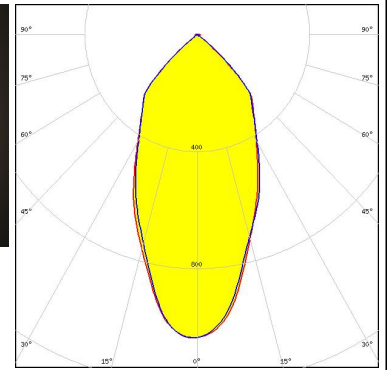
#### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 51.0° / 97.0°  
 Efficiency 90 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



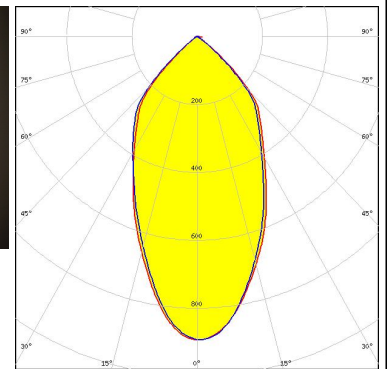
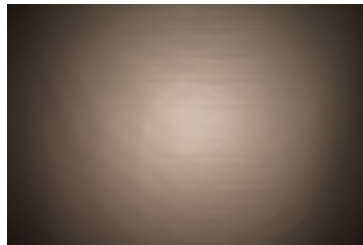
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 50.0° / 98.0°  
 Efficiency 94 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



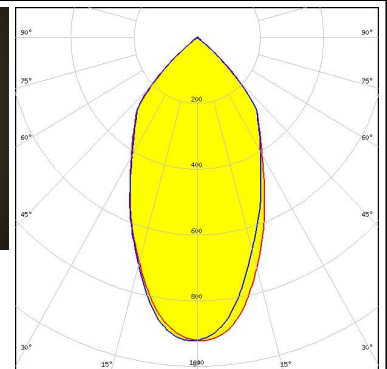
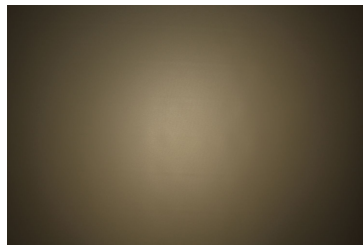
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 53.0° / 100.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

LED Fortimo SLM L19 + SLM holder  
 FWHM / FWTM 54.0° / 98.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



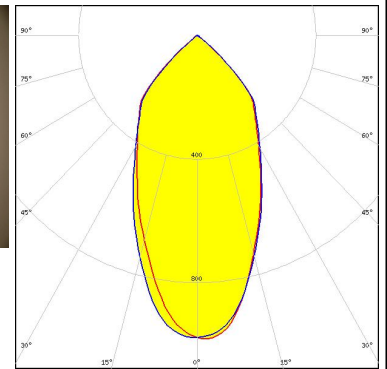
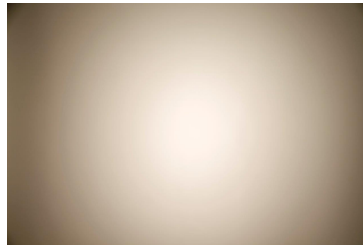
#### PHOTOMETRIC DATA (MEASURED):

### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 51.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: 2213258-2 + OPTIC CLIP Z50 TYPE1 2213194-1



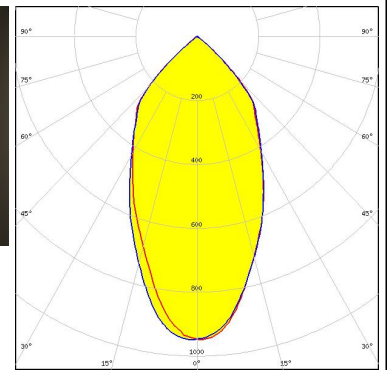
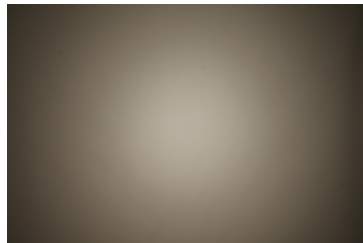
### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 54.0° / 99.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13658\_CLAMP-VERO13-18

Bender Wirth: 450 Typ L2



### SAMSUNG

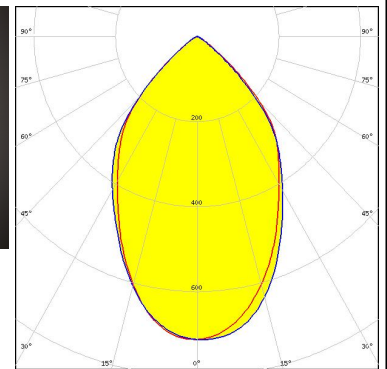
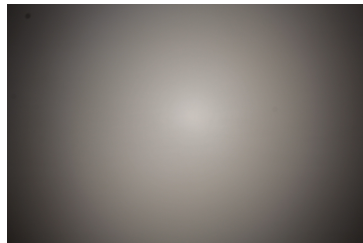
LED LC035T (Tunable white)  
 FWHM / FWTM 69.0° / 105.0°  
 Efficiency 88 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White

Required components:

C13584\_CLAMP-VERO29

F13671\_ANGE-RZ-LENS

Bender Wirth: 502 Typ L3



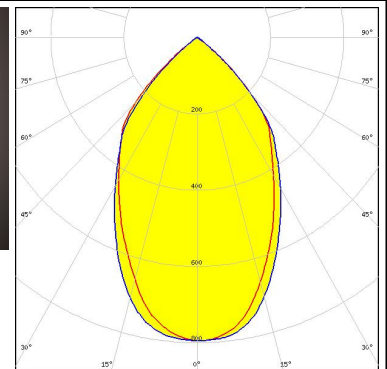
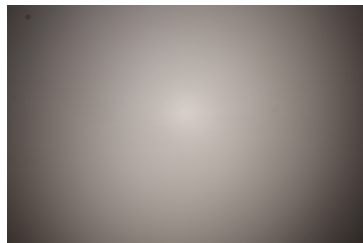
### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 66.0° / 102.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White

Required components:

C13584\_CLAMP-VERO29

Bender Wirth: 502 Typ L3





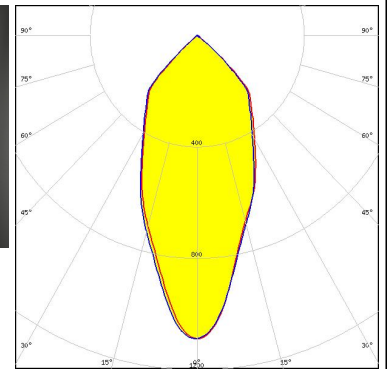
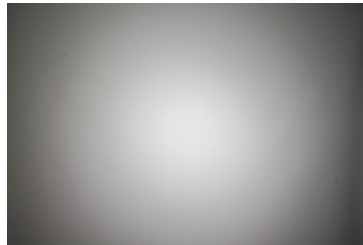
#### PHOTOMETRIC DATA (MEASURED):

### SAMSUNG

LED LC040C  
 FWHM / FWTM 46.0° / 96.0°  
 Efficiency 90 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

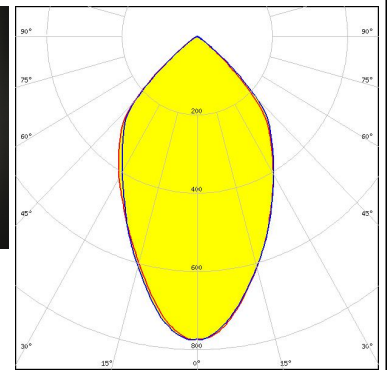
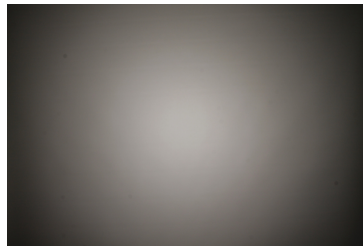
TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



SEOUL SEMICONDUCTOR  
 LED AC Zhaga COB  
 FWHM / FWTM 64.0° / 103.0°  
 Efficiency 89 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

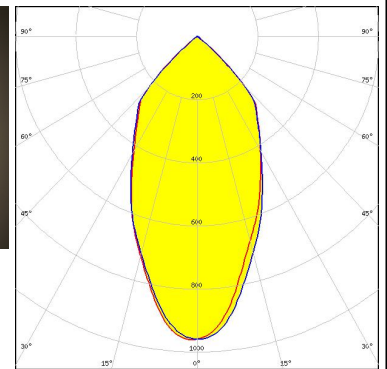
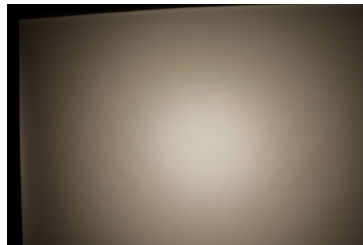
F13671\_ANGE-RZ-LENS  
 Optosource: SEHSMJD-A



SEOUL SEMICONDUCTOR  
 LED MJT COB LES 14.5  
 FWHM / FWTM 54.0° / 98.0°  
 Efficiency 92 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

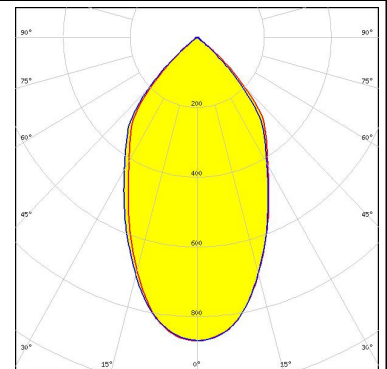
TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



SEOUL SEMICONDUCTOR  
 LED MJT COB LES 22  
 FWHM / FWTM 58.0° / 99.0°  
 Efficiency 90 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

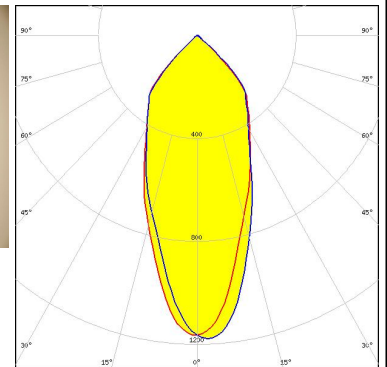
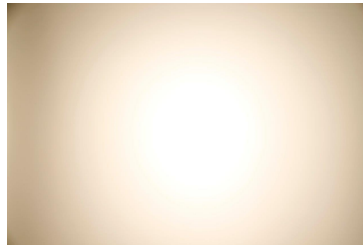
C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



#### PHOTOMETRIC DATA (MEASURED):

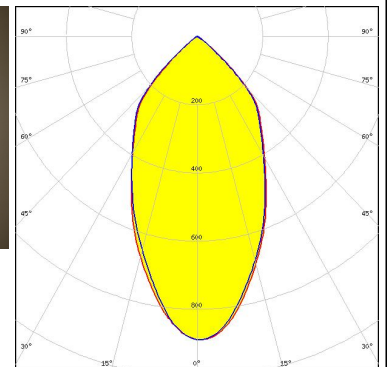
### SHARP

LED Mega Zenigata (GW6DME)  
 FWHM / FWTM 43.0° / 95.0°  
 Efficiency 93 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2100SH + 50-2100AN



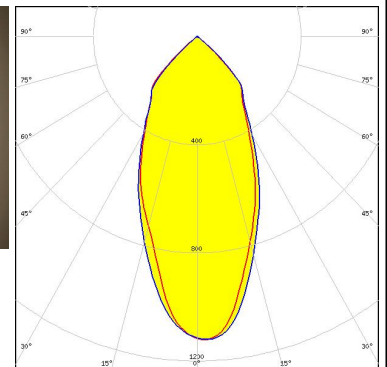
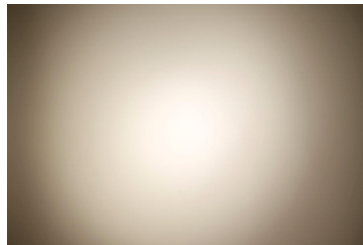
### SHARP

LED Mega Zenigata (GW6DME)  
 FWHM / FWTM 55.0° / 99.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



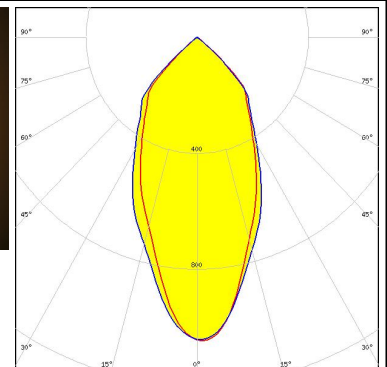
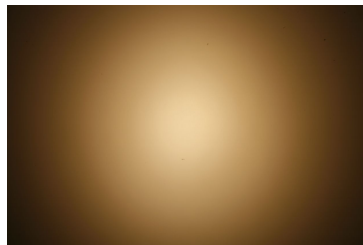
### SHARP

LED Mega Zenigata (GW6DME)  
 FWHM / FWTM 47.0° / 96.0°  
 Efficiency 92 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1

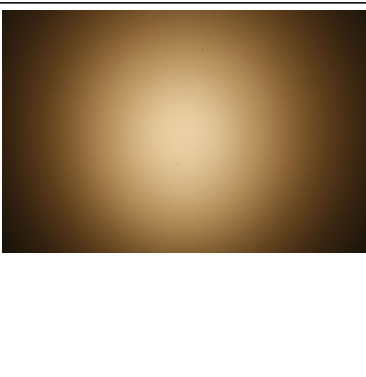
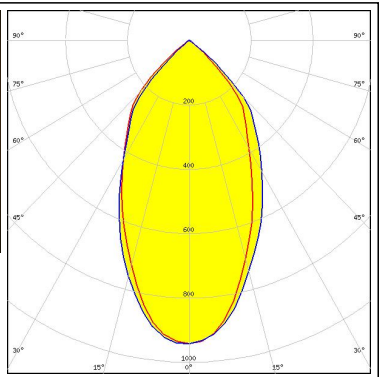
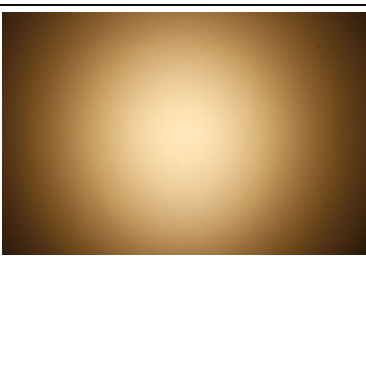
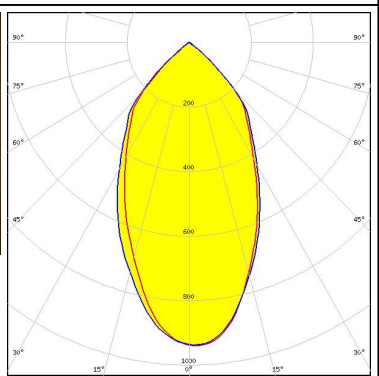

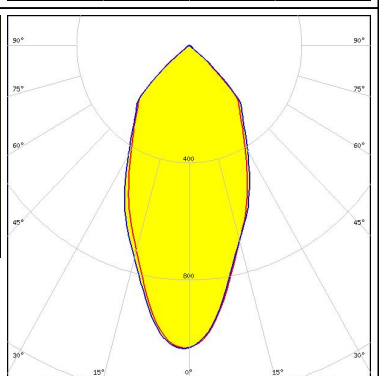

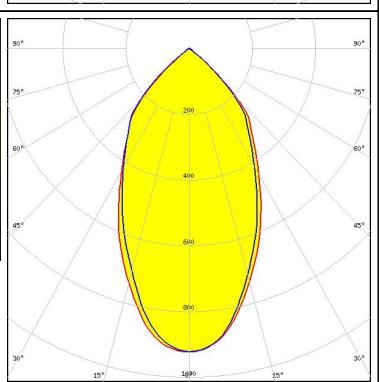


### VS LIGHTING SOLUTIONS

LED WU-M-461  
 FWHM / FWTM 50.0° / 98.0°  
 Efficiency 93 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHOTOMETRIC DATA (MEASURED):

|  |  |   |
|--|--|---|
| <p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-462<br/>           FWHM / FWTM 55.0° / 99.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>  |    |    |
| <p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-464<br/>           FWHM / FWTM 55.0° / 99.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>  |   |   |
| <p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484<br/>           FWHM / FWTM 51.0° / 98.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>    |  |  |
| <p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-485<br/>           FWHM / FWTM 57.0° / 100.0°<br/>           Efficiency 93 %<br/>           Peak intensity 0.9 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p> |  |  |

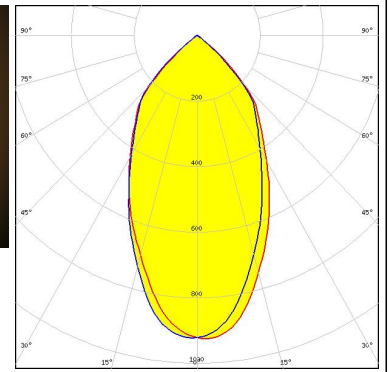
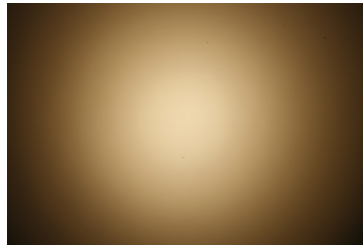
### PHOTOMETRIC DATA (MEASURED):




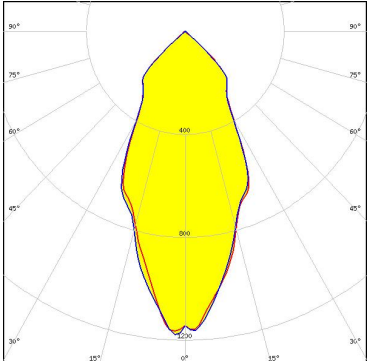

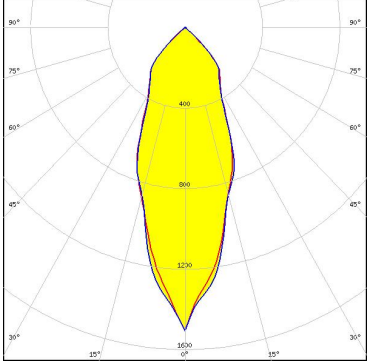

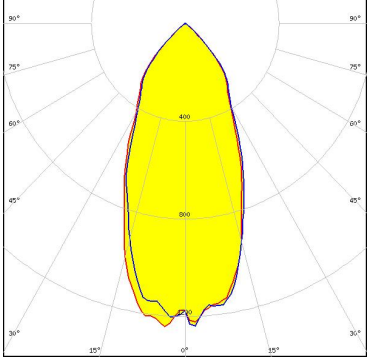

LED WU-M-486  
FWHM / FWTM 56.0° / 100.0°  
Efficiency 93 %  
Peak intensity 0.9 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHOTOMETRIC DATA (SIMULATED):

|   |   |
|---|---|
| <p> <b>bridgelux.</b></p> <p>LED V10 Gen7<br/>           FWHM / FWTM 50.0° / 97.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1.2 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           Bender Wirth: 486 Typ L1</p>    |    |
| <p> <b>bridgelux.</b></p> <p>LED V13 Gen7<br/>           FWHM / FWTM 38.0° / 90.0°<br/>           Efficiency 93 %<br/>           Peak intensity 1.5 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           IDEAL: 50-2103CT + 50-2100AN</p>                                      |   |
| <p> <b>bridgelux.</b></p> <p>LED V22 Gen7<br/>           FWHM / FWTM 43.0° / 92.0°<br/>           Efficiency 94 %<br/>           Peak intensity 1.3 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           IDEAL: 50-2204-CT + 50-2100AN</p>                                   |  |
| <p> <b>LUMINUS</b></p> <p>LED CxM-14 (19x19)<br/>           FWHM / FWTM 52.0° / 98.0°<br/>           Efficiency 92 %<br/>           Peak intensity 1 cd/lm<br/>           LEDs/each optic 1<br/>           Light colour White<br/>           Required components:<br/>           C13658_CLAMP-VERO13-18<br/>           Bender Wirth: 433 Typ L1</p> |   |

#### PHOTOMETRIC DATA (SIMULATED):



LED CxM-9 (13.5x13.5)  
FWHM / FWTM 45.0° / 98.0°  
Efficiency 93 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 434 Typ L1



SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM / FWTM 52.0° / 98.0°  
Efficiency 92 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 433 Typ L1



SEOUL SEMICONDUCTOR

LED ZC4/6  
FWHM / FWTM 45.0° / 98.0°  
Efficiency 93 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 434 Typ L1

### 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.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

### MATERIALS:

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Ledil Optics Technology (Shenzhen) Co., Ltd.

# 405 , Block B  
Casic Motor Building  
Shenzhen 518057  
P.R.CHINA

#### Local sales and technical support

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)

#### Shipping locations

Salo, Finland  
Hong Kong, China

#### Distribution Partners

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)