

## ANGELETTE-S

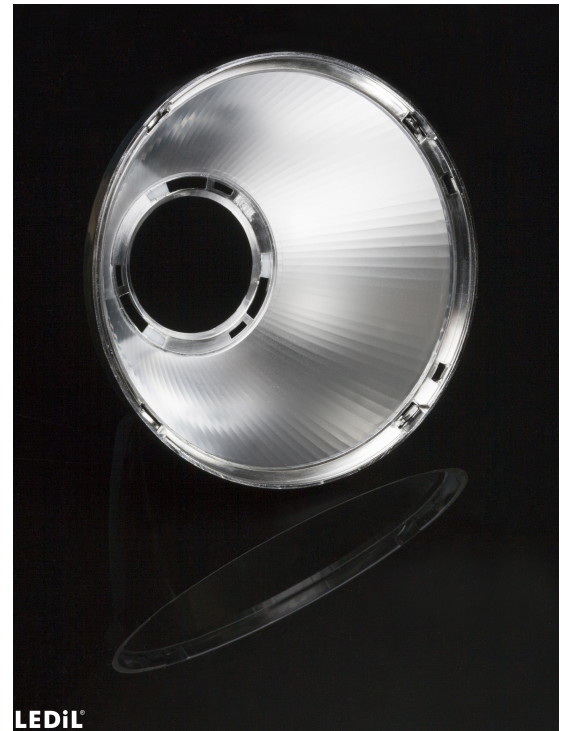
~10° spot beam

### SPECIFICATION:

Dimensions	Ø 110.0 mm
Height	57.3 mm
Fastening	socket
ROHS compliant	yes ⓘ

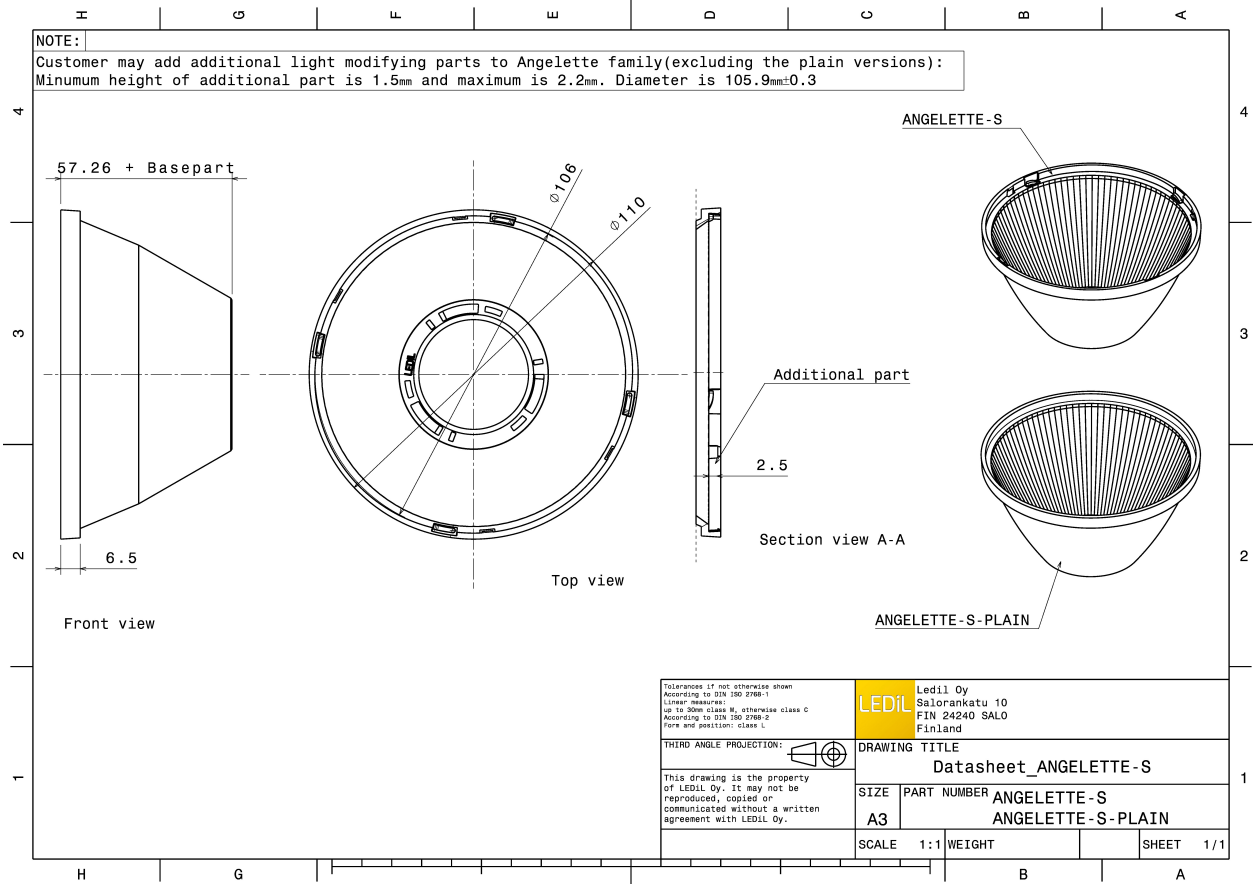
### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
ANGELETTE-S	Reflector	PC	metal		HMDS





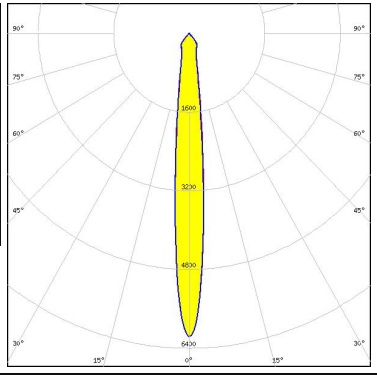


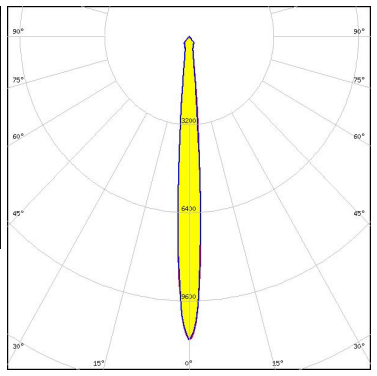


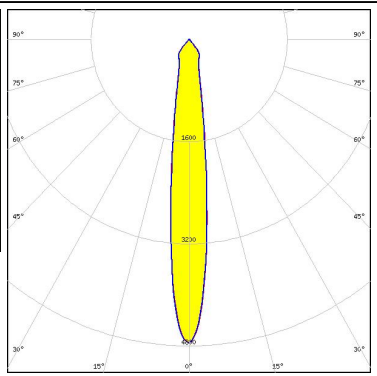


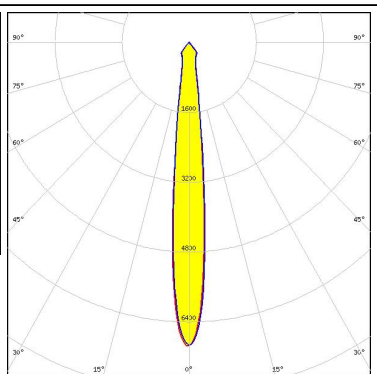
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F14532_ANGELETTE-S » Box size: 398 x 298 x 265 mm	180	90	45	7.4


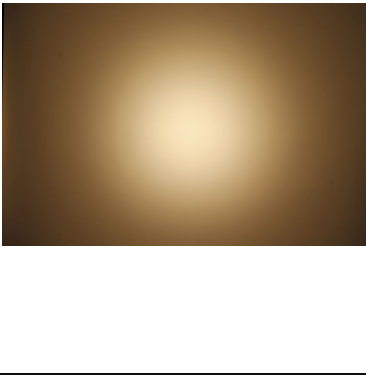
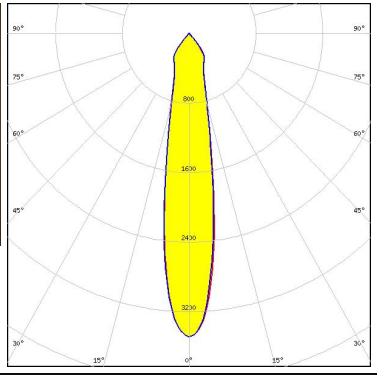


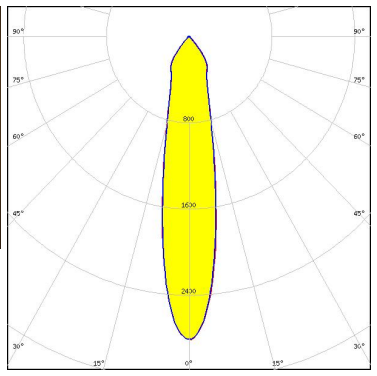


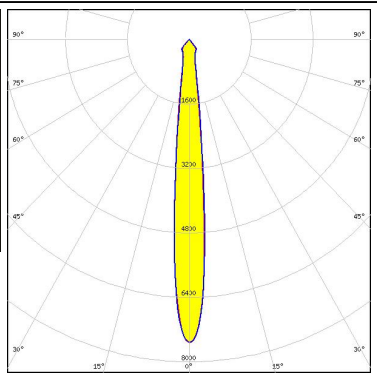


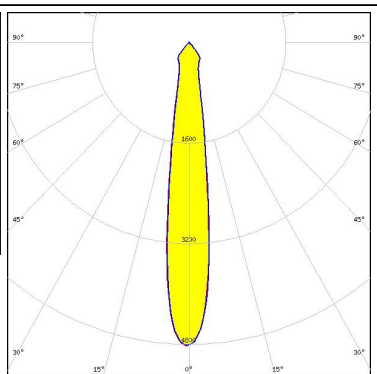


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):


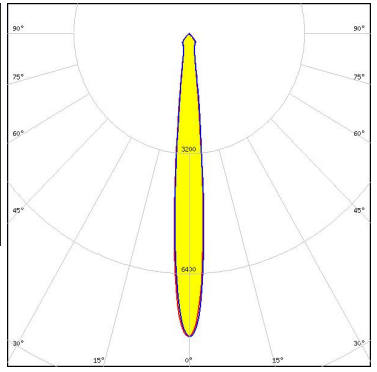

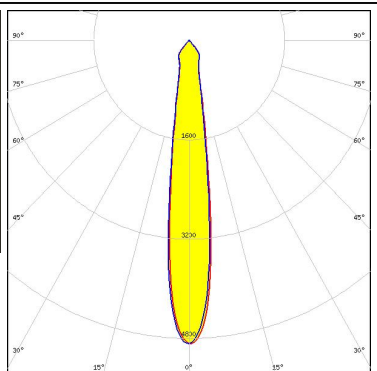
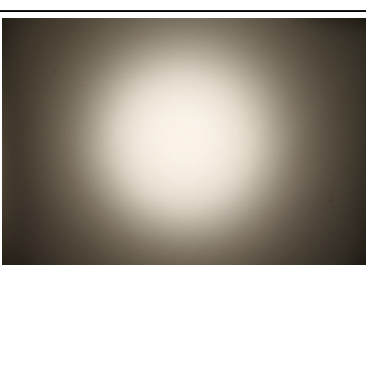
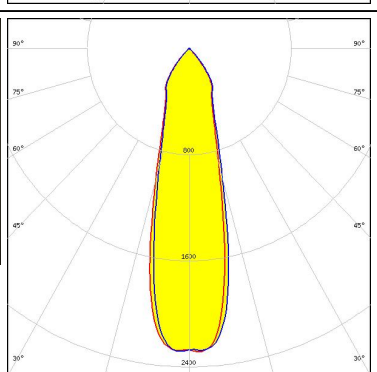

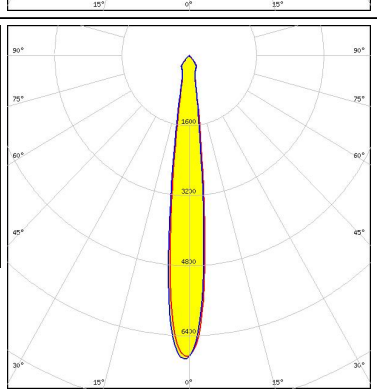
<p></p> <p>LED V10 Gen7            FWHM / FWTM 11.0° / 31.0°            Efficiency 85 %            Peak intensity 6.2 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V10 Gen7            FWHM / FWTM 8.5° / 20.0°            Efficiency 89 %            Peak intensity 11 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 486 Typ L1</p>		
<p></p> <p>LED V13 Gen7            FWHM / FWTM 14.0° / 40.0°            Efficiency 86 %            Peak intensity 4.8 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            F13671_ANGE-RZ-LENS            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p></p> <p>LED V13 Gen7            FWHM / FWTM 12.0° / 29.0°            Efficiency 91 %            Peak intensity 7 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### OPTICAL RESULTS (MEASURED):



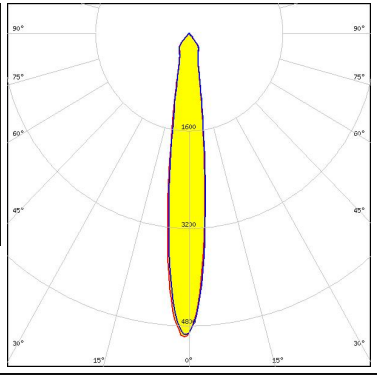


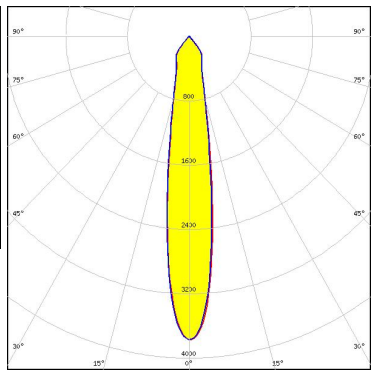


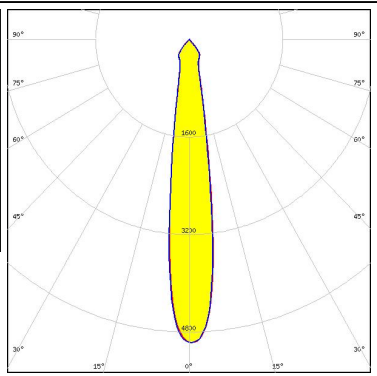


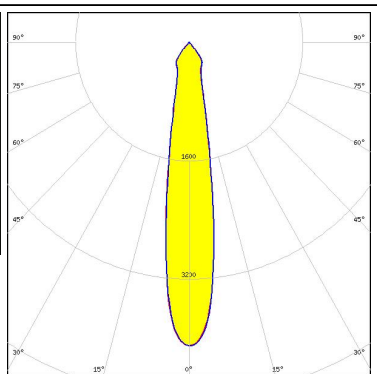
<p></p> <p>LED V22 Gen6            FWHM / FWTM 19.0° / 64.0°            Efficiency 90 %            Peak intensity 3.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p></p> <p>LED V22 Gen6            FWHM / FWTM 21.0° / 71.0°            Efficiency 85 %            Peak intensity 2.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p></p> <p>LED Vero SE 13            FWHM / FWTM 11.0° / 26.0°            Efficiency 90 %            Peak intensity 7.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16402_CLAMP-VEROSE-13-18</p>		
<p></p> <p>LED Vero SE 18            FWHM / FWTM 16.0° / 39.0°            Efficiency 90 %            Peak intensity 4.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16402_CLAMP-VEROSE-13-18</p>		





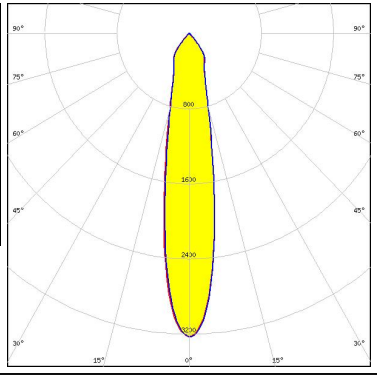

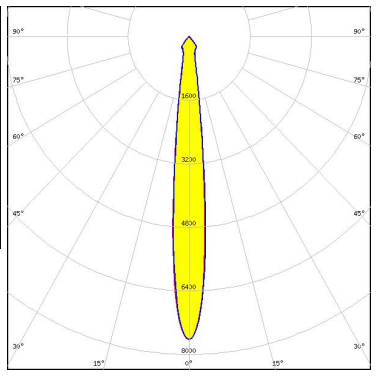

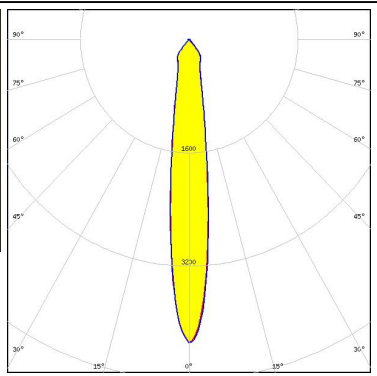

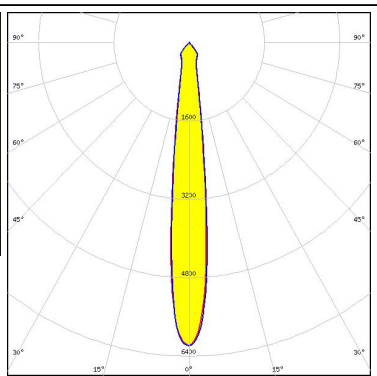
#### OPTICAL RESULTS (MEASURED):

<p>bridgelux.</p> <p>LED VERO13            FWHM / FWTM 11.0° / 25.0°            Efficiency 90 %            Peak intensity 8.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18</p>		
<p>bridgelux.</p> <p>LED VERO18            FWHM / FWTM 15.0° / 38.0°            Efficiency 90 %            Peak intensity 4.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18</p>		
<p>bridgelux.</p> <p>LED VERO29            FWHM / FWTM 27.0° / 76.0°            Efficiency 90 %            Peak intensity 2.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29</p>		
<p>bridgelux.</p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 13.0° / 29.0°            Efficiency 92 %            Peak intensity 6.9 cd/lm            LEDs/each optic 1            Light colour Tunable White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 482 Typ L2</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 15.0° / 38.0°            Efficiency 87 %            Peak intensity 5 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 482 Typ L2</p>		
<p></p> <p>LED Vesta TW 18mm (31W) DP            FWHM / FWTM 17.0° / 51.0°            Efficiency 87 %            Peak intensity 3.8 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 483 Typ L3</p>		
<p></p> <p>LED Vesta TW 18mm (31W) DP            FWHM / FWTM 16.0° / 38.0°            Efficiency 92 %            Peak intensity 5 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 483 Typ L3</p>		
<p></p> <p>LED Vesta TW 22mm DP            FWHM / FWTM 18.0° / 47.0°            Efficiency 92 %            Peak intensity 4.1 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 494 Typ L3</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 22mm DP            FWHM / FWTM 20.0° / 64.0°            Efficiency 87 %            Peak intensity 3.2 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 494 Typ L3</p>		
<p><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM / FWTM 12.0° / 27.0°            Efficiency 93 %            Peak intensity 7.6 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C16791_CLAMP-Z45-A            TE Connectivity: 2325807-3</p>		
<p><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM / FWTM 15.0° / 44.0°            Efficiency 85 %            Peak intensity 4.3 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            F13671_ANGE-RZ-LENS            IDEAL: 50-2103CT + 50-2100AN</p>		
<p><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM / FWTM 13.0° / 31.0°            Efficiency 90 %            Peak intensity 6.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

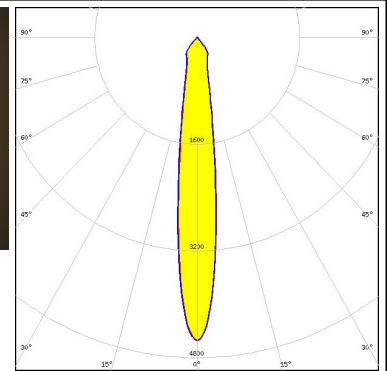
#### OPTICAL RESULTS (MEASURED):

#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 15.0° / 41.0°  
 Efficiency 85 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1

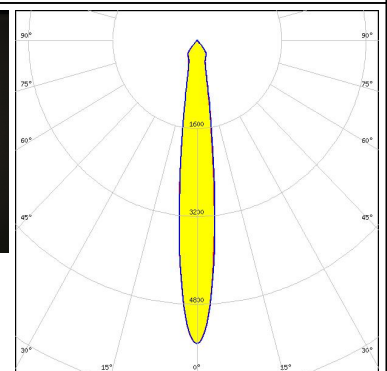


#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 14.0° / 35.0°  
 Efficiency 89 %  
 Peak intensity 5.5 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C16791\_CLAMP-Z45-A  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2325807-3

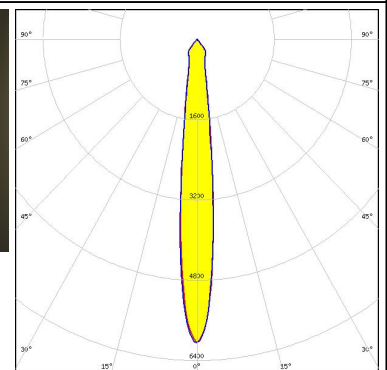


#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 13.0° / 33.0°  
 Efficiency 89 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

IDEAL: 50-2103CT + 50-2100AN

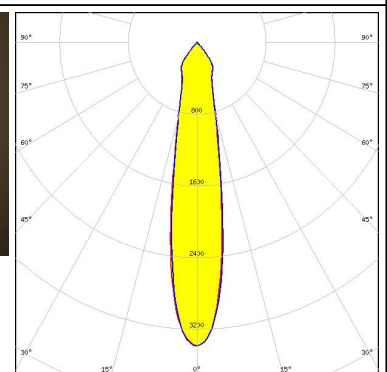
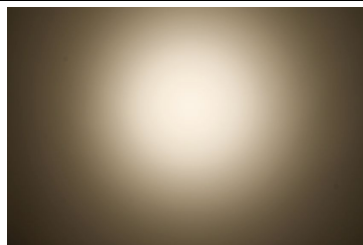


#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 19.0° / 65.0°  
 Efficiency 90 %  
 Peak intensity 3.4 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

IDEAL: 50-2204-CT + 50-2100AN

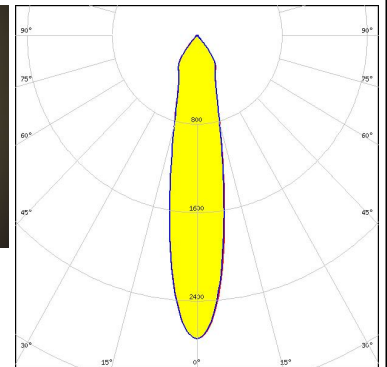




#### OPTICAL RESULTS (MEASURED):

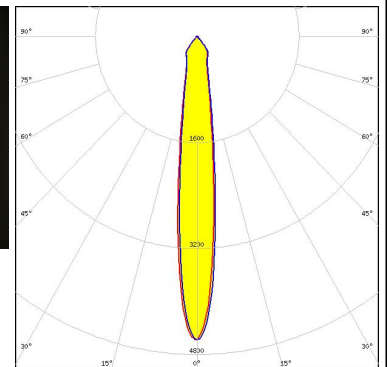
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 21.0° / 71.0°  
 Efficiency 85 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN



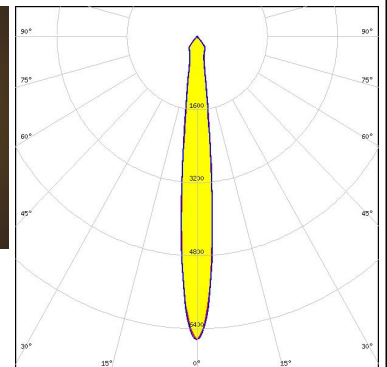
#### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 14.0° / 41.0°  
 Efficiency 85 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN

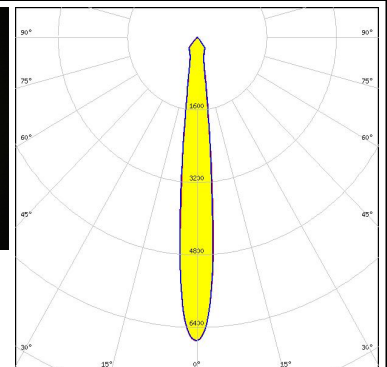
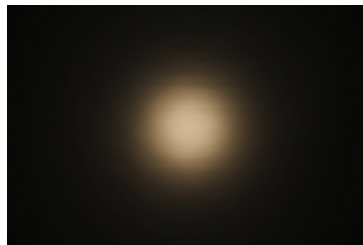


#### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 12.0° / 30.0°  
 Efficiency 89 %  
 Peak intensity 6.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN

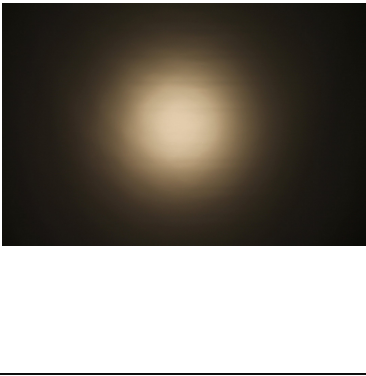
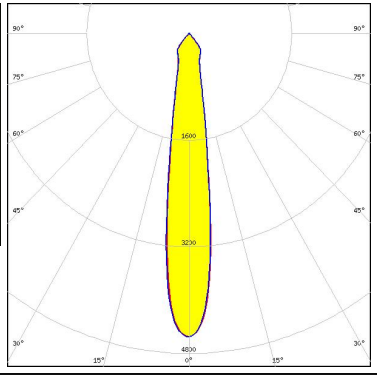

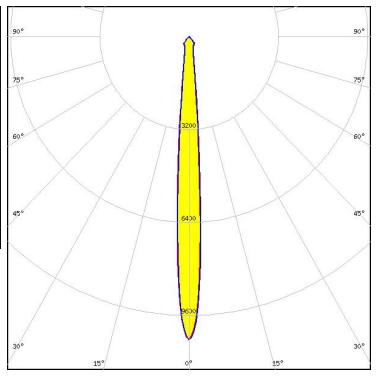

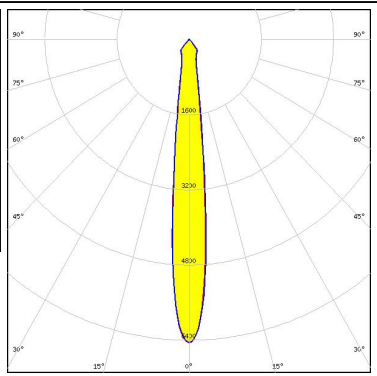
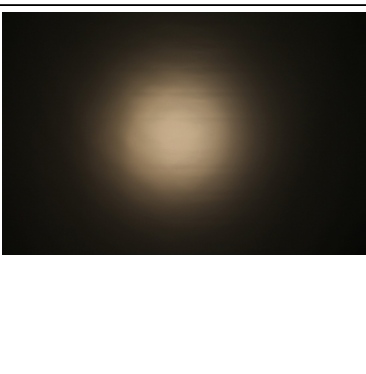
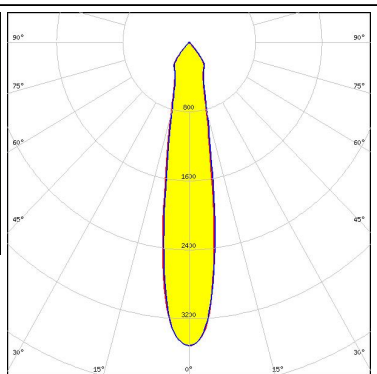


LED CMA1840  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 91 %  
 Peak intensity 6.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18


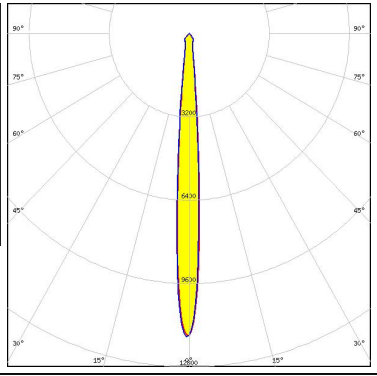

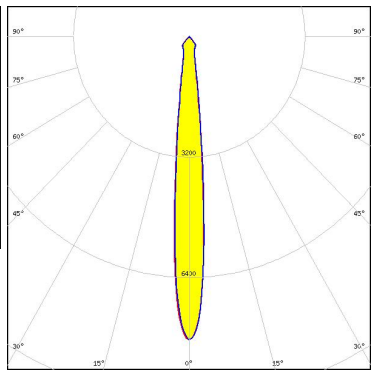

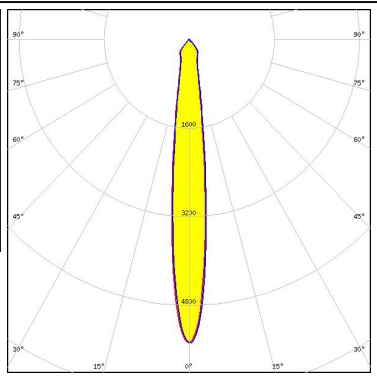

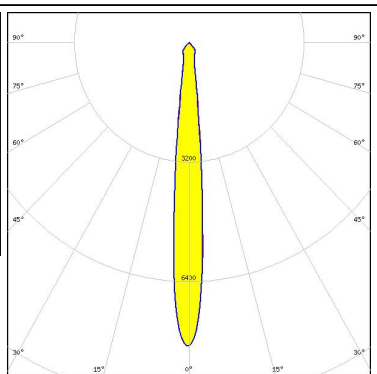




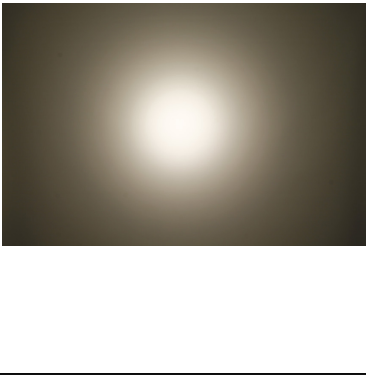
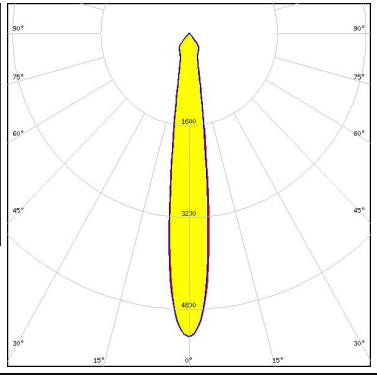

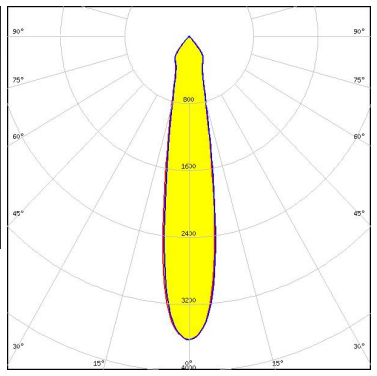

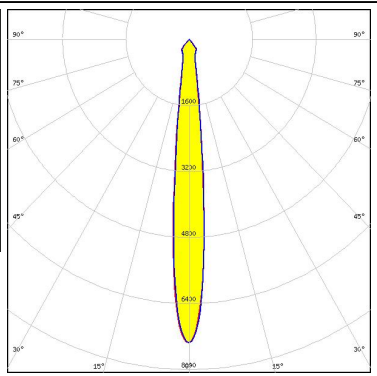

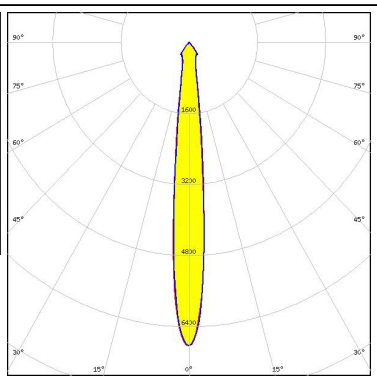
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED CMA2550            FWHM / FWTM 16.0° / 43.0°            Efficiency 91 %            Peak intensity 4.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14036_CLAMP_CXA25-30</p>		
<p><b>CREE</b> LEDs</p> <p>LED CMT14xx            FWHM / FWTM 9.0° / 21.0°            Efficiency 91 %            Peak intensity 10.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 434 Typ L1</p>		
<p><b>CREE</b> LEDs</p> <p>LED CMT19xx            FWHM / FWTM 12.0° / 31.0°            Efficiency 91 %            Peak intensity 6.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 477 Typ L1</p>		
<p><b>CREE</b> LEDs</p> <p>LED CMT28xx            FWHM / FWTM 19.0° / 61.0°            Efficiency 90 %            Peak intensity 3.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            Bender Wirth: 471 Typ L3</p>		


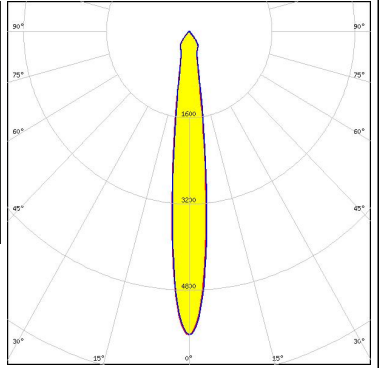

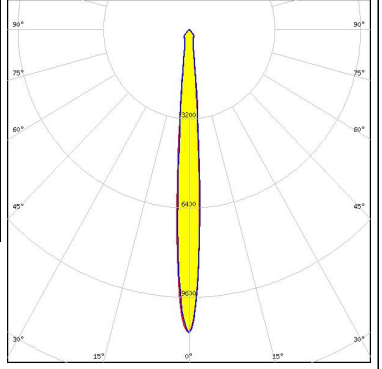

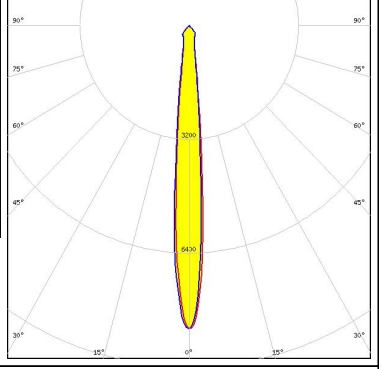

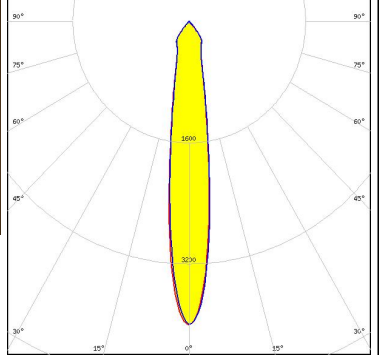
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED CXA/B 15xx            FWHM / FWTM 8.0° / 20.0°            Efficiency 90 %            Peak intensity 12 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14123_CLAMP-CXA15-18</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 11.0° / 26.0°            Efficiency 91 %            Peak intensity 8.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 13.0° / 35.0°            Efficiency 86 %            Peak intensity 5.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 11.0° / 25.0°            Efficiency 90 %            Peak intensity 8.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14123_CLAMP-CXA15-18</p>		


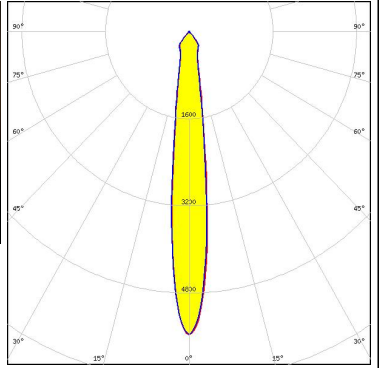

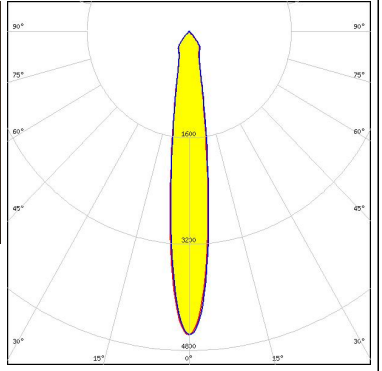

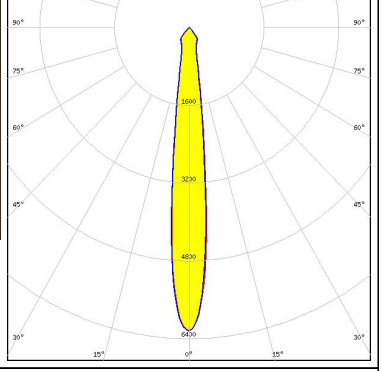
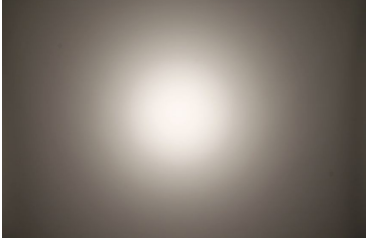
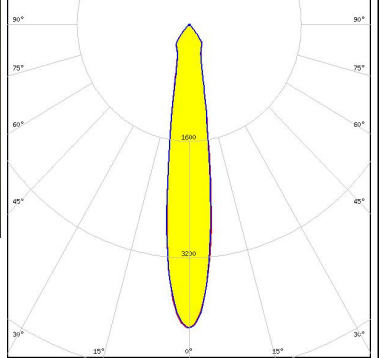
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED CXA/B 25xx            FWHM / FWTM 15.0° / 38.0°            Efficiency 90 %            Peak intensity 5.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14036_CLAMP_CXA25-30</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 30xx            FWHM / FWTM 19.0° / 55.0°            Efficiency 90 %            Peak intensity 3.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14036_CLAMP_CXA25-30</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205            FWHM / FWTM 12.0° / 28.0°            Efficiency 90 %            Peak intensity 7.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205            FWHM / FWTM 12.0° / 28.0°            Efficiency 88 %            Peak intensity 6.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15176_ANGELETTE-LENS            TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### OPTICAL RESULTS (MEASURED):

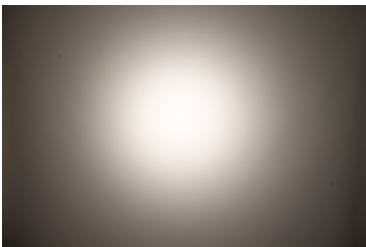
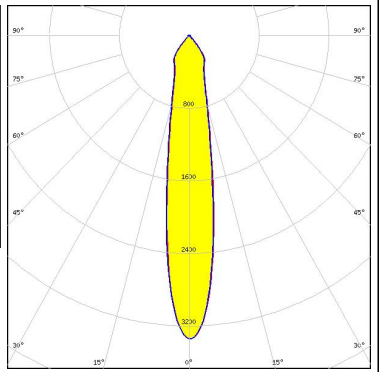

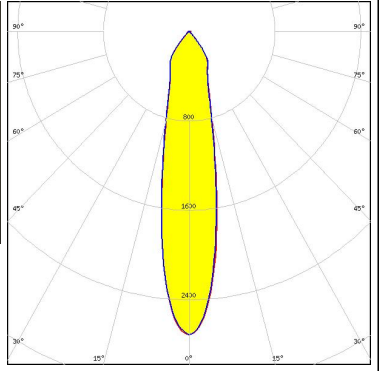
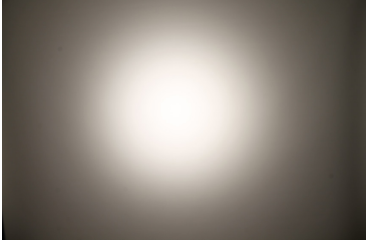
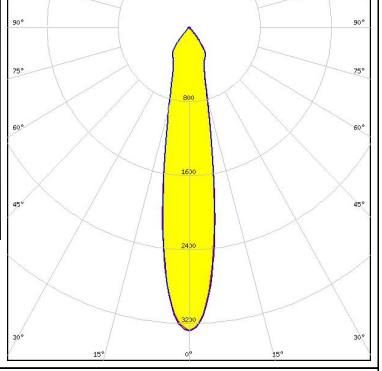

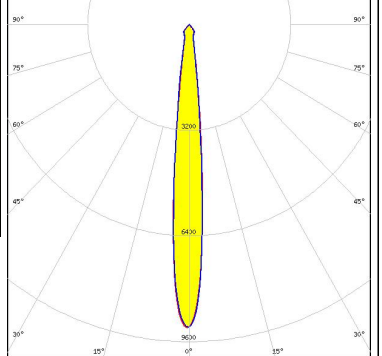
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 13.0° / 33.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 5.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F15412_ANGELETTE-DL TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM / FWTM 8.5° / 21.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 10.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 10.0° / 25.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 8.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 16.0° / 48.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2100SH + 50-2100AN</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 13.0° / 35.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 5.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100SH + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 15.0° / 41.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 4.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS 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 13.0° / 31.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 6.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 17.0° / 48.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 4.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		



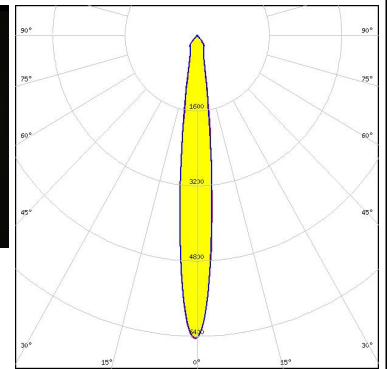
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 18.0° / 62.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 3.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1213/1216/1812</p> <p>FWHM / FWTM 21.0° / 71.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1213/1216/1812</p> <p>FWHM / FWTM 20.0° / 68.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 3.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 11.0° / 24.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 9.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 491 Typ L2</p>		

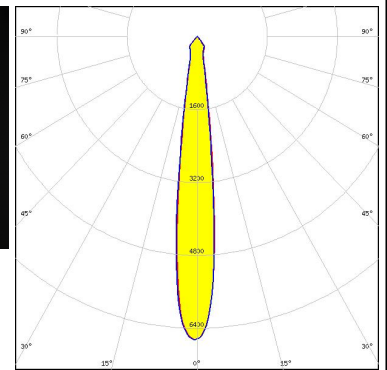
#### OPTICAL RESULTS (MEASURED):



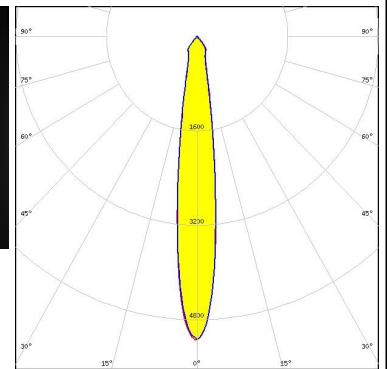
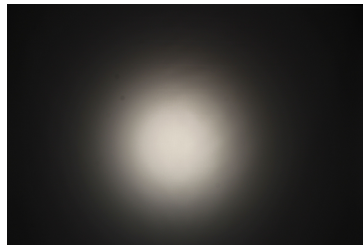
LED CDM-14 (Dim-To-Warm)  
 FWHM / FWTM 12.0° / 31.0°  
 Efficiency 87 %  
 Peak intensity 6.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 491 Typ L2



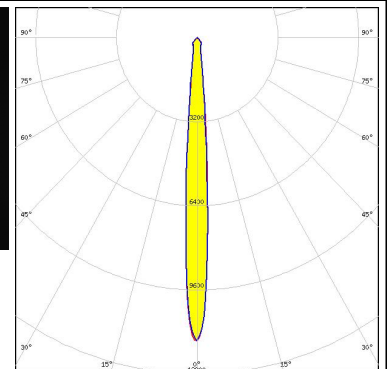
LED CDM-18 (Dim-To-Warm)  
 FWHM / FWTM 14.0° / 30.0°  
 Efficiency 92 %  
 Peak intensity 6.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 491 Typ L2




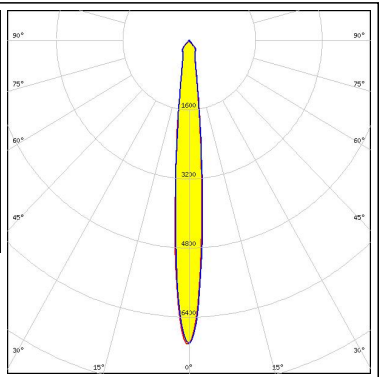

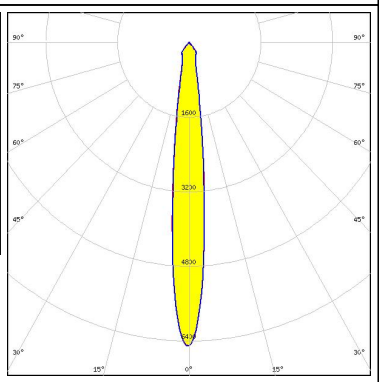

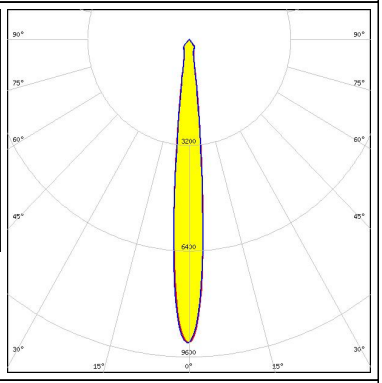

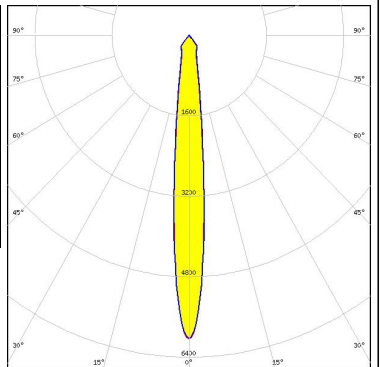
LED CDM-18 (Dim-To-Warm)  
 FWHM / FWTM 15.0° / 36.0°  
 Efficiency 87 %  
 Peak intensity 5.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 491 Typ L2




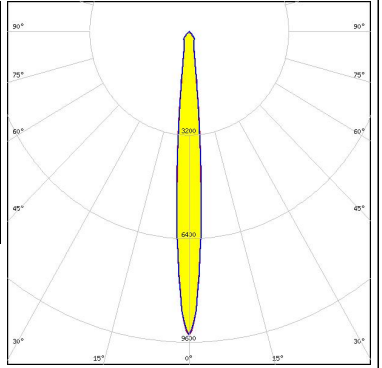

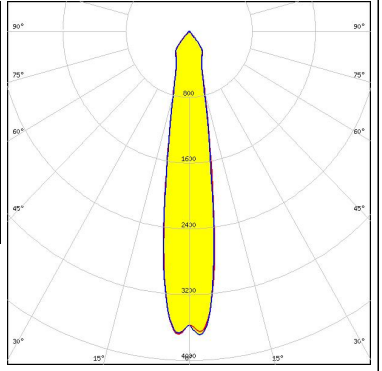
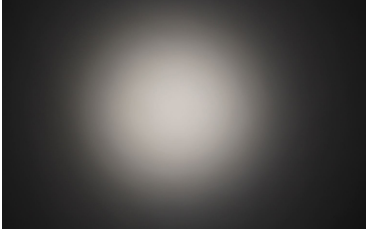
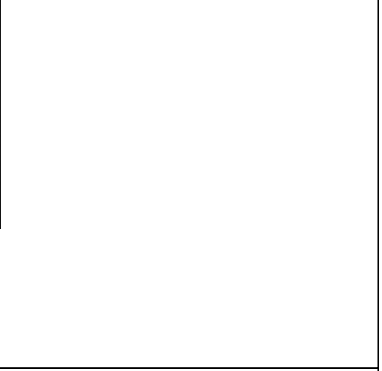

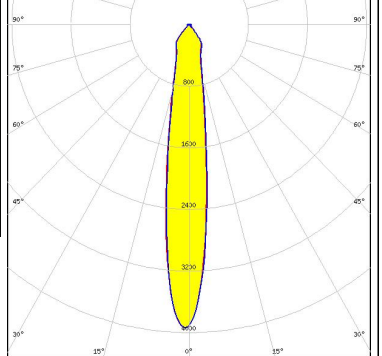
LED CDM-9 (Dim-To-Warm)  
 FWHM / FWTM 8.4° / 20.0°  
 Efficiency 89 %  
 Peak intensity 11.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 490 Typ L1




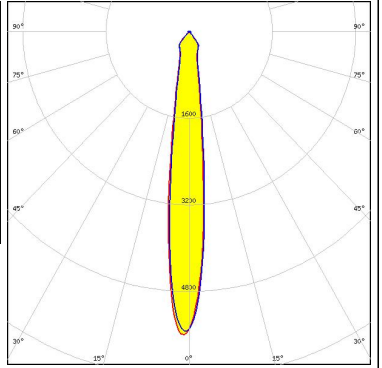

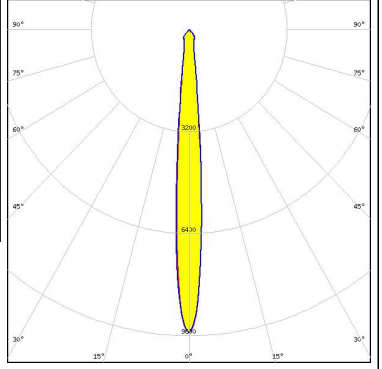
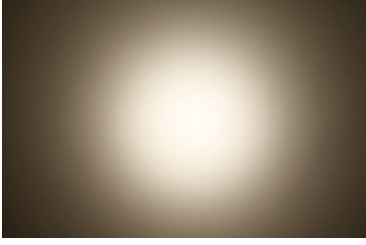
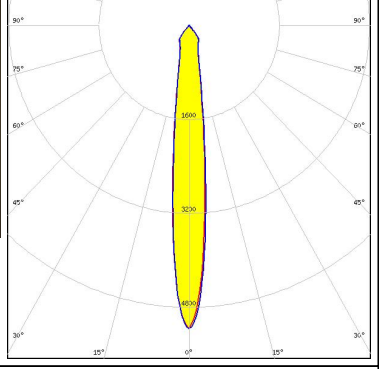

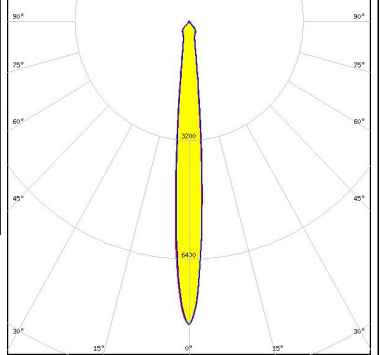
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 11.0° / 28.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 490 Typ L1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 12.0° / 30.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 6.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 11.0° / 24.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 9.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 12.0° / 33.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 500 Typ L3-1</p>		

#### OPTICAL RESULTS (MEASURED):


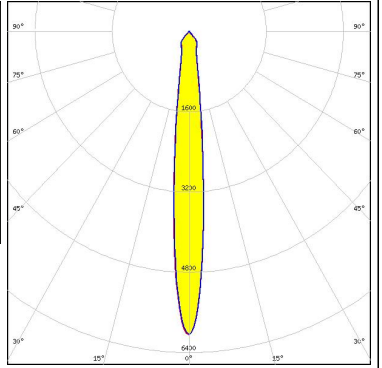

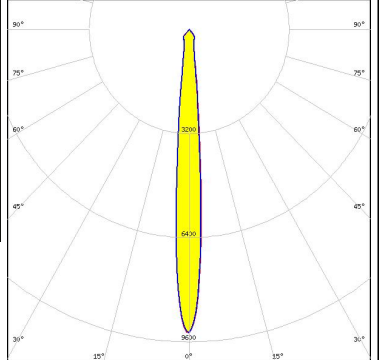

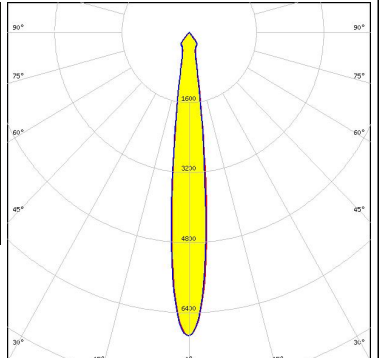

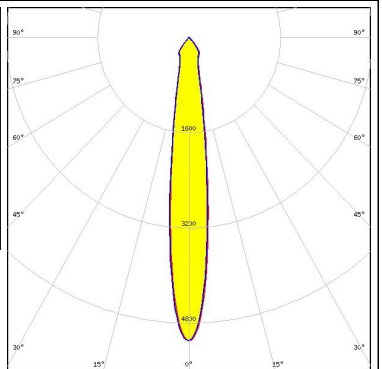
<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 10.0° / 24.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 9.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 500 Typ L3-1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 18.0° / 52.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 3.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 494 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 19.0° / 63.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 3.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS Bender Wirth: 494 Typ L3</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 16.0° / 49.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2103NC + 50-2100AN</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB J-Type            FWHM / FWTM 13.0° / 35.0°            Efficiency 91 %            Peak intensity 5.6 cd/m            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM / FWTM 10.0° / 23.0°            Efficiency 90 %            Peak intensity 9.5 cd/m            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM / FWTM 13.0° / 37.0°            Efficiency 84 %            Peak intensity 5.2 cd/m            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM / FWTM 10.0° / 26.0°            Efficiency 89 %            Peak intensity 8.2 cd/m            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2100NC + 50-2100AN</p>		



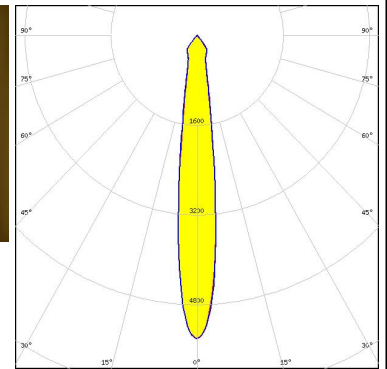
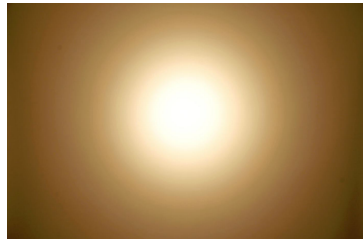
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 12.0° / 32.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 6.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 498 Typ L2</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 10.0° / 23.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 9.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 498 Typ L2</p>		
<p><b>OSRAM</b></p> <p>LED PrevaLED Core G7 L15 H1</p> <p>FWHM / FWTM 13.0° / 29.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 6.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C16685_CLAMP-PRV-A</p>		
<p><b>OSRAM</b></p> <p>LED PrevaLED Core G7 L15 H1</p> <p>FWHM / FWTM 15.0° / 37.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 5.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C16685_CLAMP-PRV-A            F13671_ANGE-RZ-LENS</p>		

#### OPTICAL RESULTS (MEASURED):

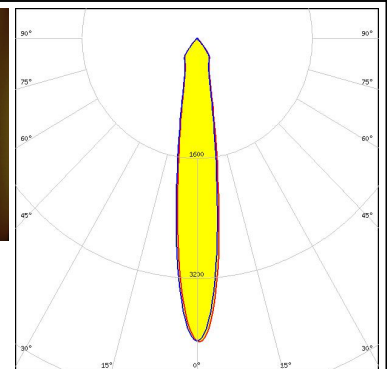
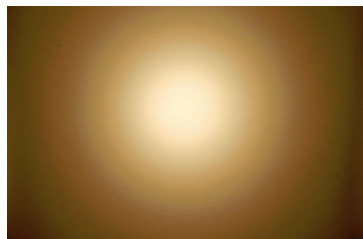
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 14.0° / 36.0°  
 Efficiency 90 %  
 Peak intensity 5.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



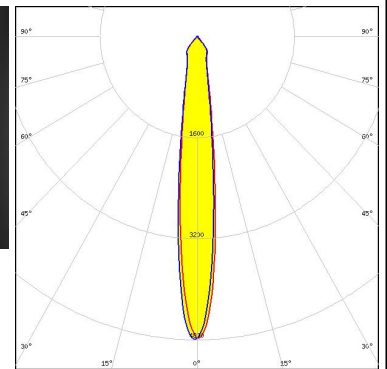
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 16.0° / 48.0°  
 Efficiency 86 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



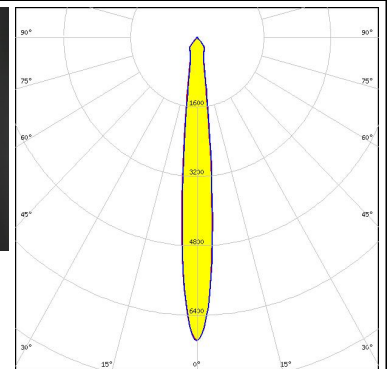
#### OSRAM

Opto Semiconductors  
 LED Soleriq S13 19x19  
 FWHM / FWTM 14.0° / 39.0°  
 Efficiency 84 %  
 Peak intensity 4.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2103CT + 50-2100AN

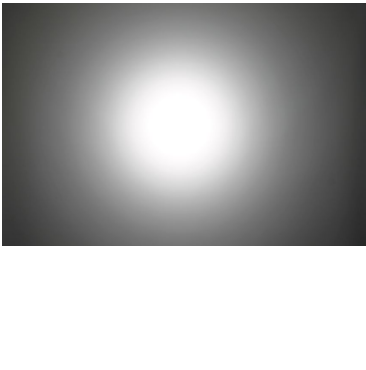
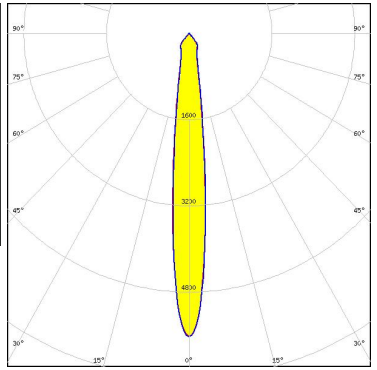

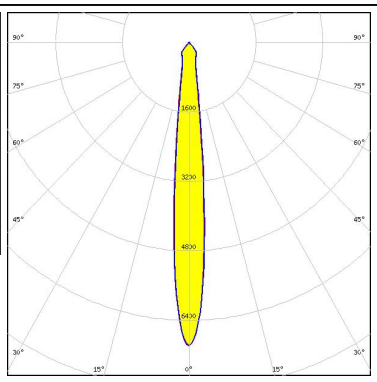

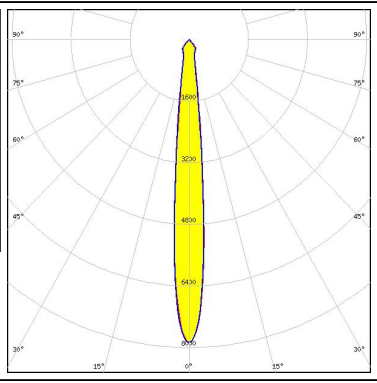

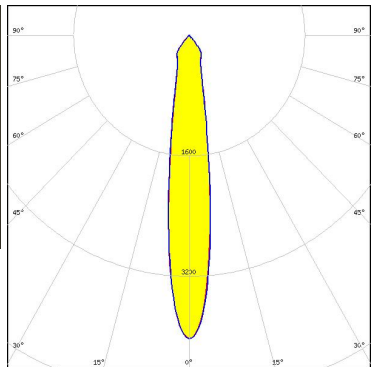


#### OSRAM

Opto Semiconductors  
 LED Soleriq S13 19x19  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 89 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 13.0° / 34.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 5.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 12.0° / 29.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100AN</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 11.0° / 26.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 7.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S19</p> <p>FWHM / FWTM 16.0° / 47.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### OPTICAL RESULTS (MEASURED):

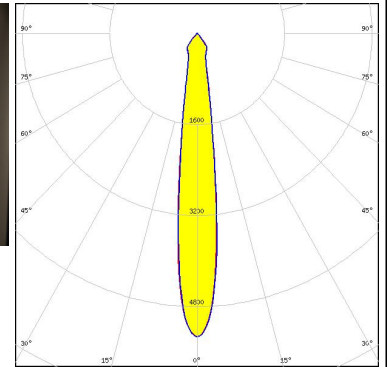
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 14.0° / 36.0°  
 Efficiency 90 %  
 Peak intensity 5.3 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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

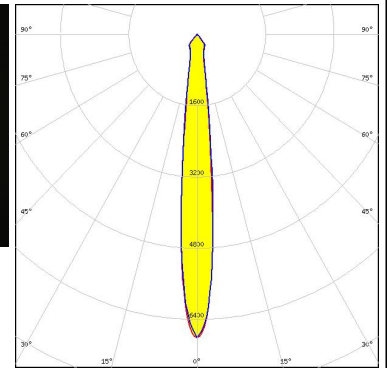
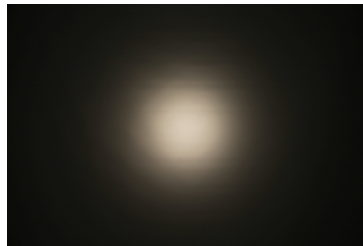


#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 91 %  
 Peak intensity 6.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



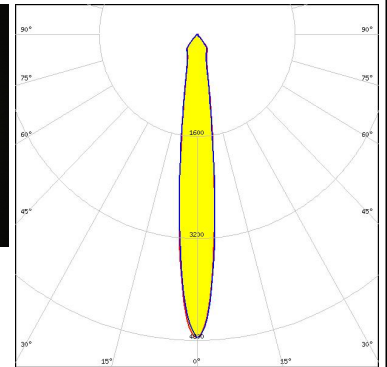
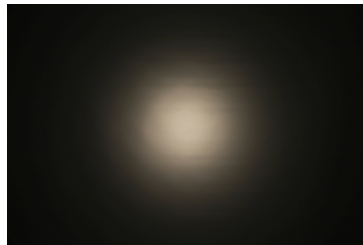
#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 14.0° / 39.0°  
 Efficiency 85 %  
 Peak intensity 4.8 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

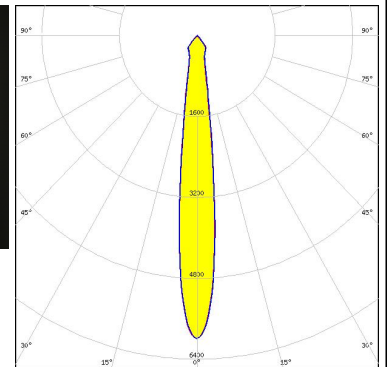


#### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 13.0° / 32.0°  
 Efficiency 89 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



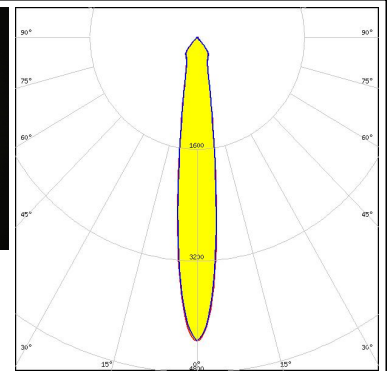
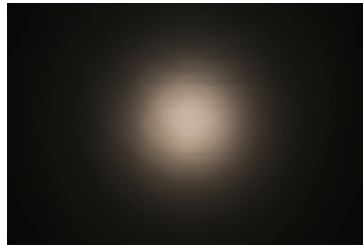
#### OPTICAL RESULTS (MEASURED):

### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 15.0° / 43.0°  
 Efficiency 85 %  
 Peak intensity 4.4 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1

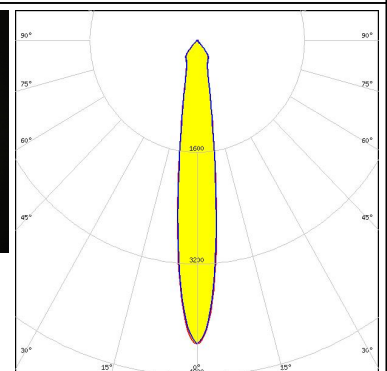
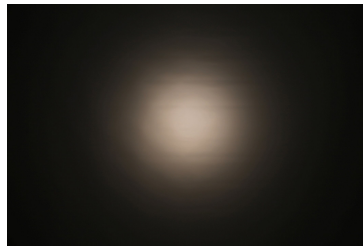


### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 15.0° / 43.0°  
 Efficiency 85 %  
 Peak intensity 4.4 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1

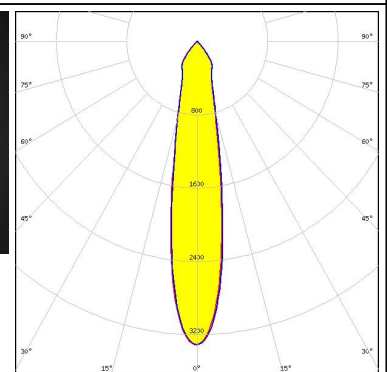
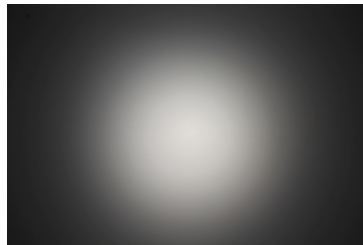


### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 20.0° / 62.0°  
 Efficiency 87 %  
 Peak intensity 3.3 cd/m  
 LEDs/each optic 1  
 Light colour Tunable White

Required components:

C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 502 Typ L3

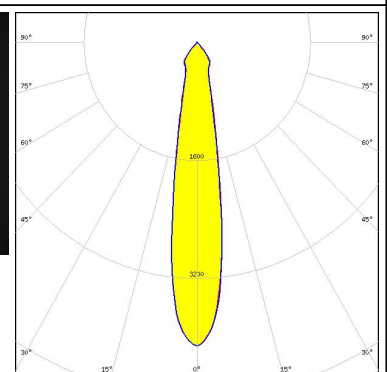
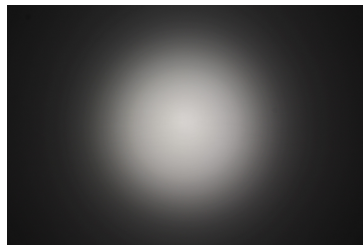


### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 18.0° / 46.0°  
 Efficiency 92 %  
 Peak intensity 4.1 cd/m  
 LEDs/each optic 1  
 Light colour Tunable White

Required components:

C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3





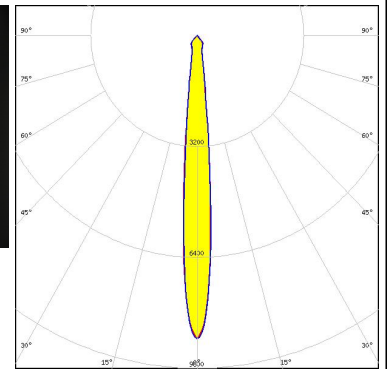
#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

LED LC040C  
 FWHM / FWTM 10.0° / 24.0°  
 Efficiency 90 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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



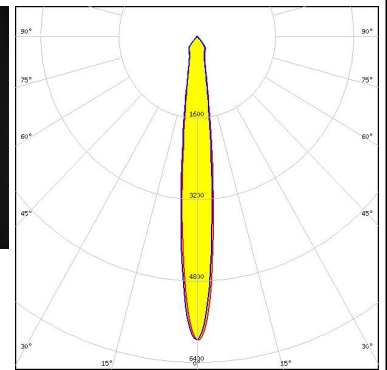
### SAMSUNG

LED LC040C  
 FWHM / FWTM 12.0° / 32.0°  
 Efficiency 86 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

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

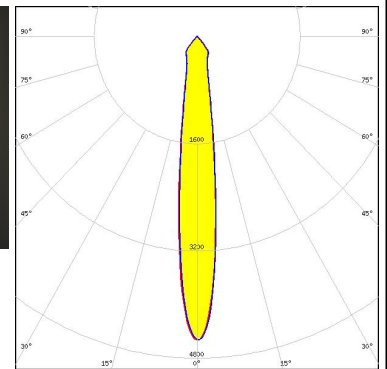


SEOUL SEMICONDUCTOR  
 LED AC Zhaga COB  
 FWHM / FWTM 14.0° / 41.0°  
 Efficiency 85 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

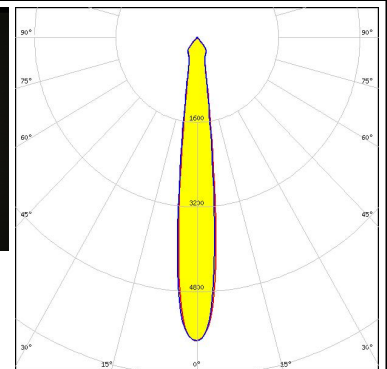
Optosource: SEHSMJD-A




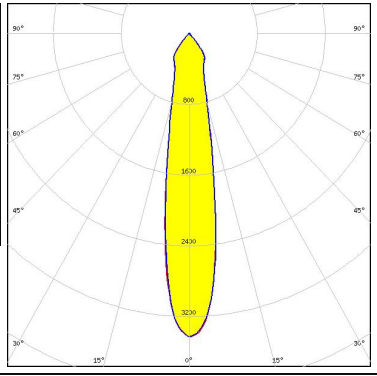

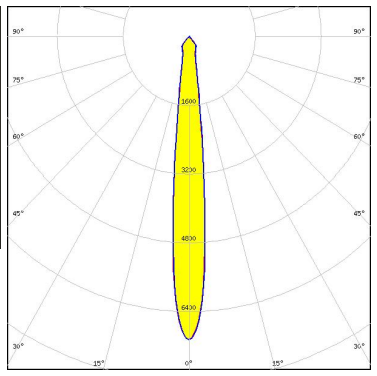

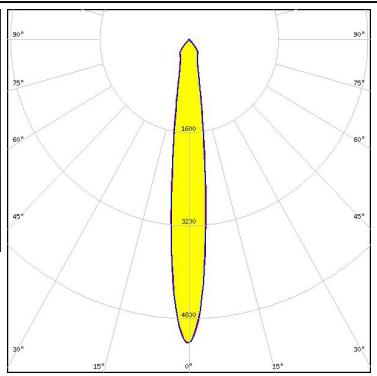

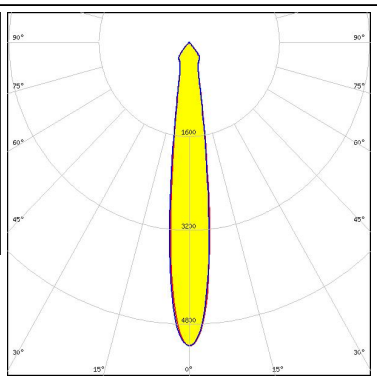
SEOUL SEMICONDUCTOR  
 LED MJT COB LES 14.5  
 FWHM / FWTM 14.0° / 33.0°  
 Efficiency 89 %  
 Peak intensity 5.7 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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



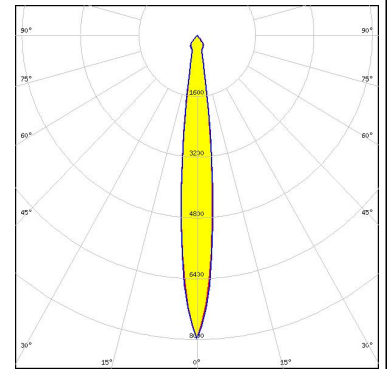
#### OPTICAL RESULTS (MEASURED):

<p><b>SEUL</b> SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 22 FWHM / FWTM 19.0° / 63.0° Efficiency 88 % Peak intensity 3.4 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 431 Typ L3</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484 FWHM / FWTM 12.0° / 29.0° Efficiency 89 % Peak intensity 7.1 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484 FWHM / FWTM 13.0° / 36.0° Efficiency 85 % Peak intensity 5.2 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>XICATO</b></p> <p>LED XTM - 19mm LES FWHM / FWTM 15.0° / 37.0° Efficiency 91 % Peak intensity 5.2 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C16491_XTM-ADAPTER-50-A</p>		

#### OPTICAL RESULTS (SIMULATED):

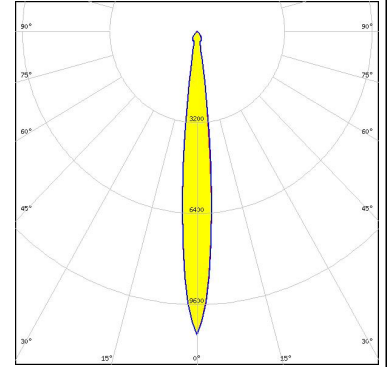
bridgelux.

LED V13 Gen7  
 FWHM / FWTM 12.0° / 26.0°  
 Efficiency 92 %  
 Peak intensity 8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



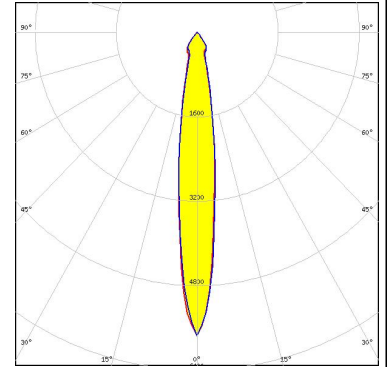
bridgelux.

LED V13 Gen7  
 FWHM / FWTM 11.0° / 22.0°  
 Efficiency 92 %  
 Peak intensity 10.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 477 Typ L1



bridgelux.

LED V22 Gen7  
 FWHM / FWTM 14.0° / 34.0°  
 Efficiency 94 %  
 Peak intensity 5.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



### 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.

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