

## ANGELETTE-WW

~60° wide beam

### SPECIFICATION:

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

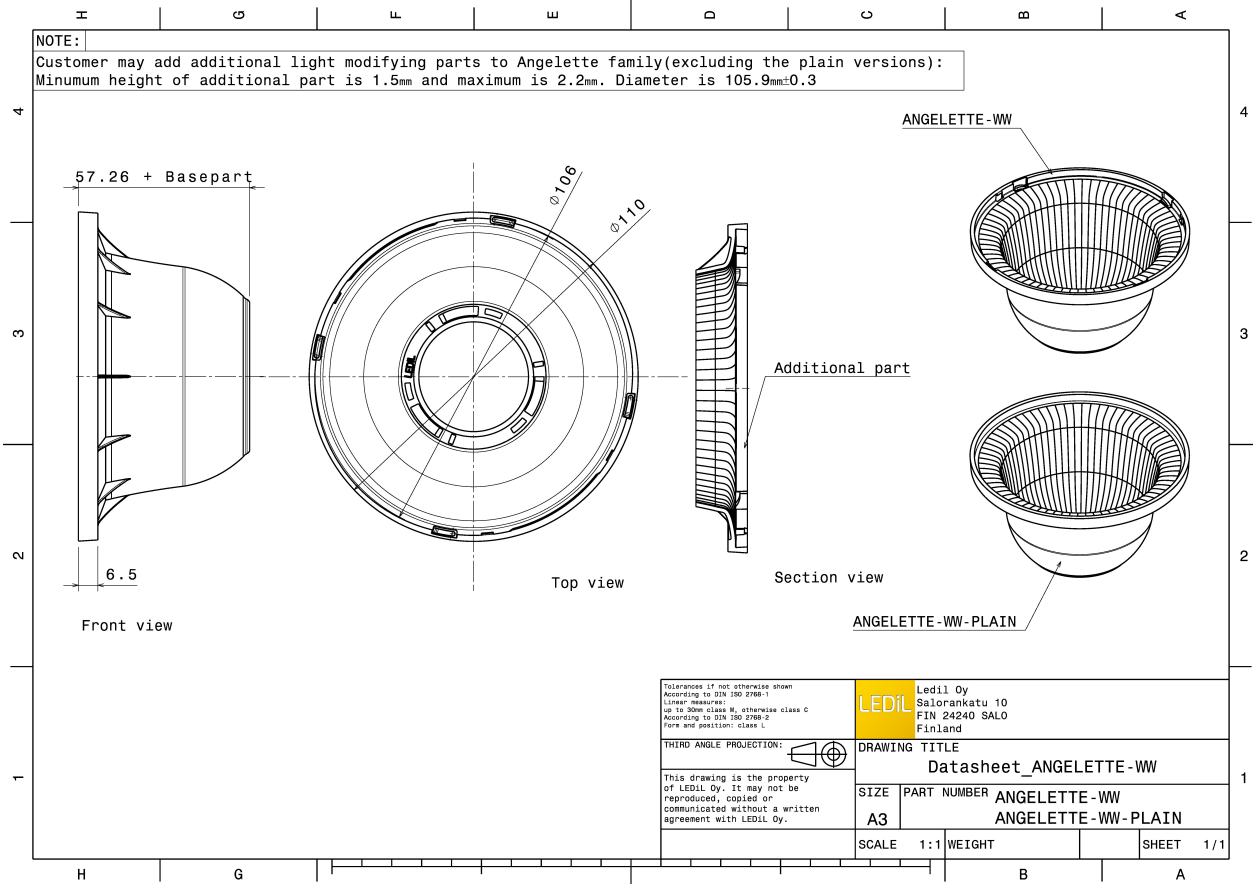
### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
ANGELETTE-WW	Reflector	PC	metal		




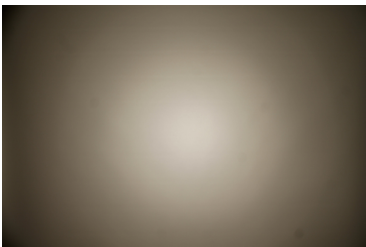
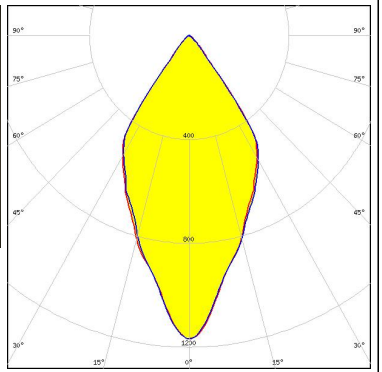

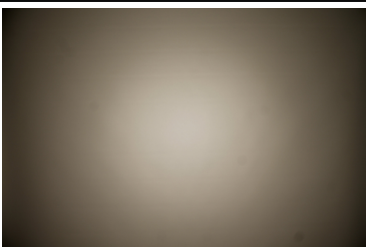
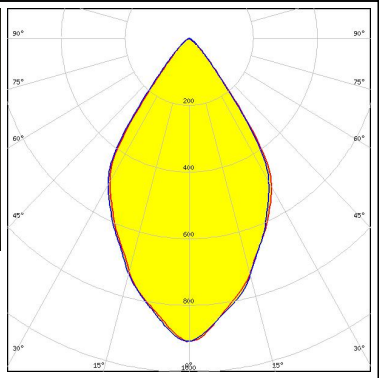

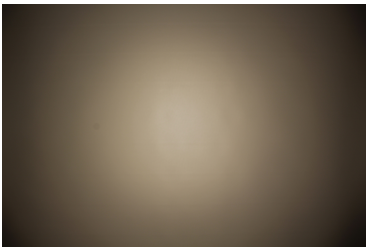
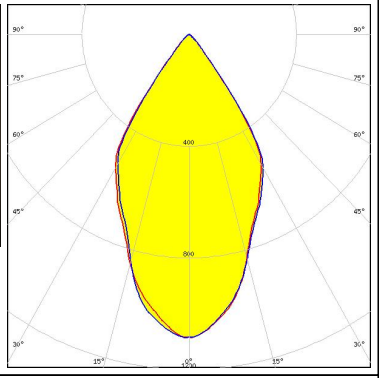

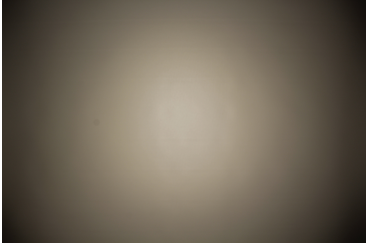
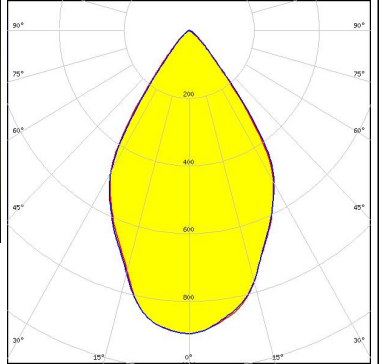
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F14534_ANGELETTE-WW » Box size: 398 x 298 x 265 mm	120	90	30	5.3



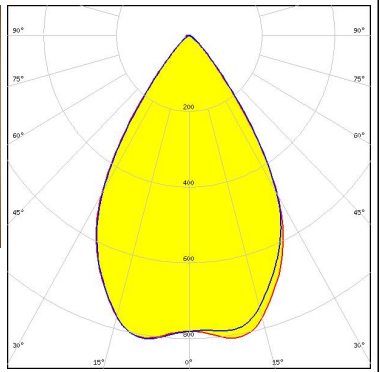


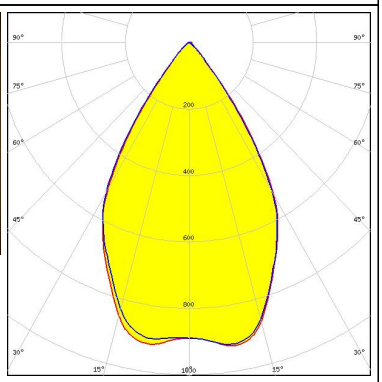


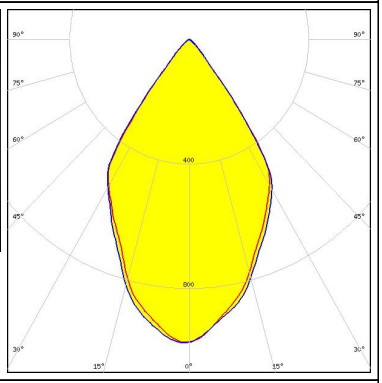


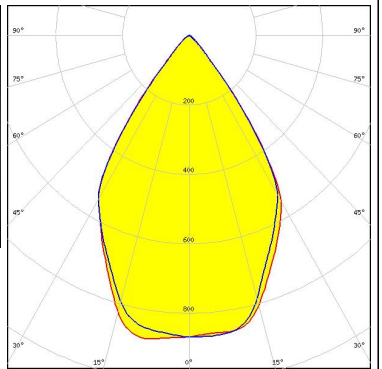


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

#### OPTICAL RESULTS (MEASURED):

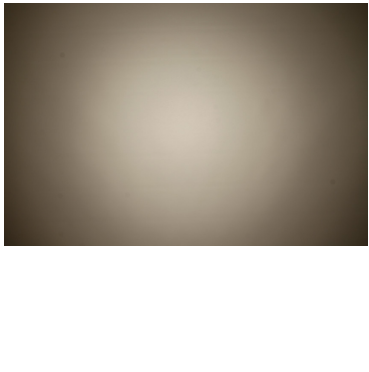
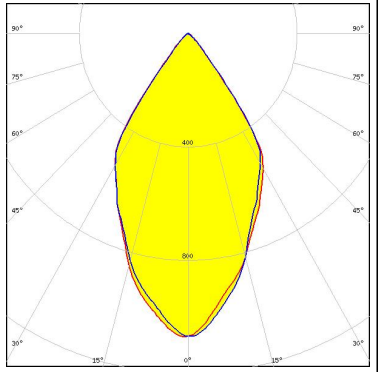

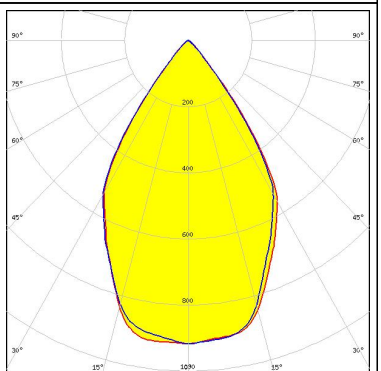

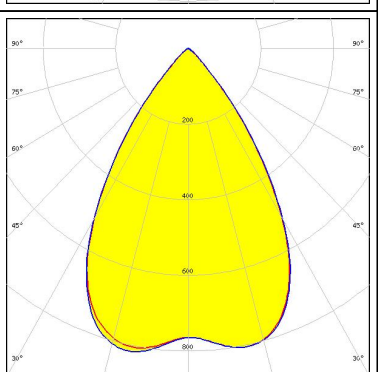
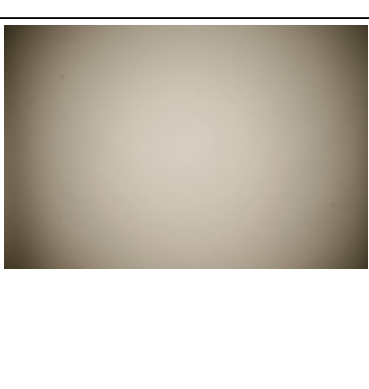
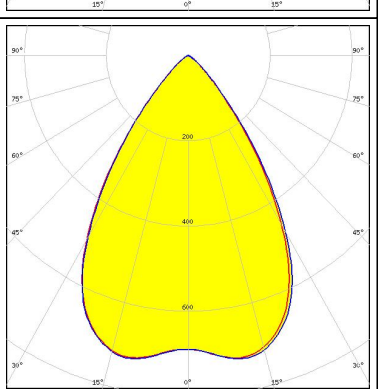
<p></p> <p>LED V10 Gen7            FWHM / FWTM 54.0° / 79.0°            Efficiency 89 %            Peak intensity 1.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V10 Gen7            FWHM / FWTM 65.0° / 86.0°            Efficiency 85 %            Peak intensity 0.9 cd/m            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 V13 Gen7            FWHM / FWTM 60.0° / 80.0°            Efficiency 89 %            Peak intensity 1.1 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p></p> <p>LED V13 Gen7            FWHM / FWTM 65.0° / 86.0°            Efficiency 85 %            Peak intensity 0.9 cd/m            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>		

#### OPTICAL RESULTS (MEASURED):


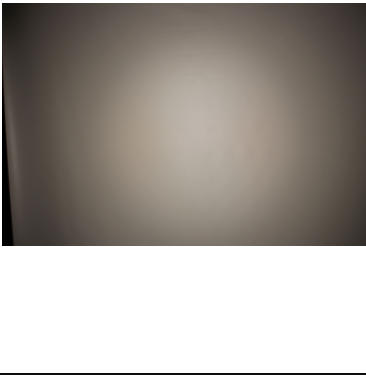
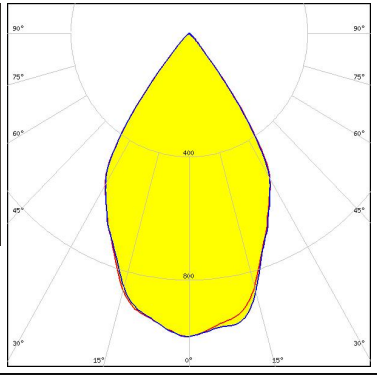


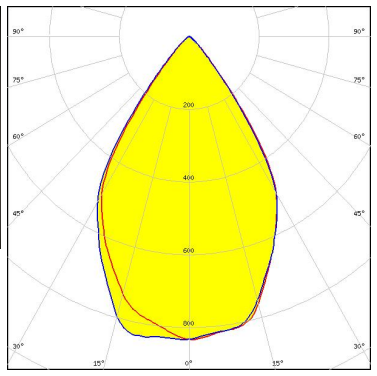


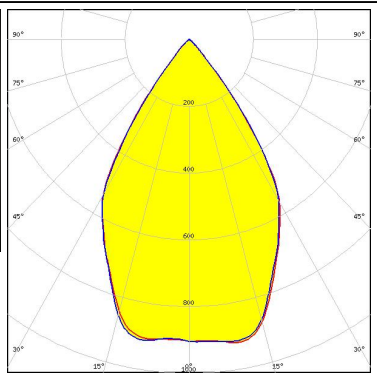

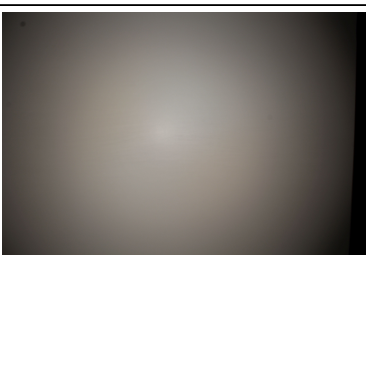
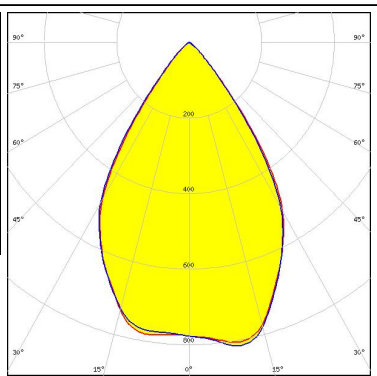
<p></p> <p>LED V22 Gen6            FWHM / FWTM 65.0° / 88.0°            Efficiency 85 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p></p> <p>LED V22 Gen6            FWHM / FWTM 63.0° / 83.0°            Efficiency 89 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p></p> <p>LED Vero SE 13            FWHM / FWTM 66.0° / 83.0°            Efficiency 89 %            Peak intensity 1 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 67.0° / 85.0°            Efficiency 89 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16402_CLAMP-VEROSE-13-18</p>		




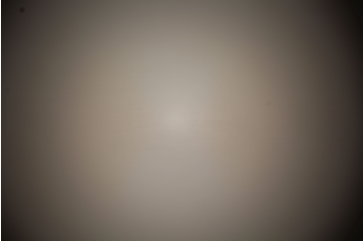
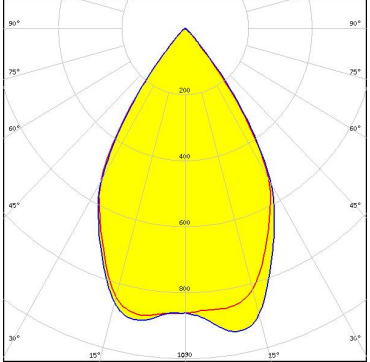


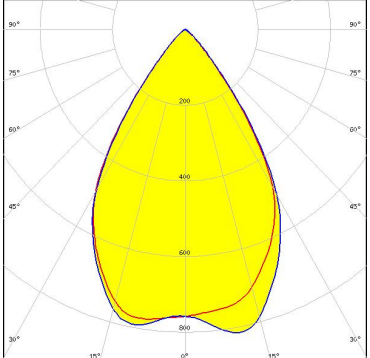

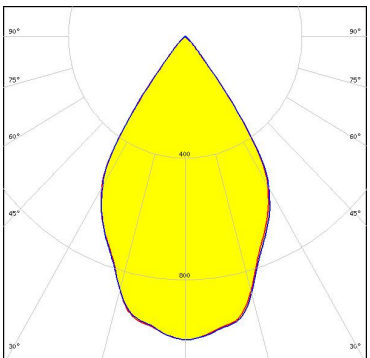
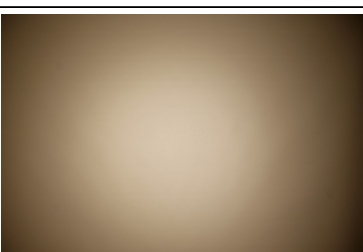
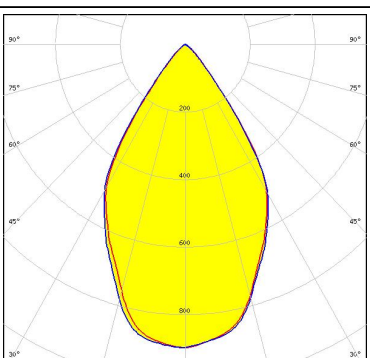
#### OPTICAL RESULTS (MEASURED):

<p>bridgelux.</p> <p>LED VERO13</p> <p>FWHM / FWTM 60.0° / 82.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18</p>		
<p>bridgelux.</p> <p>LED VERO18</p> <p>FWHM / FWTM 66.0° / 84.0°</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: C13658_CLAMP-VERO13-18</p>		
<p>bridgelux.</p> <p>LED VERO29</p> <p>FWHM / FWTM 68.0° / 89.0°</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: C13584_CLAMP-VERO29</p>		
<p>bridgelux.</p> <p>LED VERO29</p> <p>FWHM / FWTM 69.0° / 94.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 65.0° / 82.0°            Efficiency 89 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 482 Typ L2</p>		
<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 66.0° / 86.0°            Efficiency 84 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour 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 65.0° / 83.0°            Efficiency 89 %            Peak intensity 0.9 cd/lm            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 18mm (31W) DP            FWHM / FWTM 66.0° / 88.0°            Efficiency 84 %            Peak intensity 0.8 cd/lm            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>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 22mm DP            FWHM / FWTM 65.0° / 83.0°            Efficiency 88 %            Peak intensity 0.9 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 494 Typ L3</p>		
<p></p> <p>LED Vesta TW 22mm DP            FWHM / FWTM 66.0° / 88.0°            Efficiency 84 %            Peak intensity 0.8 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>		
<h3>CITIZEN</h3> <p>LED CLL03x/CLU03x            FWHM / FWTM 65.0° / 80.0°            Efficiency 90 %            Peak intensity 1 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C16791_CLAMP-Z45-A            TE Connectivity: 2325807-3</p>		
<h3>CITIZEN</h3> <p>LED CLL03x/CLU03x            FWHM / FWTM 64.0° / 86.0°            Efficiency 85 %            Peak intensity 0.9 cd/m            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>		

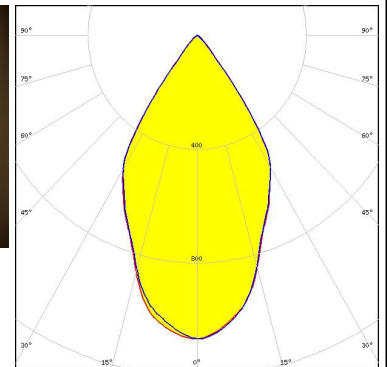
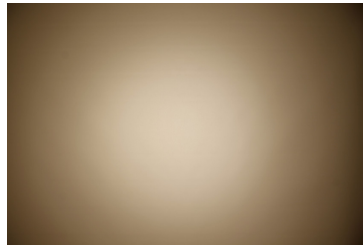
#### OPTICAL RESULTS (MEASURED):

#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 61.0° / 81.0°  
 Efficiency 89 %  
 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

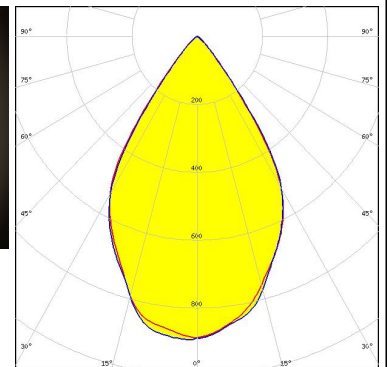
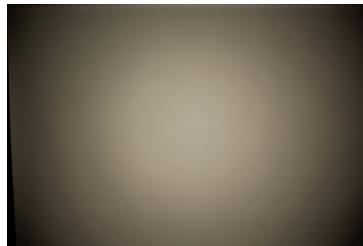
LED CLL03x/CLU03x  
 FWHM / FWTM 65.0° / 85.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C16791\_CLAMP-Z45-A

F13671\_ANGE-RZ-LENS

TE Connectivity: 2325807-3

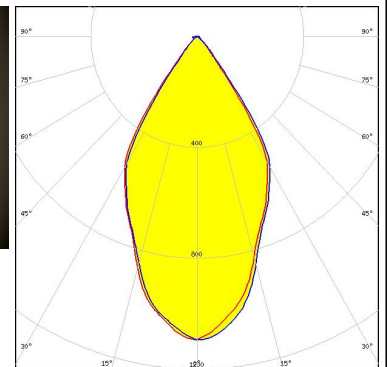
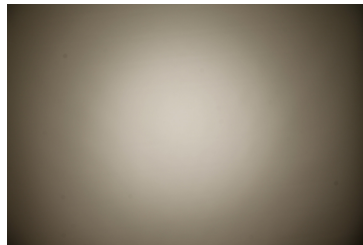


#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 59.0° / 80.0°  
 Efficiency 89 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

IDEAL: 50-2103CT + 50-2100AN



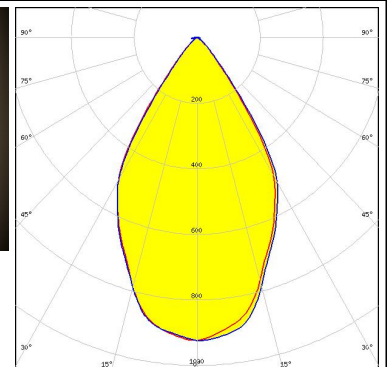
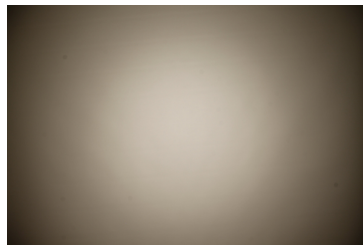
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 63.0° / 84.0°  
 Efficiency 85 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

IDEAL: 50-2103CT + 50-2100AN

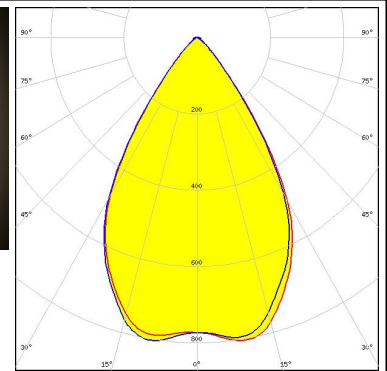
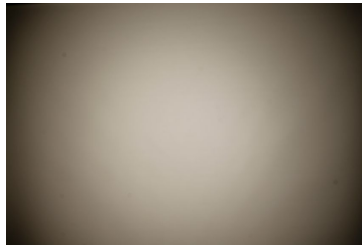




#### OPTICAL RESULTS (MEASURED):

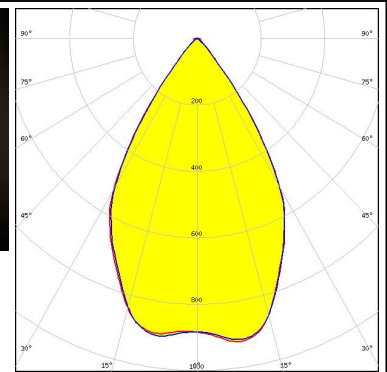
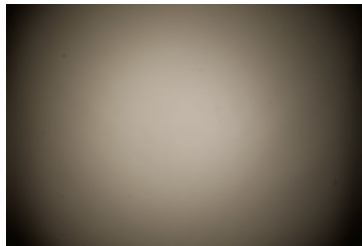
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 65.0° / 88.0°  
 Efficiency 85 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN



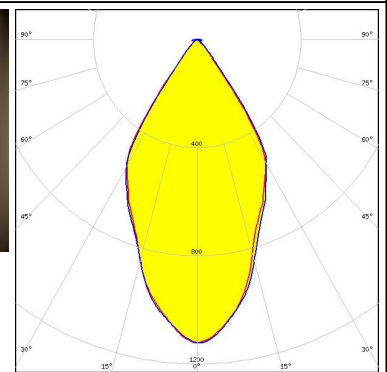
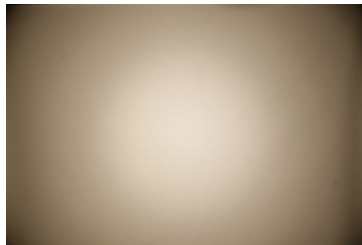
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 63.0° / 83.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204CT + 50-2100LN



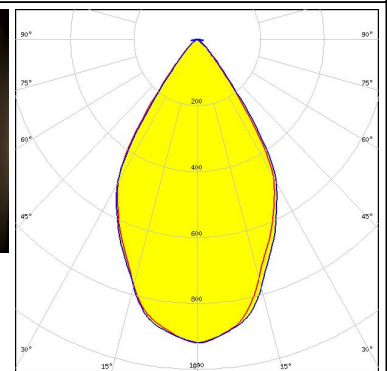
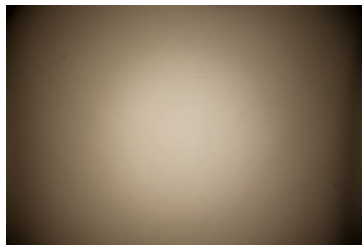
#### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 57.0° / 79.0°  
 Efficiency 89 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN




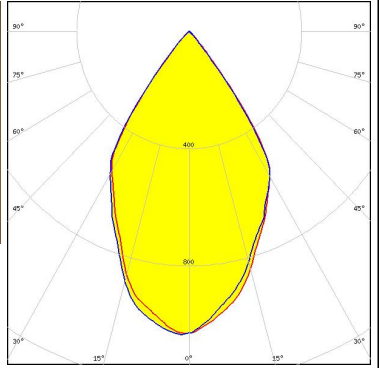

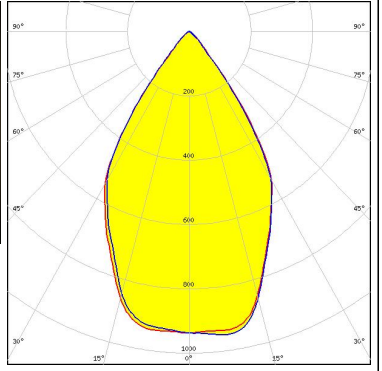

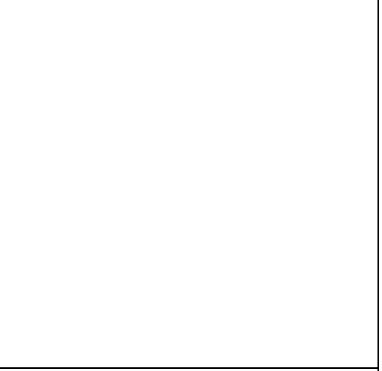
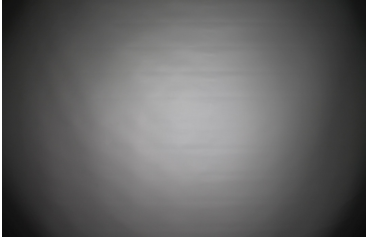
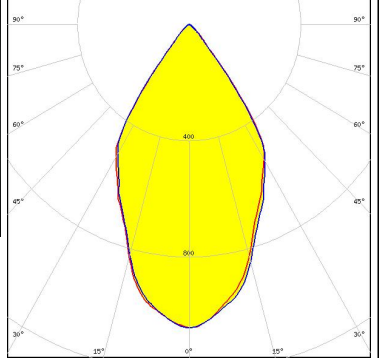
#### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 63.0° / 85.0°  
 Efficiency 85 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN

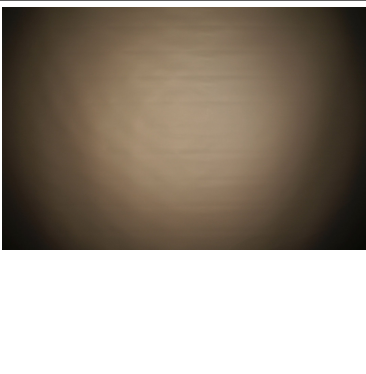
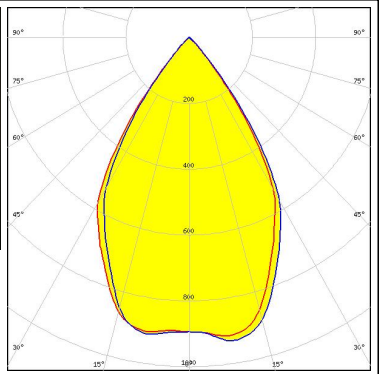

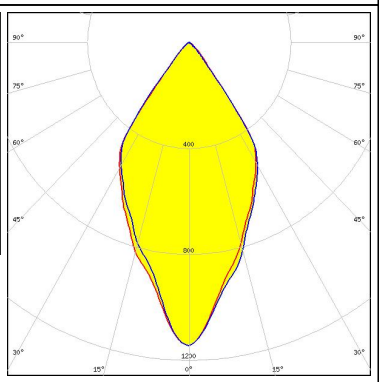
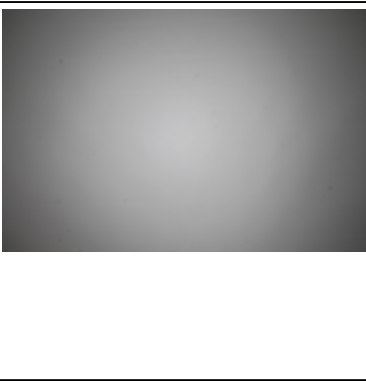
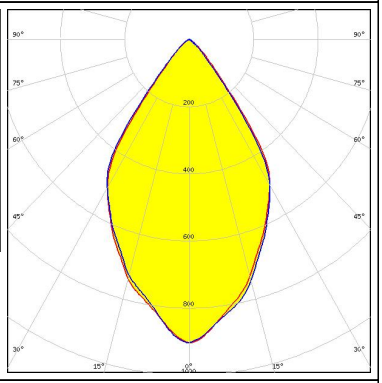
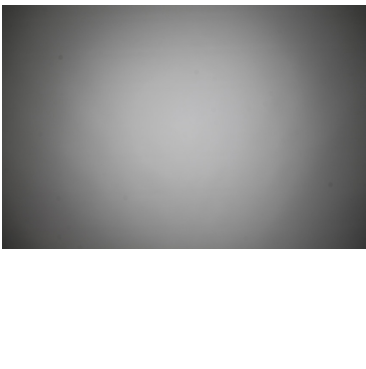
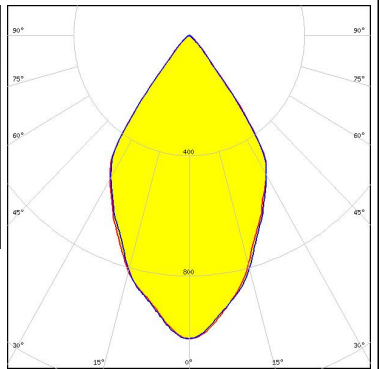




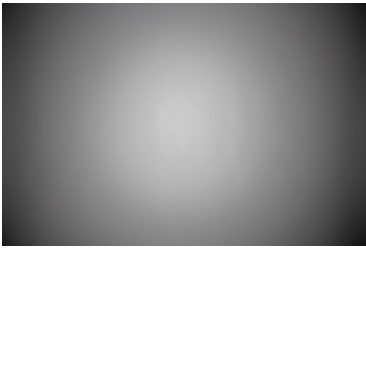
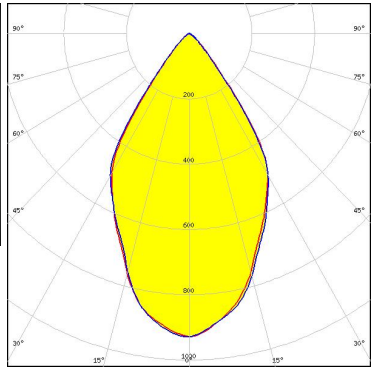

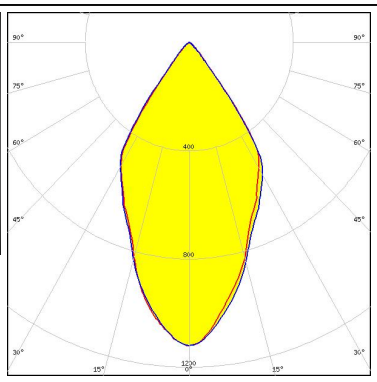

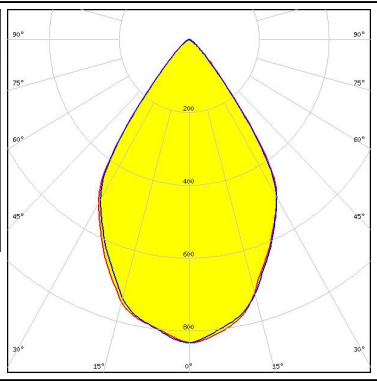

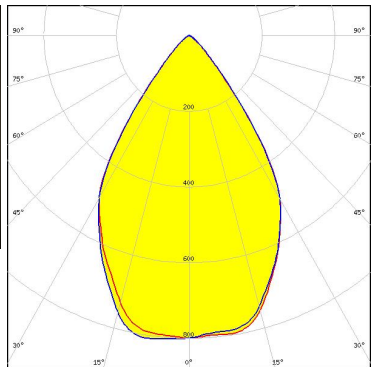
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED CMA1840            FWHM / FWTM 65.0° / 81.0°            Efficiency 91 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14123_CLAMP-CXA15-18</p>		
<p><b>CREE</b> LEDs</p> <p>LED CMA2550            FWHM / FWTM 64.0° / 83.0°            Efficiency 90 %            Peak intensity 1 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 50.0° / 79.0°            Efficiency 90 %            Peak intensity 1.3 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 61.0° / 82.0°            Efficiency 89 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 477 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED CMT28xx            FWHM / FWTM 65.0° / 84.0°            Efficiency 90 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 471 Typ L3</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 15xx            FWHM / FWTM 55.0° / 81.0°            Efficiency 90 %            Peak intensity 1.1 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C14123_CLAMP-CXA15-18</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 15xx            FWHM / FWTM 66.0° / 88.0°            Efficiency 86 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C14123_CLAMP-CXA15-18            F13671_ANGE-RZ-LENS</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 64.0° / 83.0°            Efficiency 90 %            Peak intensity 1 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C14123_CLAMP-CXA15-18</p>		

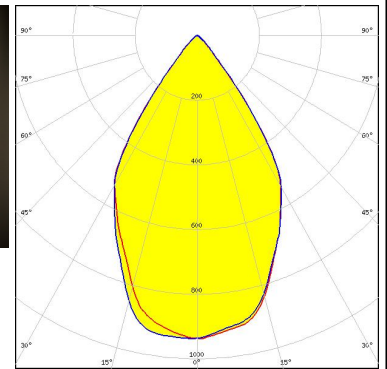
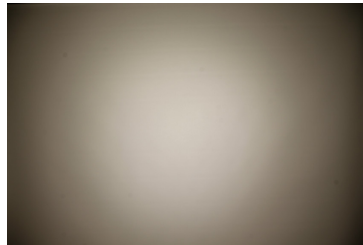
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LEDs</p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 64.0° / 86.0°            Efficiency 85 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White</p> <p>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 57.0° / 80.0°            Efficiency 89 %            Peak intensity 1.1 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            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 68.0° / 89.0°            Efficiency 86 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C14123_CLAMP-CXA15-18            F13671_ANGE-RZ-LENS</p>		
<p><b>CREE</b> LEDs</p> <p>LED CXA/B 25xx            FWHM / FWTM 67.0° / 90.0°            Efficiency 85 %            Peak intensity 0.8 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C14036_CLAMP_CXA25-30            F13671_ANGE-RZ-LENS</p>		

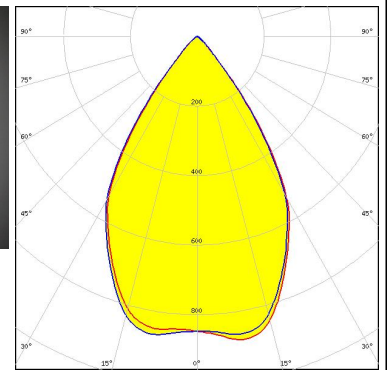
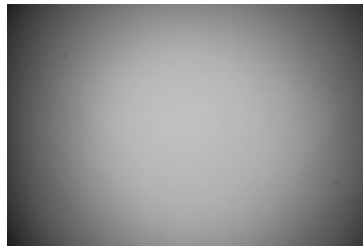
#### OPTICAL RESULTS (MEASURED):



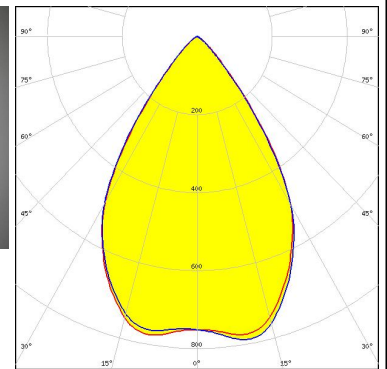
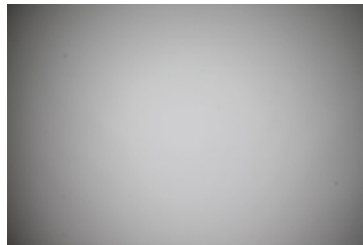
LED CXA/B 25xx  
 FWHM / FWTM 65.0° / 84.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



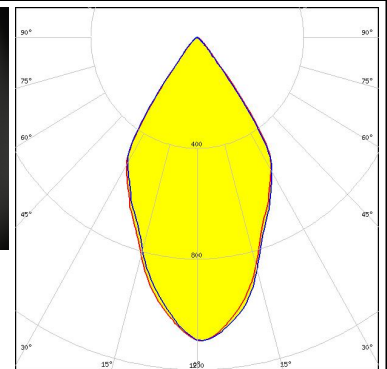
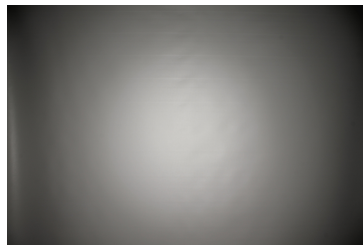
LED CXA/B 30xx  
 FWHM / FWTM 66.0° / 86.0°  
 Efficiency 90 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30




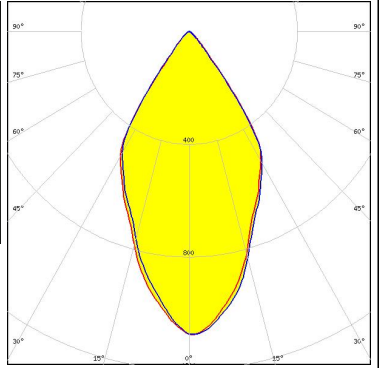
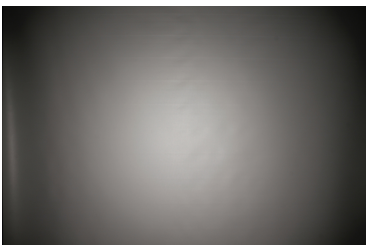
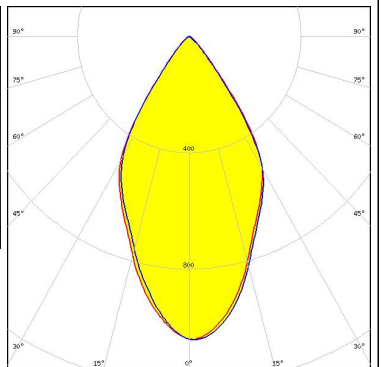
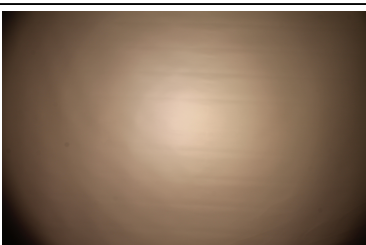
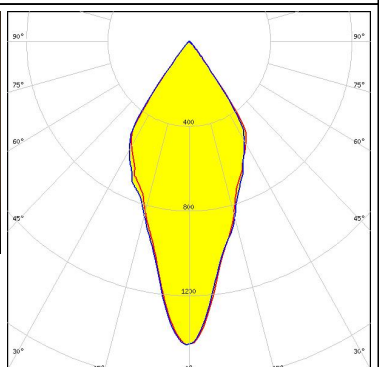
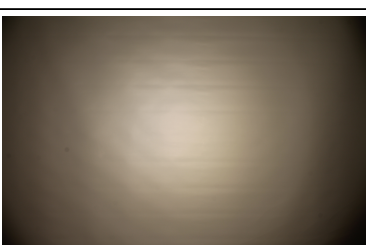
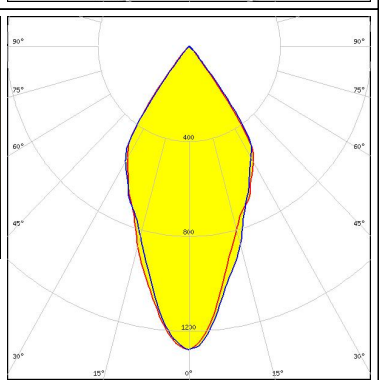
LED CXA/B 30xx  
 FWHM / FWTM 67.0° / 91.0°  
 Efficiency 86 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30  
 F13671\_ANGE-RZ-LENS



LED LUXEON CoB 1204/1205  
 FWHM / FWTM 59.0° / 80.0°  
 Efficiency 89 %  
 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

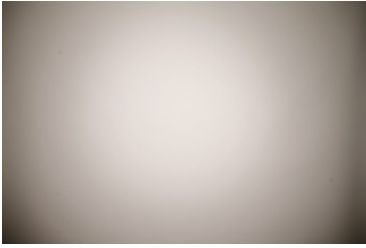
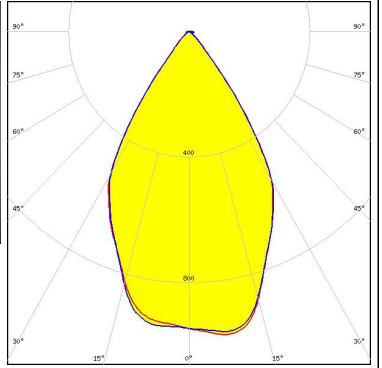

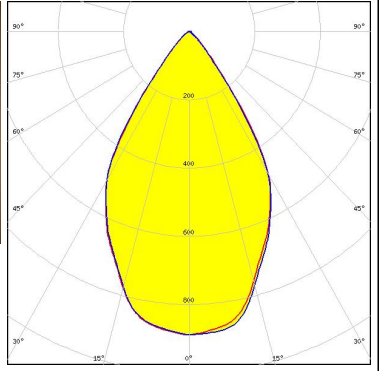
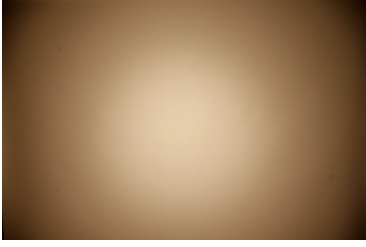
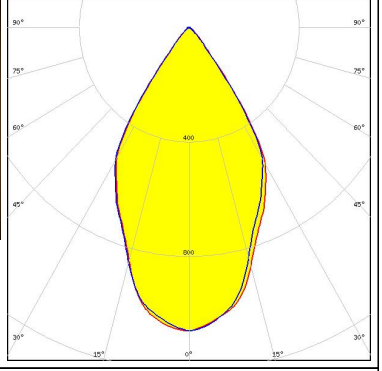

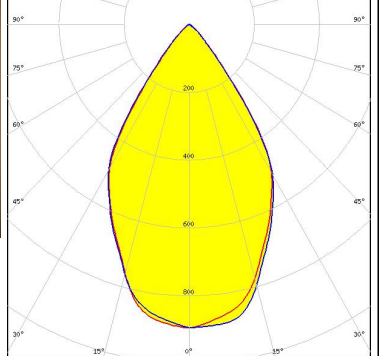


#### OPTICAL RESULTS (MEASURED):

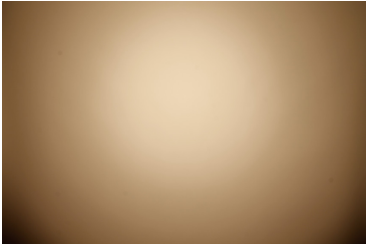
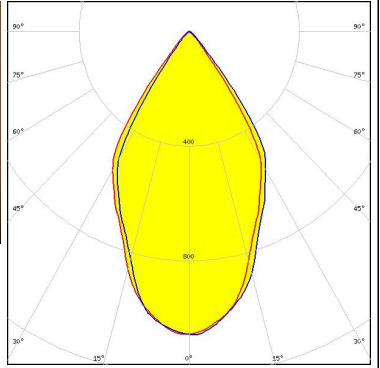

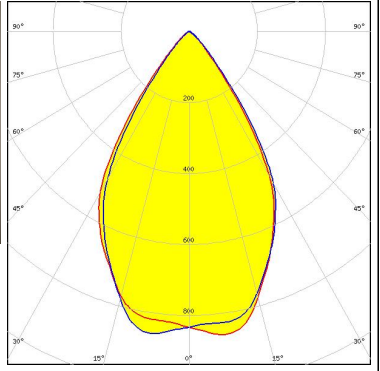
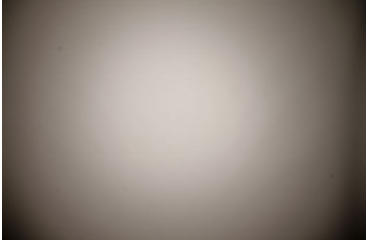
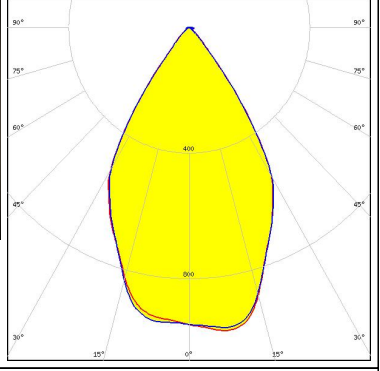
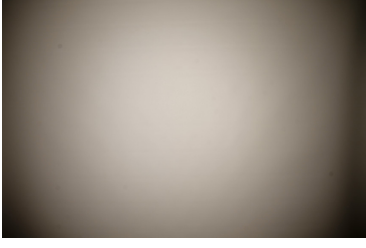
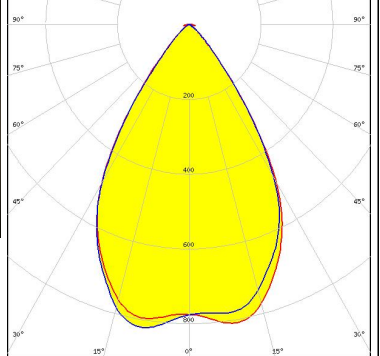
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 58.0° / 81.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F15176_ANGELETTE-LENS TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 59.0° / 83.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1 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 42.0° / 77.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: 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 50.0° / 78.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.3 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>		



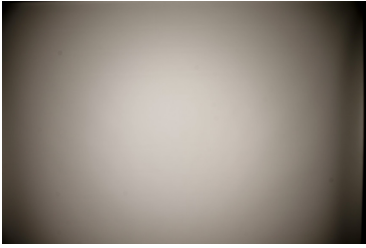
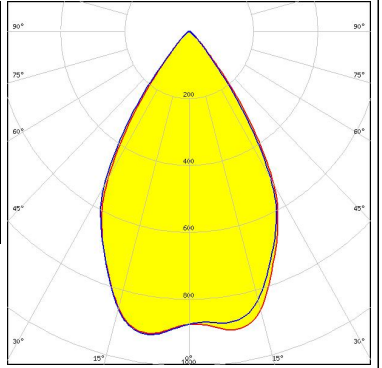
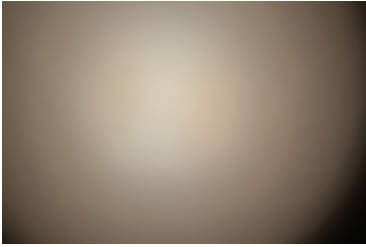
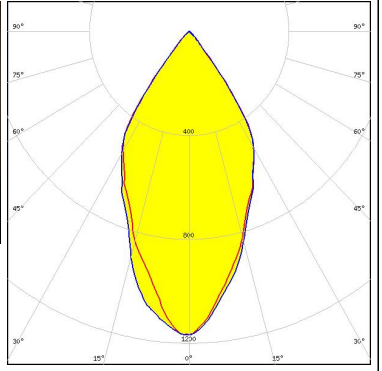
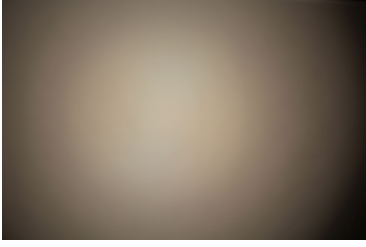
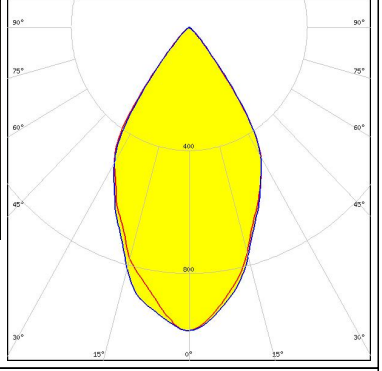
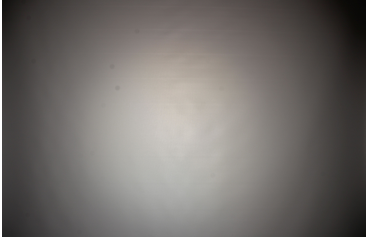
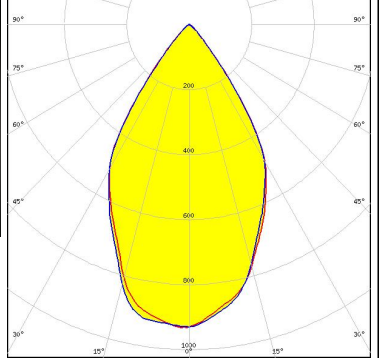
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 63.0° / 82.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 63.0° / 85.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.9 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>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 61.0° / 80.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.1 cd/lm</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 64.0° / 86.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.9 cd/lm</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>		

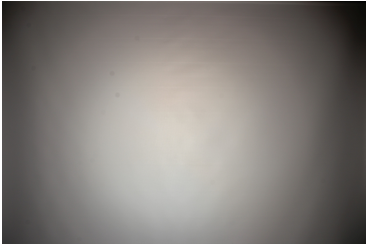
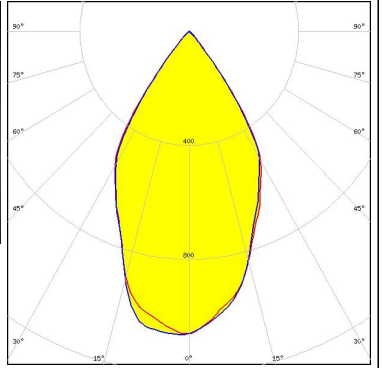

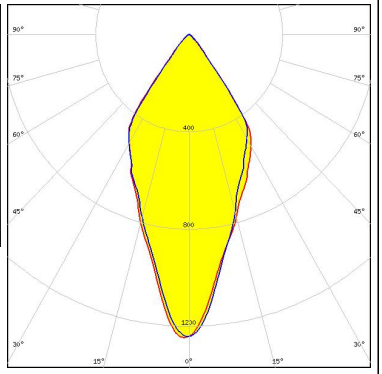
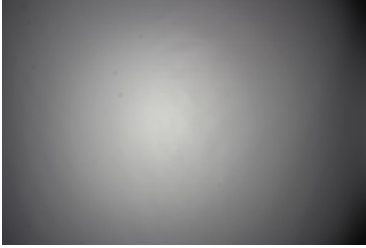
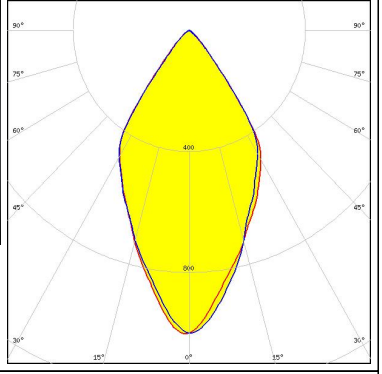
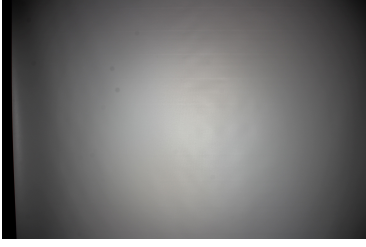
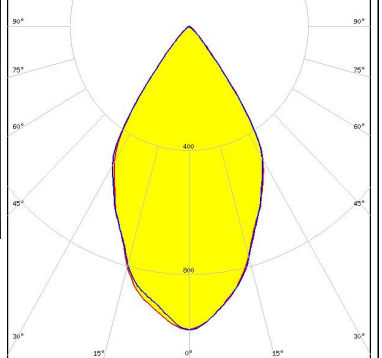
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 61.0° / 81.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.1 cd/lm</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 64.0° / 87.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.9 cd/lm</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 1211</p> <p>FWHM / FWTM 63.0° / 82.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1213/1216/1812</p> <p>FWHM / FWTM 64.0° / 88.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.8 cd/lm</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>		

#### OPTICAL RESULTS (MEASURED):

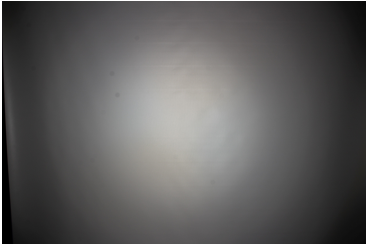
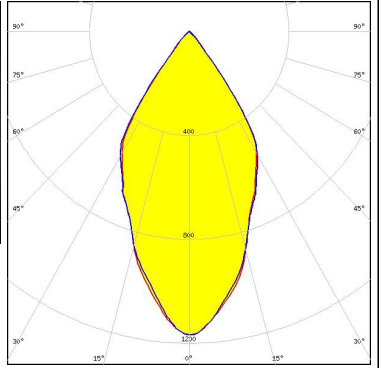

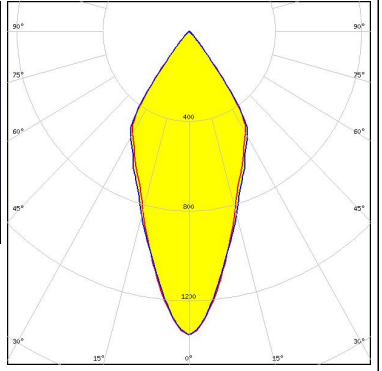
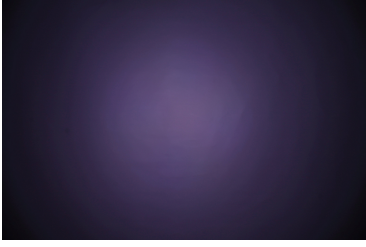
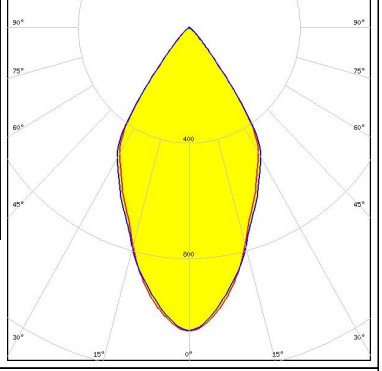
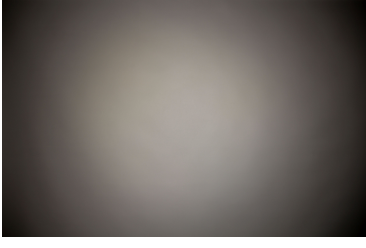
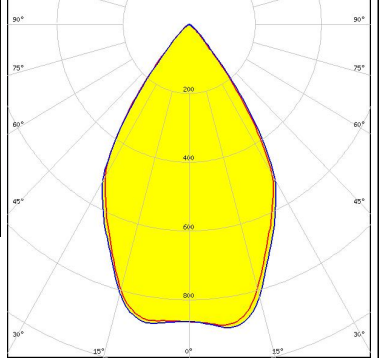
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1213/1216/1812</p> <p>FWHM / FWTM 63.0° / 84.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 53.0° / 80.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.2 cd/lm</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>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 60.0° / 84.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1 cd/lm</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: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 63.0° / 84.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.9 cd/lm</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: 491 Typ L2</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 60.0° / 81.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.1 cd/lm</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>		
<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 46.0° / 79.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 490 Typ L1</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 57.0° / 85.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1 cd/lm</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 61.0° / 83.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 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: 442 Typ L3</p>		

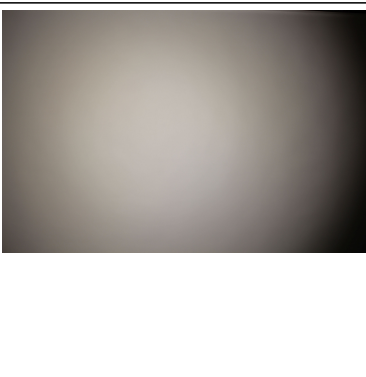
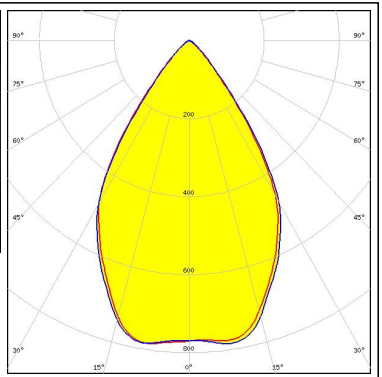

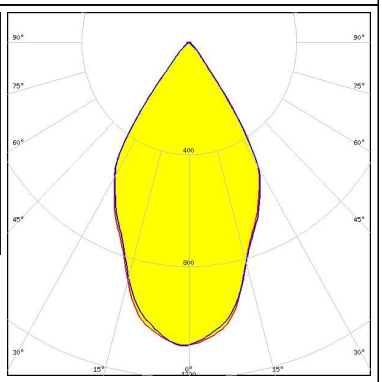

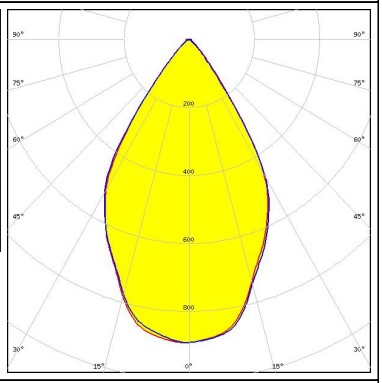
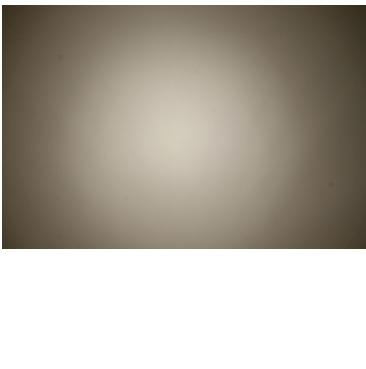
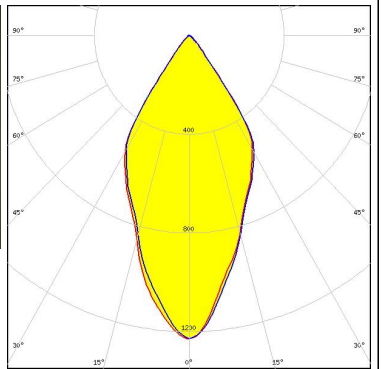


#### OPTICAL RESULTS (MEASURED):

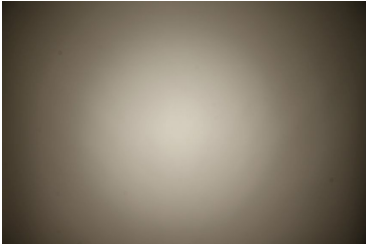
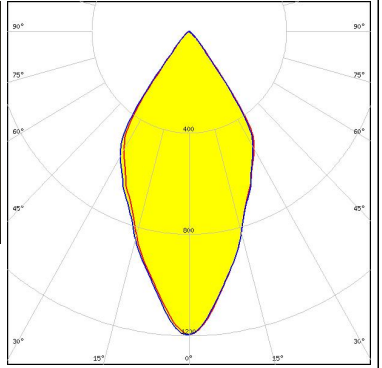
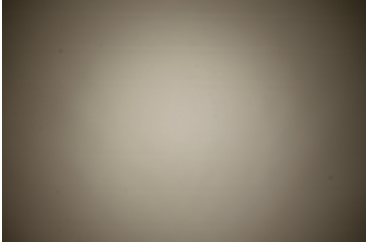
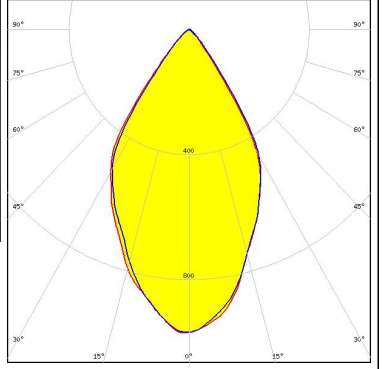
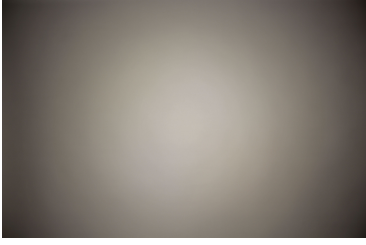
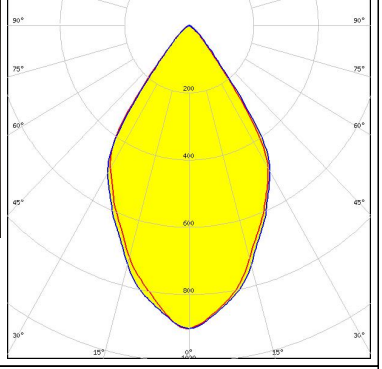
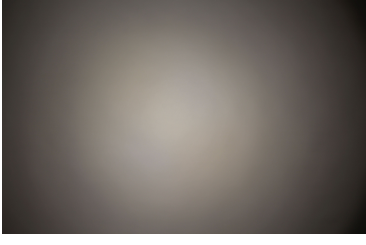
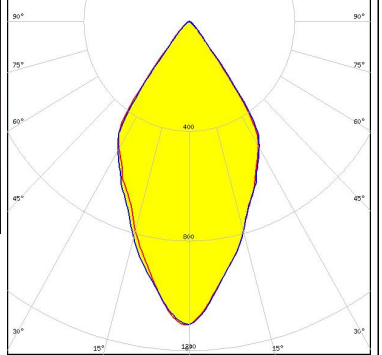
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 55.0° / 79.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 43.0° / 78.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.4 cd/m</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-14 RGBW</p> <p>FWHM / FWTM 58.0° / 83.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.1 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>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 65.0° / 85.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 494 Typ L3</p>		



#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 66.0° / 90.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 0.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 494 Typ L3</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 60.0° / 80.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>IDEAL: 50-2103NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 63.0° / 86.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>F13671_ANGE-RZ-LENS</p> <p>IDEAL: 50-2103NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 51.0° / 77.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>IDEAL: 50-2100NC + 50-2100AN</p>		

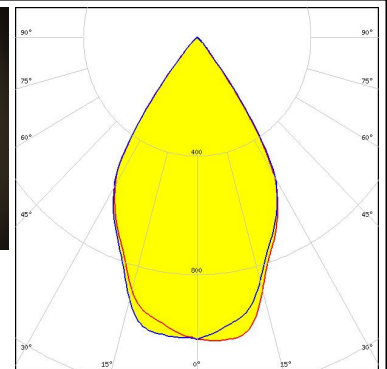
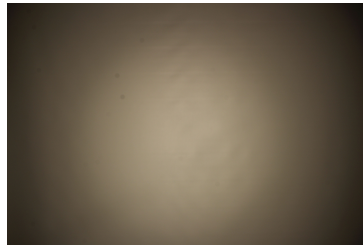
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 53.0° / 79.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.2 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>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 61.0° / 83.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 65.0° / 87.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.9 cd/lm</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 58.0° / 81.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.1 cd/lm</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>		

#### OPTICAL RESULTS (MEASURED):

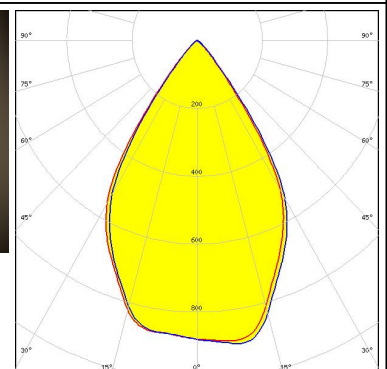
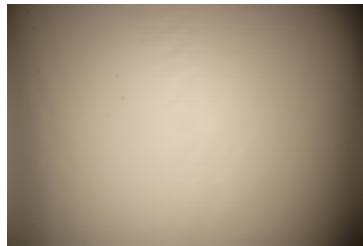
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 63.0° / 80.0°  
 Efficiency 90 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A



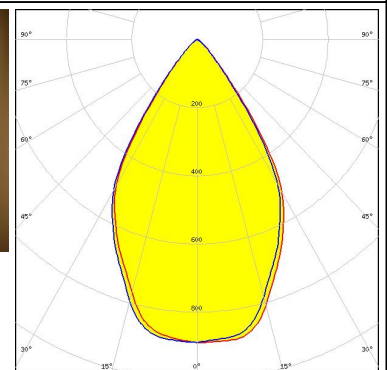
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 65.0° / 84.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A  
 F13671\_ANGE-RZ-LENS



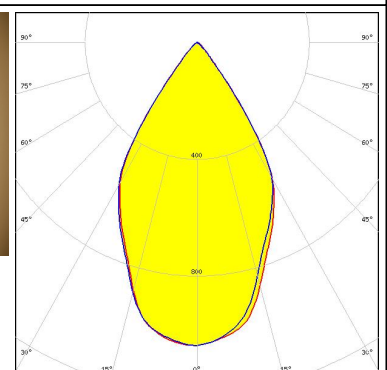
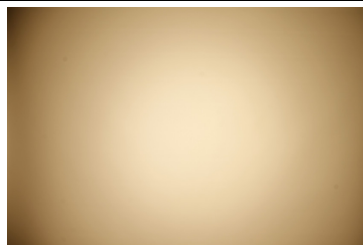
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 64.0° / 86.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2


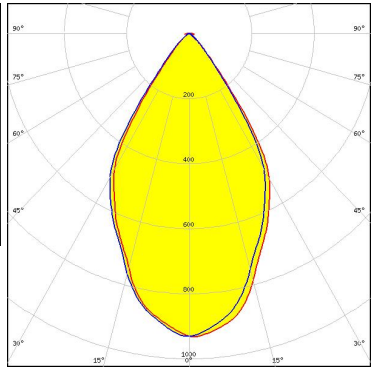
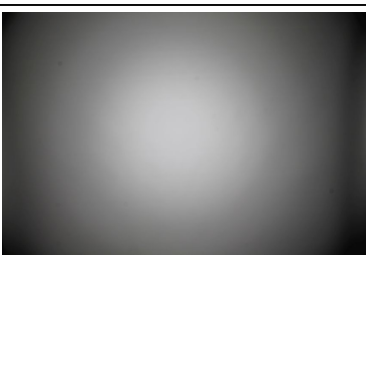
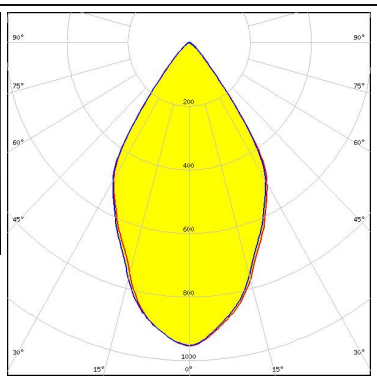
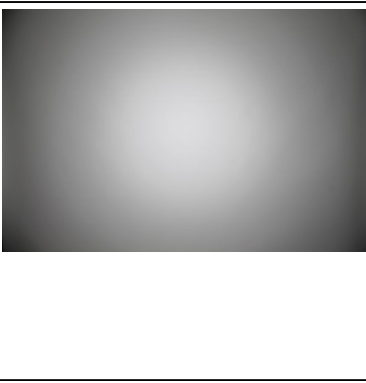
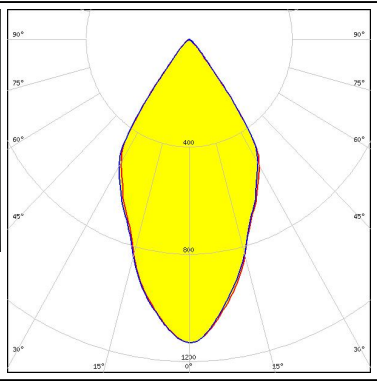
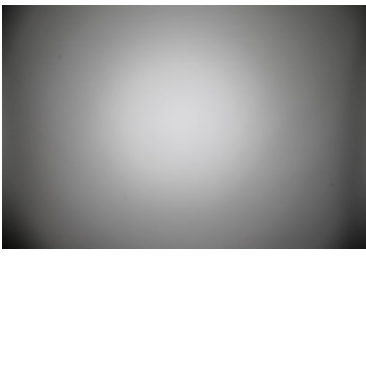
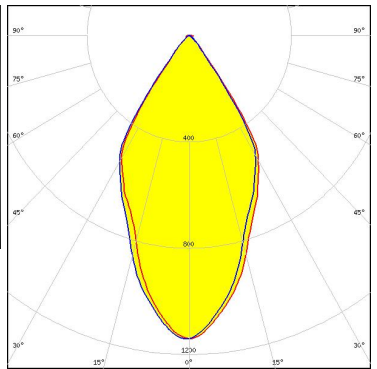


#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 62.0° / 81.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 62.0° / 85.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 0.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2103CT + 50-2100AN</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 63.0° / 85.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1 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 56.0° / 80.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.1 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 S13 19x19</p> <p>FWHM / FWTM 56.0° / 79.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100AN</p>		



#### OPTICAL RESULTS (MEASURED):

#### OSRAM

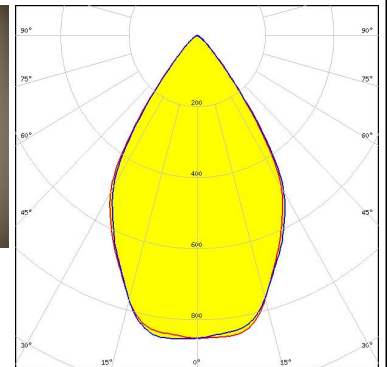
Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 65.0° / 87.0°  
 Efficiency 85 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

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



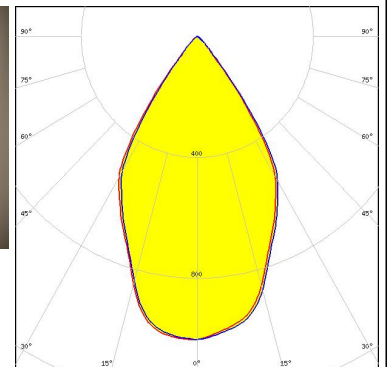
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 63.0° / 82.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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

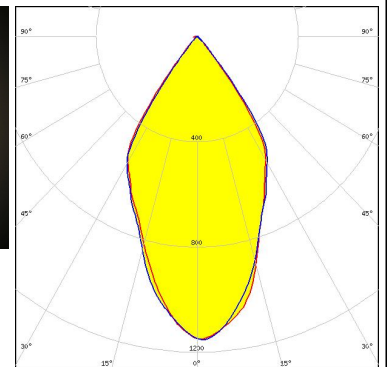
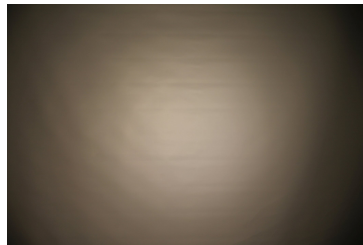


#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 56.0° / 80.0°  
 Efficiency 90 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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



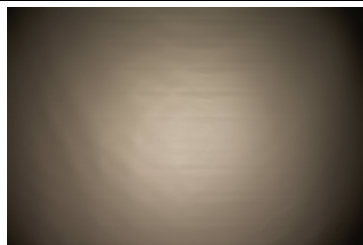
#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 65.0° / 85.0°  
 Efficiency 84 %  
 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

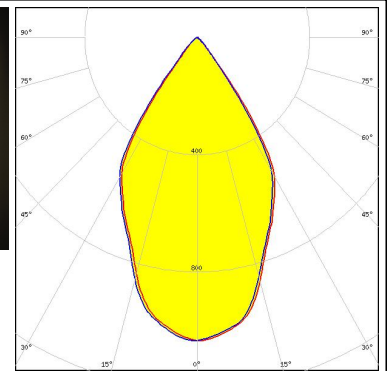
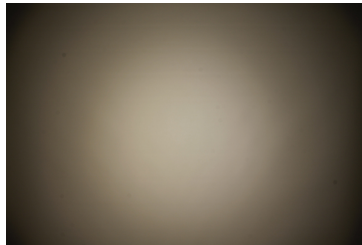




#### OPTICAL RESULTS (MEASURED):

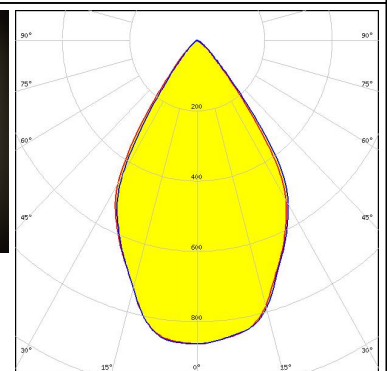
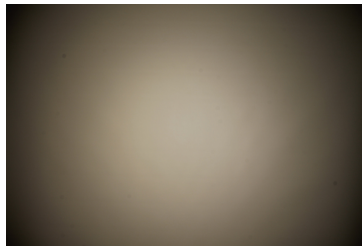
### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 62.0° / 81.0°  
 Efficiency 89 %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



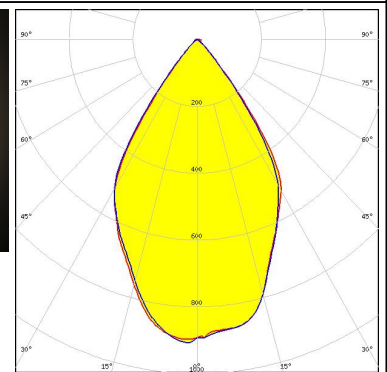
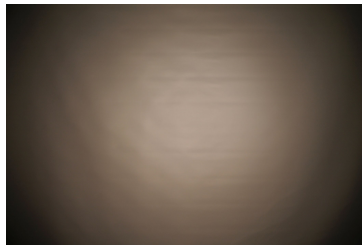
### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 65.0° / 87.0°  
 Efficiency 84 %  
 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



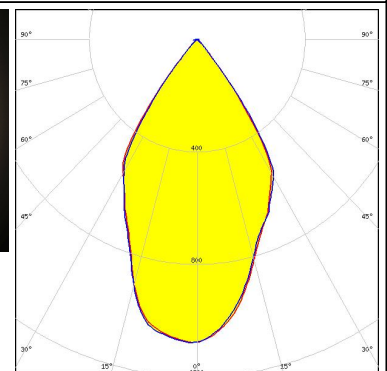
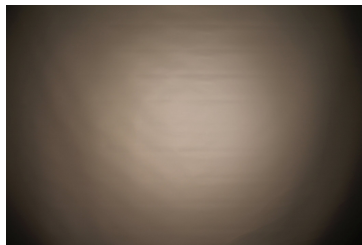
### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 65.0° / 85.0°  
 Efficiency 85 %  
 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

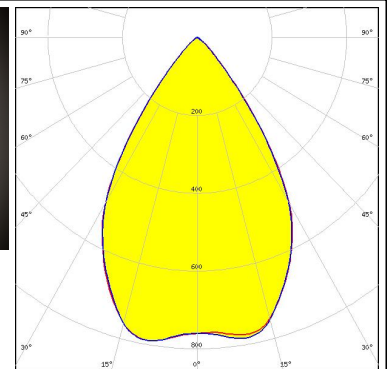
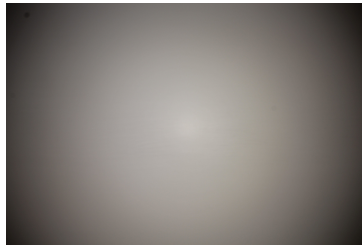
LED Fortimo SLM L15 CoB  
 FWHM / FWTM 61.0° / 81.0°  
 Efficiency 90 %  
 Peak intensity 1.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

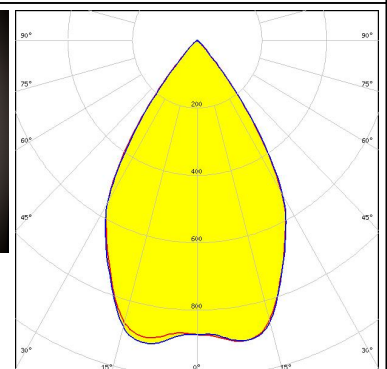
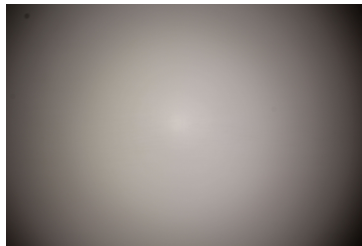
### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 66.0° / 89.0°  
 Efficiency 84 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 502 Typ L3



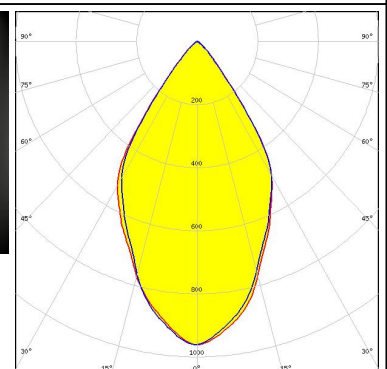
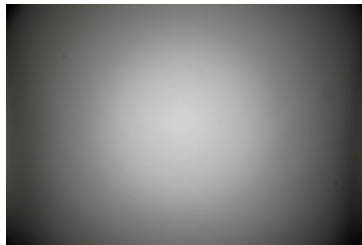
### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 65.0° / 84.0°  
 Efficiency 89 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3



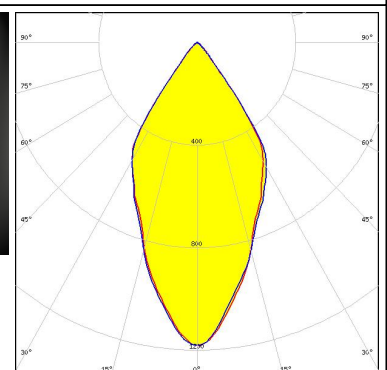
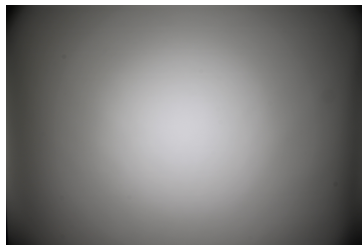
### SAMSUNG

LED LC040C  
 FWHM / FWTM 62.0° / 85.0°  
 Efficiency 85 %  
 Peak intensity 1 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

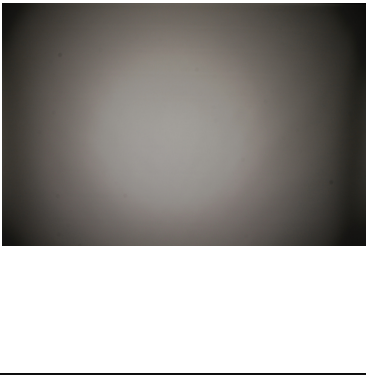
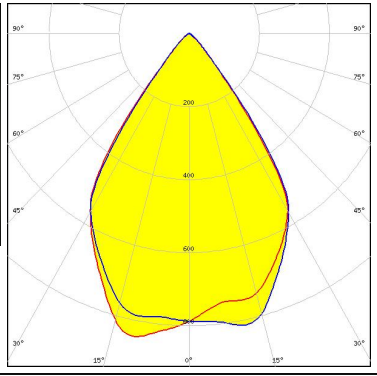
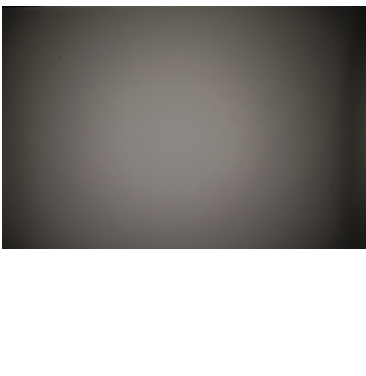
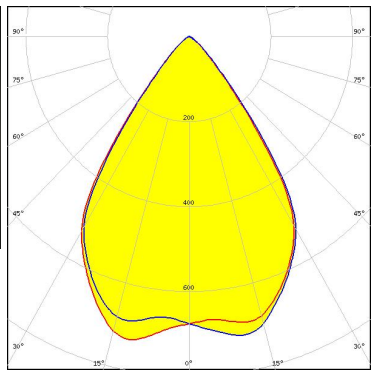

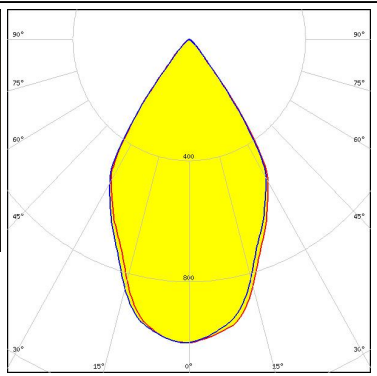

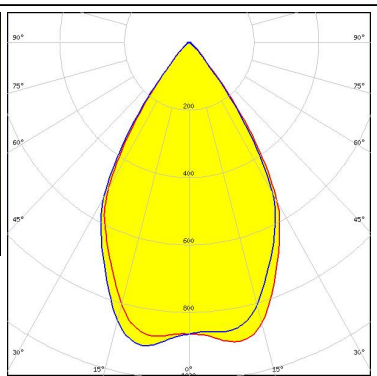


### SAMSUNG

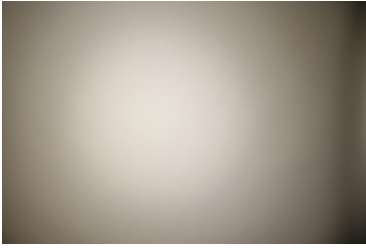
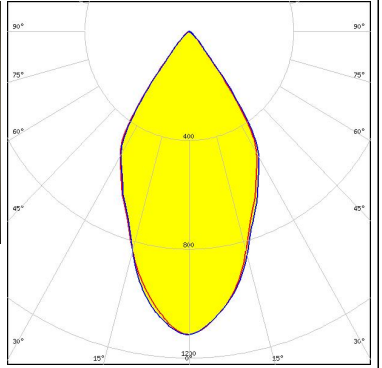
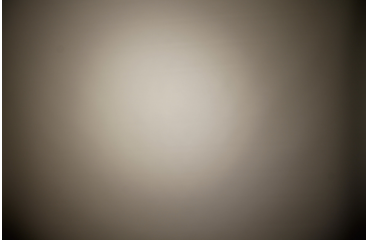
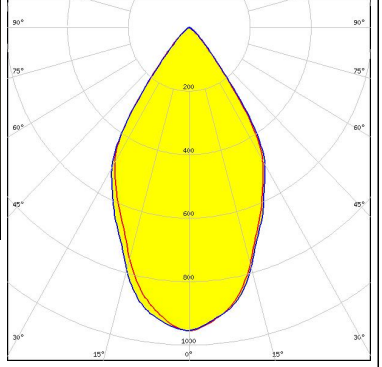
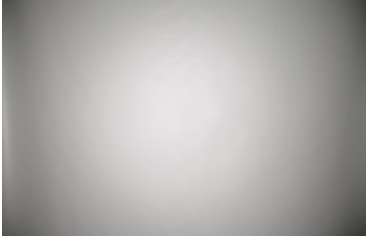
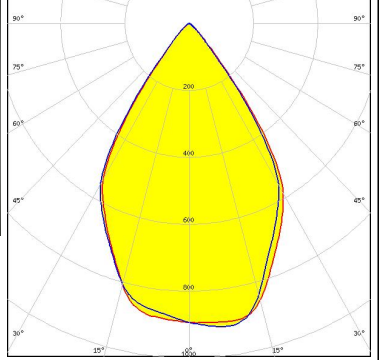
LED LC040C  
 FWHM / FWTM 53.0° / 79.0°  
 Efficiency 89 %  
 Peak intensity 1.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1




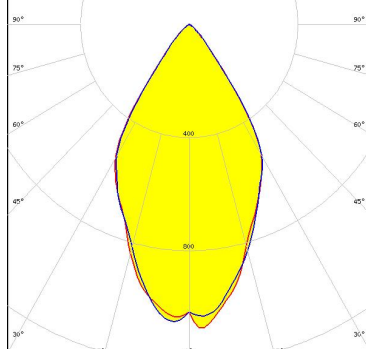

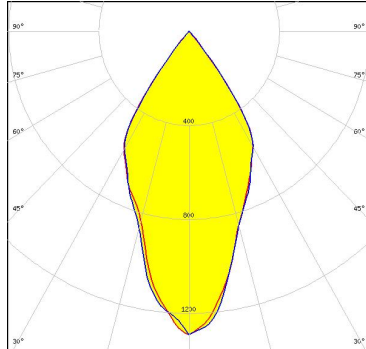

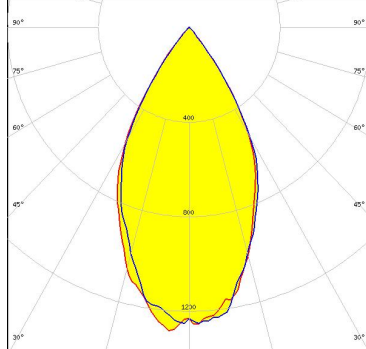
#### OPTICAL RESULTS (MEASURED):

<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED AC Zhaga COB</p> <p>FWHM / FWTM 70.0° / 87.0°</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: Optosource: SEHSMJD-A</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED AC Zhaga COB</p> <p>FWHM / FWTM 71.0° / 92.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS Optosource: SEHSMJD-A</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED MJT COB LES 14.5</p> <p>FWHM / FWTM 64.0° / 81.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1 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>SEOUL SEMICONDUCTOR</b></p> <p>LED MJT COB LES 22</p> <p>FWHM / FWTM 64.0° / 84.0°</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: C13584_CLAMP-VERO29 Bender Wirth: 431 Typ L3</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484            FWHM / FWTM 56.0° / 81.0°            Efficiency 89 %            Peak intensity 1.1 cd/lm            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 62.0° / 85.0°            Efficiency 85 %            Peak intensity 1 cd/lm            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 XIM - 19mm LES            FWHM / FWTM 66.0° / 84.0°            Efficiency 90 %            Peak intensity 0.9 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C16491_XTM-ADAPTER-50-A</p>		

#### OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED V13 Gen7            FWHM / FWTM 62.0° / 84.0°            Efficiency 90 %            Peak intensity 1.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103CT + 50-2100AN</p>	
<p></p> <p>LED V13 Gen7            FWHM / FWTM 51.0° / 79.0°            Efficiency 90 %            Peak intensity 1.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 477 Typ L1</p>	
<p></p> <p>LED V22 Gen7            FWHM / FWTM 55.0° / 78.0°            Efficiency 94 %            Peak intensity 1.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>	



#### 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.

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