

## ANGELA-XW

White version with ~70° wide beam

### SPECIFICATION:

Dimensions	Ø 119.5 mm
Height	74.3 mm
Fastening	socket
ROHS compliant	yes ⓘ

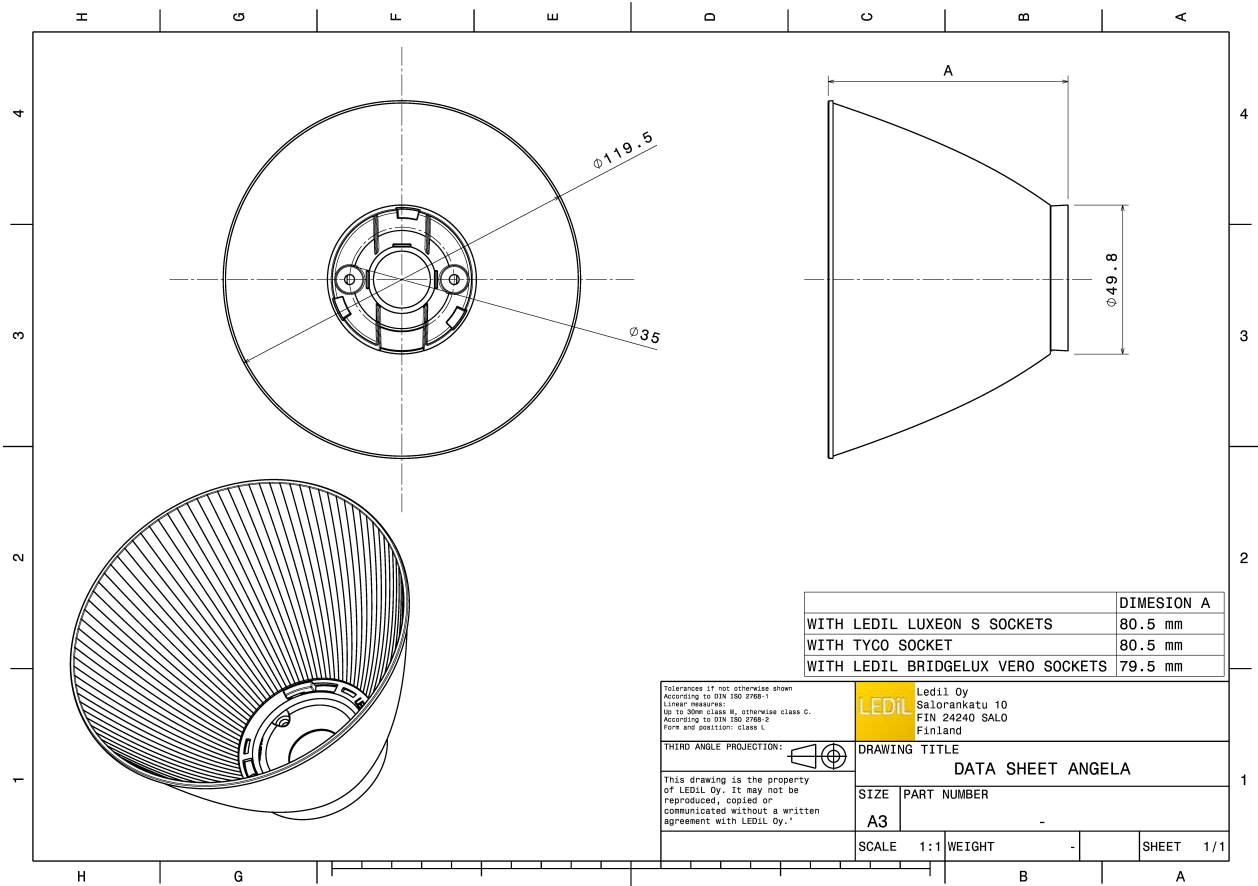
### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
ANGELA-XW	Reflector	HRPC	white		

### ORDERING INFORMATION:


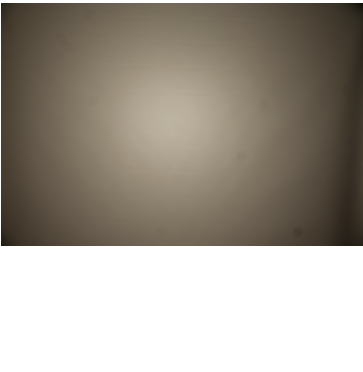
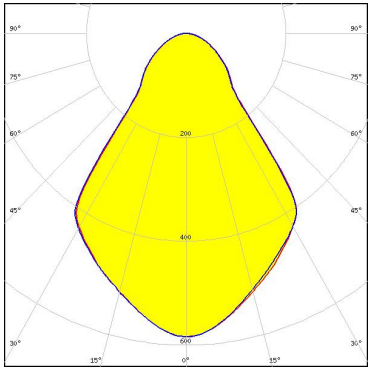


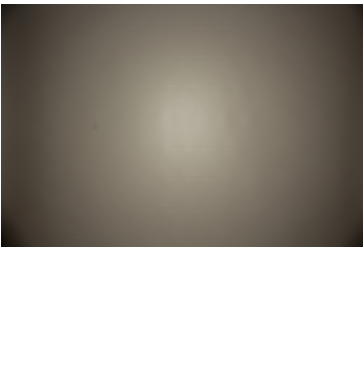
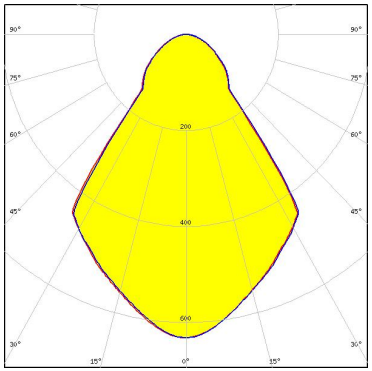

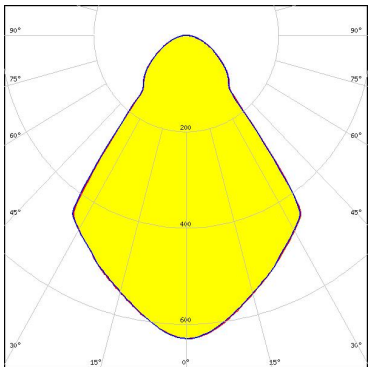
Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13840_ANGELA-XW » Box size: 480 x 280 x 300 mm	160	80	40	8.1





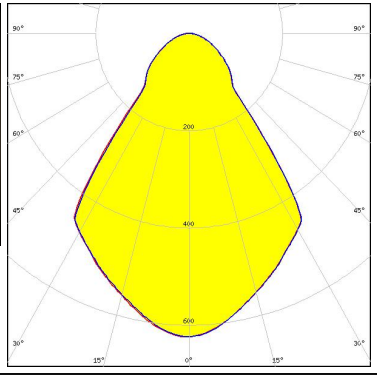

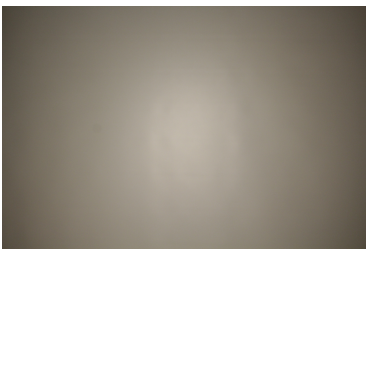
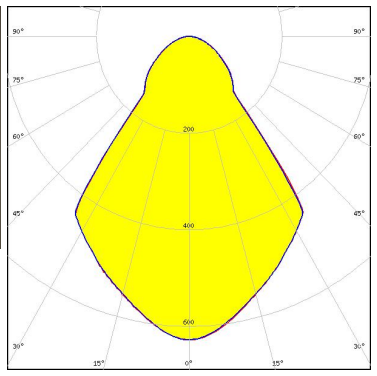


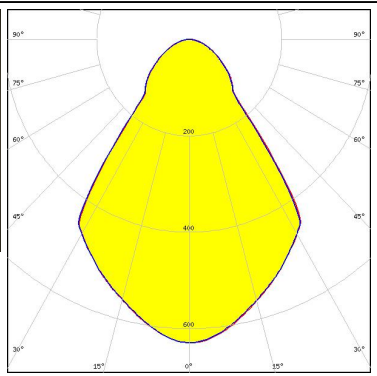

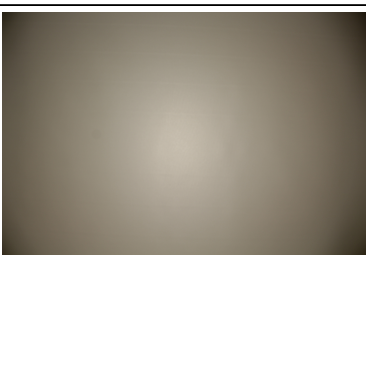
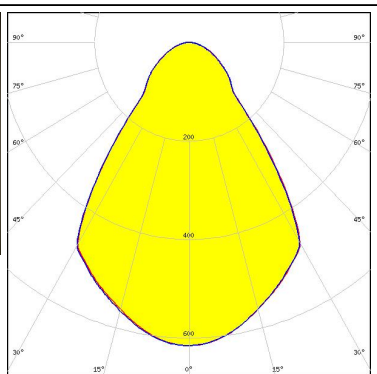


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)


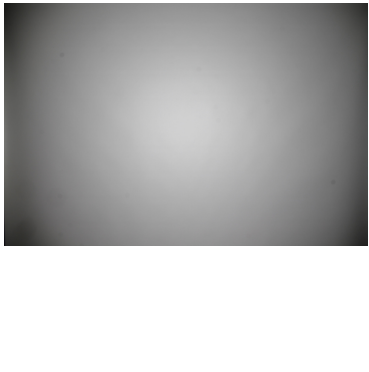
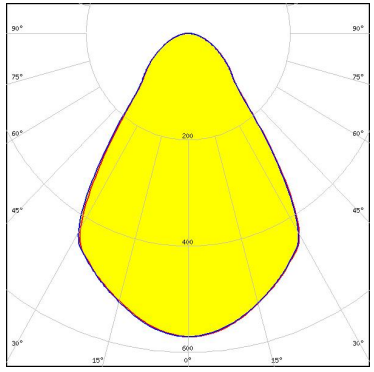


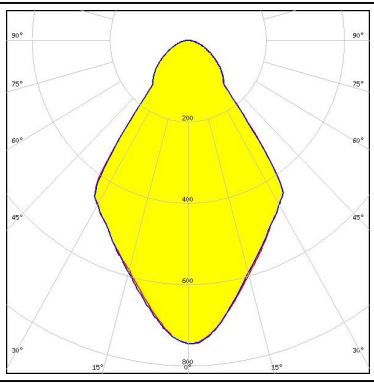

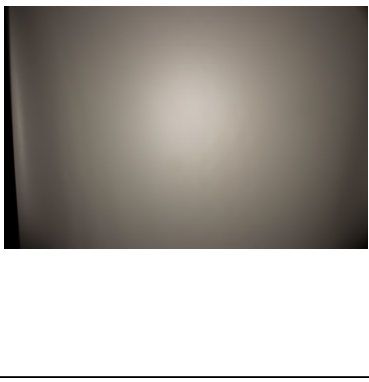
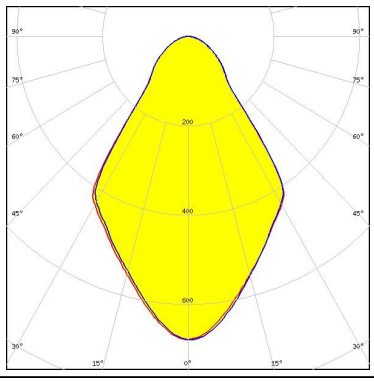


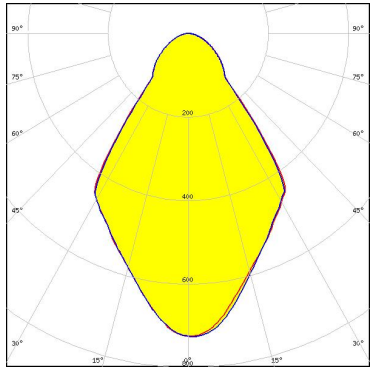
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V10 Gen7            FWHM / FWTM 72.0° / 126.0°            Efficiency 87 %            Peak intensity 0.6 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 72.0° / 126.0°            Efficiency 87 %            Peak intensity 0.6 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>		
<p></p> <p>LED V13 Gen7            FWHM / FWTM 72.0° / 124.0°            Efficiency 92 %            Peak intensity 0.6 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 Vero SE 13            FWHM / FWTM 73.0° / 125.0°            Efficiency 93 %            Peak intensity 0.6 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C16402_CLAMP-VEROSE-13-18</p>		



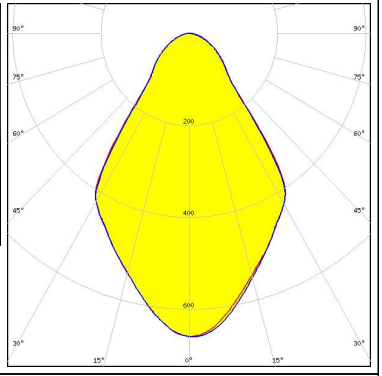


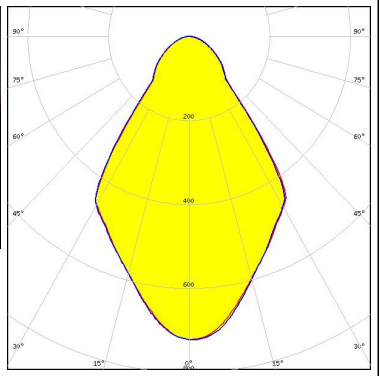


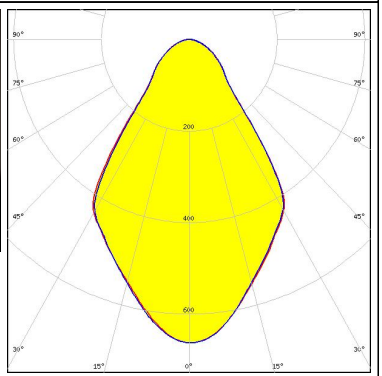
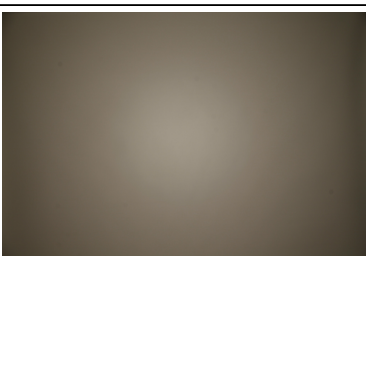
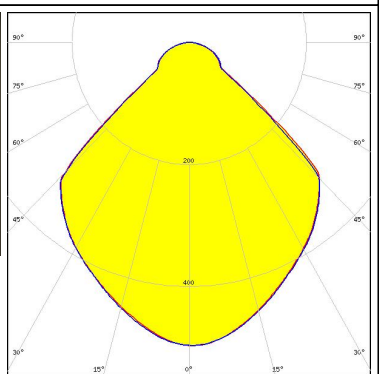
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vero SE 18            FWHM / FWTM 73.0° / 125.0°            Efficiency 93 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16402_CLAMP-VEROSE-13-18</p>		
<p></p> <p>LED VERO13            FWHM / FWTM 73.0° / 125.0°            Efficiency 93 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18</p>		
<p></p> <p>LED VERO18            FWHM / FWTM 72.0° / 124.0°            Efficiency 93 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18</p>		
<p></p> <p>LED VERO29            FWHM / FWTM 72.0° / 125.0°            Efficiency 94 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED VERO29            FWHM / FWTM 72.0° / 127.0°            Efficiency 88 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS</p>		
<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 70.0° / 117.0°            Efficiency 94 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour Tunable 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 70.0° / 119.0°            Efficiency 88 %            Peak intensity 0.7 cd/lm            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 70.0° / 118.0°            Efficiency 93 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 483 Typ L3</p>		

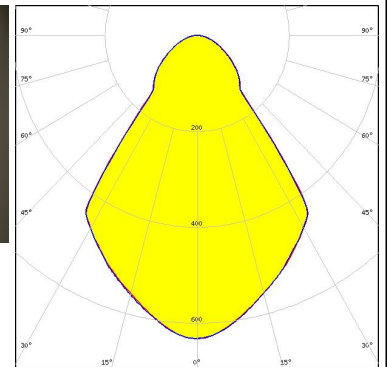
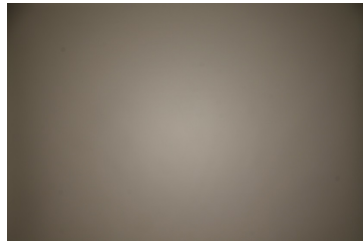
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 18mm (31W) DP</p> <p>FWHM / FWTM 70.0° / 119.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>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 22mm DP</p> <p>FWHM / FWTM 69.0° / 117.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>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</p> <p>FWHM / FWTM 69.0° / 119.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour Tunable White</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS Bender Wirth: 494 Typ L3</p>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)</p> <p>FWHM / FWTM 72.0° / 124.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 434 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

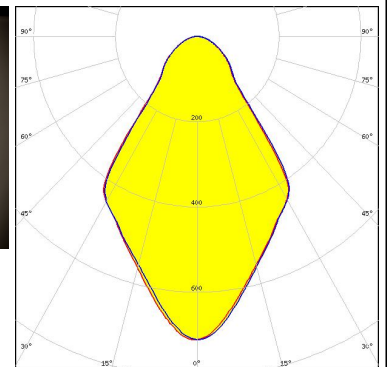
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1



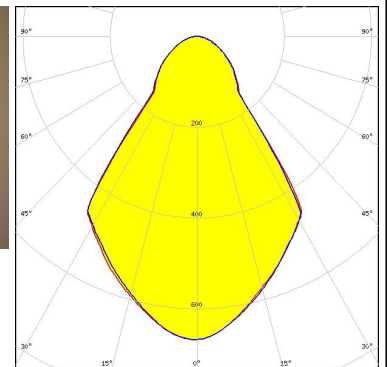
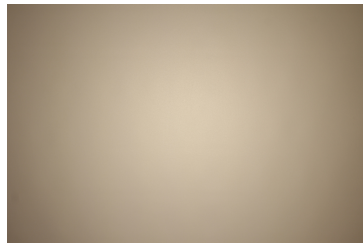
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 69.0° / 117.0°  
 Efficiency 90 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16791\_CLAMP-Z45-A  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2325807-3



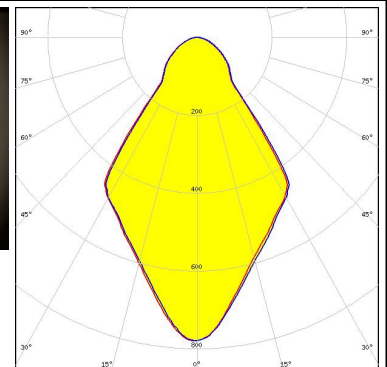
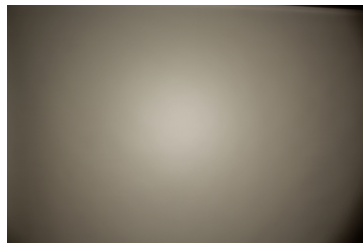
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 70.0° / 121.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 69.0° / 115.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16791\_CLAMP-Z45-A  
 TE Connectivity: 2325807-3



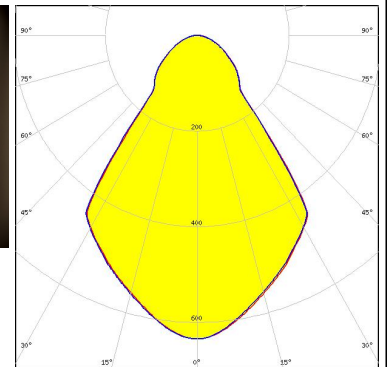
#### OPTICAL RESULTS (MEASURED):

#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 71.0° / 124.0°  
 Efficiency 92 %  
 Peak intensity 0.6 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

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

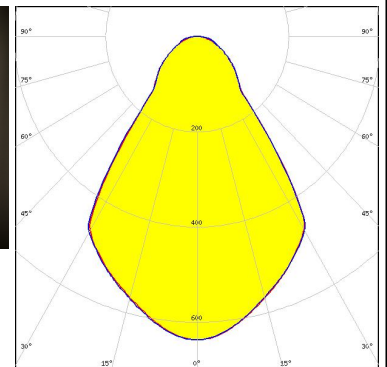
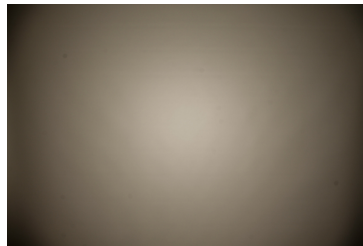


#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 70.0° / 123.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

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



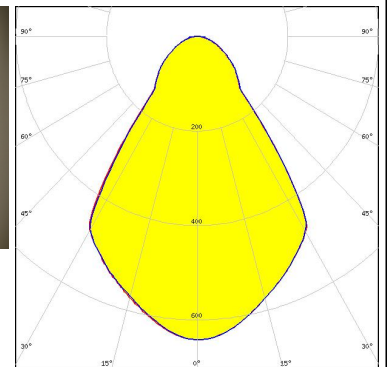
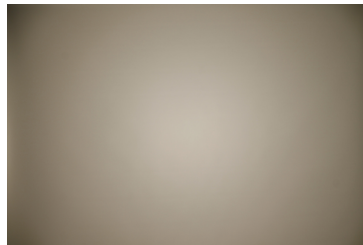
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 70.0° / 123.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

C13584\_CLAMP-VERO29

Bender Wirth: 431 Typ L3



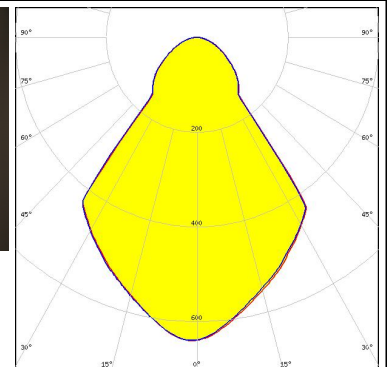
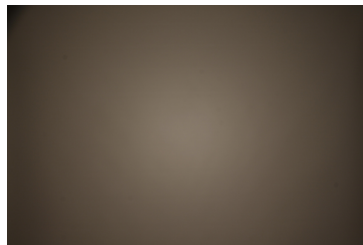
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 73.0° / 124.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

C13658\_CLAMP-VERO13-18

Bender Wirth: 434 Typ L1





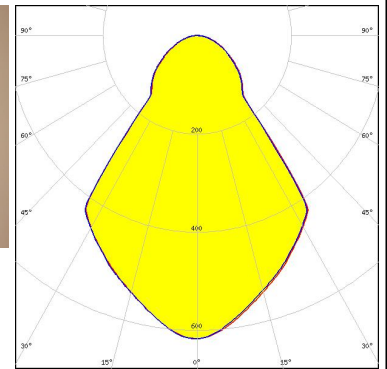
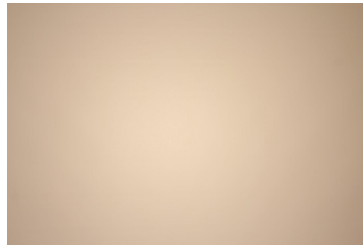
#### OPTICAL RESULTS (MEASURED):

#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 72.0° / 129.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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



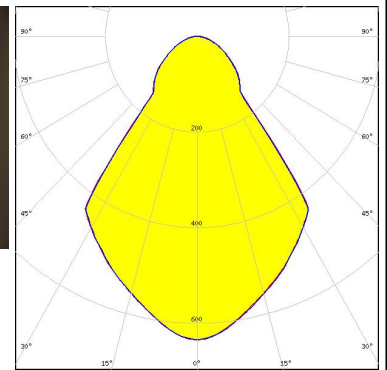
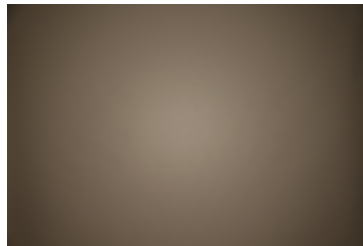
#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13658\_CLAMP-VERO13-18

Bender Wirth: 433 Typ L1

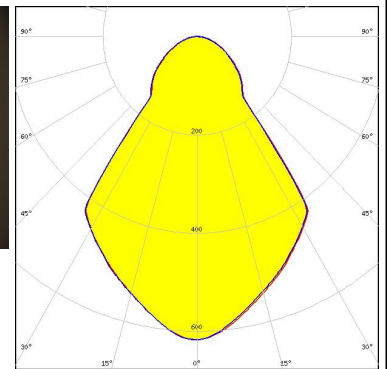
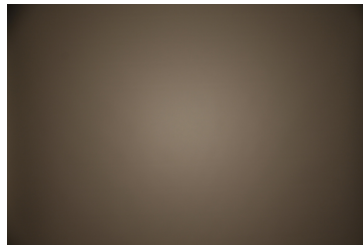


#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 70.0° / 127.0°  
 Efficiency 94 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

IDEAL: 50-2103CT + 50-2100AN

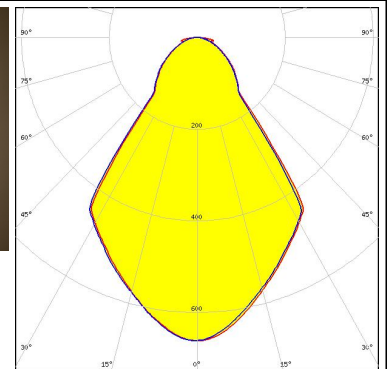
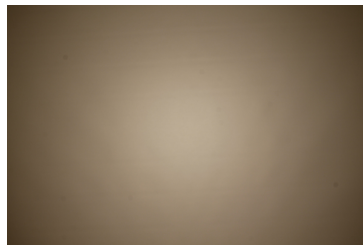


#### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 71.0° / 122.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

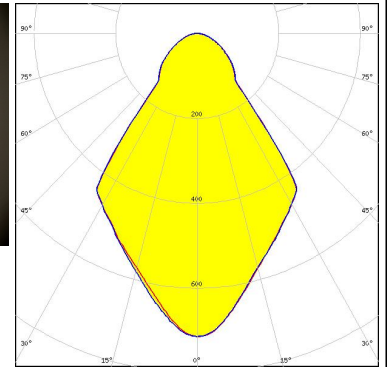
IDEAL: 50-2204-CT + 50-2100AN



#### OPTICAL RESULTS (MEASURED):

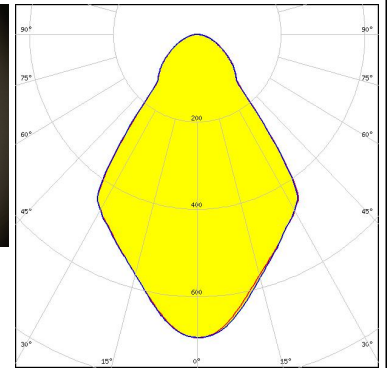
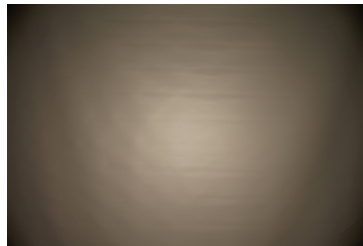
##### CREE LED

LED CMA1840  
 FWHM / FWTM 72.0° / 120.0°  
 Efficiency 95 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



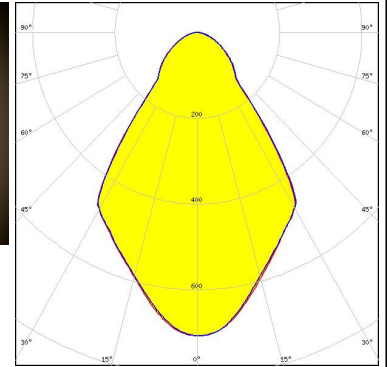
##### CREE LED

LED CMA2550  
 FWHM / FWTM 71.0° / 121.0°  
 Efficiency 94 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



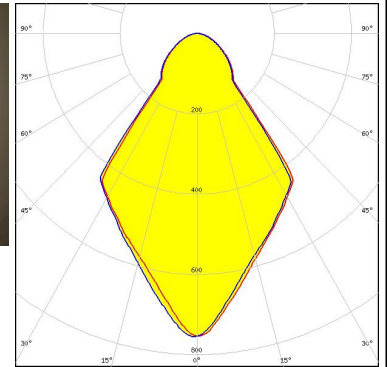
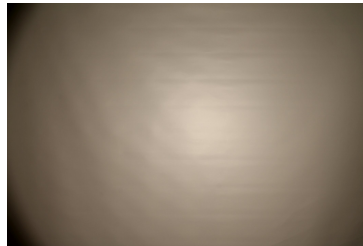
##### CREE LED

LED CMA3090  
 FWHM / FWTM 70.0° / 119.0°  
 Efficiency 94 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30


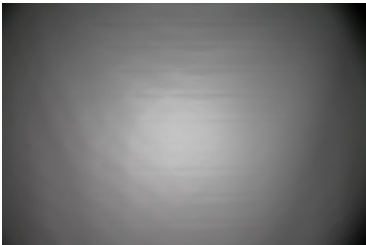
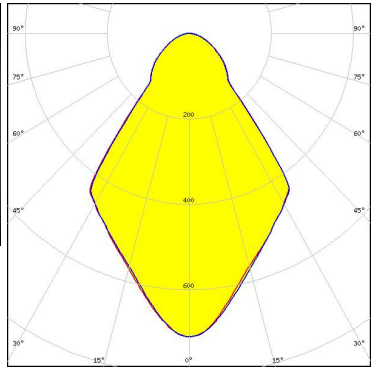

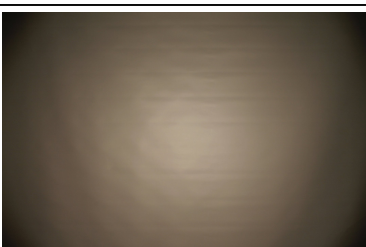
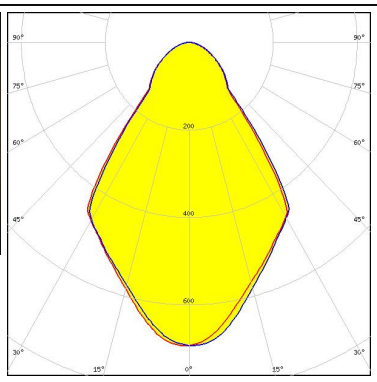

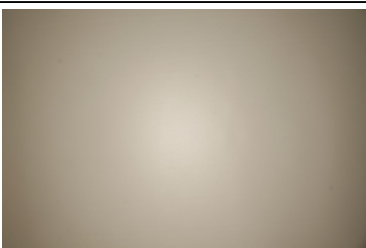
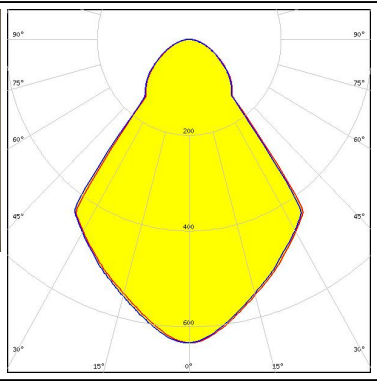

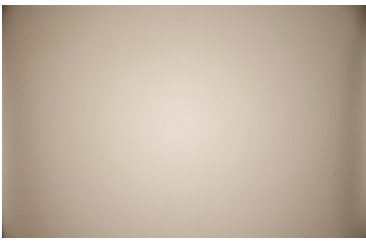
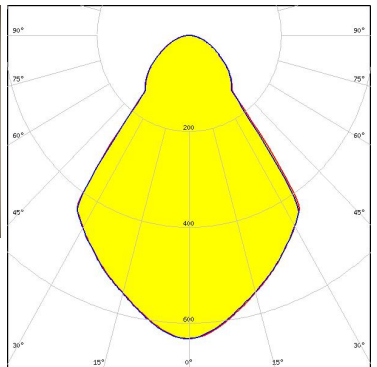


##### CREE LED

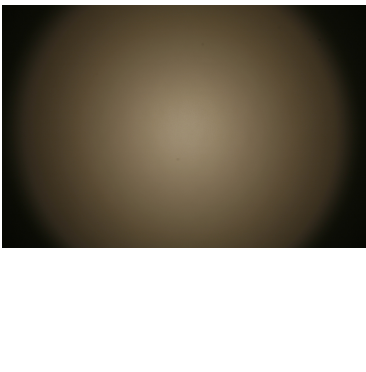
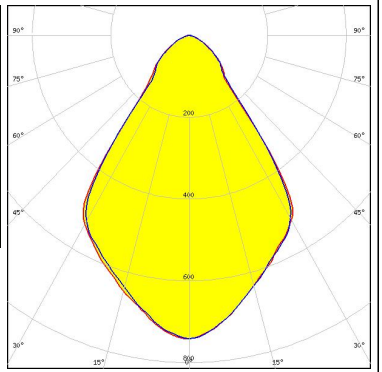

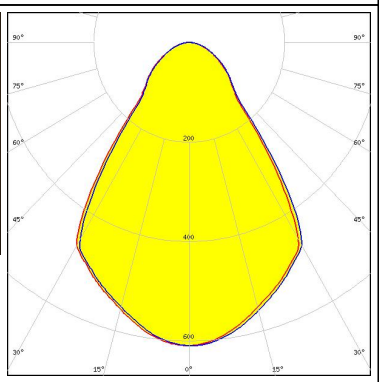
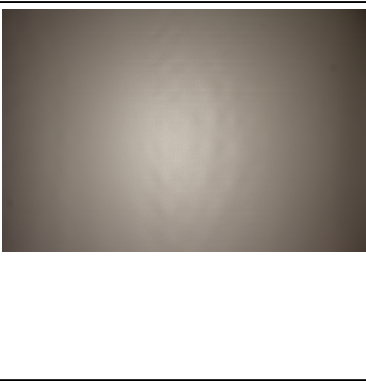
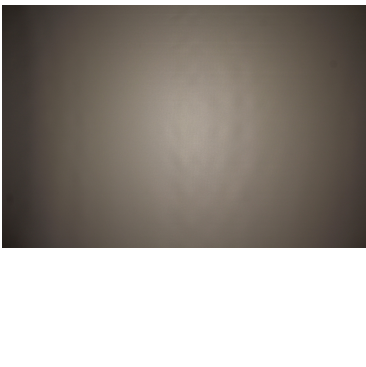
LED CMT14xx  
 FWHM / FWTM 71.0° / 116.0°  
 Efficiency 93 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1




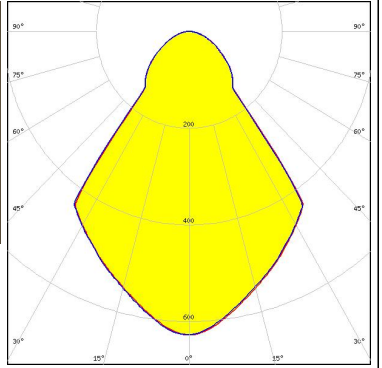
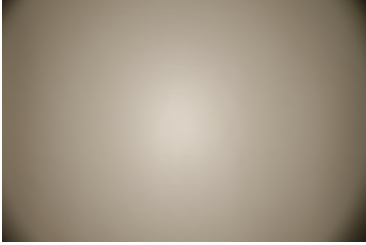
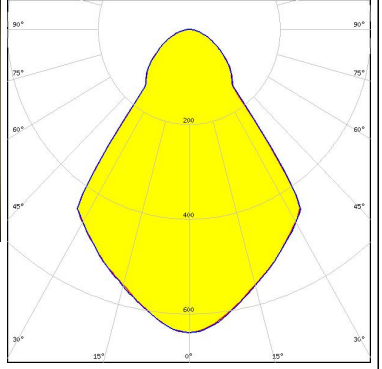
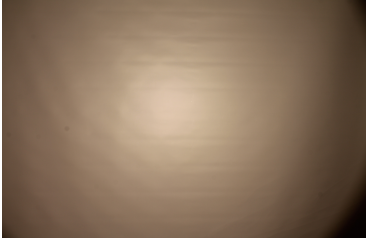
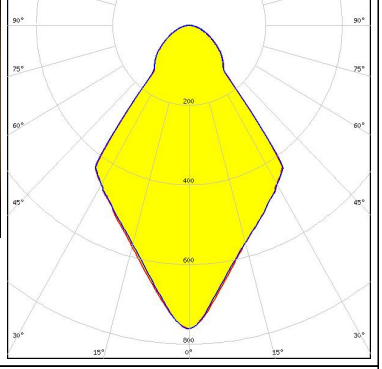

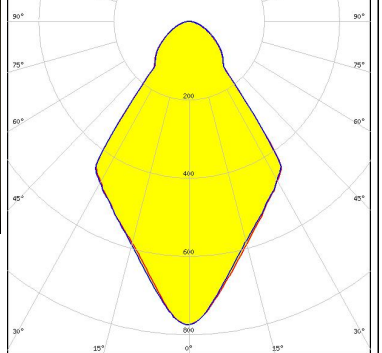
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b>  <b>LED</b></p> <p>LED CMT19xx            FWHM / FWTM 72.0° / 120.0°            Efficiency 94 %            Peak intensity 0.7 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>  <b>LED</b></p> <p>LED CMT28xx            FWHM / FWTM 70.0° / 120.0°            Efficiency 94 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            Bender Wirth: 471 Typ L3</p>		
<p><b>CREE</b>  <b>LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 73.0° / 124.0°            Efficiency 93 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 441 Typ L1</p>		
<p><b>CREE</b>  <b>LED</b></p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 72.0° / 124.0°            Efficiency 92 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 437 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LED</p> <p>LED CXA/B 1816 &amp; CXA/B 1820 &amp; CXA 1850            FWHM / FWTM 72.0° / 112.0°            Efficiency 94 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14123_CLAMP-CXA15-18</p>		
<p><b>CREE</b> LED</p> <p>LED CXA/B 3590            FWHM / FWTM 72.0° / 126.0°            Efficiency 94 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2303CR + 50-2300AN</p>		
<p><b>EVERLIGHT</b></p> <p>LED CHI3030 19W            FWHM / FWTM 71.0° / 130.0°            Efficiency 91 %            Peak intensity 0.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 468 Typ L3</p>		
<p><b>EVERLIGHT</b></p> <p>LED CHI3030 29W            FWHM / FWTM 71.0° / 128.0°            Efficiency 90 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 468 Typ L3</p>		

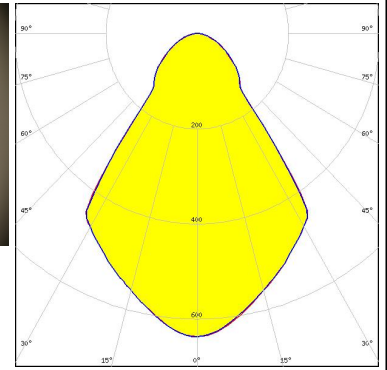
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 73.0° / 125.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 72.0° / 124.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM / FWTM 71.0° / 116.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.8 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 70.0° / 114.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.8 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):

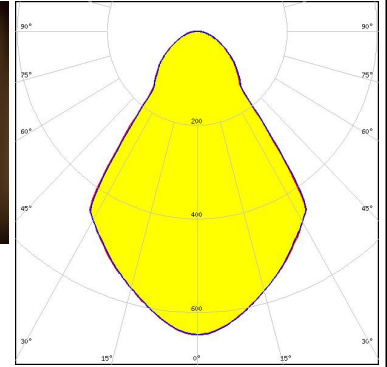
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM / FWTM 71.0° / 124.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



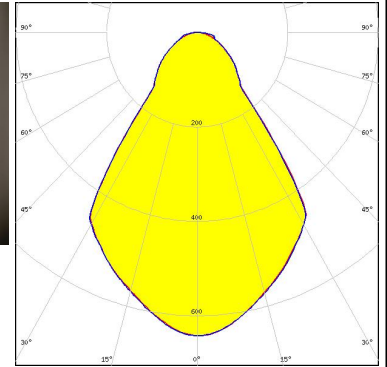
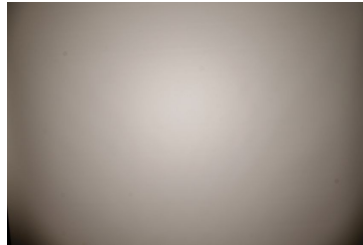
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM / FWTM 71.0° / 123.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2100SH + 50-2100AN



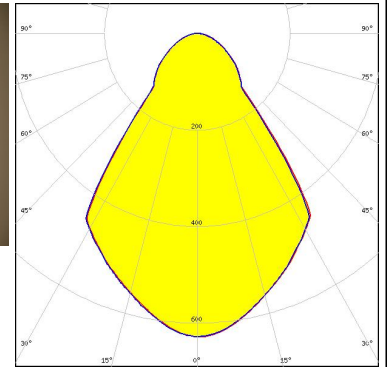
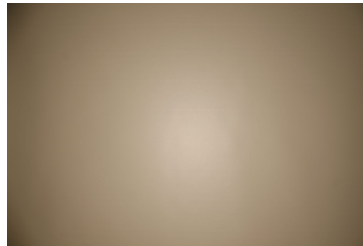
#### LUMILEDS

LED LUXEON CoB 1211  
 FWHM / FWTM 71.0° / 123.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN

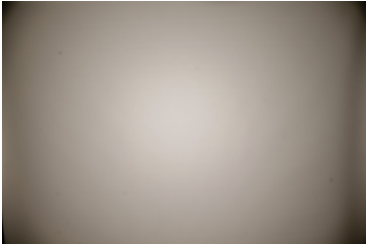
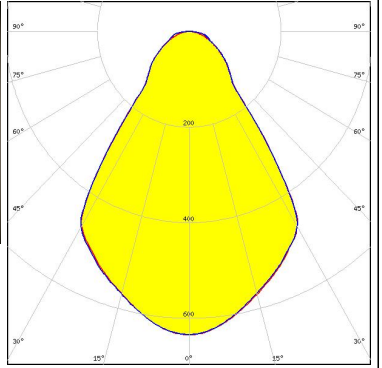
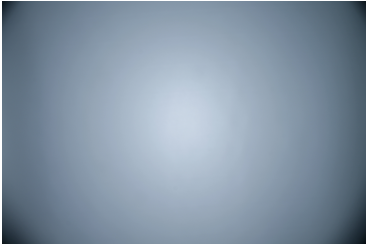
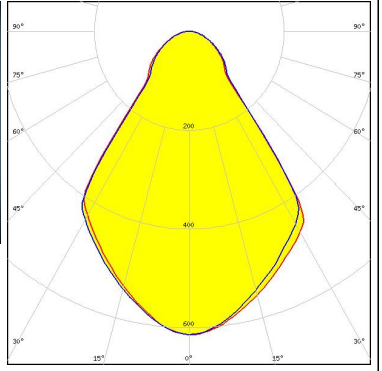
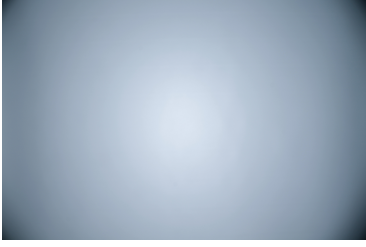
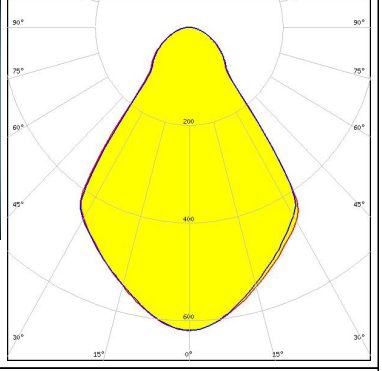
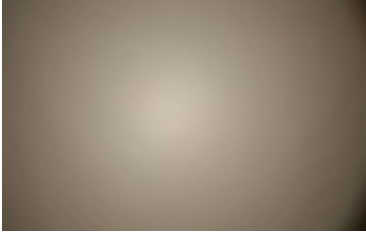
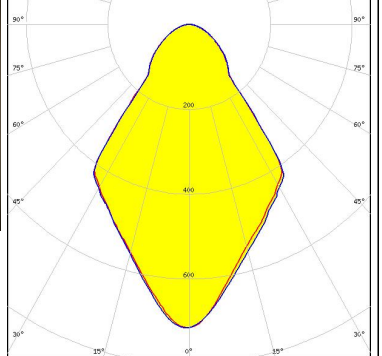


#### LUMILEDS


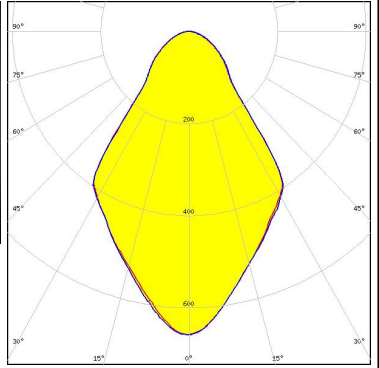
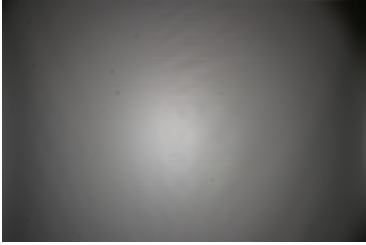
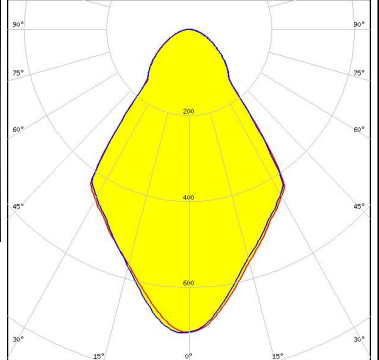
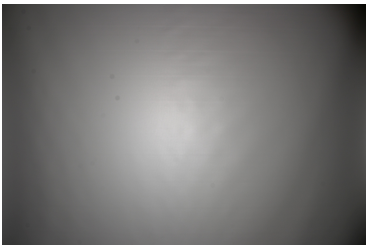
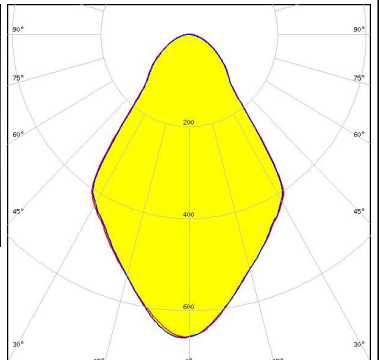
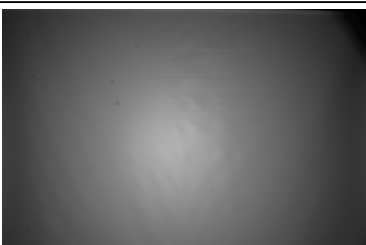
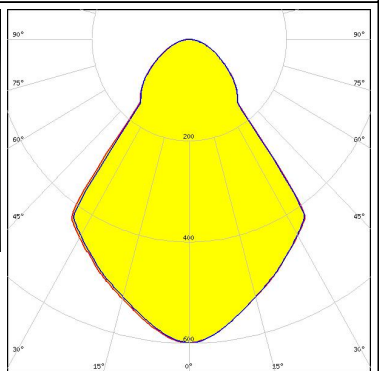
LED LUXEON CoB 1211  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



#### OPTICAL RESULTS (MEASURED):


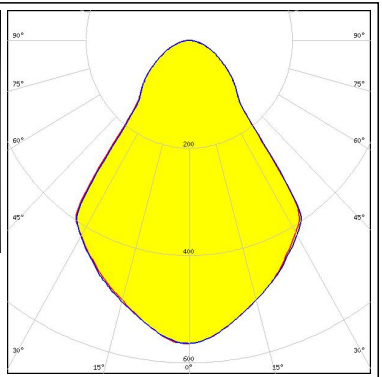

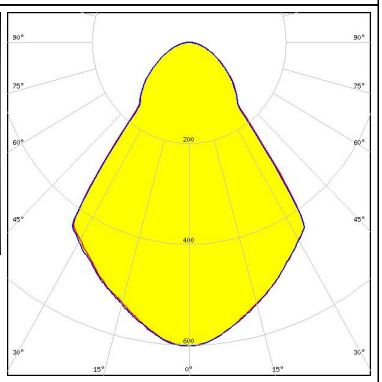

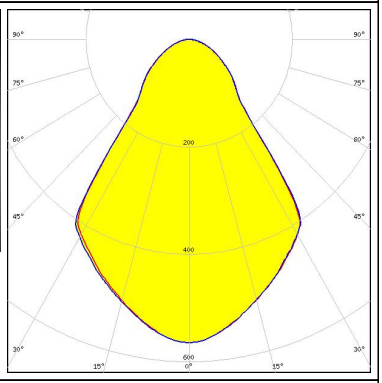
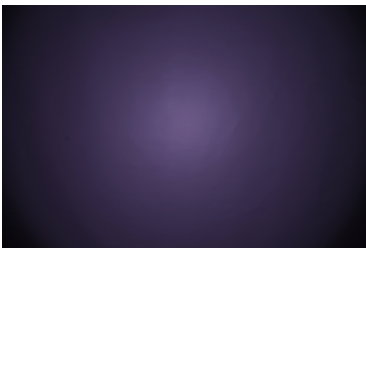
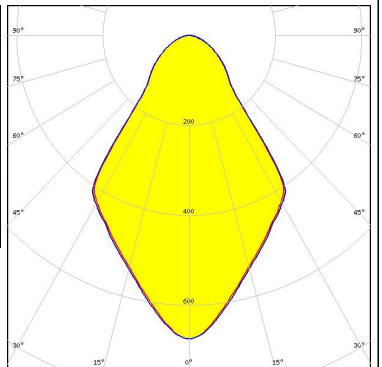
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 70.0° / 124.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K12</p> <p>FWHM / FWTM 72.0° / 123.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K16</p> <p>FWHM / FWTM 72.0° / 122.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 71.0° / 120.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.7 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):

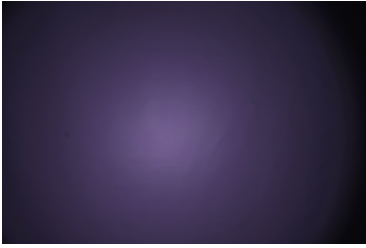
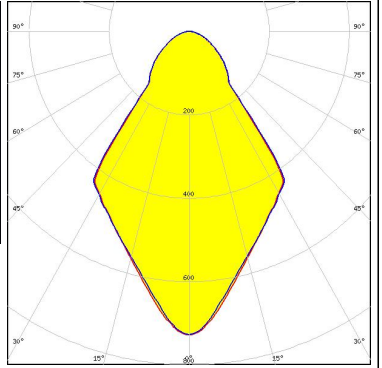
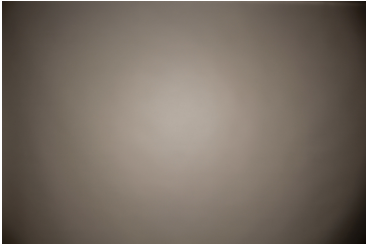
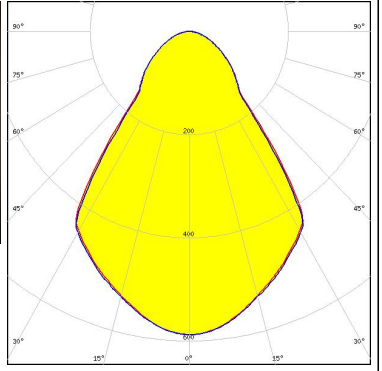

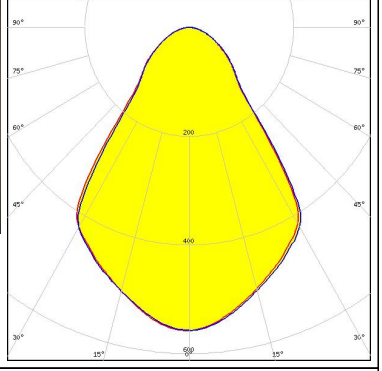
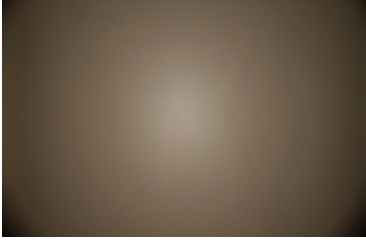
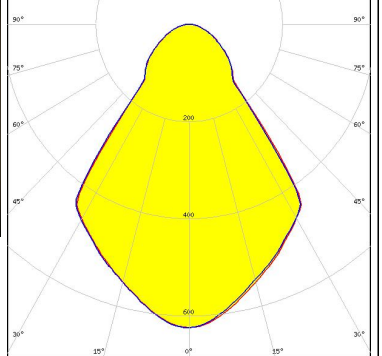
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 71.0° / 121.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 F13671_ANGE-RZ-LENS Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 70.0° / 120.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.7 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-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 70.0° / 121.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.7 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-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 73.0° / 127.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 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>		




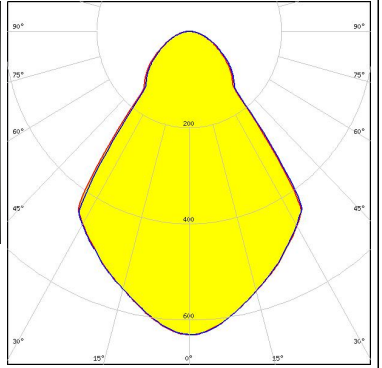
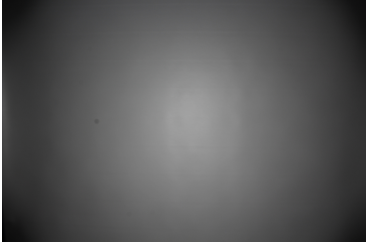
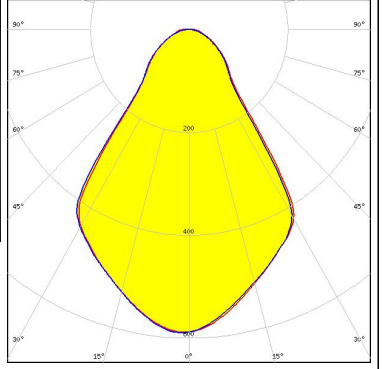

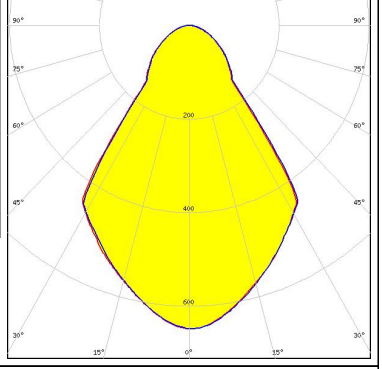

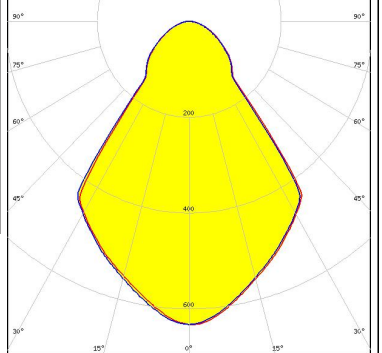
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 73.0° / 127.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13658_CLAMP-VERO13-18</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 490 Typ L1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 73.0° / 127.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>Bender Wirth: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 72.0° / 127.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.6 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: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 70.0° / 119.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 500 Typ L3-1</p>		


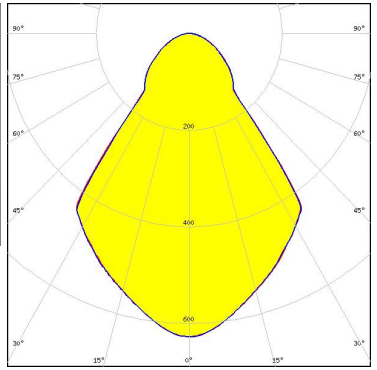

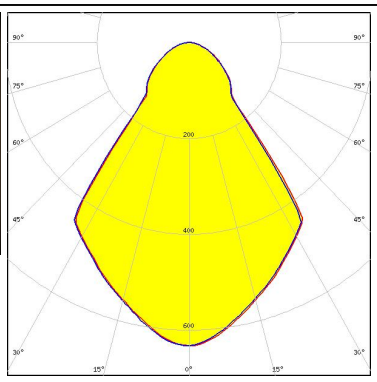
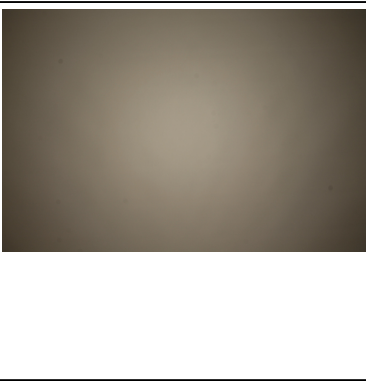
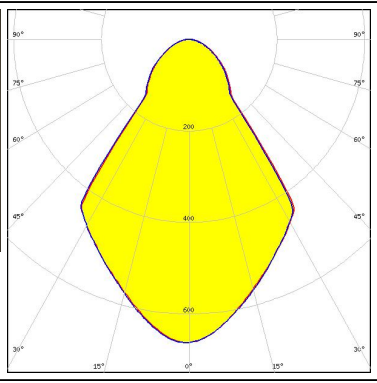

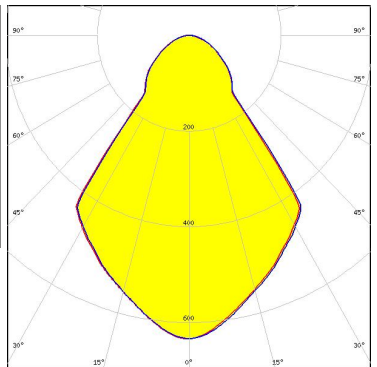
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 71.0° / 118.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.7 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 73.0° / 127.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.6 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 72.0° / 127.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 0.6 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>LUMINUS</b></p> <p>LED CxM-14 (19x19)</p> <p>FWHM / FWTM 72.0° / 125.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 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>		


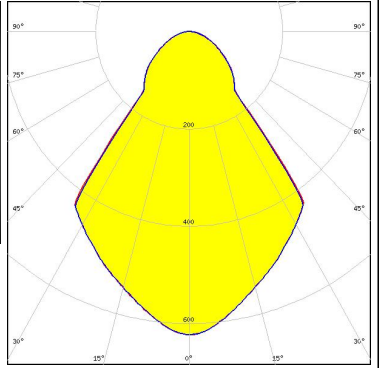
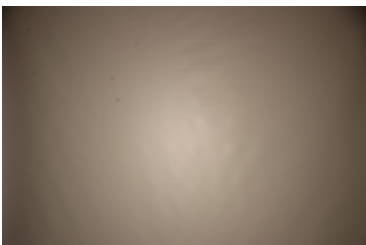
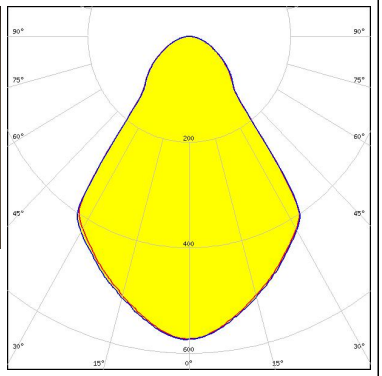
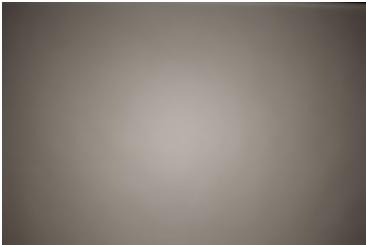
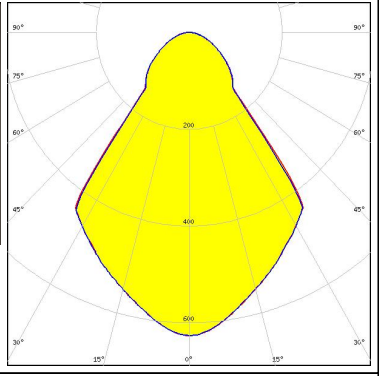
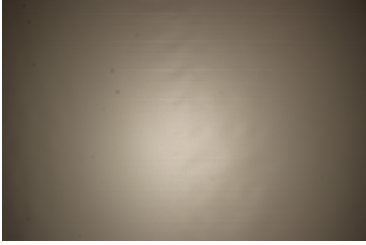
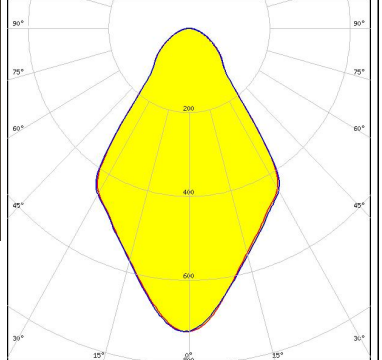
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 72.0° / 125.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 463 Typ L2</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 71.0° / 124.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 0.6 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>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM / FWTM 71.0° / 122.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2103NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 72.0° / 124.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 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>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 73.0° / 125.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 73.0° / 125.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Molex: 180580-0005</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 71.0° / 122.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 72.0° / 124.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 cd/m</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>		

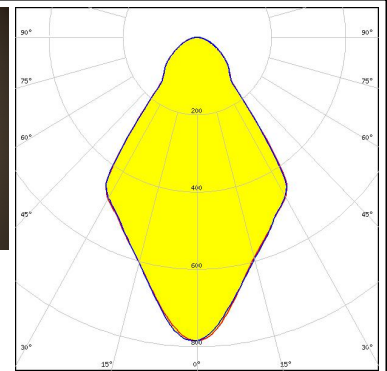
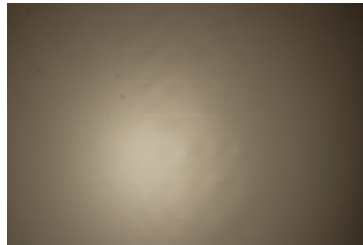
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 73.0° / 126.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 72.0° / 125.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 0.6 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 73.0° / 125.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 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 69.0° / 116.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 0.7 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):

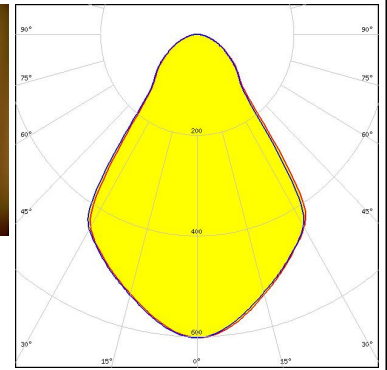
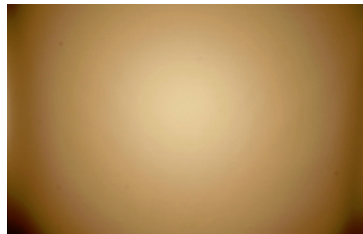
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 69.0° / 114.0°  
 Efficiency 94 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A



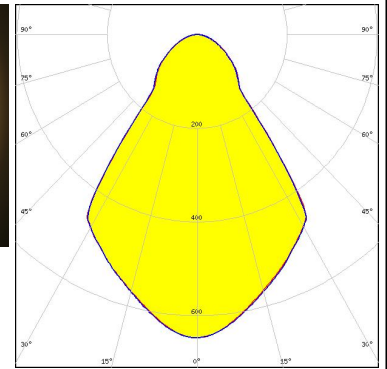
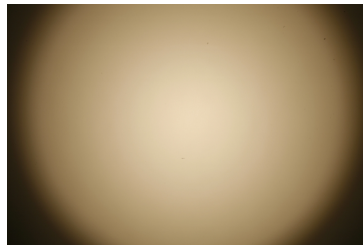
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 71.0° / 124.0°  
 Efficiency 88 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OSRAM

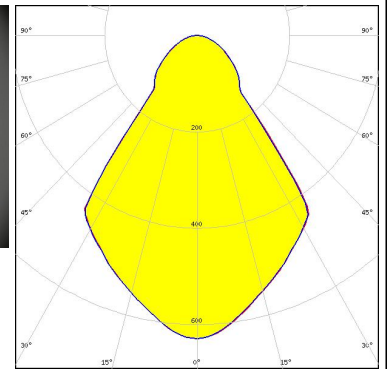
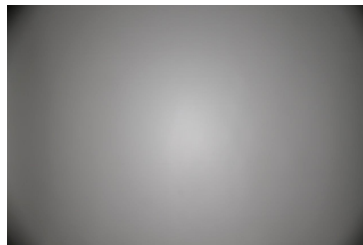
LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 71.0° / 123.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1




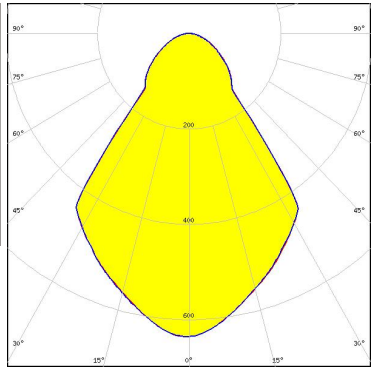

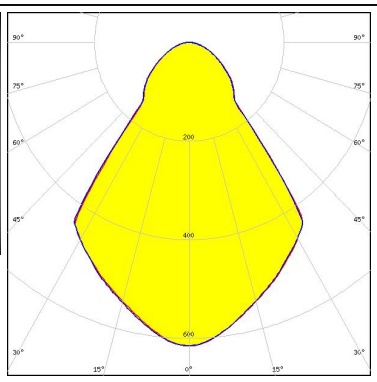

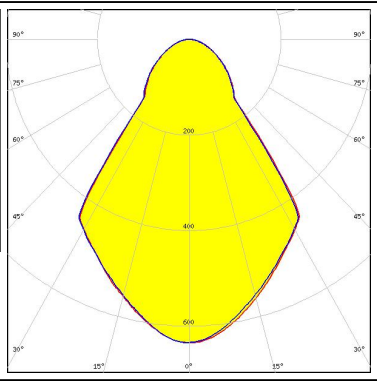
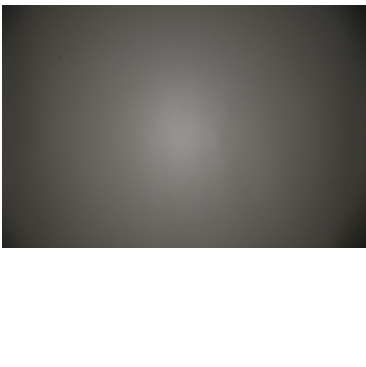
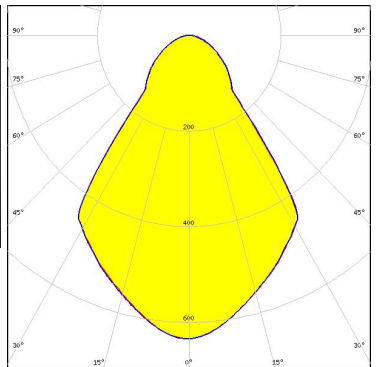
#### OSRAM

Opto Semiconductors

LED Soleriq S13  
 FWHM / FWTM 72.0° / 125.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13</p> <p>FWHM / FWTM 72.0° / 124.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 437 Typ L1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 72.0° / 126.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 cd/m</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 71.0° / 124.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 cd/m</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 S19</p> <p>FWHM / FWTM 71.0° / 123.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 462 Typ L3</p>		

#### OPTICAL RESULTS (MEASURED):

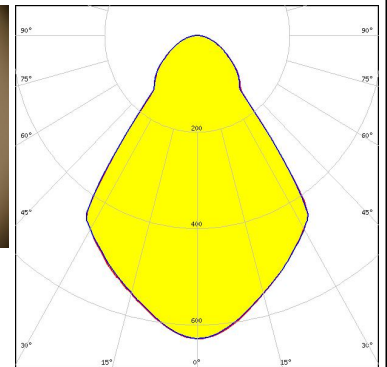
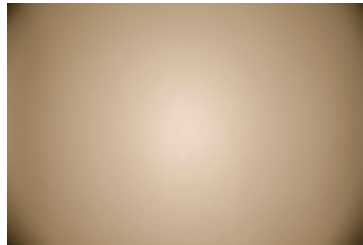
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 72.0° / 125.0°  
 Efficiency 92 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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



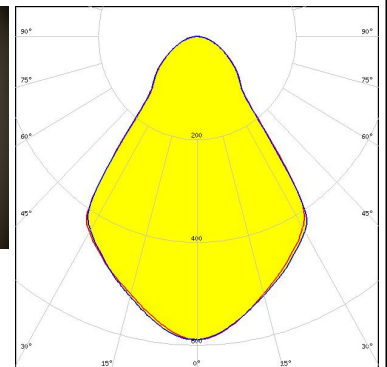
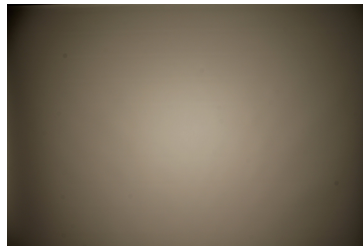
#### PHILIPS

LED Fortimo SLM 1208 L15 G6 Standard  
 FWHM / FWTM 72.0° / 125.0°  
 Efficiency 87 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

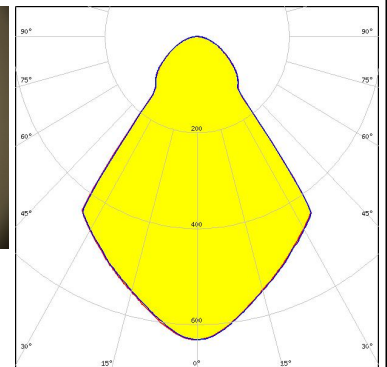
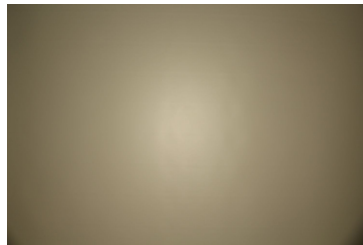


#### PHILIPS

LED Fortimo SLM L09 + SLM holder  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 92 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

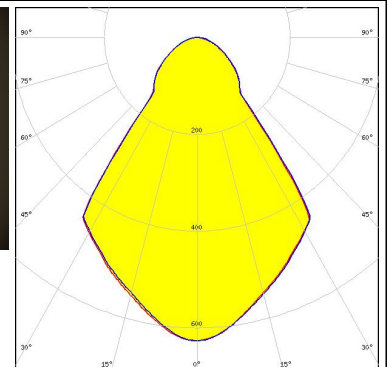
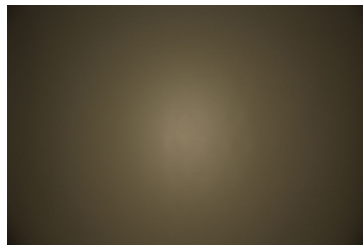


#### PHILIPS

LED Fortimo SLM L13 + SLM holder  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 92 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

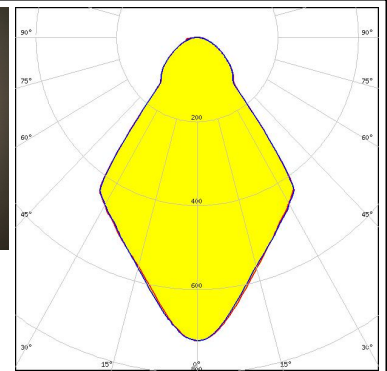
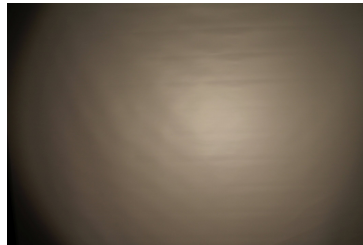




#### OPTICAL RESULTS (MEASURED):

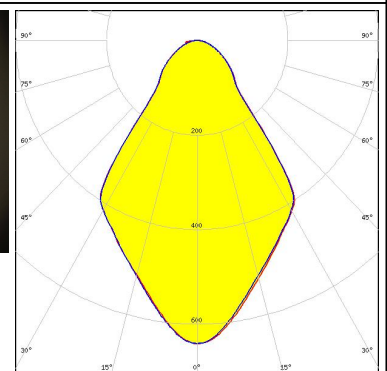
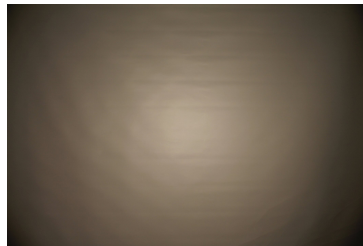
#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 71.0° / 118.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



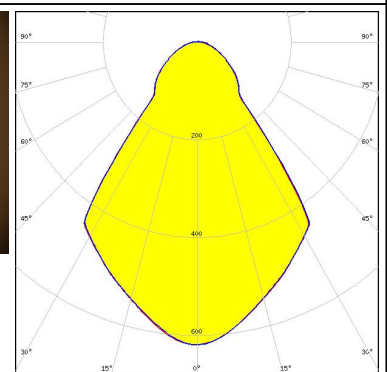
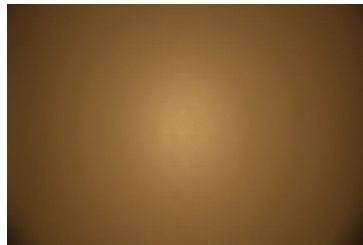
#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 71.0° / 120.0°  
 Efficiency 85 %  
 Peak intensity 0.6 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



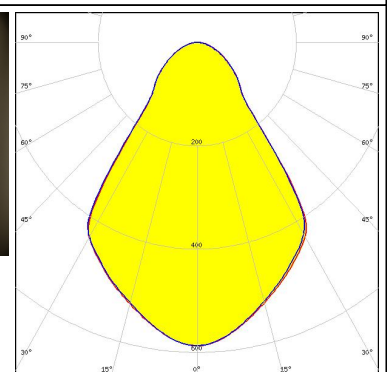
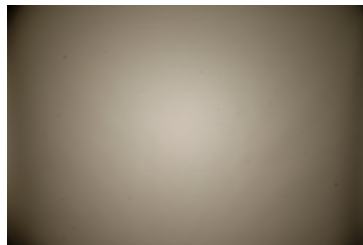
#### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 90 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

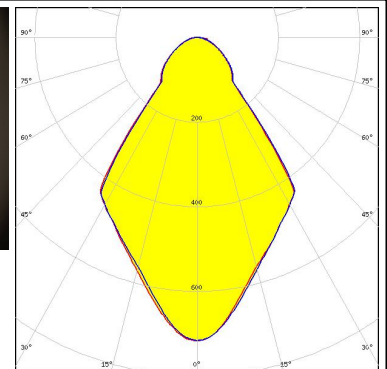
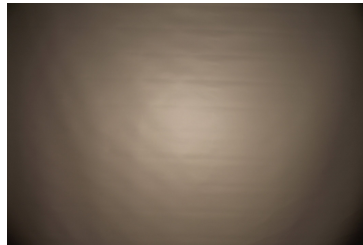
LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 72.0° / 125.0°  
 Efficiency 87 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

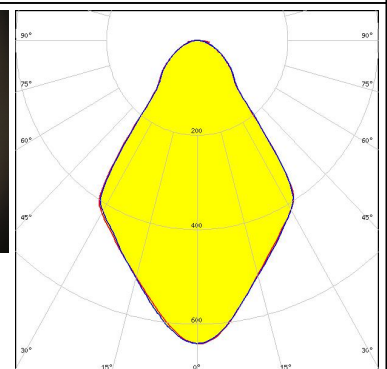
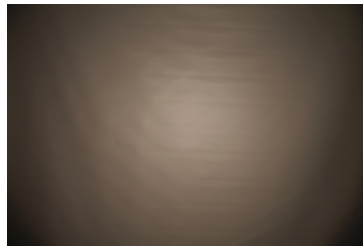
### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 71.0° / 118.0°  
 Efficiency 92 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



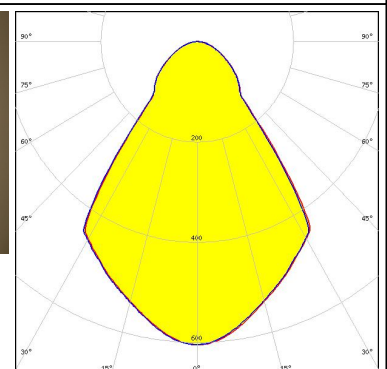
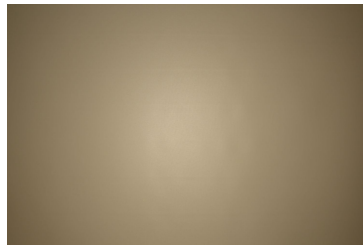
### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 70.0° / 119.0°  
 Efficiency 85 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



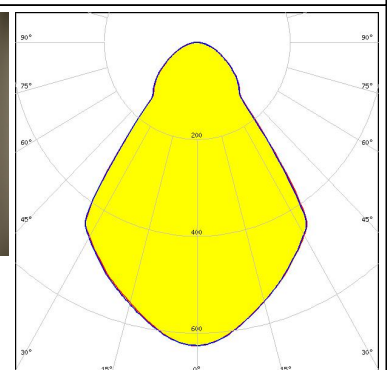
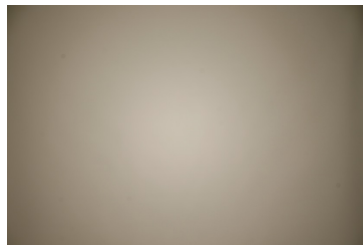
### PHILIPS

LED Fortimo SLM L19 + SLM holder  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 89 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### SAMSUNG

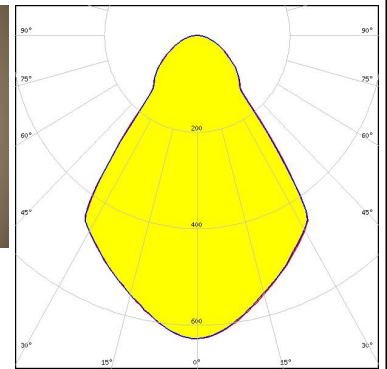
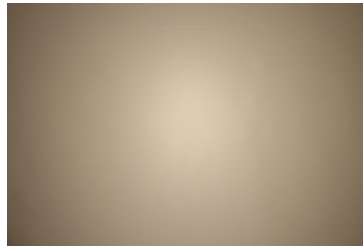
LED LC026B / 033B / 040B  
 FWHM / FWTM 72.0° / 125.0°  
 Efficiency 92 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 450 Typ L2



#### OPTICAL RESULTS (MEASURED):

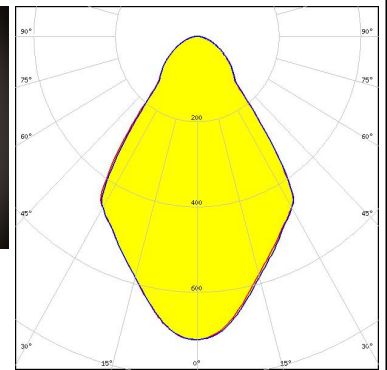
### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 72.0° / 125.0°  
 Efficiency 93 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



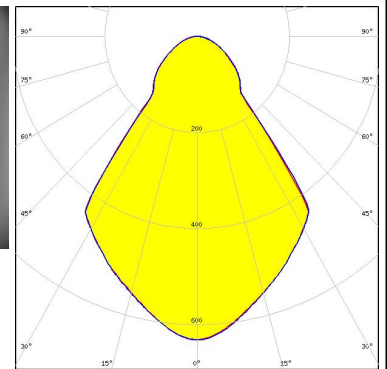
### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 70.0° / 119.0°  
 Efficiency 93 %  
 Peak intensity 0.7 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3



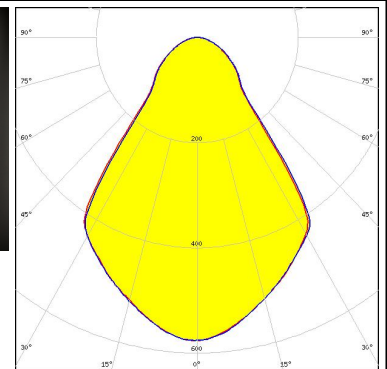
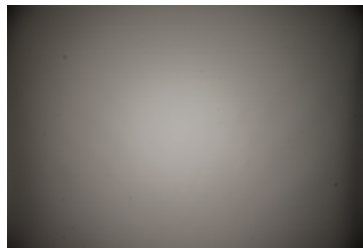
### SAMSUNG

LED LC040C  
 FWHM / FWTM 72.0° / 124.0°  
 Efficiency 92 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1

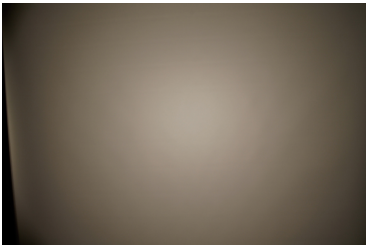
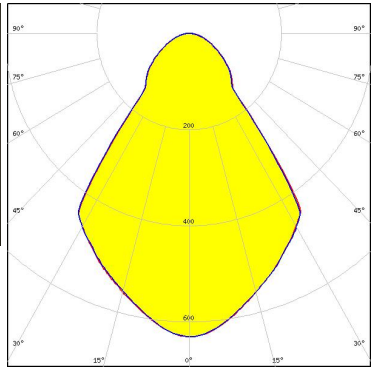
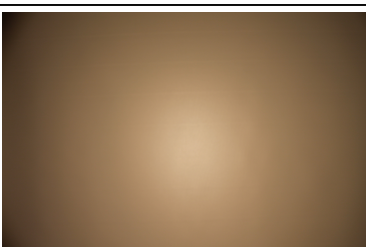
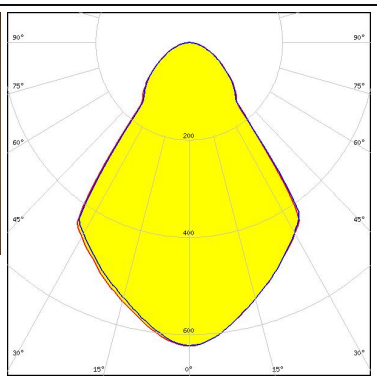
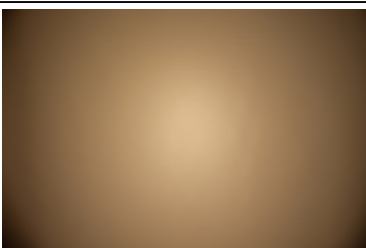
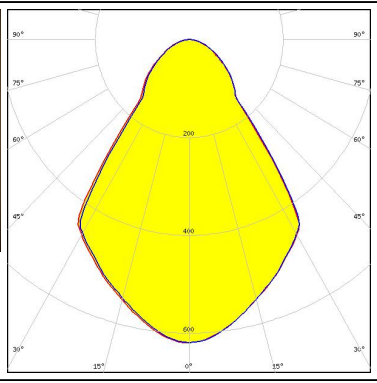
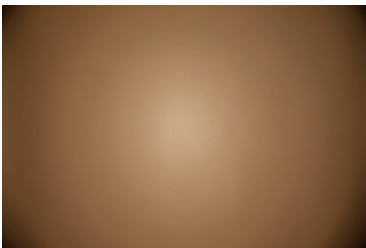
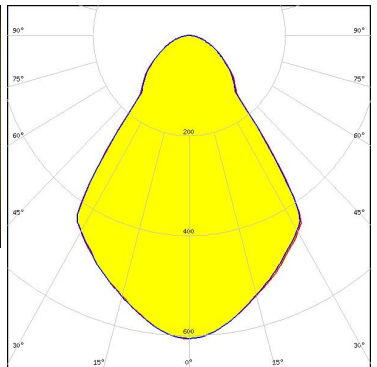


SEOUL SEMICONDUCTOR


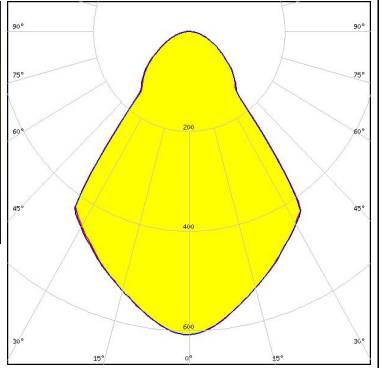
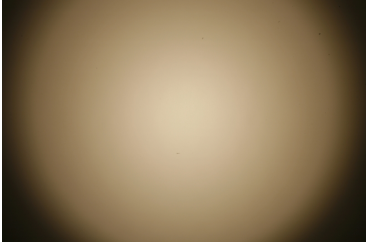
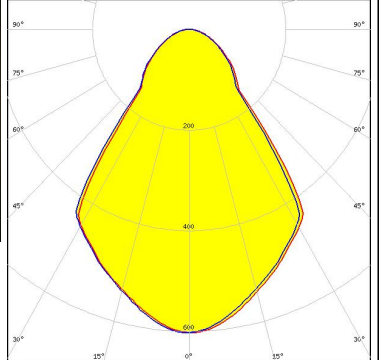
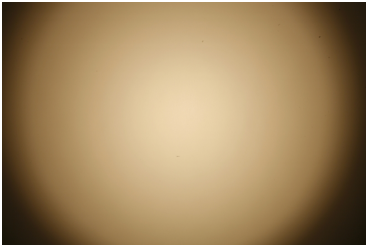
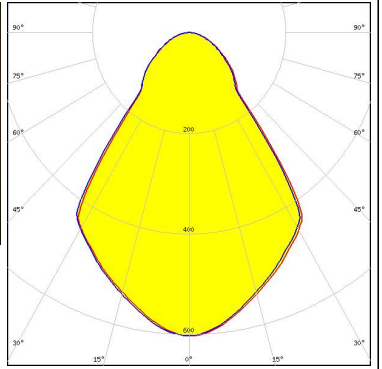
LED AC Zhaga COB  
 FWHM / FWTM 72.0° / 126.0°  
 Efficiency 87 %  
 Peak intensity 0.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 Optosource: SEHSMJD-A



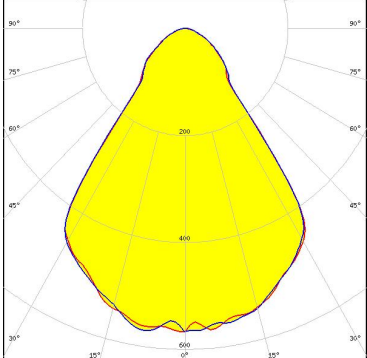
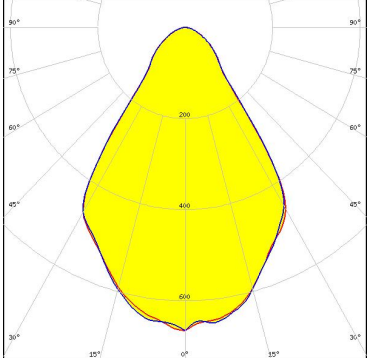
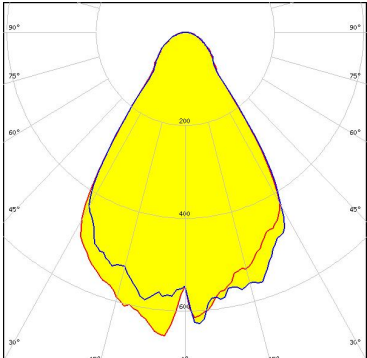
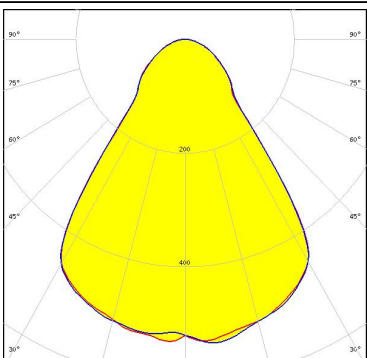
#### OPTICAL RESULTS (MEASURED):

<p><b>SEUL</b> SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 14.5 FWHM / FWTM 72.0° / 124.0° Efficiency 92 % Peak intensity 0.6 cd/m LEDs/each optic 1 Light colour White Required components: TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-461 FWHM / FWTM 72.0° / 125.0° Efficiency 92 % Peak intensity 0.6 cd/m LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-462 FWHM / FWTM 72.0° / 125.0° Efficiency 92 % Peak intensity 0.6 cd/m LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-464 FWHM / FWTM 73.0° / 127.0° Efficiency 92 % Peak intensity 0.6 cd/m LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484            FWHM / FWTM 73.0° / 127.0°            Efficiency 92 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-485            FWHM / FWTM 73.0° / 127.0°            Efficiency 92 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-486            FWHM / FWTM 73.0° / 127.0°            Efficiency 92 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

### OPTICAL RESULTS (SIMULATED):

<p><b>bridgelux.</b></p> <p>LED V10 Gen7            FWHM / FWTM 72.0° / 120.0°            Efficiency 86 %            Peak intensity 0.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 486 Typ L1</p>	
<p><b>bridgelux.</b></p> <p>LED V13 Gen7            FWHM / FWTM 69.0° / 114.0°            Efficiency 86 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103CT + 50-2100AN</p>	
<p><b>bridgelux.</b></p> <p>LED V22 Gen7            FWHM / FWTM 66.0° / 110.0°            Efficiency 80 %            Peak intensity 0.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>	
<p><b>CREE ⇄ LED</b></p> <p>LED CXA/B 1830            FWHM / FWTM 73.0° / 129.0°            Efficiency 88 %            Peak intensity 0.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>	

#### OPTICAL RESULTS (SIMULATED):

##### LUMINUS

LED CxM-14 (19x19)  
FWHM / FWTM 72.0° / 124.0°  
Efficiency 93 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 433 Typ L1

##### LUMINUS

LED CxM-9 (13.5x13.5)  
FWHM / FWTM 72.0° / 124.0°  
Efficiency 93 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 434 Typ L1



SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM / FWTM 72.0° / 124.0°  
Efficiency 93 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 433 Typ L1



SEOUL SEMICONDUCTOR

LED ZC4/6  
FWHM / FWTM 72.0° / 124.0°  
Efficiency 93 %  
Peak intensity 0.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13658\_CLAMP-VERO13-18  
Bender Wirth: 434 Typ L1

### GENERAL INFORMATION:

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

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

### MATERIALS:

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

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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P.R.CHINA

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