

## ANGELINA-XW

White version with ~91° wide beam

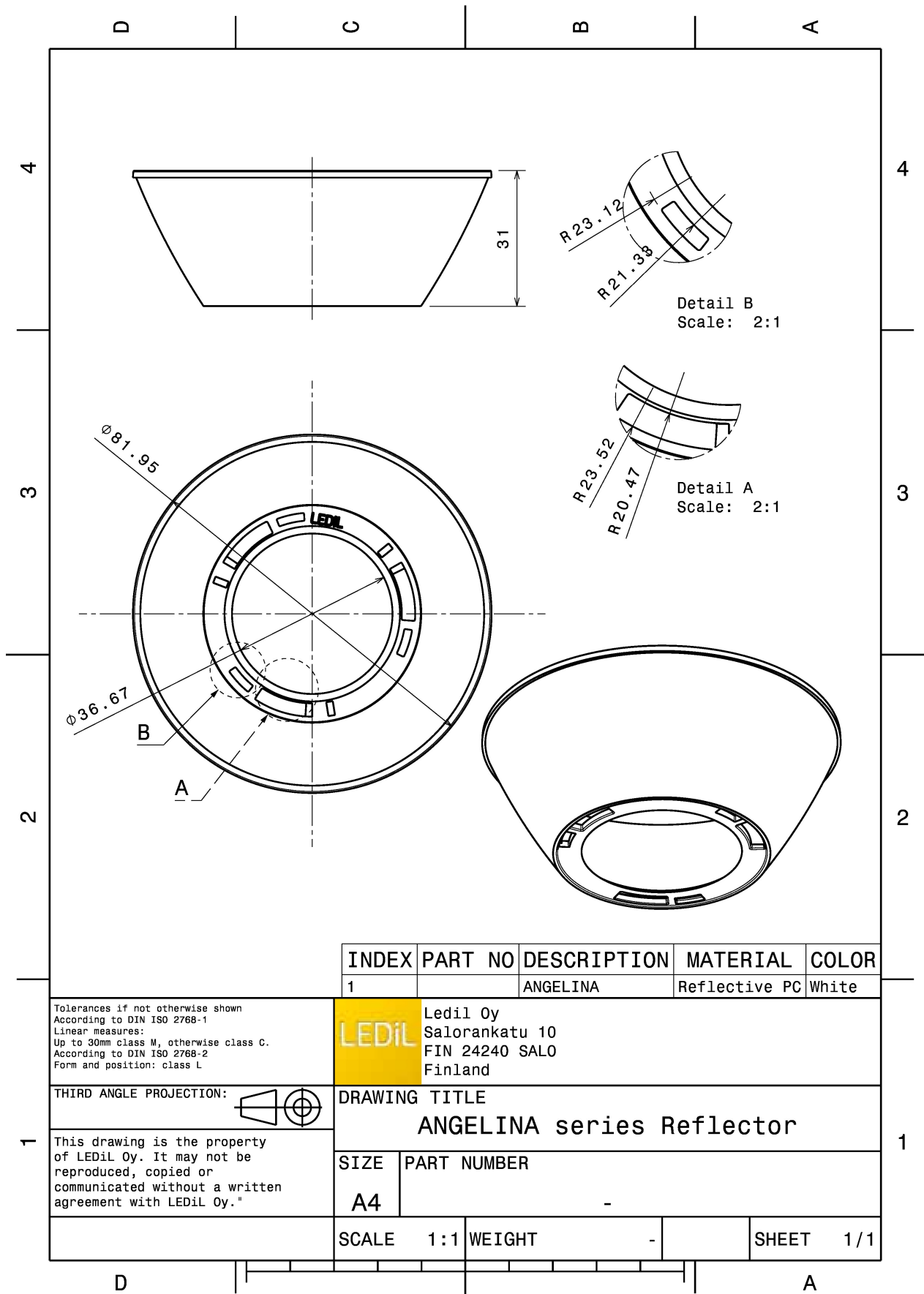
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 82.0 mm
Height	31 mm
Fastening	socket
Colour	white
Box size	480 x 280 x 300 mm
Box weight	12.3 kg
Quantity in Box	900 pcs
ROHS compliant	yes ⓘ

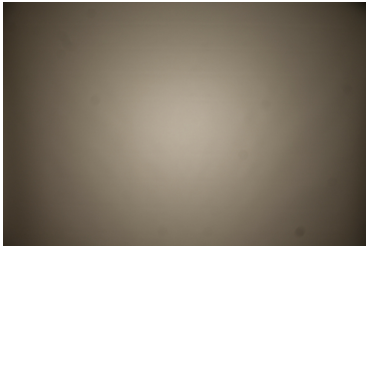
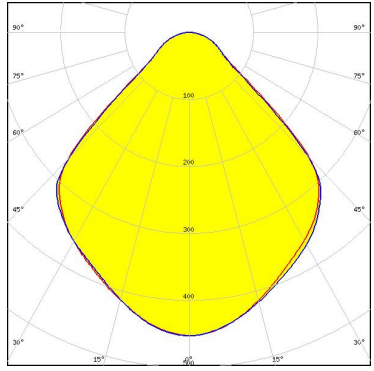
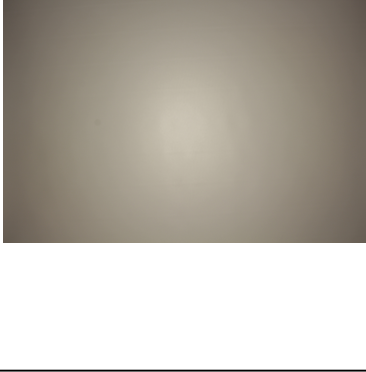
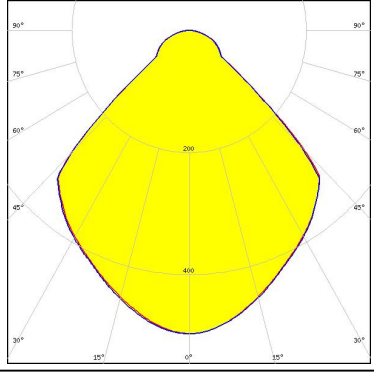
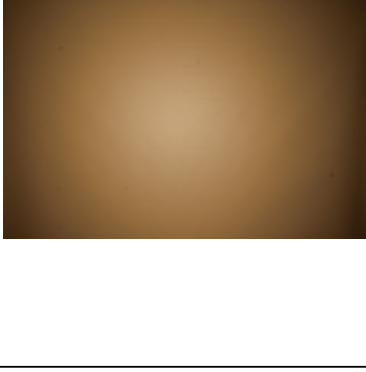
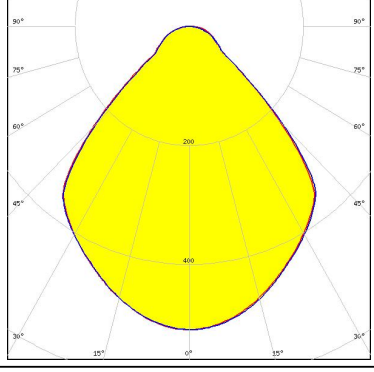

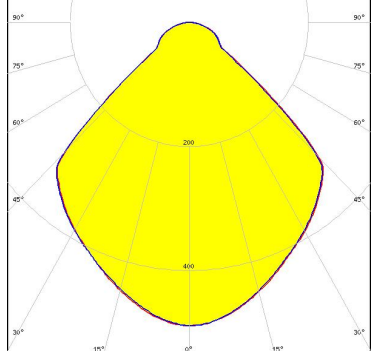


### MATERIAL SPECIFICATIONS:

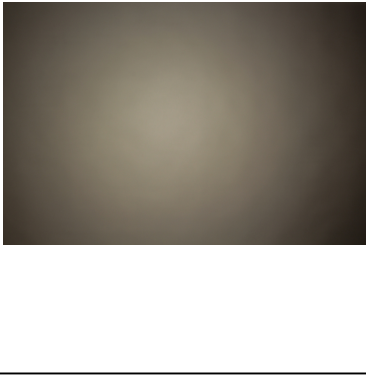
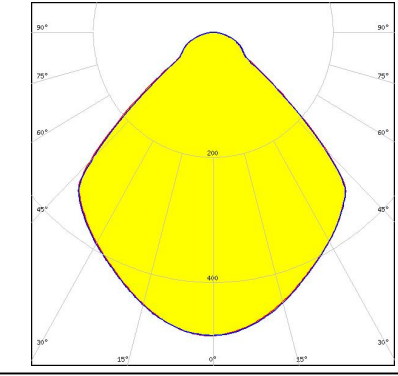
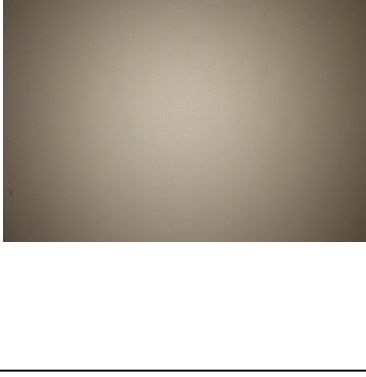
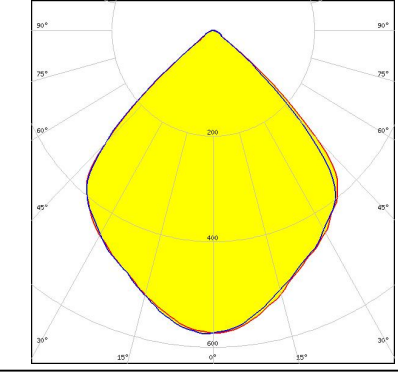
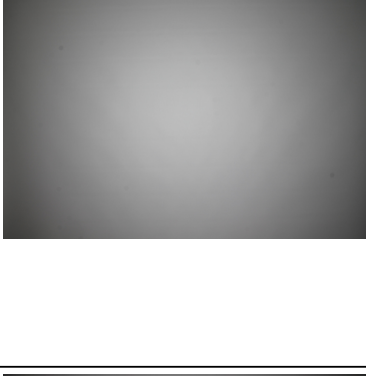
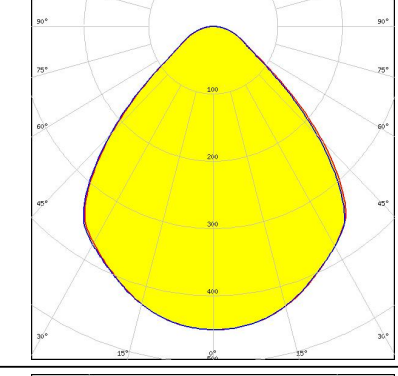
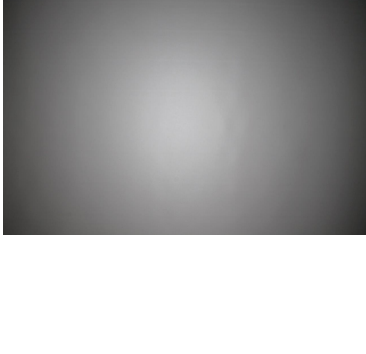
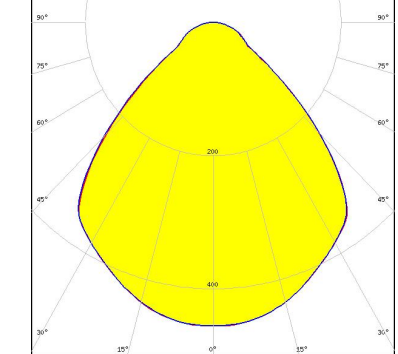
Component	Type	Material	Colour	Coating
ANGELINA-XW	Reflector	HRPC	white	



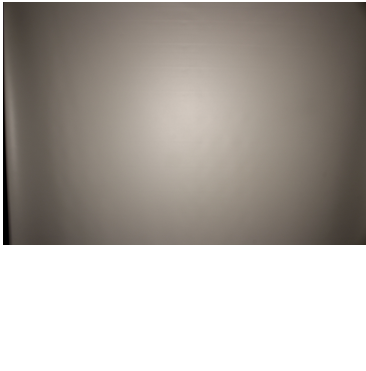
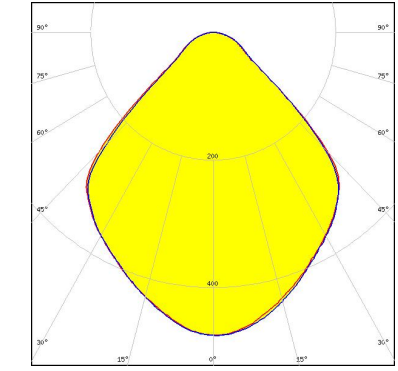
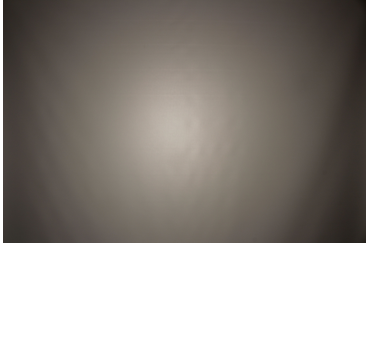
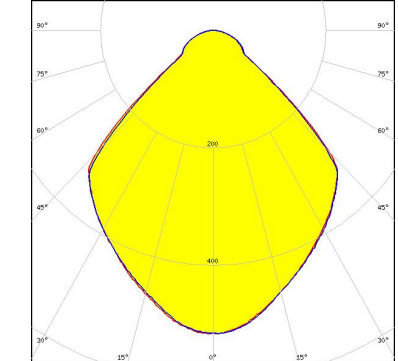
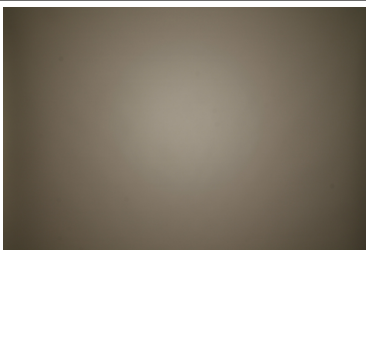
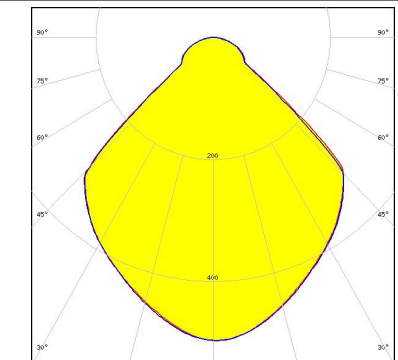
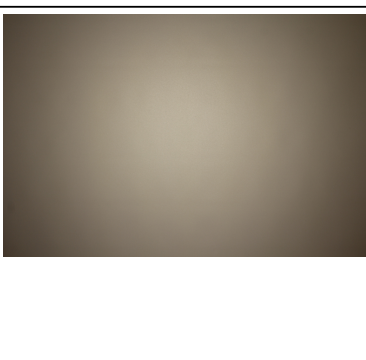
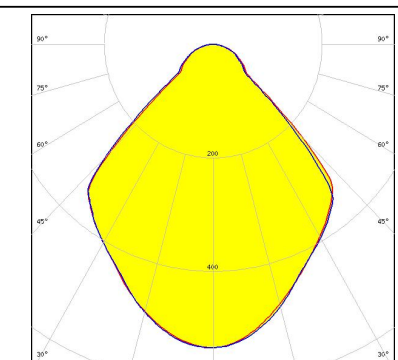
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED V10 Gen7            FWHM 93.0°            Efficiency 89 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 434 Typ L1</p>		
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 92.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p>bridgelux.</p> <p>LED V22 Gen6            FWHM 88.0°            Efficiency 94 %            Peak intensity 0.510 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p>bridgelux.</p> <p>LED Vero SE 13            FWHM 94.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C16402_CLAMP-VEROSE-13-18</p>		

#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED Vero SE 18</p> <p>FWHM 93.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.490 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C16402_CLAMP-VEROSE-13-18</p>		
<p>bridgelux.</p> <p>LED VERO18</p> <p>FWHM 90.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.580 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 90.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.450 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>		
<p>bridgelux.</p> <p>LED VERO29</p> <p>FWHM 91.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 0.460 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29</p>		

#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED Vesta TW 15mm DP            FWHM 92.0°            Efficiency 91 %            Peak intensity 0.476 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>bridgelux.</p> <p>LED Vesta TW 15mm DP            FWHM 92.0°            Efficiency 96 %            Peak intensity 0.517 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><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM 94.0°            Efficiency 95 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 434 Typ L1</p>		
<p><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM 89.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            IDEAL: 50-2103CT + 50-2100AN</p>		

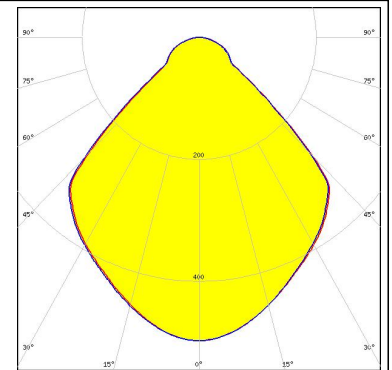
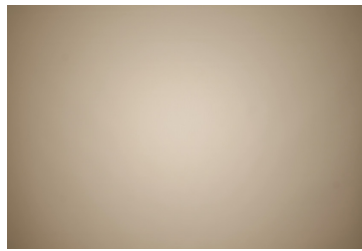
#### PHOTOMETRIC DATA (MEASURED):

#### CITIZEN

LED CLL03x/CLU03x  
FWHM 91.0°  
Efficiency 94 %  
Peak intensity 0.500 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

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



#### CITIZEN

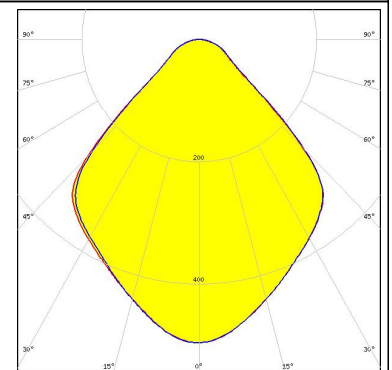
LED CLL03x/CLU03x  
FWHM 91.0°  
Efficiency 92 %  
Peak intensity 0.500 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C16791\_CLAMP-Z45-A

F13671\_ANGE-RZ-LENS

TE: 2325807-3



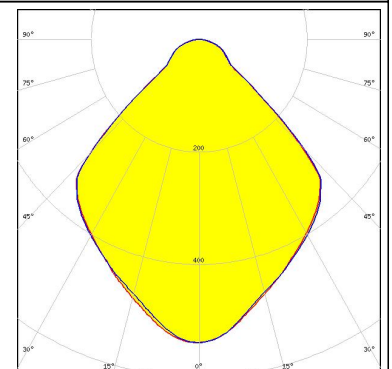
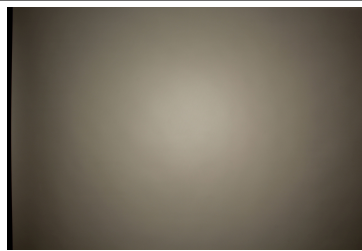
#### CITIZEN

LED CLL03x/CLU03x  
FWHM 90.0°  
Efficiency 94 %  
Peak intensity 0.540 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C16791\_CLAMP-Z45-A

TE: 2325807-3

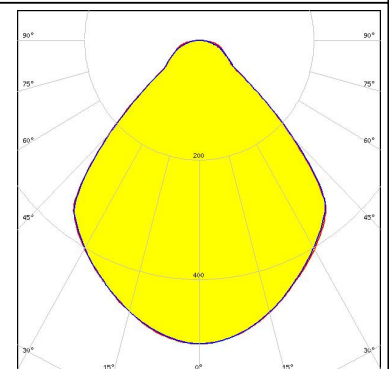
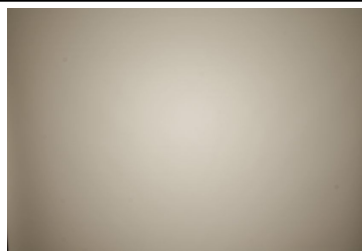


#### CITIZEN

LED CLL04x/CLU04x  
FWHM 88.0°  
Efficiency 94 %  
Peak intensity 0.510 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

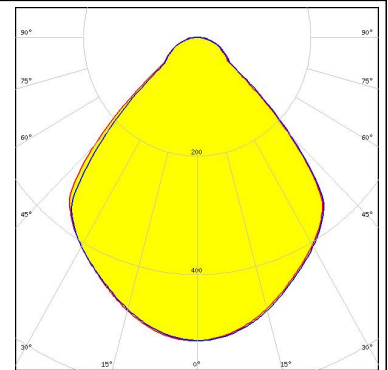
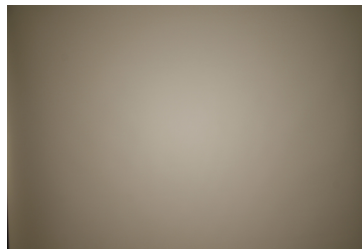
IDEAL: 50-2204-CT + 50-2100AN



#### PHOTOMETRIC DATA (MEASURED):

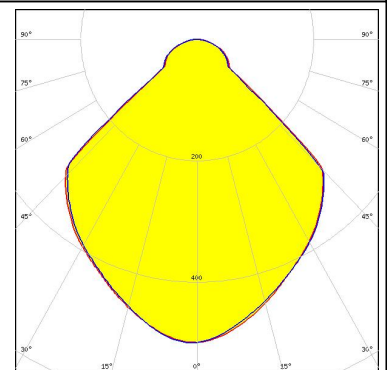
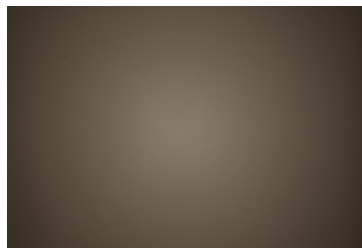
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 88.0°  
 Efficiency 95 %  
 Peak intensity 0.510 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



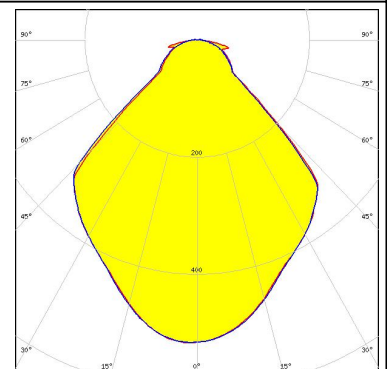
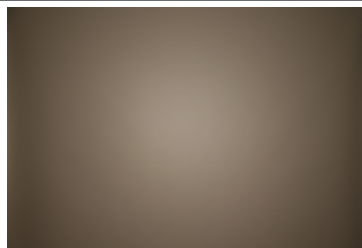
#### CITIZEN

LED CLU700/701/702  
 FWHM 95.0°  
 Efficiency 95 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



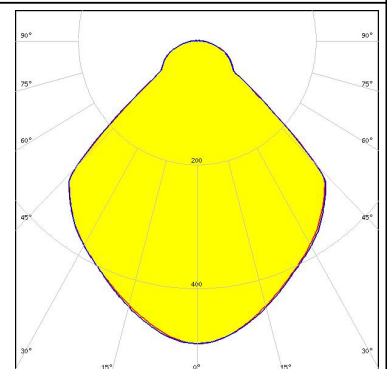
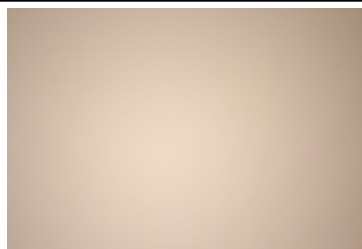
#### CITIZEN

LED CLU720/721  
 FWHM 89.0°  
 Efficiency 94 %  
 Peak intensity 0.540 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



#### CITIZEN

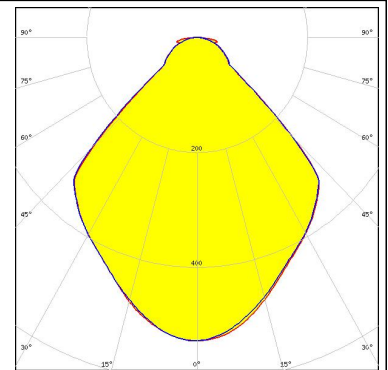
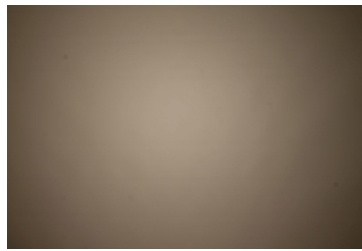
LED CLU720/721  
 FWHM 93.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### PHOTOMETRIC DATA (MEASURED):

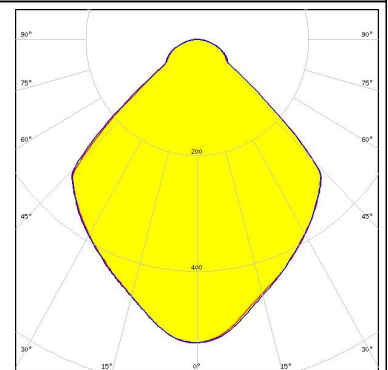
#### CITIZEN

LED CLU730/731  
 FWHM 90.0°  
 Efficiency 94 %  
 Peak intensity 0.530 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



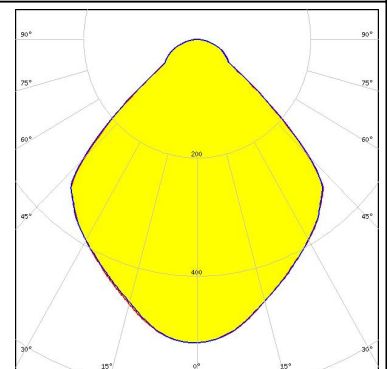
#### CREE

LED CMA1840  
 FWHM 93.0°  
 Efficiency 97 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



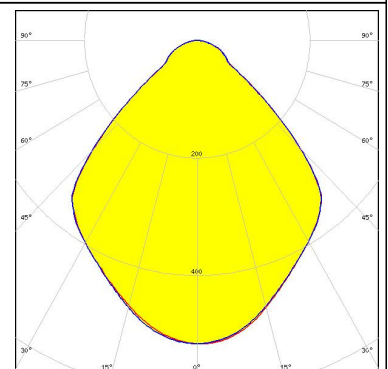
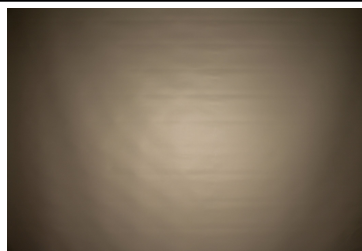
#### CREE

LED CMA2550  
 FWHM 92.0°  
 Efficiency 94 %  
 Peak intensity 0.510 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



#### CREE

LED CMA3090  
 FWHM 90.0°  
 Efficiency 97 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30

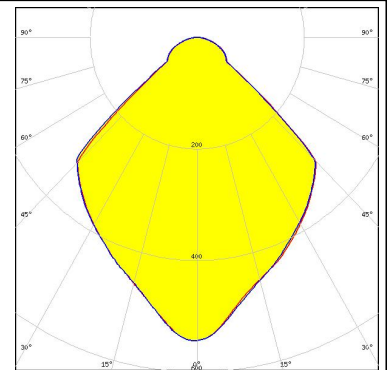
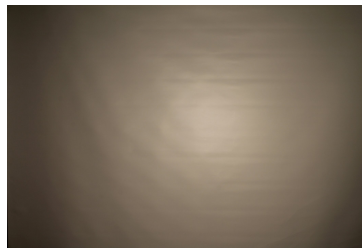




#### PHOTOMETRIC DATA (MEASURED):

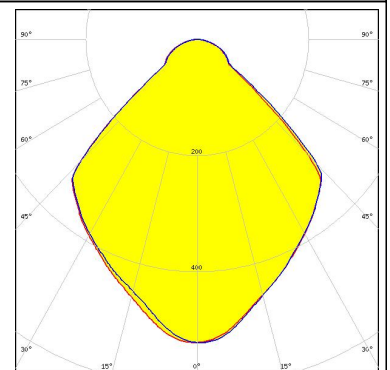
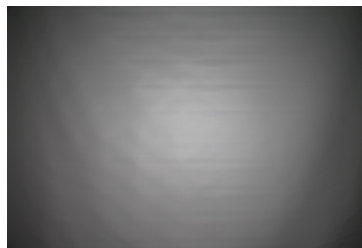
**CREE** 

LED CMT14xx  
 FWHM 93.0°  
 Efficiency 94 %  
 Peak intensity 0.550 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



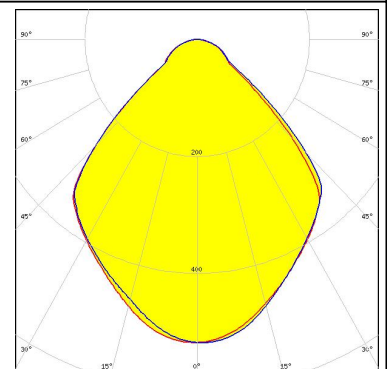
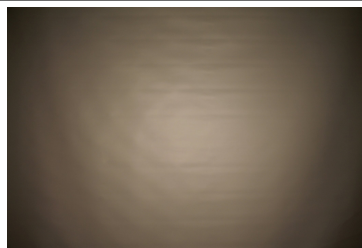
**CREE** 

LED CMT19xx  
 FWHM 92.0°  
 Efficiency 94 %  
 Peak intensity 0.520 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 477 Typ L1



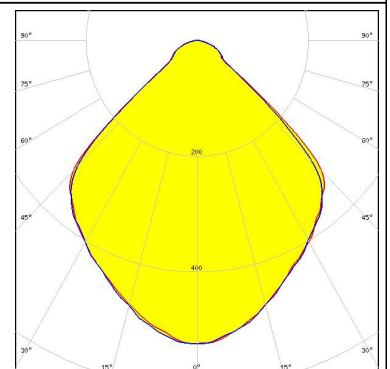
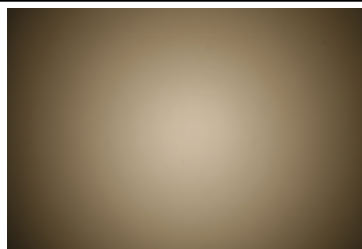
**CREE** 

LED CMT28xx  
 FWHM 89.0°  
 Efficiency 96 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 471 Typ L3



**CREE** 

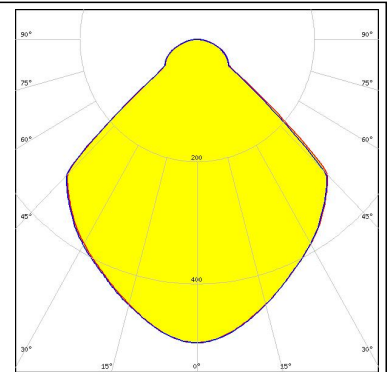
LED CXA/B 15xx  
 FWHM 94.0°  
 Efficiency 94 %  
 Peak intensity 0.530 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



#### PHOTOMETRIC DATA (MEASURED):

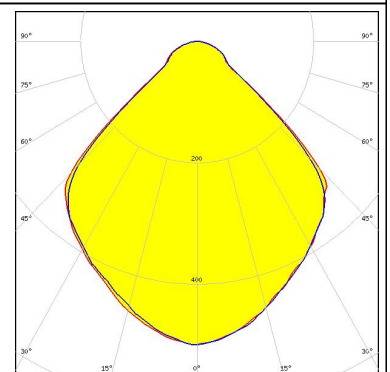
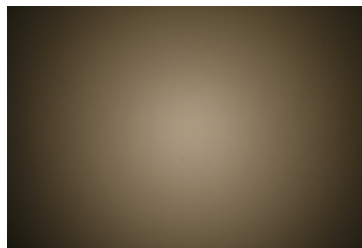
**CREE** 

LED CXA/B 15xx  
 FWHM 94.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 441 Typ L1



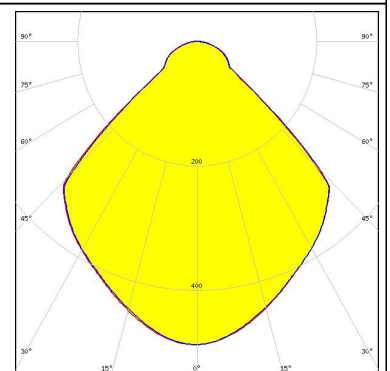
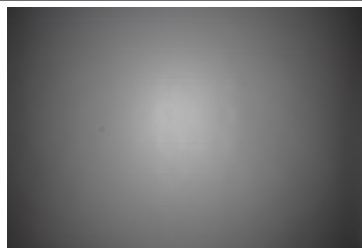
**CREE** 

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 94.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



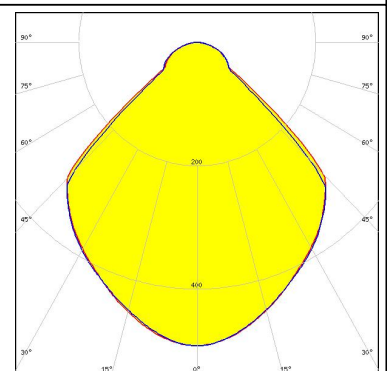
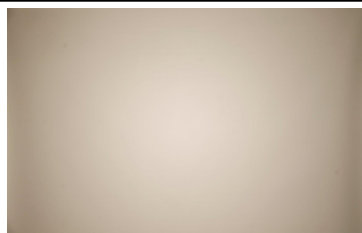
**CREE** 

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 93.0°  
 Efficiency 94 %  
 Peak intensity 0.490 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



**CREE** 

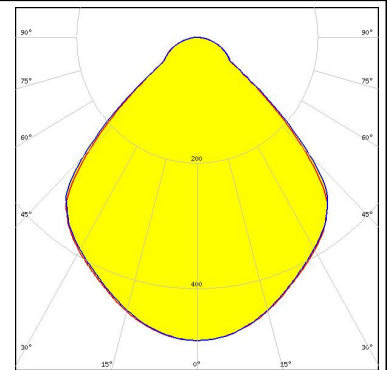
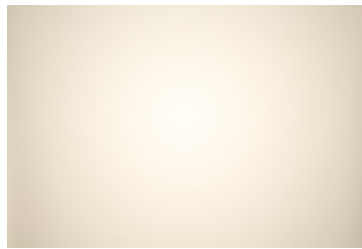
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 94.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

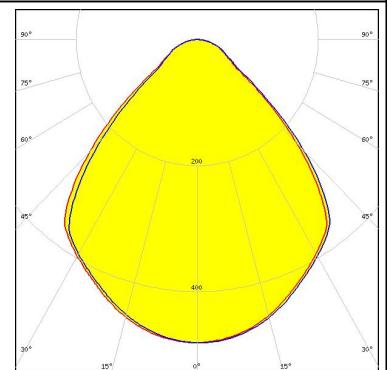
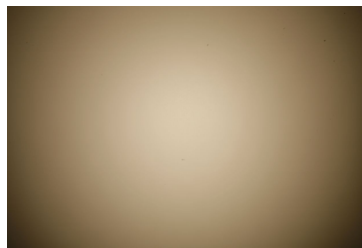
#### CREE

LED CXA/B 30xx  
 FWHM 91.0°  
 Efficiency 94 %  
 Peak intensity 0.480 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



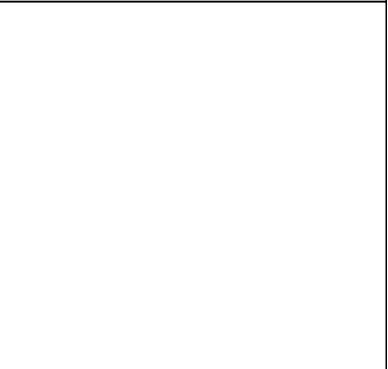
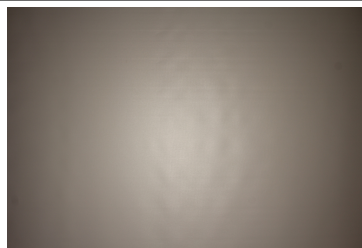
#### CREE

LED CXA/B 3590  
 FWHM 90.0°  
 Efficiency 94 %  
 Peak intensity 0.480 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2303CR + 50-2300AN



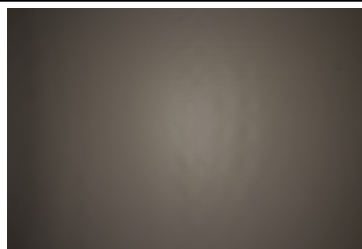
#### EVERLIGHT

LED CHI3030 19W  
 FWHM 88.0°  
 Efficiency 91 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3

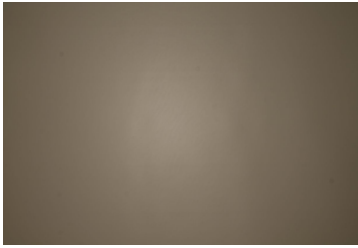
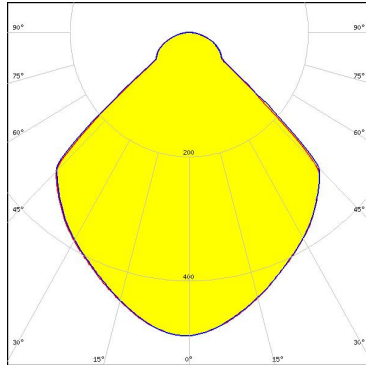

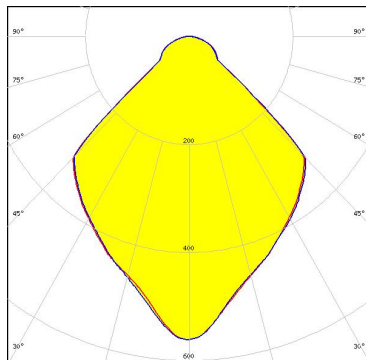

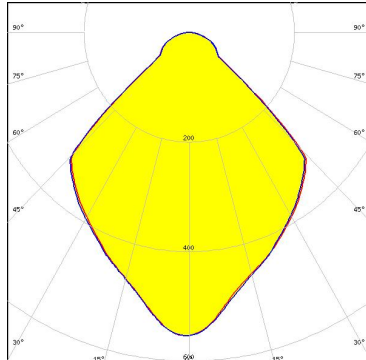
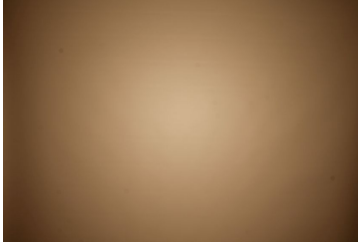
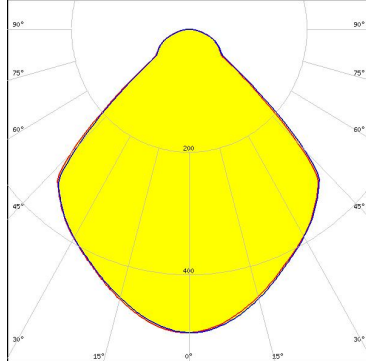


#### EVERLIGHT

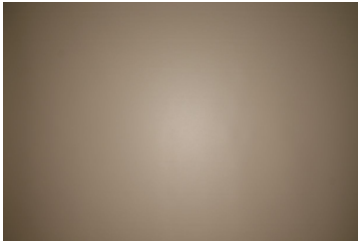
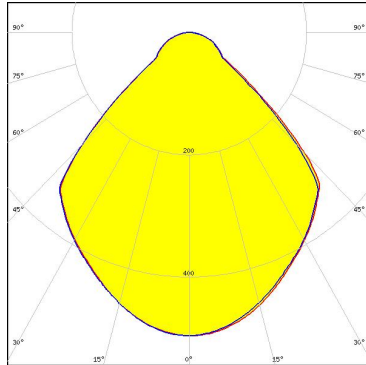
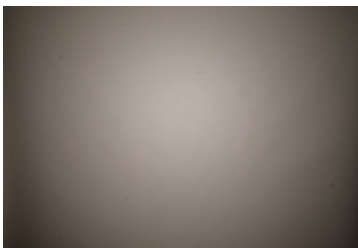
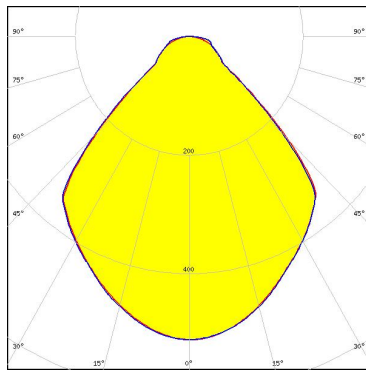

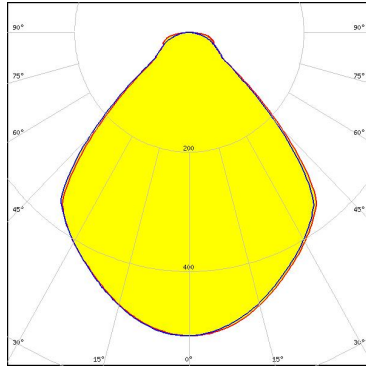

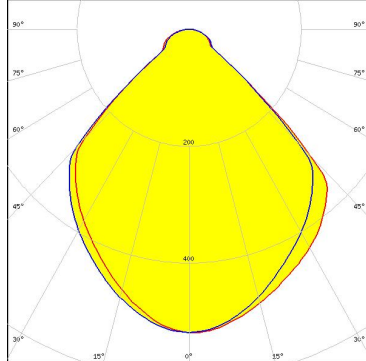
LED CHI3030 29W  
 FWHM 89.0°  
 Efficiency 91 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3



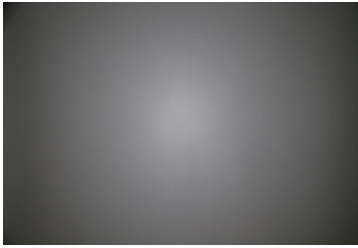
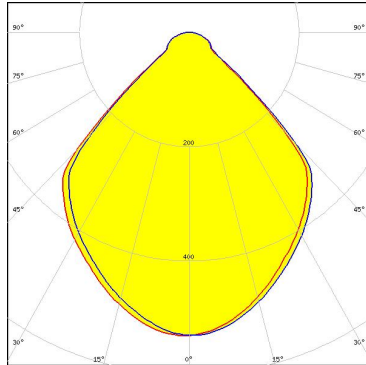
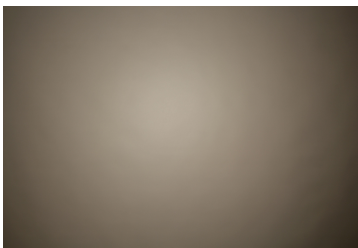
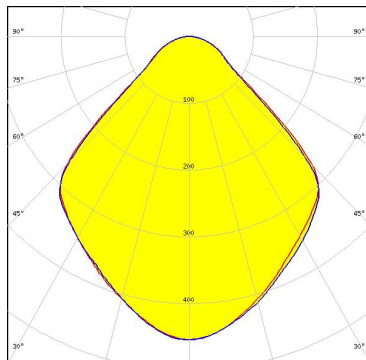

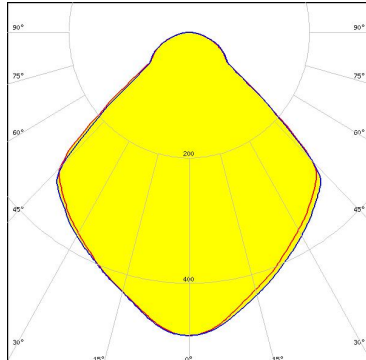
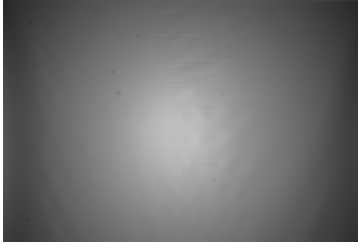
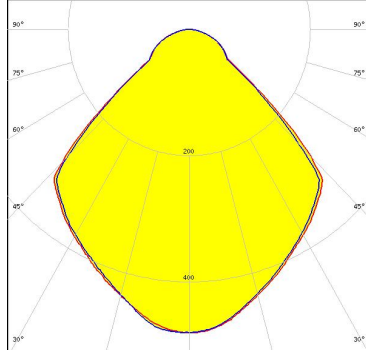
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203            FWHM 95.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD            FWHM 92.0°            Efficiency 96 %            Peak intensity 0.560 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1205HD            FWHM 92.0°            Efficiency 96 %            Peak intensity 0.550 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208            FWHM 92.0°            Efficiency 94 %            Peak intensity 0.490 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		


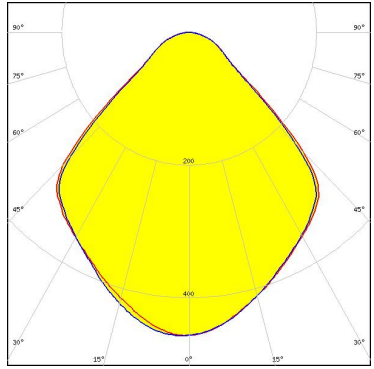
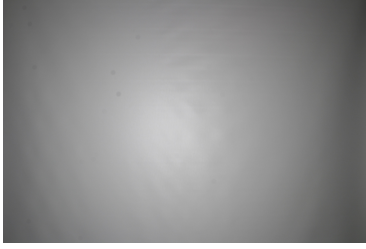
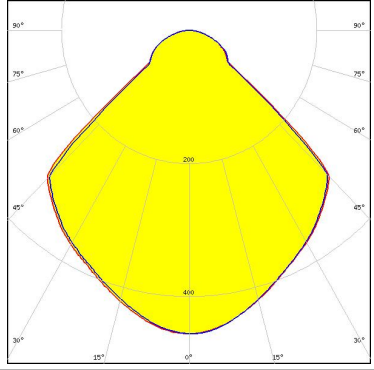
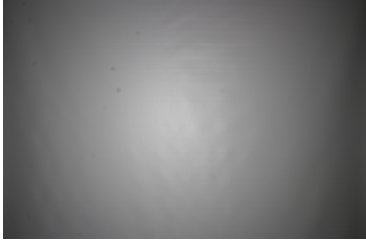
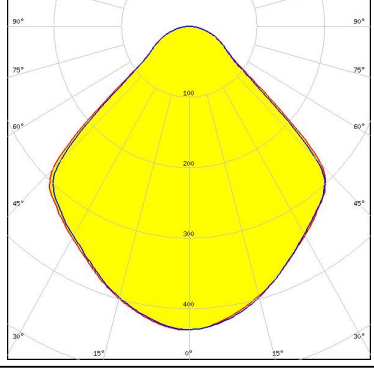
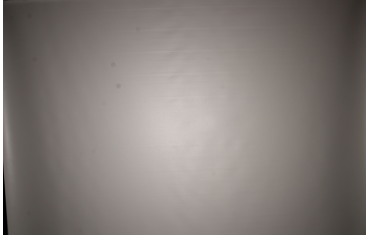
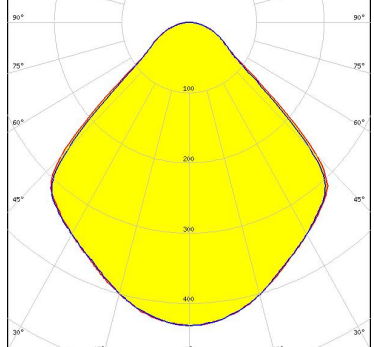
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211            FWHM 91.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            Bender Wirth: 431 Typ L3</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211            FWHM 89.0°            Efficiency 94 %            Peak intensity 0.510 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812            FWHM 88.0°            Efficiency 94 %            Peak intensity 0.510 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K12            FWHM 92.0°            Efficiency 94 %            Peak intensity 0.520 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

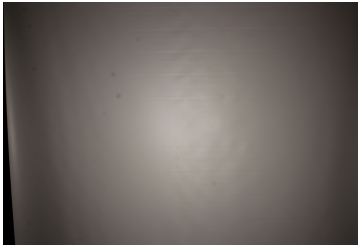
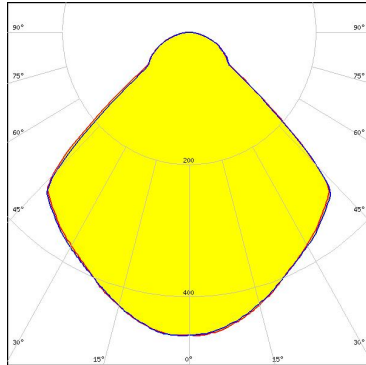
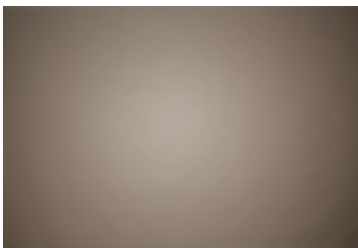
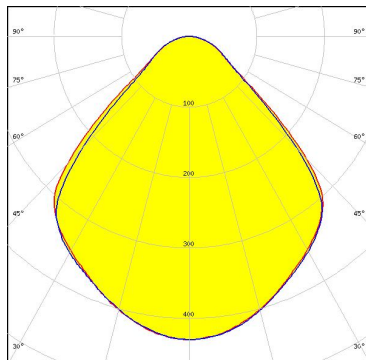

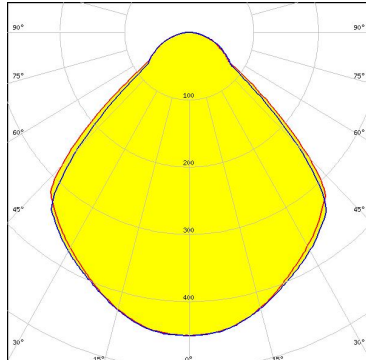
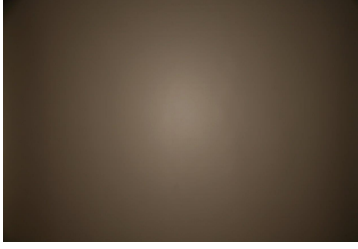
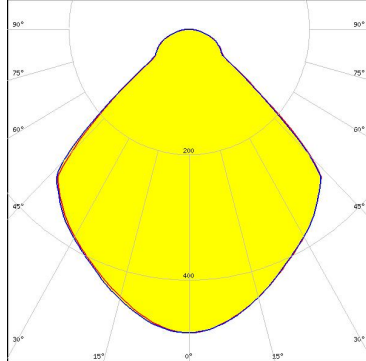
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON K16            FWHM 90.0°            Efficiency 94 %            Peak intensity 0.530 cd/lm            LEDs/each optic 1            Light colour White            Required components:            BJB: 47.319.2070</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)            FWHM 94.0°            Efficiency 90 %            Peak intensity 0.450 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)            FWHM 94.0°            Efficiency 95 %            Peak intensity 0.480 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)            FWHM 93.0°            Efficiency 94 %            Peak intensity 0.400 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 491 Typ L2</p>		

#### PHOTOMETRIC DATA (MEASURED):


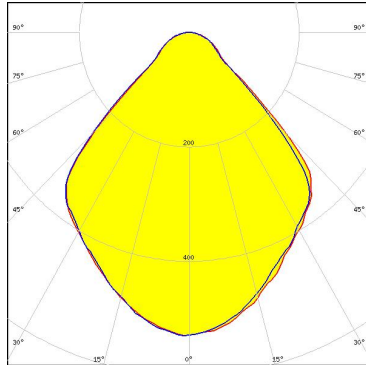
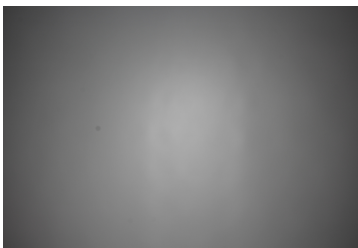
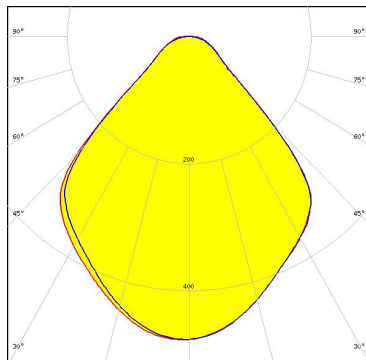

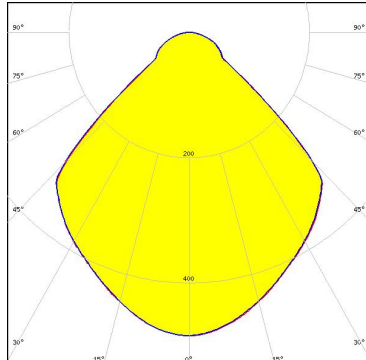
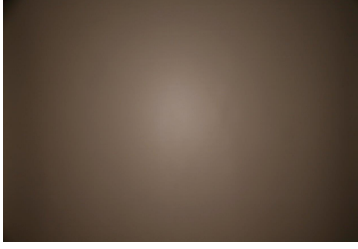
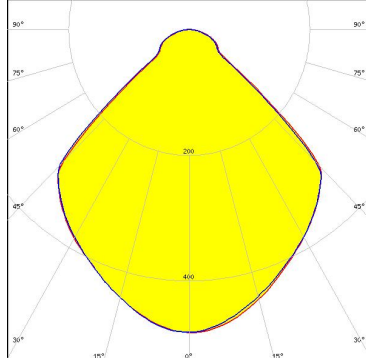
<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM 93.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 0.460 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM 95.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.460 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 95.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.430 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 94.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 0.430 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>		

#### PHOTOMETRIC DATA (MEASURED):


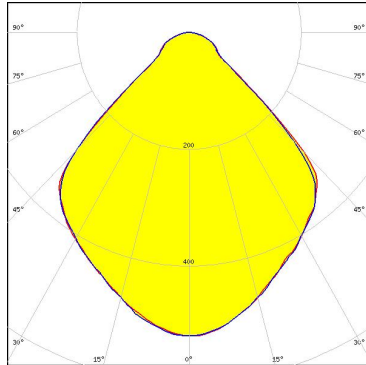
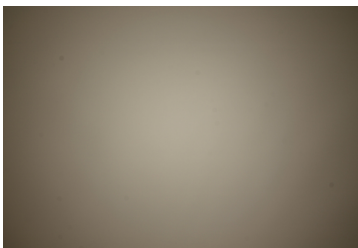
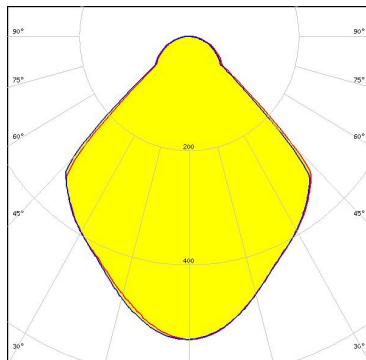
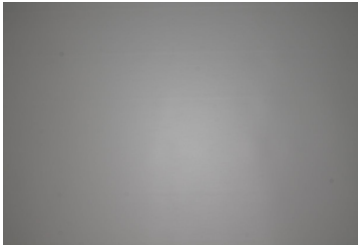
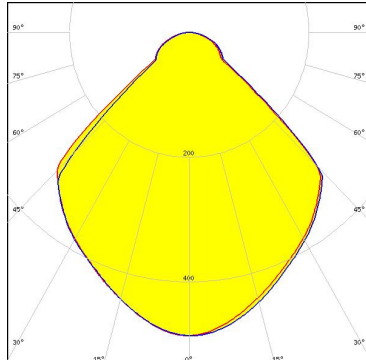
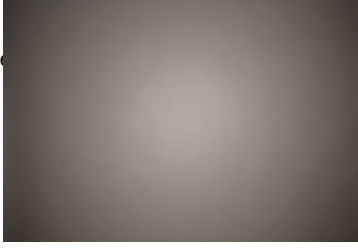
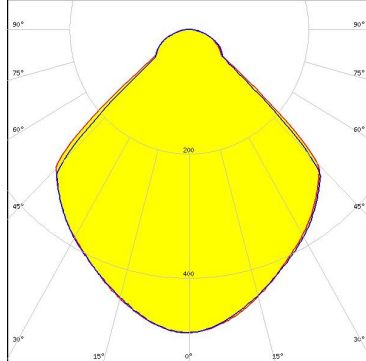
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)            FWHM 94.0°            Efficiency 94 %            Peak intensity 0.460 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)            FWHM 92.0°            Efficiency 88 %            Peak intensity 0.430 cd/lm            LEDs/each optic 1            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 CTM-22 (Tunable White)            FWHM 93.0°            Efficiency 93 %            Peak intensity 0.450 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 494 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-14 (19x19)            FWHM 93.0°            Efficiency 94 %            Peak intensity 0.480 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		



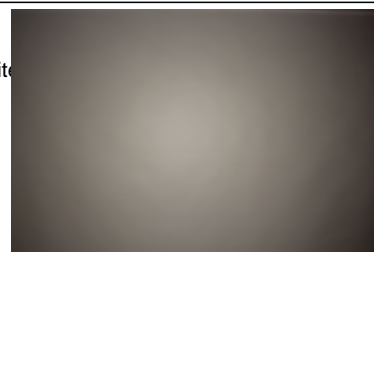
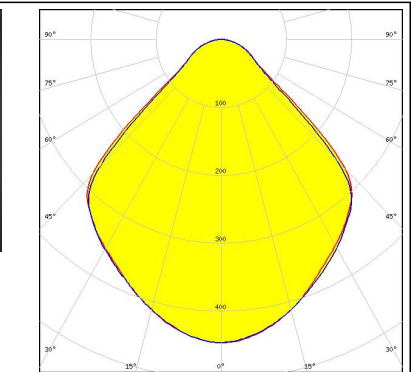
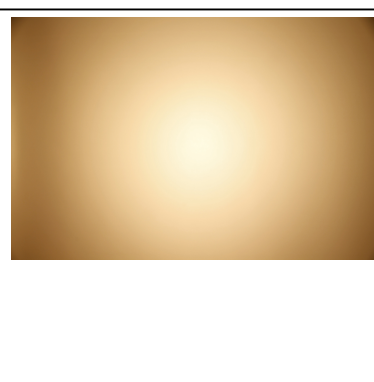
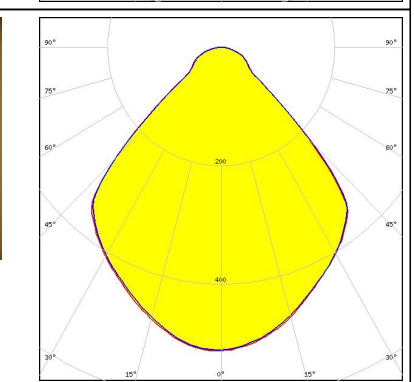
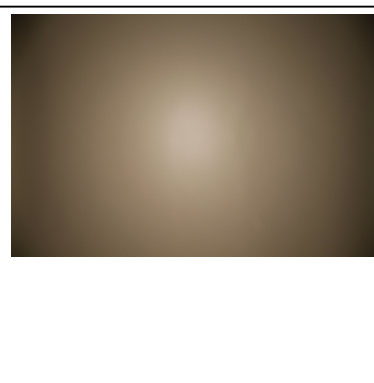
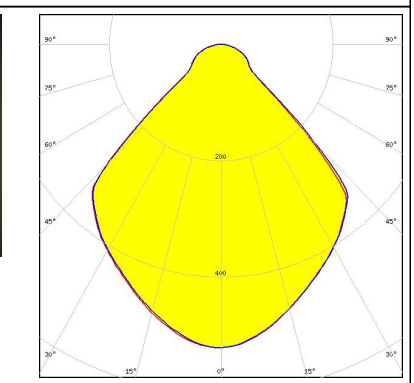

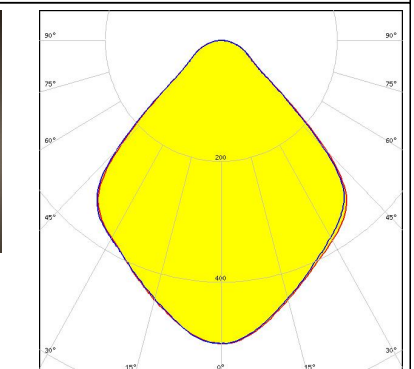
#### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB J-Type            FWHM 88.0°            Efficiency 92 %            Peak intensity 0.530 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type            FWHM 89.0°            Efficiency 90 %            Peak intensity 0.480 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            IDEAL: 50-2103NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type            FWHM 93.0°            Efficiency 95 %            Peak intensity 0.480 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 463 Typ L2</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 94.0°            Efficiency 94 %            Peak intensity 0.480 cd/lm            LEDs/each optic 1            Light colour White            Required components:            Molex: 180580-0005</p>		

#### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 92.0°            Efficiency 94 %            Peak intensity 0.520 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 90.0°            Efficiency 94 %            Peak intensity 0.530 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 94.0°            Efficiency 94 %            Peak intensity 0.490 cd/lm            LEDs/each optic 1            Light colour White            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            FWHM 94.0°            Efficiency 94 %            Peak intensity 0.490 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 498 Typ L2</p>		

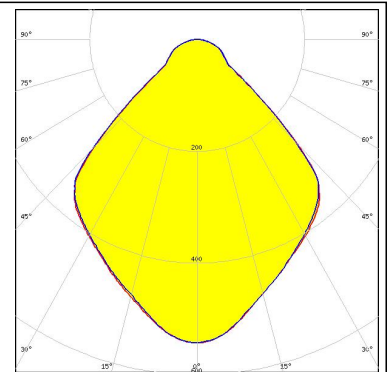
#### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM 94.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 0.450 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>OSRAM</b></p> <p>LED PrevaLED Core AC (LEP-2000)</p> <p>FWHM 89.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.510 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            TE: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b></p> <p>LED PrevaLED Core AC (LEP-800)</p> <p>FWHM 90.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 0.520 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            TE: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b></p> <p>LED PrevaLED Core G7 L15 H1</p> <p>FWHM 90.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 0.500 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C16685_CLAMP-PRV-A            F13671_ANGE-RZ-LENS</p>		

#### PHOTOMETRIC DATA (MEASURED):

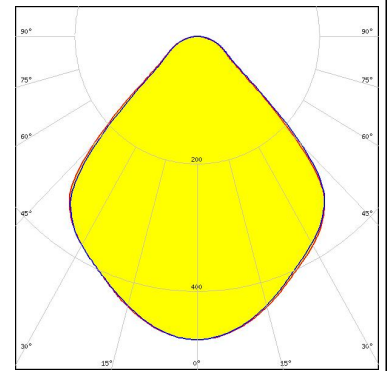
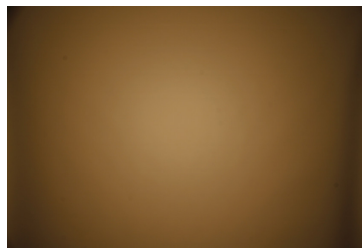
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM 90.0°  
 Efficiency 94 %  
 Peak intensity 0.540 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A



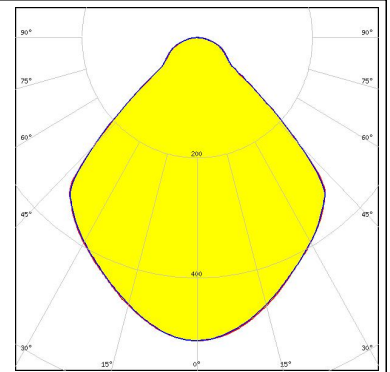
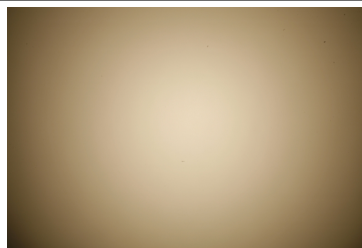
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM 90.0°  
 Efficiency 90 %  
 Peak intensity 0.480 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



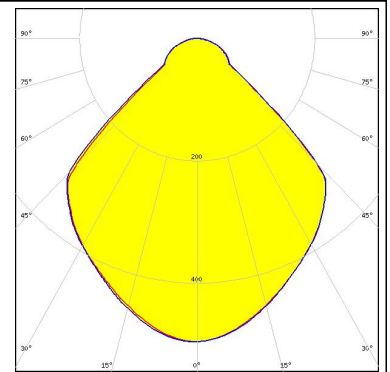
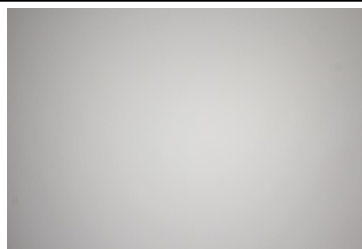
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM 90.0°  
 Efficiency 94 %  
 Peak intensity 0.510 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



#### OSRAM

Opto Semiconductors  
 LED Soleriq S13  
 FWHM 93.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1



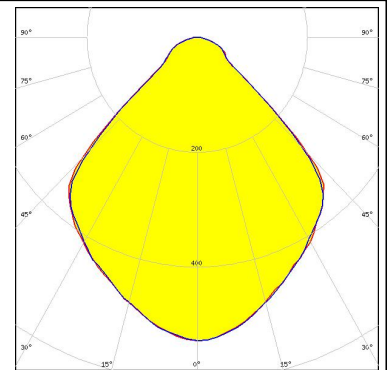
#### PHOTOMETRIC DATA (MEASURED):

**OSRAM**  
Opto Semiconductors

LED Soleriq S13  
FWHM 92.0°  
Efficiency 94 %  
Peak intensity 0.500 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

TE: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1

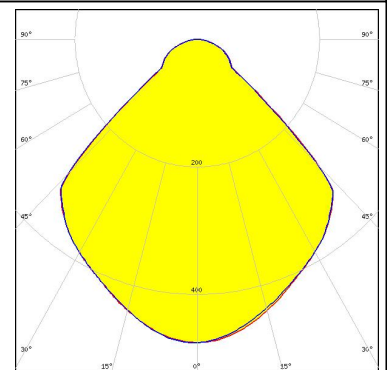
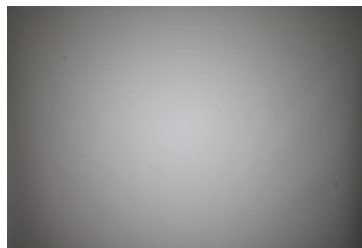


**OSRAM**  
Opto Semiconductors

LED Soleriq S13 19x19  
FWHM 93.0°  
Efficiency 94 %  
Peak intensity 0.480 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

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

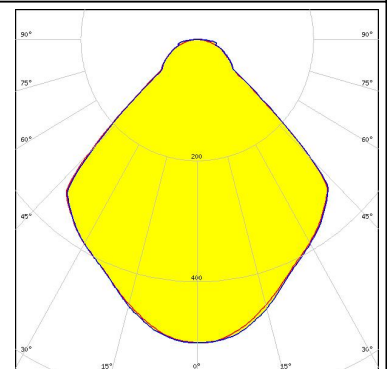
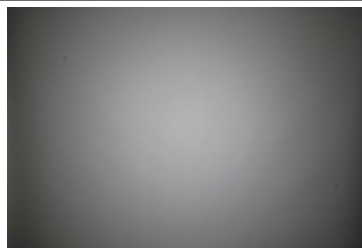


**OSRAM**  
Opto Semiconductors

LED Soleriq S13 19x19  
FWHM 91.0°  
Efficiency 94 %  
Peak intensity 0.500 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

IDEAL: 50-2103CT + 50-2100AN

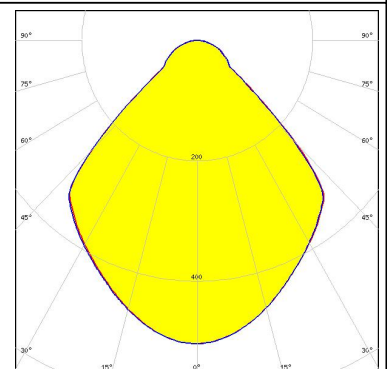
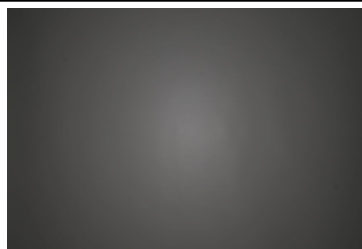


**OSRAM**  
Opto Semiconductors

LED Soleriq S19  
FWHM 90.0°  
Efficiency 93 %  
Peak intensity 0.500 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13584\_CLAMP-VERO29  
Bender Wirth: 462 Typ L3



#### PHOTOMETRIC DATA (MEASURED):

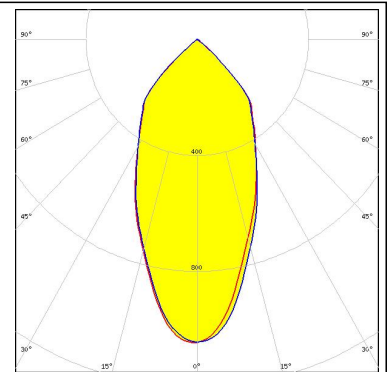
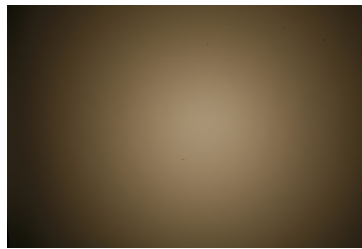
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM 91.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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

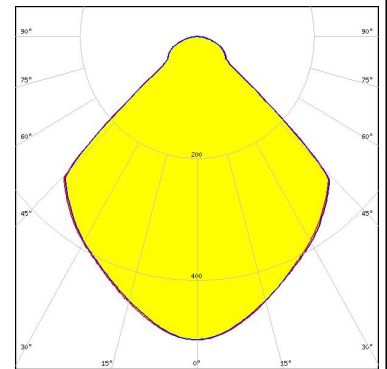
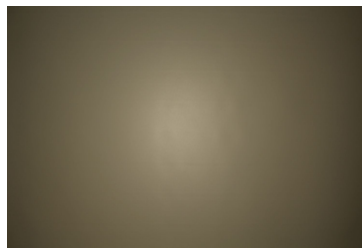


#### PHILIPS

LED Fortimo SLM L09 + SLM holder  
 FWHM 93.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE: OPTIC CLIP Z50 TYPE1 2213194-1

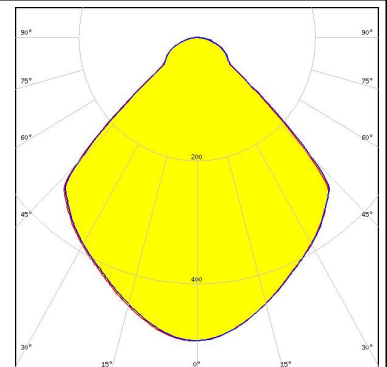
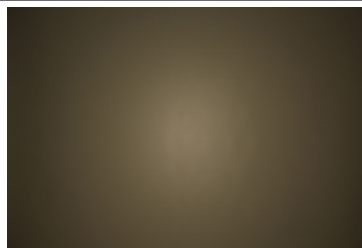


#### PHILIPS

LED Fortimo SLM L13 + SLM holder  
 FWHM 92.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE: OPTIC CLIP Z50 TYPE1 2213194-1

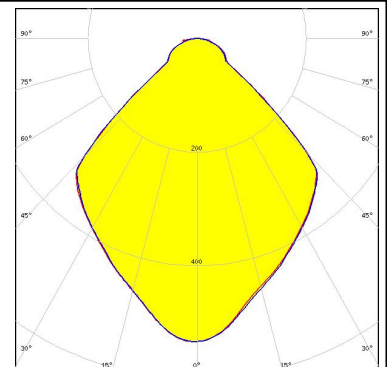
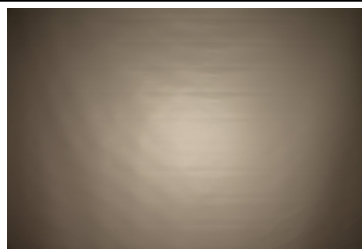


#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM 92.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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

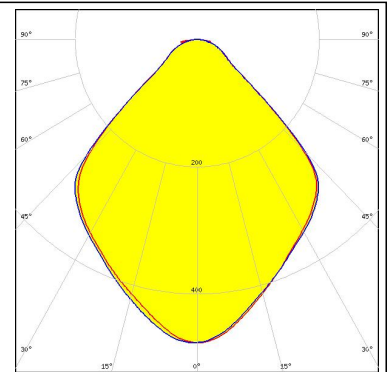


#### PHOTOMETRIC DATA (MEASURED):

#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM 91.0°  
 Efficiency 88 %  
 Peak intensity 0.480 cd/lm  
 LEDs/each optic 1  
 Light colour White

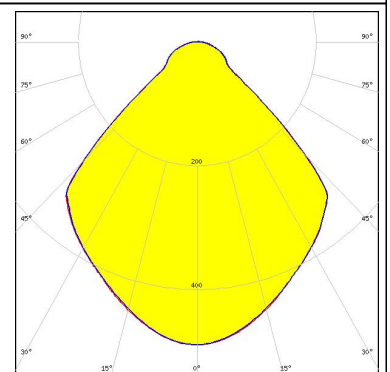
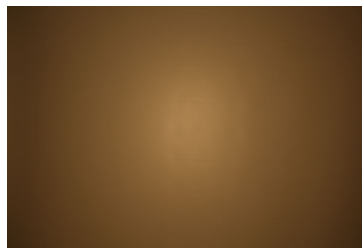
Required components:  
 F13671\_ANGE-RZ-LENS  
 TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM 91.0°  
 Efficiency 92 %  
 Peak intensity 0.490 cd/lm  
 LEDs/each optic 1  
 Light colour White

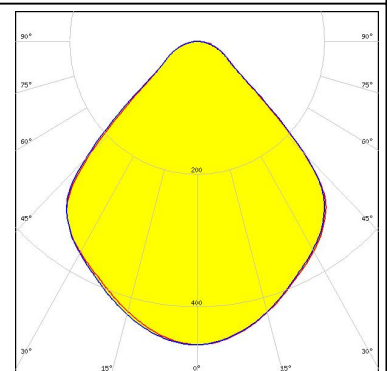
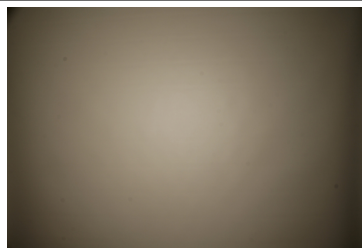
Required components:  
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM 91.0°  
 Efficiency 89 %  
 Peak intensity 0.460 cd/lm  
 LEDs/each optic 1  
 Light colour White

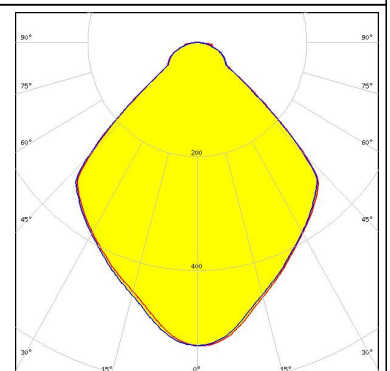
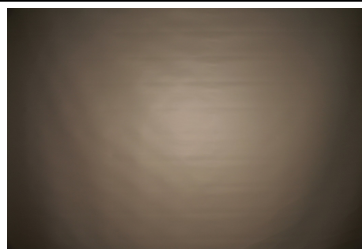
Required components:  
 F13671\_ANGE-RZ-LENS  
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 91.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

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



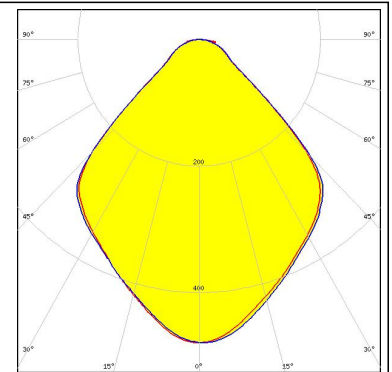
#### PHOTOMETRIC DATA (MEASURED):

#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 91.0°  
 Efficiency 89 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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

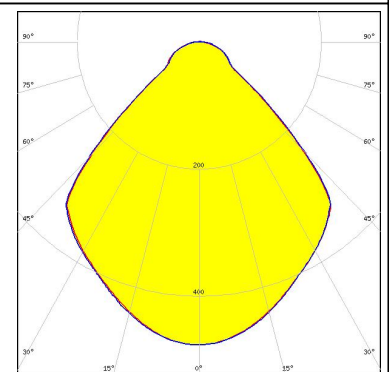
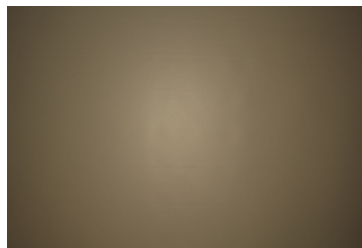


#### PHILIPS

LED Fortimo SLM L19 + SLM holder  
 FWHM 90.0°  
 Efficiency 91 %  
 Peak intensity 0.480 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE: OPTIC CLIP Z50 TYPE1 2213194-1

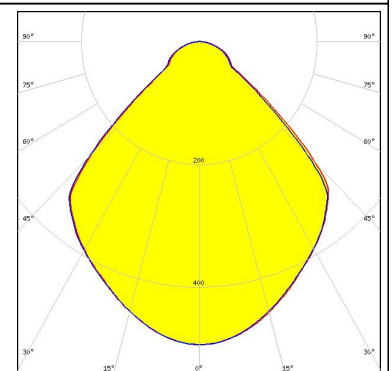
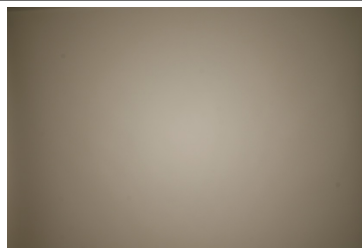


#### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM 91.0°  
 Efficiency 94 %  
 Peak intensity 0.490 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13658\_CLAMP-VERO13-18  
 Bender Wirth: 450 Typ L2

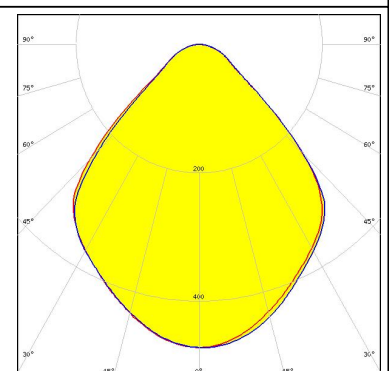
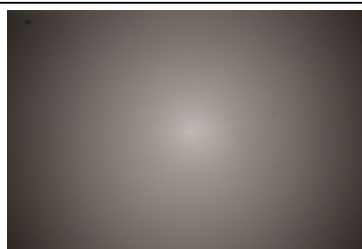


#### SAMSUNG

LED LC035T (Tunable white)  
 FWHM 90.0°  
 Efficiency 91 %  
 Peak intensity 0.473 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White

Required components:

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

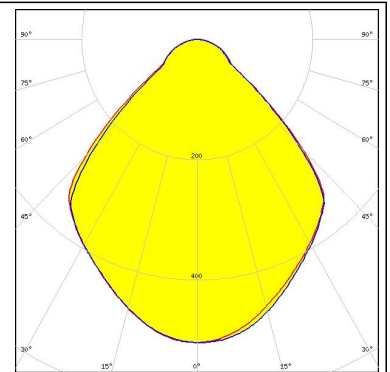




#### PHOTOMETRIC DATA (MEASURED):

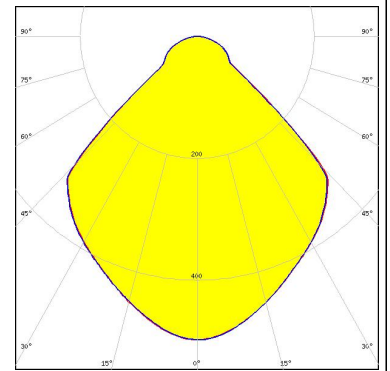
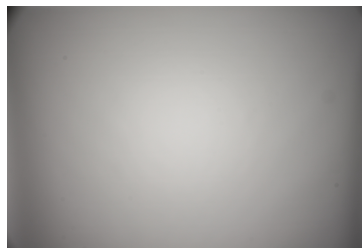
#### SAMSUNG

LED LC035T (Tunable white)  
 FWHM 91.0°  
 Efficiency 96 %  
 Peak intensity 0.505 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3



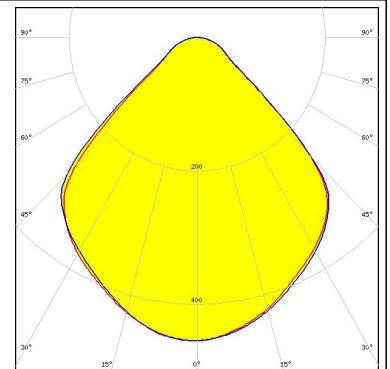
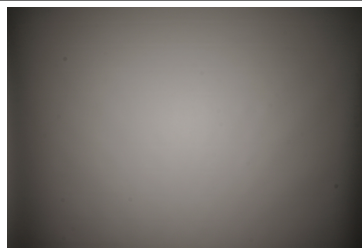
#### SAMSUNG

LED LC040C  
 FWHM 93.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



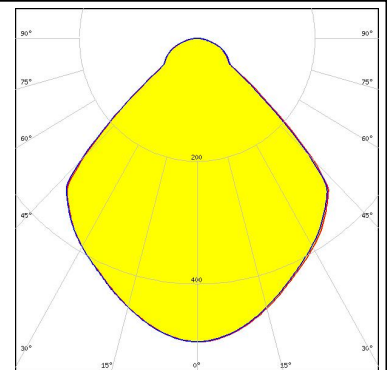
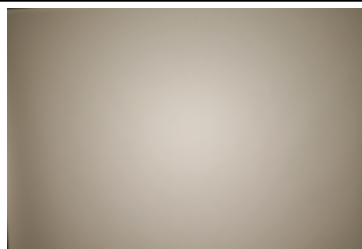
SEOUL SEMICONDUCTOR

LED AC Zhaga COB  
 FWHM 93.0°  
 Efficiency 91 %  
 Peak intensity 0.460 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS

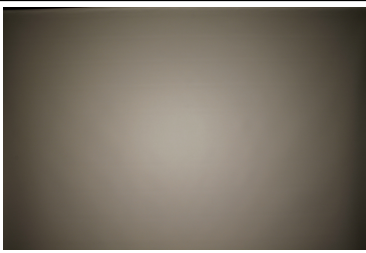
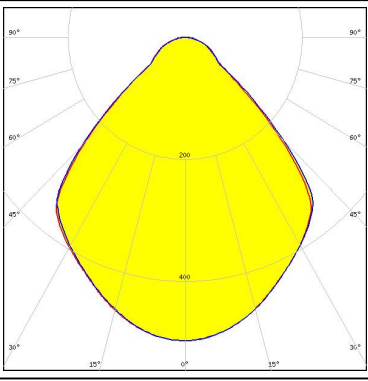
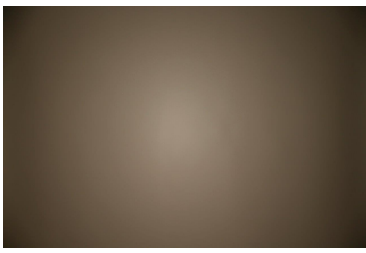
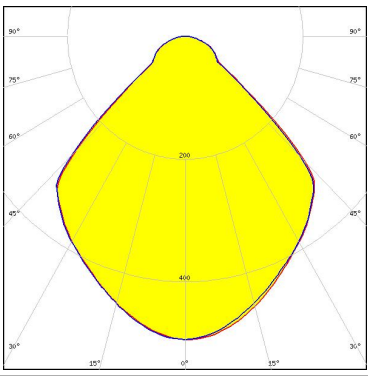

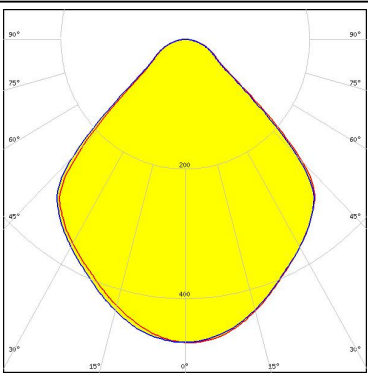
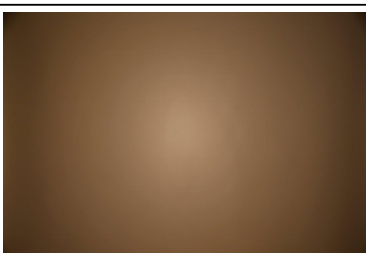
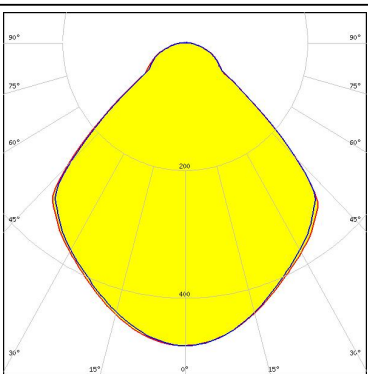


SEOUL SEMICONDUCTOR

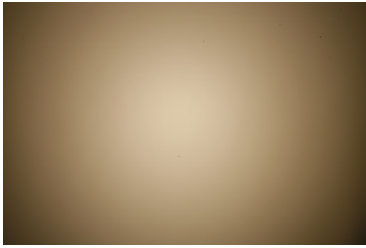
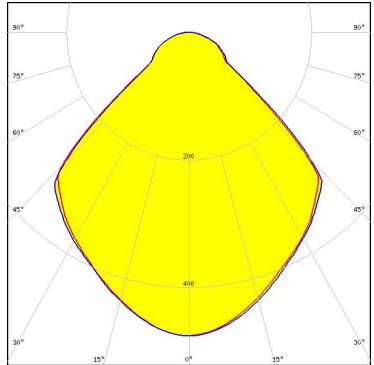
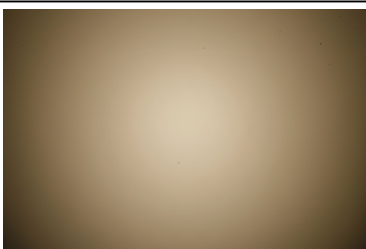
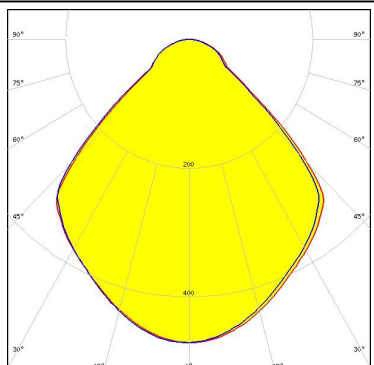
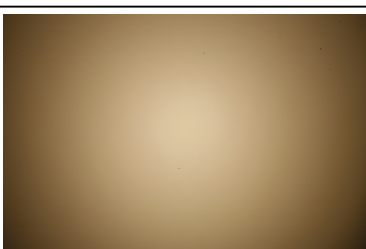
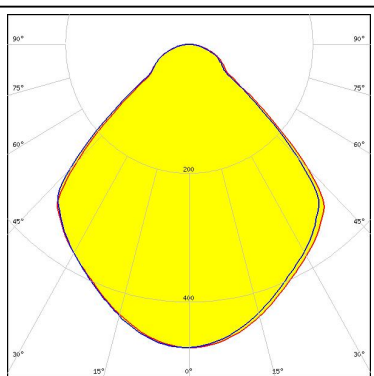
LED MJT COB LES 14.5  
 FWHM 92.0°  
 Efficiency 94 %  
 Peak intensity 0.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



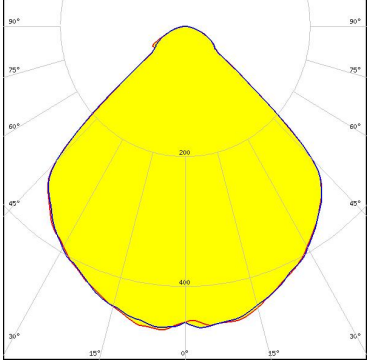
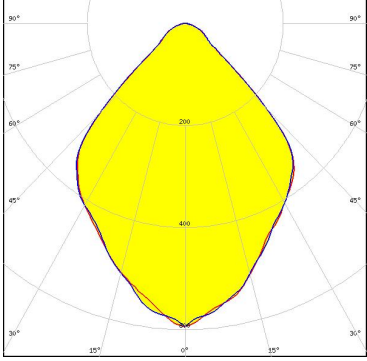
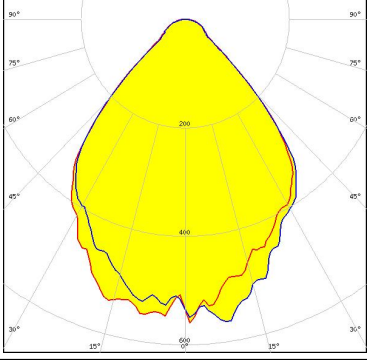
#### PHOTOMETRIC DATA (MEASURED):

<p><b>SEUL</b> SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 22            FWHM 89.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 431 Typ L3</p>		
<p><b>SHARP</b></p> <p>LED Mega Zenigata (GW6DME)            FWHM 92.0°            Efficiency 94 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>SHARP</b></p> <p>LED Mega Zenigata (GW6DME)            FWHM 92.0°            Efficiency 92 %            Peak intensity 0.470 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            F13671_ANGE-RZ-LENS            TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-464            FWHM 93.0°            Efficiency 94 %            Peak intensity 0.470 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### PHOTOMETRIC DATA (MEASURED):

<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484            FWHM 93.0°            Efficiency 94 %            Peak intensity 0.476 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-485            FWHM 93.0°            Efficiency 94 %            Peak intensity 0.470 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-486            FWHM 92.0°            Efficiency 94 %            Peak intensity 0.470 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### PHOTOMETRIC DATA (SIMULATED):

<p><b>bridgelux.</b></p> <p>LED V10 Gen7            FWHM 93.0°            Efficiency 92 %            Peak intensity 0.490 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 86.0°            Efficiency 92 %            Peak intensity 0.595 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 82.0°            Efficiency 94 %            Peak intensity 0.603 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2204-CT + 50-2100AN</p>	
<p><b>LUMINUS</b></p> <p>LED CxM-9 (13.5x13.5)            FWHM 94.0°            Efficiency 95 %            Peak intensity 0.500 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 434 Typ L1</p>	

## PHOTOMETRIC DATA (SIMULATED):

	
SEOUL SEMICONDUCTOR	
LED	ZC12/18
FWHM	92.0°
Efficiency	95 %
Peak intensity	0.490 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13658_CLAMP-VERO13-18	
Bender Wirth: 433 Typ L1	
<hr/>	
	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	94.0°
Efficiency	95 %
Peak intensity	0.500 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13658_CLAMP-VERO13-18	
Bender Wirth: 434 Typ L1	

### GENERAL INFORMATION:

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

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

### MATERIALS:

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

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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

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

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

#### LEDiL Oy

Joensuunkatu 13  
FI-24240 SALO  
Finland

#### LEDiL Inc.

228 West Page Street  
Suite D  
Sycamore IL 60178  
USA

#### Local sales and technical support

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

#### Shipping locations

Salo, Finland  
Hong Kong, China

#### Distribution Partners

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