

ANGELA-W

~45° wide beam

SPECIFICATION:

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

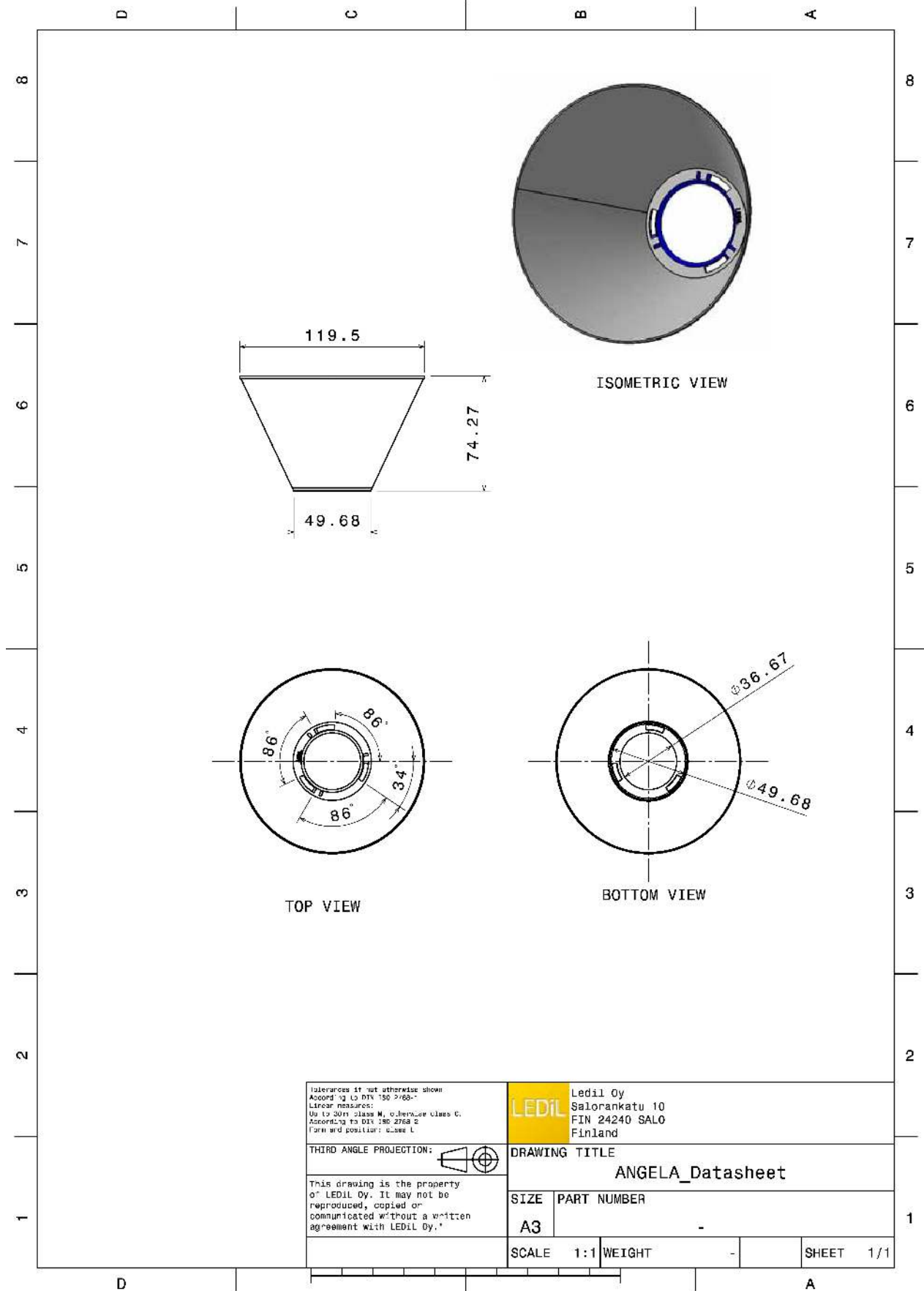
MATERIALS:

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




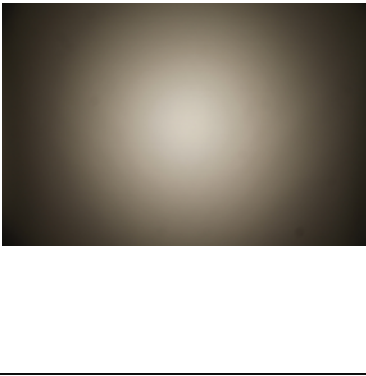
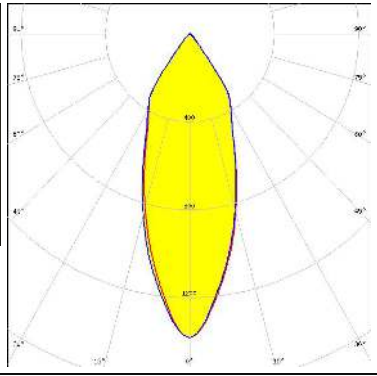


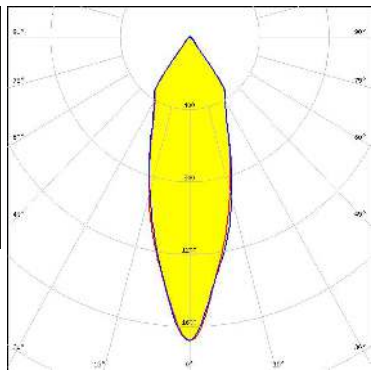


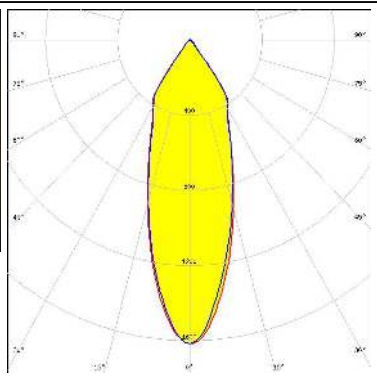


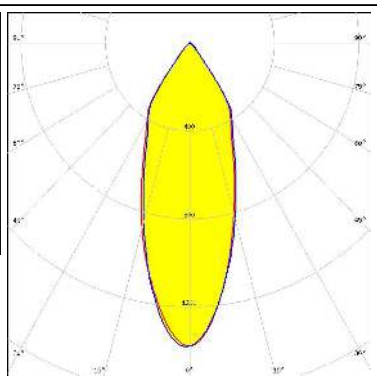
ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13381_ANGELA-W » Box size: 398 x 298 x 265 mm	180	90	45	9.1


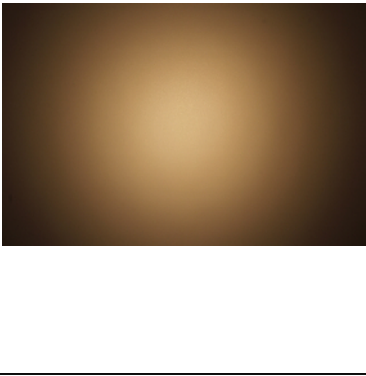


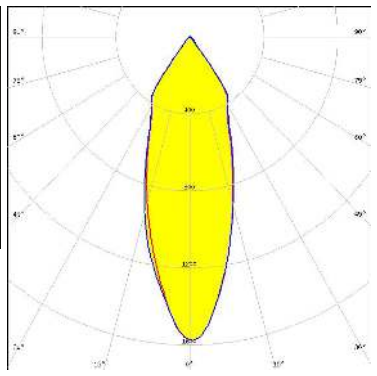


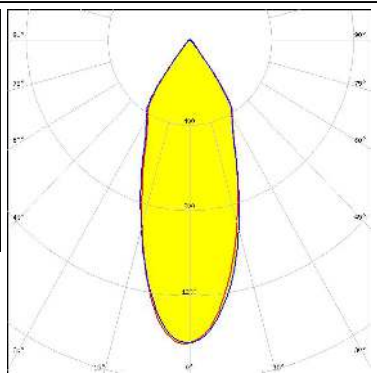

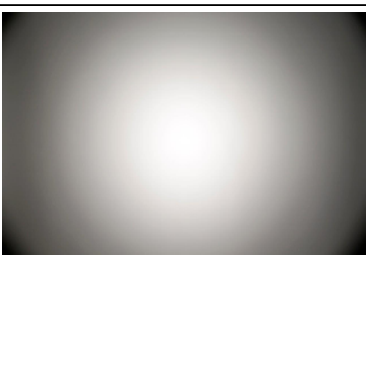
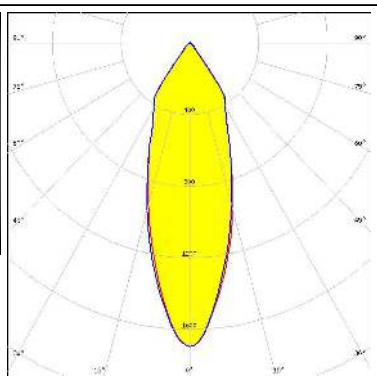


See also our general installation guide: www.ledil.com/installation_guide


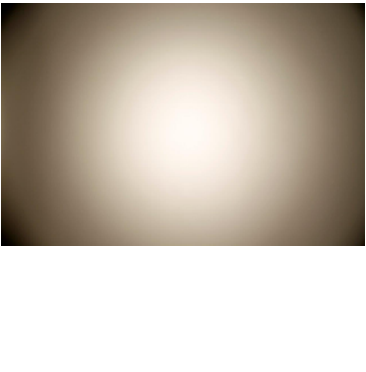
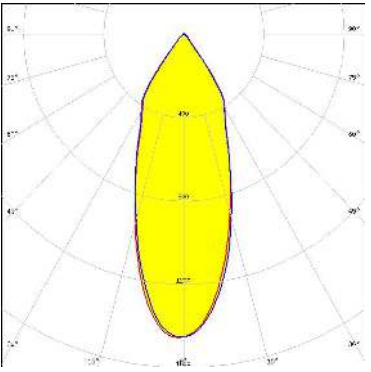

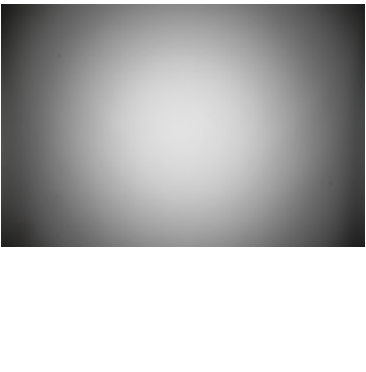
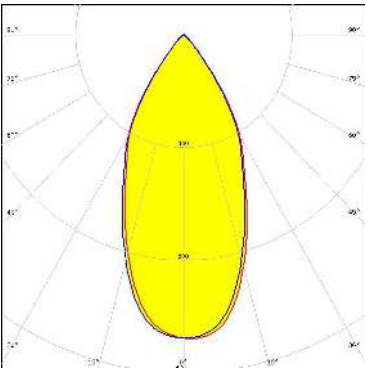

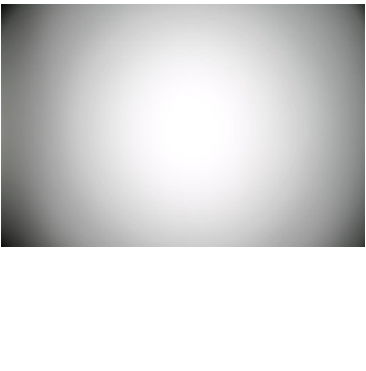
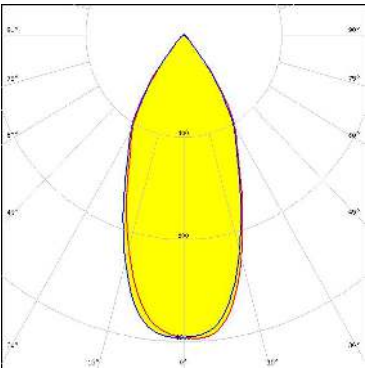


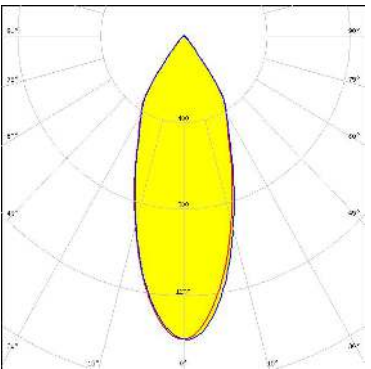
OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V10 Gen7 FWHM / FWTM 37.0° / 76.0° Efficiency 78 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 F13671_ANGE-RZ-LENS Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V10 Gen7 FWHM / FWTM 33.0° / 74.0° Efficiency 82 % Peak intensity 1.7 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V13 Gen7 FWHM / FWTM 34.0° / 75.0° Efficiency 83 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p></p> <p>LED V13 Gen7 FWHM / FWTM 37.0° / 76.0° Efficiency 78 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		


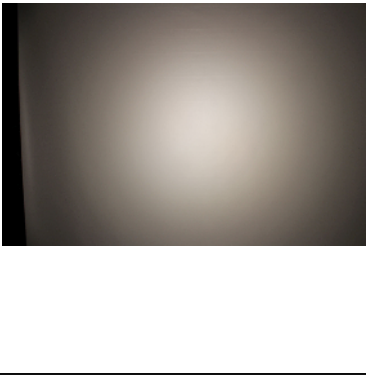
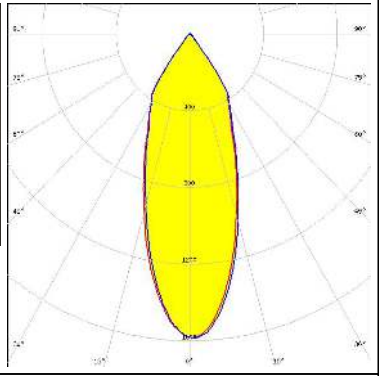


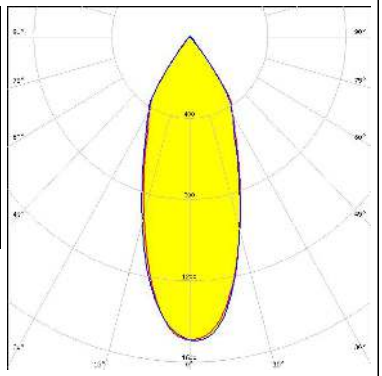


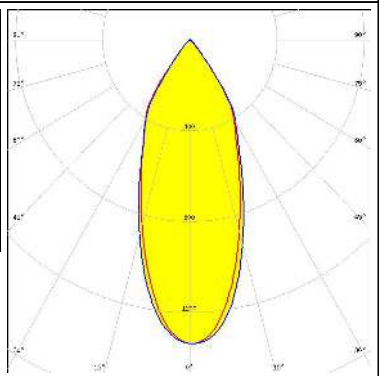


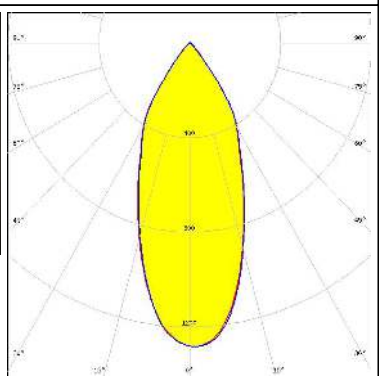
OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V15 Gen6 FWHM / FWTM 35.0° / 78.0° Efficiency 84 % Peak intensity 1.7 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 456 Typ L2</p>		
<p></p> <p>LED Vero SE 13 FWHM / FWTM 34.0° / 75.0° Efficiency 83 % Peak intensity 1.6 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C16402_CLAMP-VEROSE-13-18</p>		
<p></p> <p>LED Vero SE 18 FWHM / FWTM 39.0° / 76.0° Efficiency 82 % Peak intensity 1.4 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C16402_CLAMP-VEROSE-13-18</p>		
<p></p> <p>LED VERO13 FWHM / FWTM 33.0° / 75.0° Efficiency 86 % Peak intensity 1.7 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18</p>		


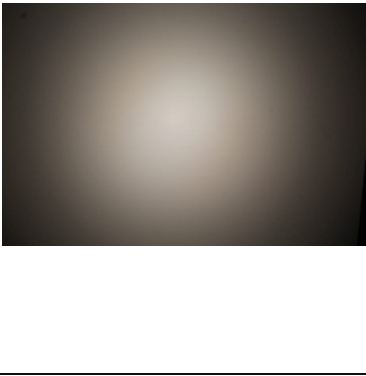
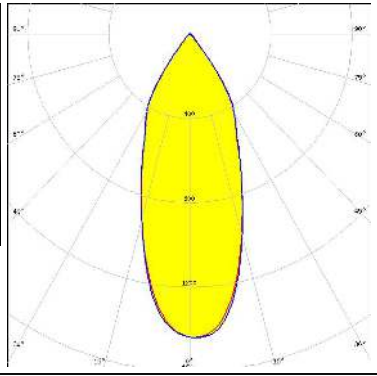
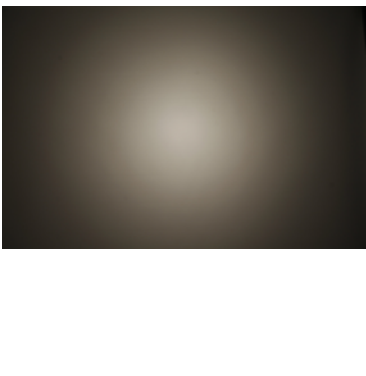
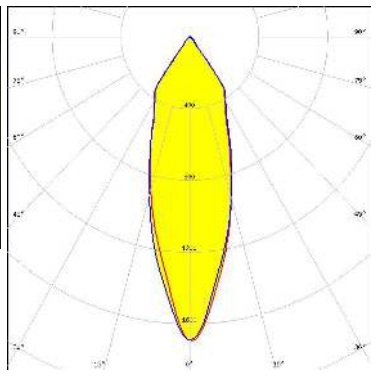

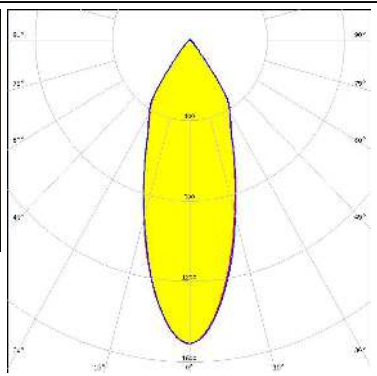
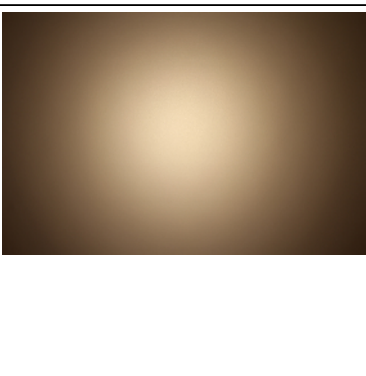
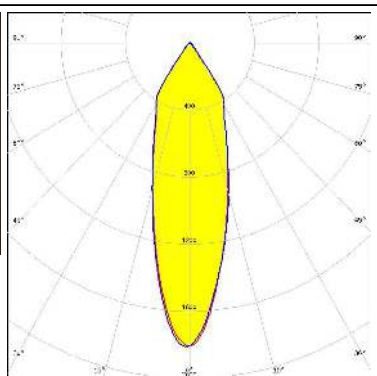
OPTICAL RESULTS (MEASURED):

<p></p> <p>LED VERO18 FWHM / FWTM 38.0° / 76.0° Efficiency 84 % Peak intensity 1.5 cd/m LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18</p>		
<p></p> <p>LED VERO29 FWHM / FWTM 48.0° / 81.0° Efficiency 78 % Peak intensity 1.1 cd/m LEDs/each optic 1 Light colour White Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS</p>		
<p></p> <p>LED VERO29 FWHM / FWTM 46.0° / 80.0° Efficiency 82 % Peak intensity 1.2 cd/m LEDs/each optic 1 Light colour White Required components: C13584_CLAMP-VERO29</p>		
<p></p> <p>LED Vesta TW 15mm DP FWHM / FWTM 40.0° / 76.0° Efficiency 82 % Peak intensity 1.4 cd/m LEDs/each optic 1 Light colour Tunable White Required components: C13658_CLAMP-VERO13-18 F13671_ANGE-RZ-LENS Bender Wirth: 482 Typ L2</p>		

OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 15mm DP FWHM / FWTM 37.0° / 75.0° Efficiency 86 % Peak intensity 1.6 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 18mm (31W) DP FWHM / FWTM 39.0° / 76.0° Efficiency 85 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour Tunable White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 483 Typ L3</p>		
<p></p> <p>LED Vesta TW 18mm (31W) DP FWHM / FWTM 40.0° / 77.0° Efficiency 81 % Peak intensity 1.3 cd/lm LEDs/each optic 1 Light colour Tunable White</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS Bender Wirth: 483 Typ L3</p>		
<p></p> <p>LED Vesta TW 22mm DP FWHM / FWTM 42.0° / 78.0° Efficiency 81 % Peak intensity 1.3 cd/lm LEDs/each optic 1 Light colour Tunable White</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS Bender Wirth: 494 Typ L3</p>		

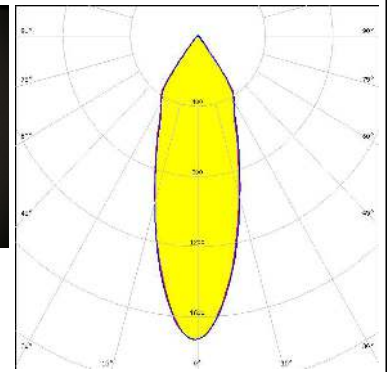
OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 22mm DP FWHM / FWTM 40.0° / 77.0° Efficiency 85 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour Tunable White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 494 Typ L3</p>		
<p>CITIZEN</p> <p>LED CLL02x/CLU02x (LES10) FWHM / FWTM 33.0° / 74.0° Efficiency 83 % Peak intensity 1.7 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 434 Typ L1</p>		
<p>CITIZEN</p> <p>LED CLL03x/CLU03x FWHM / FWTM 36.0° / 75.0° Efficiency 83 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C16791_CLAMP-Z45-A F13671_ANGE-RZ-LENS TE Connectivity: 2325807-3</p>		
<p>CITIZEN</p> <p>LED CLL03x/CLU03x FWHM / FWTM 30.0° / 73.0° Efficiency 83 % Peak intensity 1.8 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100AN</p>		

OPTICAL RESULTS (MEASURED):

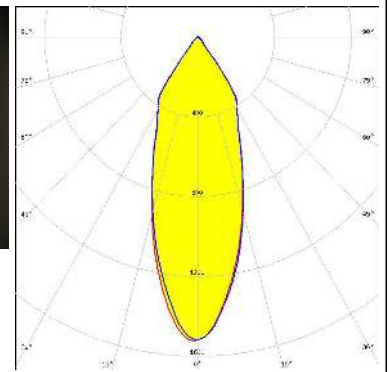
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 34.0° / 74.0°
 Efficiency 87 %
 Peak intensity 1.7 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C16791_CLAMP-Z45-A
 TE Connectivity: 2325807-3



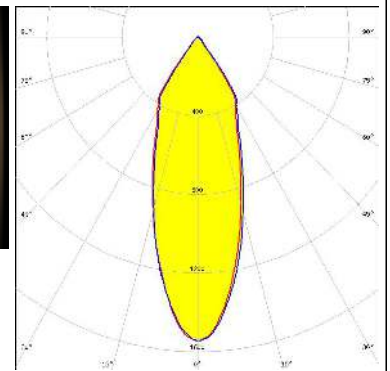
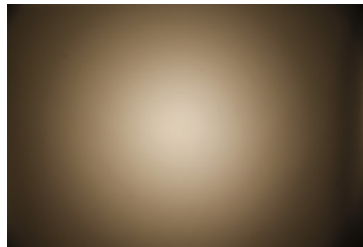
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 36.0° / 75.0°
 Efficiency 82 %
 Peak intensity 1.5 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 433 Typ L1



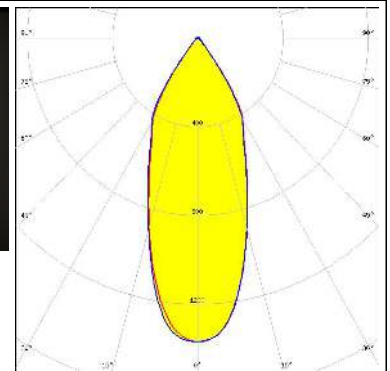
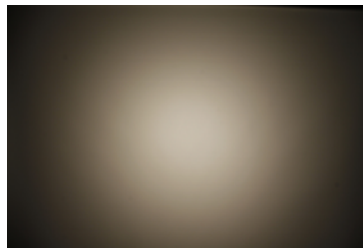
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 35.0° / 75.0°
 Efficiency 82 %
 Peak intensity 1.5 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



CITIZEN

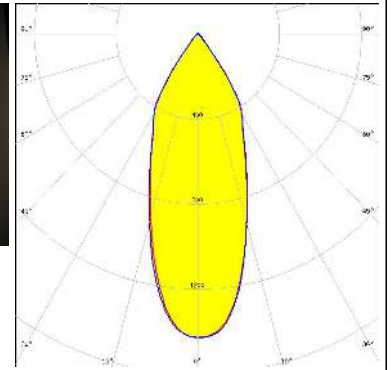
LED CLL04x/CLU04x
 FWHM / FWTM 39.0° / 76.0°
 Efficiency 82 %
 Peak intensity 1.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2204-CT + 50-2100AN



OPTICAL RESULTS (MEASURED):

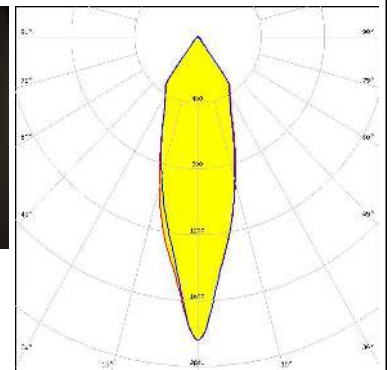
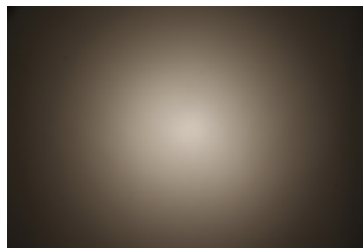
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 39.0° / 75.0°
 Efficiency 83 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 Bender Wirth: 431 Typ L3



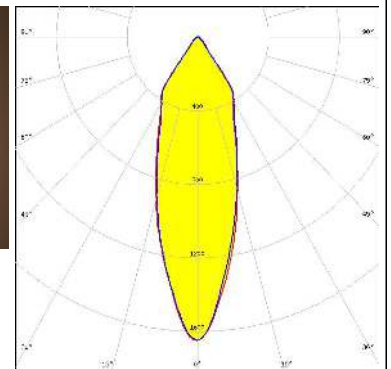
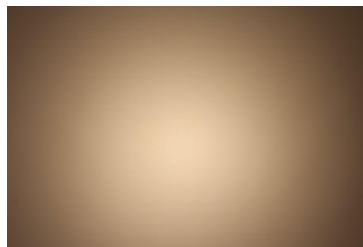
CITIZEN

LED CLU700/701/702/703
 FWHM / FWTM 30.0° / 74.0°
 Efficiency 82 %
 Peak intensity 1.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 434 Typ L1



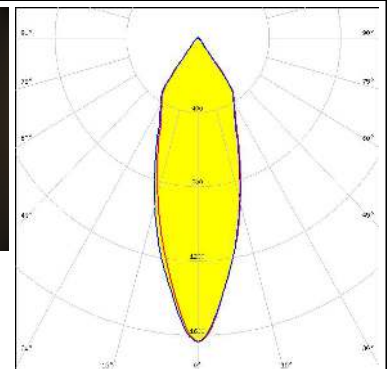
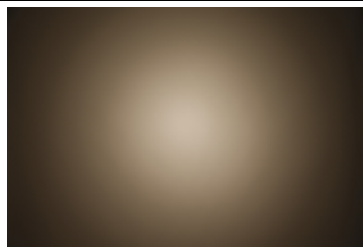
CITIZEN

LED CLU720/721/723
 FWHM / FWTM 32.0° / 74.0°
 Efficiency 85 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



CITIZEN

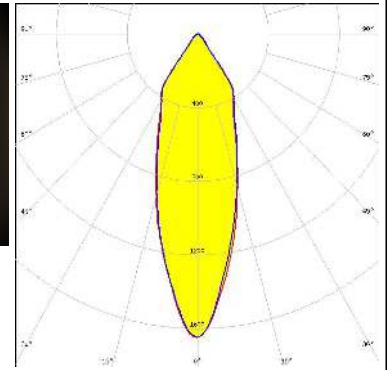
LED CLU720/721/723
 FWHM / FWTM 34.0° / 74.0°
 Efficiency 82 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 433 Typ L1



OPTICAL RESULTS (MEASURED):

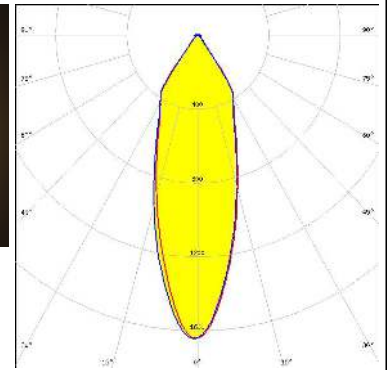
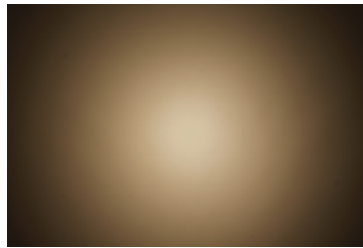
CITIZEN

LED CLU720/721/723
 FWHM / FWTM 29.0° / 73.0°
 Efficiency 85 %
 Peak intensity 1.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2103CT + 50-2100AN



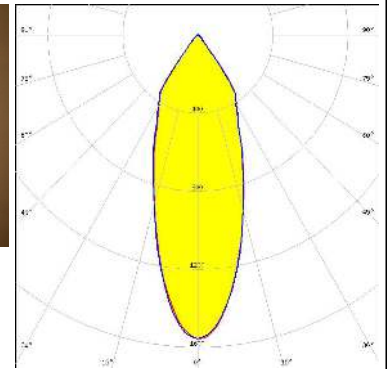
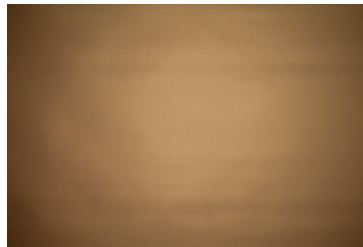
CITIZEN

LED CLU730/731/733
 FWHM / FWTM 33.0° / 73.0°
 Efficiency 82 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2103CT + 50-2100AN



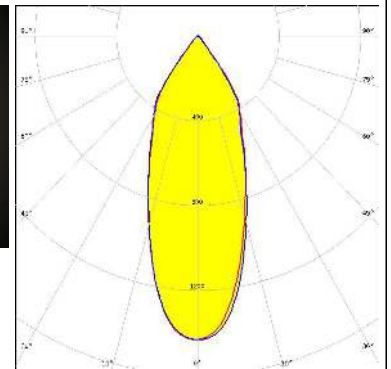
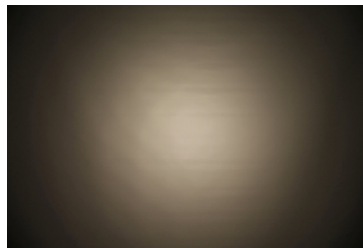
CREE LED

LED CMA1840
 FWHM / FWTM 36.0° / 76.0°
 Efficiency 84 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14123_CLAMP-CXA15-18

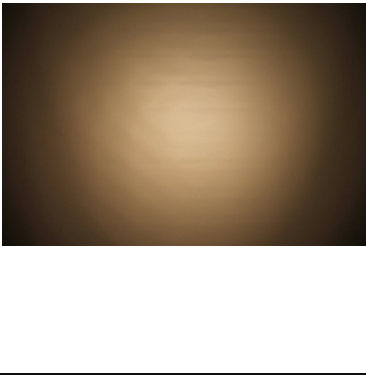
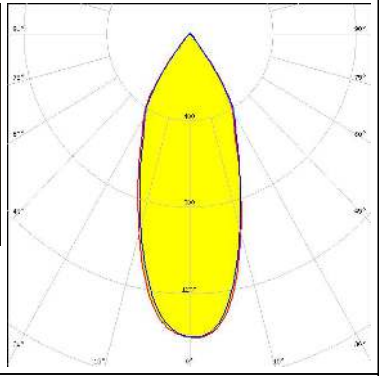
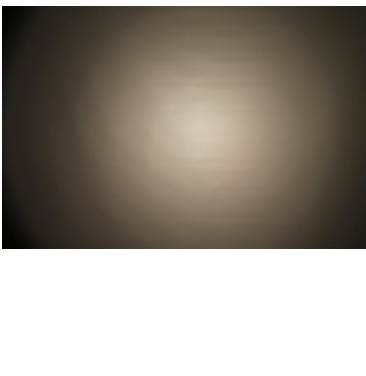
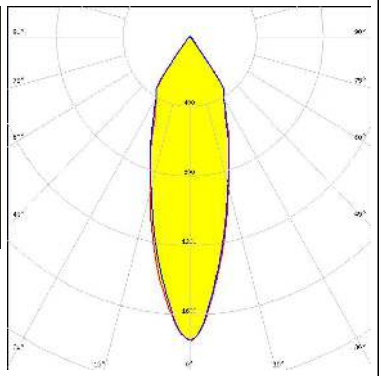

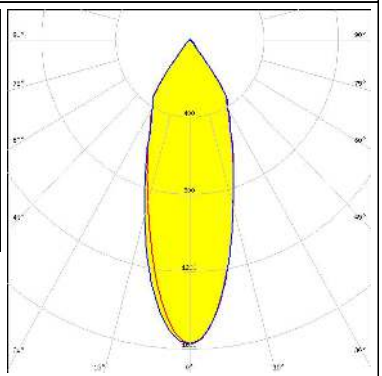
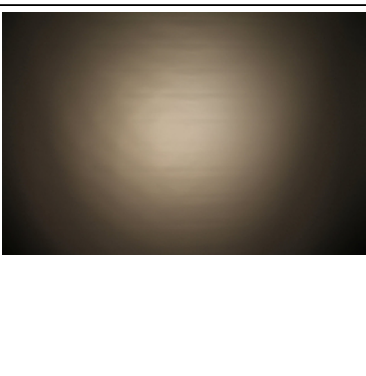
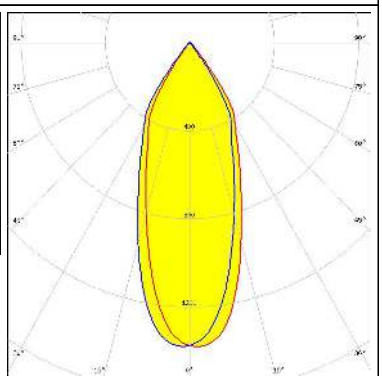


CREE LED


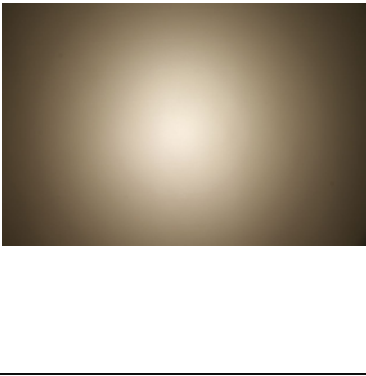
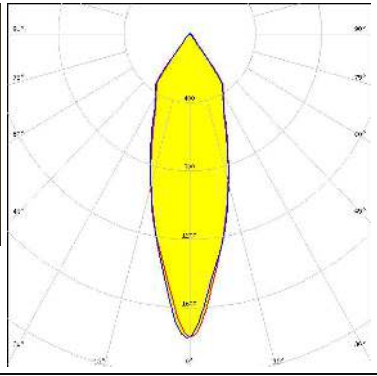

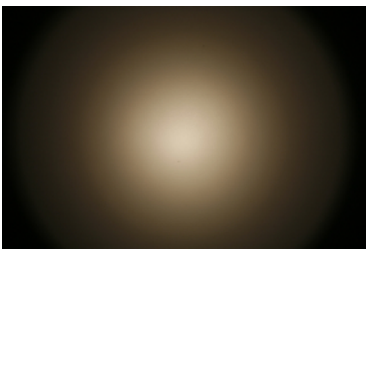
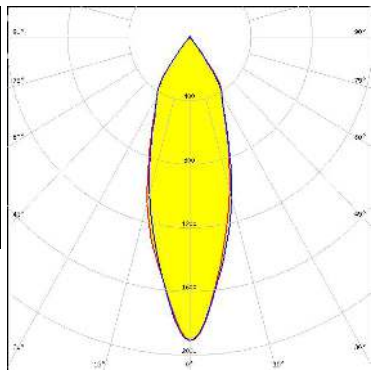

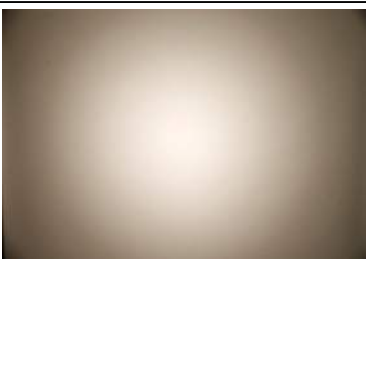
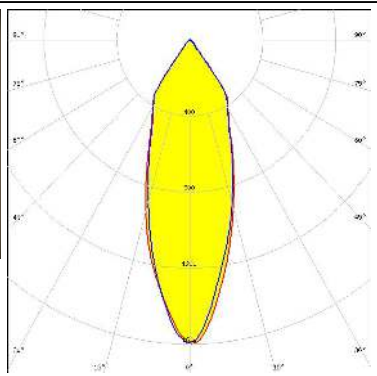


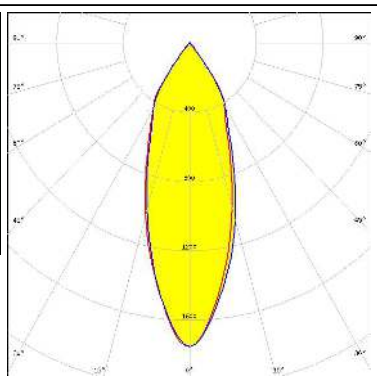
LED CMA2550
 FWHM / FWTM 39.0° / 77.0°
 Efficiency 84 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14036_CLAMP_CXA25-30



OPTICAL RESULTS (MEASURED):

<p>CREE ⇄ LED</p> <p>LED CMA3090 FWHM / FWTM 40.0° / 76.0° Efficiency 84 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: C14036_CLAMP_CXA25-30</p>		
<p>CREE ⇄ LED</p> <p>LED CMT14xx FWHM / FWTM 31.0° / 74.0° Efficiency 82 % Peak intensity 1.8 cd/lm LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 434 Typ L1</p>		
<p>CREE ⇄ LED</p> <p>LED CMT19xx FWHM / FWTM 35.0° / 75.0° Efficiency 83 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 477 Typ L1</p>		
<p>CREE ⇄ LED</p> <p>LED CMT28xx FWHM / FWTM 38.0° / 76.0° Efficiency 80 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: C13584_CLAMP-VERO29 Bender Wirth: 471 Typ L3</p>		

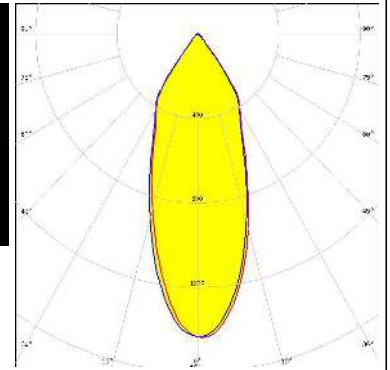
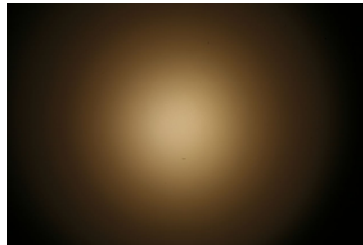
OPTICAL RESULTS (MEASURED):

<p>CREE  LED</p> <p>LED CXA/B 15xx FWHM / FWTM 31.0° / 74.0° Efficiency 83 % Peak intensity 1.8 cd/m LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 441 Typ L1</p>		
<p>CREE  LED</p> <p>LED CXA/B 15xx FWHM / FWTM 33.0° / 74.0° Efficiency 84 % Peak intensity 1.9 cd/m LEDs/each optic 1 Light colour White Required components: C14123_CLAMP-CXA15-18</p>		
<p>CREE  LED</p> <p>LED CXA/B 1816 & CXA/B 1820 & CXA 1850 FWHM / FWTM 34.0° / 75.0° Efficiency 82 % Peak intensity 1.6 cd/m LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 437 Typ L1</p>		
<p>CREE  LED</p> <p>LED CXA/B 1816 & CXA/B 1820 & CXA 1850 FWHM / FWTM 36.0° / 75.0° Efficiency 84 % Peak intensity 1.8 cd/m LEDs/each optic 1 Light colour White Required components: C14123_CLAMP-CXA15-18</p>		

OPTICAL RESULTS (MEASURED):

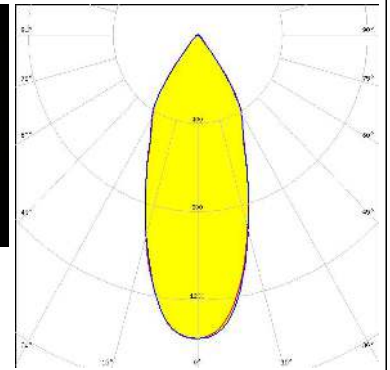
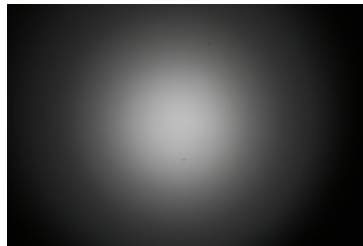
CREE LED

LED CXA/B 25xx
 FWHM / FWTM 38.0° / 77.0°
 Efficiency 84 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14036_CLAMP_CXA25-30



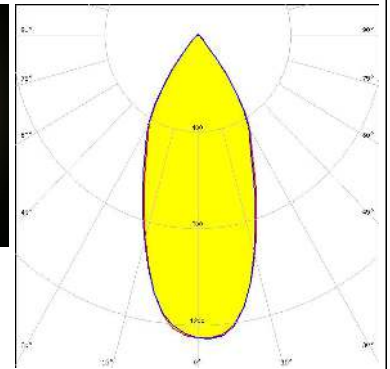
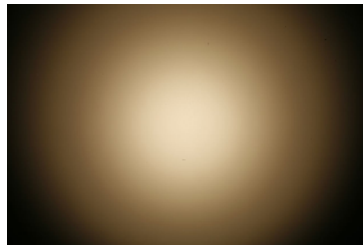
CREE LED

LED CXA/B 30xx
 FWHM / FWTM 41.0° / 77.0°
 Efficiency 84 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14036_CLAMP_CXA25-30



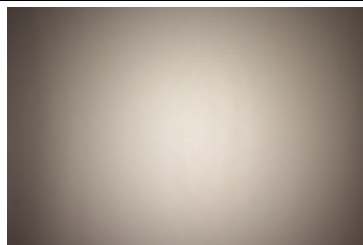
CREE LED

LED CXA/B 3590
 FWHM / FWTM 44.0° / 79.0°
 Efficiency 84 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2303CR + 50-2300AN



EVERLIGHT

LED CHI3030 19W
 FWHM / FWTM 40.0° / 78.0°
 Efficiency 80 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 F13671_ANGE-RZ-LENS
 Bender Wirth: 468 Typ L3



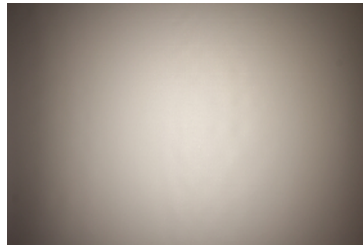
OPTICAL RESULTS (MEASURED):

EVERLIGHT

LED CHI3030 29W
FWHM / FWTM 43.0° / 80.0°
Efficiency 80 %
Peak intensity 1.3 cd/lm
LEDs/each optic 1
Light colour White

Required components:

C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS
Bender Wirth: 468 Typ L3

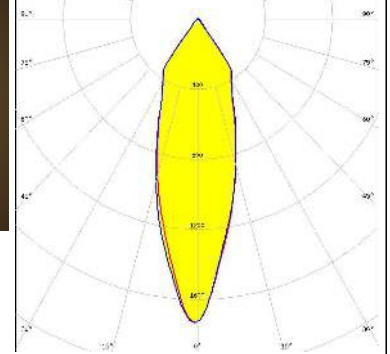
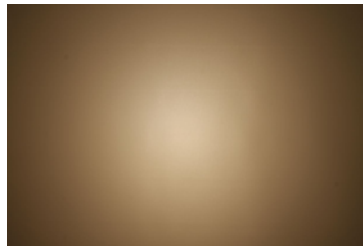


LUMILEDS

LED LUXEON CoB 1202/1203
FWHM / FWTM 31.0° / 74.0°
Efficiency 83 %
Peak intensity 1.7 cd/lm
LEDs/each optic 1
Light colour White

Required components:

C13658_CLAMP-VERO13-18
Bender Wirth: 438 Typ L1

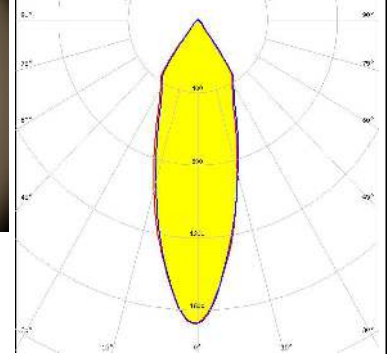
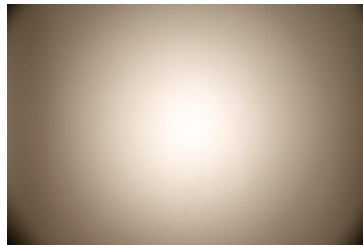


LUMILEDS

LED LUXEON CoB 1204/1205
FWHM / FWTM 33.0° / 75.0°
Efficiency 84 %
Peak intensity 1.7 cd/lm
LEDs/each optic 1
Light colour White

Required components:

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

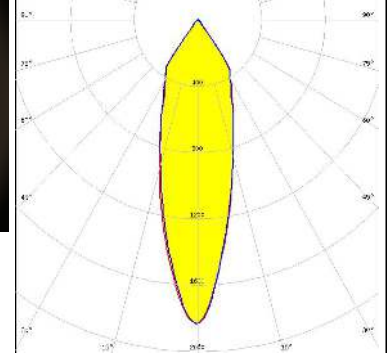
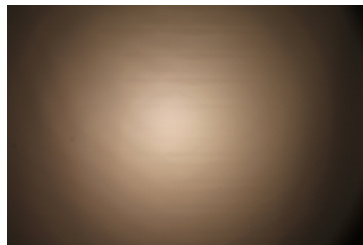


LUMILEDS


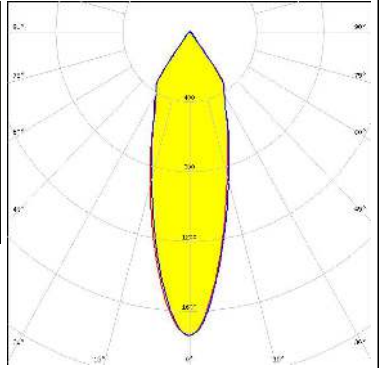
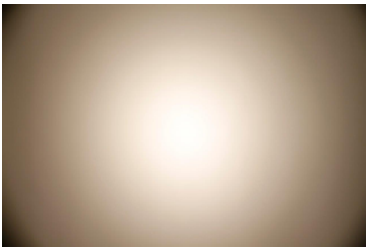
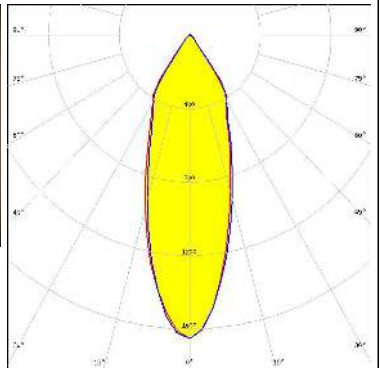
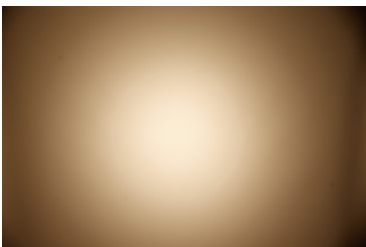
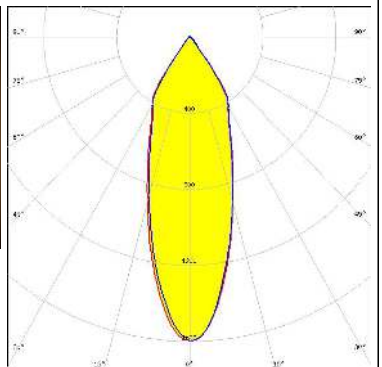
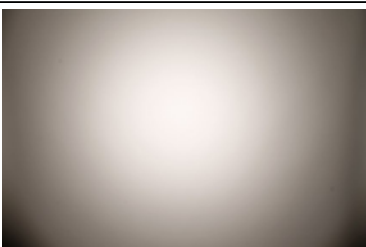
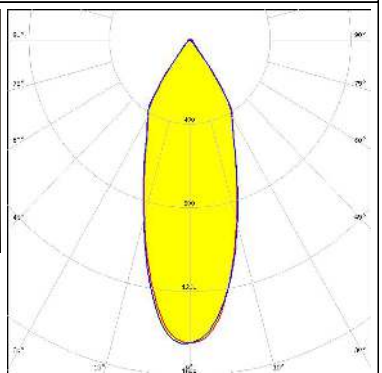
LED LUXEON CoB 1204HD
FWHM / FWTM 29.0° / 74.0°
Efficiency 82 %
Peak intensity 1.8 cd/lm
LEDs/each optic 1
Light colour White

Required components:

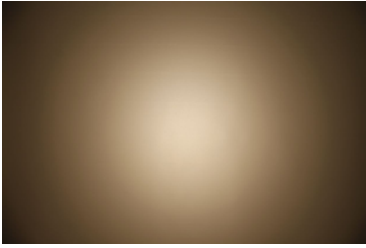
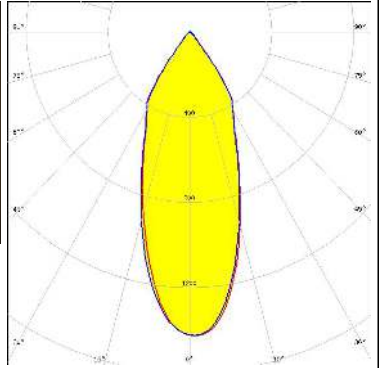
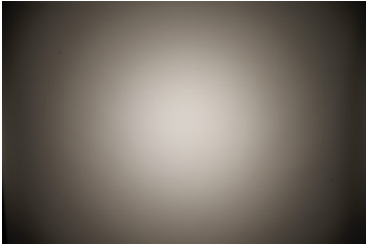
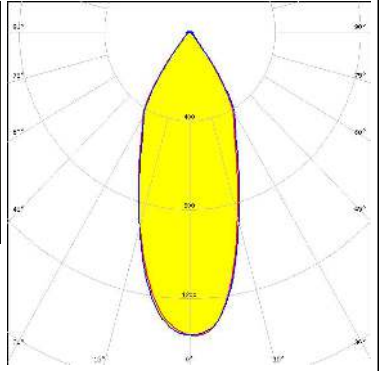
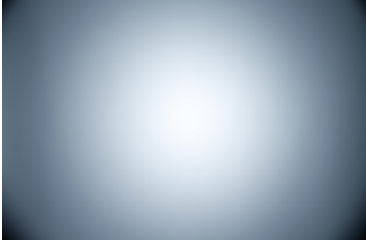
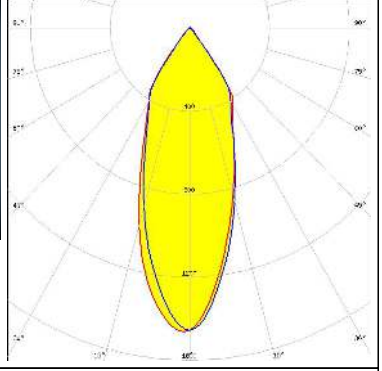
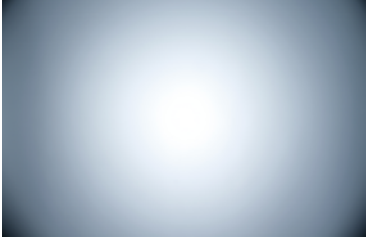
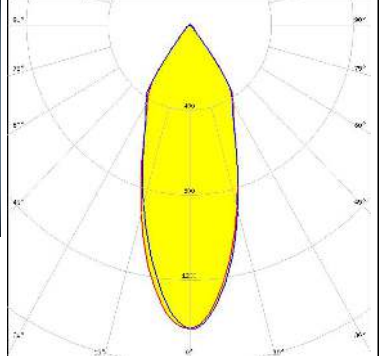
TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1




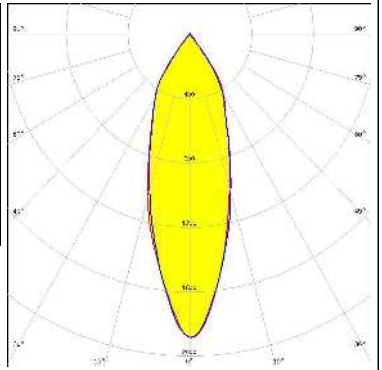

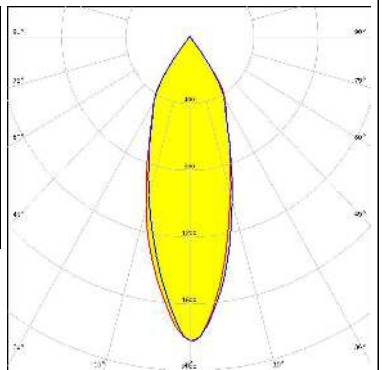
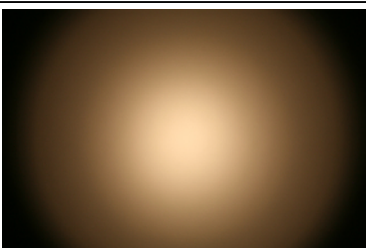
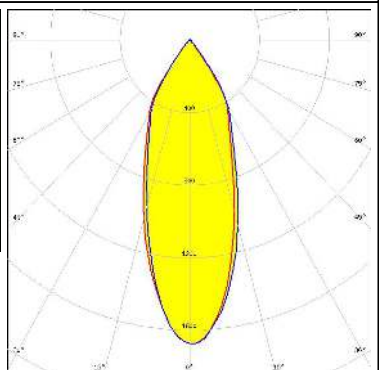
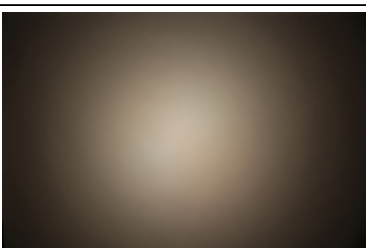
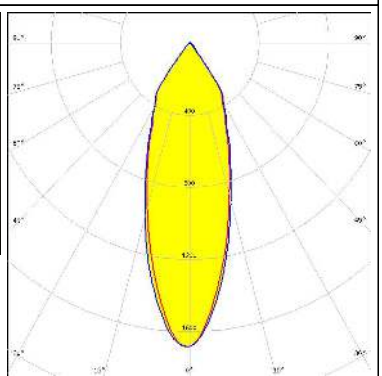
OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 31.0° / 74.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.7 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>LUMILEDS</p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 34.0° / 74.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 34.0° / 74.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100SH + 50-2100AN</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 37.0° / 75.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		


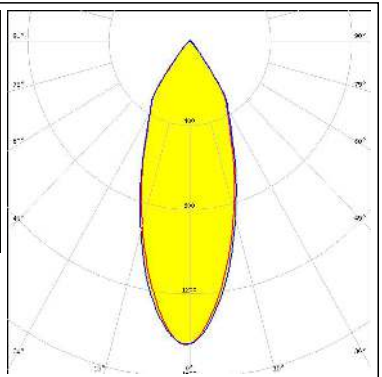
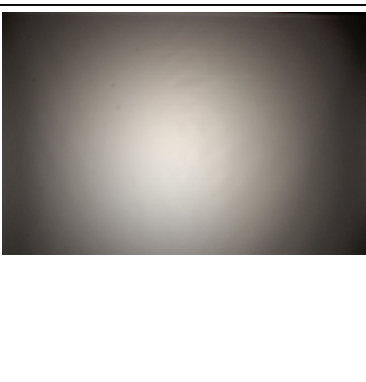
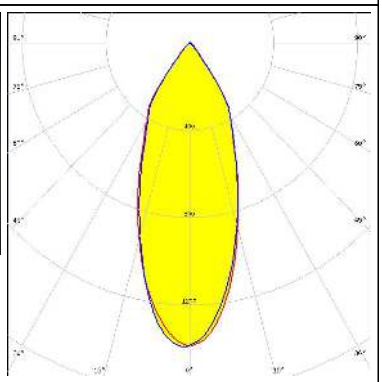

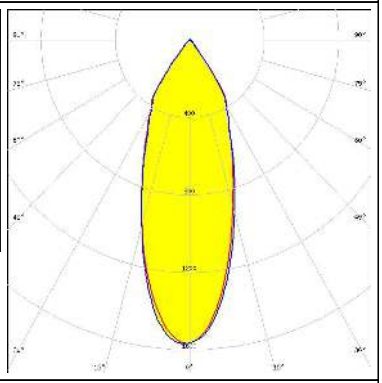

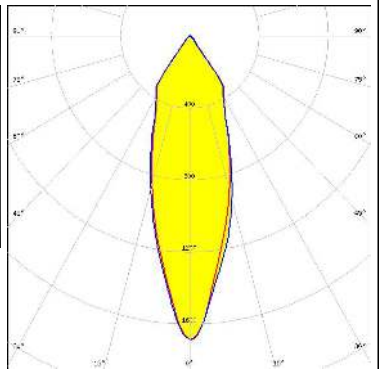
OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 39.0° / 76.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 431 Typ L3</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 40.0° / 76.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p>LUMILEDS</p> <p>LED LUXEON K12</p> <p>FWHM / FWTM 37.0° / 76.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.5 cd/lm</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>LUMILEDS</p> <p>LED LUXEON K16</p> <p>FWHM / FWTM 38.0° / 76.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 1.4 cd/lm</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>		


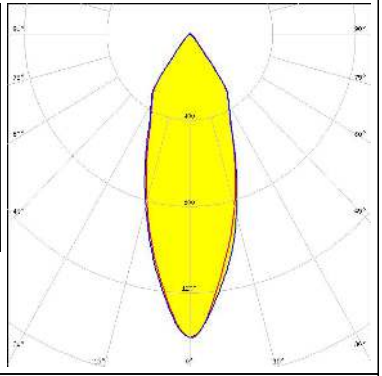

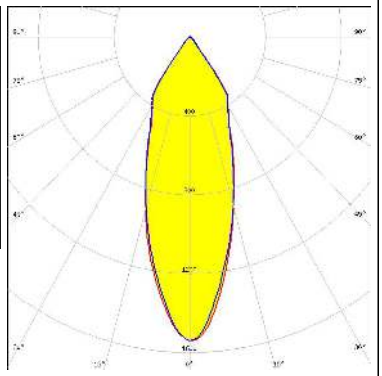

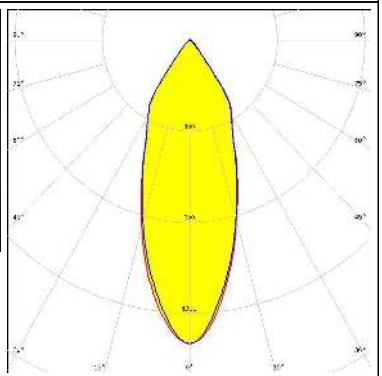
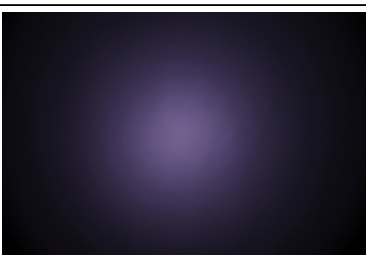
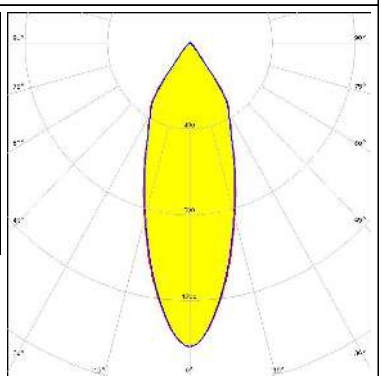
OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON S2000</p> <p>FWHM / FWTM 34.0° / 74.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13395_CLAMP-S2000</p>		
<p>LUMILEDS</p> <p>LED LUXEON S3000</p> <p>FWHM / FWTM 34.0° / 74.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13397_CLAMP-S3000</p>		
<p>LUMILEDS</p> <p>LED LUXEON S5000</p> <p>FWHM / FWTM 37.0° / 75.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13399_CLAMP-S5000</p>		
<p>LUMINUS</p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 34.0° / 75.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.7 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>		


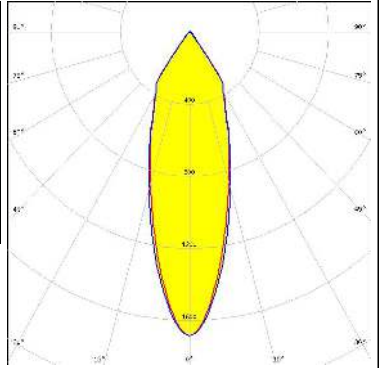

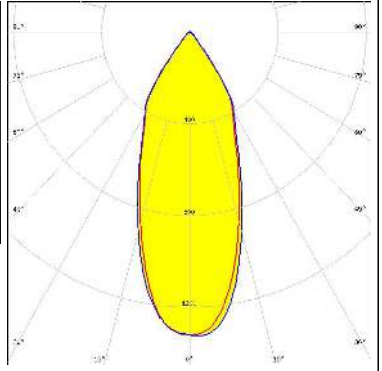
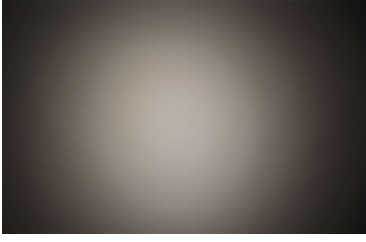
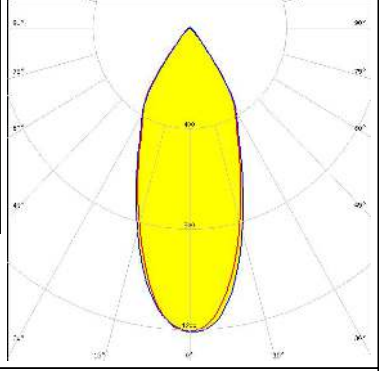
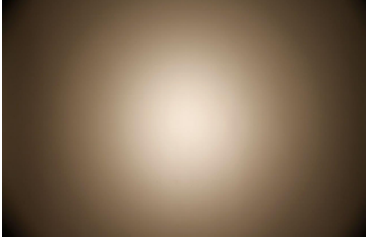
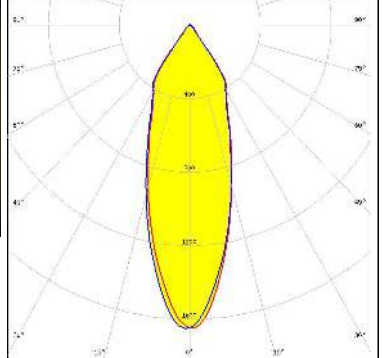
OPTICAL RESULTS (MEASURED):

<p>LUMINUS</p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 38.0° / 76.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.4 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: 491 Typ L2</p>		
<p>LUMINUS</p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 40.0° / 76.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.4 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: 491 Typ L2</p>		
<p>LUMINUS</p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 37.0° / 75.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.6 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>		
<p>LUMINUS</p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 32.0° / 74.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.7 cd/m</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>		


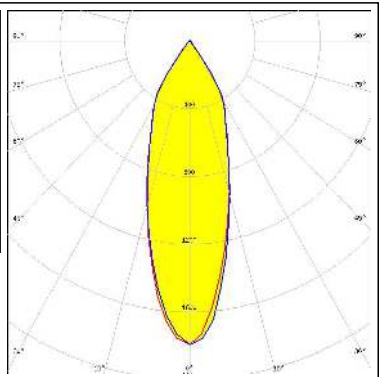
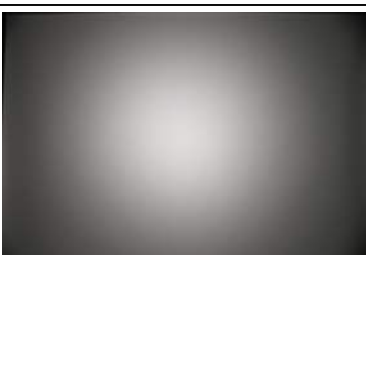
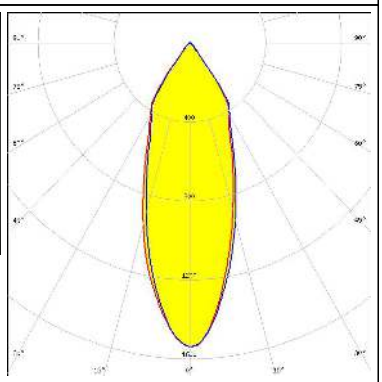

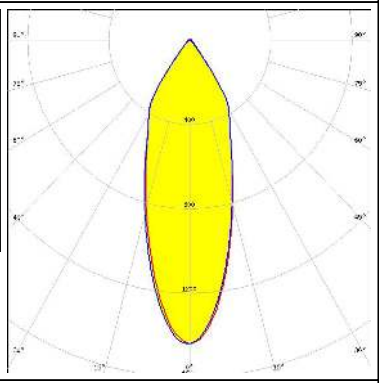

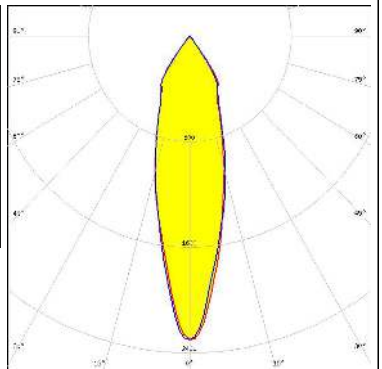
OPTICAL RESULTS (MEASURED):

<p>LUMINUS</p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 36.0° / 75.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 1.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 F13671_ANGE-RZ-LENS Bender Wirth: 490 Typ L1</p>		
<p>LUMINUS</p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 35.0° / 75.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 442 Typ L3</p>		
<p>LUMINUS</p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 38.0° / 76.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 1.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS Bender Wirth: 442 Typ L3</p>		
<p>LUMINUS</p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 36.0° / 75.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 1.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components: C13584_CLAMP-VERO29 F13671_ANGE-RZ-LENS Bender Wirth: 500 Typ L3-1</p>		

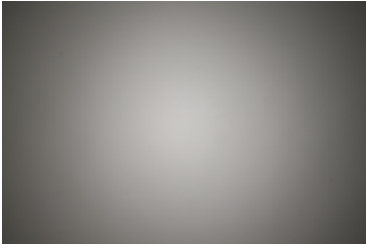
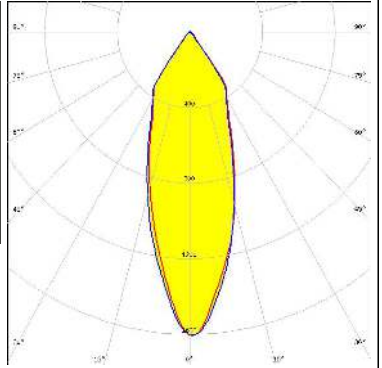
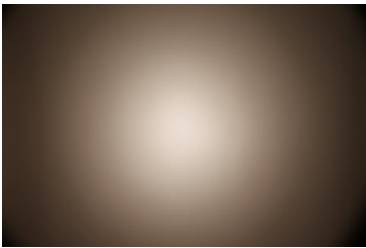
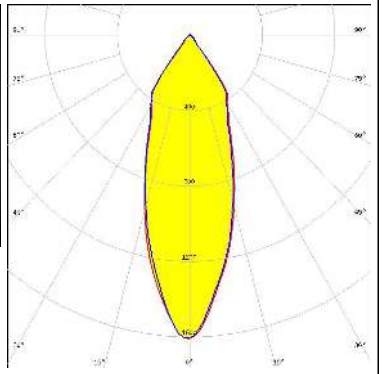
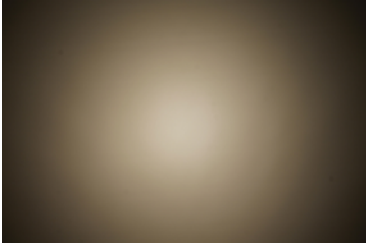
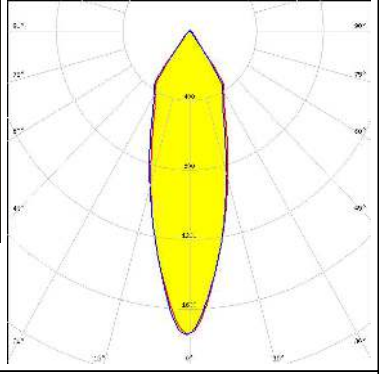
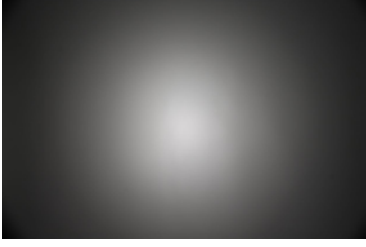
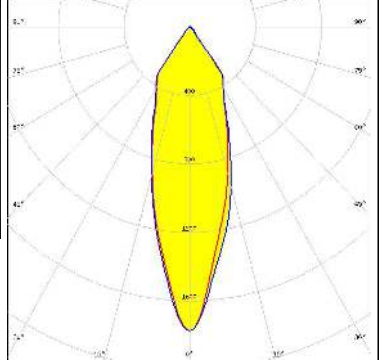
OPTICAL RESULTS (MEASURED):

<p>LUMINUS</p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 32.0° / 74.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.7 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>LUMINUS</p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 40.0° / 77.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.3 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>LUMINUS</p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 42.0° / 78.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 1.2 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>LUMINUS</p> <p>LED CxM-14 (19x19)</p> <p>FWHM / FWTM 34.0° / 75.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.7 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>		


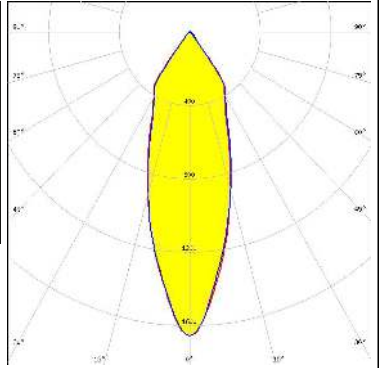
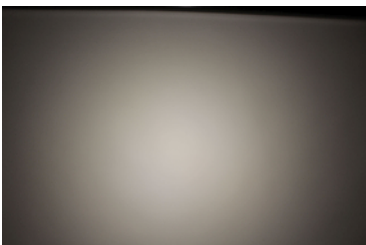
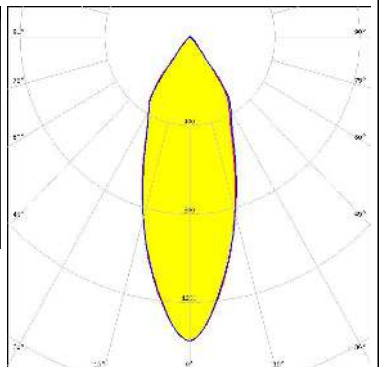
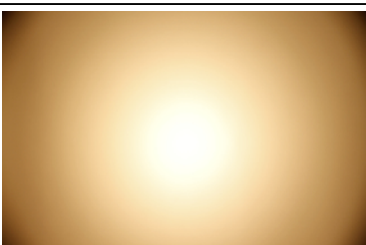
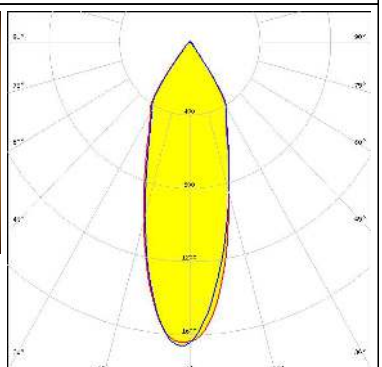
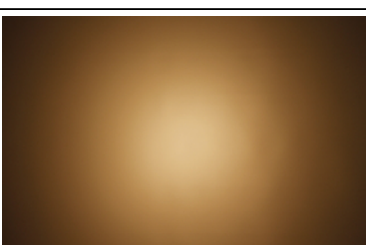
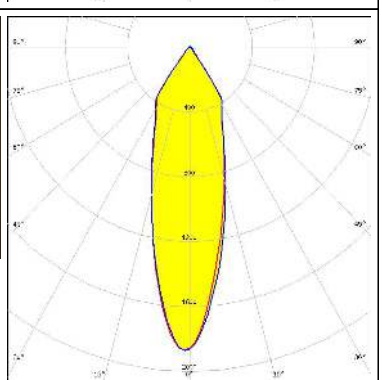
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED COB J-Type FWHM / FWTM 33.0° / 73.0° Efficiency 82 % Peak intensity 1.8 cd/lm LEDs/each optic 1 Light colour White Required components: IDEAL: 50-2103NC + 50-2100AN</p>		
<p>NICHIA</p> <p>LED COB J-Type FWHM / FWTM 36.0° / 75.0° Efficiency 82 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 463 Typ L2</p>		
<p>NICHIA</p> <p>LED COB J-Type FWHM / FWTM 35.0° / 75.0° Efficiency 79 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2103NC + 50-2100AN</p>		
<p>NICHIA</p> <p>LED COB L-Type (LES 11) FWHM / FWTM 28.0° / 72.0° Efficiency 87 % Peak intensity 2.3 cd/lm LEDs/each optic 1 Light colour White Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 34.0° / 75.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.6 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>NICHIA</p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 35.0° / 75.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Molex: 180580-0005</p>		
<p>NICHIA</p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 31.0° / 73.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100NC + 50-2100AN</p>		
<p>NICHIA</p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 31.0° / 74.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.8 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>		

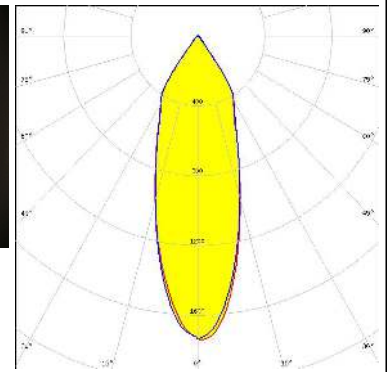
OPTICAL RESULTS (MEASURED):

<p>NICHIA</p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 33.0° / 75.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.7 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>NICHIA</p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 37.0° / 76.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 1.4 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>OSRAM</p> <p>LED PrevaLED Core AC (LEP-2000)</p> <p>FWHM / FWTM 34.0° / 74.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p>OSRAM</p> <p>LED PrevaLED Core AC (LEP-800)</p> <p>FWHM / FWTM 29.0° / 73.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

OPTICAL RESULTS (MEASURED):

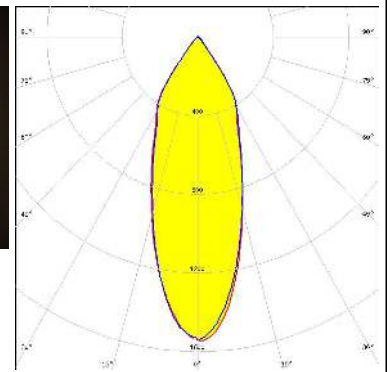
OSRAM

LED PrevaLED Core G7 L15 H1
 FWHM / FWTM 34.0° / 74.0°
 Efficiency 86 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C16685_CLAMP-PRV-A



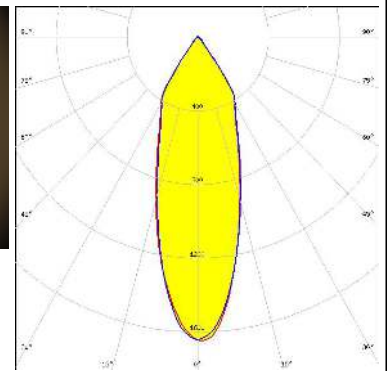
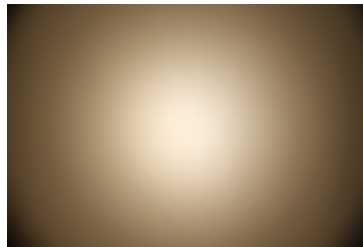
OSRAM

LED PrevaLED Core G7 L15 H1
 FWHM / FWTM 36.0° / 75.0°
 Efficiency 83 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C16685_CLAMP-PRV-A
 F13671_ANGE-RZ-LENS



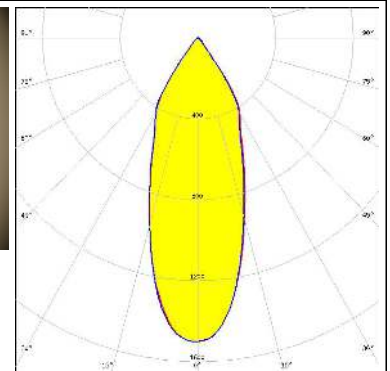
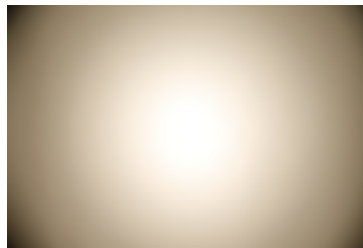
OSRAM

LED PrevaLED Core Z3 LES19
 FWHM / FWTM 33.0° / 74.0°
 Efficiency 83 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM

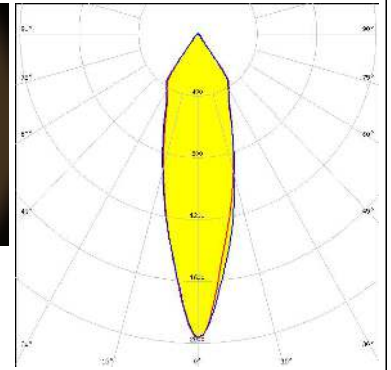
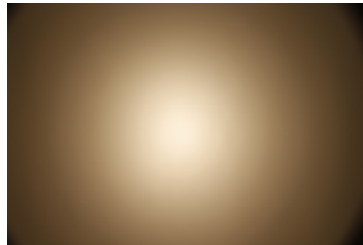
LED PrevaLED Core Z3 LES23
 FWHM / FWTM 38.0° / 75.0°
 Efficiency 85 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



OPTICAL RESULTS (MEASURED):

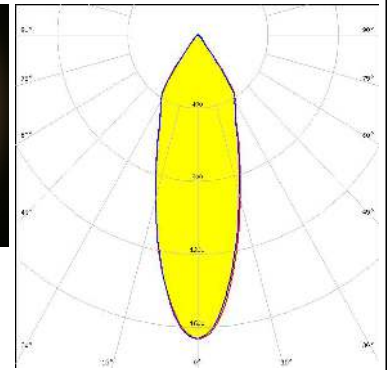
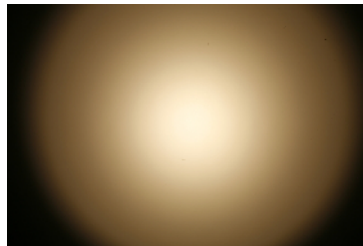
OSRAM

LED PrevaLED Core Z3 LES9
 FWHM / FWTM 28.0° / 73.0°
 Efficiency 84 %
 Peak intensity 2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



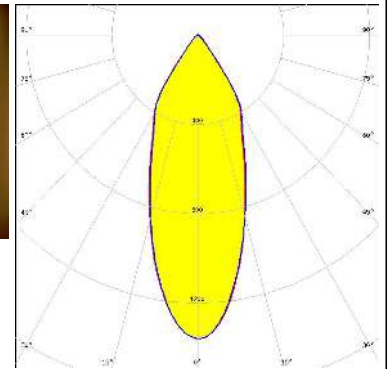
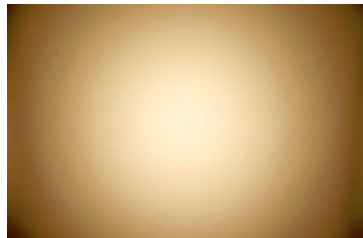
OSRAM

LED PrevaLED Core Z4 LES19
 FWHM / FWTM 34.0° / 74.0°
 Efficiency 84 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



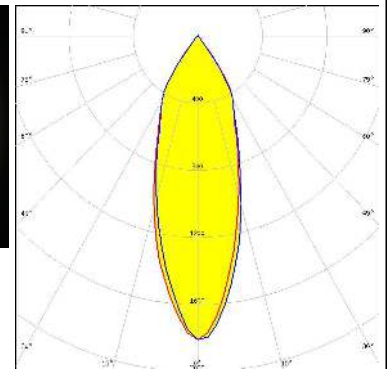
OSRAM

LED PrevaLED Core Z4 LES19
 FWHM / FWTM 38.0° / 76.0°
 Efficiency 78 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

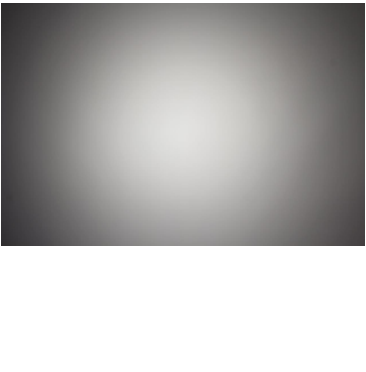
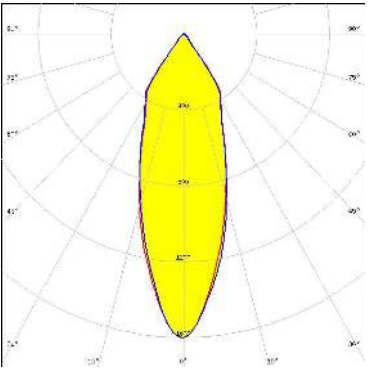
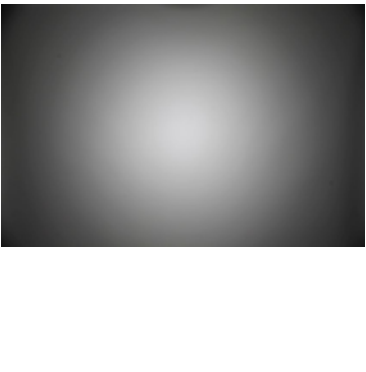
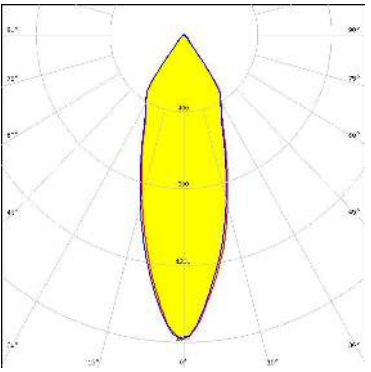
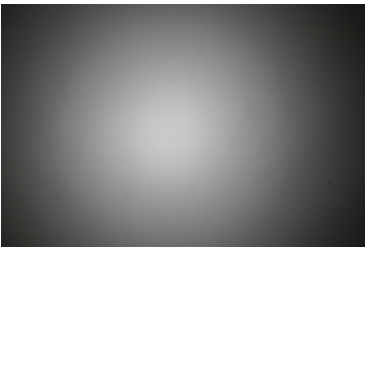
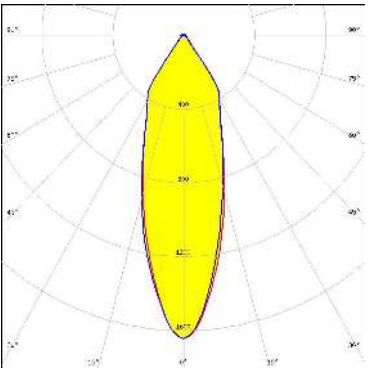

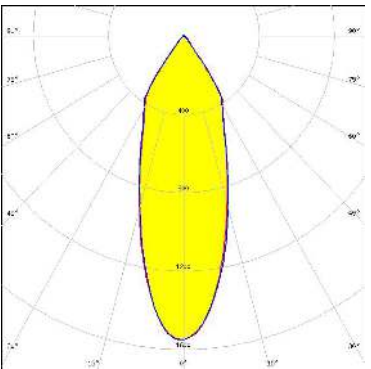


OSRAM

Opto Semiconductors
 LED Soleriq S13
 FWHM / FWTM 33.0° / 74.0°
 Efficiency 85 %
 Peak intensity 1.8 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>OSRAM Opto Semiconductors</p> <p>LED Soleriq S13</p> <p>FWHM / FWTM 35.0° / 75.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.6 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>OSRAM Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 34.0° / 74.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.6 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>OSRAM Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 32.0° / 74.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100AN</p>		
<p>OSRAM Opto Semiconductors</p> <p>LED Soleriq S19</p> <p>FWHM / FWTM 35.0° / 75.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.6 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):

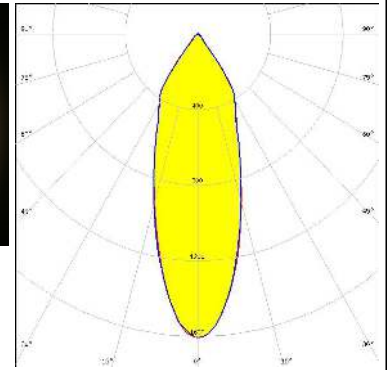
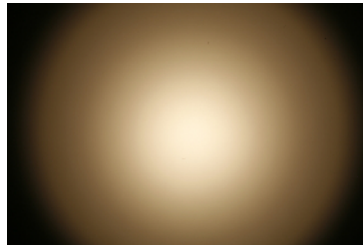
OSRAM

Opto Semiconductors

LED Soleriq S19
 FWHM / FWTM 35.0° / 75.0°
 Efficiency 84 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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

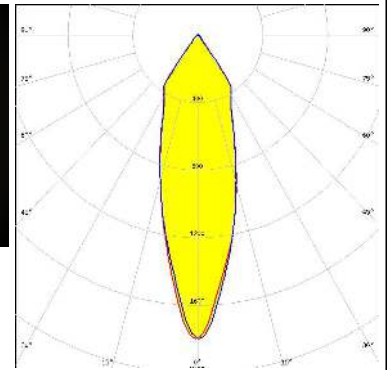
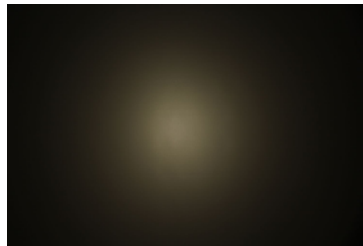


PHILIPS

LED Fortimo SLM L09 + SLM holder
 FWHM / FWTM 30.0° / 74.0°
 Efficiency 83 %
 Peak intensity 1.8 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

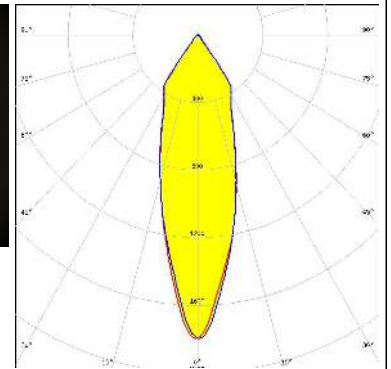
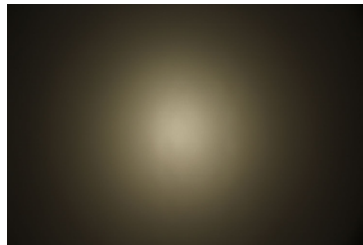


PHILIPS

LED Fortimo SLM L09 + SLM holder
 FWHM / FWTM 30.0° / 74.0°
 Efficiency 83 %
 Peak intensity 1.8 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

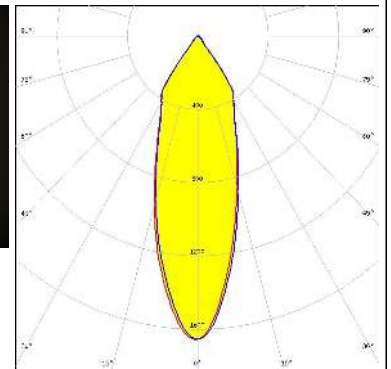
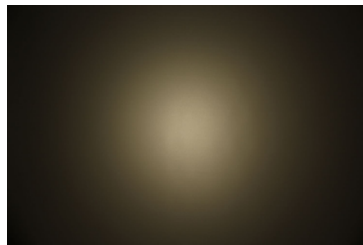


PHILIPS

LED Fortimo SLM L13 + SLM holder
 FWHM / FWTM 33.0° / 74.0°
 Efficiency 82 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



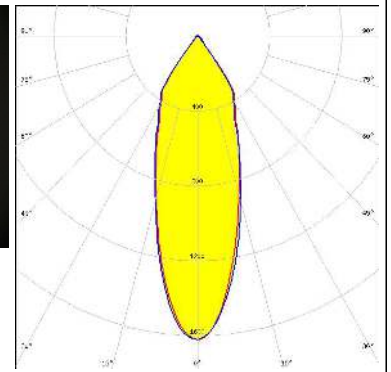
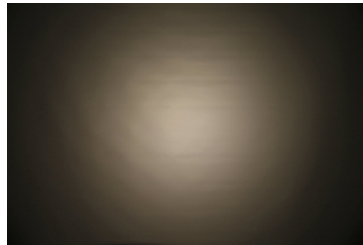
OPTICAL RESULTS (MEASURED):

PHILIPS

LED Fortimo SLM L13 CoB
 FWHM / FWTM 33.0° / 75.0°
 Efficiency 83 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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



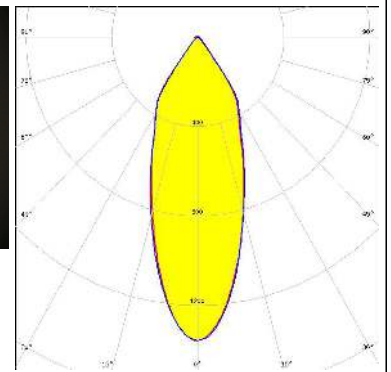
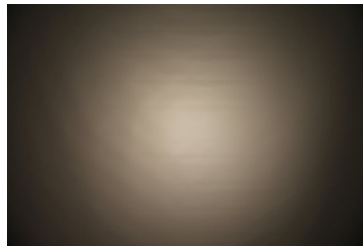
PHILIPS

LED Fortimo SLM L13 CoB
 FWHM / FWTM 37.0° / 76.0°
 Efficiency 77 %
 Peak intensity 1.4 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



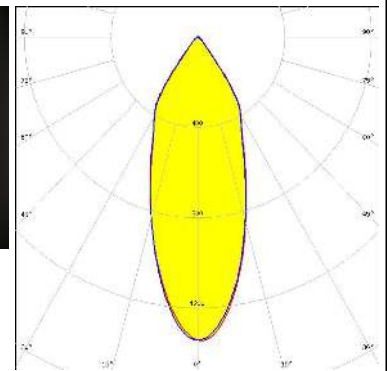
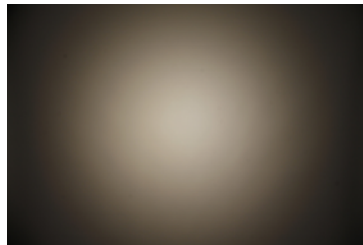
PHILIPS

LED Fortimo SLM L15 + SLM holder
 FWHM / FWTM 38.0° / 76.0°
 Efficiency 76 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

F13671_ANGE-RZ-LENS

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

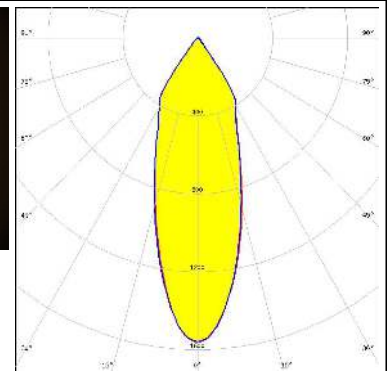
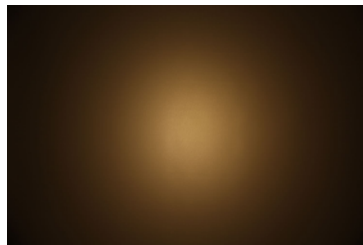


PHILIPS

LED Fortimo SLM L15 + SLM holder
 FWHM / FWTM 34.0° / 75.0°
 Efficiency 81 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



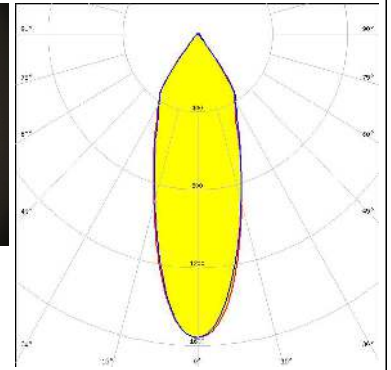
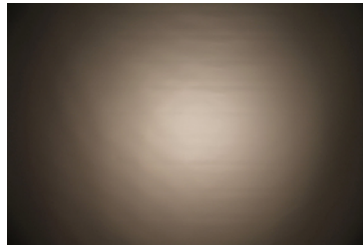
OPTICAL RESULTS (MEASURED):

PHILIPS

LED Fortimo SLM L15 CoB
 FWHM / FWTM 35.0° / 75.0°
 Efficiency 82 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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



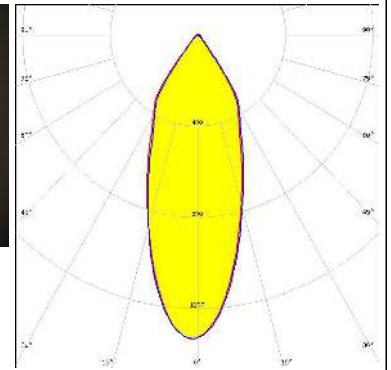
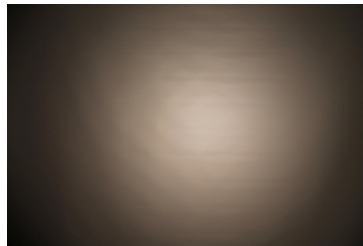
PHILIPS

LED Fortimo SLM L15 CoB
 FWHM / FWTM 40.0° / 76.0°
 Efficiency 77 %
 Peak intensity 1.3 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

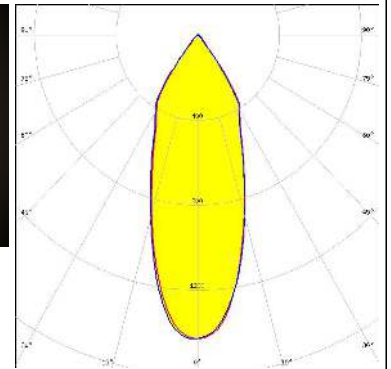
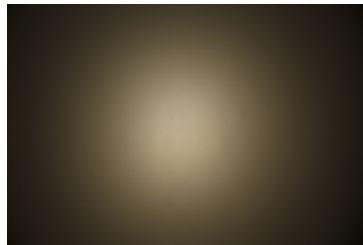


PHILIPS

LED Fortimo SLM L19 + SLM holder
 FWHM / FWTM 37.0° / 76.0°
 Efficiency 80 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



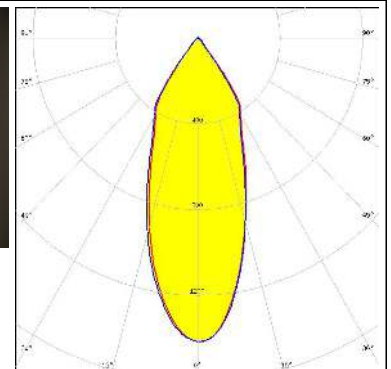
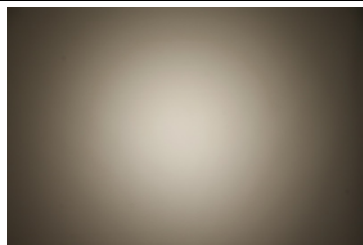
SAMSUNG

LED LC026B / 033B / 040B
 FWHM / FWTM 39.0° / 76.0°
 Efficiency 82 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C13658_CLAMP-VERO13-18

Bender Wirth: 450 Typ L2



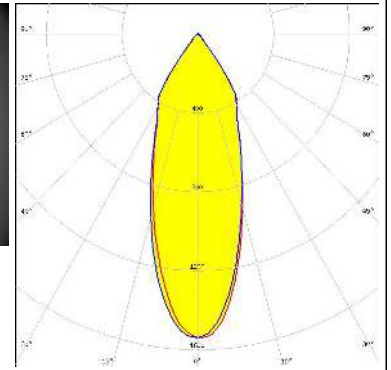
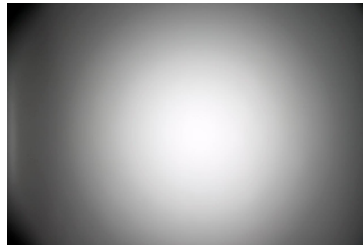
OPTICAL RESULTS (MEASURED):

SAMSUNG

LED LC026B / 033B / 040B
 FWHM / FWTM 36.0° / 75.0°
 Efficiency 84 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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



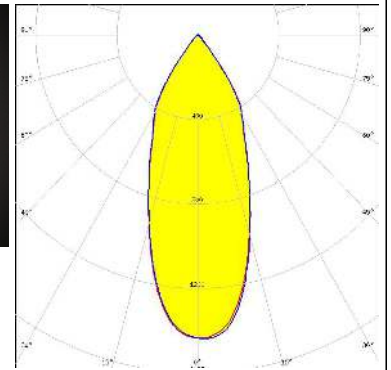
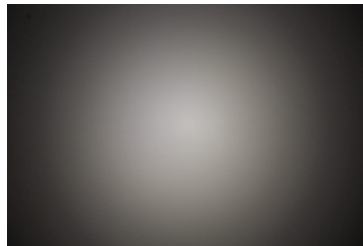
SAMSUNG

LED LC035T (Tunable white)
 FWHM / FWTM 40.0° / 77.0°
 Efficiency 85 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour Tunable White

Required components:

C13584_CLAMP-VERO29

Bender Wirth: 502 Typ L3



SAMSUNG

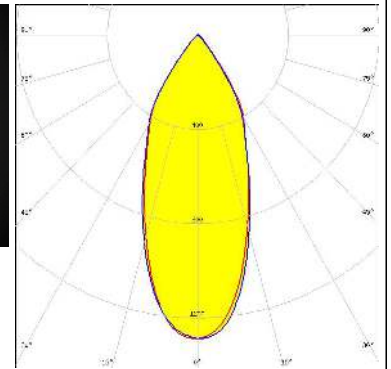
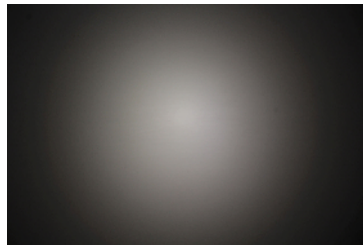
LED LC035T (Tunable white)
 FWHM / FWTM 42.0° / 78.0°
 Efficiency 81 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour Tunable White

Required components:

C13584_CLAMP-VERO29

F13671_ANGE-RZ-LENS

Bender Wirth: 502 Typ L3

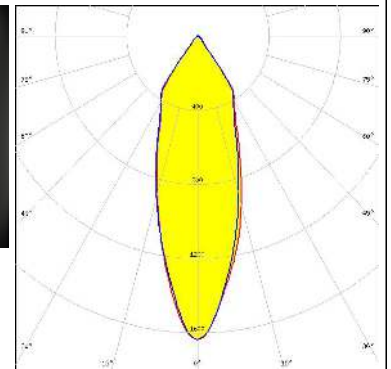


SAMSUNG

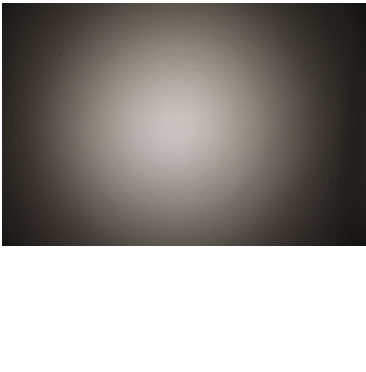
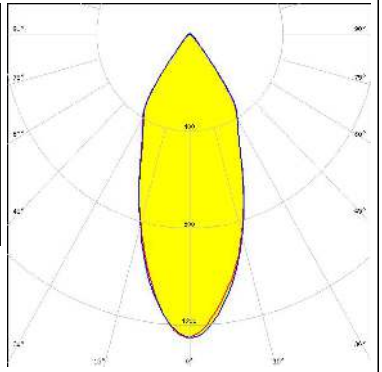

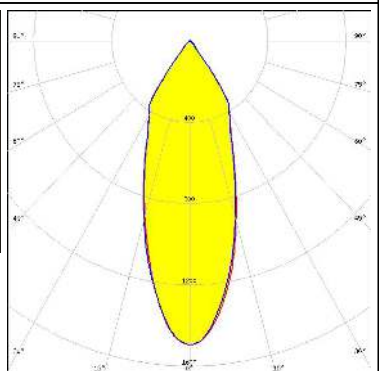

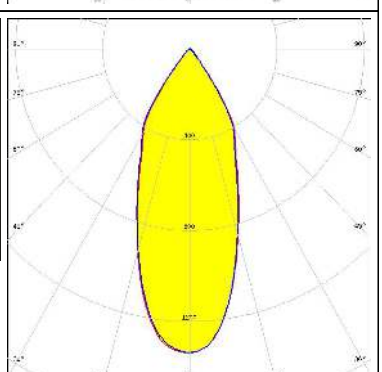
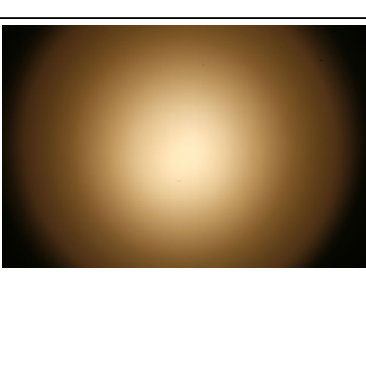
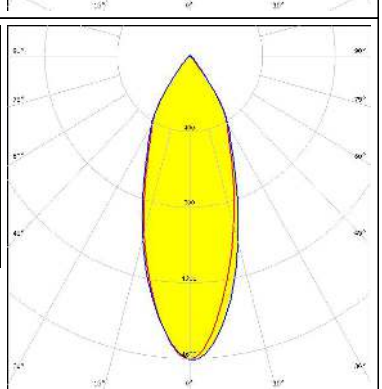
LED LC040C
 FWHM / FWTM 33.0° / 74.0°
 Efficiency 82 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

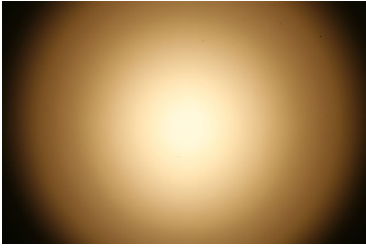
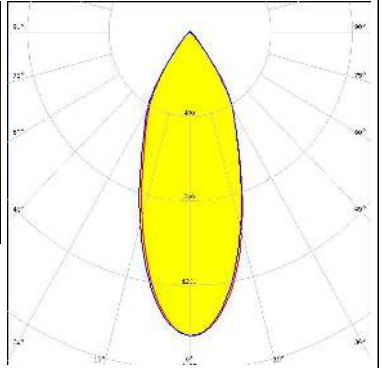
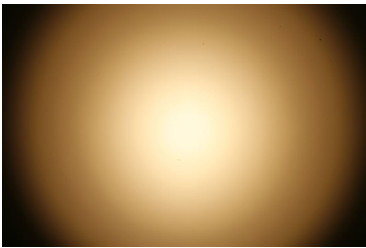
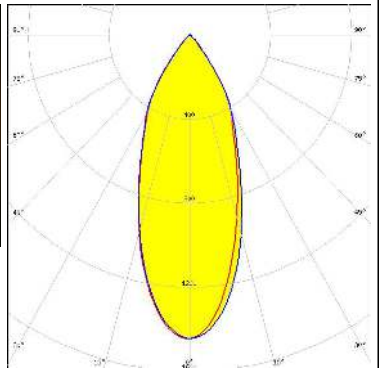
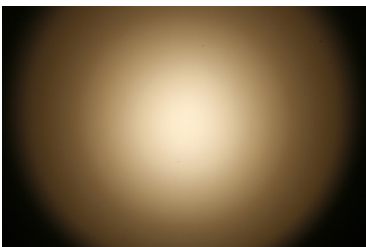
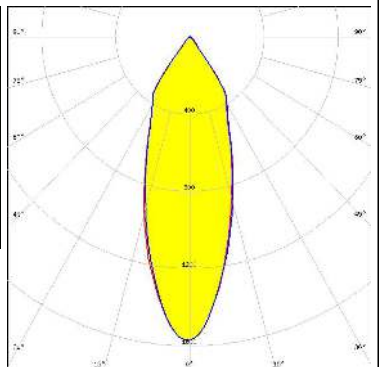
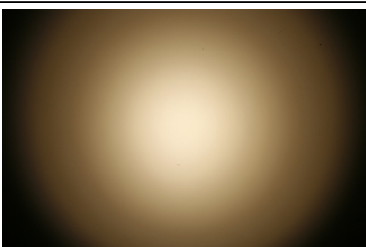
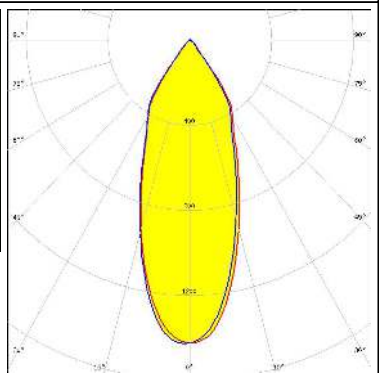
TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



OPTICAL RESULTS (MEASURED):

<p>SEOUL SEMICONDUCTOR</p> <p>LED AC Zhaga COB</p> <p>FWHM / FWTM 41.0° / 77.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS Optosource: SEHSMJD-A</p>		
<p>SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 14.5</p> <p>FWHM / FWTM 37.0° / 75.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.5 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>SEOUL SEMICONDUCTOR</p> <p>LED MJT COB LES 22</p> <p>FWHM / FWTM 40.0° / 76.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 431 Typ L3</p>		
<p>VS LIGHTING SOLUTIONS</p> <p>LED WU-M-461</p> <p>FWHM / FWTM 37.0° / 76.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

OPTICAL RESULTS (MEASURED):

<p>VS LIGHTING SOLUTIONS</p> <p>LED WU-M-462 FWHM / FWTM 41.0° / 78.0° Efficiency 83 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p>VS LIGHTING SOLUTIONS</p> <p>LED WU-M-464 FWHM / FWTM 41.0° / 78.0° Efficiency 83 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p>VS LIGHTING SOLUTIONS</p> <p>LED WU-M-484 FWHM / FWTM 35.0° / 75.0° Efficiency 83 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p>VS LIGHTING SOLUTIONS</p> <p>LED WU-M-485 FWHM / FWTM 39.0° / 77.0° Efficiency 83 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

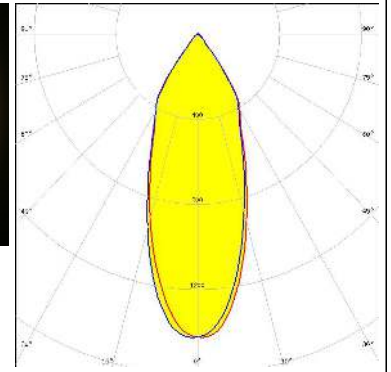
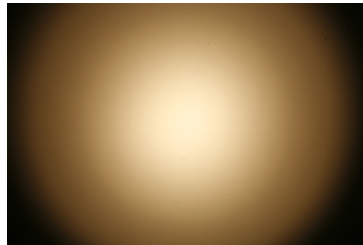
OPTICAL RESULTS (MEASURED):




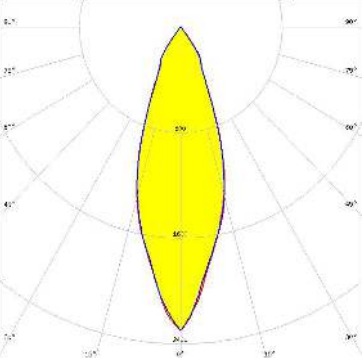

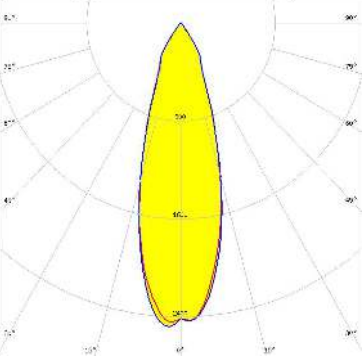

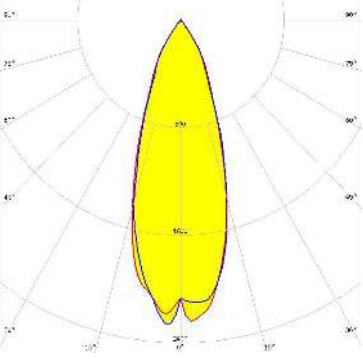

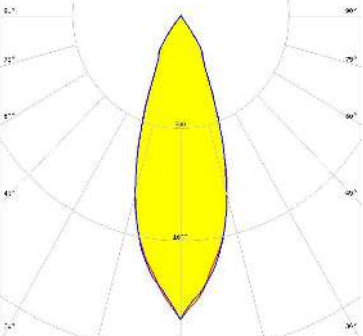
LED WU-M-486
FWHM / FWTM 39.0° / 76.0°
Efficiency 83 %
Peak intensity 1.4 cd/lm
LEDs/each optic 1
Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED V10 Gen7 FWHM / FWTM 34.0° / 69.0° Efficiency 89 % Peak intensity 2.3 cd/lm LEDs/each optic 1 Light colour White Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 486 Typ L1</p>	
<p></p> <p>LED V13 Gen7 FWHM / FWTM 32.0° / 66.0° Efficiency 89 % Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour White Required components: IDEAL: 50-2103CT + 50-2100AN</p>	
<p></p> <p>LED V22 Gen7 FWHM / FWTM 34.0° / 68.0° Efficiency 93 % Peak intensity 2.3 cd/lm LEDs/each optic 1 Light colour White Required components: IDEAL: 50-2204-CT + 50-2100AN</p>	
<p></p> <p>LED CXA/B 1830 FWHM / FWTM 35.0° / 69.0° Efficiency 87 % Peak intensity 2.2 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):



LED CxM-14 (19x19)
FWHM / FWTM 36.0° / 75.0°
Efficiency 82 %
Peak intensity 1.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 433 Typ L1



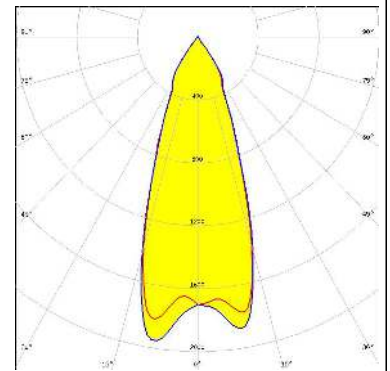
LED CxM-9 (13.5x13.5)
FWHM / FWTM 33.0° / 74.0°
Efficiency 83 %
Peak intensity 1.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 434 Typ L1



Opto Semiconductors

LED Soleriq S15
FWHM / FWTM 36.0° / 69.5°
Efficiency 89 %
Peak intensity 2 cd/lm
LEDs/each optic 1
Light colour White


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



LED ZC12/18
FWHM / FWTM 36.0° / 75.0°
Efficiency 82 %
Peak intensity 1.5 cd/lm
LEDs/each optic 1
Light colour White

Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 433 Typ L1

OPTICAL RESULTS (SIMULATED):

	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	33.0° / 74.0°
Efficiency	83 %
Peak intensity	1.7 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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