

## ANGELA-S

~10° spot beam

### SPECIFICATION:

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

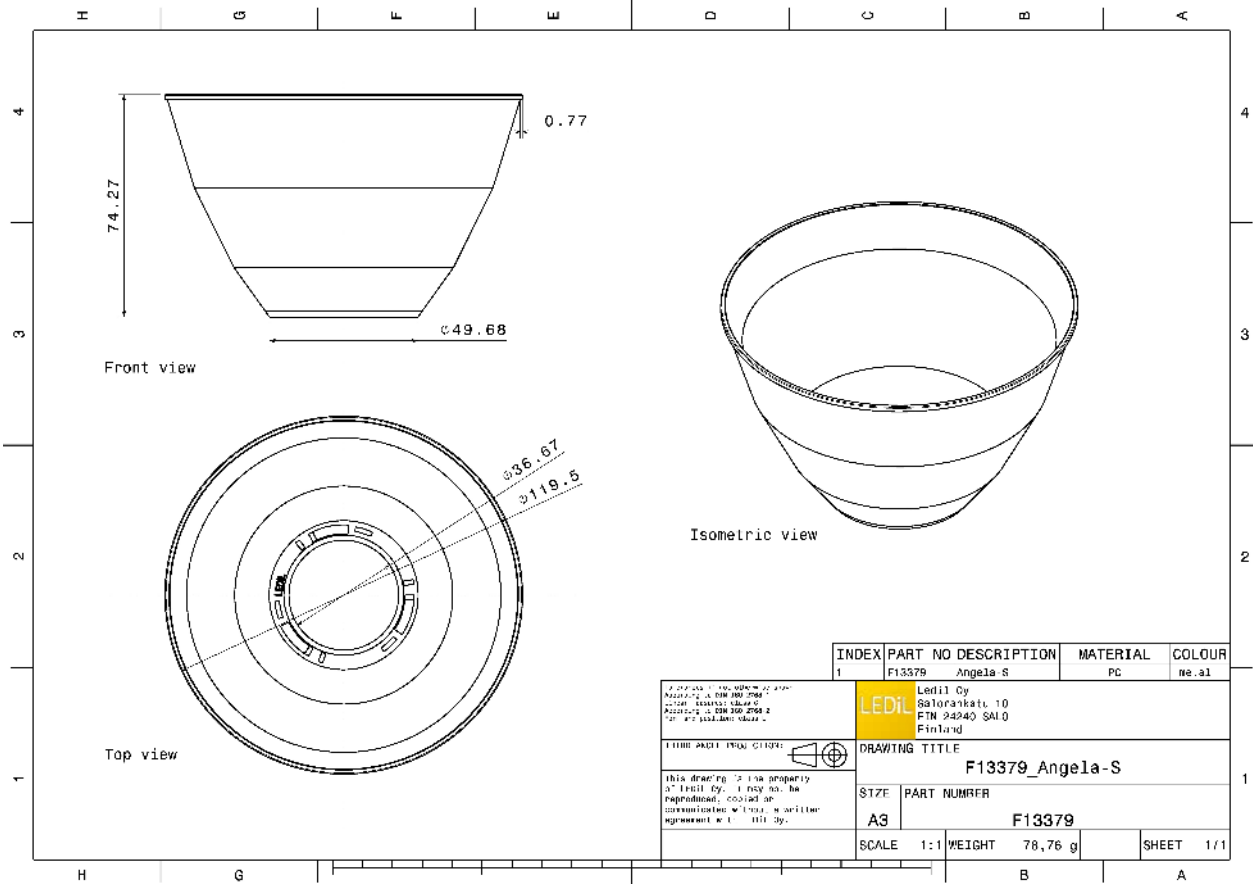
### MATERIALS:

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





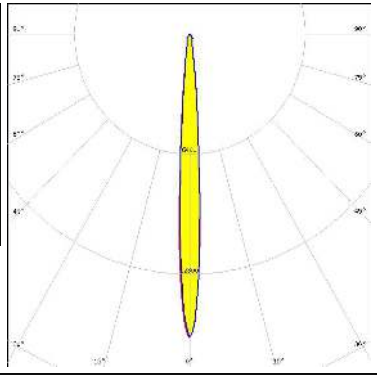


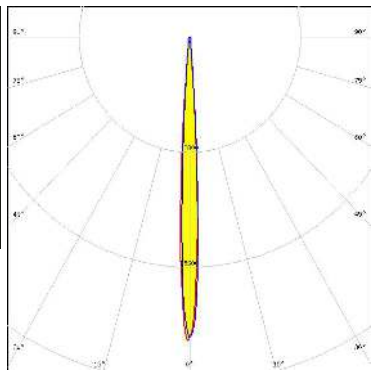

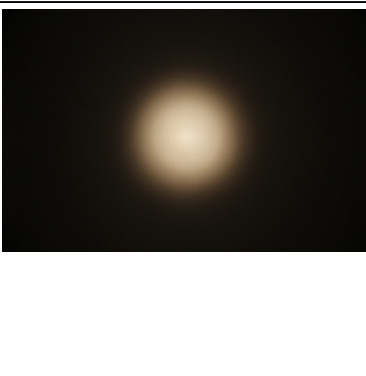
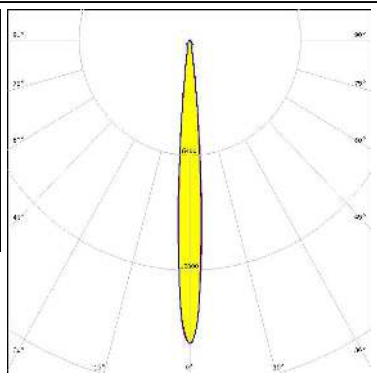


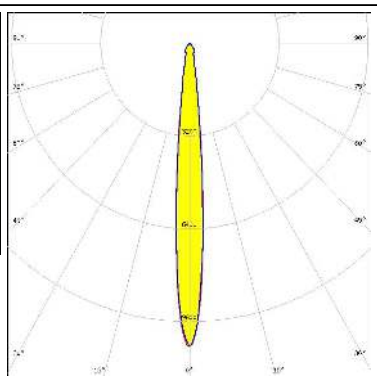
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13379_ANGELA-S » Box size: 398 x 298 x 265 mm	200	100	50	9.3


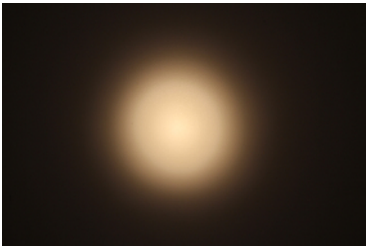


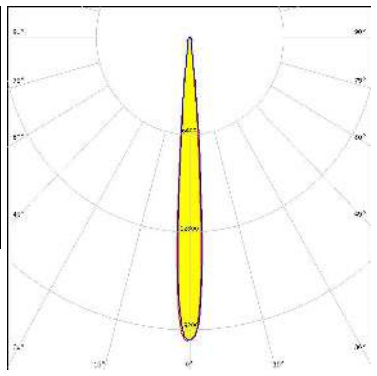


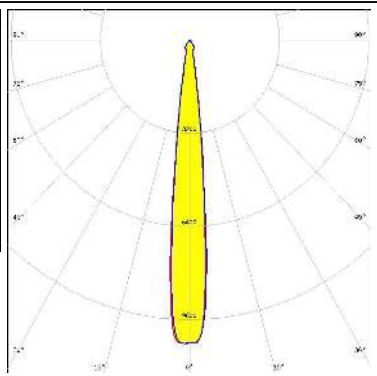


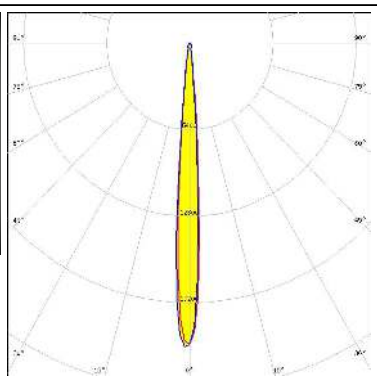


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)



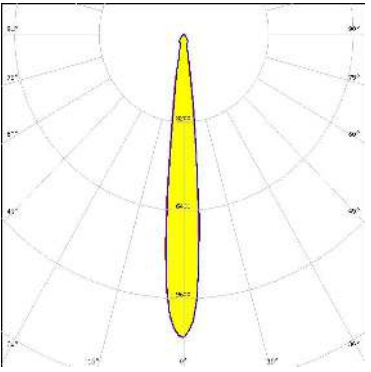


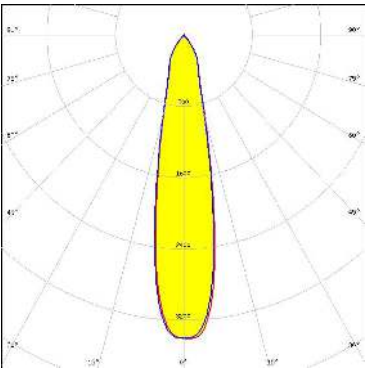

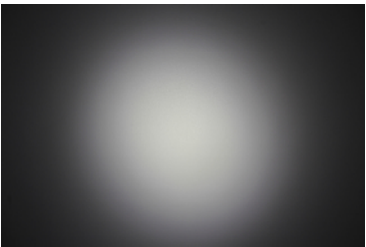
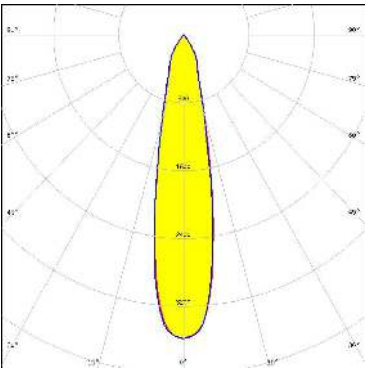


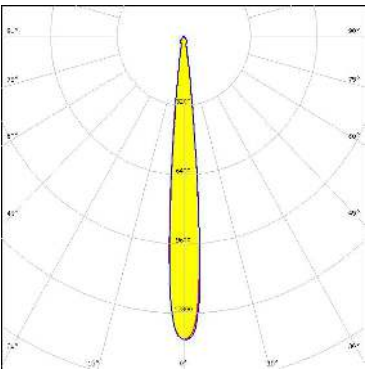
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V10 Gen7            FWHM / FWTM 8.0° / 17.0°            Efficiency 84 %            Peak intensity 16.2 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V10 Gen7            FWHM / FWTM 6.0° / 11.0°            Efficiency 89 %            Peak intensity 33.8 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 9.0° / 17.0°            Efficiency 90 %            Peak intensity 17 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 10.0° / 23.0°            Efficiency 86 %            Peak intensity 10.5 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>		



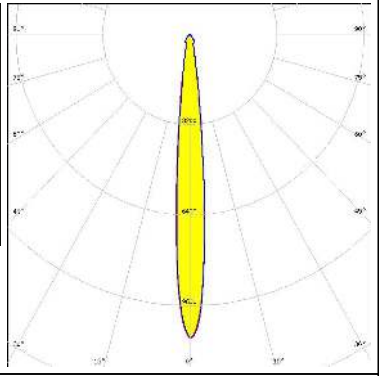


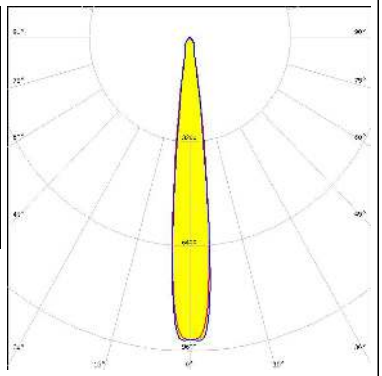

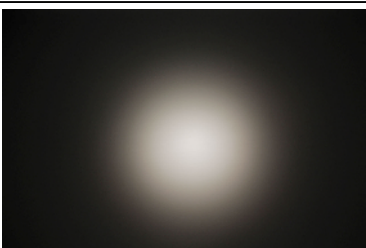
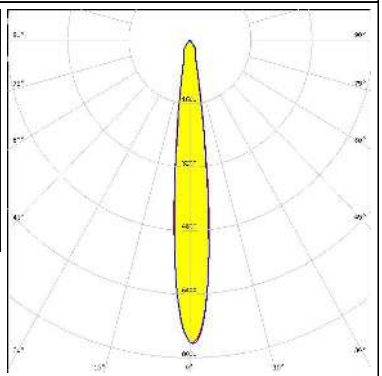


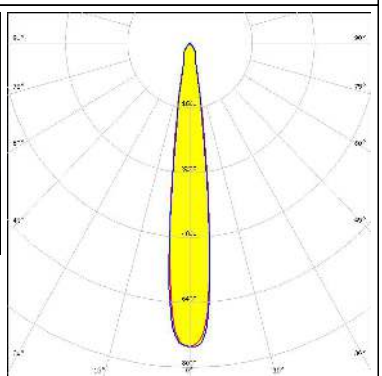
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V15 Gen6            FWHM / FWTM 10.0° / 22.0°            Efficiency 92 %            Peak intensity 15.3 cd/lm            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 9.0° / 15.0°            Efficiency 92 %            Peak intensity 19.9 cd/lm            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 12.0° / 22.0°            Efficiency 91 %            Peak intensity 10.5 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C16402_CLAMP-VEROSE-13-18</p>		
<p></p> <p>LED VERO13            FWHM / FWTM 8.0° / 15.0°            Efficiency 94 %            Peak intensity 22.5 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18</p>		



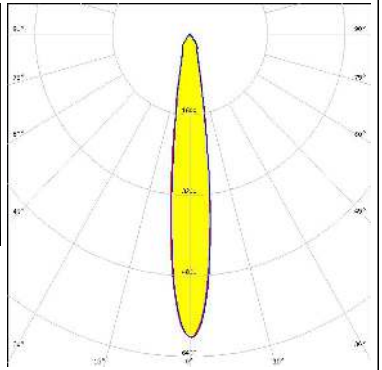

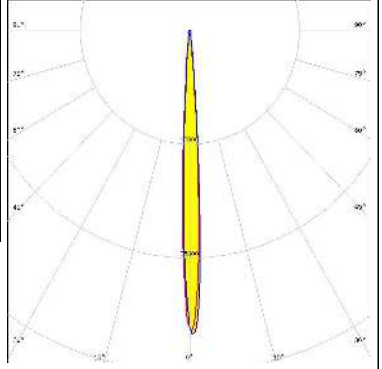

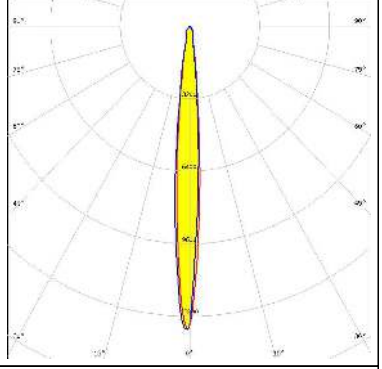

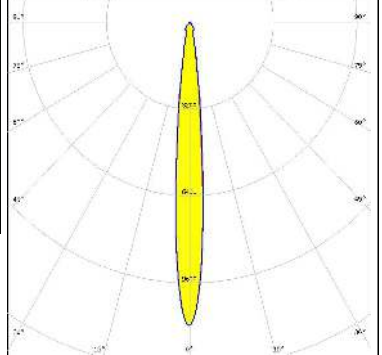
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED VERO18            FWHM / FWTM 12.0° / 22.0°            Efficiency 93 %            Peak intensity 11 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18</p>		
<p></p> <p>LED VERO29            FWHM / FWTM 22.0° / 57.0°            Efficiency 85 %            Peak intensity 3.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS</p>		
<p></p> <p>LED VERO29            FWHM / FWTM 22.0° / 55.0°            Efficiency 85 %            Peak intensity 3.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS</p>		
<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 11.0° / 19.0°            Efficiency 92 %            Peak intensity 14 cd/lm            LEDs/each optic 1            Light colour Tunable White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 482 Typ L2</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 11.0° / 24.0°            Efficiency 88 %            Peak intensity 10.8 cd/lm            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 482 Typ L2</p>		
<p></p> <p>LED Vesta TW 18mm (31W) DP            FWHM / FWTM 13.0° / 25.0°            Efficiency 92 %            Peak intensity 9.3 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 13.0° / 29.0°            Efficiency 87 %            Peak intensity 7.7 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 14.0° / 29.0°            Efficiency 92 %            Peak intensity 7.5 cd/lm            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 494 Typ L3</p>		

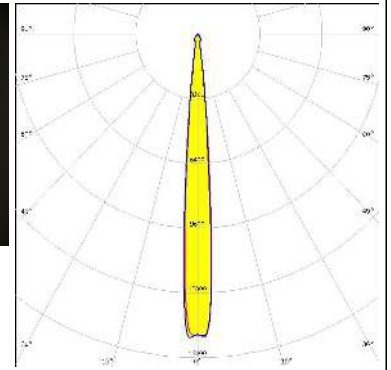
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 22mm DP            FWHM / FWTM 15.0° / 35.0°            Efficiency 87 %            Peak intensity 6 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>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM / FWTM 6.0° / 12.0°            Efficiency 90 %            Peak intensity 34.1 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 / FWTM 9.0° / 17.0°            Efficiency 94 %            Peak intensity 18.6 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><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM / FWTM 10.0° / 23.0°            Efficiency 89 %            Peak intensity 11.2 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>		

#### OPTICAL RESULTS (MEASURED):

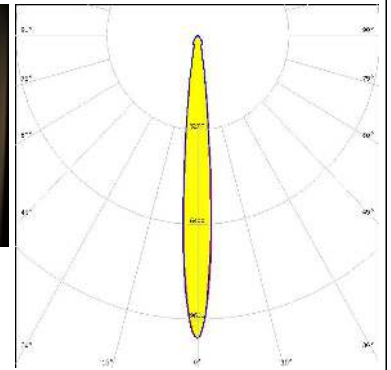
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 10.0° / 18.0°  
 Efficiency 88 %  
 Peak intensity 15 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1



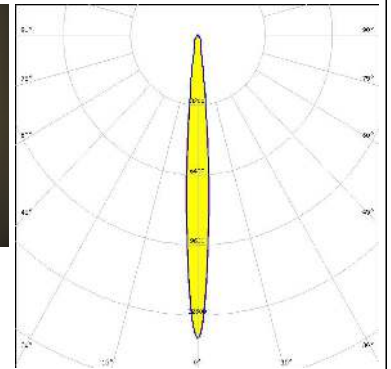
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 11.0° / 24.0°  
 Efficiency 85 %  
 Peak intensity 10 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



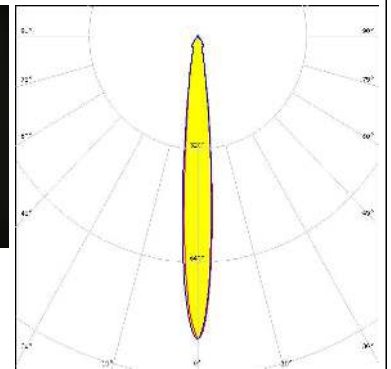
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 9.0° / 20.0°  
 Efficiency 88 %  
 Peak intensity 14 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 11.0° / 26.0°  
 Efficiency 84 %  
 Peak intensity 8.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2103CT + 50-2100AN

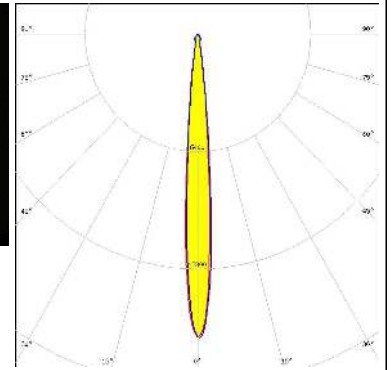
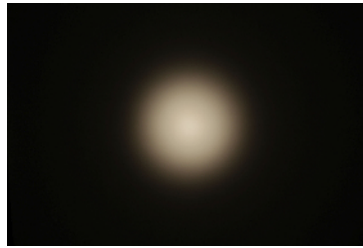




#### OPTICAL RESULTS (MEASURED):

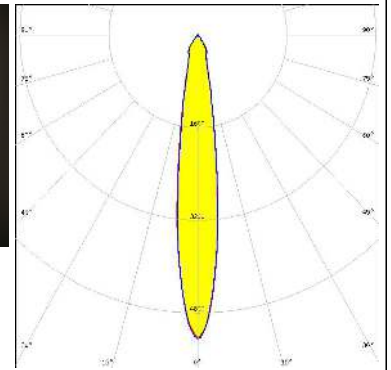
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 9.0° / 18.0°  
 Efficiency 93 %  
 Peak intensity 16.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16791\_CLAMP-Z45-A  
 TE Connectivity: 2325807-3



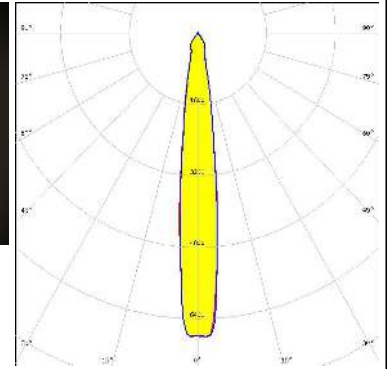
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 16.0° / 37.0°  
 Efficiency 85 %  
 Peak intensity 5.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN



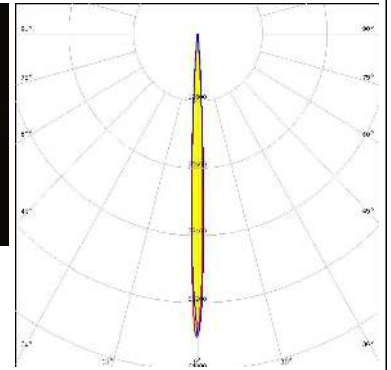
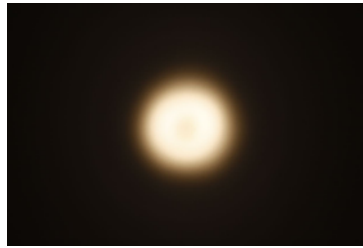
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 14.0° / 31.0°  
 Efficiency 89 %  
 Peak intensity 6.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



#### CITIZEN

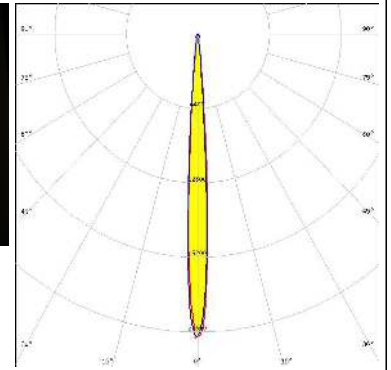
LED CLU700/701/702/703  
 FWHM / FWTM 5.0° / 9.0°  
 Efficiency 88 %  
 Peak intensity 57.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



#### OPTICAL RESULTS (MEASURED):

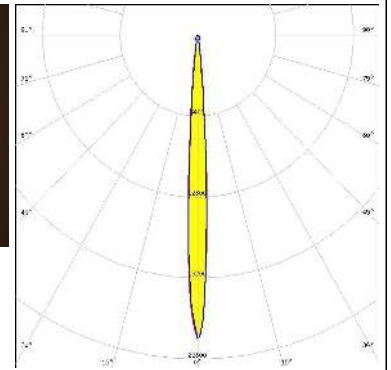
#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 7.0° / 13.0°  
 Efficiency 88 %  
 Peak intensity 26.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1



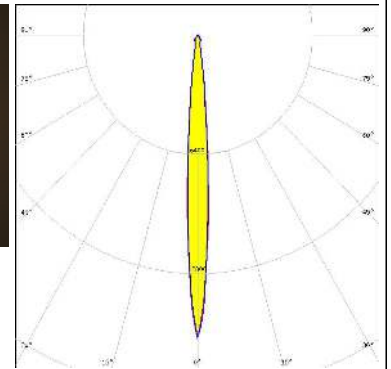
#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 7.0° / 14.0°  
 Efficiency 94 %  
 Peak intensity 24 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



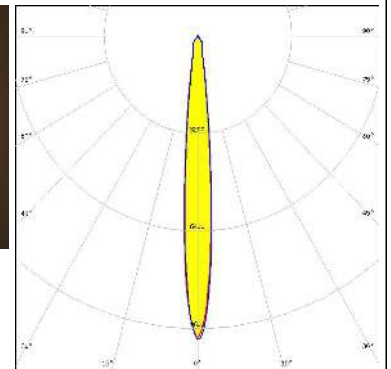
#### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 8.0° / 18.0°  
 Efficiency 88 %  
 Peak intensity 16.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



#### CITIZEN

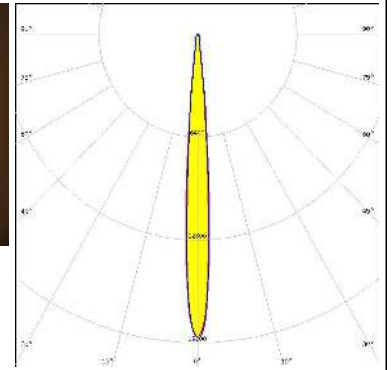
LED CLU730/731/733  
 FWHM / FWTM 10.0° / 24.0°  
 Efficiency 85 %  
 Peak intensity 10 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN



#### OPTICAL RESULTS (MEASURED):

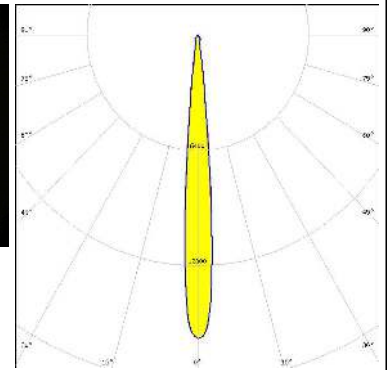
### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 8.5° / 16.0°  
 Efficiency 91 %  
 Peak intensity 18.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 471 Typ L3



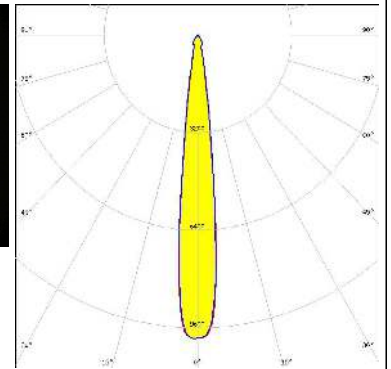
### CREE LED

LED CMA1840  
 FWHM / FWTM 9.7° / 17.0°  
 Efficiency 93 %  
 Peak intensity 16.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



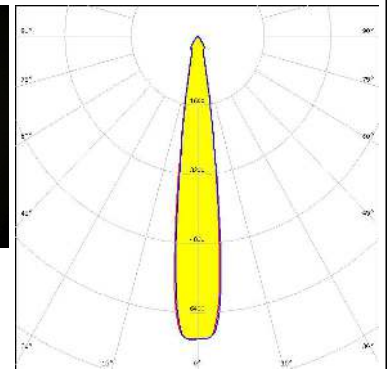
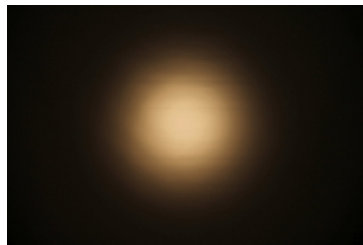
### CREE LED

LED CMA2550  
 FWHM / FWTM 13.0° / 24.0°  
 Efficiency 92 %  
 Peak intensity 10 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30


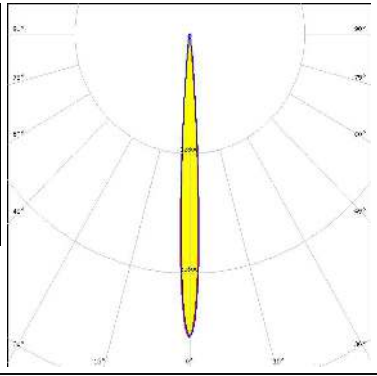

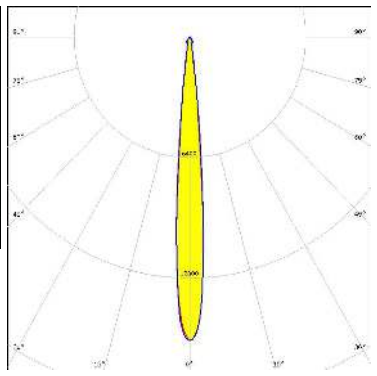
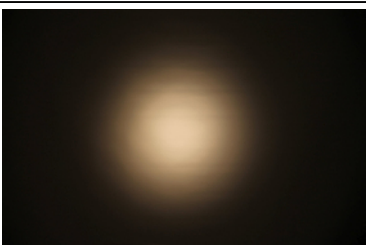
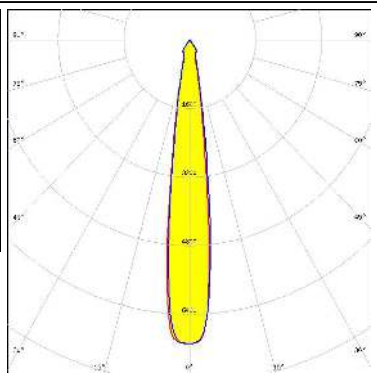

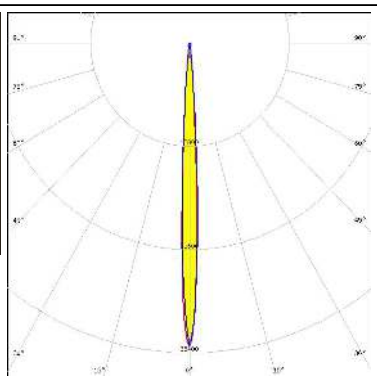


### CREE LED

LED CMA3090  
 FWHM / FWTM 15.0° / 30.0°  
 Efficiency 92 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



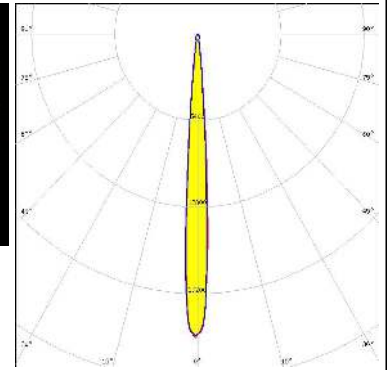
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CMT14xx            FWHM / FWTM 7.0° / 12.0°            Efficiency 93 %            Peak intensity 33 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 434 Typ L1</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CMT19xx            FWHM / FWTM 10.0° / 18.0°            Efficiency 92 %            Peak intensity 16.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 477 Typ L1</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CMT28xx            FWHM / FWTM 15.0° / 30.0°            Efficiency 91 %            Peak intensity 7.1 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            Bender Wirth: 471 Typ L3</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 5.8° / 11.0°            Efficiency 92 %            Peak intensity 37.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 441 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

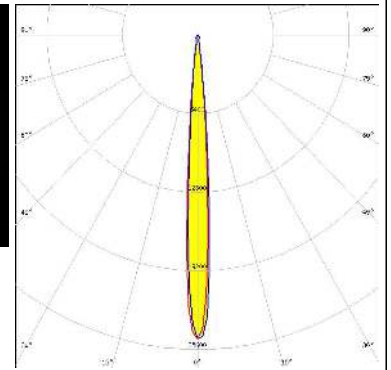
##### CREE LED

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 8.0° / 14.0°  
 Efficiency 89 %  
 Peak intensity 22.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1



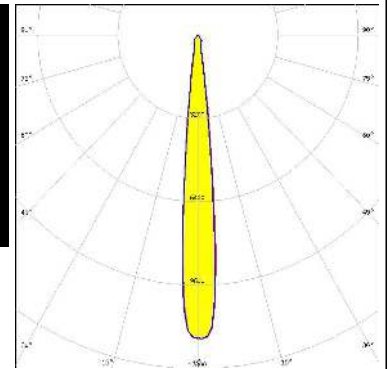
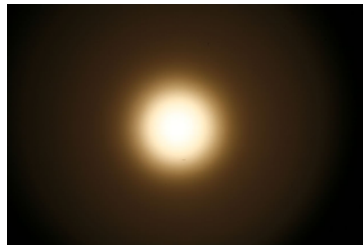
##### CREE LED

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 9.0° / 15.0°  
 Efficiency 91 %  
 Peak intensity 24.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



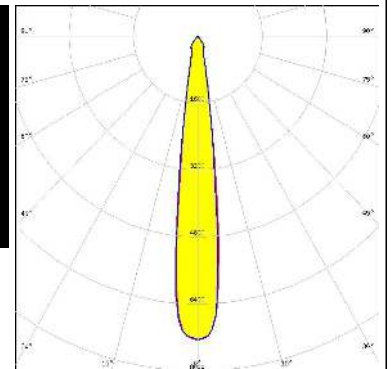
##### CREE LED

LED CXA/B 25xx  
 FWHM / FWTM 11.0° / 21.0°  
 Efficiency 92 %  
 Peak intensity 11.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



##### CREE LED

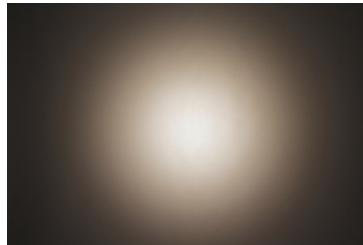
LED CXA/B 30xx  
 FWHM / FWTM 14.0° / 29.0°  
 Efficiency 92 %  
 Peak intensity 7.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



#### OPTICAL RESULTS (MEASURED):

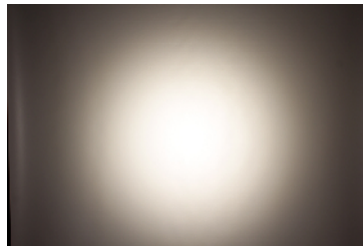
#### EVERLIGHT

LED CHI3030 19W  
 FWHM / FWTM 14.0° / 35.0°  
 Efficiency 85 %  
 Peak intensity 6.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3



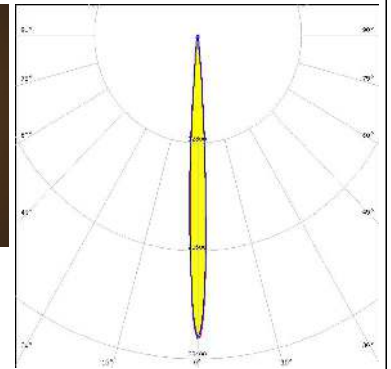
#### EVERLIGHT

LED CHI3030 29W  
 FWHM / FWTM 18.0° / 47.0°  
 Efficiency 85 %  
 Peak intensity 5.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3



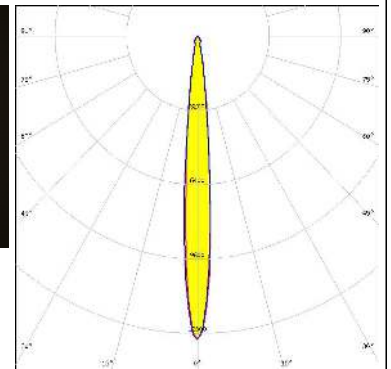
#### LUMILEDS

LED LUXEON CoB 1202/1203  
 FWHM / FWTM 6.0° / 11.0°  
 Efficiency 91 %  
 Peak intensity 36 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 438 Typ L1


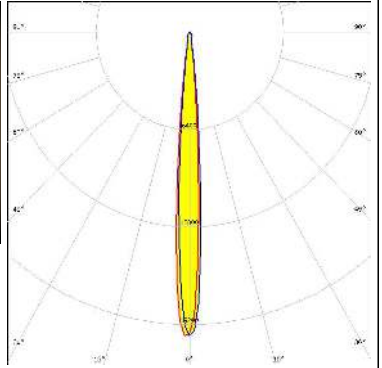
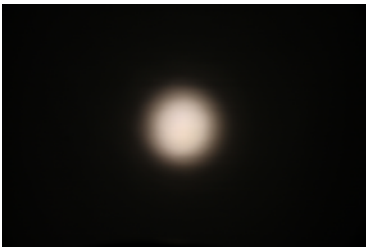
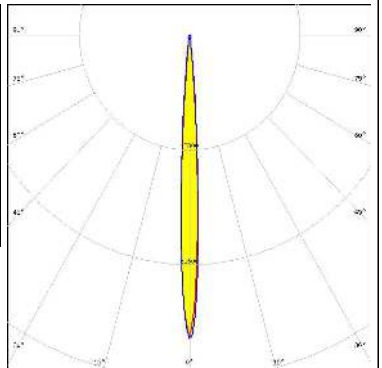

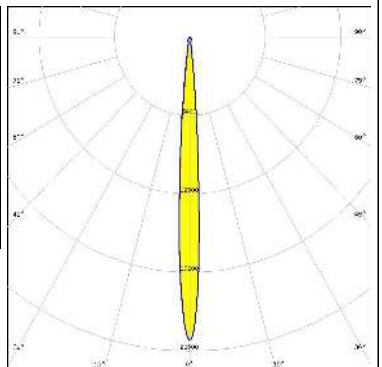

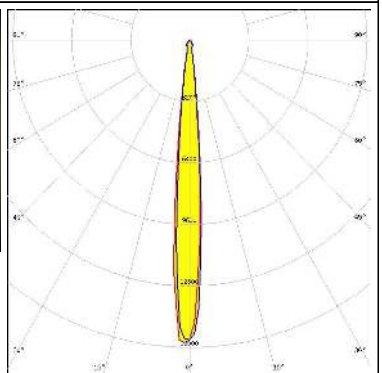


#### LUMILEDS


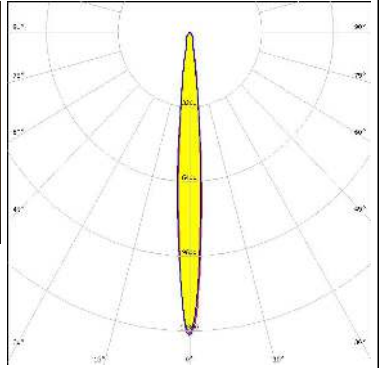

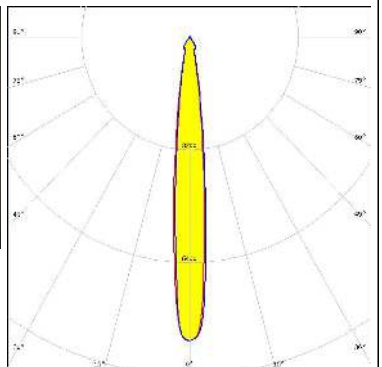
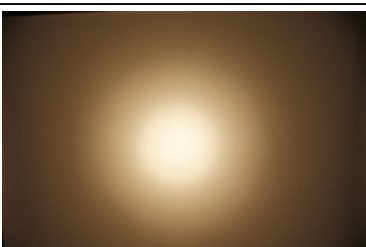
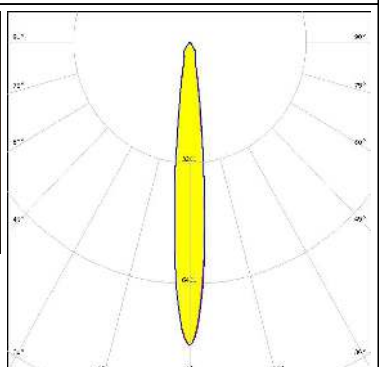
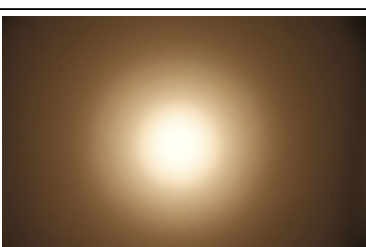
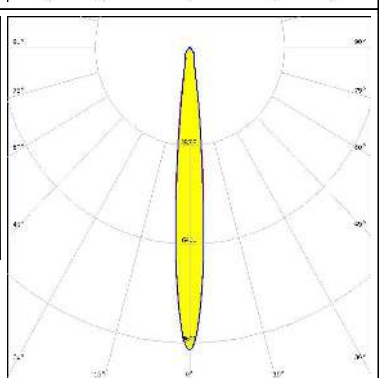
LED LUXEON CoB 1204/1205  
 FWHM / FWTM 10.0° / 22.0°  
 Efficiency 85 %  
 Peak intensity 13.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):


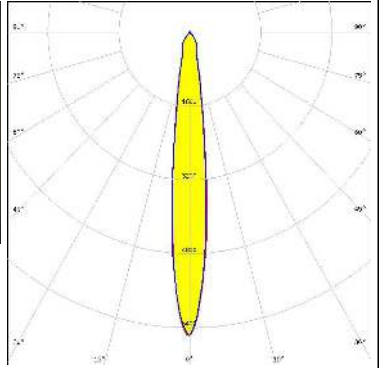

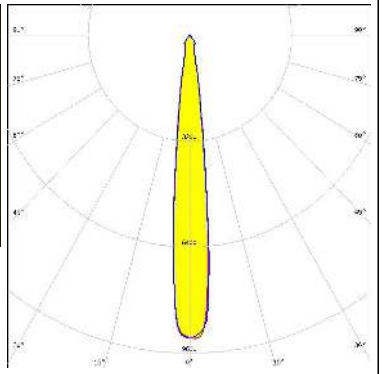

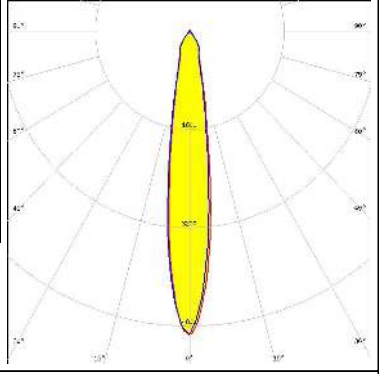
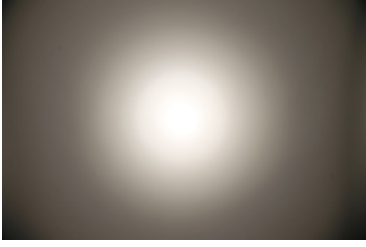
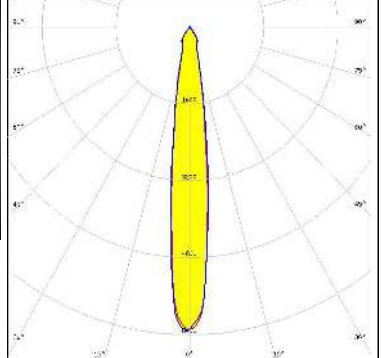
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 8.0° / 16.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 19.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM / FWTM 6.4° / 12.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 34 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 7.5° / 15.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 24.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 10.0° / 19.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 15.9 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>		

#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 9.0° / 21.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 13 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100SH + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 12.0° / 27.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 8.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 12.0° / 28.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2100SH + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 11.0° / 24.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 9.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		



#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 13.0° / 32.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 6.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1211</p> <p>FWHM / FWTM 13.0° / 25.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 9.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13584_CLAMP-VERO29 Bender Wirth: 431 Typ L3</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1213/1216/1812</p> <p>FWHM / FWTM 16.0° / 39.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 4.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2204-CT + 50-2100AN</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1213/1216/1812</p> <p>FWHM / FWTM 14.0° / 33.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 6.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2204-CT + 50-2100AN</p>		

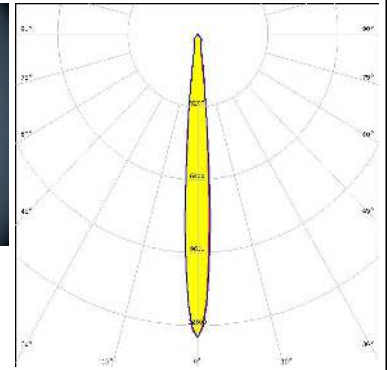
#### OPTICAL RESULTS (MEASURED):

##### LUMILEDS

LED LUXEON K12  
 FWHM / FWTM 9.0° / 19.0°  
 Efficiency 90 %  
 Peak intensity 13 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1

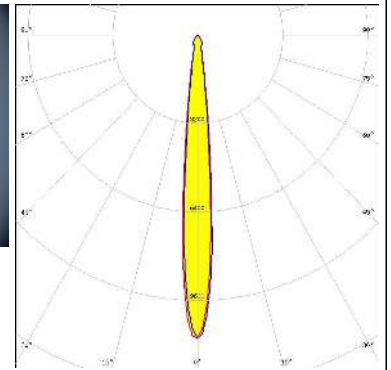


##### LUMILEDS

LED LUXEON K16  
 FWHM / FWTM 10.0° / 22.0°  
 Efficiency 90 %  
 Peak intensity 11 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1

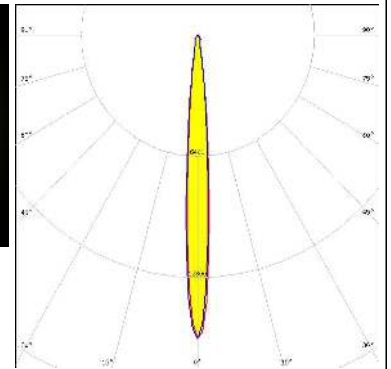


##### LUMILEDS

LED LUXEON S2000  
 FWHM / FWTM 9.0° / 19.0°  
 Efficiency 87 %  
 Peak intensity 16 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13395\_CLAMP-S2000  
 F13671\_ANGE-RZ-LENS

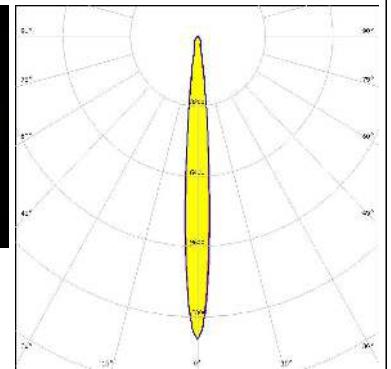


##### LUMILEDS


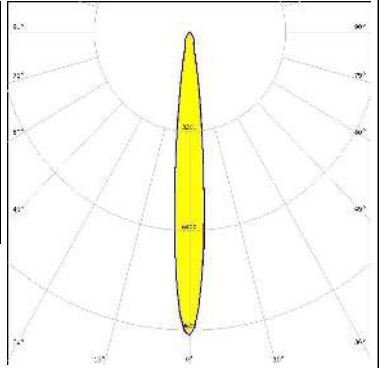

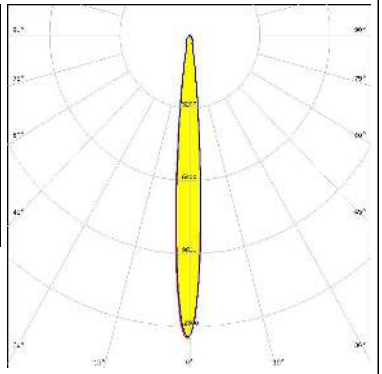

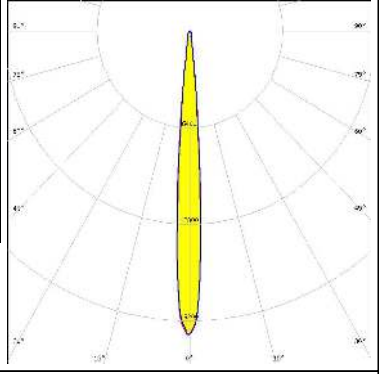

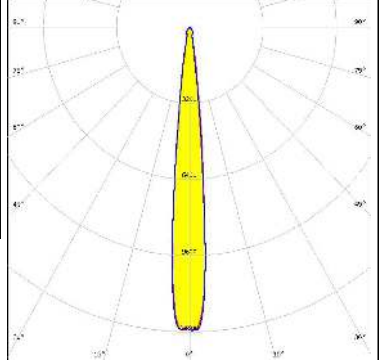
LED LUXEON S3000  
 FWHM / FWTM 10.0° / 21.0°  
 Efficiency 87 %  
 Peak intensity 13.8 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:


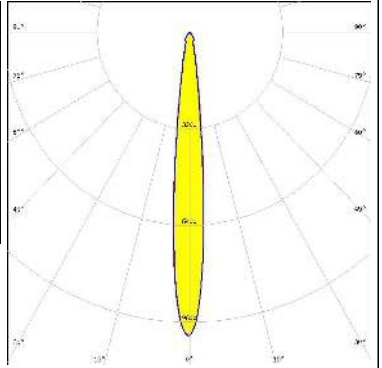

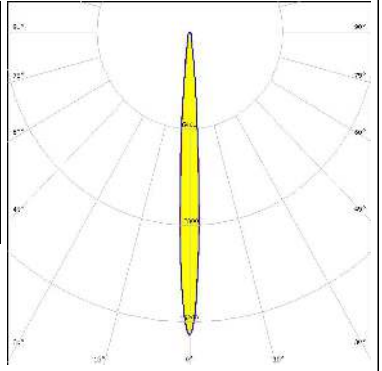

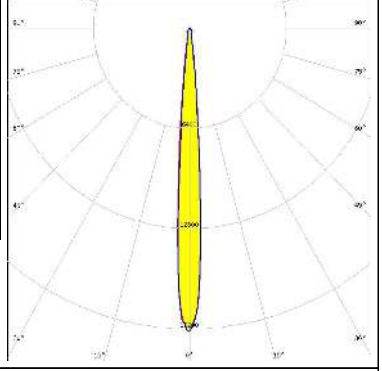

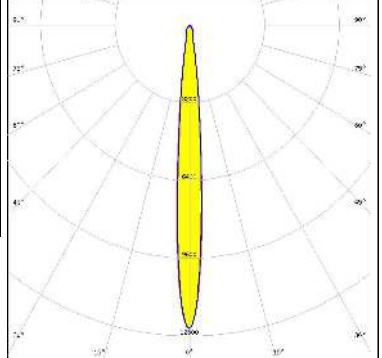
C13397\_CLAMP-S3000  
 F13671\_ANGE-RZ-LENS



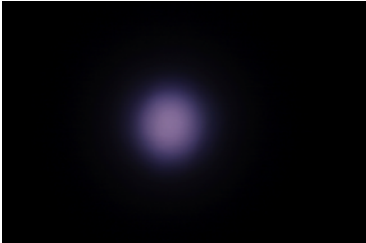
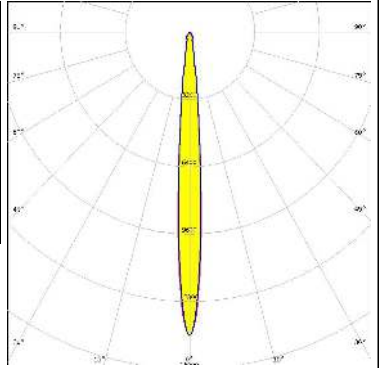

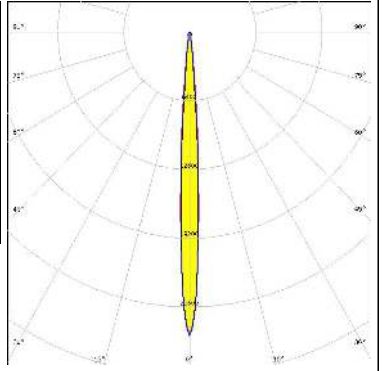

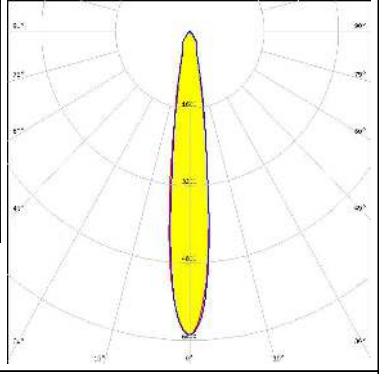

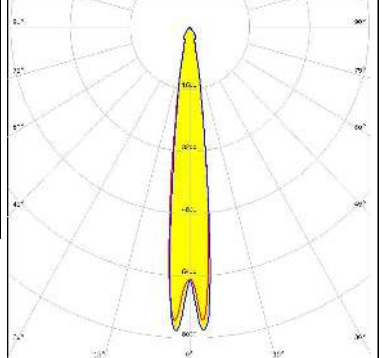
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON S5000</p> <p>FWHM / FWTM 12.0° / 26.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 9.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13399_CLAMP-S5000 F13671_ANGE-RZ-LENS</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 9.5° / 21.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 13.4 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-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 8.6° / 16.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 20.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 11.0° / 21.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 12.8 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>		


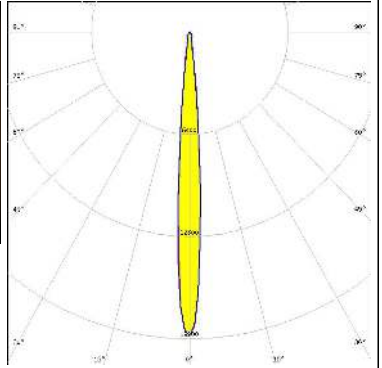

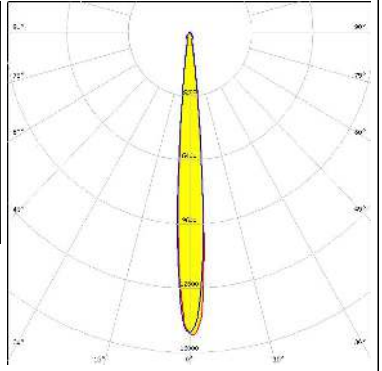

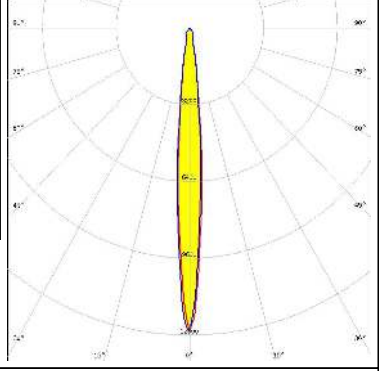

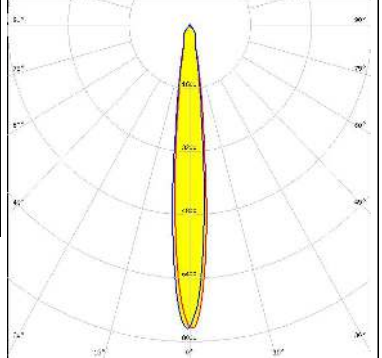
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 11.0° / 25.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 10 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13658_CLAMP-VERO13-18</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 7.2° / 16.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 20.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13658_CLAMP-VERO13-18</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 490 Typ L1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 8.0° / 16.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 19.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>Bender Wirth: 442 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 9.0° / 21.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 12.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 442 Typ L3</p>		


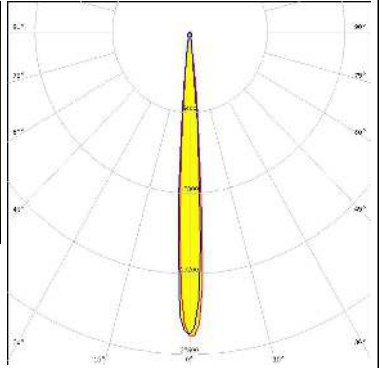

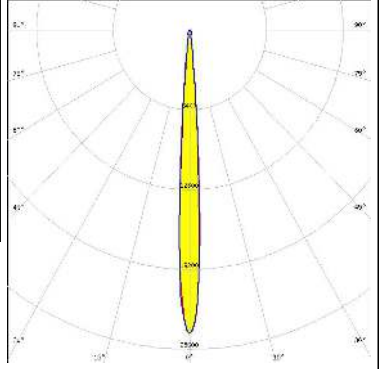

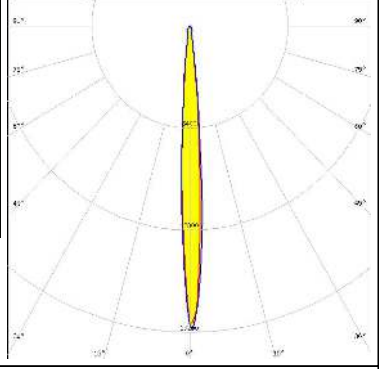

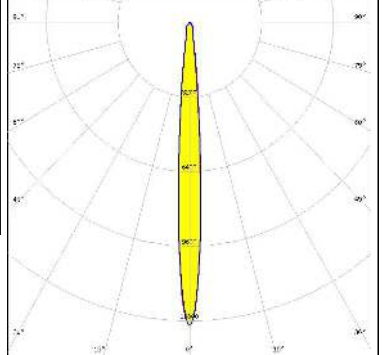
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 9.0° / 20.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 14.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 500 Typ L3-1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW</p> <p>FWHM / FWTM 7.0° / 14.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 28.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour RGBW</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>Bender Wirth: 500 Typ L3-1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 15.0° / 33.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 6.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>F13671_ANGE-RZ-LENS</p> <p>Bender Wirth: 494 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 14.0° / 28.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 7.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13584_CLAMP-VERO29</p> <p>Bender Wirth: 494 Typ L3</p>		


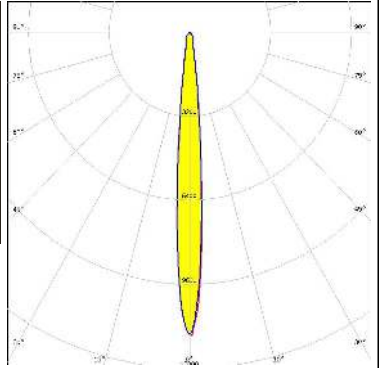

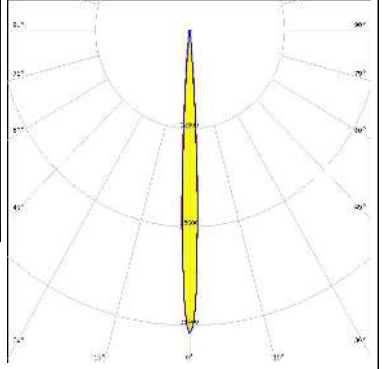

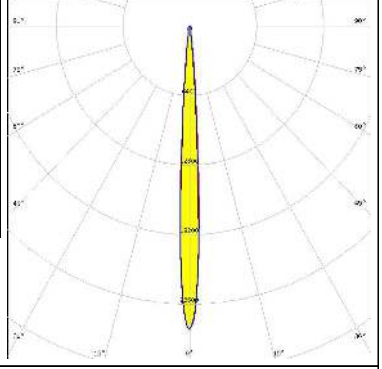

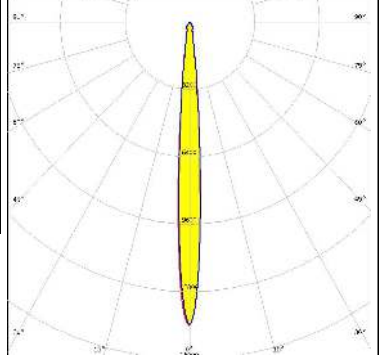
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CxM-14 (19x19)            FWHM / FWTM 9.0° / 17.0°            Efficiency 94 %            Peak intensity 19 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type            FWHM / FWTM 9.0° / 18.0°            Efficiency 89 %            Peak intensity 15.2 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 J-Type            FWHM / FWTM 9.0° / 22.0°            Efficiency 91 %            Peak intensity 12.7 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 / FWTM 12.0° / 28.0°            Efficiency 86 %            Peak intensity 7.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            IDEAL: 50-2103NC + 50-2100AN</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 8.0° / 14.0°</p> <p>Efficiency 94 %</p> <p>Peak intensity 24 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Molex: 180580-0005</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 7.0° / 14.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 24.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 8.0° / 16.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 19 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 9.0° / 20.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 13 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

#### OPTICAL RESULTS (MEASURED):

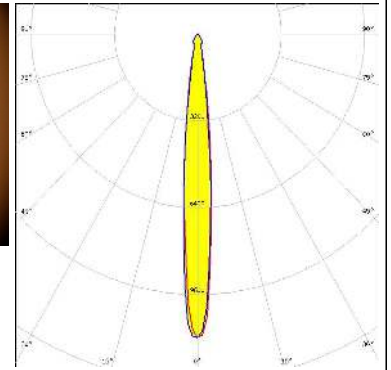
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 9.0° / 21.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 12 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 6.0° / 11.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 39 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 7.0° / 13.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 28 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 498 Typ L2</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 9.0° / 19.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 14.4 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>		



#### OPTICAL RESULTS (MEASURED):

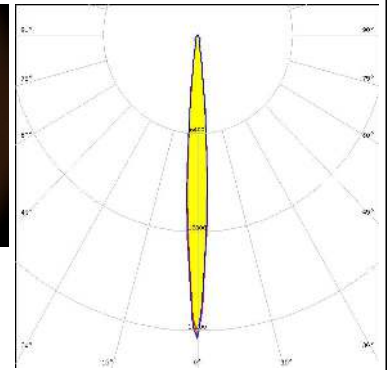
#### OSRAM

LED PrevaLED Core AC (LEP-2000)  
 FWHM / FWTM 11.0° / 23.0°  
 Efficiency 92 %  
 Peak intensity 11.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



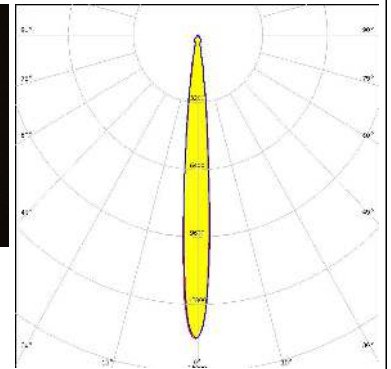
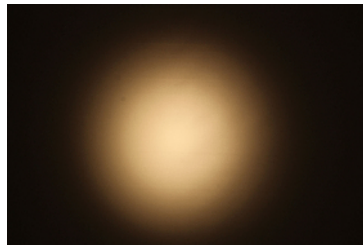
#### OSRAM

LED PrevaLED Core AC (LEP-800)  
 FWHM / FWTM 8.0° / 17.0°  
 Efficiency 94 %  
 Peak intensity 19.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



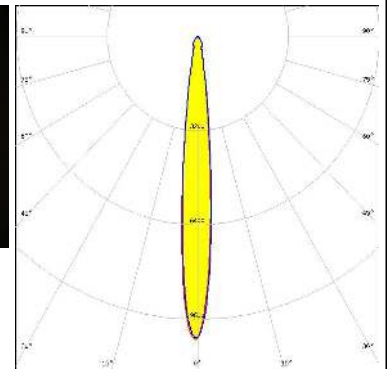
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 10.0° / 20.0°  
 Efficiency 93 %  
 Peak intensity 14.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A



#### OSRAM

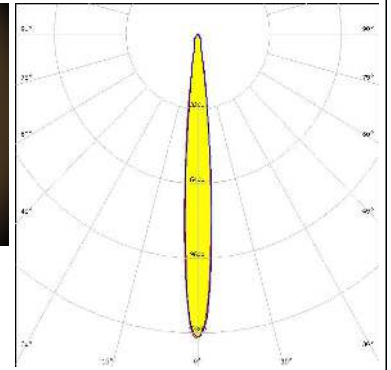
LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 11.0° / 24.0°  
 Efficiency 89 %  
 Peak intensity 10.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A  
 F13671\_ANGE-RZ-LENS



#### OPTICAL RESULTS (MEASURED):

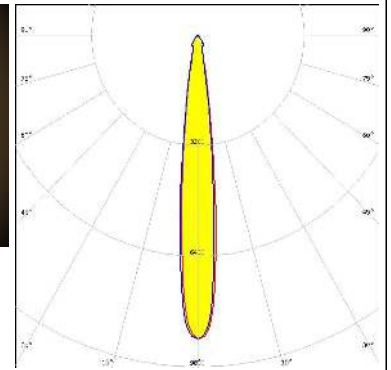
#### OSRAM

LED PrevaLED Core Z3 LES19  
 FWHM / FWTM 10.0° / 21.0°  
 Efficiency 93 %  
 Peak intensity 13 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



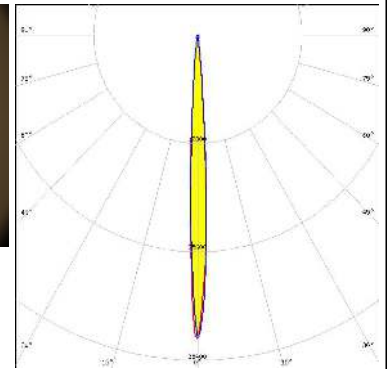
#### OSRAM

LED PrevaLED Core Z3 LES23  
 FWHM / FWTM 13.0° / 27.0°  
 Efficiency 93 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



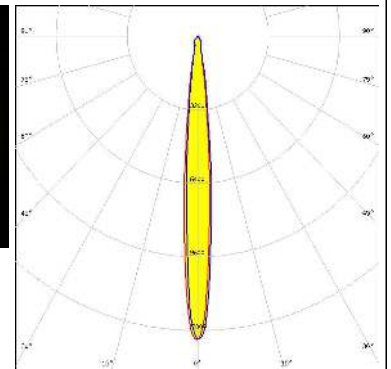
#### OSRAM

LED PrevaLED Core Z3 LES9  
 FWHM / FWTM 6.0° / 12.0°  
 Efficiency 94 %  
 Peak intensity 36 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OSRAM

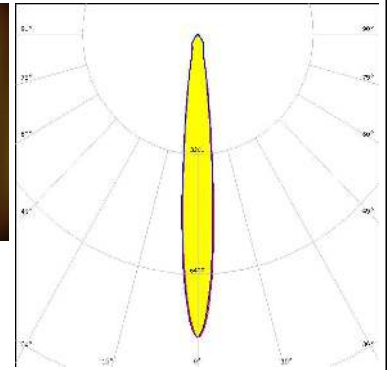
LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 10.0° / 21.0°  
 Efficiency 93 %  
 Peak intensity 13.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

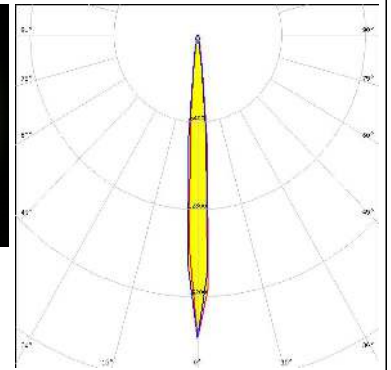
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 12.0° / 28.0°  
 Efficiency 85 %  
 Peak intensity 8.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



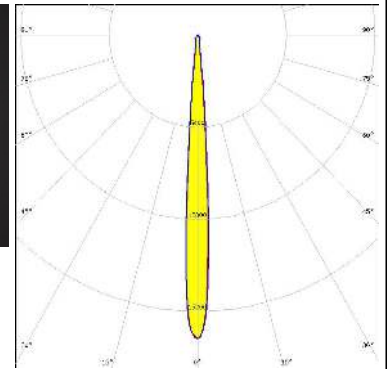
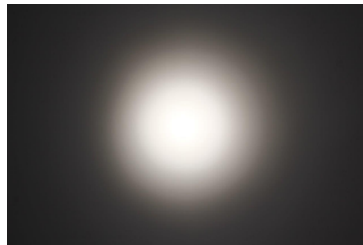
#### OSRAM

Opto Semiconductors  
 LED Soleriq S13  
 FWHM / FWTM 8.0° / 15.0°  
 Efficiency 94 %  
 Peak intensity 22 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



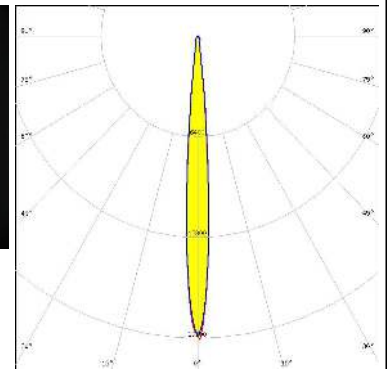
#### OSRAM

Opto Semiconductors  
 LED Soleriq S13  
 FWHM / FWTM 8.0° / 15.0°  
 Efficiency 89 %  
 Peak intensity 21 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1


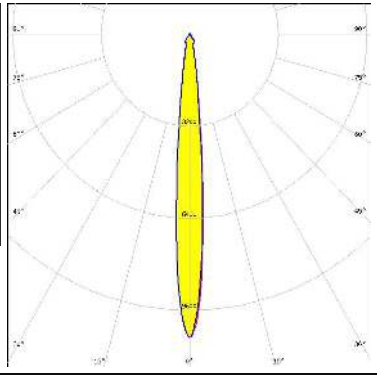

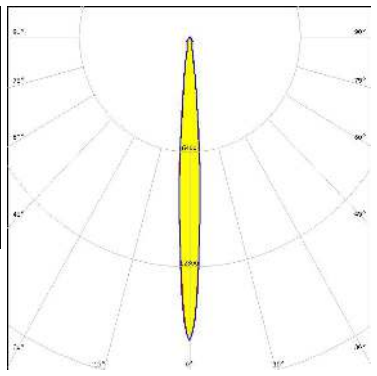

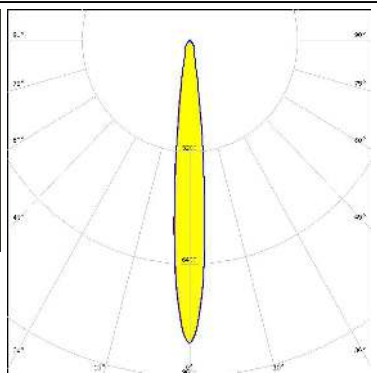

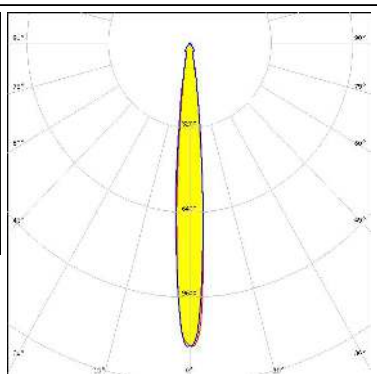


#### OSRAM


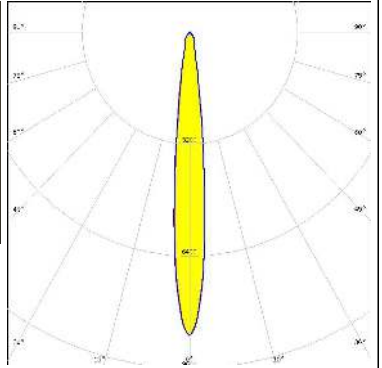

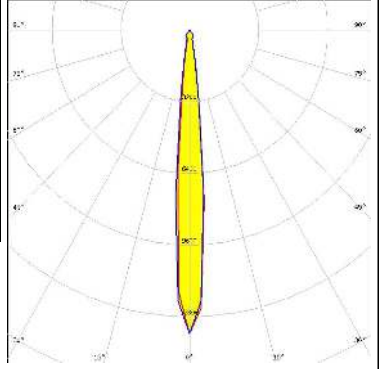

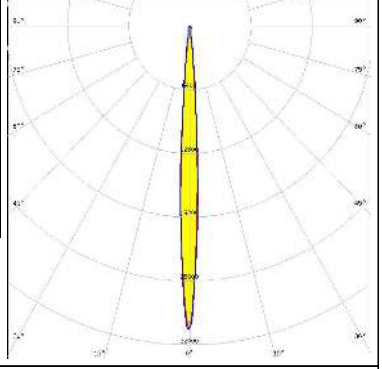

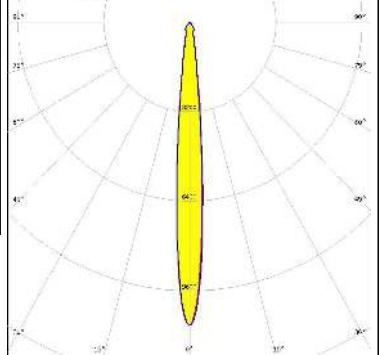
Opto Semiconductors  
 LED Soleriq S13 19x19  
 FWHM / FWTM 8.0° / 16.0°  
 Efficiency 90 %  
 Peak intensity 19 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 10.0° / 23.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 11 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS IDEAL: 50-2103CT + 50-2100AN</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 8.0° / 18.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 16.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100AN</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19</p> <p>FWHM / FWTM 9.0° / 20.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 13 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGE-RZ-LENS TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S19</p> <p>FWHM / FWTM 11.0° / 23.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 11.5 cd/lm</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):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: Soleriq S19            FWHM / FWTM: 12.0° / 26.0°            Efficiency: 85 %            Peak intensity: 8.7 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:            F13671_ANGE-RZ-LENS            TE Connectivity: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: Soleriq S19            FWHM / FWTM: 10.0° / 20.0°            Efficiency: 94 %            Peak intensity: 13.5 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:            TE Connectivity: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>PHILIPS</b></p> <p>LED: Fortimo SLM L09 + SLM holder            FWHM / FWTM: 7.0° / 13.0°            Efficiency: 91 %            Peak intensity: 30.6 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>PHILIPS</b></p> <p>LED: Fortimo SLM L13 + SLM holder            FWHM / FWTM: 10.0° / 22.0°            Efficiency: 84 %            Peak intensity: 11 cd/lm            LEDs/each optic: 1            Light colour: White</p> <p>Required components:            F13671_ANGE-RZ-LENS            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

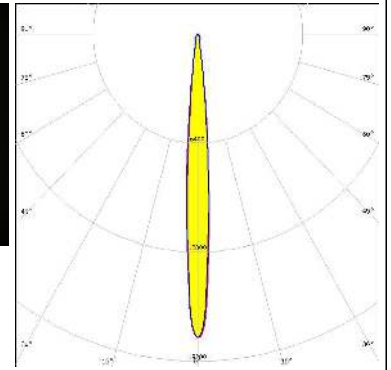
#### OPTICAL RESULTS (MEASURED):

### PHILIPS

LED Fortimo SLM L13 + SLM holder  
 FWHM / FWTM 8.5° / 17.0°  
 Efficiency 91 %  
 Peak intensity 17.8 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

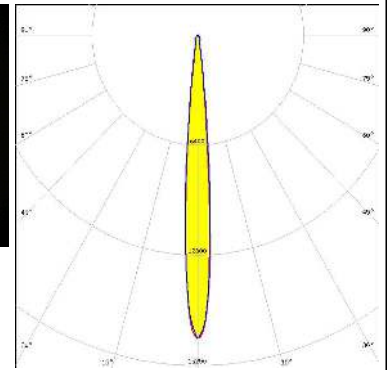


### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 9.0° / 17.0°  
 Efficiency 92 %  
 Peak intensity 17.7 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

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



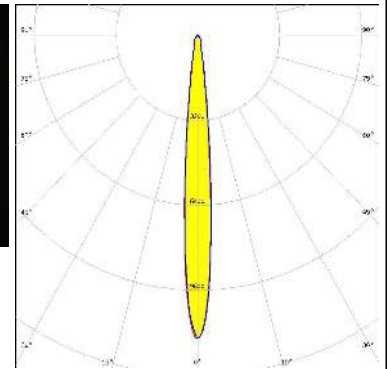
### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 10.0° / 22.0°  
 Efficiency 86 %  
 Peak intensity 11.5 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

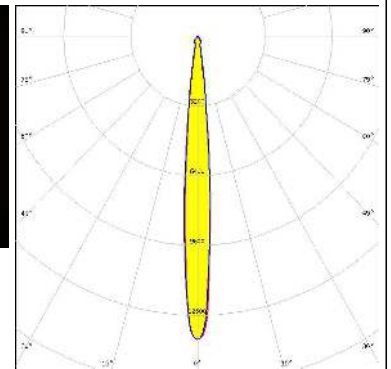


### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 10.0° / 20.0°  
 Efficiency 89 %  
 Peak intensity 13.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

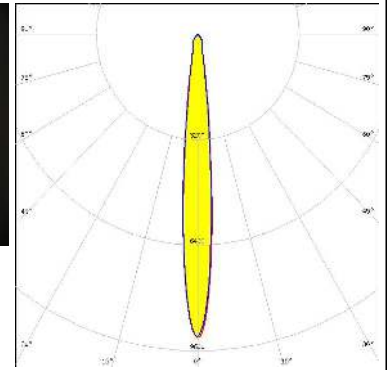
TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

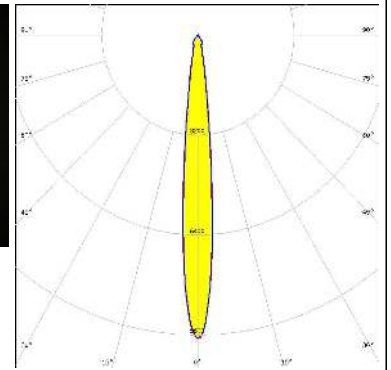
### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 11.0° / 25.0°  
 Efficiency 84 %  
 Peak intensity 9.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



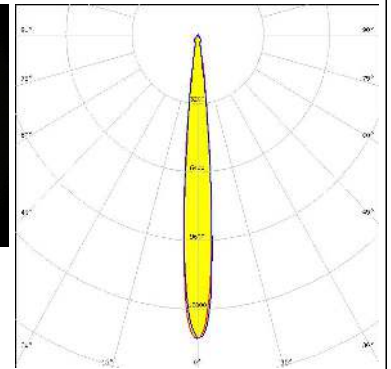
### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 11.0° / 24.0°  
 Efficiency 86 %  
 Peak intensity 9.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



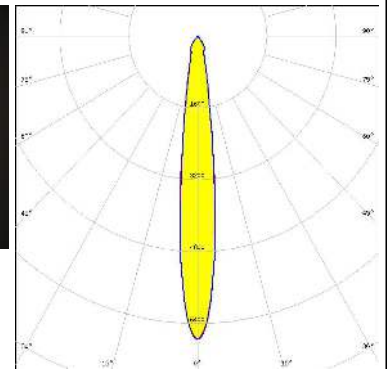
### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 10.0° / 20.0°  
 Efficiency 92 %  
 Peak intensity 14.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



### PHILIPS

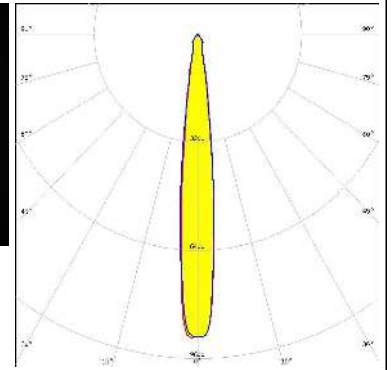
LED Fortimo SLM L19 + SLM holder  
 FWHM / FWTM 13.0° / 31.0°  
 Efficiency 84 %  
 Peak intensity 6.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (MEASURED):

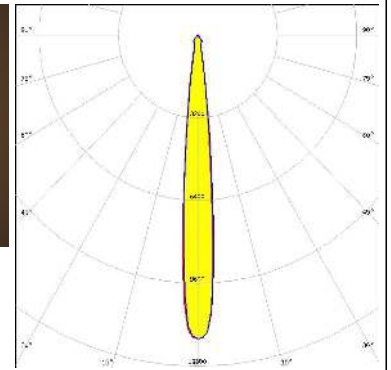
### PHILIPS

LED Fortimo SLM L19 + SLM holder  
 FWHM / FWTM 13.0° / 25.0°  
 Efficiency 88 %  
 Peak intensity 9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



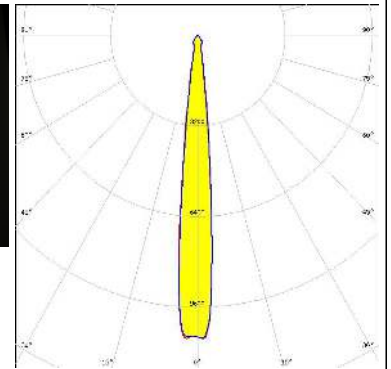
### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 11.0° / 22.0°  
 Efficiency 93 %  
 Peak intensity 11.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213258-2 + OPTIC CLIP Z50 TYPE1 2213194-1



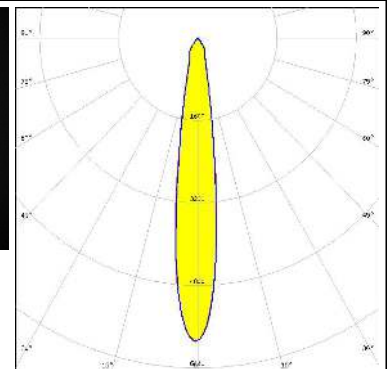
### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 11.0° / 21.0°  
 Efficiency 8 %  
 Peak intensity 10.7 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 / FWTM 15.0° / 35.0°  
 Efficiency 87 %  
 Peak intensity 5.9 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 502 Typ L3

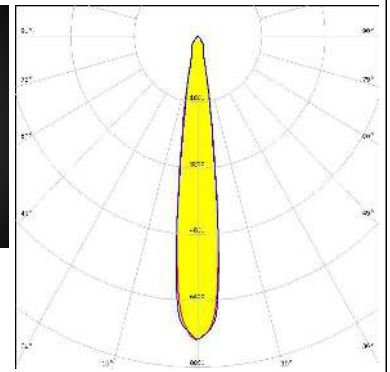




#### OPTICAL RESULTS (MEASURED):

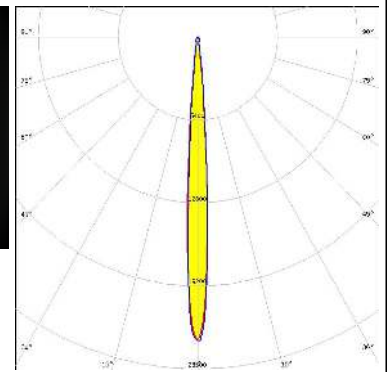
### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 15.0° / 30.0°  
 Efficiency 92 %  
 Peak intensity 7.3 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3



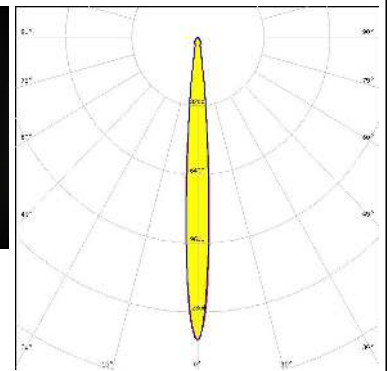
### SAMSUNG

LED LC040C  
 FWHM / FWTM 7.0° / 15.0°  
 Efficiency 89 %  
 Peak intensity 23 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1

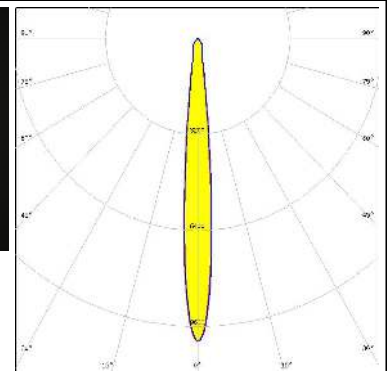


### SAMSUNG


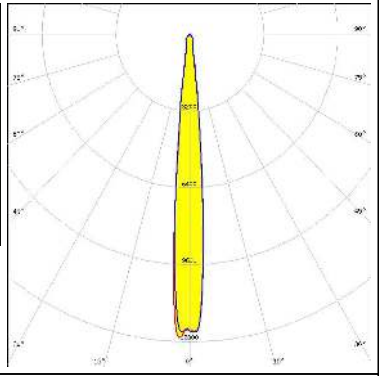

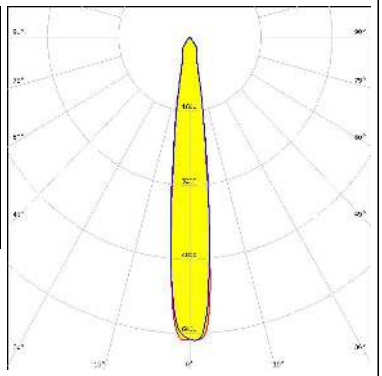

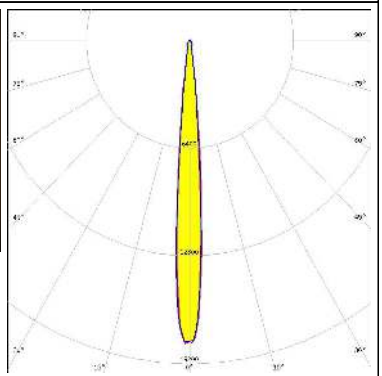

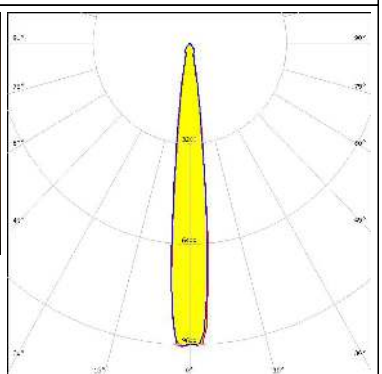
LED LC040C  
 FWHM / FWTM 9.0° / 19.0°  
 Efficiency 85 %  
 Peak intensity 14 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1




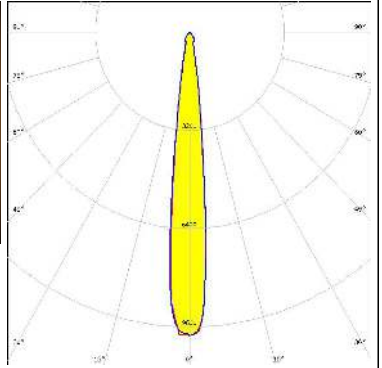

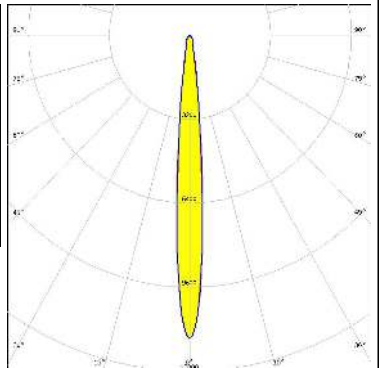

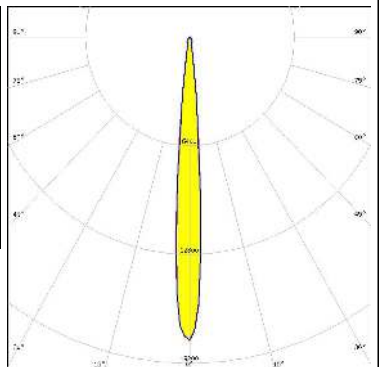

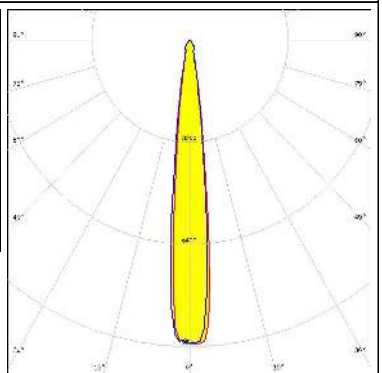
 **SEMI**  
 SEUL SEMICONDUCTOR  
 LED AC Zhaga COB  
 FWHM / FWTM 10.0° / 23.0°  
 Efficiency 84 %  
 Peak intensity 10.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 Optosource: SEHSMJD-A



#### OPTICAL RESULTS (MEASURED):

<p><b>SEOL SEMICONDUCTOR</b></p> <p>LED MJT COB LES 14.5</p> <p>FWHM / FWTM 10.0° / 20.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 12.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>SEOL SEMICONDUCTOR</b></p> <p>LED MJT COB LES 22</p> <p>FWHM / FWTM 14.0° / 31.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 6.6 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><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-461</p> <p>FWHM / FWTM 9.0° / 17.0°</p> <p>Efficiency 93 %</p> <p>Peak intensity 18 cd/lm</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><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-462</p> <p>FWHM / FWTM 13.0° / 25.0°</p> <p>Efficiency 92 %</p> <p>Peak intensity 9.7 cd/lm</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><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-464            FWHM / FWTM 12.0° / 24.0°            Efficiency 92 %            Peak intensity 9.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484            FWHM / FWTM 10.0° / 22.0°            Efficiency 84 %            Peak intensity 12 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F13671_ANGE-RZ-LENS            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-484            FWHM / FWTM 9.0° / 17.0°            Efficiency 93 %            Peak intensity 17.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-485            FWHM / FWTM 13.0° / 25.0°            Efficiency 93 %            Peak intensity 9.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

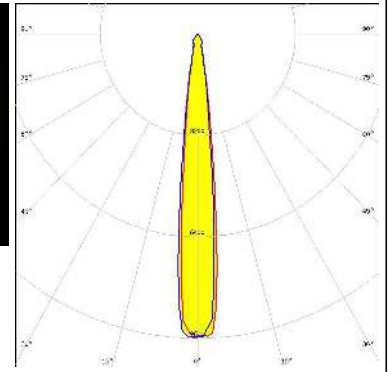
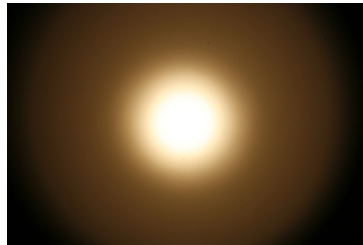
### OPTICAL RESULTS (MEASURED):




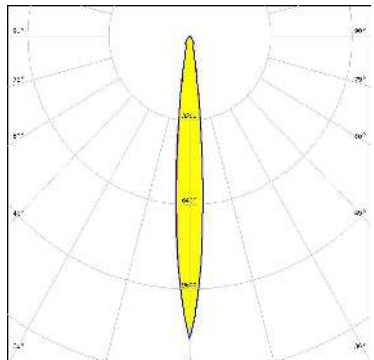

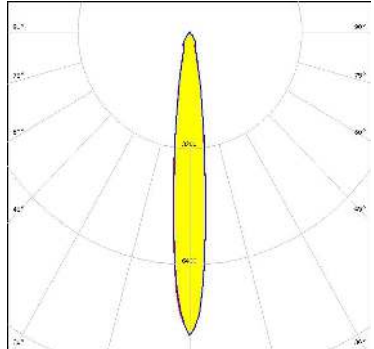

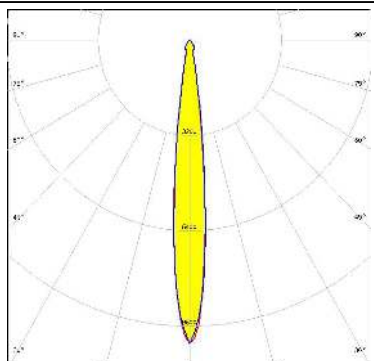


LED WU-M-486  
FWHM / FWTM 13.0° / 25.0°  
Efficiency 93 %  
Peak intensity 9.6 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:



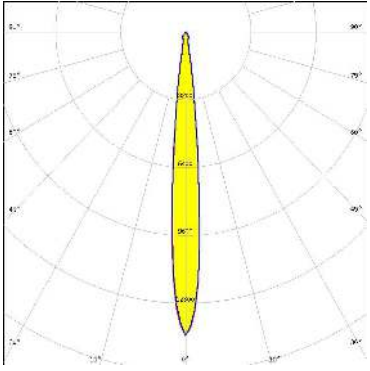


TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



#### OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED V13 Gen7            FWHM / FWTM 11.0° / 22.0°            Efficiency 90 %            Peak intensity 11.5 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 12.0° / 30.0°            Efficiency 93 %            Peak intensity 8.3 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 12.0° / 24.0°            Efficiency 88 %            Peak intensity 10.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>	
<p></p> <p>LED CxM-14 (19x19)            FWHM / FWTM 10.0° / 18.0°            Efficiency 88 %            Peak intensity 15 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 486 Typ L1</p>	

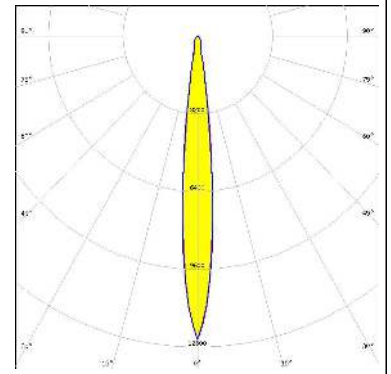
#### OPTICAL RESULTS (SIMULATED):

		
LED	CxM-9 (13.5x13.5)	
FWHM / FWTM	6.0° / 12.0°	
Efficiency	90 %	
Peak intensity	34.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
C13658_CLAMP-VERO13-18		
Bender Wirth: 434 Typ L1		
		
LED	Soleriq S15	
FWHM / FWTM	10.0° / 19.0°	
Efficiency	90 %	
Peak intensity	14.3 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	10.0° / 18.0°	
Efficiency	88 %	
Peak intensity	15 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
C13658_CLAMP-VERO13-18		
Bender Wirth: 433 Typ L1		
		
LED	ZC4/6	
FWHM / FWTM	6.0° / 12.0°	
Efficiency	90 %	
Peak intensity	34.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
C13658_CLAMP-VERO13-18		
Bender Wirth: 434 Typ L1		

## OPTICAL RESULTS (SIMULATED):

### TRIDONIC

LED	SLE G7 LES13
FWHM / FWTM	12.0° / 22.0°
Efficiency	94 %
Peak intensity	12.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
Bender Wirth: 633c 3Hook	



### GENERAL INFORMATION:

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

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

### MATERIALS:

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

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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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Shenzhen 518057  
P.R.CHINA

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