

## ANGELA-M

~30° medium beam

### TECHNICAL SPECIFICATIONS:

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

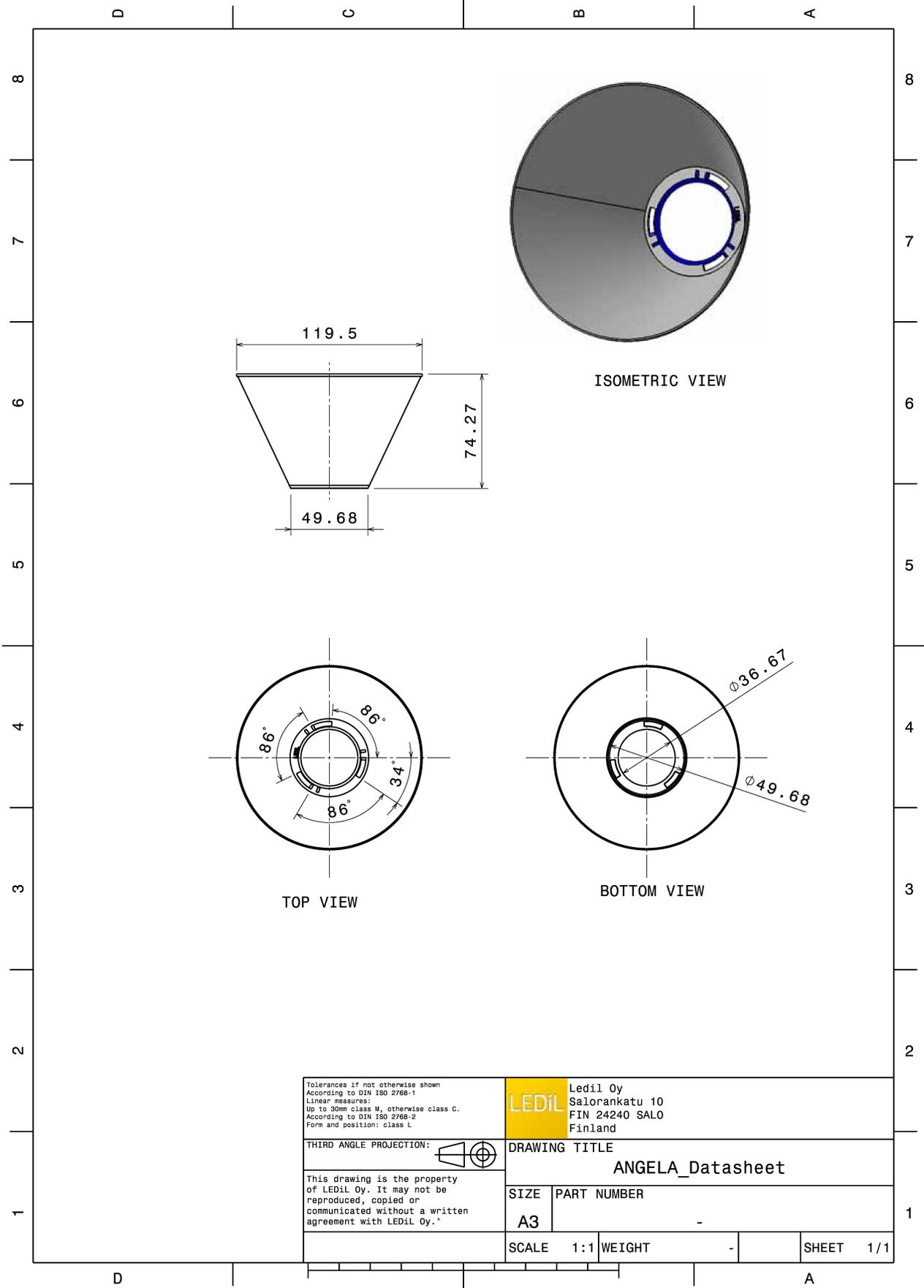
### MATERIAL SPECIFICATIONS:

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



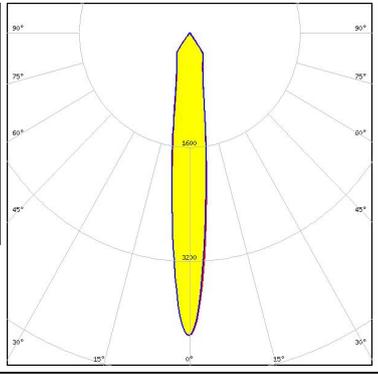
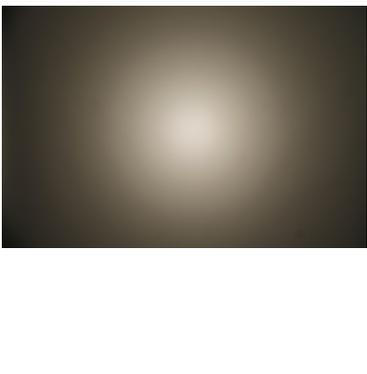
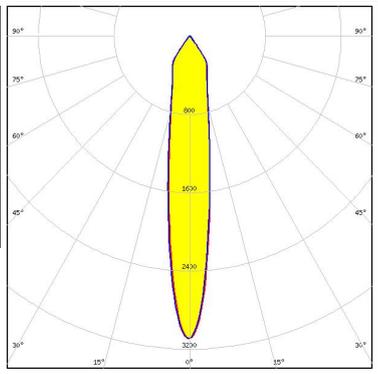
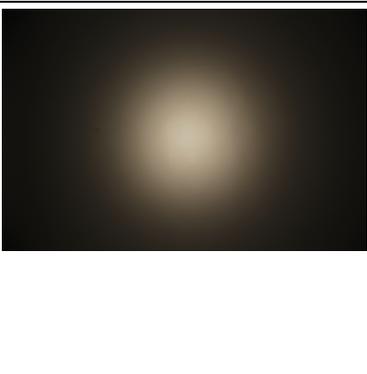
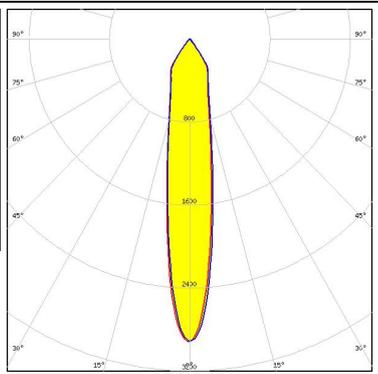
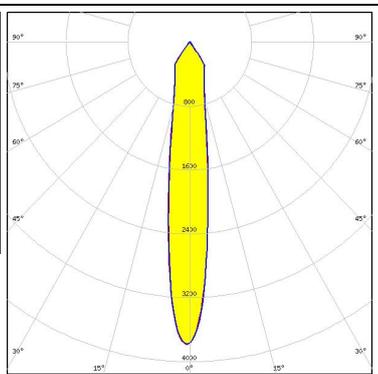
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13380_ANGELA-M » Box size: 398 x 298 x 265 mm	180	90	45	9.3

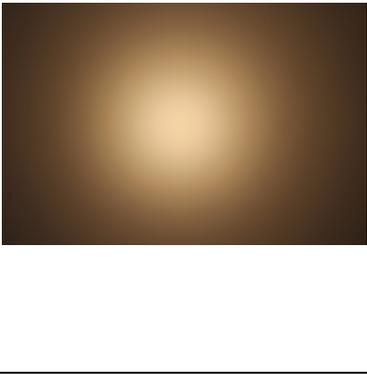
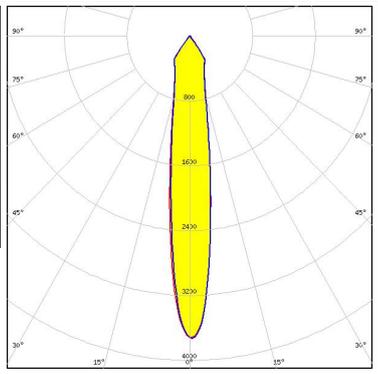
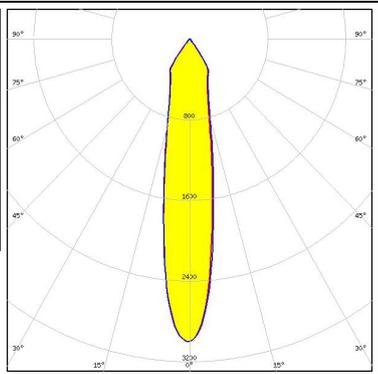
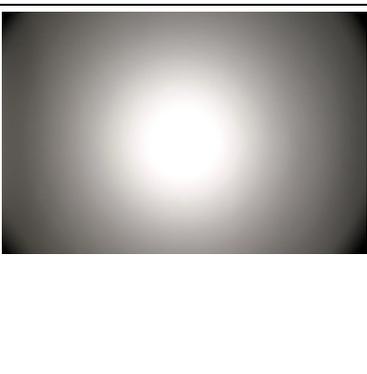
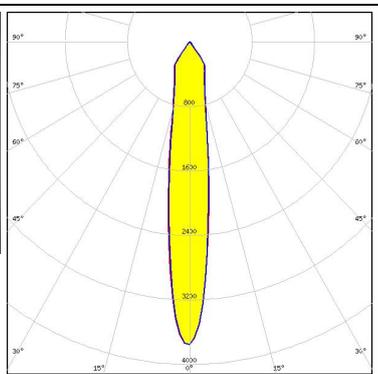


See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

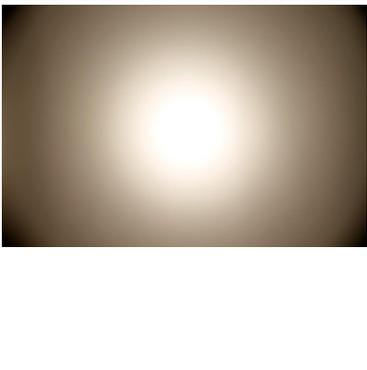
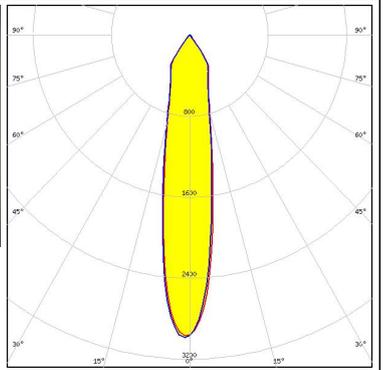
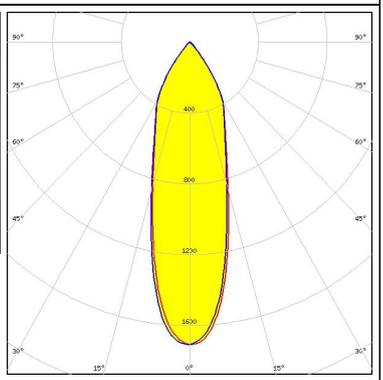
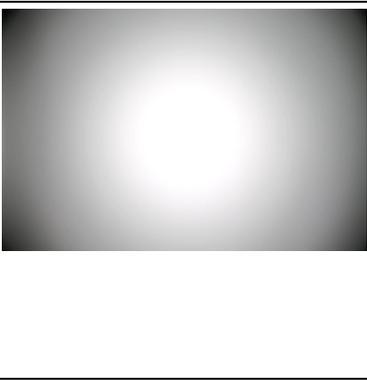
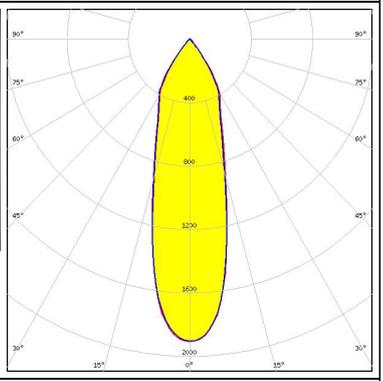
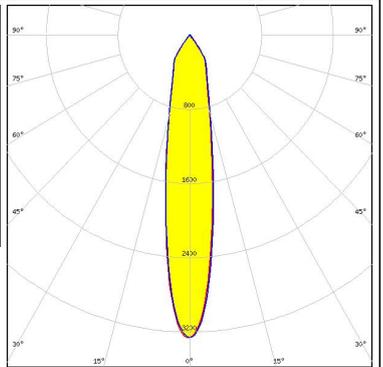
### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED V10 Gen7            FWHM / FWTM 14.0° / 53.0°            Efficiency 83 %            Peak intensity 4.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V10 Gen7            FWHM / FWTM 16.0° / 68.0°            Efficiency 78 %            Peak intensity 3.1 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V13 Gen7            FWHM / FWTM 18.0° / 68.0°            Efficiency 80 %            Peak intensity 2.9 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            F13671_ANGE-RZ-LENS            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p></p> <p>LED V13 Gen7            FWHM / FWTM 16.0° / 61.0°            Efficiency 84 %            Peak intensity 3.8 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

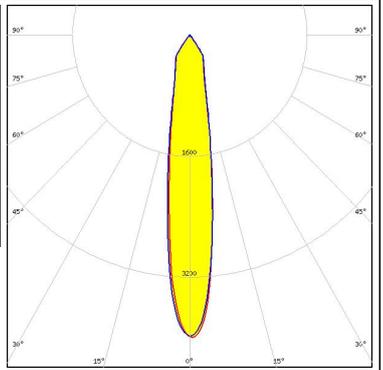
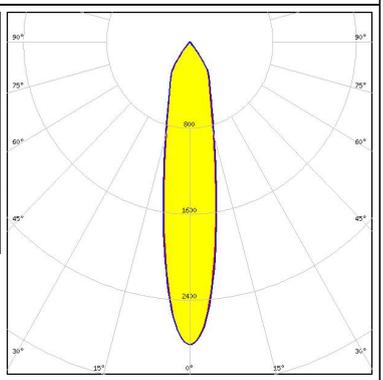
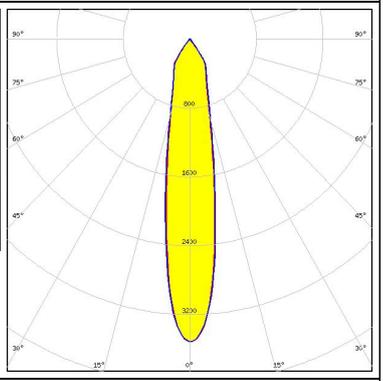
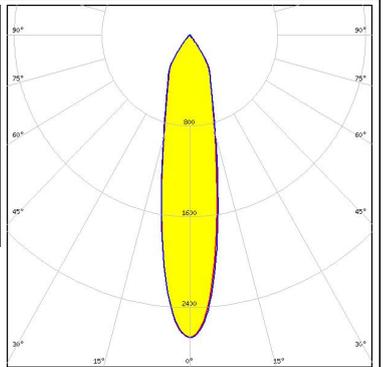
### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED V15 Gen6            FWHM / FWTM 17.0° / 66.0°            Efficiency 92 %            Peak intensity 3.9 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 16.0° / 62.0°            Efficiency 84 %            Peak intensity 3.7 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 19.0° / 69.0°            Efficiency 84 %            Peak intensity 3 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 16.0° / 64.0°            Efficiency 87 %            Peak intensity 3.6 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18</p>		

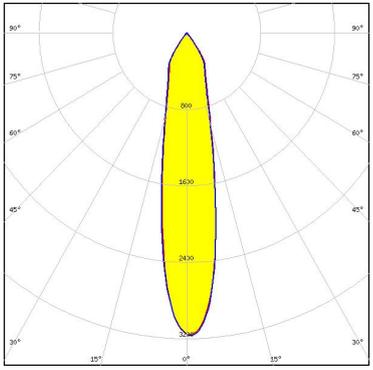
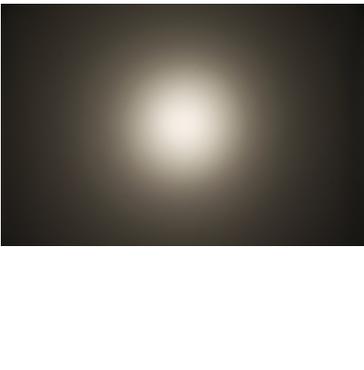
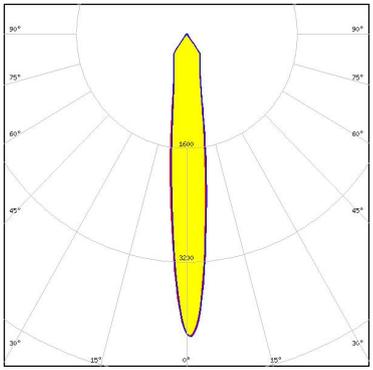
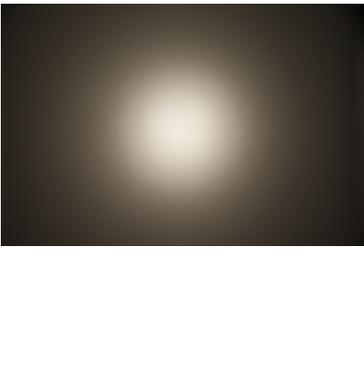
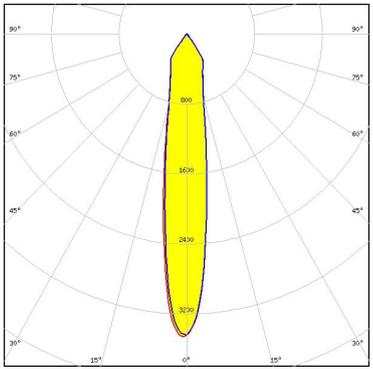
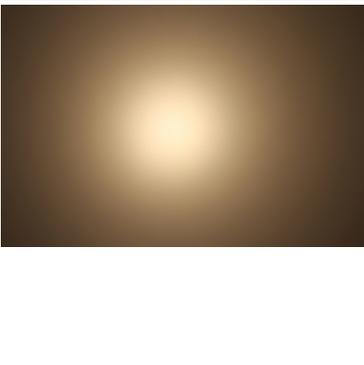
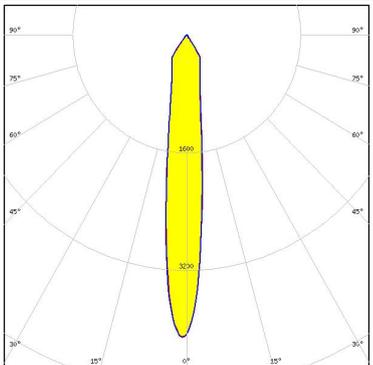
### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED VERO18            FWHM / FWTM 19.0° / 69.0°            Efficiency 85 %            Peak intensity 3 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18</p>		
<p></p> <p>LED VERO29            FWHM / FWTM 30.0° / 74.0°            Efficiency 79 %            Peak intensity 1.7 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 29.0° / 73.0°            Efficiency 85 %            Peak intensity 1.9 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 19.0° / 64.0°            Efficiency 82 %            Peak intensity 3.3 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>		

### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED Vesta TW 15mm DP            FWHM / FWTM 18.0° / 57.0°            Efficiency 88 %            Peak intensity 4 cd/m            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 21.0° / 67.0°            Efficiency 82 %            Peak intensity 2.8 cd/m            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 18mm (31W) DP            FWHM / FWTM 19.0° / 64.0°            Efficiency 88 %            Peak intensity 3.5 cd/m            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 22mm DP            FWHM / FWTM 22.0° / 68.0°            Efficiency 83 %            Peak intensity 2.7 cd/m            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 494 Typ L3</p>		

### PHOTOMETRIC DATA (MEASURED):

<p></p> <p>LED Vesta TW 22mm DP            FWHM / FWTM 21.0° / 66.0°            Efficiency 87 %            Peak intensity 3.2 cd/lm            LEDs/each optic 1            Light colour Tunable White</p> <p>Required components:            C13584_CLAMP-VERO29            Bender Wirth: 494 Typ L3</p>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM / FWTM 14.0° / 53.0°            Efficiency 84 %            Peak intensity 4.3 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 17.0° / 66.0°            Efficiency 88 %            Peak intensity 3.4 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 433 Typ L1</p>		
<p><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM / FWTM 14.0° / 57.0°            Efficiency 84 %            Peak intensity 4.1 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            IDEAL: 50-2103CT + 50-2100AN</p>		

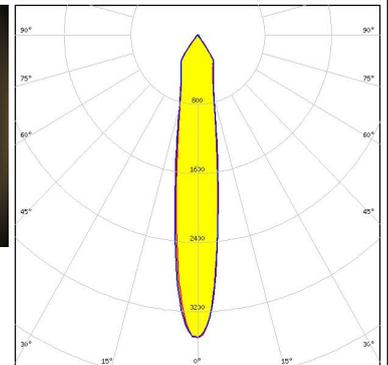
### PHOTOMETRIC DATA (MEASURED):

#### CITIZEN

LED CLL03x/CLU03x  
FWHM / FWTM 17.0° / 66.0°  
Efficiency 83 %  
Peak intensity 3.5 cd/m  
LEDs/each optic 1  
Light colour White

Required components:

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



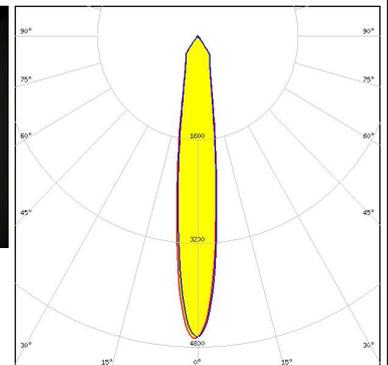
#### CITIZEN

LED CLL03x/CLU03x  
FWHM / FWTM 15.0° / 49.0°  
Efficiency 89 %  
Peak intensity 4.7 cd/m  
LEDs/each optic 1  
Light colour White

Required components:

C16791\_CLAMP-Z45-A

TE Connectivity: 2325807-3



#### CITIZEN

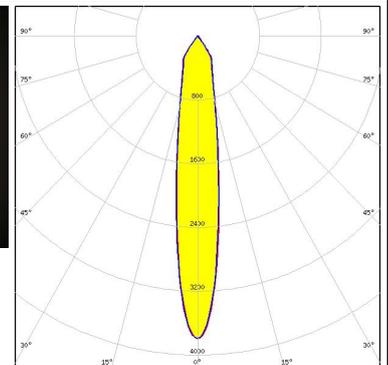
LED CLL03x/CLU03x  
FWHM / FWTM 17.0° / 58.0°  
Efficiency 85 %  
Peak intensity 3.8 cd/m  
LEDs/each optic 1  
Light colour White

Required components:

C16791\_CLAMP-Z45-A

F13671\_ANGE-RZ-LENS

TE Connectivity: 2325807-3



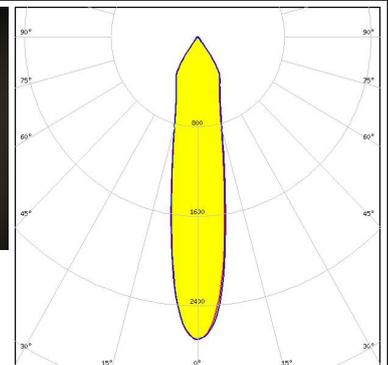
#### CITIZEN

LED CLL04x/CLU04x  
FWHM / FWTM 21.0° / 68.0°  
Efficiency 84 %  
Peak intensity 2.7 cd/m  
LEDs/each optic 1  
Light colour White

Required components:

C13584\_CLAMP-VERO29

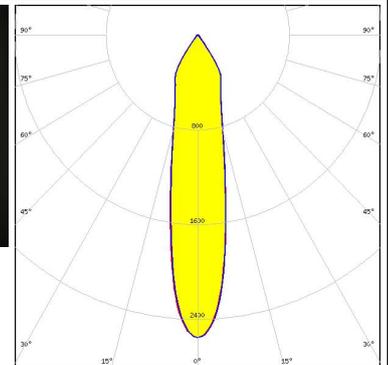
Bender Wirth: 431 Typ L3



### PHOTOMETRIC DATA (MEASURED):

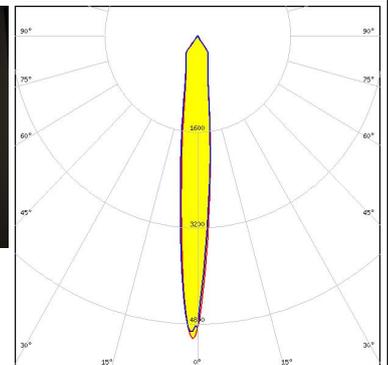
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 21.0° / 69.0°  
 Efficiency 83 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



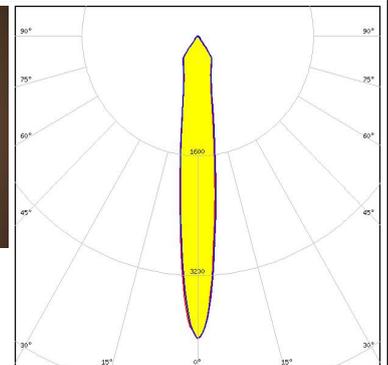
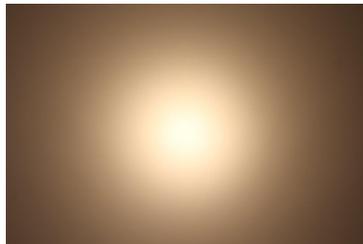
#### CITIZEN

LED CLU700/701/702  
 FWHM / FWTM 12.0° / 44.0°  
 Efficiency 83 %  
 Peak intensity 5.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



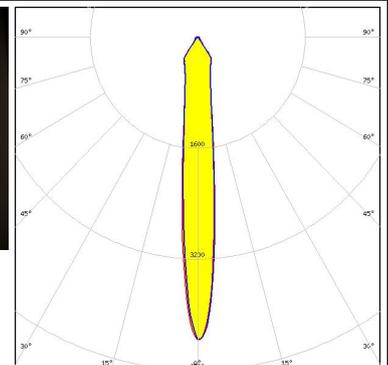
#### CITIZEN

LED CLU720/721  
 FWHM / FWTM 14.0° / 58.0°  
 Efficiency 87 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### CITIZEN

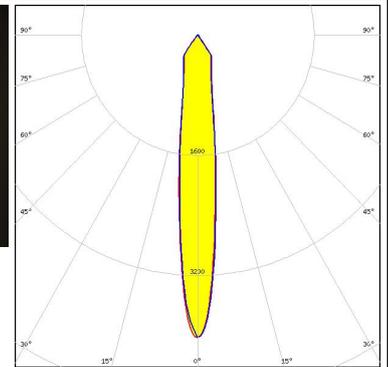
LED CLU720/721  
 FWHM / FWTM 12.0° / 53.0°  
 Efficiency 87 %  
 Peak intensity 4.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



### PHOTOMETRIC DATA (MEASURED):

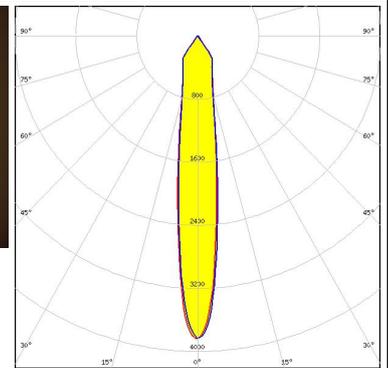
#### CITIZEN

LED CLU720/721  
 FWHM / FWTM 14.0° / 56.0°  
 Efficiency 83 %  
 Peak intensity 4 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1



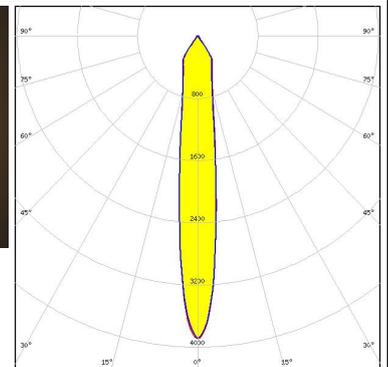
#### CITIZEN

LED CLU730/731  
 FWHM / FWTM 15.0° / 60.0°  
 Efficiency 84 %  
 Peak intensity 3.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 471 Typ L3



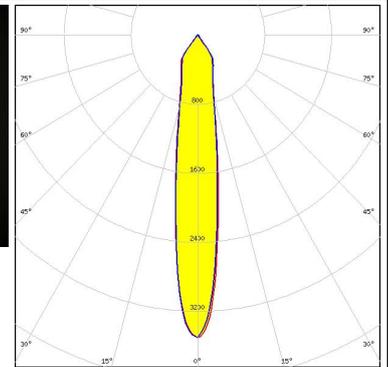
#### CITIZEN

LED CLU730/731  
 FWHM / FWTM 14.0° / 59.0°  
 Efficiency 83 %  
 Peak intensity 3.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN

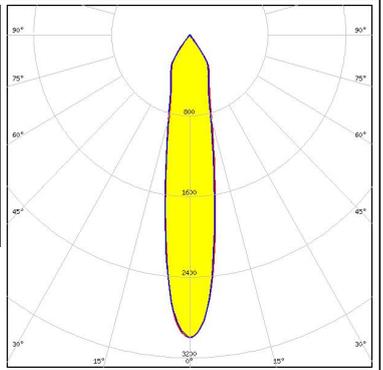
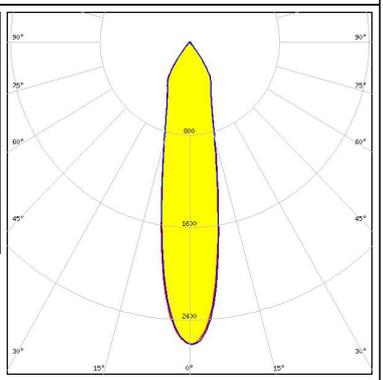
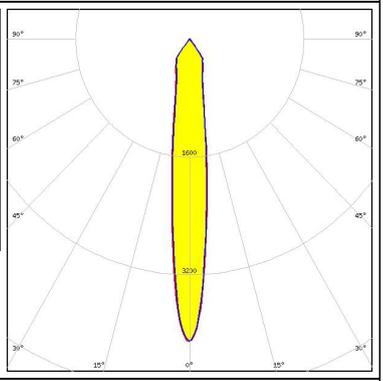
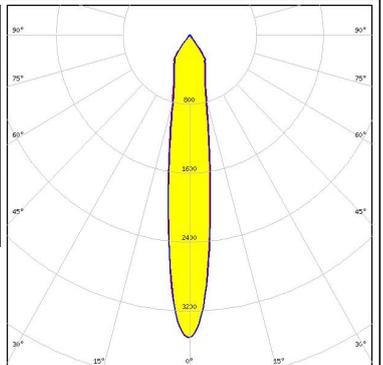


#### CREE LED

LED CMA1840  
 FWHM / FWTM 17.0° / 64.0°  
 Efficiency 82 %  
 Peak intensity 3.5 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



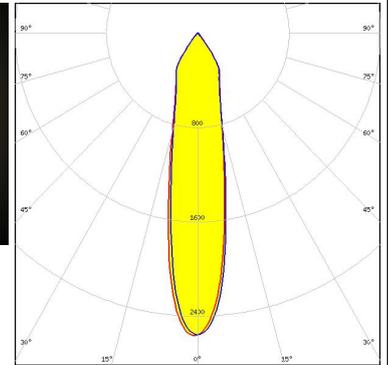
### PHOTOMETRIC DATA (MEASURED):

<p><b>CREE</b> → <b>LED</b></p> <p>LED CMA2550            FWHM / FWTM 19.0° / 68.0°            Efficiency 82 %            Peak intensity 3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14036_CLAMP_CXA25-30</p>		
<p><b>CREE</b> → <b>LED</b></p> <p>LED CMA3090            FWHM / FWTM 22.0° / 69.0°            Efficiency 82 %            Peak intensity 2.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14036_CLAMP_CXA25-30</p>		
<p><b>CREE</b> → <b>LED</b></p> <p>LED CMT14xx            FWHM / FWTM 14.0° / 54.0°            Efficiency 81 %            Peak intensity 4.2 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 16.0° / 62.0°            Efficiency 81 %            Peak intensity 3.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 477 Typ L1</p>		

### PHOTOMETRIC DATA (MEASURED):

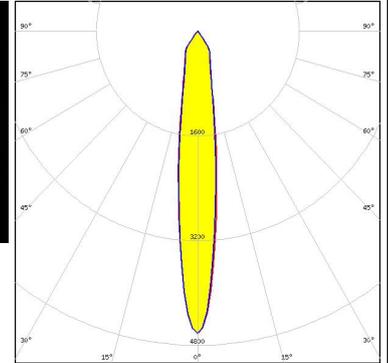
#### CREE LED

LED CMT28xx  
 FWHM / FWTM 21.0° / 70.0°  
 Efficiency 81 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 471 Typ L3



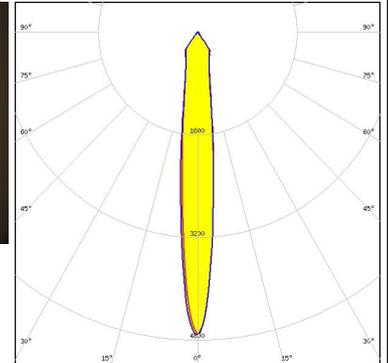
#### CREE LED

LED CXA/B 15xx  
 FWHM / FWTM 15.0° / 51.0°  
 Efficiency 85 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



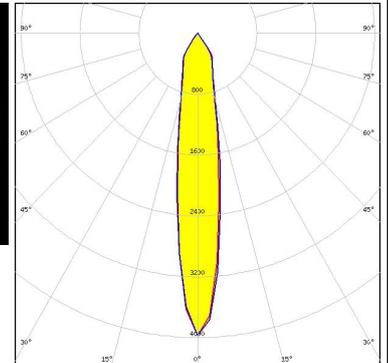
#### CREE LED

LED CXA/B 15xx  
 FWHM / FWTM 13.0° / 47.0°  
 Efficiency 84 %  
 Peak intensity 4.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 441 Typ L1



#### CREE LED

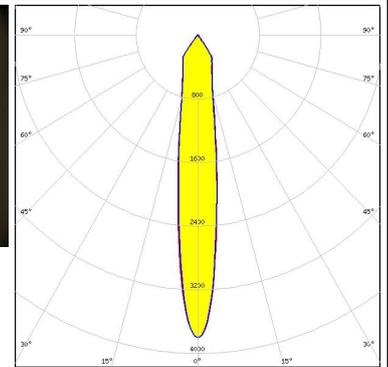
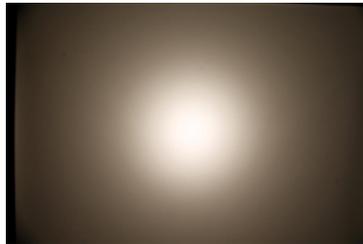
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 17.0° / 59.0°  
 Efficiency 85 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14123\_CLAMP-CXA15-18



### PHOTOMETRIC DATA (MEASURED):

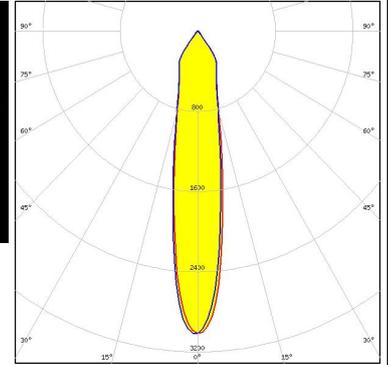
#### CREE LED

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 15.0° / 60.0°  
 Efficiency 83 %  
 Peak intensity 3.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 437 Typ L1



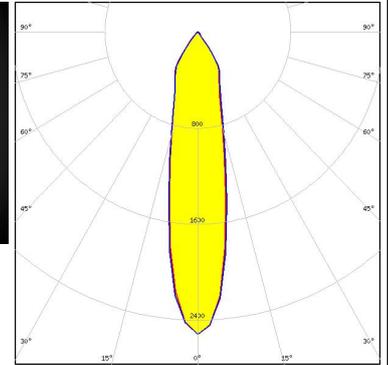
#### CREE LED

LED CXA/B 25xx  
 FWHM / FWTM 19.0° / 69.0°  
 Efficiency 85 %  
 Peak intensity 3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



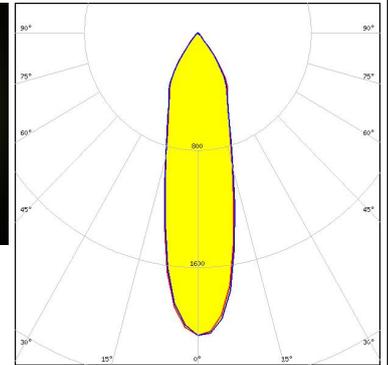
#### CREE LED

LED CXA/B 30xx  
 FWHM / FWTM 22.0° / 70.0°  
 Efficiency 84 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



#### CREE LED

LED CXA/B 3590  
 FWHM / FWTM 27.0° / 73.0°  
 Efficiency 85 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2303CR + 50-2300AN



#### PHOTOMETRIC DATA (MEASURED):

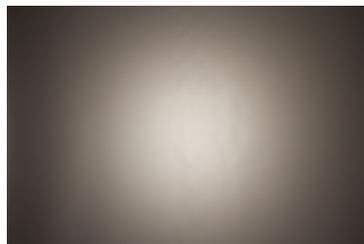
#### EVERLIGHT

LED CHI3030 19W  
 FWHM / FWTM 21.0° / 71.0°  
 Efficiency 83 %  
 Peak intensity 2.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3



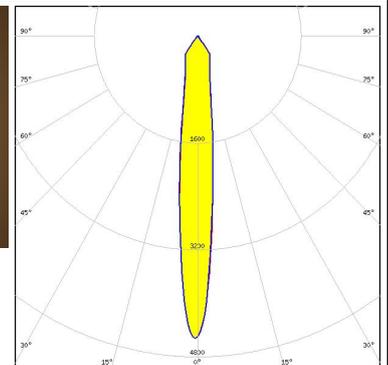
#### EVERLIGHT

LED CHI3030 29W  
 FWHM / FWTM 26.0° / 73.0°  
 Efficiency 83 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 468 Typ L3



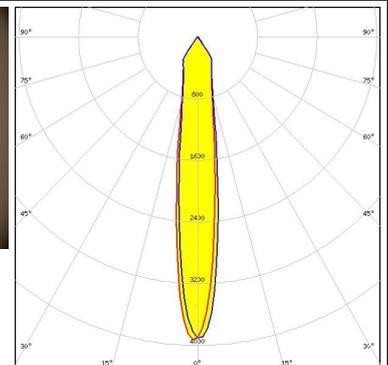
#### LUMILEDS

LED LUXEON CoB 1202/1203  
 FWHM / FWTM 13.0° / 49.0°  
 Efficiency 84 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 438 Typ L1

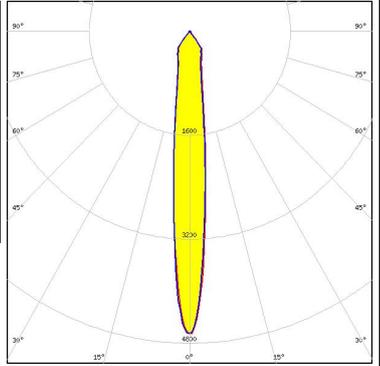
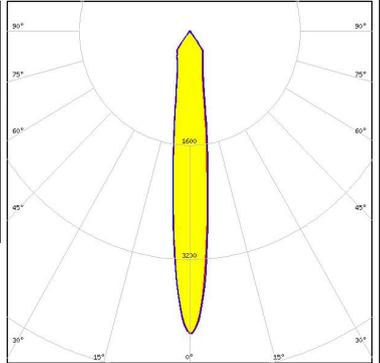
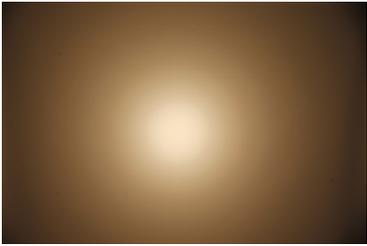
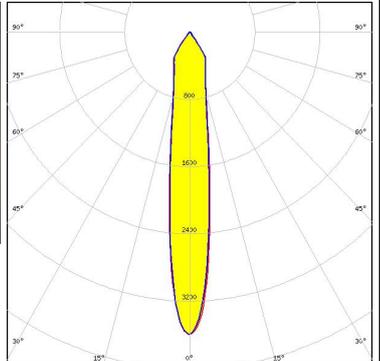
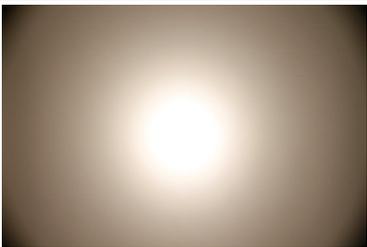
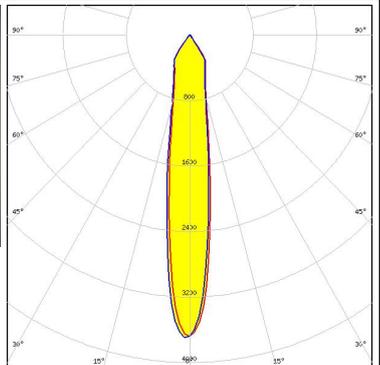


#### LUMILEDS

LED LUXEON CoB 1204/1205  
 FWHM / FWTM 15.0° / 59.0°  
 Efficiency 85 %  
 Peak intensity 3.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



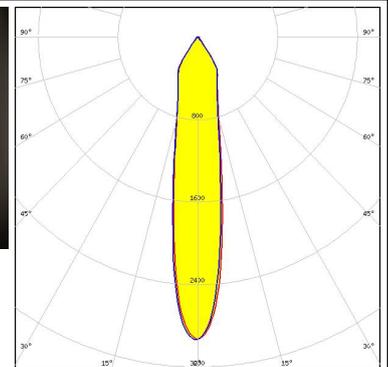
### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM / FWTM 12.0° / 46.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 4.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 14.0° / 52.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 4.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 16.0° / 65.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 3.6 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 16.0° / 64.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 3.7 cd/m</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>		

### PHOTOMETRIC DATA (MEASURED):

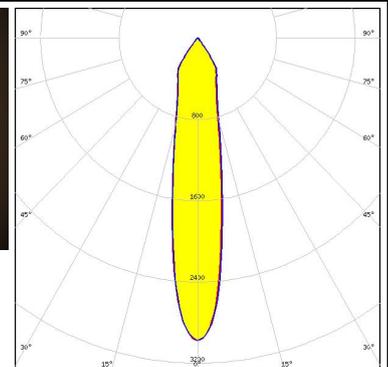
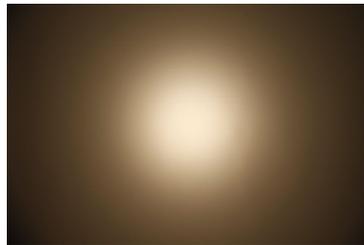
#### LUMILEDS

LED LUXEON CoB 1211  
 FWHM / FWTM 19.0° / 68.0°  
 Efficiency 83 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



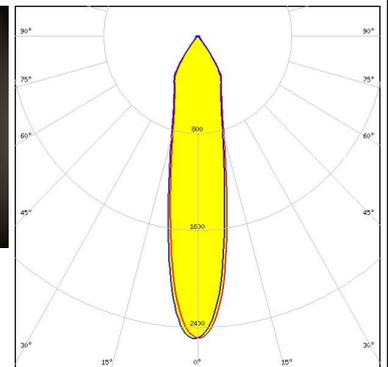
#### LUMILEDS

LED LUXEON CoB 1211  
 FWHM / FWTM 19.0° / 69.0°  
 Efficiency 85 %  
 Peak intensity 3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



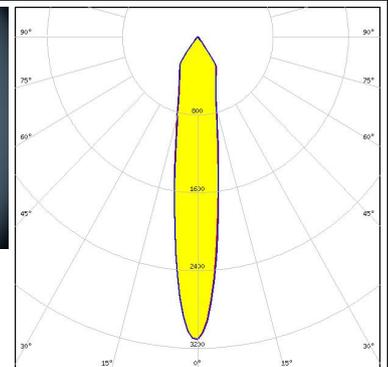
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM / FWTM 22.0° / 69.0°  
 Efficiency 83 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



#### LUMILEDS

LED LUXEON K12  
 FWHM / FWTM 17.0° / 69.0°  
 Efficiency 83 %  
 Peak intensity 3 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



### PHOTOMETRIC DATA (MEASURED):

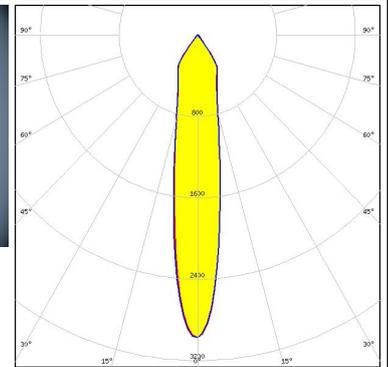
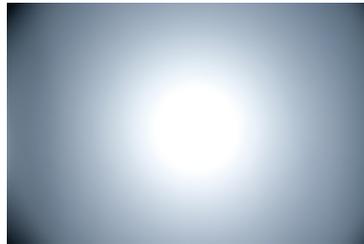
#### LUMILEDS

LED LUXEON K16  
 FWHM / FWTM 18.0° / 69.0°  
 Efficiency 84 %  
 Peak intensity 3 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

TE Connectivity: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1

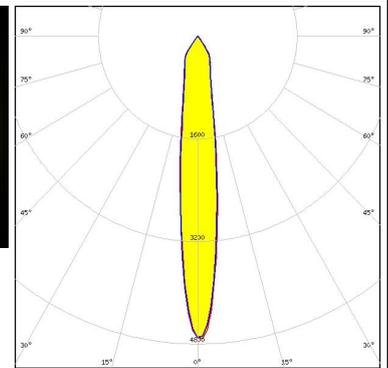


#### LUMILEDS

LED LUXEON S2000  
 FWHM / FWTM 15.0° / 52.0°  
 Efficiency 85 %  
 Peak intensity 4.7 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

C13395\_CLAMP-S2000

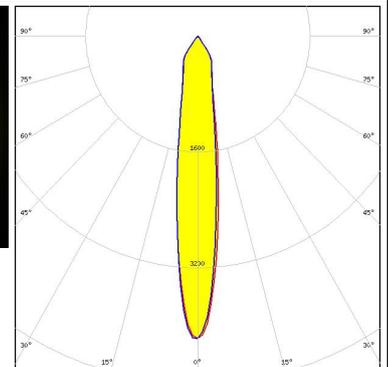


#### LUMILEDS

LED LUXEON S3000  
 FWHM / FWTM 16.0° / 59.0°  
 Efficiency 85 %  
 Peak intensity 4.2 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

C13397\_CLAMP-S3000

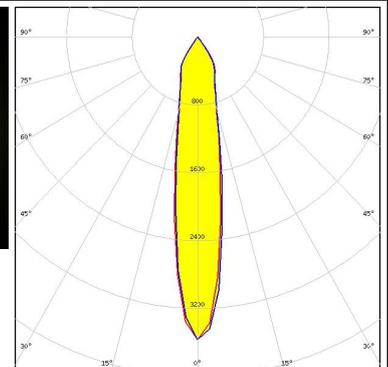


#### LUMILEDS

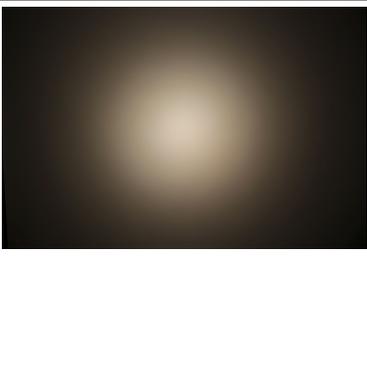
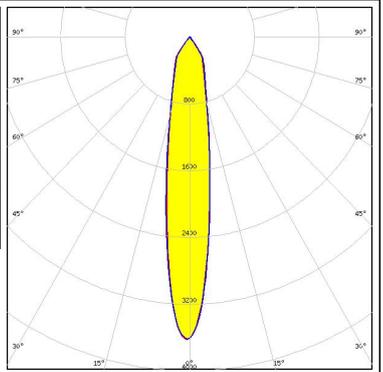
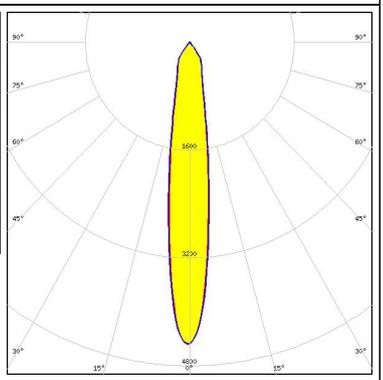
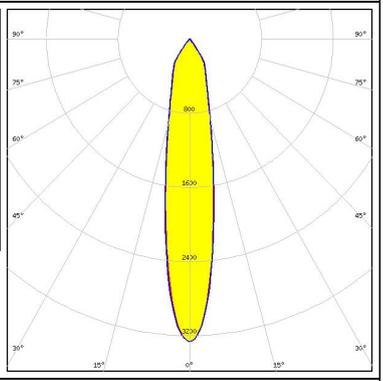
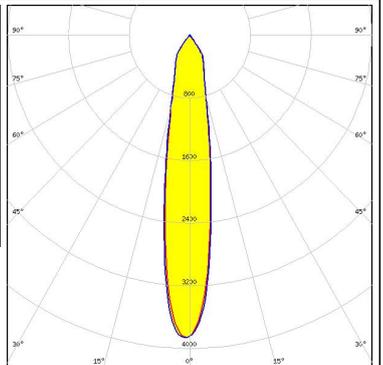
LED LUXEON S5000  
 FWHM / FWTM 19.0° / 65.0°  
 Efficiency 86 %  
 Peak intensity 3.6 cd/m  
 LEDs/each optic 1  
 Light colour White

Required components:

C13399\_CLAMP-S5000



### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)            FWHM / FWTM 17.0° / 57.0°            Efficiency 83 %            Peak intensity 3.6 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 486 Typ L5</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-14 (Dim-To-Warm)            FWHM / FWTM 16.0° / 49.0°            Efficiency 87 %            Peak intensity 4.5 cd/lm            LEDs/each optic 1            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)            FWHM / FWTM 19.0° / 62.0°            Efficiency 83 %            Peak intensity 3.3 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            F13671_ANGE-RZ-LENS            Bender Wirth: 491 Typ L2</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-18 (Dim-To-Warm)            FWHM / FWTM 18.0° / 57.0°            Efficiency 87 %            Peak intensity 3.9 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 491 Typ L2</p>		

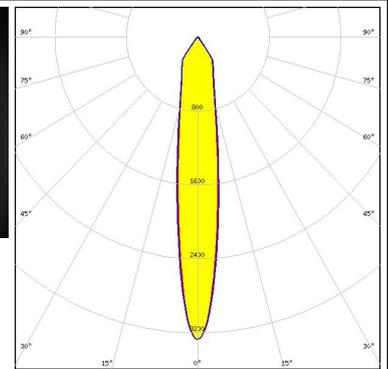
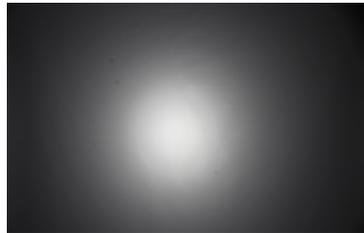
### PHOTOMETRIC DATA (MEASURED):



LED CDM-9 (Dim-To-Warm)  
 FWHM / FWTM 16.0° / 63.0°  
 Efficiency 78 %  
 Peak intensity 3.3 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

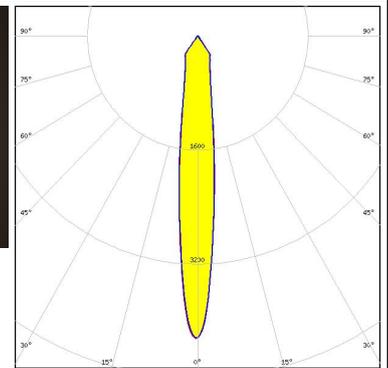
C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 490 Typ L1



LED CDM-9 (Dim-To-Warm)  
 FWHM / FWTM 14.0° / 50.0°  
 Efficiency 82 %  
 Peak intensity 4.2 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

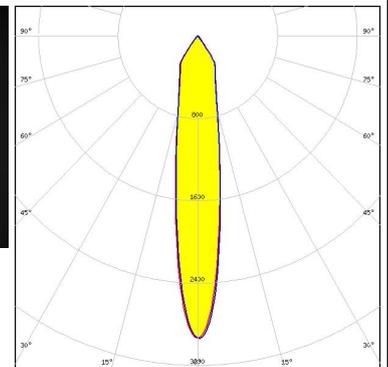
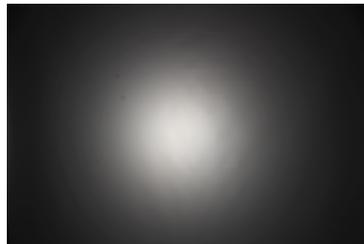
C13658\_CLAMP-VERO13-18  
 Bender Wirth: 490 Typ L1



LED CTM-14 (Tunable White)  
 FWHM / FWTM 18.0° / 68.0°  
 Efficiency 78 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

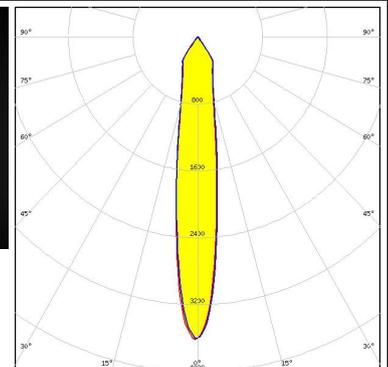
C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 442 Typ L3



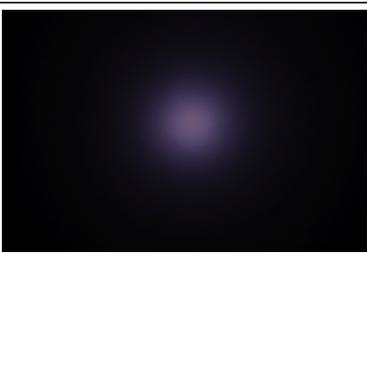
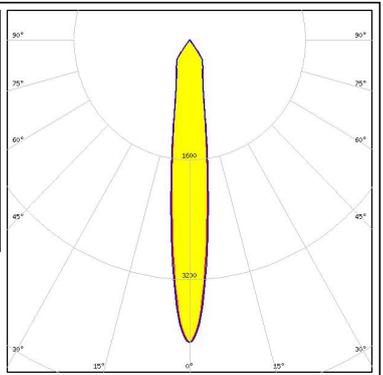
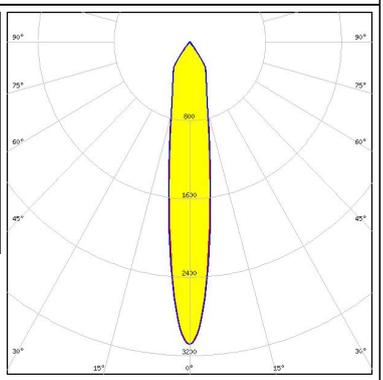
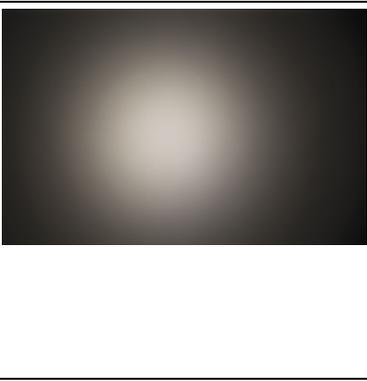
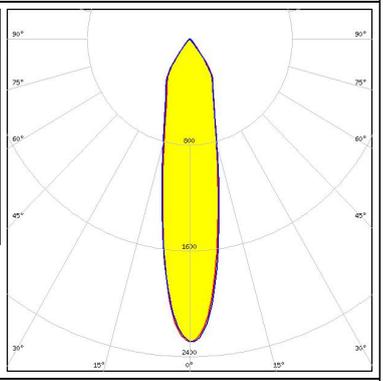
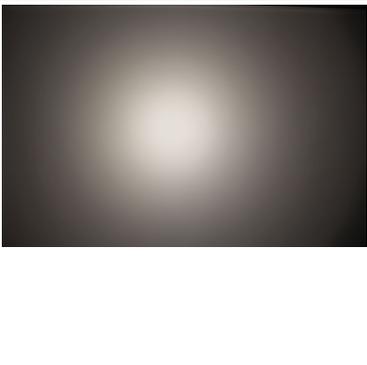
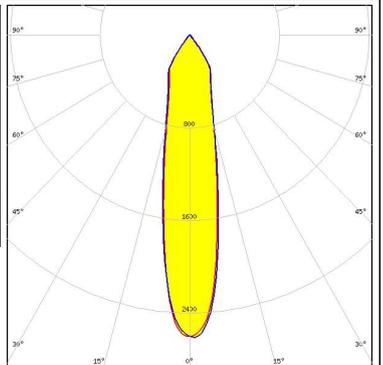
LED CTM-14 (Tunable White)  
 FWHM / FWTM 16.0° / 61.0°  
 Efficiency 82 %  
 Peak intensity 3.6 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13584\_CLAMP-VERO29  
 Bender Wirth: 442 Typ L3



### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW            FWHM / FWTM 14.0° / 53.0°            Efficiency 79 %            Peak intensity 4 cd/lm            LEDs/each optic 1            Light colour RGBW            Required components:            C13584_CLAMP-VERO29            Bender Wirth: 500 Typ L3-1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-14 RGBW            FWHM / FWTM 16.0° / 65.0°            Efficiency 75 %            Peak intensity 3.1 cd/lm            LEDs/each optic 1            Light colour RGBW            Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 500 Typ L3-1</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)            FWHM / FWTM 22.0° / 70.0°            Efficiency 77 %            Peak intensity 2.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            F13671_ANGE-RZ-LENS            Bender Wirth: 494 Typ L3</p>		
<p><b>LUMINUS</b></p> <p>LED CTM-22 (Tunable White)            FWHM / FWTM 21.0° / 69.0°            Efficiency 82 %            Peak intensity 2.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13584_CLAMP-VERO29            Bender Wirth: 494 Typ L3</p>		

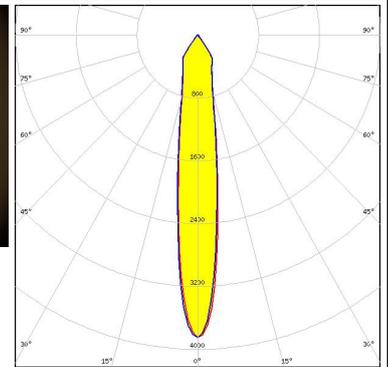
### PHOTOMETRIC DATA (MEASURED):



LED CxM-14 (19x19)  
 FWHM / FWTM 16.0° / 60.0°  
 Efficiency 85 %  
 Peak intensity 3.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

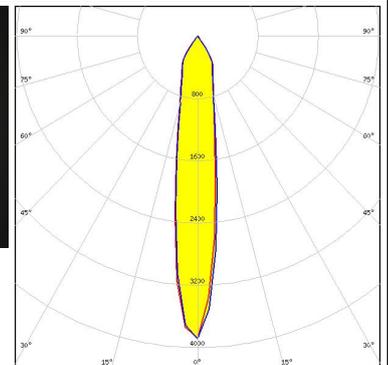
TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



LED COB J-Type  
 FWHM / FWTM 17.0° / 61.0°  
 Efficiency 83 %  
 Peak intensity 3.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

IDEAL: 50-2103NC + 50-2100AN

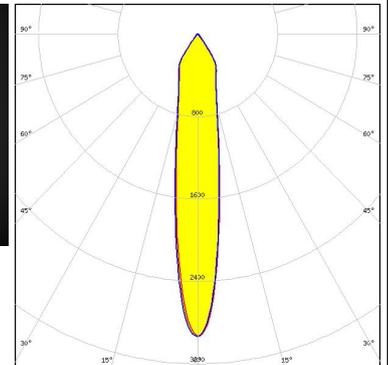


LED COB J-Type  
 FWHM / FWTM 17.0° / 67.0°  
 Efficiency 80 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

F13671\_ANGE-RZ-LENS

IDEAL: 50-2103NC + 50-2100AN

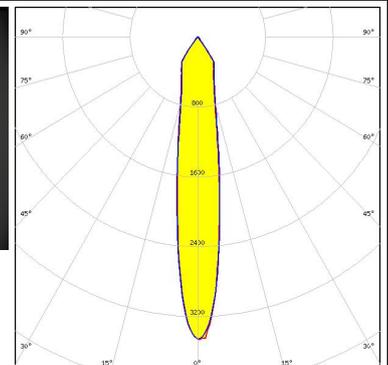
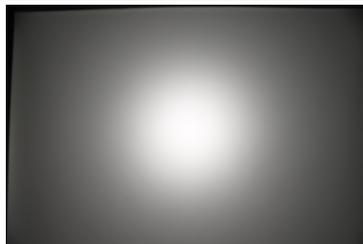


LED COB J-Type  
 FWHM / FWTM 17.0° / 66.0°  
 Efficiency 83 %  
 Peak intensity 3.5 cd/lm  
 LEDs/each optic 1  
 Light colour White

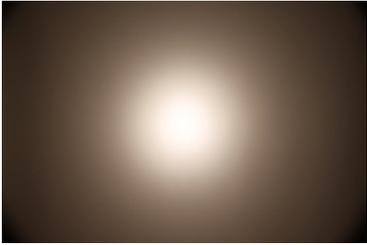
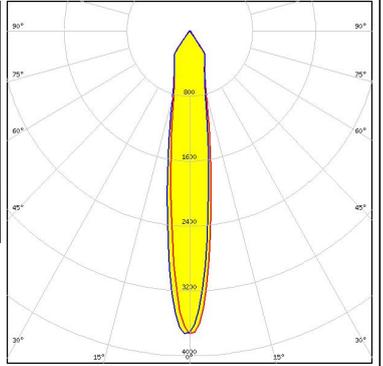
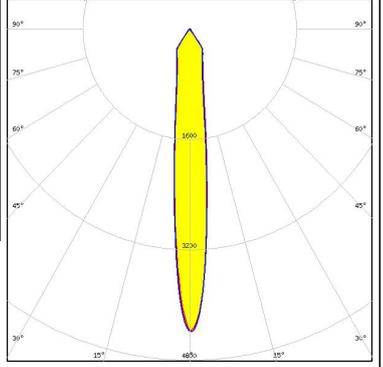
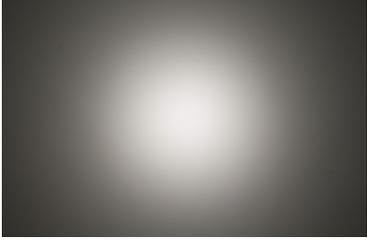
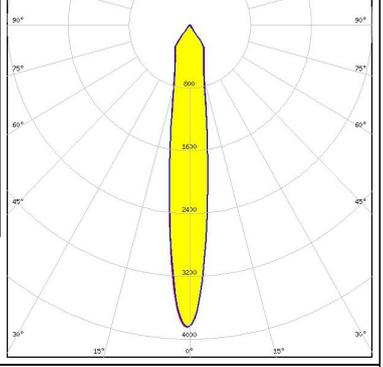
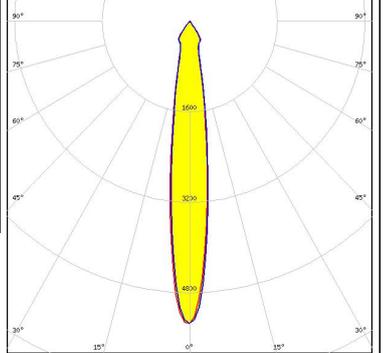
Required components:

C13658\_CLAMP-VERO13-18

Bender Wirth: 463 Typ L2



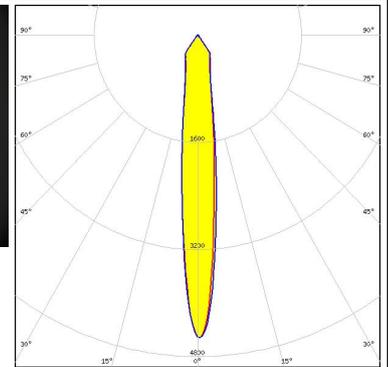
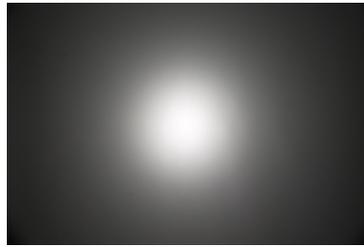
### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 16.0° / 64.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 3.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Molex: 180580-0005</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 13.0° / 52.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 4.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100NC + 50-2100AN</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 15.0° / 58.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 3.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13658_CLAMP-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 15.0° / 37.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 5.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

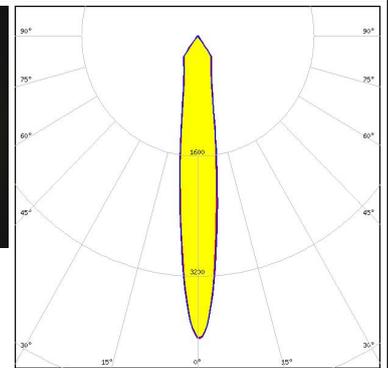
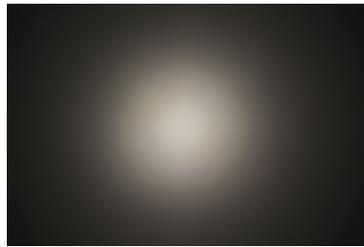
### PHOTOMETRIC DATA (MEASURED):



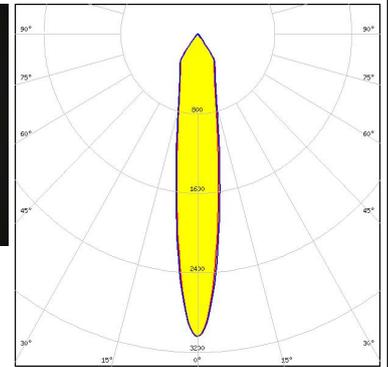
LED COB L-Type (LES 9)  
 FWHM / FWTM 13.0° / 49.0°  
 Efficiency 85 %  
 Peak intensity 4.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 438 Typ L1



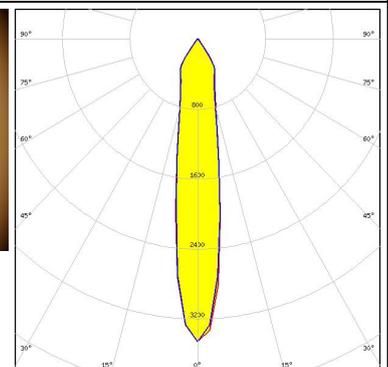
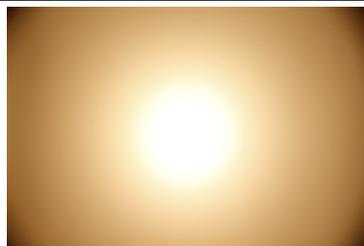
LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM / FWTM 14.0° / 56.0°  
 Efficiency 83 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 498 Typ L2



LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM / FWTM 17.0° / 68.0°  
 Efficiency 78 %  
 Peak intensity 3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 498 Typ L2



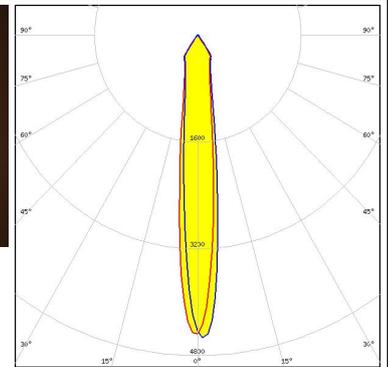
LED PrevaLED Core AC (LEP-2000)  
 FWHM / FWTM 17.0° / 66.0°  
 Efficiency 85 %  
 Peak intensity 3.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### PHOTOMETRIC DATA (MEASURED):

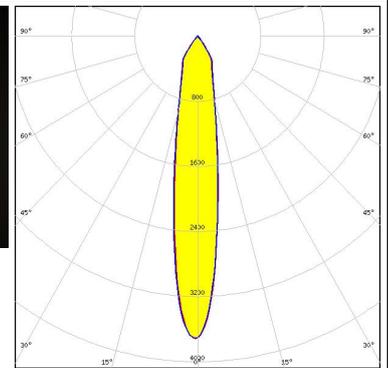
#### OSRAM

LED PrevaLED Core AC (LEP-800)  
 FWHM / FWTM 13.0° / 51.0°  
 Efficiency 86 %  
 Peak intensity 4.6 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



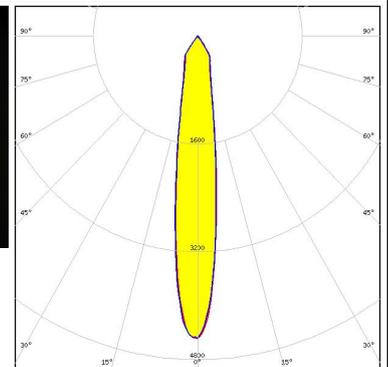
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 17.0° / 60.0°  
 Efficiency 85 %  
 Peak intensity 3.7 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A  
 F13671\_ANGE-RZ-LENS



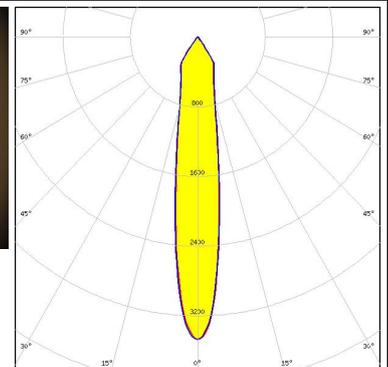
#### OSRAM

LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 16.0° / 51.0°  
 Efficiency 89 %  
 Peak intensity 4.5 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16685\_CLAMP-PRV-A



#### OSRAM

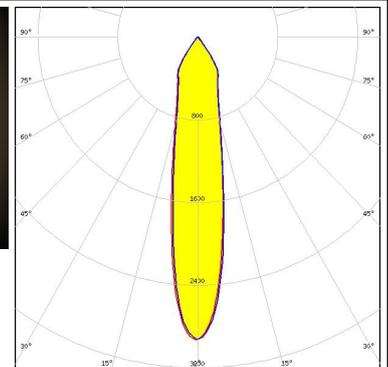
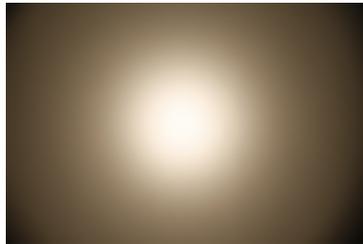
LED PrevaLED Core Z3 LES19  
 FWHM / FWTM 17.0° / 65.0°  
 Efficiency 85 %  
 Peak intensity 3.5 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### PHOTOMETRIC DATA (MEASURED):

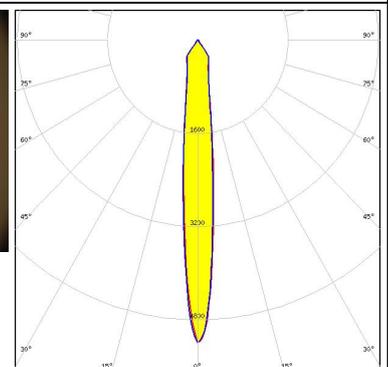
#### OSRAM

LED PrevaLED Core Z3 LES23  
 FWHM / FWTM 20.0° / 68.0°  
 Efficiency 85 %  
 Peak intensity 2.9 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



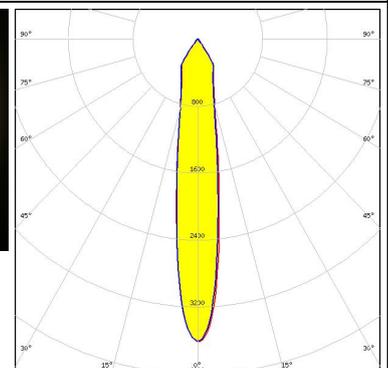
#### OSRAM

LED PrevaLED Core Z3 LES9  
 FWHM / FWTM 12.0° / 42.0°  
 Efficiency 85 %  
 Peak intensity 5.2 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



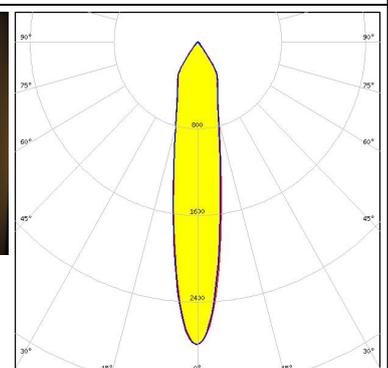
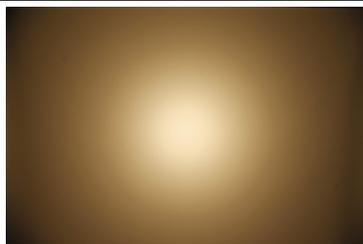
#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 16.0° / 65.0°  
 Efficiency 85 %  
 Peak intensity 3.6 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

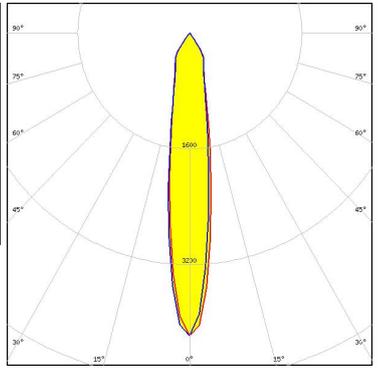
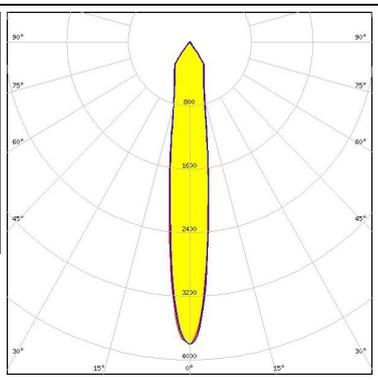
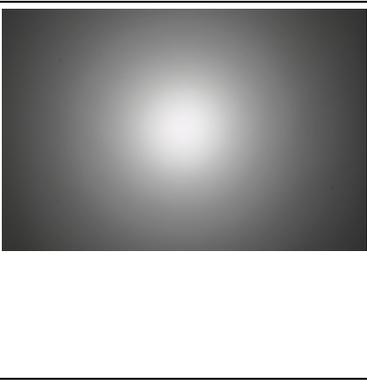
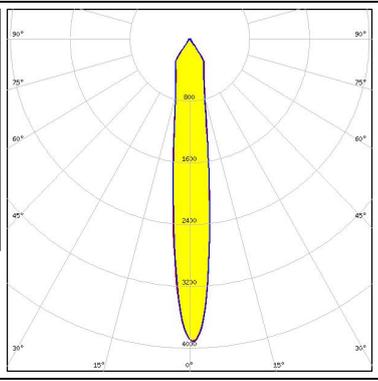
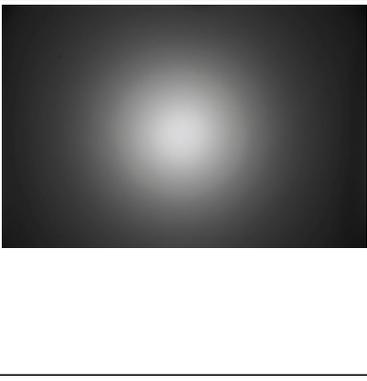
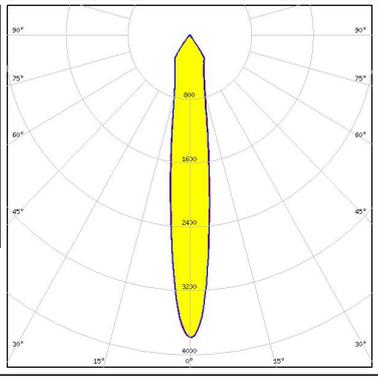


#### OSRAM

LED PrevaLED Core Z4 LES19  
 FWHM / FWTM 19.0° / 68.0°  
 Efficiency 80 %  
 Peak intensity 2.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### PHOTOMETRIC DATA (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13            FWHM / FWTM 15.0° / 58.0°            Efficiency 86 %            Peak intensity 4.2 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13            FWHM / FWTM 15.0° / 60.0°            Efficiency 83 %            Peak intensity 3.8 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13658_CLAMP-VERO13-18            Bender Wirth: 437 Typ L1</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S13 19x19            FWHM / FWTM 14.0° / 58.0°            Efficiency 82 %            Peak intensity 3.9 cd/lm            LEDs/each optic 1            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            FWHM / FWTM 15.0° / 59.0°            Efficiency 82 %            Peak intensity 3.8 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>		

### PHOTOMETRIC DATA (MEASURED):

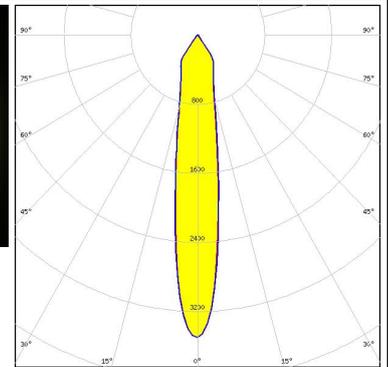
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
FWHM / FWTM 17.0° / 66.0°  
Efficiency 86 %  
Peak intensity 3.5 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

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



#### OSRAM

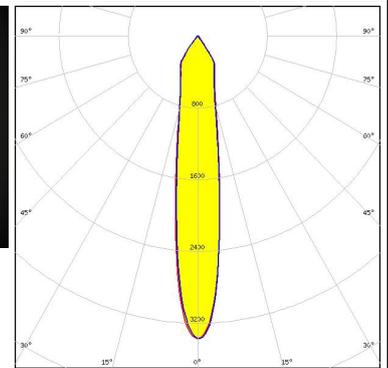
Opto Semiconductors

LED Soleriq S19  
FWHM / FWTM 17.0° / 66.0°  
Efficiency 83 %  
Peak intensity 3.4 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13584\_CLAMP-VERO29

Bender Wirth: 462 Typ L3



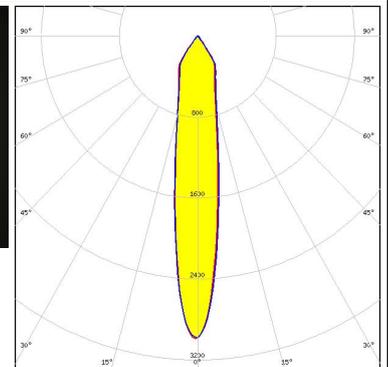
#### PHILIPS

LED Fortimo SLM 1208 L15 G6 Standard  
FWHM / FWTM 17.0° / 67.0°  
Efficiency 78 %  
Peak intensity 3 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

F13671\_ANGE-RZ-LENS

TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1

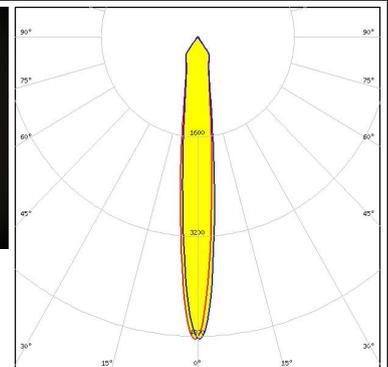


#### PHILIPS

LED Fortimo SLM L09 + SLM holder  
FWHM / FWTM 13.0° / 45.0°  
Efficiency 84 %  
Peak intensity 4.9 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

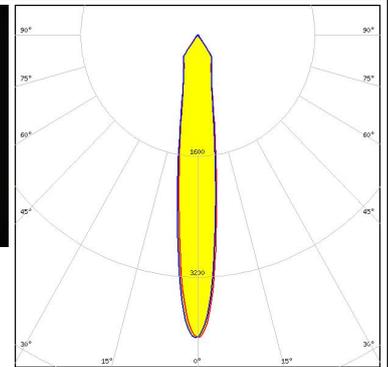
TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### PHOTOMETRIC DATA (MEASURED):

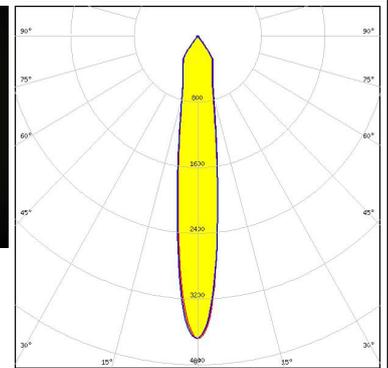
#### PHILIPS

LED Fortimo SLM L13 + SLM holder  
 FWHM / FWTM 15.0° / 57.0°  
 Efficiency 84 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



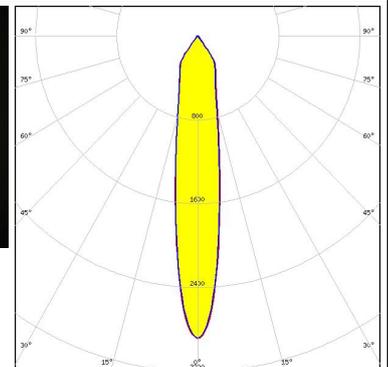
#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 16.0° / 60.0°  
 Efficiency 81 %  
 Peak intensity 3.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



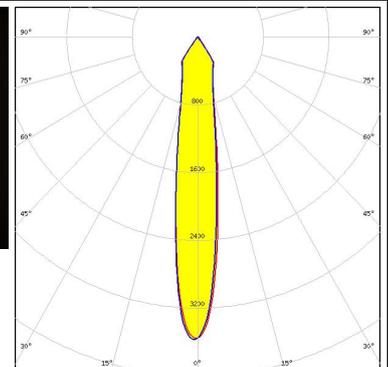
#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM / FWTM 17.0° / 68.0°  
 Efficiency 76 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

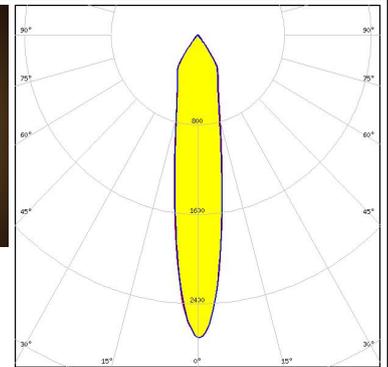
LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 16.0° / 65.0°  
 Efficiency 82 %  
 Peak intensity 3.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### PHOTOMETRIC DATA (MEASURED):

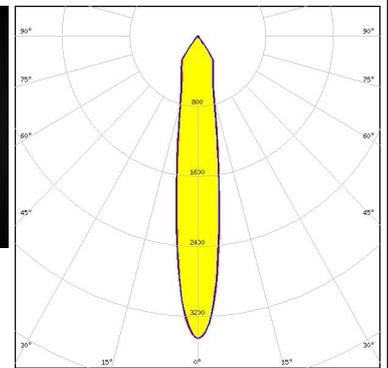
#### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 19.0° / 67.0°  
 Efficiency 78 %  
 Peak intensity 2.7 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



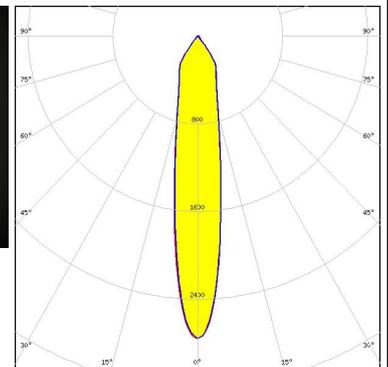
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 17.0° / 64.0°  
 Efficiency 81 %  
 Peak intensity 3.4 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



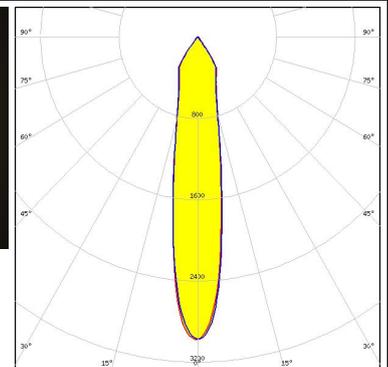
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM / FWTM 18.0° / 68.0°  
 Efficiency 75 %  
 Peak intensity 2.8 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



#### PHILIPS

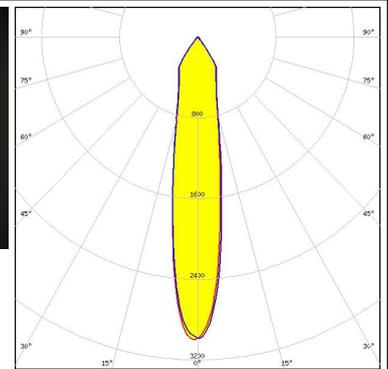
LED Fortimo SLM L19 + SLM holder  
 FWHM / FWTM 19.0° / 68.0°  
 Efficiency 81 %  
 Peak intensity 3 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



### PHOTOMETRIC DATA (MEASURED):

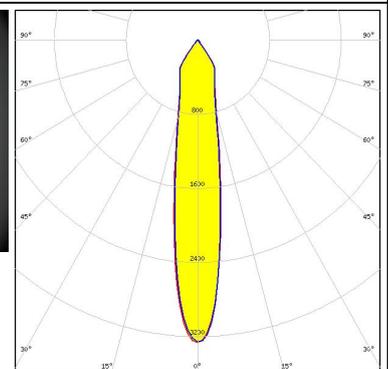
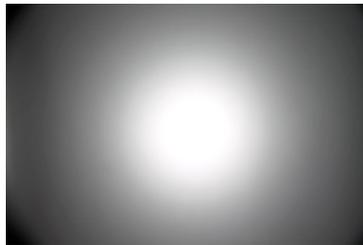
#### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 19.0° / 68.0°  
 Efficiency 83 %  
 Peak intensity 3 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 450 Typ L2



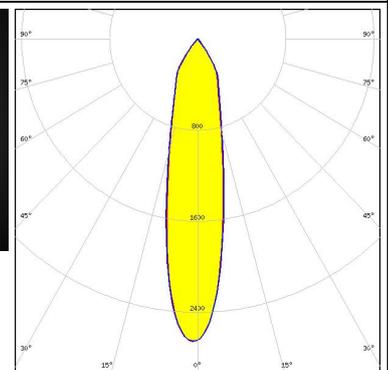
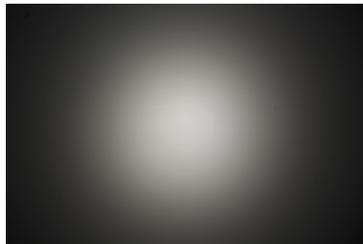
#### SAMSUNG

LED LC026B / 033B / 040B  
 FWHM / FWTM 18.0° / 67.0°  
 Efficiency 85 %  
 Peak intensity 3.3 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213258-2 + OPTIC CLIP Z50 TYPE1 2213194-1



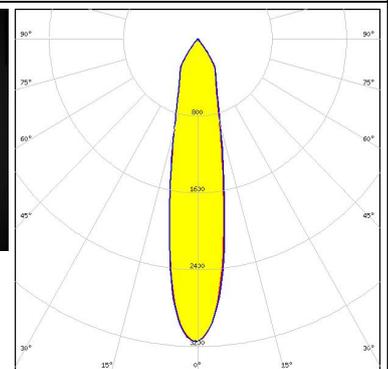
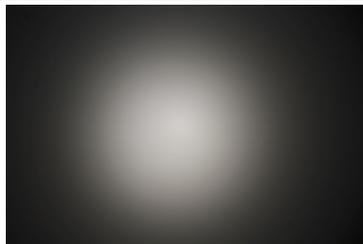
#### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 22.0° / 68.0°  
 Efficiency 83 %  
 Peak intensity 2.7 cd/m  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 502 Typ L3



#### SAMSUNG

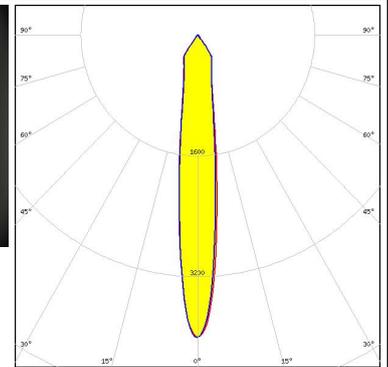
LED LC035T (Tunable white)  
 FWHM / FWTM 21.0° / 66.0°  
 Efficiency 87 %  
 Peak intensity 3.2 cd/m  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3



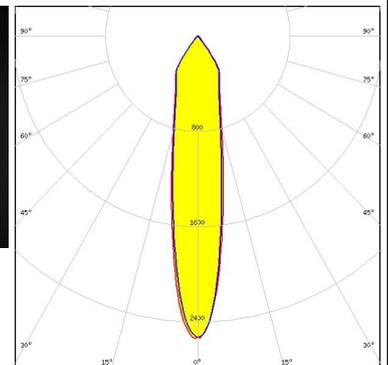
### PHOTOMETRIC DATA (MEASURED):

#### SAMSUNG

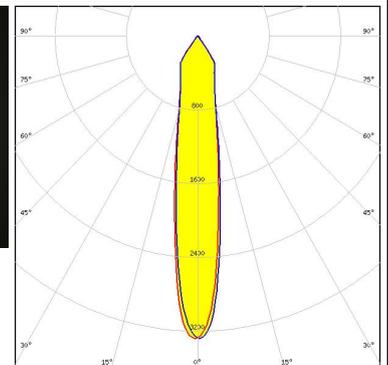
LED LC040C  
 FWHM / FWTM 15.0° / 57.0°  
 Efficiency 83 %  
 Peak intensity 4 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



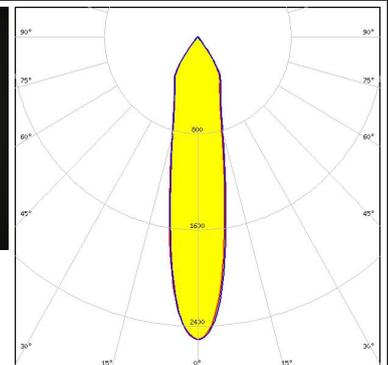
**SEOUL SEMICONDUCTOR**  
 LED AC Zhaga COB  
 FWHM / FWTM 19.0° / 71.0°  
 Efficiency 79 %  
 Peak intensity 2.5 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 Optosource: SEHSMJD-A



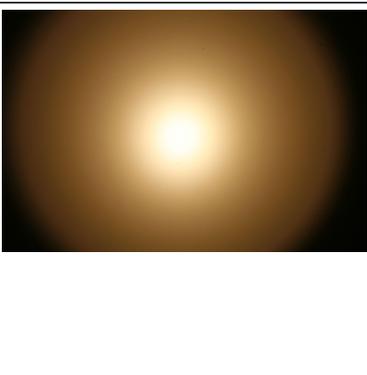
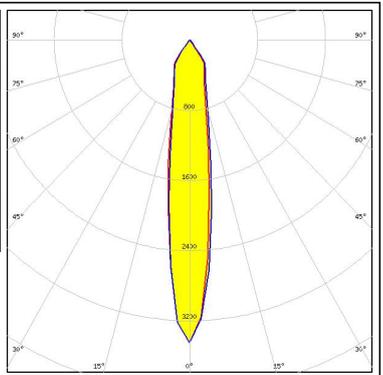
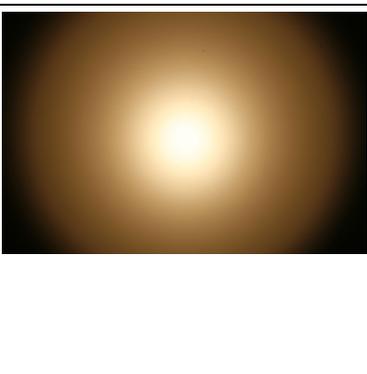
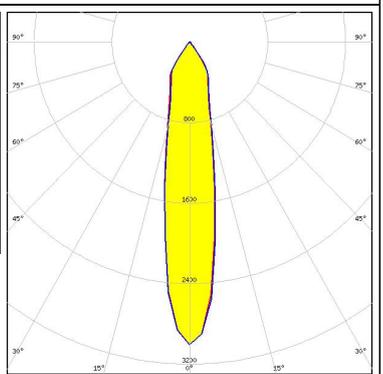
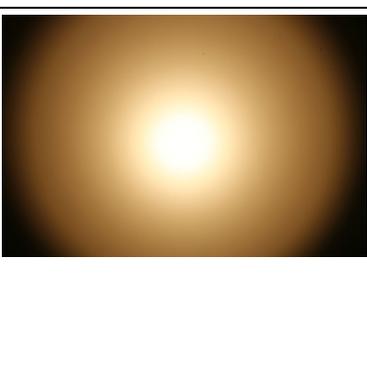
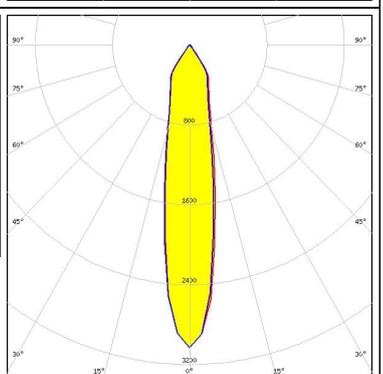
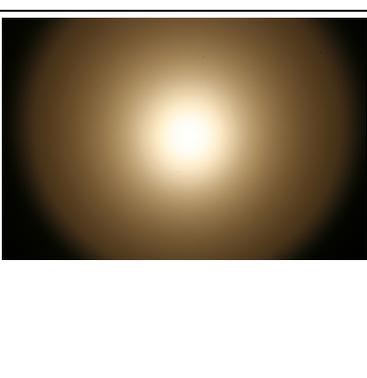
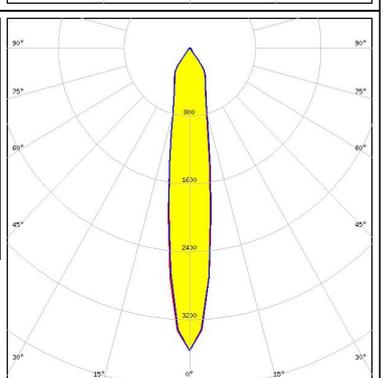
**SEOUL SEMICONDUCTOR**  
 LED MJT COB LES 14.5  
 FWHM / FWTM 17.0° / 67.0°  
 Efficiency 82 %  
 Peak intensity 3.3 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



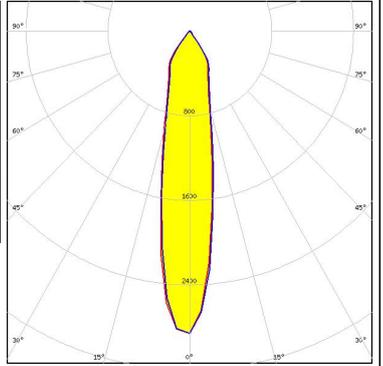
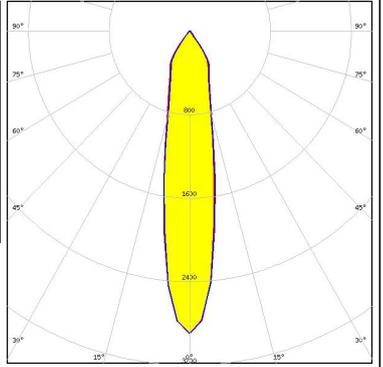
**SEOUL SEMICONDUCTOR**  
 LED MJT COB LES 22  
 FWHM / FWTM 22.0° / 69.0°  
 Efficiency 82 %  
 Peak intensity 2.5 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 431 Typ L3



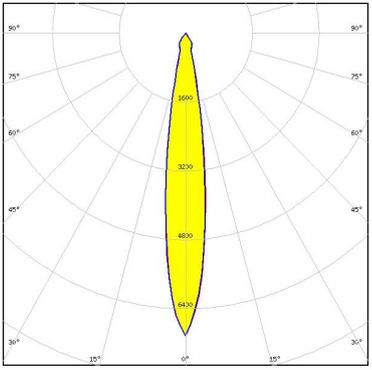
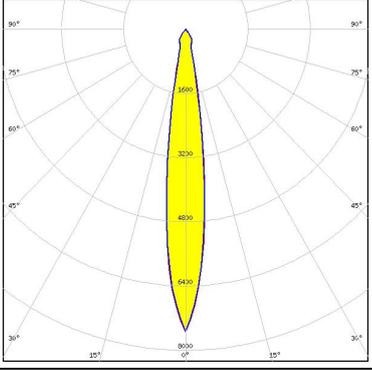
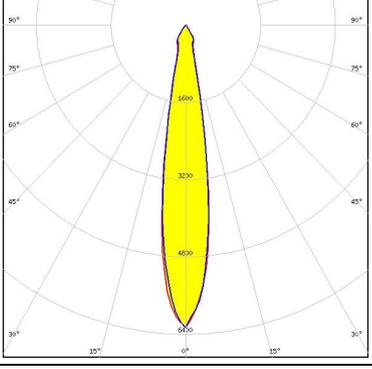
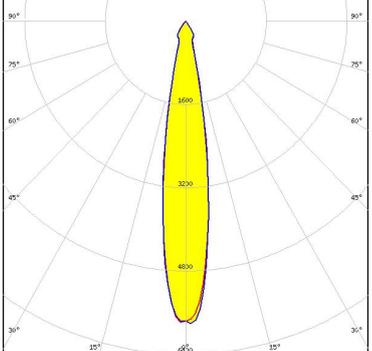
### PHOTOMETRIC DATA (MEASURED):

<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-461            FWHM / FWTM 17.0° / 62.0°            Efficiency 83 %            Peak intensity 3.5 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-462            FWHM / FWTM 20.0° / 68.0°            Efficiency 85 %            Peak intensity 3 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-464            FWHM / FWTM 20.0° / 68.0°            Efficiency 85 %            Peak intensity 3 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 17.0° / 64.0°            Efficiency 85 %            Peak intensity 3.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

### PHOTOMETRIC DATA (MEASURED):

<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-485            FWHM / FWTM 20.0° / 69.0°            Efficiency 85 %            Peak intensity 2.9 cd/m            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		
<p><b>VS LIGHTING SOLUTIONS</b></p> <p>LED WU-M-486            FWHM / FWTM 20.0° / 69.0°            Efficiency 84 %            Peak intensity 2.9 cd/m            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1</p>		

### PHOTOMETRIC DATA (SIMULATED):

<p></p> <p>LED V10 Gen7            FWHM / FWTM 15.0° / 30.0°            Efficiency 90 %            Peak intensity 7 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 14.5° / 28.0°            Efficiency 91 %            Peak intensity 7.5 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 17.0° / 33.0°            Efficiency 93 %            Peak intensity 6.3 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 17.0° / 33.0°            Efficiency 88 %            Peak intensity 5.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1</p>	

#### PHOTOMETRIC DATA (SIMULATED):



LED CxM-14 (19x19)  
 FWHM / FWTM 17.0° / 66.0°  
 Efficiency 83 %  
 Peak intensity 3.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1



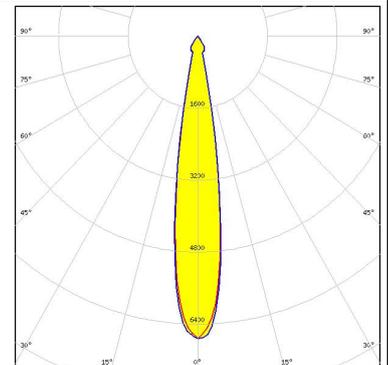
LED CxM-9 (13.5x13.5)  
 FWHM / FWTM 14.0° / 53.0°  
 Efficiency 84 %  
 Peak intensity 4.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1



Opto Semiconductors

LED Soleriq S15  
 FWHM / FWTM 16.0°  
 Efficiency 90 %  
 Peak intensity 6.8 cd/lm  
 LEDs/each optic 1  
 Light colour White

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



SEOUL SEMICONDUCTOR

LED ZC12/18  
 FWHM / FWTM 17.0° / 66.0°  
 Efficiency 83 %  
 Peak intensity 3.4 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 433 Typ L1

## PHOTOMETRIC DATA (SIMULATED):

	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	14.0° / 53.0°
Efficiency	84 %
Peak intensity	4.3 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.

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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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