

## MIRELLA-50-M-PF

~30° medium beam

### SPECIFICATION:

Dimensions	Ø 49.9 mm
Height	24 mm
Fastening	socket
ROHS compliant	yes ⓘ

### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
MIRELLA-50-M-PF	Reflector	PC	metal		lacquer


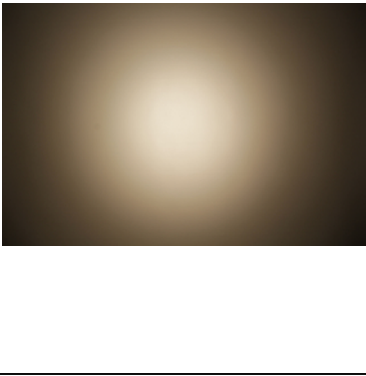
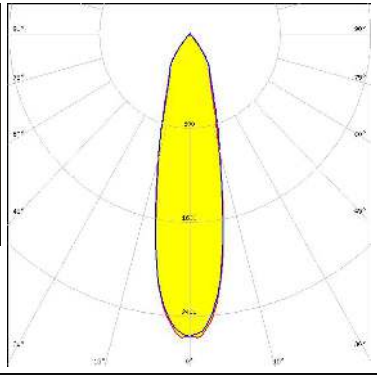

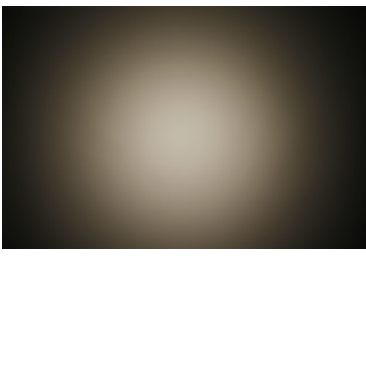
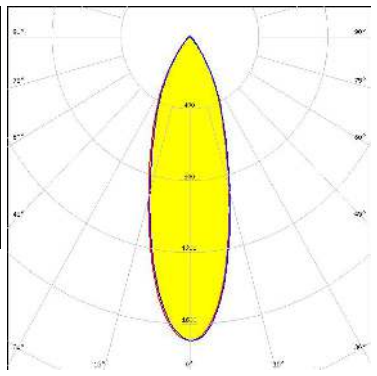


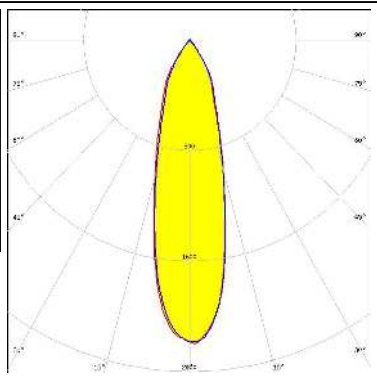

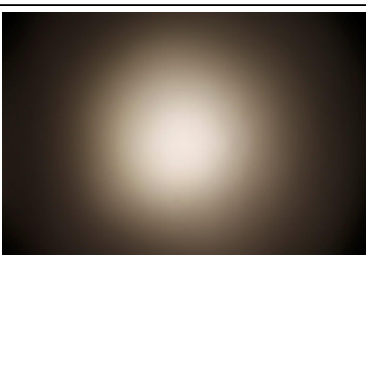
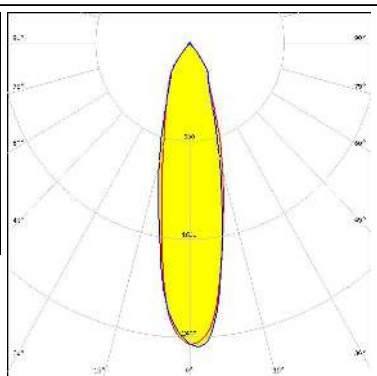
### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C13086_MIRELLA-50-M-PF » Box size: 480 x 280 x 300 mm	336	112	28	2.8



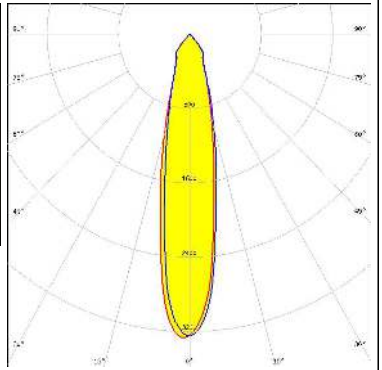

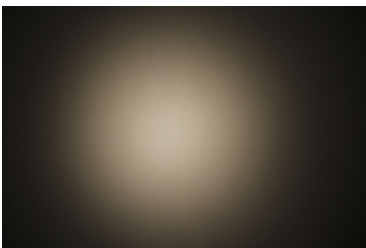

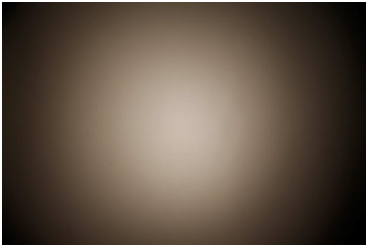
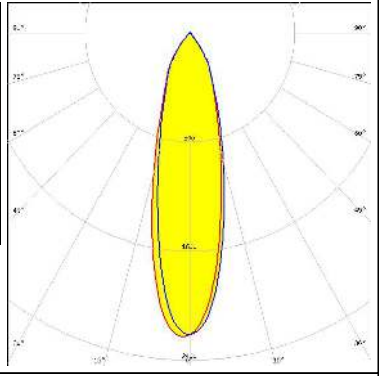

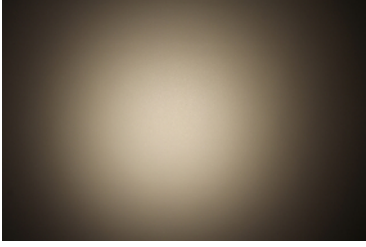





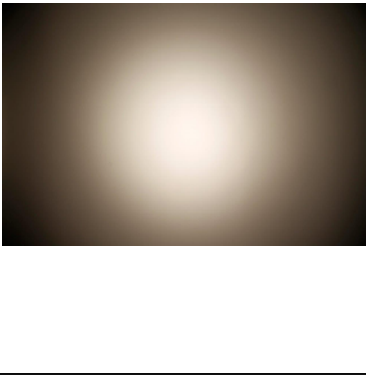
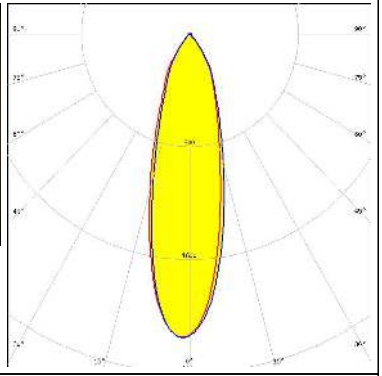

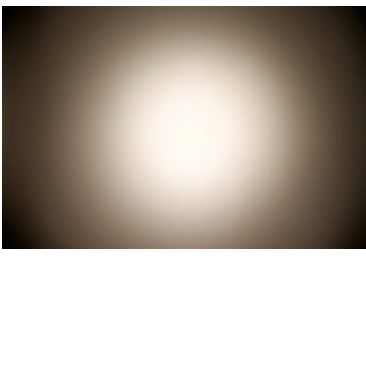
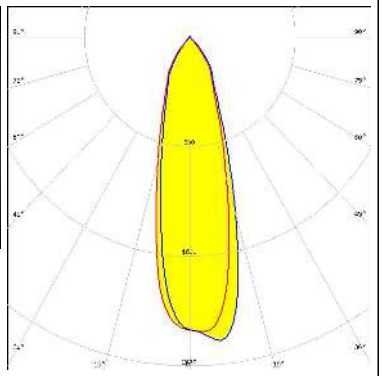


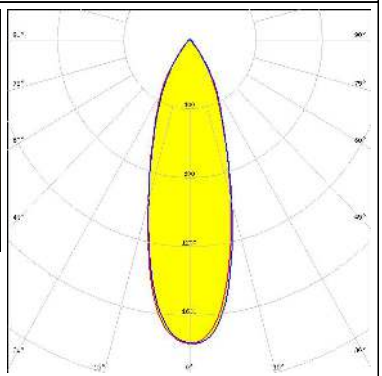


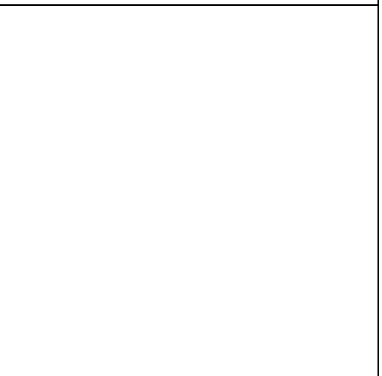
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V10 Gen7            FWHM / FWTM 26.0° / 69.0°            Efficiency 88 %            Peak intensity 2.6 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 434 Typ L1</p>		
<p></p> <p>LED V10 Gen7            FWHM / FWTM 32.0° / 69.0°            Efficiency 77 %            Peak intensity 1.7 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C12479_MIRELLA-DL</p>		
<p></p> <p>LED V10 Gen7            FWHM / FWTM 28.0° / 67.0°            Efficiency 78 %            Peak intensity 2.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C13333_MIRELLA-CL</p>		
<p></p> <p>LED V6 Gen6            FWHM / FWTM 25.0° / 69.0°            Efficiency 82 %            Peak intensity 2.3 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13761_PF-SOCKET-CXA15            C13333_MIRELLA-CL</p>		


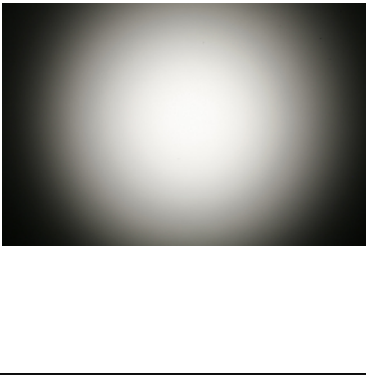
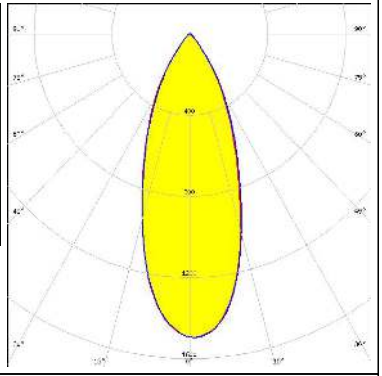


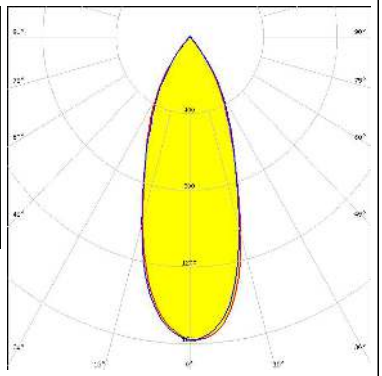


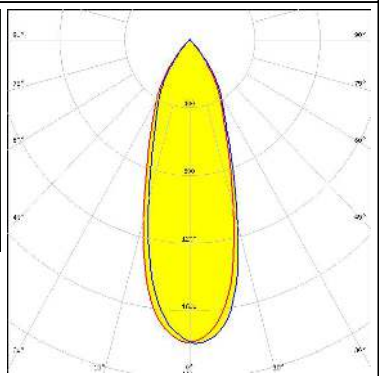


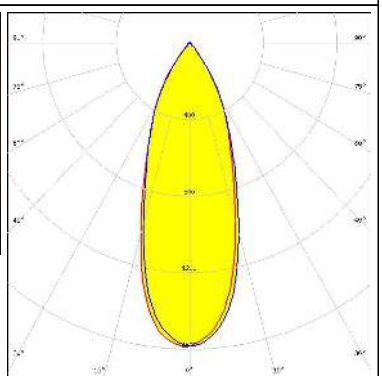
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V6 Gen6            FWHM / FWTM 21.0° / 55.0°            Efficiency 88 %            Peak intensity 3.3 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13761_PF-SOCKET-CXA15</p>		
<p></p> <p>LED V6 Gen6            FWHM / FWTM 21.0° / 62.0°            Efficiency 75 %            Peak intensity 3.2 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            C12479_MIRELLA-DL            Bender Wirth: 460 Typ L1</p>		
<p></p> <p>LED V6 Gen6            FWHM / FWTM 27.0° / 68.0°            Efficiency 82 %            Peak intensity 2.2 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13761_PF-SOCKET-CXA15            C12479_MIRELLA-DL</p>		
<p></p> <p>LED V8 Gen6            FWHM / FWTM 26.0° / 66.0°            Efficiency 71 %            Peak intensity 2.6 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            C12479_MIRELLA-DL            Bender Wirth: 460 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED V8 Gen6            FWHM / FWTM 28.0° / 68.0°            Efficiency 83 %            Peak intensity 2.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13761_PF-SOCKET-CXA15            C12479_MIRELLA-DL</p>		
<p></p> <p>LED VERO10            FWHM / FWTM 28.0° / 71.0°            Efficiency 85 %            Peak intensity 2.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13708_PF-SOCKET-VERO10</p>		
<p></p> <p>LED VERO10            FWHM / FWTM 32.0° / 70.0°            Efficiency 80 %            Peak intensity 1.8 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13708_PF-SOCKET-VERO10            C12479_MIRELLA-DL</p>		
<p></p> <p>LED VERO10            FWHM / FWTM 32.0° / 70.0°            Efficiency 80 %            Peak intensity 1.8 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13708_PF-SOCKET-VERO10            C13333_MIRELLA-CL</p>		

#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED VERO13            FWHM / FWTM 38.0° / 74.0°            Efficiency 82 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C12479_MIRELLA-DL</p>		
<p></p> <p>LED VERO13            FWHM / FWTM 37.0° / 73.0°            Efficiency 82 %            Peak intensity 1.6 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C13333_MIRELLA-CL</p>		
<p></p> <p>LED VERO13            FWHM / FWTM 34.0° / 76.0°            Efficiency 88 %            Peak intensity 1.8 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18</p>		
<p></p> <p>LED Xenio Point 13mm            FWHM / FWTM 36.0° / 73.0°            Efficiency 80 %            Peak intensity 1.6 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C13333_MIRELLA-CL</p>		

#### OPTICAL RESULTS (MEASURED):

**bridgelux.**

LED	Xenio Point 13mm
FWHM / FWTM	34.0° / 75.0°
Efficiency	84 %
Peak intensity	1.8 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
C13709\_PF-SOCKET-VERO13-18




**bridgelux.**

LED	Xenio Point 13mm
FWHM / FWTM	39.0° / 74.0°
Efficiency	78 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
C13709\_PF-SOCKET-VERO13-18  
C12479\_MIRELLA-DL




### CITIZEN

LED	CLL01x
FWHM / FWTM	24.0° / 69.0°
Efficiency	86 %
Peak intensity	2.6 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
C13083\_PF-SOCKET  
C13333\_MIRELLA-CL



### CITIZEN

LED	CLL01x
FWHM / FWTM	28.0° / 68.0°
Efficiency	86 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
C13083\_PF-SOCKET  
C12479\_MIRELLA-DL



#### OPTICAL RESULTS (MEASURED):

#### CITIZEN

LED CLL01x  
 FWHM / FWTM 20.0° / 56.0°  
 Efficiency 90 %  
 Peak intensity 3.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET



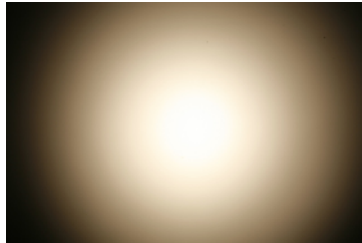
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 30.0° / 70.0°  
 Efficiency 87 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13333\_MIRELLA-CL



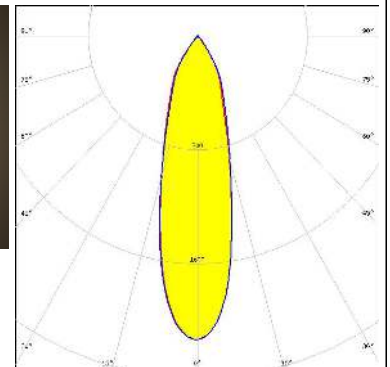
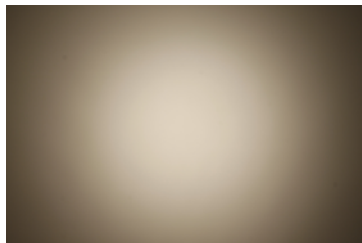
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 31.0° / 72.0°  
 Efficiency 87 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C12479\_MIRELLA-DL



#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 28.0° / 68.0°  
 Efficiency 79 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C13333\_MIRELLA-CL  
 Bender Wirth: 434 Typ L1

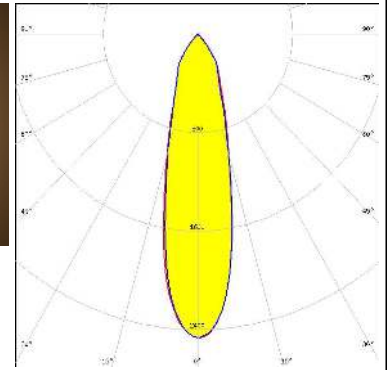
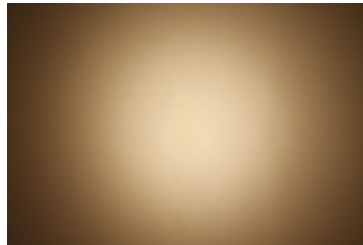




#### OPTICAL RESULTS (MEASURED):

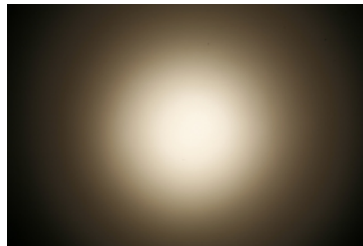
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 26.0° / 69.0°  
 Efficiency 84 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 434 Typ L1



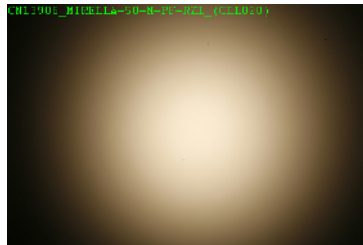
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 26.0° / 70.0°  
 Efficiency 91 %  
 Peak intensity 3 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET



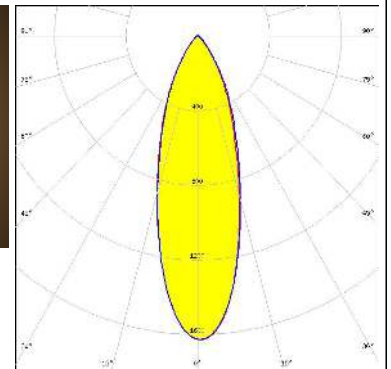
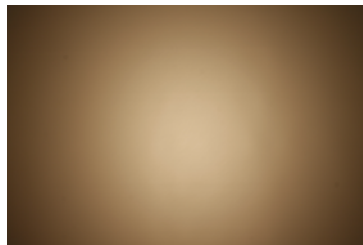
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 36.0° / 74.0°  
 Efficiency %  
 Peak intensity 1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13723\_MIRELLA-RZL



#### CITIZEN

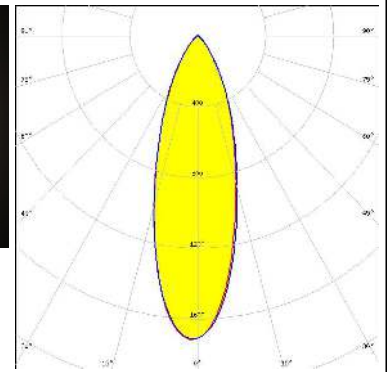
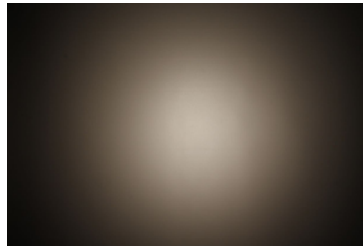
LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 33.0° / 70.0°  
 Efficiency 76 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C12479\_MIRELLA-DL  
 Bender Wirth: 434 Typ L1



#### OPTICAL RESULTS (MEASURED):

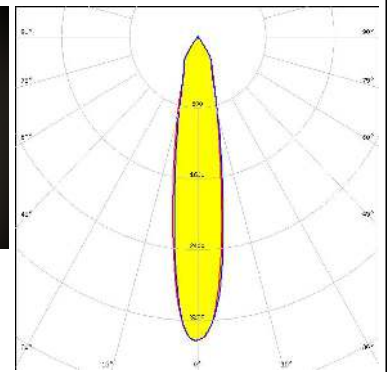
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 32.0° / 71.0°  
 Efficiency 81 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13723\_MIRELLA-RZL



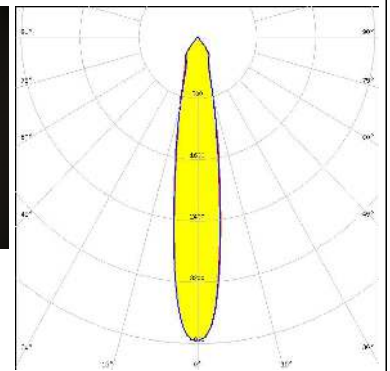
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 19.0° / 56.0°  
 Efficiency 78 %  
 Peak intensity 4.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C13333\_MIRELLA-CL  
 Bender Wirth: 434 Typ L1



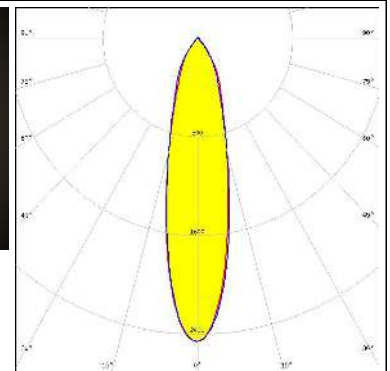
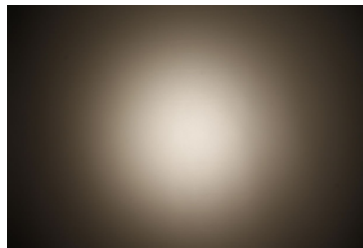
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 18.0° / 46.0°  
 Efficiency 82 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 434 Typ L1



#### CITIZEN

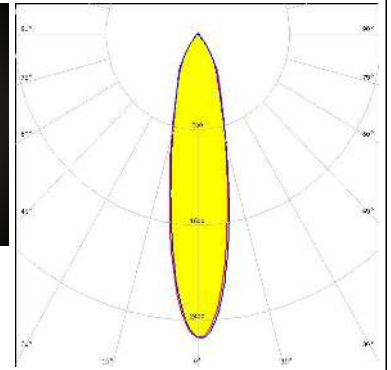
LED CLU700/701/702/703  
 FWHM / FWTM 24.0° / 64.0°  
 Efficiency 81 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C12479\_MIRELLA-DL



#### OPTICAL RESULTS (MEASURED):

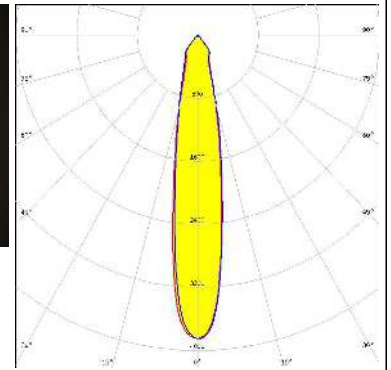
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 23.0° / 63.0°  
 Efficiency 77 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C12479\_MIRELLA-DL  
 Bender Wirth: 434 Typ L1



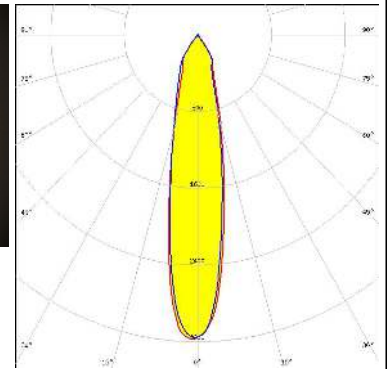
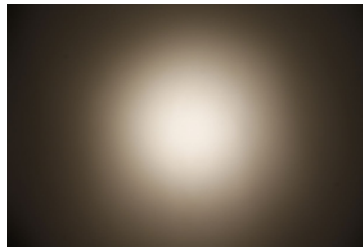
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 19.0° / 48.0°  
 Efficiency 87 %  
 Peak intensity 3.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET



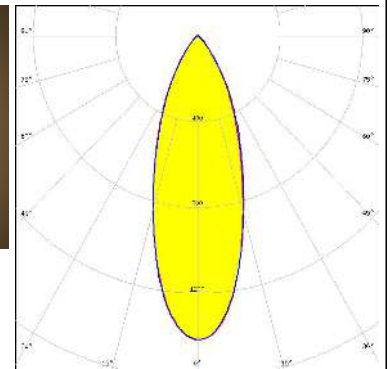
#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 21.0° / 62.0°  
 Efficiency 82 %  
 Peak intensity 3.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13333\_MIRELLA-CL



#### CITIZEN

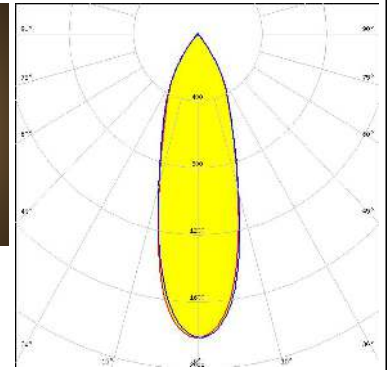
LED CLU720/721/723  
 FWHM / FWTM 36.0° / 73.0°  
 Efficiency 73 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C12479\_MIRELLA-DL  
 Bender Wirth: 433 Typ L1



#### OPTICAL RESULTS (MEASURED):

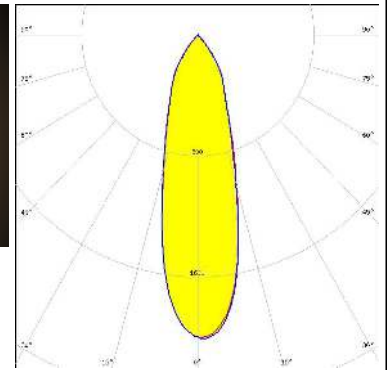
#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 31.0° / 69.0°  
 Efficiency 76 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C13333\_MIRELLA-CL  
 Bender Wirth: 433 Typ L1



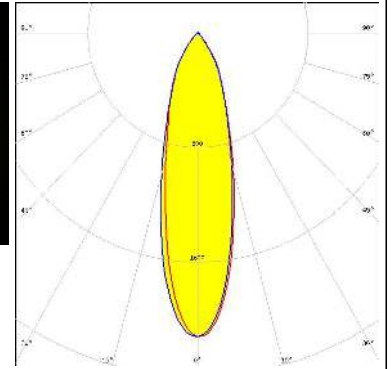
#### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 29.0° / 72.0°  
 Efficiency 80 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 433 Typ L1



#### CREE LED

LED CXA/B 13xx  
 FWHM / FWTM 26.0° / 67.0°  
 Efficiency 80 %  
 Peak intensity 2.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13761\_PF-SOCKET-CXA15  
 C12479\_MIRELLA-DL


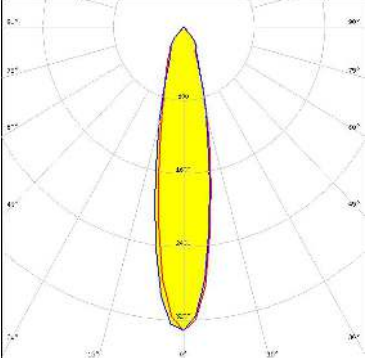

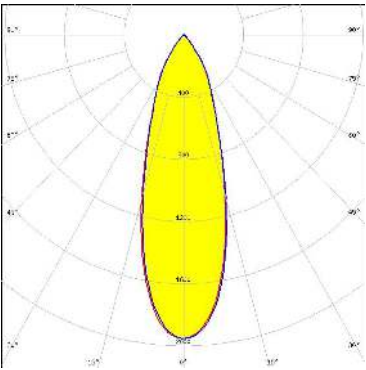
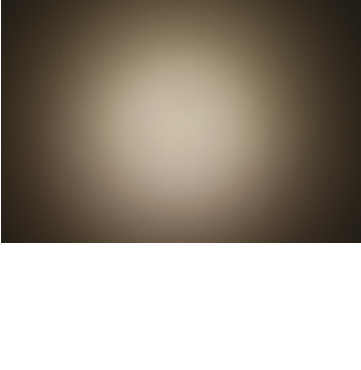
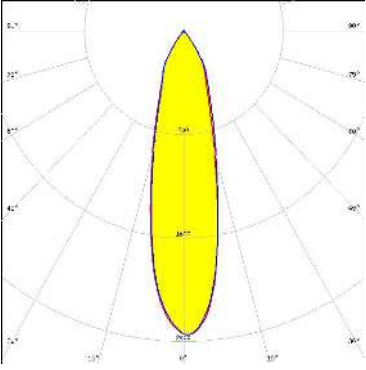
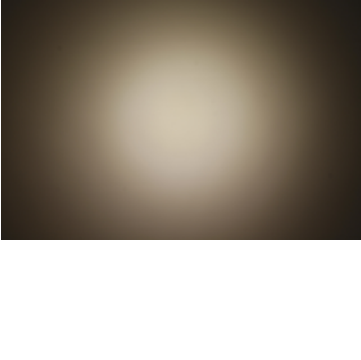
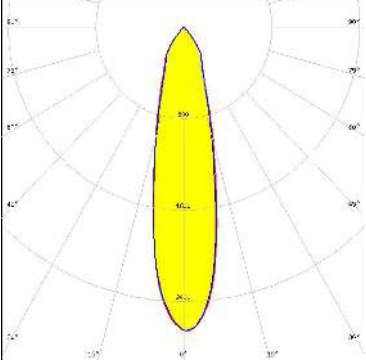


#### CREE LED

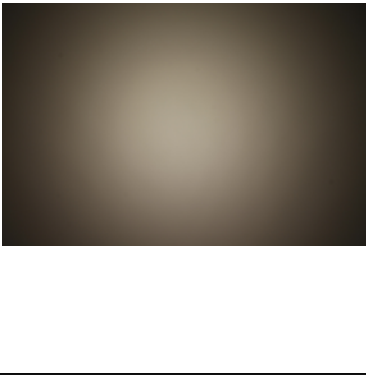
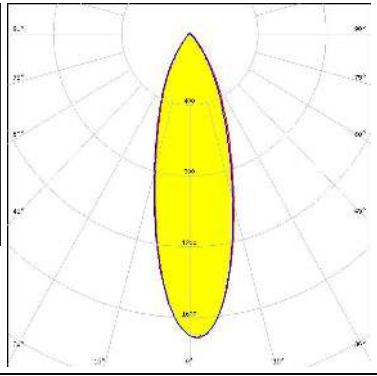

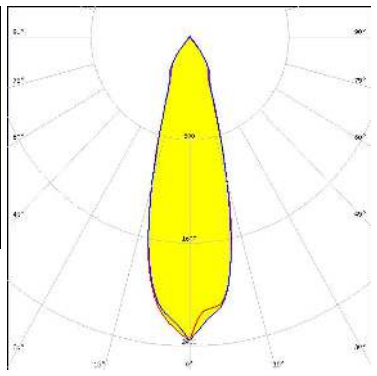

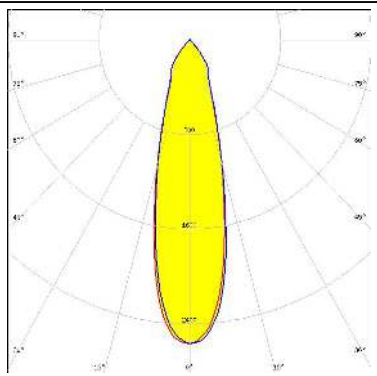

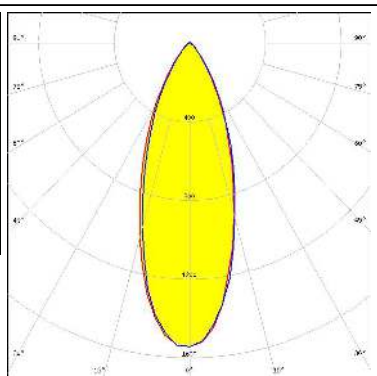
LED CXA/B 13xx  
 FWHM / FWTM 23.0° / 68.0°  
 Efficiency 81 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13761\_PF-SOCKET-CXA15  
 C13333\_MIRELLA-CL




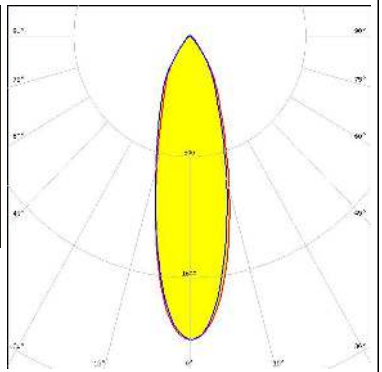

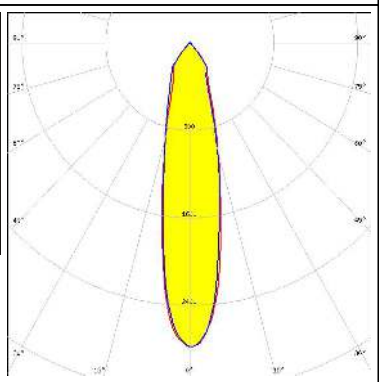

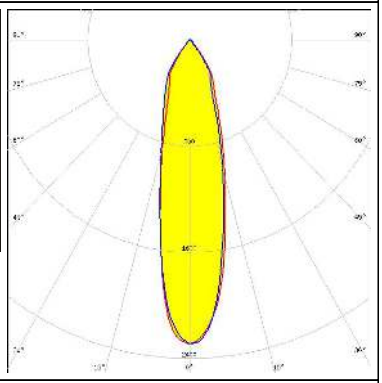
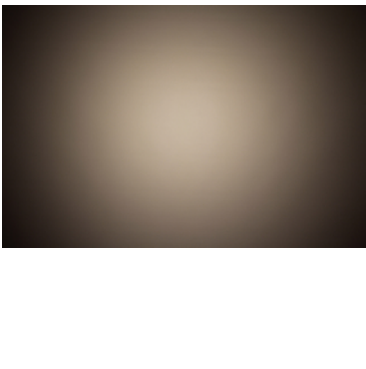
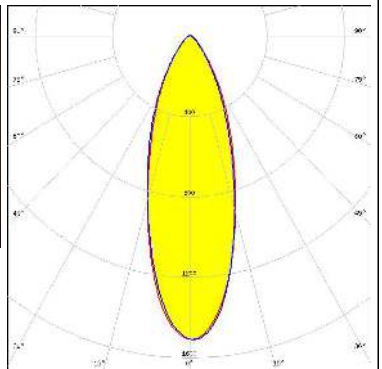
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE → LED</b></p> <p>LED CXA/B 13xx            FWHM / FWTM 20.0° / 55.0°            Efficiency 85 %            Peak intensity 3.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13761_PF-SOCKET-CXA15</p>		
<p><b>CREE → LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 32.0° / 70.0°            Efficiency 86 %            Peak intensity 2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13761_PF-SOCKET-CXA15            C12479_MIRELLA-DL</p>		
<p><b>CREE → LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 26.0° / 66.0°            Efficiency 78 %            Peak intensity 2.3 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            C13333_MIRELLA-CL            Bender Wirth: 441 Typ L1</p>		
<p><b>CREE → LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 24.0° / 68.0°            Efficiency 83 %            Peak intensity 2.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 441 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 31.0° / 69.0°            Efficiency 75 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C12479_MIRELLA-DL            Bender Wirth: 441 Typ L1</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 30.0° / 71.0°            Efficiency 83 %            Peak intensity 2.4 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13761_PF-SOCKET-CXA15            C13333_MIRELLA-CL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 27.0° / 71.0°            Efficiency 91 %            Peak intensity 2.6 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13761_PF-SOCKET-CXA15</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED CXA/B 15xx            FWHM / FWTM 38.0° / 75.0°            Efficiency 81 %            Peak intensity 1.5 cd/lm            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13761_PF-SOCKET-CXA15            C13723_MIRELLA-RZL</p>		

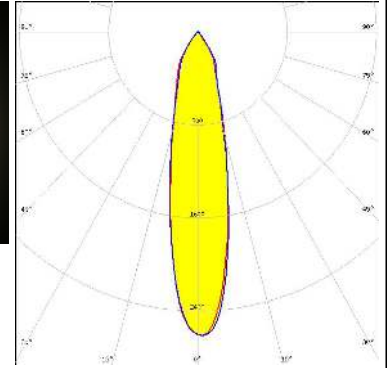
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED MHD-E/G            FWHM / FWTM 29.0° / 70.0°            Efficiency 86 %            Peak intensity 2 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C12479_MIRELLA-DL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED MHD-E/G            FWHM / FWTM 23.0° / 72.0°            Efficiency 91 %            Peak intensity 2.8 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED MHD-E/G            FWHM / FWTM 25.0° / 70.0°            Efficiency 85 %            Peak intensity 2.3 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C13333_MIRELLA-CL</p>		
<p><b>CREE</b> ⇄ <b>LED</b></p> <p>LED MHD-E/G            FWHM / FWTM 35.0 + 53.0° / 75.0°            Efficiency 83 %            Peak intensity 1.5 cd/m            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C13723_MIRELLA-RZL</p>		

#### OPTICAL RESULTS (MEASURED):

##### CREE LED

LED MK-R  
 FWHM / FWTM 23.0° / 64.0°  
 Efficiency 80 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C12479\_MIRELLA-DL



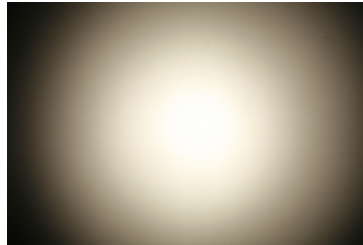
##### CREE LED

LED MT-G  
 FWHM / FWTM 34.0° / 76.0°  
 Efficiency 86 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13333\_MIRELLA-CL



##### CREE LED

LED MT-G  
 FWHM / FWTM 36.0° / 74.0°  
 Efficiency 87 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C12479\_MIRELLA-DL



##### CREE LED

LED MT-G  
 FWHM / FWTM 28.0° / 77.0°  
 Efficiency 91 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET

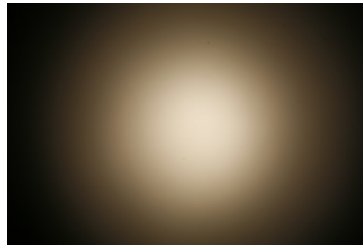




#### OPTICAL RESULTS (MEASURED):

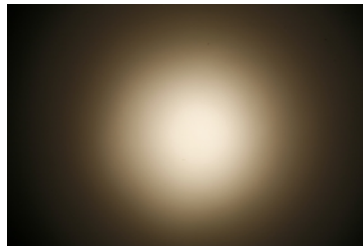
##### CREE LED

LED MT-G2  
 FWHM / FWTM 32.0° / 74.0°  
 Efficiency 86 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C12479\_MIRELLA-DL



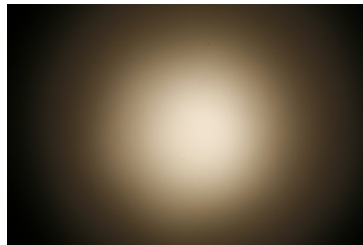
##### CREE LED

LED MT-G2  
 FWHM / FWTM 25.0° / 76.0°  
 Efficiency 90 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET



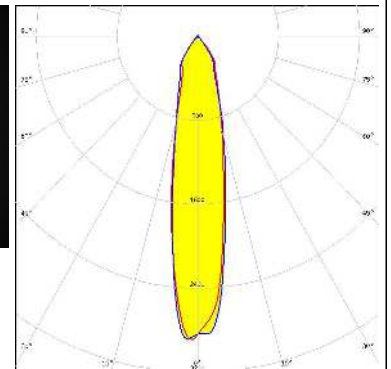
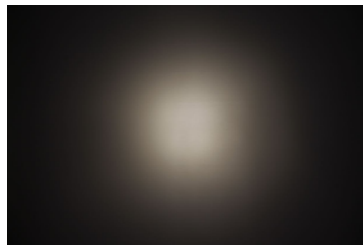
##### CREE LED

LED MT-G2  
 FWHM / FWTM 30.0° / 74.0°  
 Efficiency 87 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13333\_MIRELLA-CL

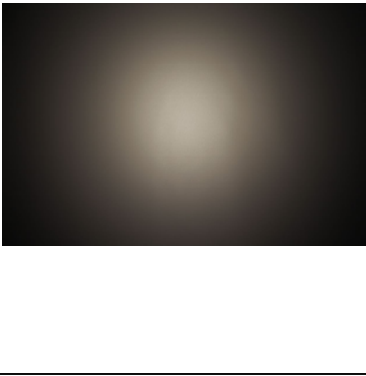
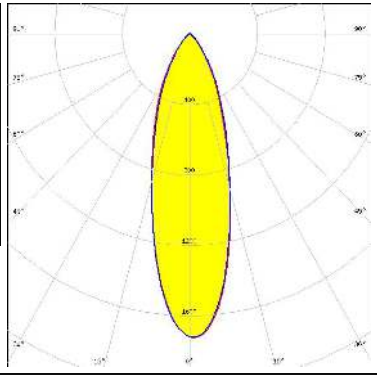

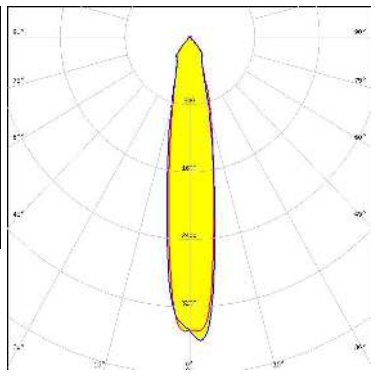

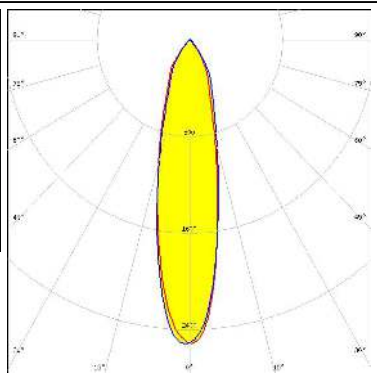

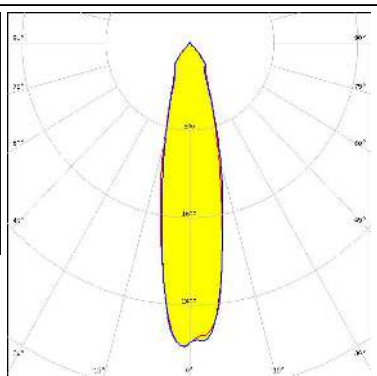


##### CREE LED


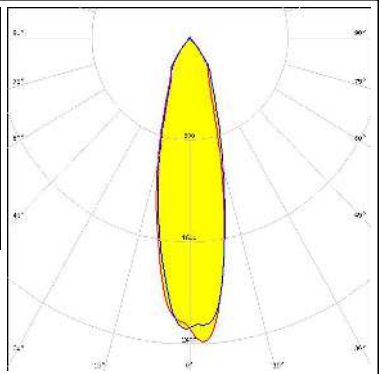
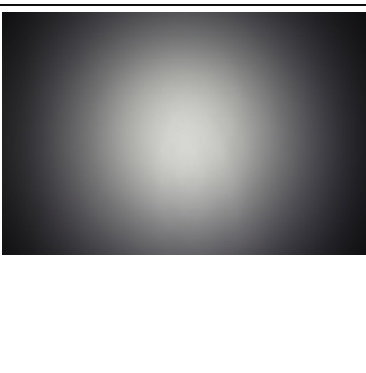
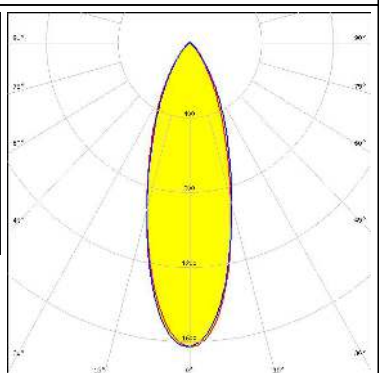

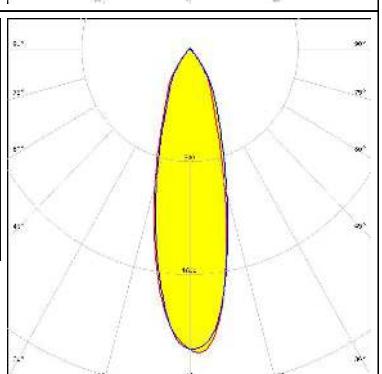
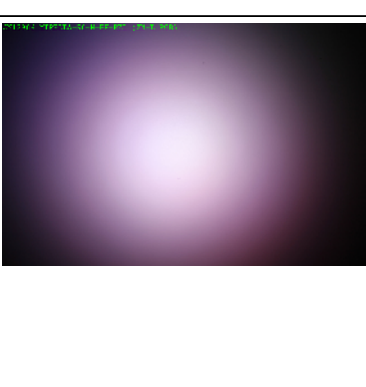
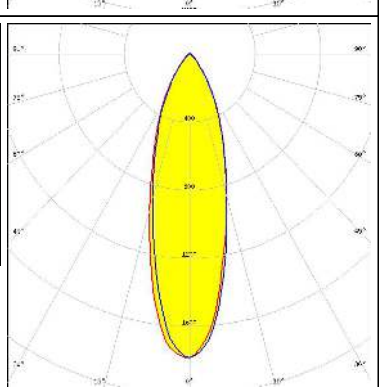
LED XHP50  
 FWHM / FWTM 21.0° / 66.0°  
 Efficiency 83 %  
 Peak intensity 2.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C13333\_MIRELLA-CL



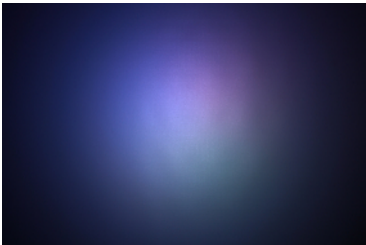
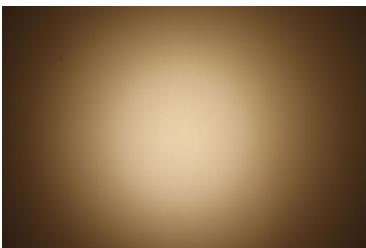
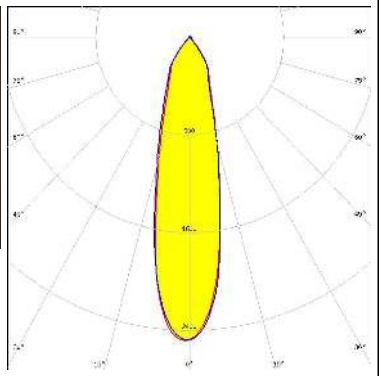
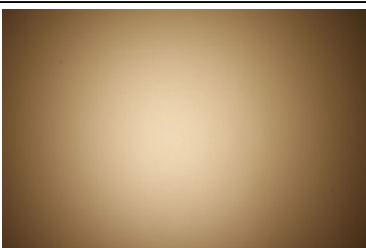
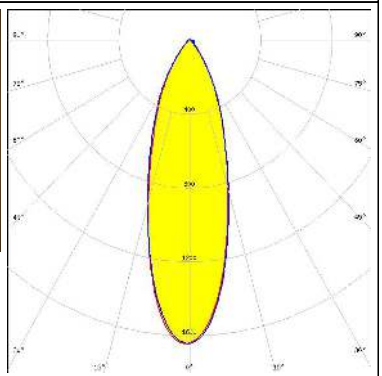
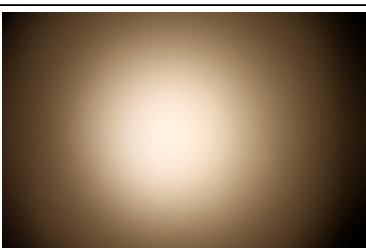
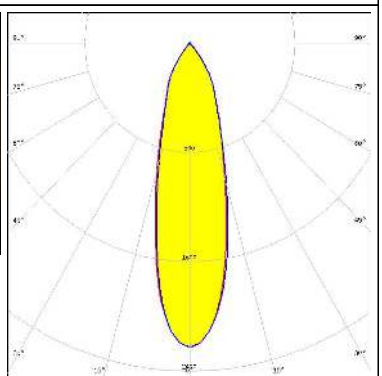
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE → LED</b></p> <p>LED XHP50            FWHM / FWTM 31.0° / 71.0°            Efficiency 81 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C13723_MIRELLA-RZL</p>		
<p><b>CREE → LED</b></p> <p>LED XHP50            FWHM / FWTM 18.0° / 52.0°            Efficiency 88 %            Peak intensity 3.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		
<p><b>CREE → LED</b></p> <p>LED XHP50            FWHM / FWTM 24.0° / 66.0°            Efficiency 84 %            Peak intensity 2.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C12479_MIRELLA-DL</p>		
<p><b>CREE → LED</b></p> <p>LED XHP70            FWHM / FWTM 24.0° / 62.0°            Efficiency 87 %            Peak intensity 2.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		

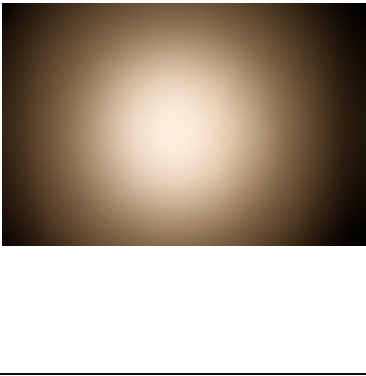
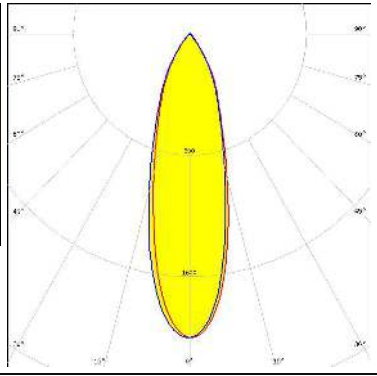
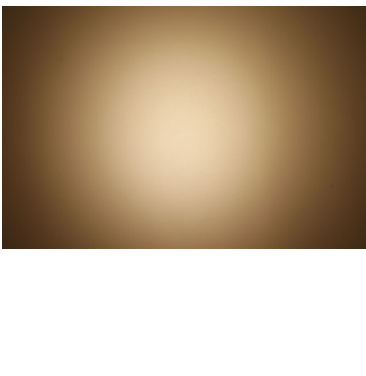
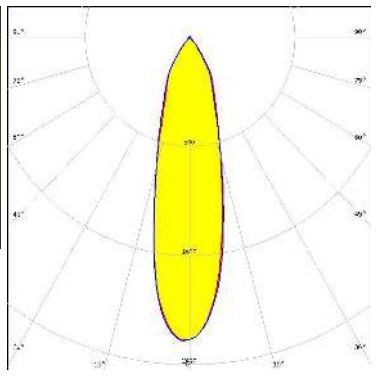

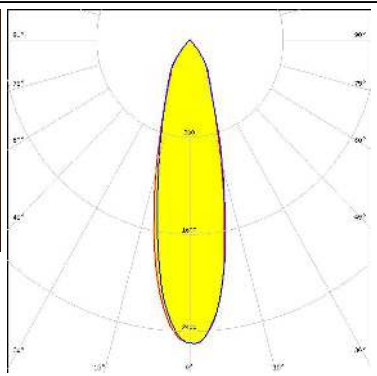

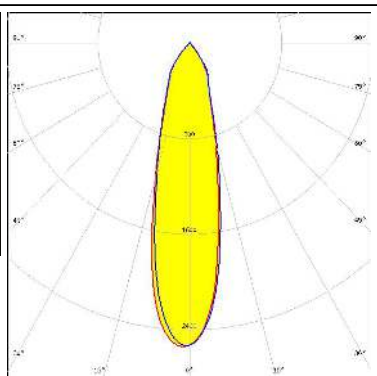
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LED</p> <p>LED XHP70            FWHM / FWTM 27.0° / 69.0°            Efficiency 82 %            Peak intensity 2.4 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13083_PF-SOCKET            C13333_MIRELLA-CL</p>		
<p><b>CREE</b> LED</p> <p>LED XHP70            FWHM / FWTM 33.0° / 72.0°            Efficiency 80 %            Peak intensity 1.6 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13083_PF-SOCKET            C13723_MIRELLA-RZL</p>		
<p><b>CREE</b> LED</p> <p>LED XHP70            FWHM / FWTM 28.0° / 68.0°            Efficiency 82 %            Peak intensity 2.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13083_PF-SOCKET            C12479_MIRELLA-DL</p>		
<p><b>CREE</b> LED</p> <p>LED XM-L RGBW (XMLCTW)            FWHM / FWTM 31.0° / 71.0°            Efficiency 79 %            Peak intensity 1.8 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13083_PF-SOCKET            C13723_MIRELLA-RZL</p>		


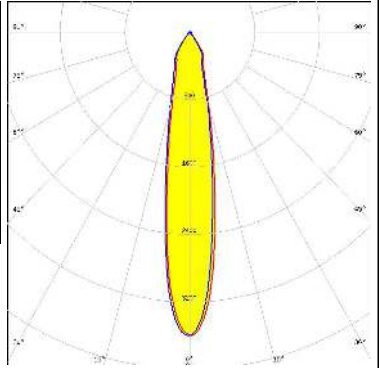
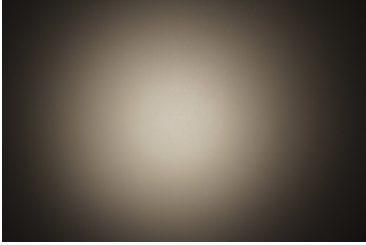
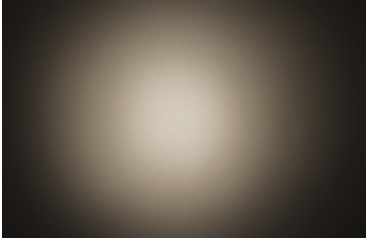

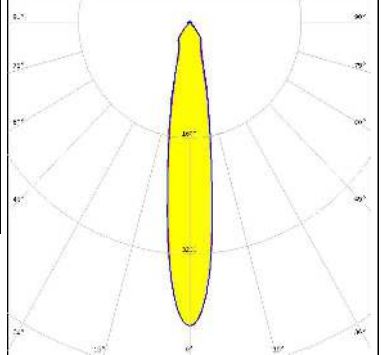
#### OPTICAL RESULTS (MEASURED):

<p><b>CREE</b> LED</p> <p>LED XQ-E HI            FWHM / FWTM 30.0° / 74.0°            Efficiency 87 %            Peak intensity 2 cd/m            LEDs/each optic 4            Light colour RGBW</p> <p>Required components:            C13083_PF-SOCKET            C13723_MIRELLA-RZL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203            FWHM / FWTM 25.0° / 69.0°            Efficiency 82 %            Peak intensity 2.5 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203            FWHM / FWTM 32.0° / 69.0°            Efficiency 75 %            Peak intensity 1.6 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13709_PF-SOCKET-VERO13-18            C12479_MIRELLA-DL            Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203            FWHM / FWTM 28.0° / 68.0°            Efficiency 81 %            Peak intensity 2.2 cd/m            LEDs/each optic 1            Light colour White</p> <p>Required components:            C13333_MIRELLA-CL            IDEAL: 50-2100NC +50-2100MR</p>		

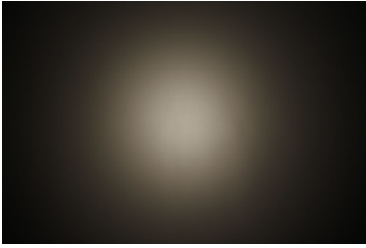
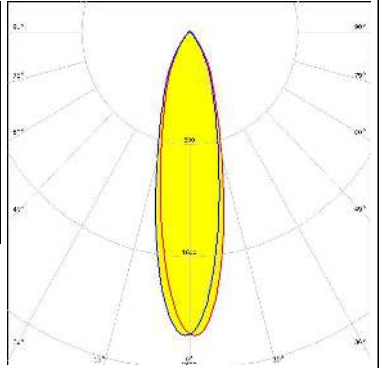
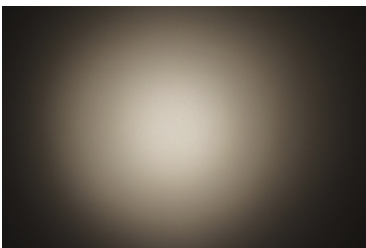
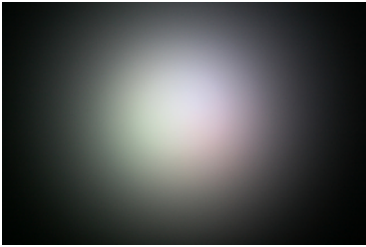
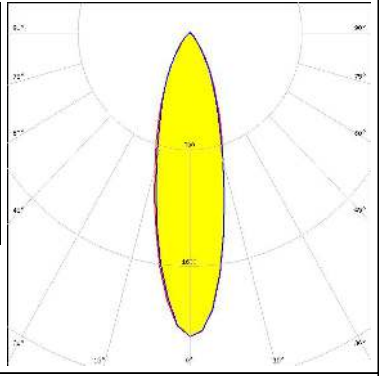
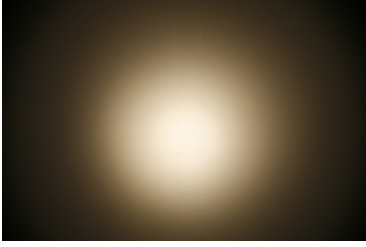
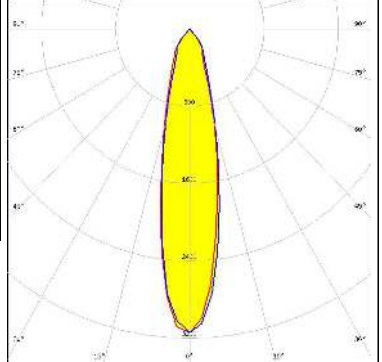
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 30.0° / 68.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL IDEAL: 50-2100NC +50-2100MR</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 27.0° / 67.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 2.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 C13333_MIRELLA-CL Bender Wirth: 438 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 27.0° / 70.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 2.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14037_PF-NSX-SOCKET</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM / FWTM 25.0° / 69.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100NC +50-2100MR</p>		


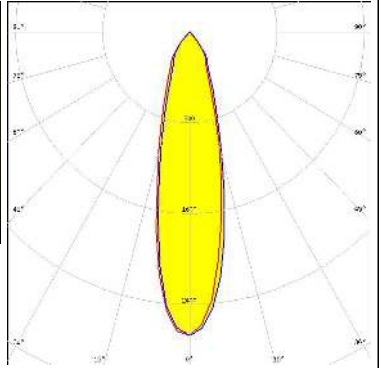
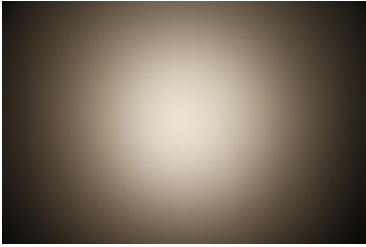
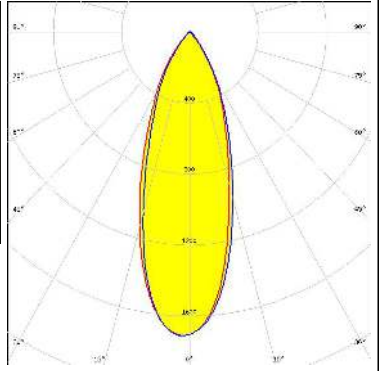
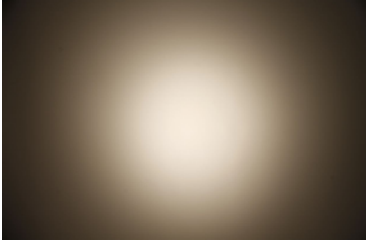
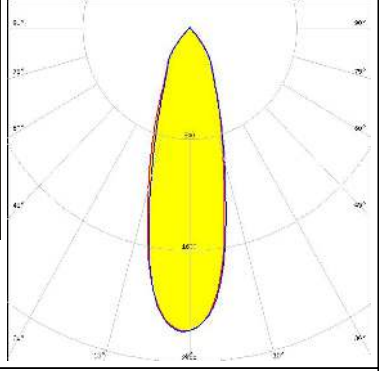
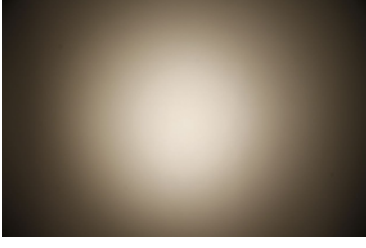
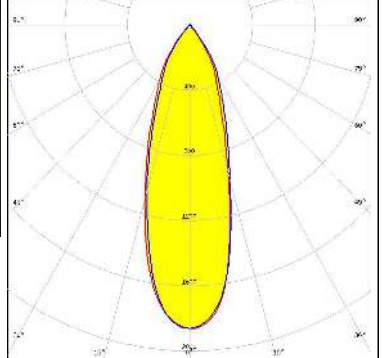
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 19.0° / 55.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 3.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13709_PF-SOCKET-VERO13-18</p> <p>C13333_MIRELLA-CL</p> <p>Bender Wirth: 452 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 26.0° / 70.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 2.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13761_PF-SOCKET-CXA15</p> <p>C12479_MIRELLA-DL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 23.0° / 72.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 2.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13761_PF-SOCKET-CXA15</p> <p>C13333_MIRELLA-CL</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 17.0° / 45.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 4.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13709_PF-SOCKET-VERO13-18</p> <p>Bender Wirth: 452 Typ L1</p>		

#### OPTICAL RESULTS (MEASURED):

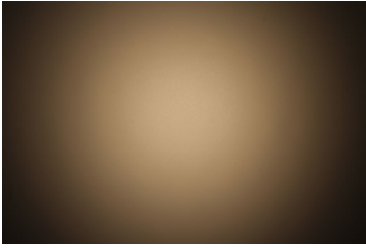
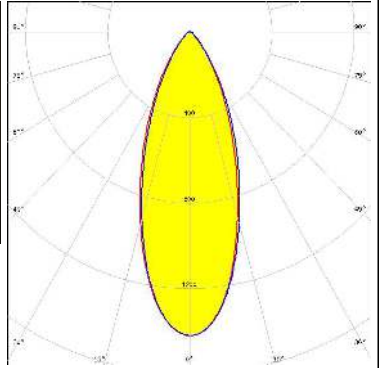

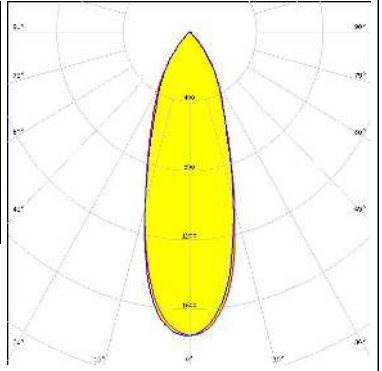
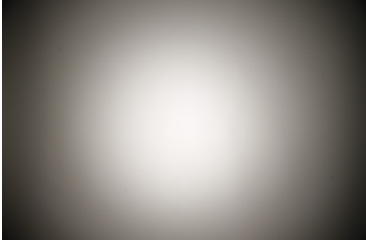
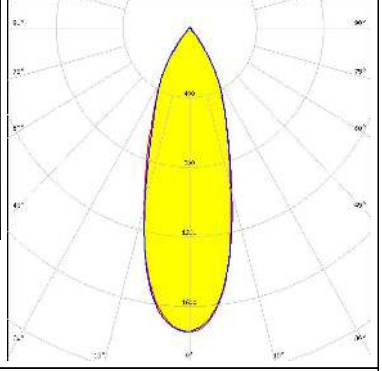
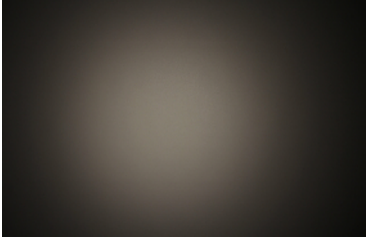
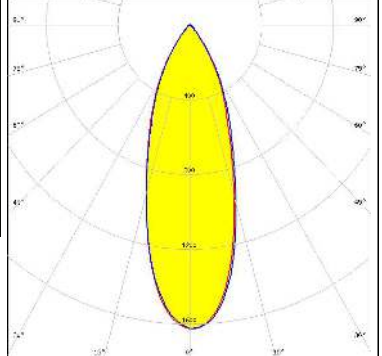
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 25.0° / 65.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 2.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13709_PF-SOCKET-VERO13-18</p> <p>C12479_MIRELLA-DL</p> <p>Bender Wirth: 452 Typ L1</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202s</p> <p>FWHM / FWTM 20.0° / 58.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 3.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13761_PF-SOCKET-CXA15</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON Z</p> <p>FWHM / FWTM 28.0° / 66.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 2.1 cd/lm</p> <p>LEDs/each optic 4</p> <p>Light colour RGBW</p> <p>Required components:</p> <p>C13083_PF-SOCKET</p> <p>C13723_MIRELLA-RZL</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-6 (12x13)</p> <p>FWHM / FWTM 23.0° / 57.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 3.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13083_PF-SOCKET</p>		

#### OPTICAL RESULTS (MEASURED):

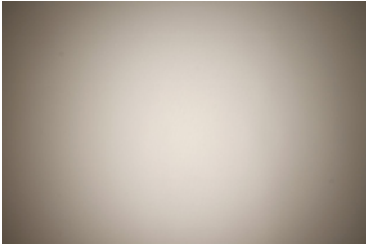
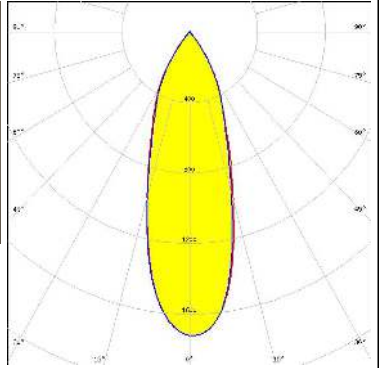

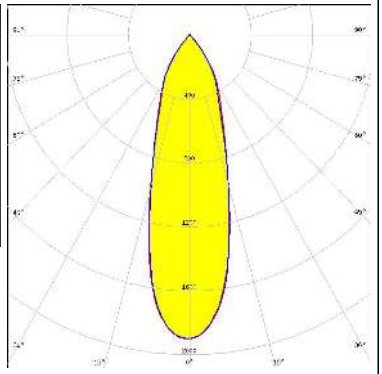
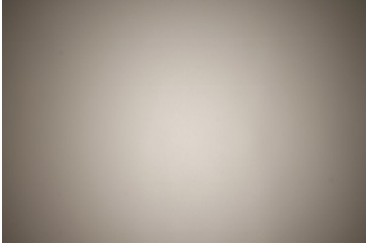
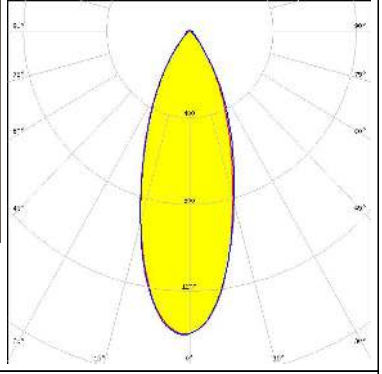
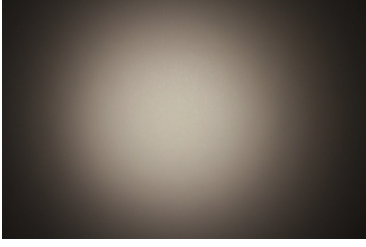
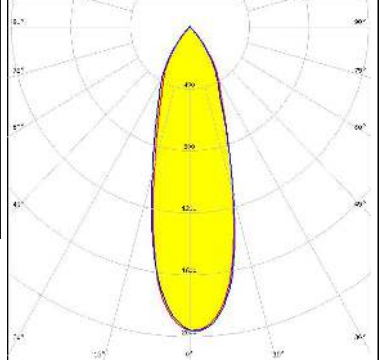
<p><b>LUMINUS</b></p> <p>LED CXM-7 (13x13)            FWHM / FWTM 26.0° / 69.0°            Efficiency 86 %            Peak intensity 2.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-9 (13.5x13.5)            FWHM / FWTM 35.0° / 72.0°            Efficiency 84 %            Peak intensity 1.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C12479_MIRELLA-DL</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-9 (13.5x13.5)            FWHM / FWTM 30.0° / 74.0°            Efficiency 89 %            Peak intensity 2.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-9 (13.5x13.5)            FWHM / FWTM 33.0° / 72.0°            Efficiency 84 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C13333_MIRELLA-CL</p>		



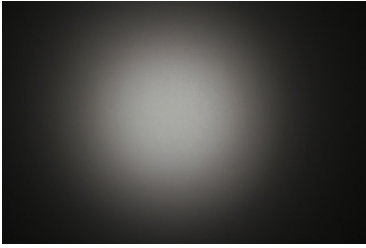
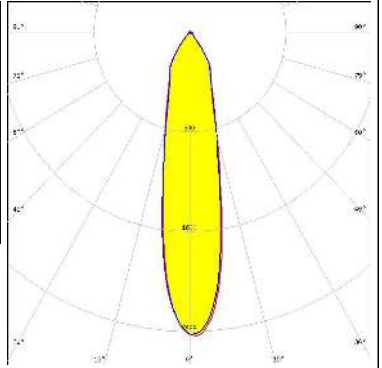

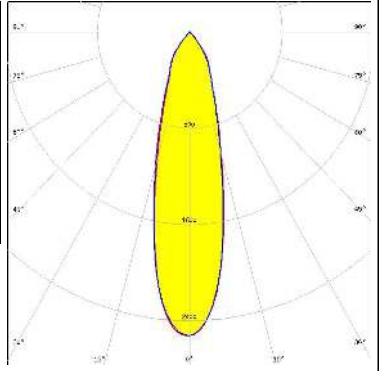
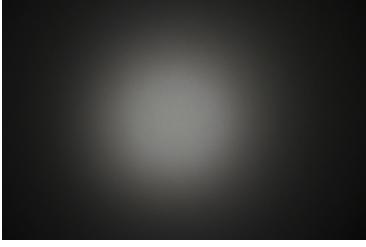
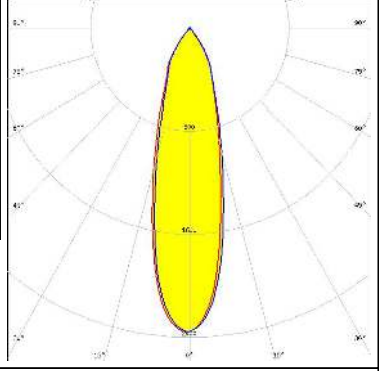

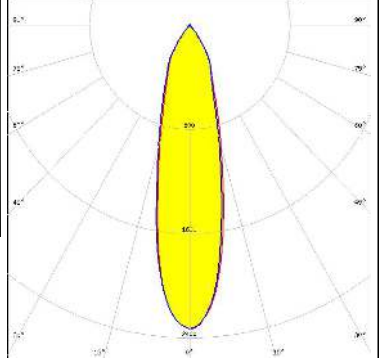
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CxM-9 (13.5x13.5)</p> <p>FWHM / FWTM 38.0° / 76.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13083_PF-SOCKET C13723_MIRELLA-RZL</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 35.0° / 75.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 1.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14037_PF-NSX-SOCKET</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 34.0° / 71.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13333_MIRELLA-CL IDEAL: 50-2100NC +50-2100MR</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 35.0° / 71.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL IDEAL: 50-2100NC +50-2100MR</p>		

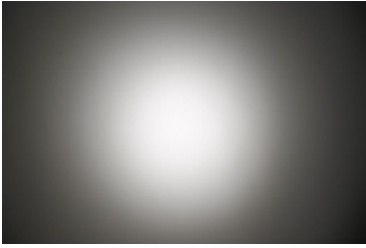
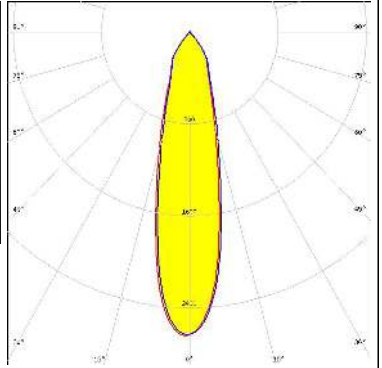
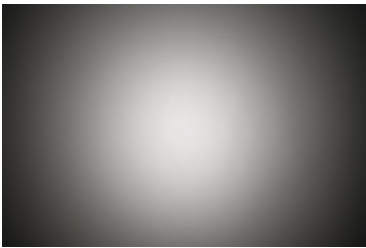
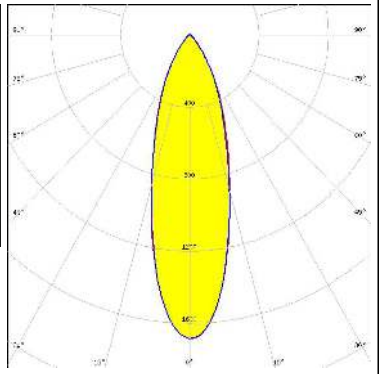
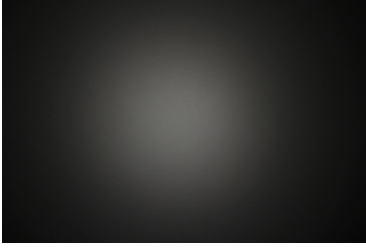
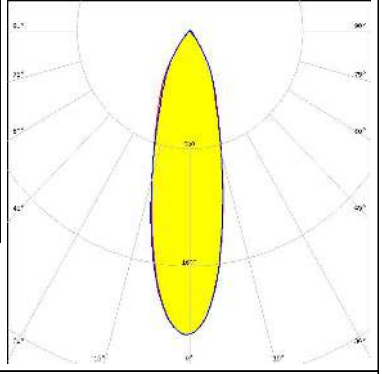

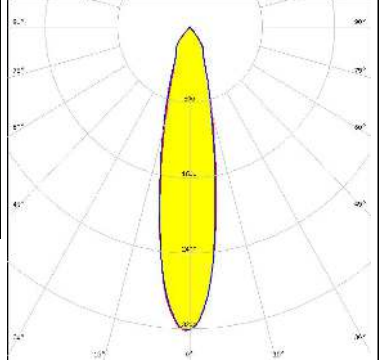
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 33.0° / 70.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 1.7 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13709_PF-SOCKET-VERO13-18</p> <p>C13333_MIRELLA-CL</p> <p>Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 31.0° / 73.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13709_PF-SOCKET-VERO13-18</p> <p>Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 37.0° / 73.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13709_PF-SOCKET-VERO13-18</p> <p>C12479_MIRELLA-DL</p> <p>Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 31.0° / 74.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>IDEAL: 50-2100NC +50-2100MR</p>		


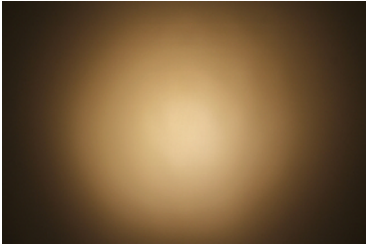


#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 23.0° / 68.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 2.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: IDEAL: 50-2100NC +50-2100MR</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 27.0° / 69.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 2.5 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14037_PF-NSX-SOCKET</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 27.0° / 67.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 2.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13333_MIRELLA-CL IDEAL: 50-2100NC +50-2100MR</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 25.0° / 66.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity 2.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 C13333_MIRELLA-CL Bender Wirth: 438 Typ L1</p>		



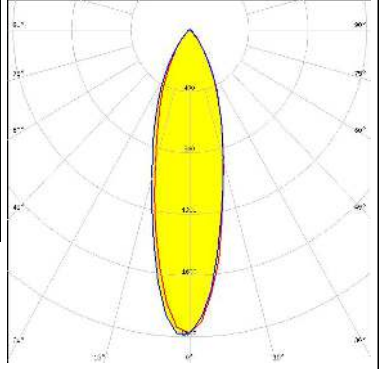
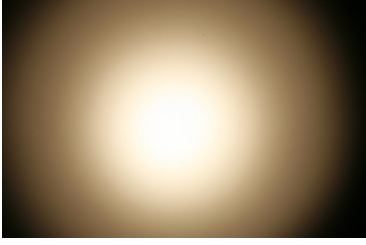
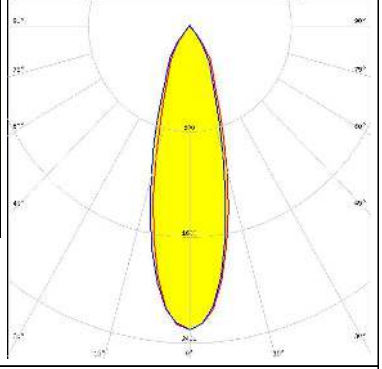
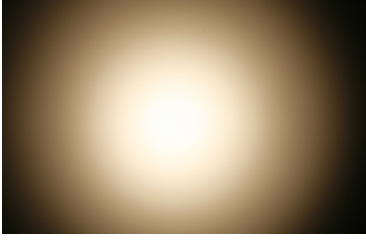
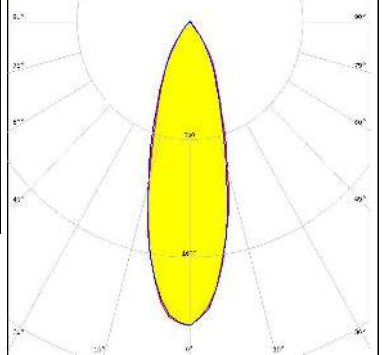
#### OPTICAL RESULTS (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 24.0° / 68.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity 2.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 31.0° / 69.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 1.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 C12479_MIRELLA-DL Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 28.0° / 67.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 2.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12479_MIRELLA-DL IDEAL: 50-2100NC +50-2100MR</p>		
<p><b>NICHIA</b></p> <p>LED NSCxL036A</p> <p>FWHM / FWTM 22.0° / 55.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 3.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14037_PF-NSX-SOCKET</p>		



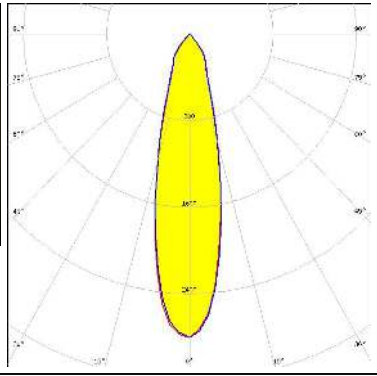

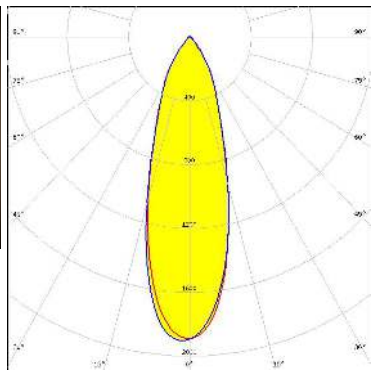

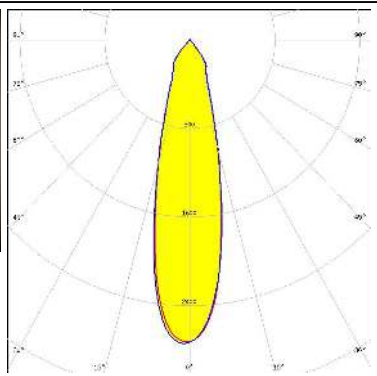


#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S10 FWHM / FWTM 21.0° / 60.0° Efficiency 87 % Peak intensity 3.4 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13083_PF-SOCKET</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S10 FWHM / FWTM 25.0° / 70.0° Efficiency 82 % Peak intensity 2.8 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13083_PF-SOCKET C13333_MIRELLA-CL</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S10 FWHM / FWTM 33.0° / 73.0° Efficiency 81 % Peak intensity 1.8 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13083_PF-SOCKET C13723_MIRELLA-RZL</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Duris S10 FWHM / FWTM 31.0° / 72.0° Efficiency 80 % Peak intensity 1.9 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13083_PF-SOCKET C12479_MIRELLA-DL</p>	

#### OPTICAL RESULTS (MEASURED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED                    OSTAR Stage (S2WP)</p> <p>FWHM / FWTM      27.0° / 70.0°</p> <p>Efficiency            83 %</p> <p>Peak intensity      2.2 cd/lm</p> <p>LEDs/each optic    1</p> <p>Light colour        White</p> <p>Required components:</p> <p>    C13083_PF-SOCKET</p> <p>    C13723_MIRELLA-RZL</p>		
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED                    Ostar-SMT RGB</p> <p>FWHM / FWTM      29.0° / 69.0°</p> <p>Efficiency            80 %</p> <p>Peak intensity      2 cd/lm</p> <p>LEDs/each optic    1</p> <p>Light colour        White</p> <p>Required components:</p> <p>    C13083_PF-SOCKET</p> <p>    C13723_MIRELLA-RZL</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED                    ZC4/6</p> <p>FWHM / FWTM      31.0° / 69.0°</p> <p>Efficiency            82 %</p> <p>Peak intensity      2.3 cd/lm</p> <p>LEDs/each optic    1</p> <p>Light colour        White</p> <p>Required components:</p> <p>    C13083_PF-SOCKET</p> <p>    C13333_MIRELLA-CL</p>		
<p><b>SEOUL SEMICONDUCTOR</b></p> <p>LED                    ZC4/6</p> <p>FWHM / FWTM      32.0° / 70.0°</p> <p>Efficiency            83 %</p> <p>Peak intensity      2.1 cd/lm</p> <p>LEDs/each optic    1</p> <p>Light colour        White</p> <p>Required components:</p> <p>    C13083_PF-SOCKET</p> <p>    C12479_MIRELLA-DL</p>		

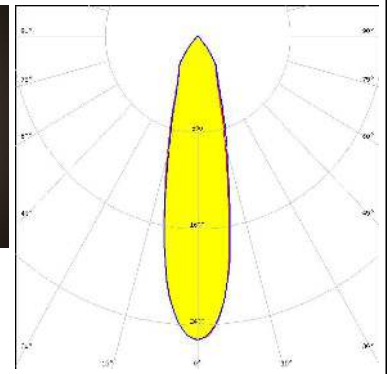
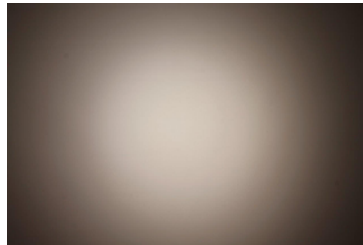
#### OPTICAL RESULTS (MEASURED):

<p> <b>SEOUL SEMICONDUCTOR</b></p> <p>LED ZC4/6            FWHM / FWTM 26.0° / 66.0°            Efficiency 87 %            Peak intensity 2.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		
<p><b>SHARP</b></p> <p>LED Mini Zenigata (GW6BM)            FWHM / FWTM 30.0° / 70.0°            Efficiency 83 %            Peak intensity 1.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C12479_MIRELLA-DL</p>		
<p><b>SHARP</b></p> <p>LED Mini Zenigata (GW6BM)            FWHM / FWTM 25.0° / 73.0°            Efficiency 90 %            Peak intensity 2.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET</p>		
<p><b>SHARP</b></p> <p>LED Mini Zenigata (GW6BM)            FWHM / FWTM 28.0° / 71.0°            Efficiency 83 %            Peak intensity 2.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13083_PF-SOCKET            C13333_MIRELLA-CL</p>		

### OPTICAL RESULTS (MEASURED):

#### XICATO

LED XTM - 9mm LES  
FWHM / FWTM 25.0° / 69.0°  
Efficiency 82 %  
Peak intensity 2.5 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14636\_XTM-PF-ADAPTER





#### OPTICAL RESULTS (SIMULATED):

##### LUMILEDS

LED LUXEON CoB Compact  
FWHM / FWTM 26.0° / 70.0°  
Efficiency 83 %  
Peak intensity 1.1 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13761\_PF-SOCKET-CXA15  
C12479\_MIRELLA-DL

##### LUMILEDS

LED LUXEON CoB Compact  
FWHM / FWTM 19.0° / 55.0°  
Efficiency 81 %  
Peak intensity 3.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
C13333\_MIRELLA-CL  
Bender Wirth: 452 Typ L1

##### LUMILEDS

LED LUXEON CoB Compact  
FWHM / FWTM 17.0° / 45.0°  
Efficiency 86 %  
Peak intensity 4.2 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 452 Typ L1

##### LUMILEDS

LED LUXEON CoB Compact  
FWHM / FWTM 23.0° / 72.0°  
Efficiency 83 %  
Peak intensity 2.8 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13761\_PF-SOCKET-CXA15  
C13333\_MIRELLA-CL

#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMILEDS</b></p> <p>LED: LUXEON CoB Compact</p> <p>FWHM / FWTM: 20.0° / 58.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 3.6 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components: C13761_PF-SOCKET-CXA15</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON CoB Compact</p> <p>FWHM / FWTM: 25.0° / 65.0°</p> <p>Efficiency: 79 %</p> <p>Peak intensity: 2.2 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 C12479_MIRELLA-DL Bender Wirth: 452 Typ L1</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON K4</p> <p>FWHM / FWTM: 30.0° / 78.0°</p> <p>Efficiency: 88 %</p> <p>Peak intensity: 2.1 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components: C13761_PF-SOCKET-CXA15</p>	
<p><b>LUMILEDS</b></p> <p>LED: LUXEON K4</p> <p>FWHM / FWTM: 44.0° / 88.0°</p> <p>Efficiency: 83 %</p> <p>Peak intensity: 1.1 cd/lm</p> <p>LEDs/each optic: 1</p> <p>Light colour: White</p> <p>Required components: C13761_PF-SOCKET-CXA15 C12479_MIRELLA-DL</p>	

#### OPTICAL RESULTS (SIMULATED):



LED CxM-14 (19x19)  
FWHM / FWTM 42.0° / 76.0°  
Efficiency 70 %  
Peak intensity 1.2 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
C12479\_MIRELLA-DL  
Bender Wirth: 433 Typ L1



LED CxM-14 (19x19)  
FWHM / FWTM 41.0° / 75.0°  
Efficiency 71 %  
Peak intensity 1.2 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
C13333\_MIRELLA-CL  
Bender Wirth: 433 Typ L1



LED CxM-14 (19x19)  
FWHM / FWTM 38.0° / 78.0°  
Efficiency 75 %  
Peak intensity 1.4 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18



LED CxM-9 (13.5x13.5)  
FWHM / FWTM 33.0° / 70.0°  
Efficiency 76 %  
Peak intensity 1.6 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
C12479\_MIRELLA-DL  
Bender Wirth: 434 Typ L1

#### OPTICAL RESULTS (SIMULATED):



LED CxM-9 (13.5x13.5)  
FWHM / FWTM 28.0° / 68.0°  
Efficiency 79 %  
Peak intensity 2.1 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13709\_PF-SOCKET-VERO13-18  
C13333\_MIRELLA-CL  
Bender Wirth: 434 Typ L1



LED CxM-9 (13.5x13.5)  
FWHM / FWTM 26.0° / 69.0°  
Efficiency 84 %  
Peak intensity 2.5 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 434 Typ L1



LED COB S-Type (LES 7)  
FWHM / FWTM 19.0° / 55.0°  
Efficiency 81 %  
Peak intensity 3.6 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13709\_PF-SOCKET-VERO13-18  
C13333\_MIRELLA-CL  
Bender Wirth: 452 Typ L1

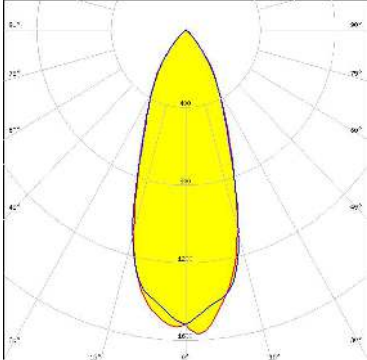
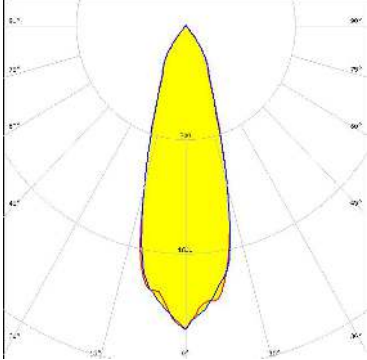
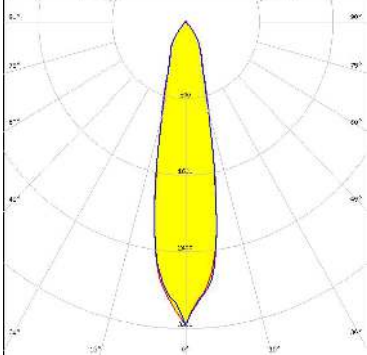


LED COB S-Type (LES 7)  
FWHM / FWTM 17.0° / 45.0°  
Efficiency 86 %  
Peak intensity 4.2 cd/lm  
LEDs/each optic 1  
Light colour White

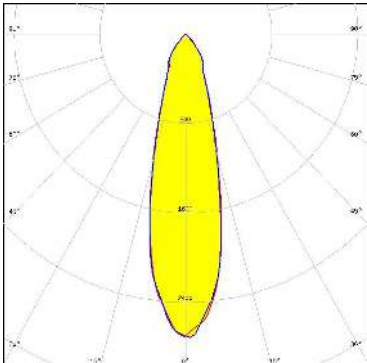
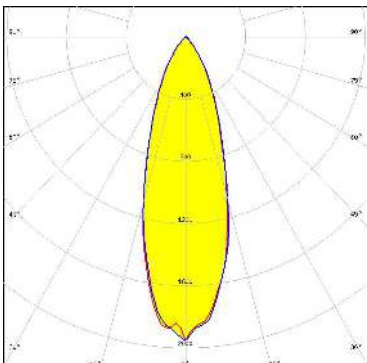
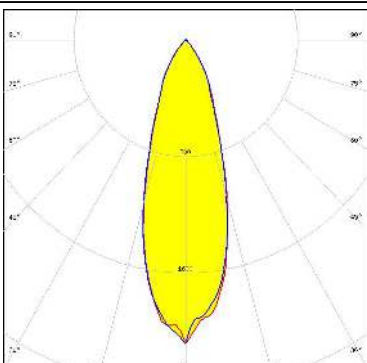
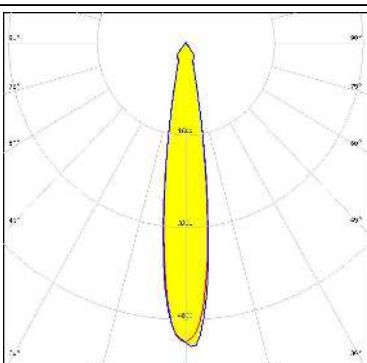
Required components:

C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 452 Typ L1

#### OPTICAL RESULTS (SIMULATED):

<p><b>NICHIA</b></p> <p>LED COB S-Type (LES 7)</p> <p>FWHM / FWTM 25.0° / 65.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 2.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 C12479_MIRELLA-DL Bender Wirth: 452 Typ L1</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S15</p> <p>FWHM / FWTM 38.0° / 79.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 433 Typ L1</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S9</p> <p>FWHM / FWTM 32.0° / 70.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 2.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13083_PF-SOCKET C13333_MIRELLA-CL</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED Soleriq S9</p> <p>FWHM / FWTM 23.0° / 60.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 3.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 434 Typ L1</p>	

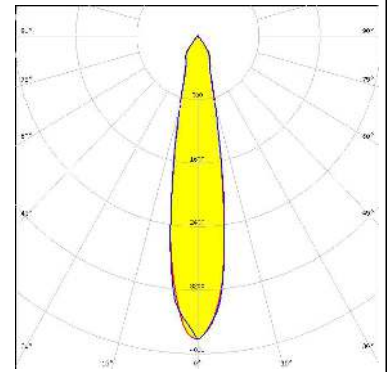
#### OPTICAL RESULTS (SIMULATED):

<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: Soleriq S9            FWHM / FWTM: 27.0° / 68.0°            Efficiency: 91 %            Peak intensity: 2.7 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C13083_PF-SOCKET</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: Soleriq S9            FWHM / FWTM: 32.0° / 70.0°            Efficiency: 86 %            Peak intensity: 2 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C13083_PF-SOCKET            C13723_MIRELLA-RZL</p>	
<p><b>OSRAM</b> Opto Semiconductors</p> <p>LED: Soleriq S9            FWHM / FWTM: 32.0° / 69.0°            Efficiency: 85 %            Peak intensity: 2.1 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C13083_PF-SOCKET            C12479_MIRELLA-DL</p>	
<p><b>SAMSUNG</b></p> <p>LED: LC010C            FWHM / FWTM: 17.0° / 35.0°            Efficiency: 87 %            Peak intensity: 5.3 cd/lm            LEDs/each optic: 1            Light colour: White            Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 479 Typ L1</p>	

#### OPTICAL RESULTS (SIMULATED):

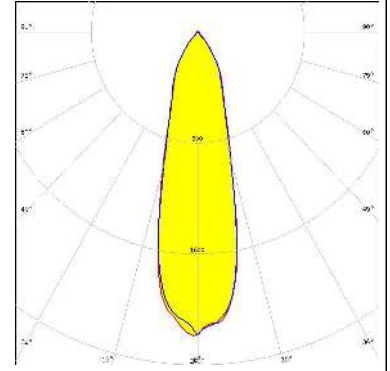
### SAMSUNG

LED LC020C  
 FWHM / FWTM 20.0° / 48.0°  
 Efficiency 86 %  
 Peak intensity 3.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 479 Typ L1



### SAMSUNG

LED LC040C  
 FWHM / FWTM 28.0° / 70.0°  
 Efficiency 84 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 480 Typ L1



SEOUL SEMICONDUCTOR


LED ZC4/6  
 FWHM / FWTM 28.0° / 68.0°  
 Efficiency 79 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 C13333\_MIRELLA-CL  
 Bender Wirth: 434 Typ L1



SEOUL SEMICONDUCTOR

LED ZC4/6  
 FWHM / FWTM 26.0° / 69.0°  
 Efficiency 84 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 434 Typ L1

## OPTICAL RESULTS (SIMULATED):

	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	33.0° / 70.0°
Efficiency	76 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13709_PF-SOCKET-VERO13-18	
C12479_MIRELLA-DL	
Bender Wirth: 434 Typ L1	



#### GENERAL INFORMATION:

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

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

#### MATERIALS:

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

#### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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