

## LENA-S

~11° spot beam

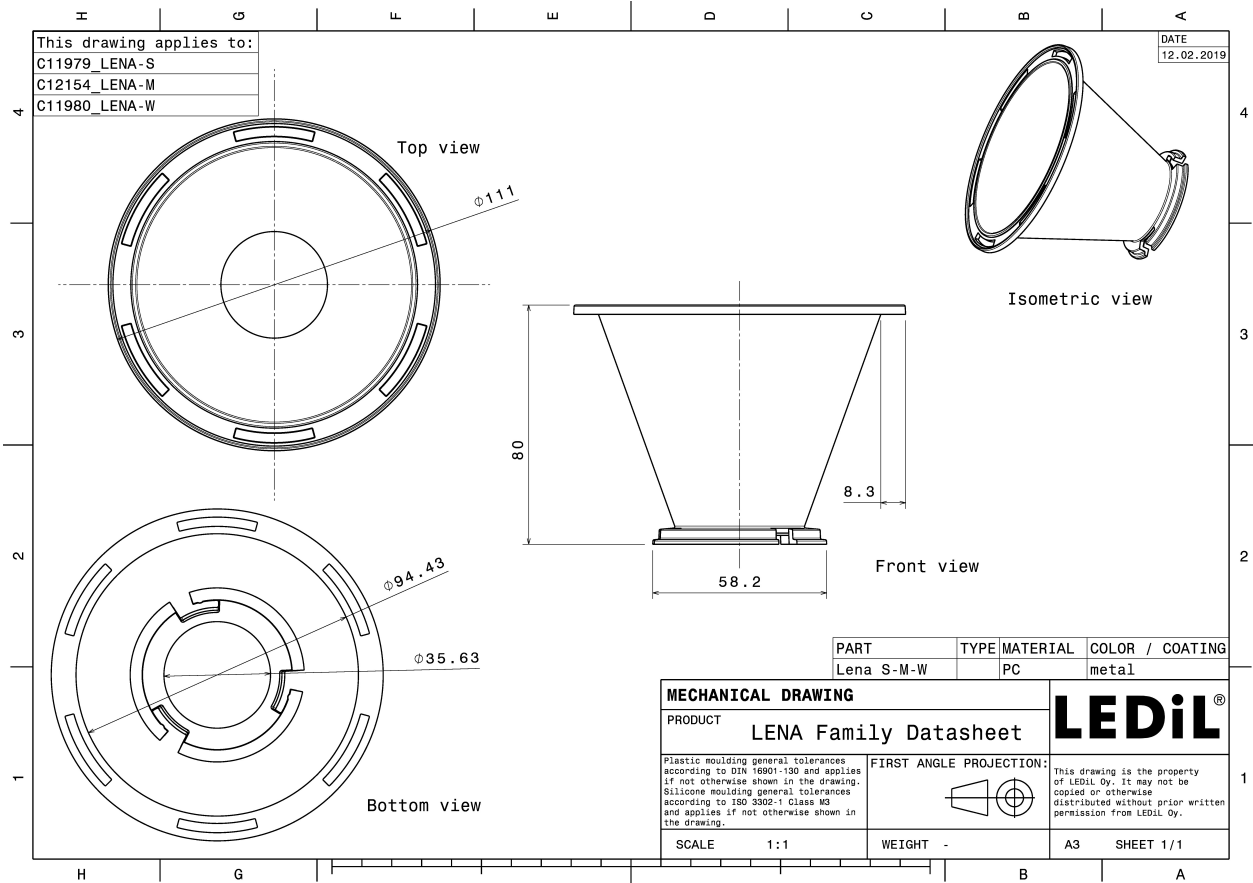
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 111.0 mm
Height	80 mm
Fastening	socket
Colour	metal
Box size	400 x 280 x 380 mm
Box weight	3.8 kg
Quantity in Box	60 pcs
ROHS compliant	yes ⓘ



### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Coating
LENA-S	Reflector	PC	metal	lacquer





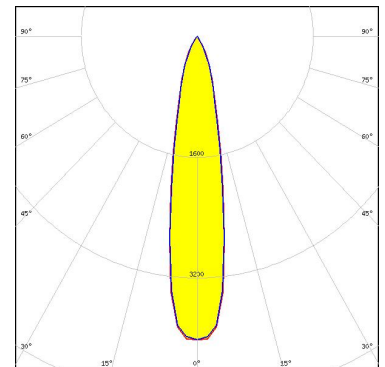
#### PHOTOMETRIC DATA (MEASURED):

bridgelux.

LED BXRA ES Rectangle  
 FWHM 11.0°  
 Efficiency 78 %  
 Peak intensity cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12153\_LENA-STD-BASE-BXRA  
 C11996\_LENA-LENS

bridgelux.

LED BXRA RS  
 FWHM 20.0°  
 Efficiency 80 %  
 Peak intensity cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12229\_LENA-STD-BASE-RS  
 C11996\_LENA-LENS



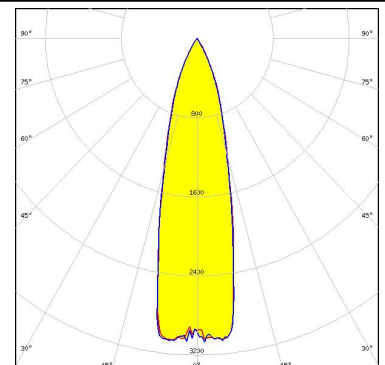
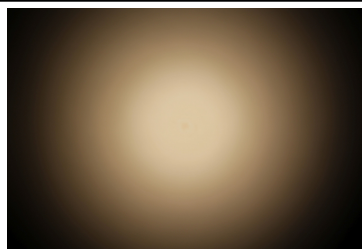
bridgelux.

LED V10 Gen6  
 FWHM 9.0°  
 Efficiency 76 %  
 Peak intensity 12.110 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13186\_LENA-STD-BASE-CXA15  
 C11996\_LENA-LENS


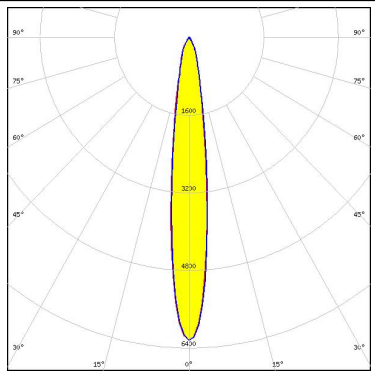

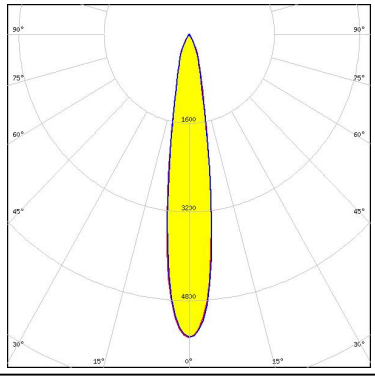

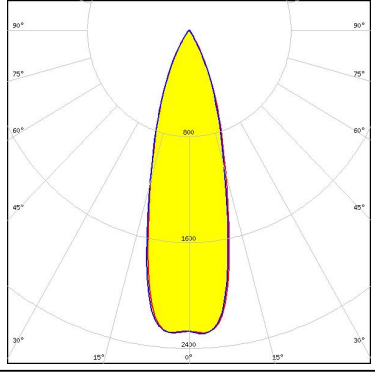

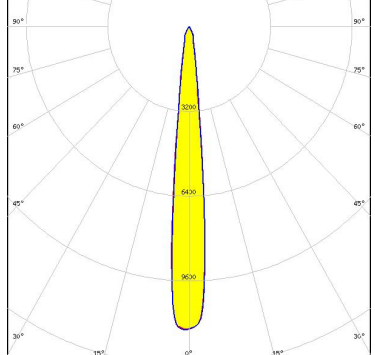


bridgelux.

LED Vero SE 29  
 FWHM 27.0°  
 Efficiency 87 %  
 Peak intensity 3.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C15083\_LENA-STD-BASE-VERO29



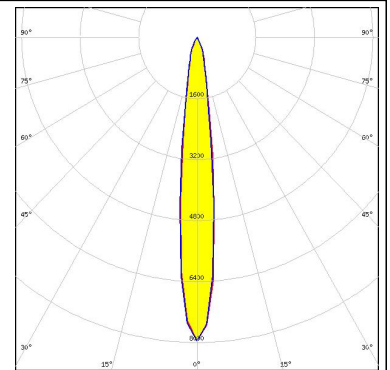
### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED VERO13 FWHM 14.0° Efficiency 83 % Peak intensity 6.250 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p>bridgelux.</p> <p>LED VERO18 FWHM 17.0° Efficiency 83 % Peak intensity 5.500 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p>bridgelux.</p> <p>LED VERO29 FWHM 30.0° Efficiency 80 % Peak intensity 2.300 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29</p>		
<p><b>CITIZEN</b></p> <p>LED CL-L340 FWHM 11.0° Efficiency 86 % Peak intensity 11.450 cd/m LEDs/each optic 1 Light colour White</p> <p>Required components: C11995_LENA-STD-BASE-CL340</p>		

**PHOTOMETRIC DATA (MEASURED):**

## CITIZEN

LED CL-L340  
 FWHM 14.0°  
 Efficiency 79 %  
 Peak intensity 8.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11995\_LENA-STD-BASE-CL340  
 C11996\_LENA-LENS

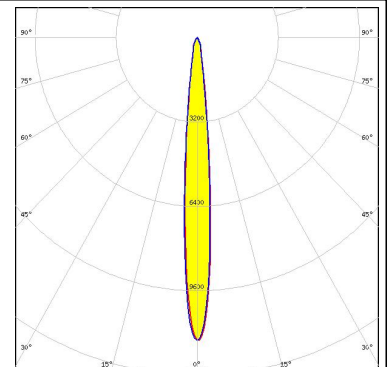
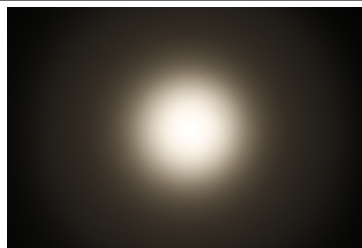


## CITIZEN

LED CL-L340  
 FWHM 11.0°  
 Efficiency 84 %  
 Peak intensity 10.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11995\_LENA-STD-BASE-CL340

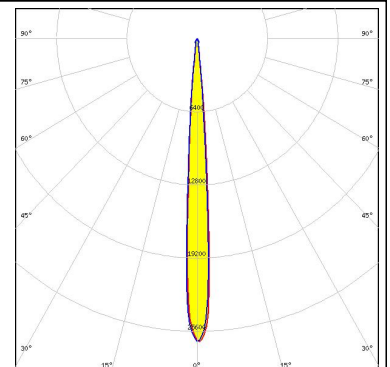
## CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM 10.0°  
 Efficiency 80 %  
 Peak intensity 11.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 434 Typ L1



## CITIZEN

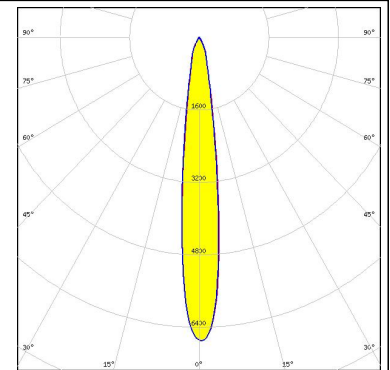
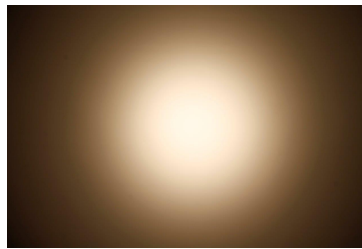
LED CLL02x/CLU02x (LES10)  
 FWHM 8.0°  
 Efficiency 85 %  
 Peak intensity 26.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 434 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

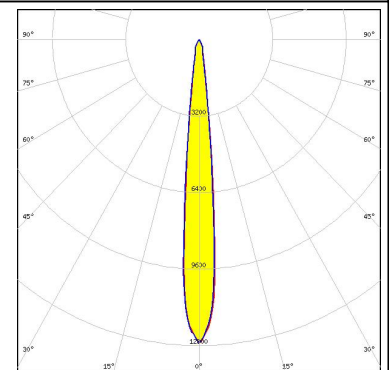
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 14.0°  
 Efficiency 80 %  
 Peak intensity 6.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 433 Typ L1



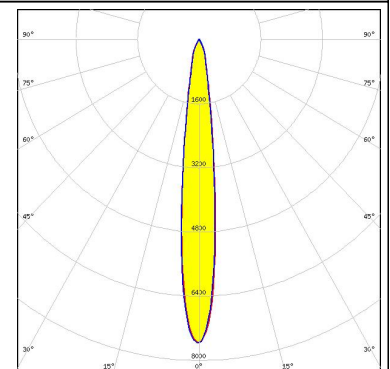
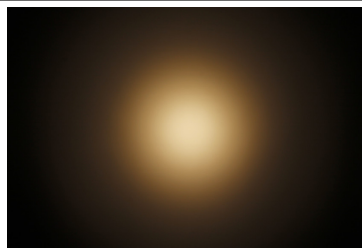
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 11.0°  
 Efficiency 85 %  
 Peak intensity 13.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



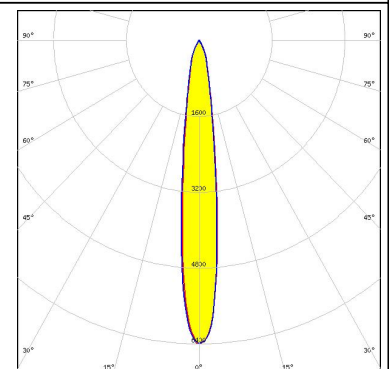
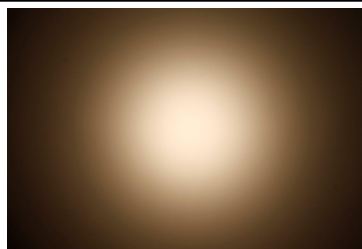
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 13.0°  
 Efficiency 80 %  
 Peak intensity 7.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



#### CITIZEN

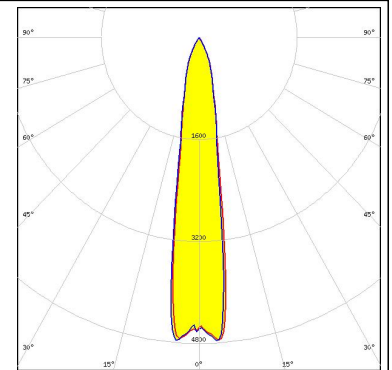
LED CLL03x/CLU03x  
 FWHM 13.0°  
 Efficiency 78 %  
 Peak intensity 6.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8101/G2 + S-8000/11



#### PHOTOMETRIC DATA (MEASURED):

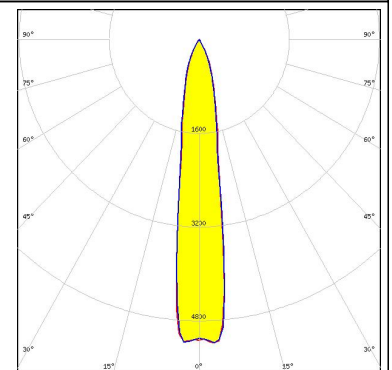
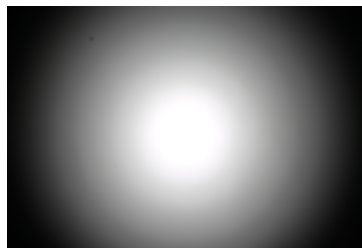
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 17.0°  
 Efficiency 78 %  
 Peak intensity 4.800 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



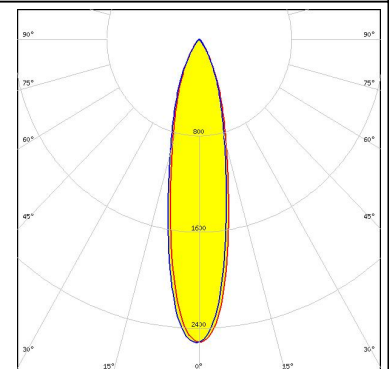
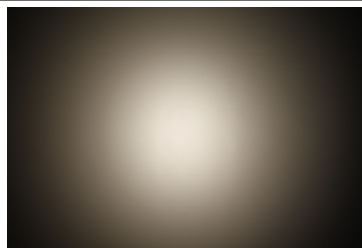
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 16.0°  
 Efficiency 85 %  
 Peak intensity 5.200 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204CT + 50-2100LN



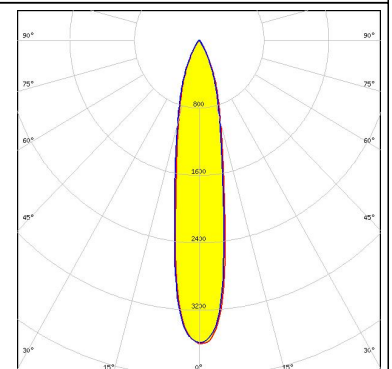
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 23.0°  
 Efficiency 73 %  
 Peak intensity 2.500 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 19.0°  
 Efficiency 81 %  
 Peak intensity 3.600 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204CT + 50-2100LN

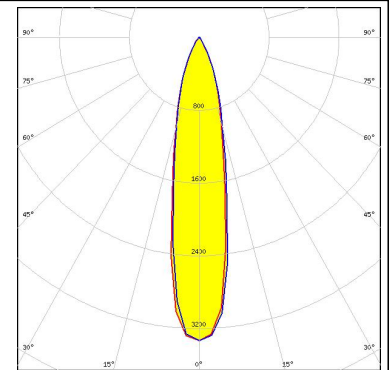
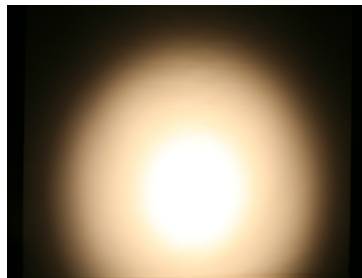




**PHOTOMETRIC DATA (MEASURED):**

## CITIZEN

LED CLL04x/CLU04x  
 FWHM 16.0°  
 Efficiency 79 %  
 Peak intensity 3.820 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



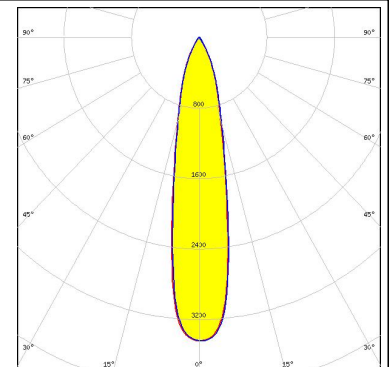
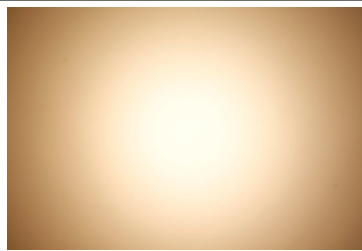
## CITIZEN

LED CLL04x/CLU04x  
 FWHM 15.0°  
 Efficiency 84 %  
 Peak intensity 5.250 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



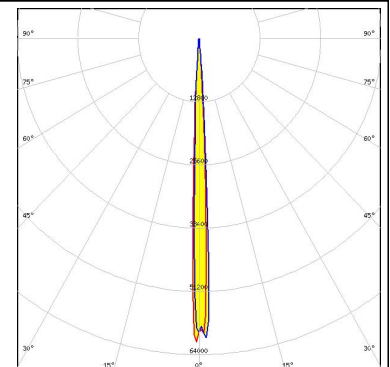
## CITIZEN

LED CLL04x/CLU04x  
 FWHM 21.0°  
 Efficiency 80 %  
 Peak intensity 3.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 431 Typ L3



## CITIZEN

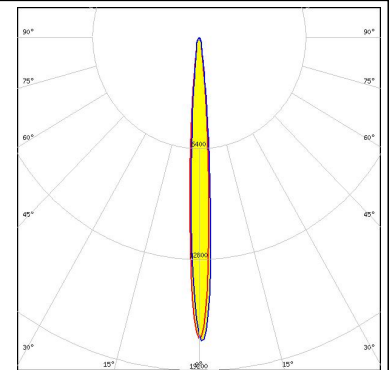
LED CLU700/701/702  
 FWHM 5.0°  
 Efficiency 87 %  
 Peak intensity 61.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 434 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

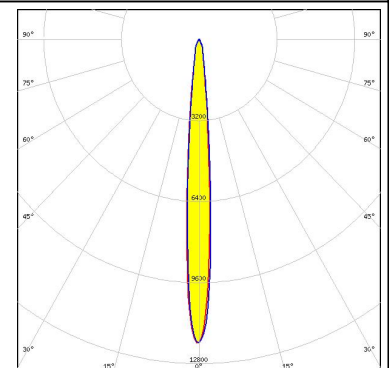
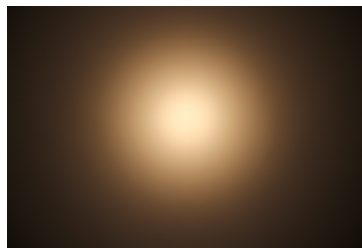
#### CITIZEN

LED CLU700/701/702  
 FWHM 8.0°  
 Efficiency 80 %  
 Peak intensity 17.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 434 Typ L1



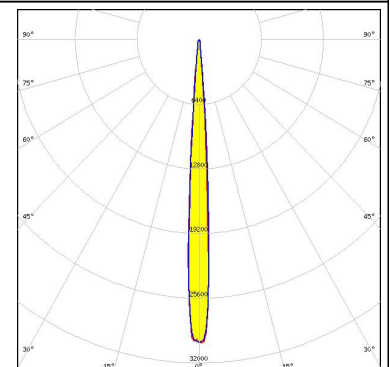
#### CITIZEN

LED CLU710/711  
 FWHM 9.0°  
 Efficiency 83 %  
 Peak intensity 12.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



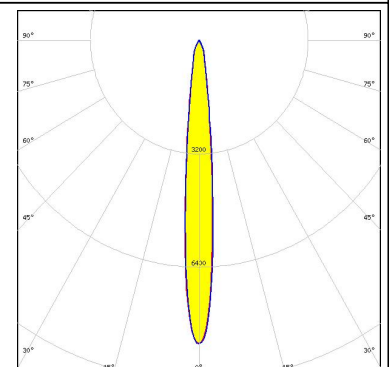
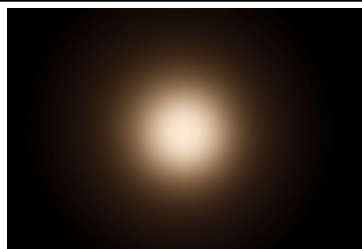
#### CITIZEN

LED CLU710/711  
 FWHM 7.0°  
 Efficiency 90 %  
 Peak intensity 30.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



#### CITIZEN

LED CLU720/721  
 FWHM 11.0°  
 Efficiency 79 %  
 Peak intensity 8.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS

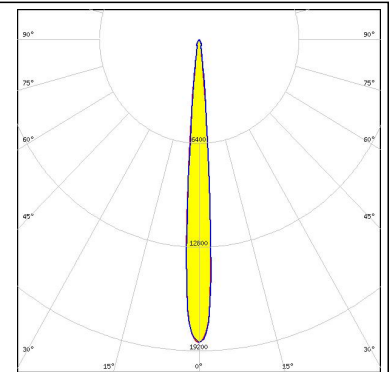




#### PHOTOMETRIC DATA (MEASURED):

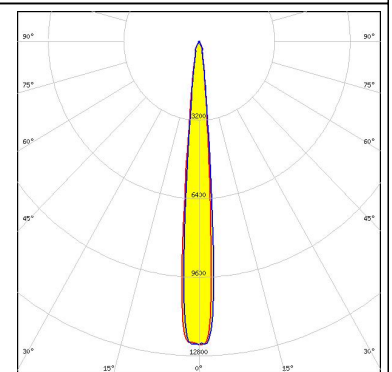
#### CITIZEN

LED CLU720/721  
 FWHM 9.0°  
 Efficiency 85 %  
 Peak intensity 18.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



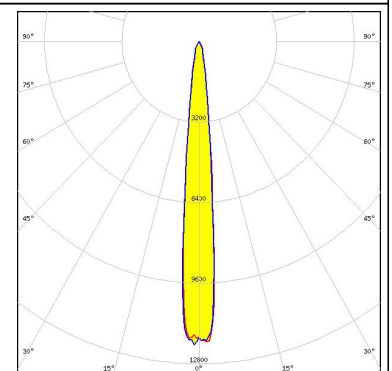
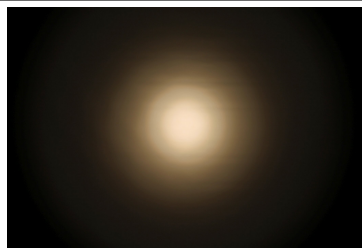
#### CITIZEN

LED CLU730/731  
 FWHM 10.0°  
 Efficiency 82 %  
 Peak intensity 12.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



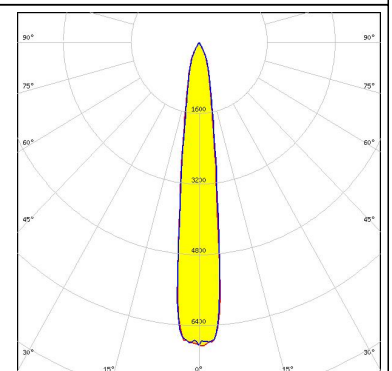
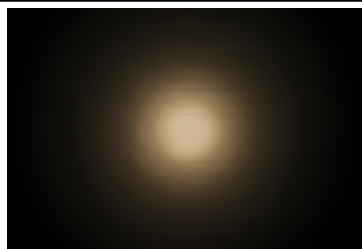
#### CREE

LED CMA1840  
 FWHM 11.0°  
 Efficiency 88 %  
 Peak intensity 12.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14146\_LENA-STD-BASE-CXA18



#### CREE

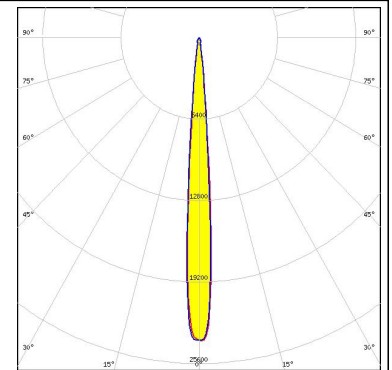
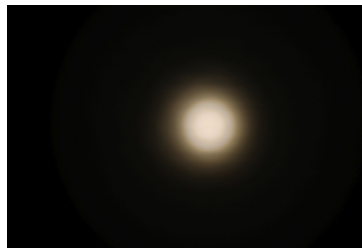
LED CMA2550  
 FWHM 14.0°  
 Efficiency 86 %  
 Peak intensity 6.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13324\_LENA-STD-BASE-CXA25



#### PHOTOMETRIC DATA (MEASURED):

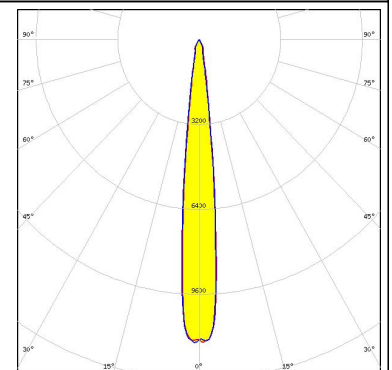
**CREE** 

LED CMT14xx  
 FWHM 8.0°  
 Efficiency 88 %  
 Peak intensity 24.050 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 434 Typ L1



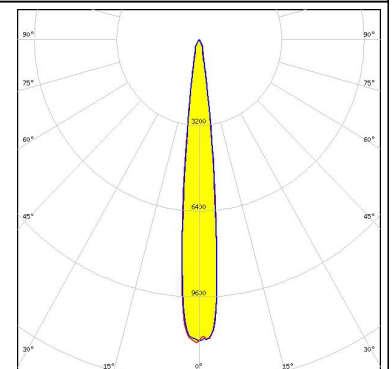
**CREE** 

LED CMT19xx  
 FWHM 12.0°  
 Efficiency 88 %  
 Peak intensity 11.429 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



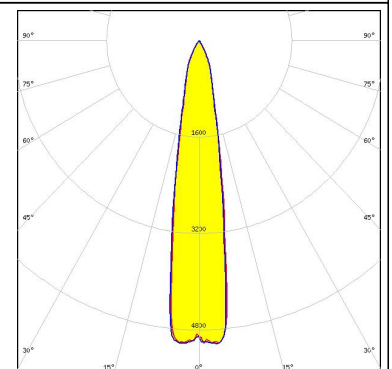
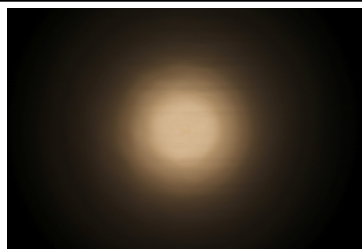
**CREE** 

LED CMT19xx  
 FWHM 12.0°  
 Efficiency 87 %  
 Peak intensity 11.312 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 477 Typ L1



**CREE** 

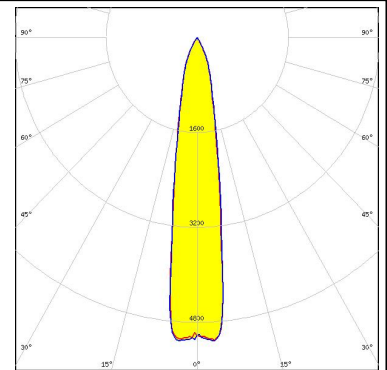
LED CMT28xx  
 FWHM 19.0°  
 Efficiency 87 %  
 Peak intensity 5.050 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 471 Typ L3



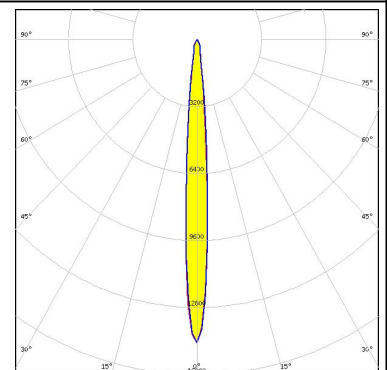
#### PHOTOMETRIC DATA (MEASURED):



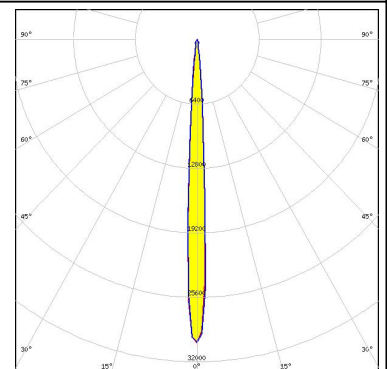
LED CMT28xx  
 FWHM 18.0°  
 Efficiency 87 %  
 Peak intensity 5.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



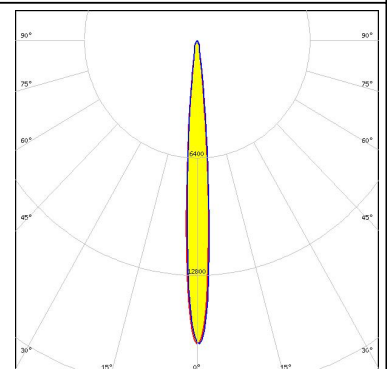
LED CXA/B 15xx  
 FWHM 8.0°  
 Efficiency 81 %  
 Peak intensity 15.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13186\_LENA-STD-BASE-CXA15  
 C11996\_LENA-LENS



LED CXA/B 15xx  
 FWHM 7.0°  
 Efficiency 87 %  
 Peak intensity 30.120 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13186\_LENA-STD-BASE-CXA15



LED CXA/B 15xx  
 FWHM 8.0°  
 Efficiency 80 %  
 Peak intensity 16.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 441 Typ L1

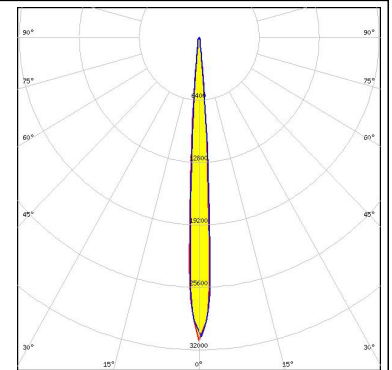


#### PHOTOMETRIC DATA (MEASURED):

**CREE** 

LED CXA/B 15xx  
 FWHM 7.0°  
 Efficiency 86 %  
 Peak intensity 31.300 cd/lm  
 LEDs/each optic 1  
 Light colour White

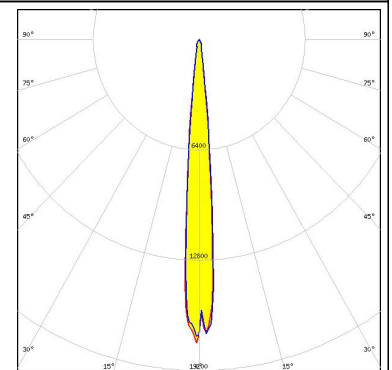
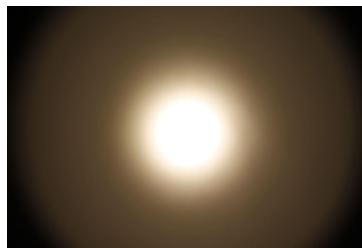
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 441 Typ L1



**CREE** 

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 10.0°  
 Efficiency 87 %  
 Peak intensity 17.600 cd/lm  
 LEDs/each optic 1  
 Light colour White

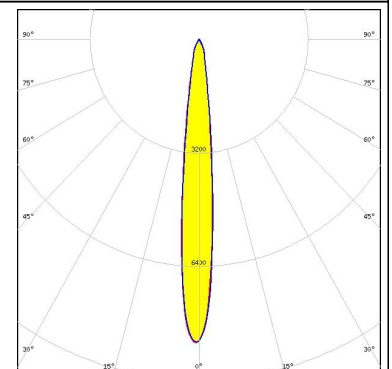
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1



**CREE** 

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 12.0°  
 Efficiency 82 %  
 Peak intensity 8.600 cd/lm  
 LEDs/each optic 1  
 Light colour White

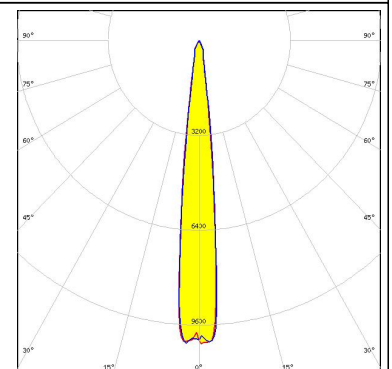
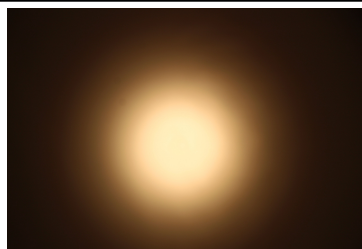
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 437 Typ L1



**CREE** 

LED CXA/B 1830  
 FWHM 12.0°  
 Efficiency 82 %  
 Peak intensity 10.300 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C14169\_LENA-CLEAR-LENS  
 Bender Wirth: 437 Typ L1



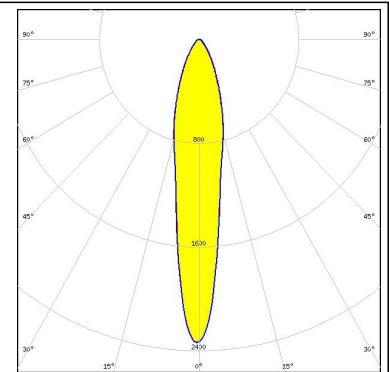
#### PHOTOMETRIC DATA (MEASURED):

**CREE** 

LED CXA/B 1830  
 FWHM 18.0°  
 Efficiency 75 %  
 Peak intensity 2.300 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18  
 C12231\_LENA-FRESNEL  
 Bender Wirth: 437 Typ L1

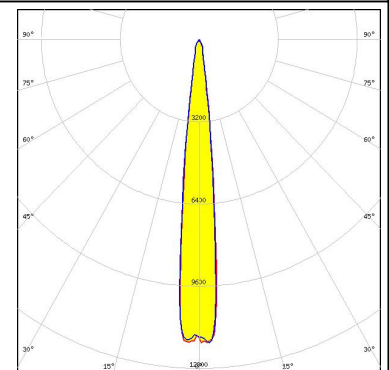


**CREE** 

LED CXA/B 1830  
 FWHM 12.0°  
 Efficiency 87 %  
 Peak intensity 11.900 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1

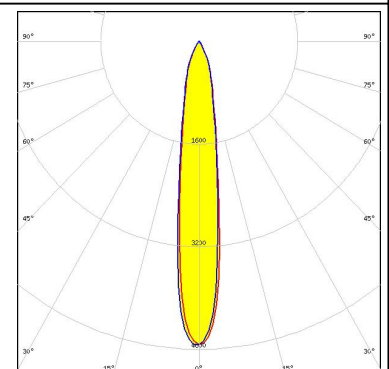
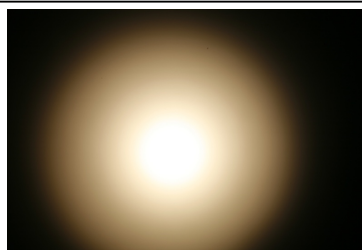


**CREE** 

LED CXA/B 25xx  
 FWHM 13.0°  
 Efficiency 79 %  
 Peak intensity 5.900 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13324\_LENA-STD-BASE-CXA25  
 C11996\_LENA-LENS

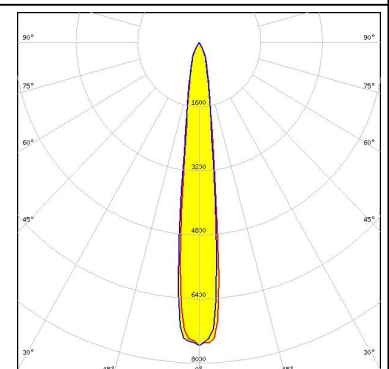


**CREE** 

LED CXA/B 25xx  
 FWHM 13.0°  
 Efficiency 84 %  
 Peak intensity 8.000 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13324\_LENA-STD-BASE-CXA25

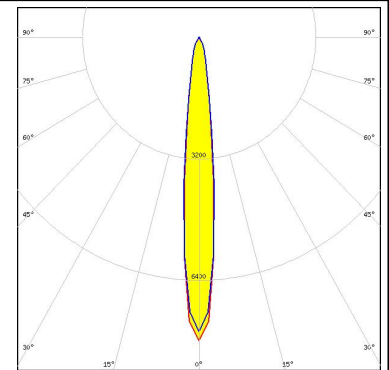




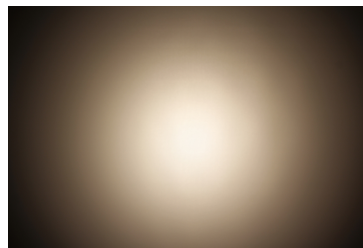
#### PHOTOMETRIC DATA (MEASURED):



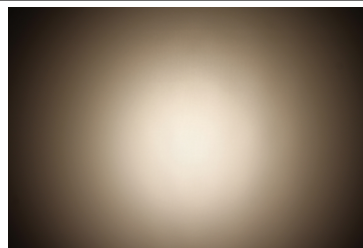
LED CXA2011  
 FWHM 11.0°  
 Efficiency 80 %  
 Peak intensity cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12105\_LENA-STD-BASE-CXA20  
 C11996\_LENA-LENS



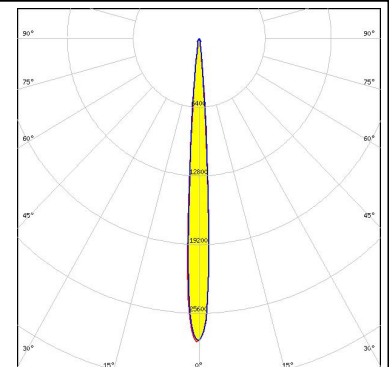
LED CHI3030 19W  
 FWHM 20.0°  
 Efficiency 86 %  
 Peak intensity 4.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 468 Typ L3



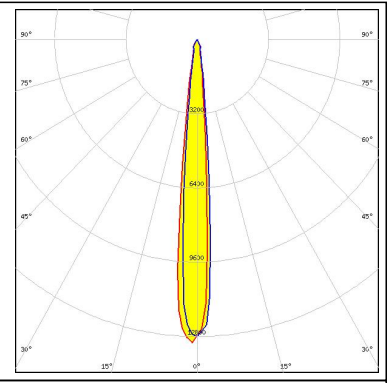
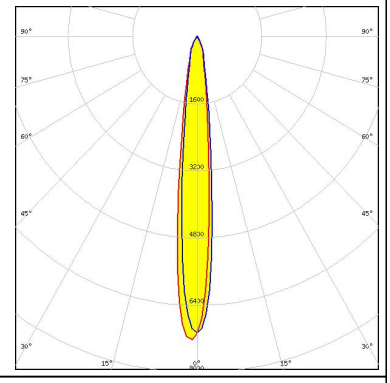

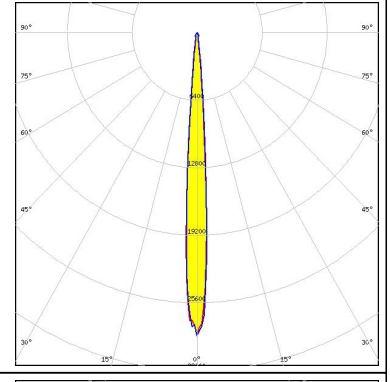

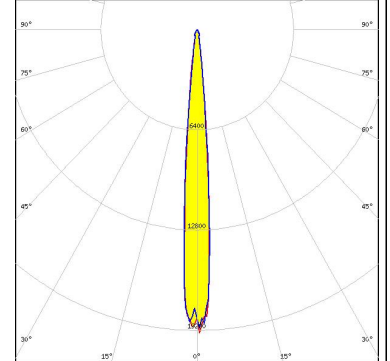
LED CHI3030 29W  
 FWHM 25.0°  
 Efficiency 80 %  
 Peak intensity 2.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 468 Typ L3



LED LUXEON CoB 1202/1203  
 FWHM 7.0°  
 Efficiency 87 %  
 Peak intensity 28.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 438 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

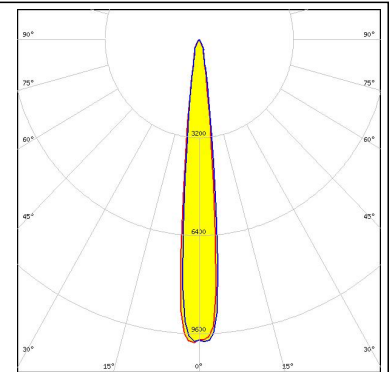
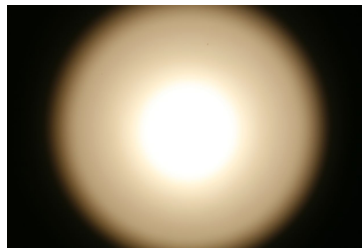
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM 10.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 13.100 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM 12.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 7.300 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM 7.5°</p> <p>Efficiency 88 %</p> <p>Peak intensity 28.800 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C11981_LENA-STD-BASE-COB-L110</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM 9.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 19.200 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C11981_LENA-STD-BASE-COB-L110</p>		



#### PHOTOMETRIC DATA (MEASURED):

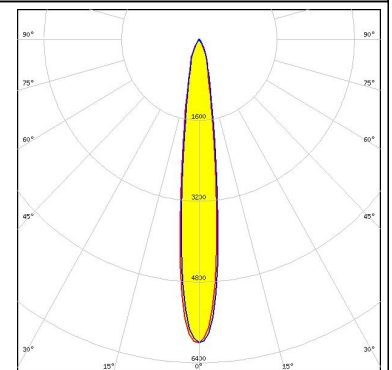
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 12.0°  
 Efficiency 84 %  
 Peak intensity 9.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ



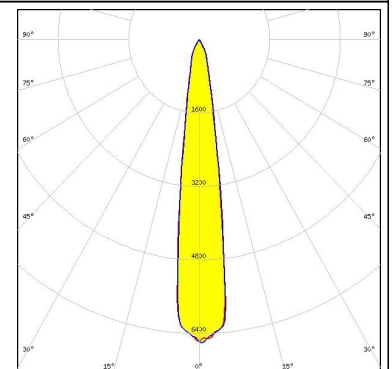
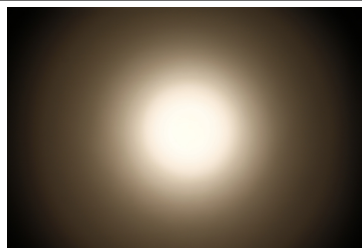
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 14.0°  
 Efficiency 78 %  
 Peak intensity 6.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



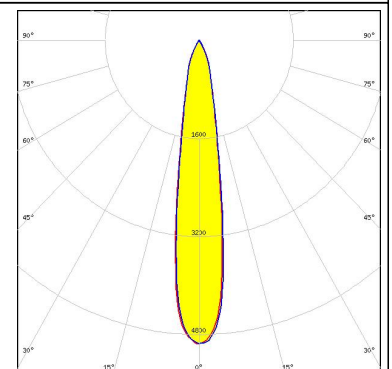
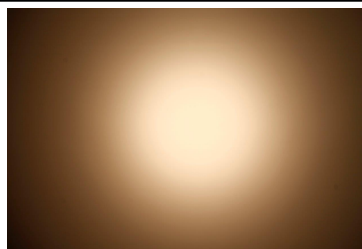
#### LUMILEDS

LED LUXEON CoB 1211  
 FWHM 16.0°  
 Efficiency 85 %  
 Peak intensity 6.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 431 Typ L3



#### LUMILEDS

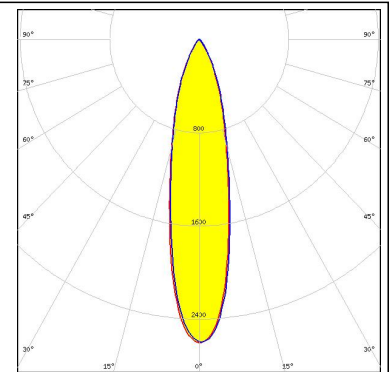
LED LUXEON CoB 1211  
 FWHM 17.0°  
 Efficiency 80 %  
 Peak intensity 5.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 431 Typ L3



#### PHOTOMETRIC DATA (MEASURED):

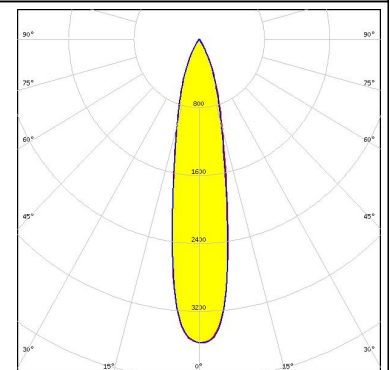
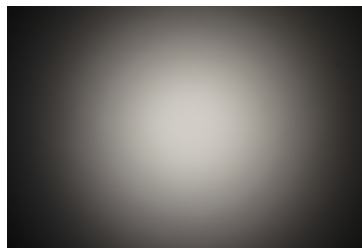
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 23.0°  
 Efficiency 74 %  
 Peak intensity 2.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



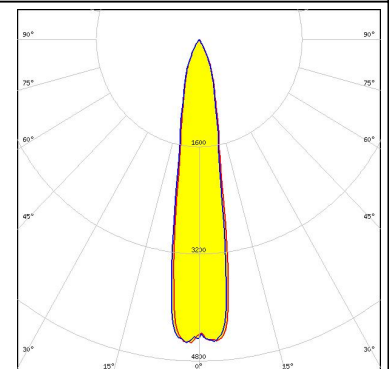
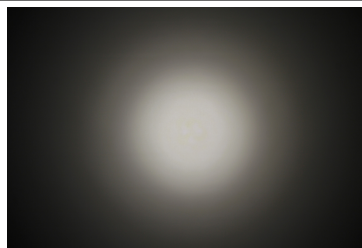
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 21.0°  
 Efficiency 80 %  
 Peak intensity 3.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



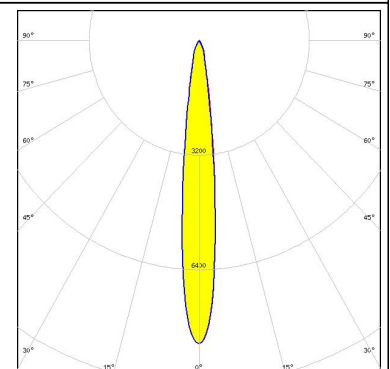
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 18.0°  
 Efficiency 79 %  
 Peak intensity 4.540 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



#### LUMINUS

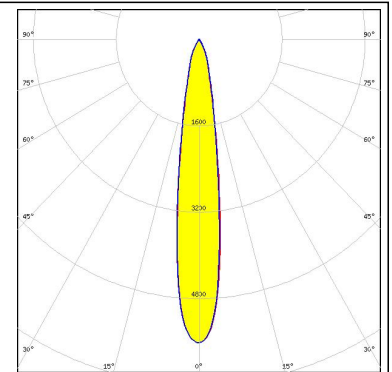
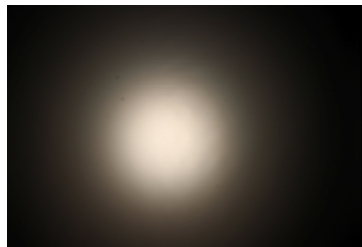
LED CDM-14 (Dim-To-Warm)  
 FWHM 13.0°  
 Efficiency 82 %  
 Peak intensity 8.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 491 Typ L2



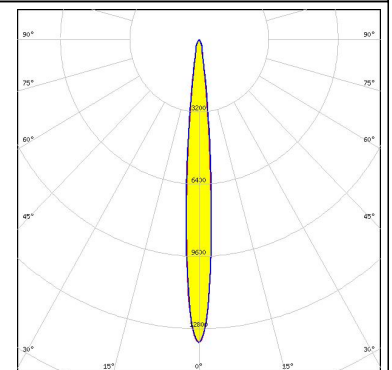
#### PHOTOMETRIC DATA (MEASURED):



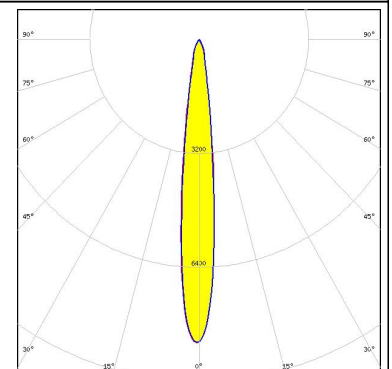
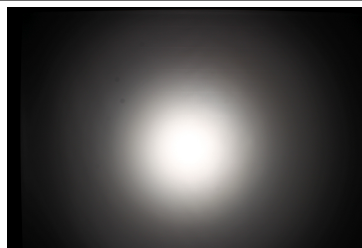
LED CDM-18 (Dim-To-Warm)  
 FWHM 16.0°  
 Efficiency 82 %  
 Peak intensity 5.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 491 Typ L2



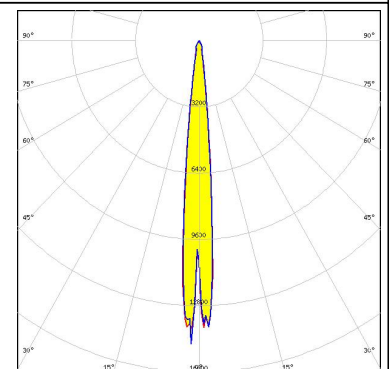
LED CDM-9 (Dim-To-Warm)  
 FWHM 10.0°  
 Efficiency 81 %  
 Peak intensity 13.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 490 Typ L1



LED CTM-14 (Tunable White)  
 FWHM 13.0°  
 Efficiency 81 %  
 Peak intensity 8.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 442 Typ L3



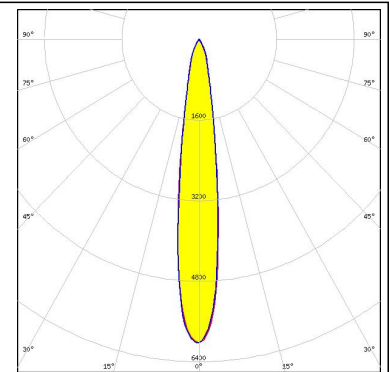
LED CTM-14 (Tunable White)  
 FWHM 10.0°  
 Efficiency 86 %  
 Peak intensity 14.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 442 Typ L3



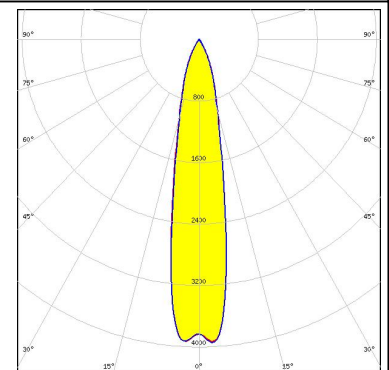
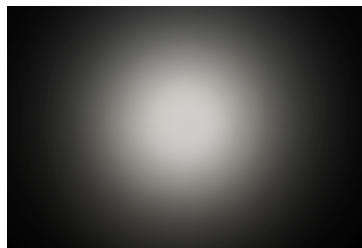
#### PHOTOMETRIC DATA (MEASURED):



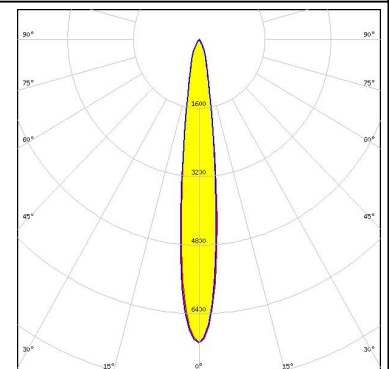
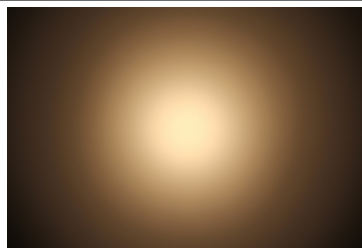
LED CTM-18 (Tunable White)  
 FWHM 15.0°  
 Efficiency 81 %  
 Peak intensity 6.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 442 Typ L3



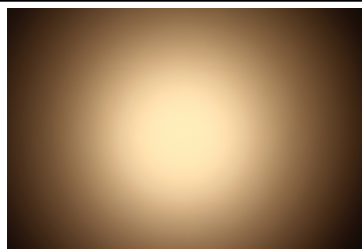
LED CTM-22 (Tunable White)  
 FWHM 20.0°  
 Efficiency 81 %  
 Peak intensity 3.950 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 494 Typ L3



LED CxM-14 (19x19)  
 FWHM 14.0°  
 Efficiency 80 %  
 Peak intensity 7.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



LED CxM-22 (28x28)  
 FWHM 21.0°  
 Efficiency 80 %  
 Peak intensity 3.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS





### PHOTOMETRIC DATA (MEASURED):



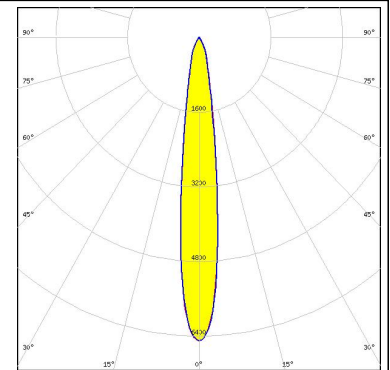
LED COB J-Type  
FWHM 14.0°  
Efficiency 82 %  
Peak intensity 6.500 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18

C11996\_LENA-LENS

Bender Wirth: 463 Typ L2

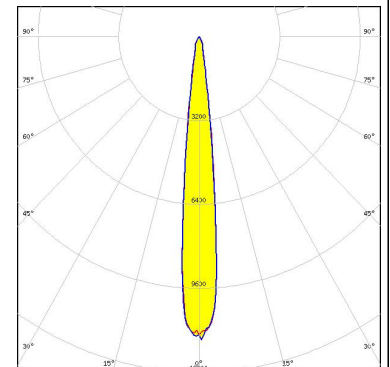


LED COB J-Type  
FWHM 12.0°  
Efficiency 87 %  
Peak intensity 11.600 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18

Bender Wirth: 463 Typ L2

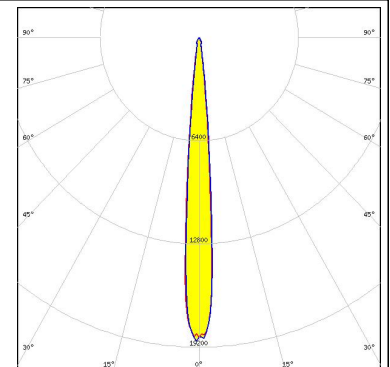
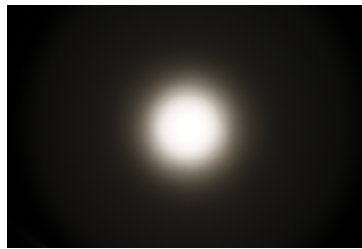


LED COB L-Type (LES 11)  
FWHM 9.0°  
Efficiency 87 %  
Peak intensity 18.800 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18

Bender Wirth: 438 Typ L1



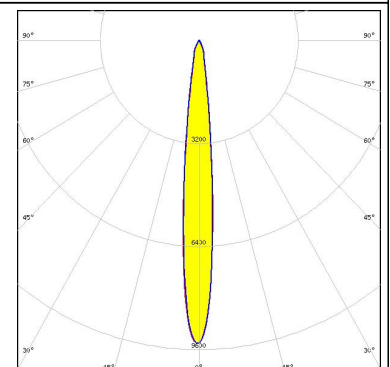
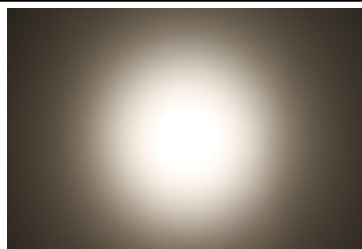
LED COB L-Type (LES 11)  
FWHM 11.0°  
Efficiency 82 %  
Peak intensity 9.400 cd/lm  
LEDs/each optic 1  
Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18

C11996\_LENA-LENS

Bender Wirth: 438 Typ L1



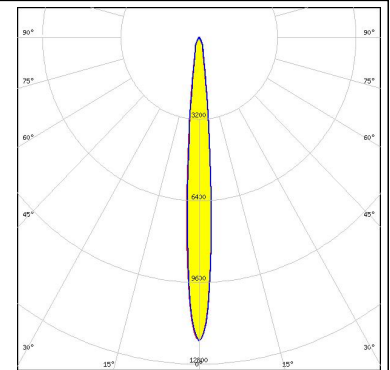
#### PHOTOMETRIC DATA (MEASURED):



LED COB L-Type (LES 9)  
 FWHM 9.0°  
 Efficiency 83 %  
 Peak intensity 11.900 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

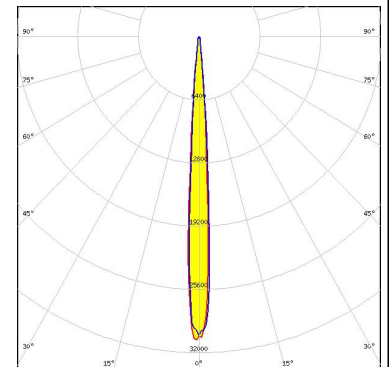
C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 438 Typ L1



LED COB L-Type (LES 9)  
 FWHM 7.0°  
 Efficiency 89 %  
 Peak intensity 30.700 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

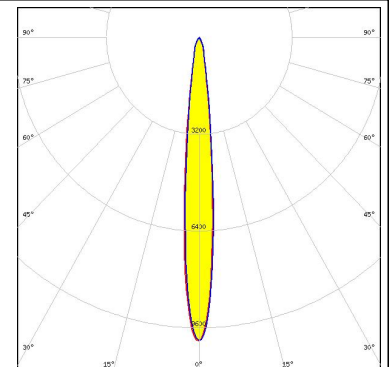
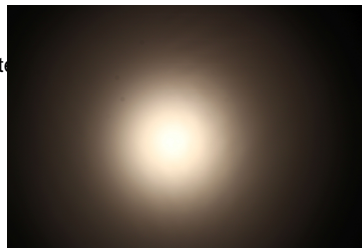
C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 438 Typ L1



LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM 11.0°  
 Efficiency 81 %  
 Peak intensity 10.000 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

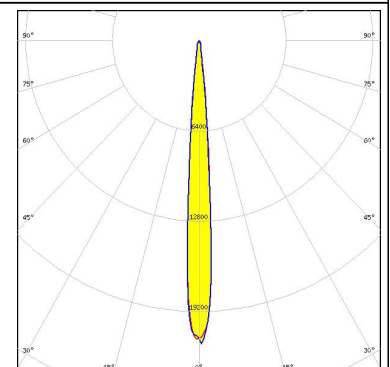
C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 498 Typ L2



LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM 9.0°  
 Efficiency 87 %  
 Peak intensity 21.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 498 Typ L2



#### PHOTOMETRIC DATA (MEASURED):

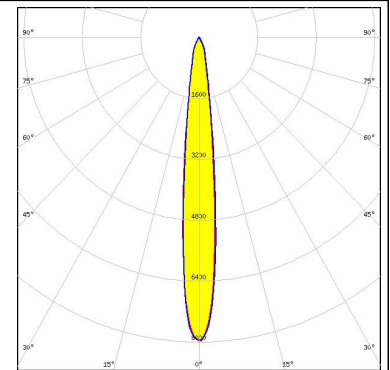
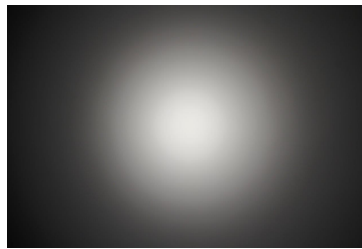
#### OSRAM

Opto Semiconductors

LED Soleriq S13  
 FWHM 12.0°  
 Efficiency 80 %  
 Peak intensity 8.000 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 437 Typ L1



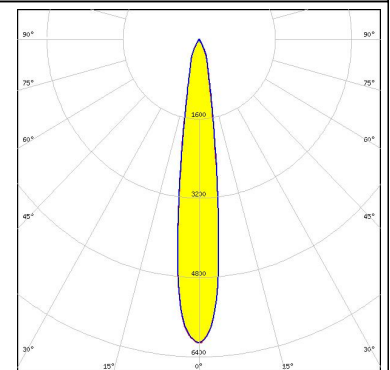
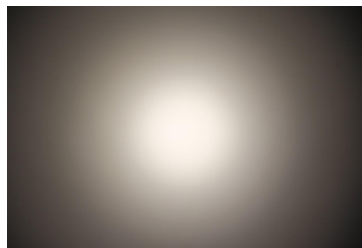
#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM 15.0°  
 Efficiency 80 %  
 Peak intensity 6.100 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 462 Typ L3

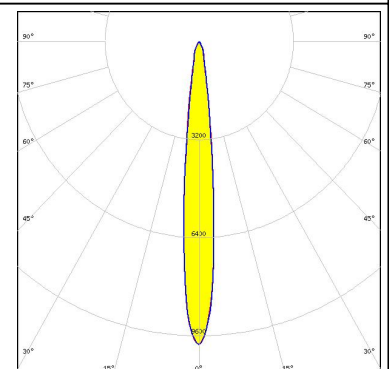
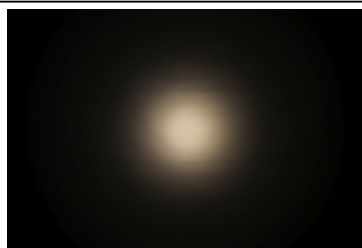


#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM 11.0°  
 Efficiency 81 %  
 Peak intensity 9.900 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS

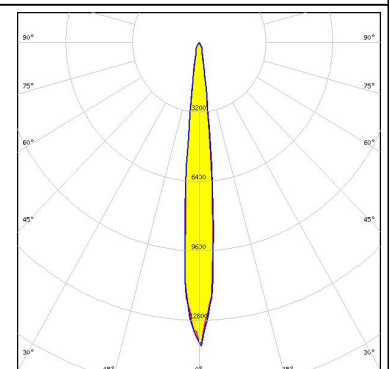


#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM 10.0°  
 Efficiency 87 %  
 Peak intensity 14.400 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:

C12292\_LENA-STD-BASE-MEZ

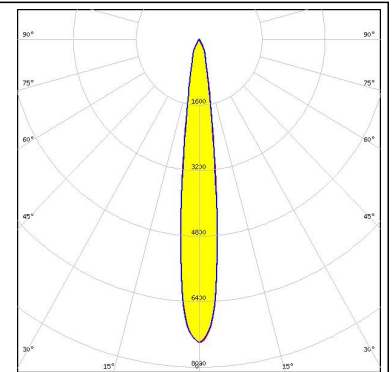




#### PHOTOMETRIC DATA (MEASURED):

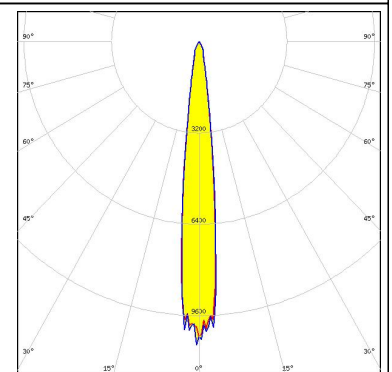
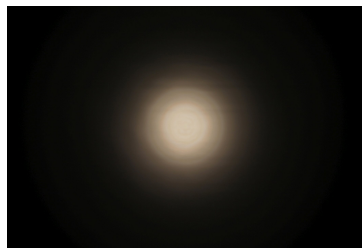
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 14.0°  
 Efficiency 81 %  
 Peak intensity 7.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



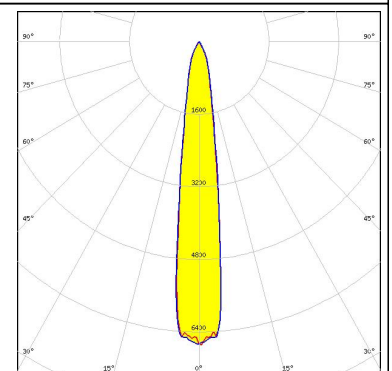
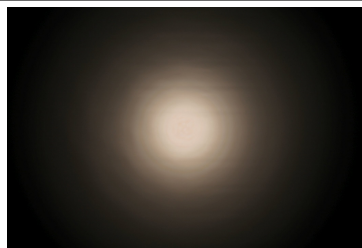
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 13.0°  
 Efficiency 87 %  
 Peak intensity 10.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ



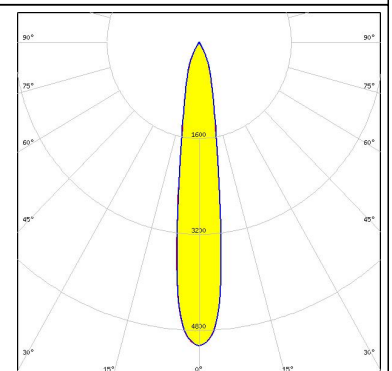
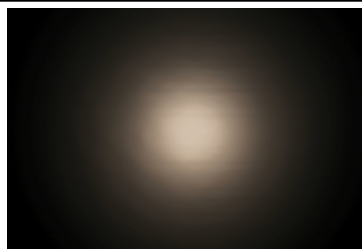
#### PHILIPS

LED Fortimo SLM L19 CoB  
 FWHM 15.0°  
 Efficiency 87 %  
 Peak intensity 6.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



#### PHILIPS

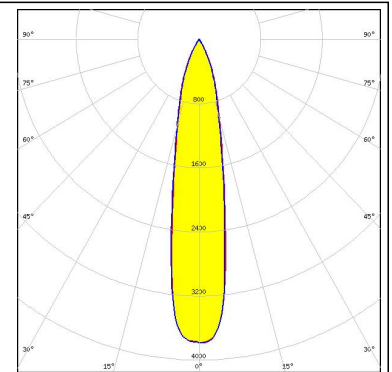
LED Fortimo SLM L19 CoB  
 FWHM 16.0°  
 Efficiency 81 %  
 Peak intensity 5.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



#### PHOTOMETRIC DATA (MEASURED):

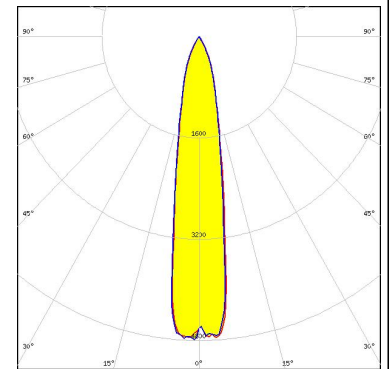
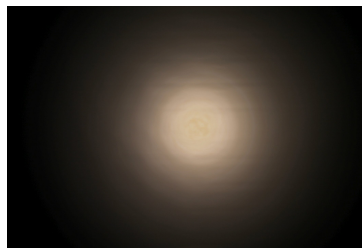
### PHILIPS

LED Fortimo SLM L23 CoB  
 FWHM 20.0°  
 Efficiency 81 %  
 Peak intensity 3.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



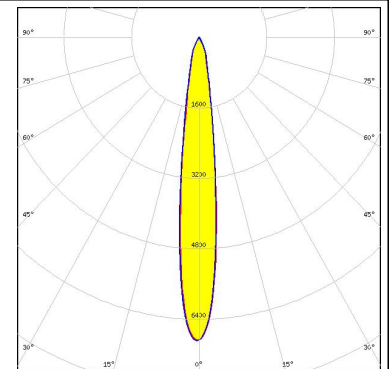
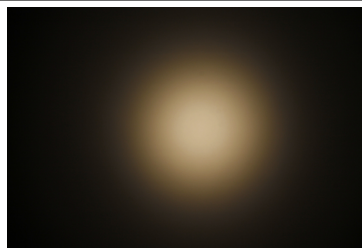
### PHILIPS

LED Fortimo SLM L23 CoB  
 FWHM 19.0°  
 Efficiency 87 %  
 Peak intensity 4.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



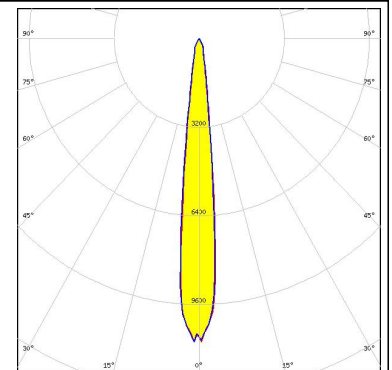
### SAMSUNG

LED COB D Series LES 14.5 mm  
 FWHM 14.0°  
 Efficiency 80 %  
 Peak intensity 6.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



### SAMSUNG

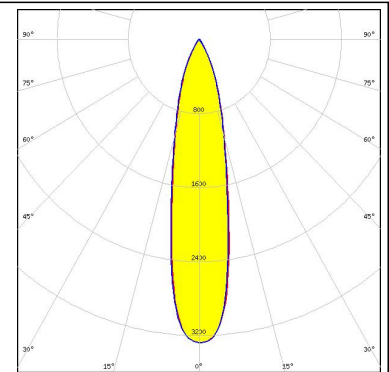
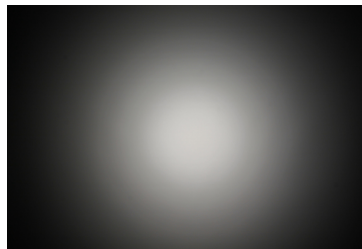
LED COB D Series LES 14.5 mm  
 FWHM 12.0°  
 Efficiency 85 %  
 Peak intensity 11.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



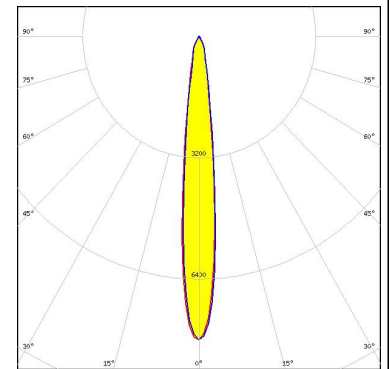
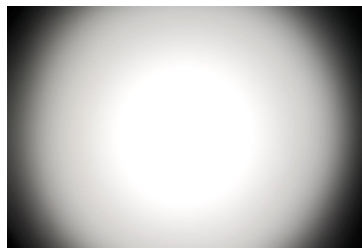
**PHOTOMETRIC DATA (MEASURED):**

## SAMSUNG

LED COB D Series LES 22 mm  
 FWHM 22.0°  
 Efficiency 80 %  
 Peak intensity 3.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



LED ZC12/18  
 FWHM 12.0°  
 Efficiency 80 %  
 Peak intensity 8.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



## SHARP

LED Mega Zenigata (GW5DGC)  
 FWHM 13.5°  
 Efficiency 85 %  
 Peak intensity cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ

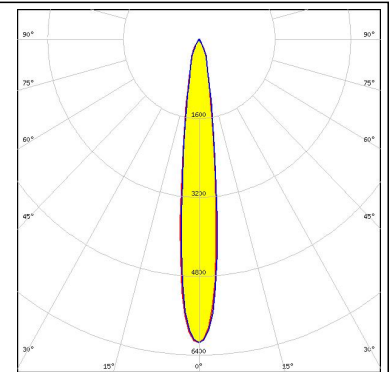
## SHARP

LED Mega Zenigata (GW5DGC)  
 FWHM 14.0°  
 Efficiency 80 %  
 Peak intensity cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS

#### PHOTOMETRIC DATA (MEASURED):

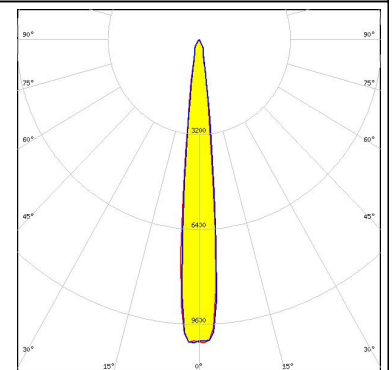
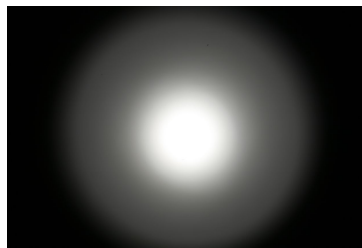
#### SHARP

LED Mega Zenigata (GW6DME)  
 FWHM 14.0°  
 Efficiency 77 %  
 Peak intensity 6.150 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



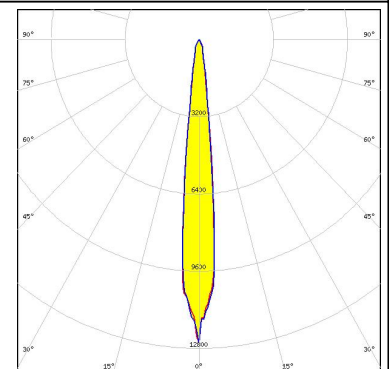
#### SHARP

LED Mega Zenigata (GW6DME)  
 FWHM 12.0°  
 Efficiency 83 %  
 Peak intensity 10.230 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ



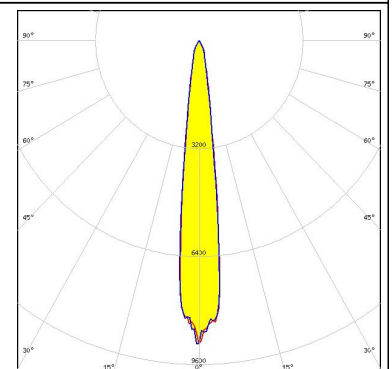
#### TRIDONIC

LED SLE G7 LES15  
 FWHM 11.0°  
 Efficiency 88 %  
 Peak intensity 12.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



#### TRIDONIC

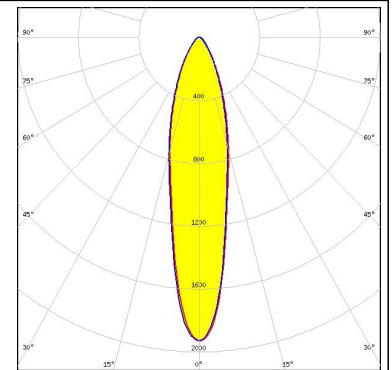
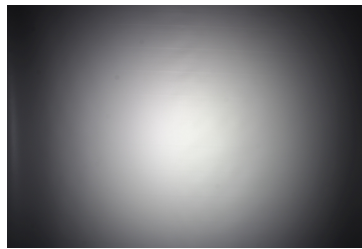
LED SLE G7 LES17 H  
 FWHM 14.0°  
 Efficiency 86 %  
 Peak intensity 9.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14547\_LENA-ADAPTER-B



#### PHOTOMETRIC DATA (MEASURED):

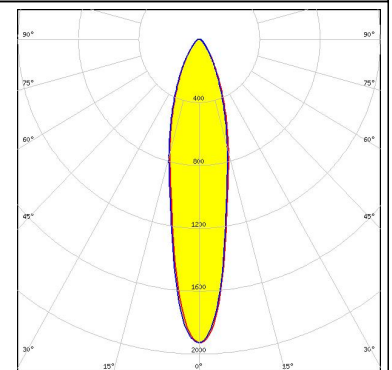
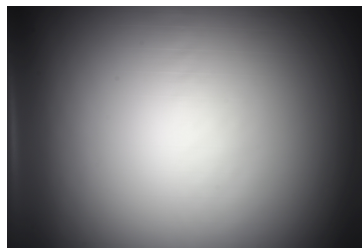
#### TRIDONIC

LED SLE G7 LES21 H  
 FWHM 23.0°  
 Efficiency 73 %  
 Peak intensity 1.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14547\_LENA-ADAPTER-B



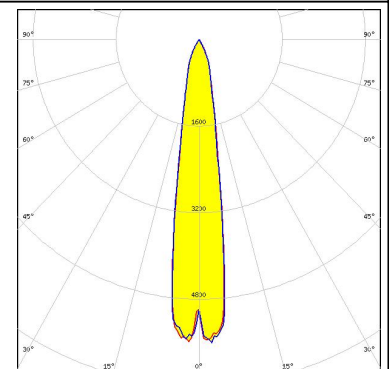
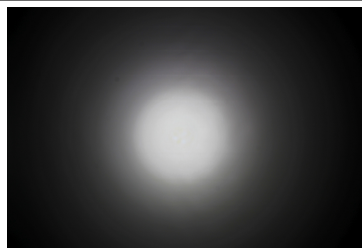
#### TRIDONIC

LED SLE G7 LES21 H  
 FWHM 23.0°  
 Efficiency 73 %  
 Peak intensity 1.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12231\_LENA-FRESNEL



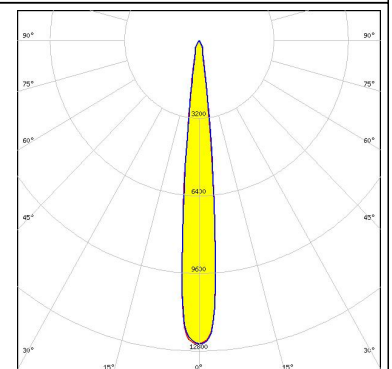
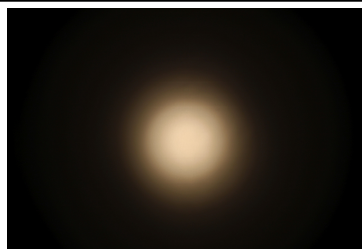
#### TRIDONIC

LED SLE G7 LES21 H  
 FWHM 18.0°  
 Efficiency 86 %  
 Peak intensity 5.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14547\_LENA-ADAPTER-B



#### XICATO

LED XOB 14.5 mm  
 FWHM 12.0°  
 Efficiency 89 %  
 Peak intensity 12.518 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030

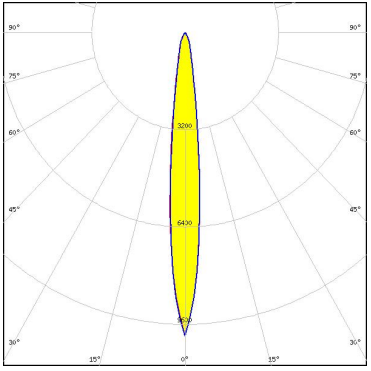
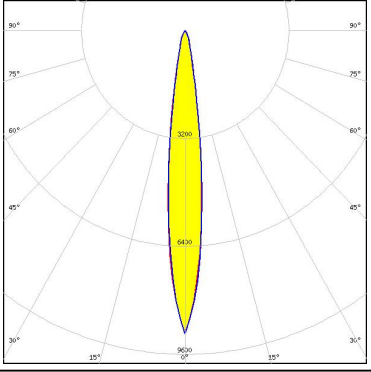
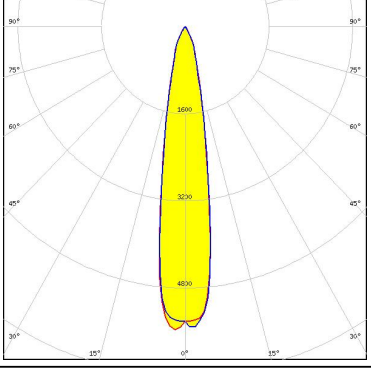
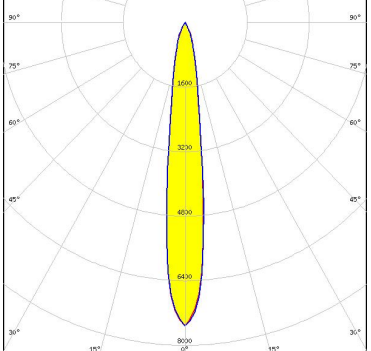




#### PHOTOMETRIC DATA (SIMULATED):

<p>bridgelux.</p> <p>LED V10 Gen7            FWHM 9.0°            Efficiency 90 %            Peak intensity 22.340 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            Bender Wirth: 486 Typ L1</p>	
<p>bridgelux.</p> <p>LED V10 Gen7            FWHM 11.0°            Efficiency 79 %            Peak intensity 12.280 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 486 Typ L1</p>	
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 10.0°            Efficiency 88 %            Peak intensity 12.900 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103CT + 50-2100LN</p>	
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 12.0°            Efficiency 89 %            Peak intensity 12.270 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            Bender Wirth: 477 Typ L1</p>	

#### PHOTOMETRIC DATA (SIMULATED):

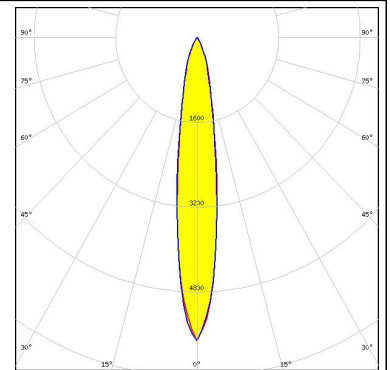
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 11.0°            Efficiency 85 %            Peak intensity 9.900 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103CT + 50-2100LN</p>	
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 13.0°            Efficiency 81 %            Peak intensity 9.000 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 477 Typ L1</p>	
<p>bridgelux.</p> <p>LED V22 Gen7            FWHM 18.0°            Efficiency 90 %            Peak intensity 5.583 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13867_LENA-STD-BASE-VERO29            Bender Wirth: 431 Typ L3</p>	
<p><b>CREE</b> ⇄</p> <p>LED CXA/B 30xx            FWHM 14.0°            Efficiency 87 %            Peak intensity 7.500 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2234C + 50-2100LN</p>	



### PHOTOMETRIC DATA (SIMULATED):



LED CXA/B 30xx  
FWHM 16.0°  
Efficiency 80 %  
Peak intensity 5.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
IDEAL: 50-2234C + 50-2100LN



LED CxM-14 (19x19)  
FWHM 12.0°  
Efficiency 85 %  
Peak intensity 11.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 433 Typ L1



LED CxM-14 (19x19)  
FWHM 14.0°  
Efficiency 80 %  
Peak intensity 6.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 433 Typ L1



LED CxM-9 (13.5x13.5)  
FWHM 8.0°  
Efficiency 85 %  
Peak intensity 26.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1

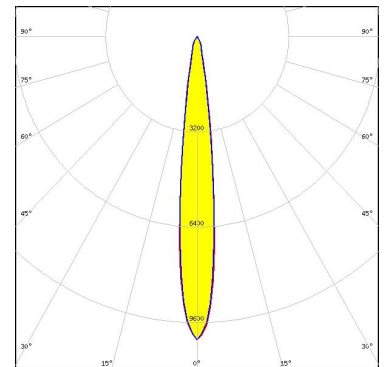
#### PHOTOMETRIC DATA (SIMULATED):



**LED** CxM-9 (13.5x13.5)  
**FWHM** 10.0°  
**Efficiency** 80 %  
**Peak intensity** 11.500 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 434 Typ L1



**LED** Soleriq S15  
**FWHM** 13.0°  
**Efficiency** 88 %  
**Peak intensity** 10.180 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C12691\_LENA-STD-BASE-CLL030



**LED** ZC12/18  
**FWHM** 12.0°  
**Efficiency** 85 %  
**Peak intensity** 11.200 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 433 Typ L1



**LED** ZC12/18  
**FWHM** 14.0°  
**Efficiency** 80 %  
**Peak intensity** 6.700 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 433 Typ L1

## PHOTOMETRIC DATA (SIMULATED):

	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	8.0°
Efficiency	85 %
Peak intensity	26.500 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
Bender Wirth: 434 Typ L1	
<hr/>	
	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	10.0°
Efficiency	80 %
Peak intensity	11.500 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
C11996_LENA-LENS	
Bender Wirth: 434 Typ L1	

### GENERAL INFORMATION:

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

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

### MATERIALS:

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

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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

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

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

#### LEDiL Oy

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Finland

#### LEDiL Inc.

228 West Page Street  
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