

## LENA-S

~11° spot beam

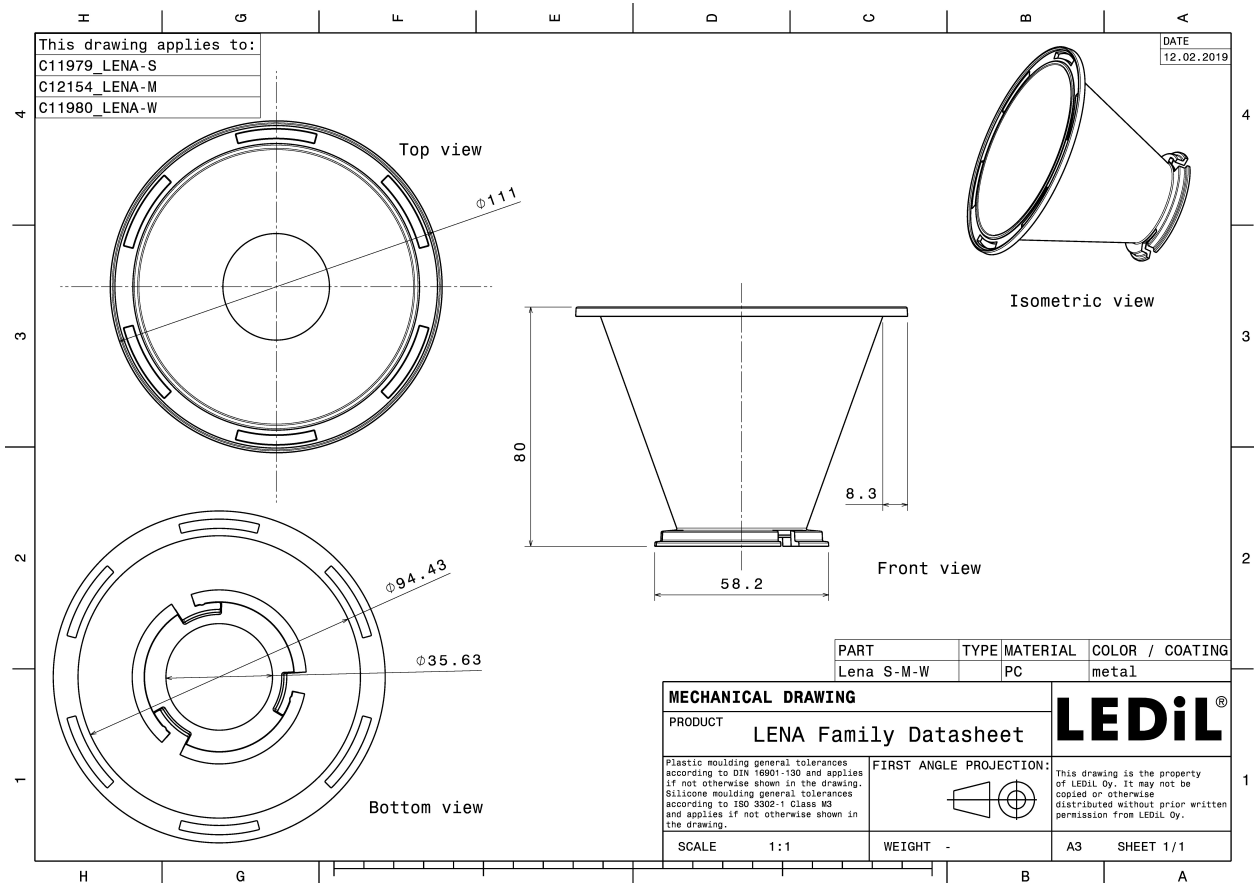
### TECHNICAL SPECIFICATIONS:

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



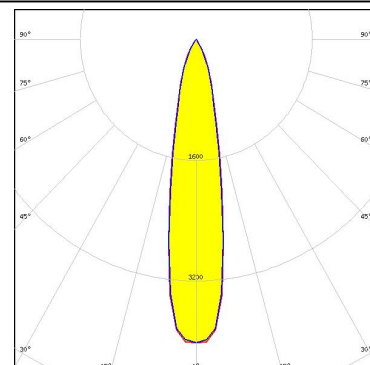
### PHOTOMETRIC DATA (MEASURED):



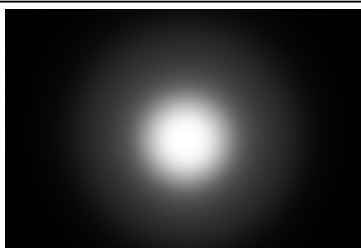
LED BXRA ES Rectangle  
FWHM 11.0°  
Efficiency 78 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12153\_LENA-STD-BASE-BXRA  
C11996\_LENA-LENS



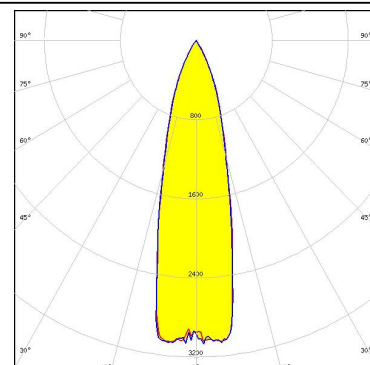
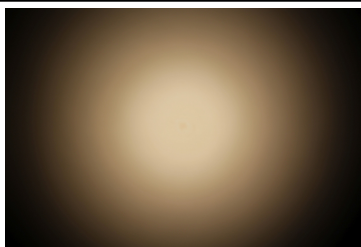
LED BXRA RS  
FWHM 20.0°  
Efficiency 80 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12229\_LENA-STD-BASE-RS  
C11996\_LENA-LENS



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



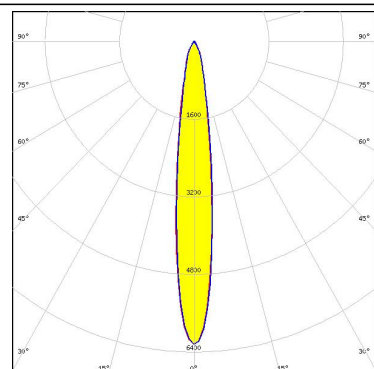
LED Vero SE 29  
FWHM 27.0°  
Efficiency 87 %  
Peak intensity 3.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C15083\_LENA-STD-BASE-VERO29



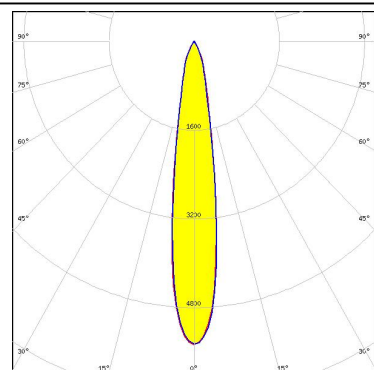
### PHOTOMETRIC DATA (MEASURED):



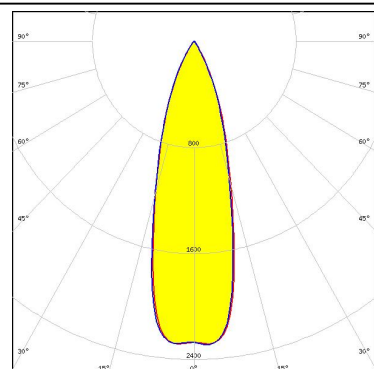
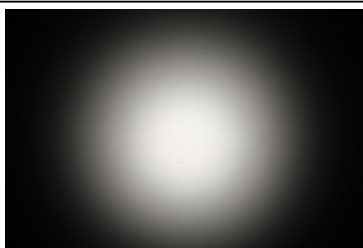
LED VERO13  
FWHM 14.0°  
Efficiency 83 %  
Peak intensity 6.250 cd/m  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS



LED VERO18  
FWHM 17.0°  
Efficiency 83 %  
Peak intensity 5.500 cd/m  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS



LED VERO29  
FWHM 30.0°  
Efficiency 80 %  
Peak intensity 2.300 cd/m  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29



### CITIZEN

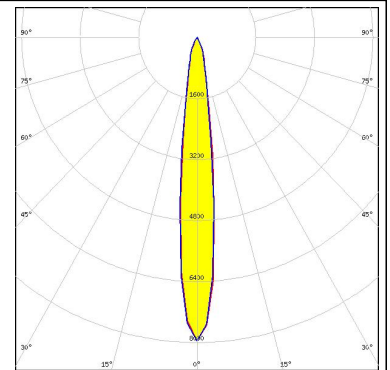
LED CL-L340  
FWHM 11.0°  
Efficiency 84 %  
Peak intensity 10.100 cd/m  
LEDs/each optic 1  
Light colour White  
Required components:  
C11995\_LENA-STD-BASE-CL340



### PHOTOMETRIC DATA (MEASURED):

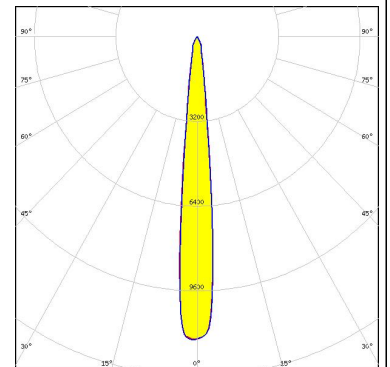
#### CITIZEN

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



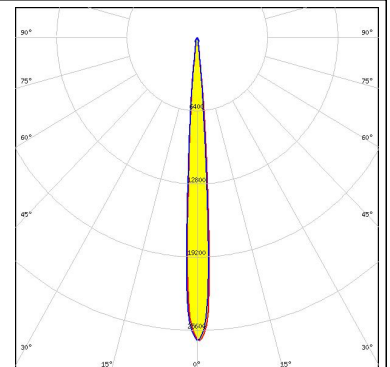
#### CITIZEN

LED CL-L340  
FWHM 11.0°  
Efficiency 86 %  
Peak intensity 11.450 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C11995\_LENA-STD-BASE-CL340



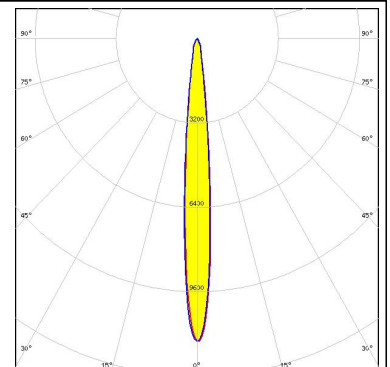
#### CITIZEN

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



#### CITIZEN

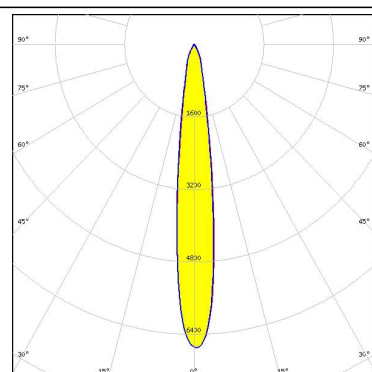
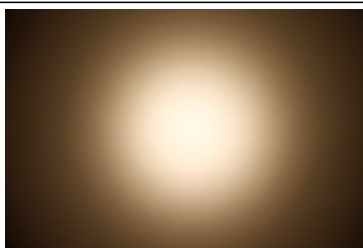
LED CLL02x/CLU02x (LES10)  
FWHM 10.0°  
Efficiency 80 %  
Peak intensity 11.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 434 Typ L1



### PHOTOMETRIC DATA (MEASURED):

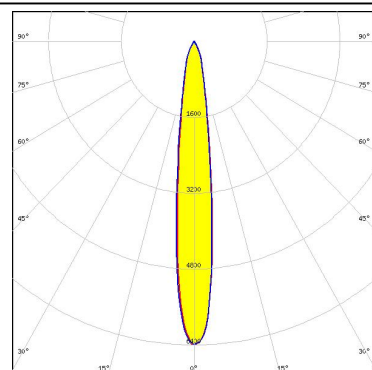
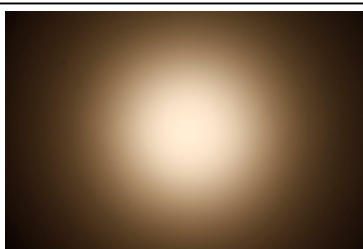
#### CITIZEN

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



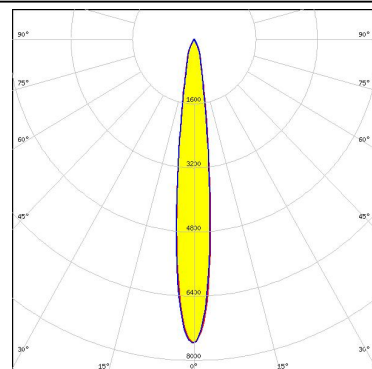
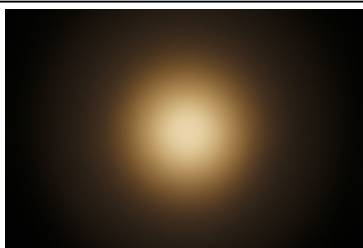
#### CITIZEN

LED CLL03x/CLU03x  
FWHM 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



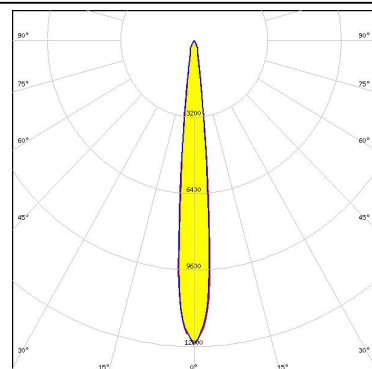
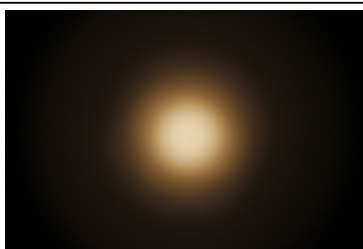
#### CITIZEN

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

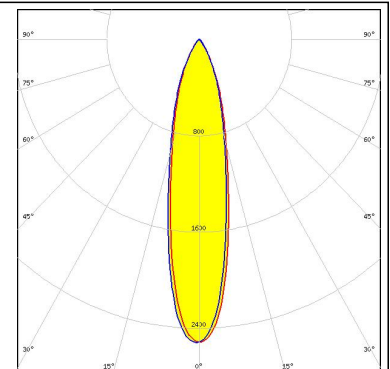
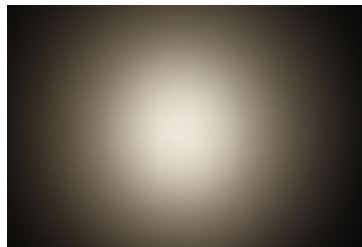
LED CLL03x/CLU03x  
FWHM 11.0°  
Efficiency 85 %  
Peak intensity 13.000 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



### PHOTOMETRIC DATA (MEASURED):

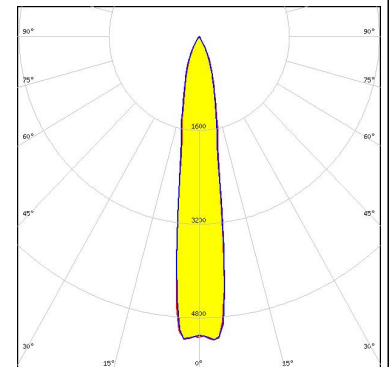
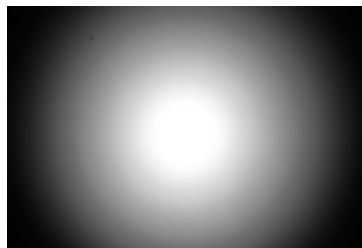
#### CITIZEN

LED CLL04x/CLU04x  
FWHM 23.0°  
Efficiency 73 %  
Peak intensity 2.500 cd/lm  
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/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
IDEAL: 50-2204CT + 50-2100LN



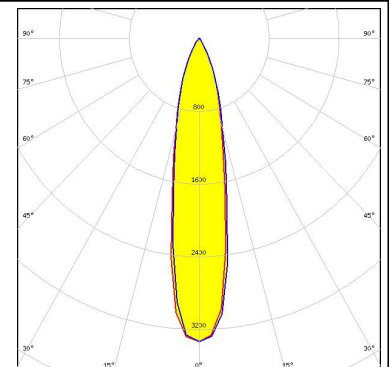
#### CITIZEN

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

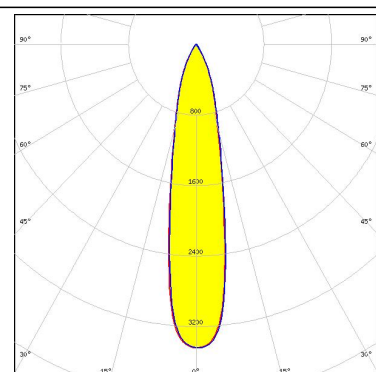
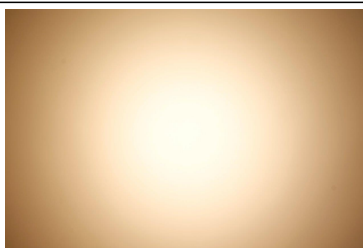
LED CLL04x/CLU04x  
FWHM 16.0°  
Efficiency 79 %  
Peak intensity 3.820 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12692\_LENA-STD-BASE-CLL040  
C11996\_LENA-LENS



### PHOTOMETRIC DATA (MEASURED):

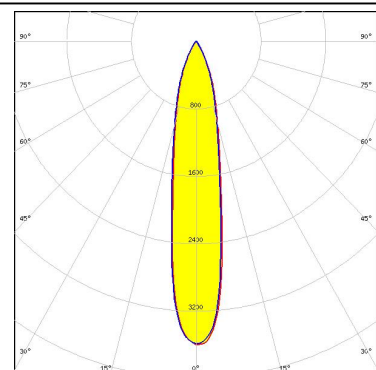
#### CITIZEN

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



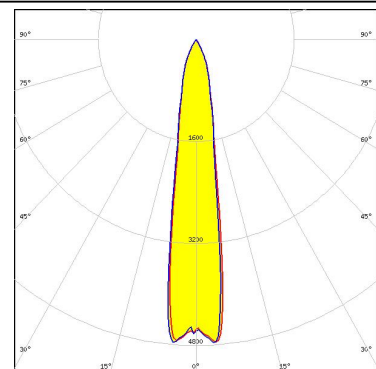
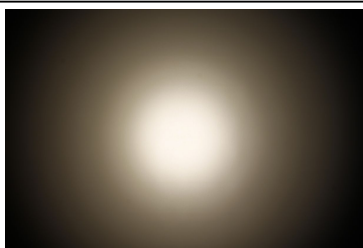
#### CITIZEN

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



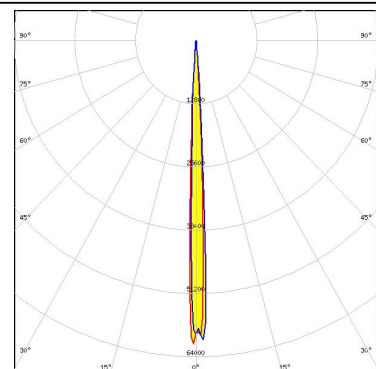
#### CITIZEN

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



#### CITIZEN

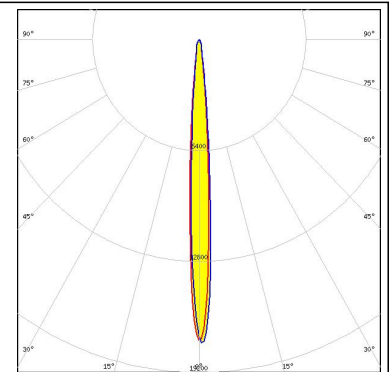
LED CLU700/701  
FWHM 5.0°  
Efficiency 87 %  
Peak intensity 61.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1



### PHOTOMETRIC DATA (MEASURED):

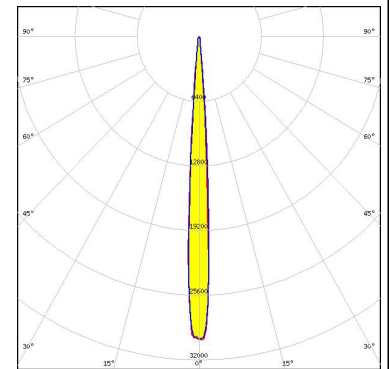
#### CITIZEN

LED CLU700/701  
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



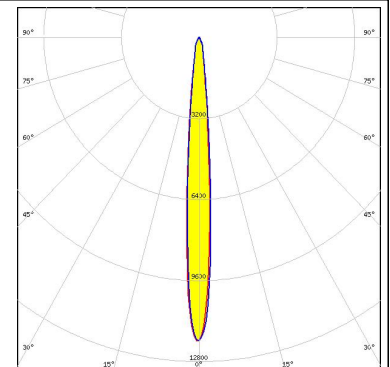
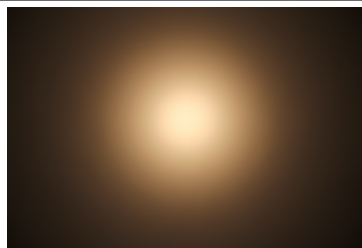
#### CITIZEN

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



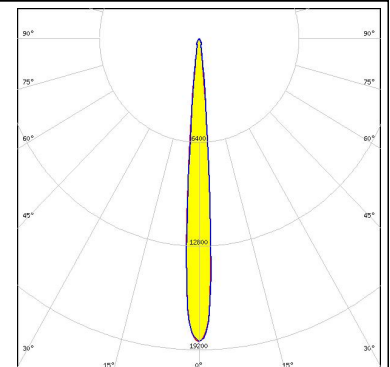
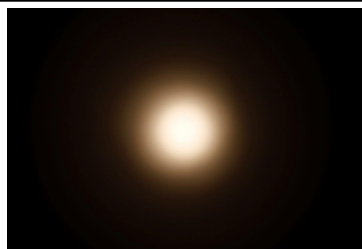
#### CITIZEN

LED 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 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

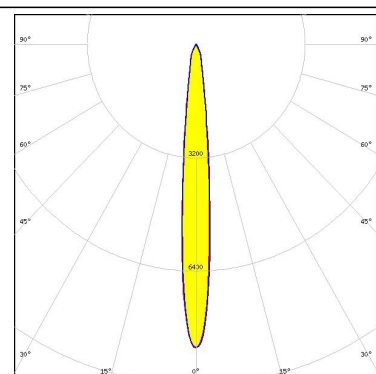
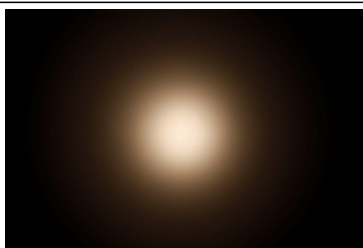




### PHOTOMETRIC DATA (MEASURED):

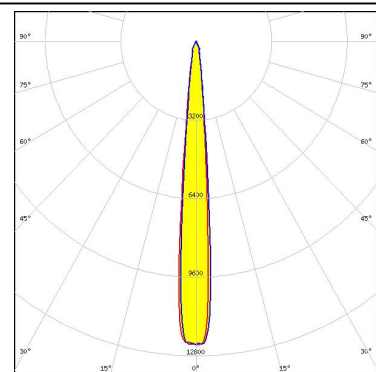
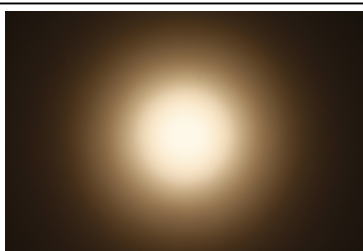
#### CITIZEN

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



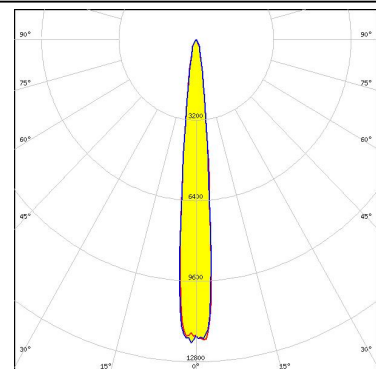
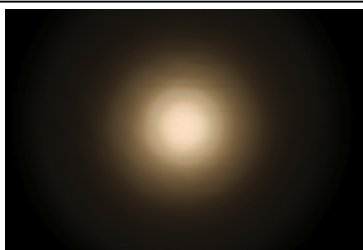
#### CITIZEN

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



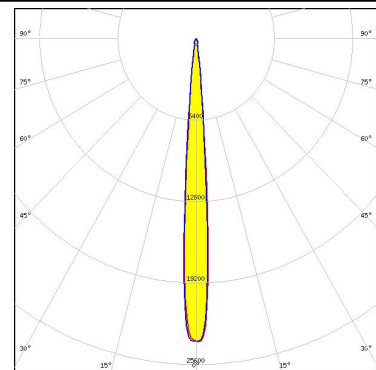
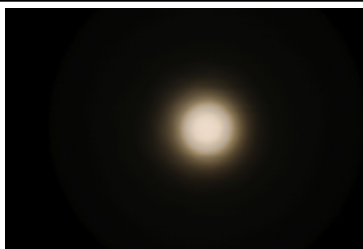
#### CREE

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

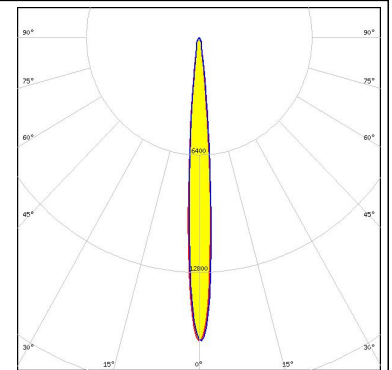
LED CMT14xx  
FWHM 8.0°  
Efficiency 88 %  
Peak intensity 24.050 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1



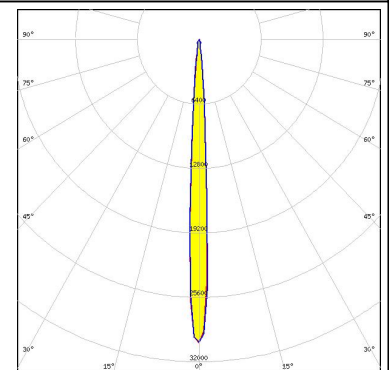
### PHOTOMETRIC DATA (MEASURED):



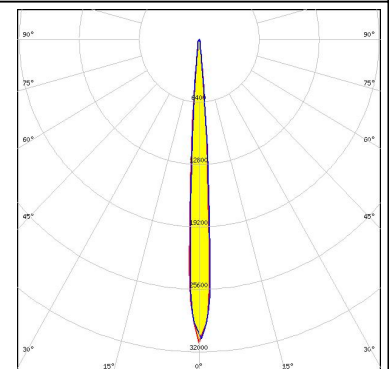
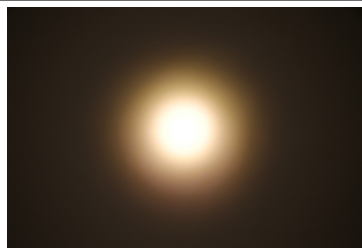
LED CXA/B 15xx  
FWHM 8.0°  
Efficiency 80 %  
Peak intensity 16.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 441 Typ L1



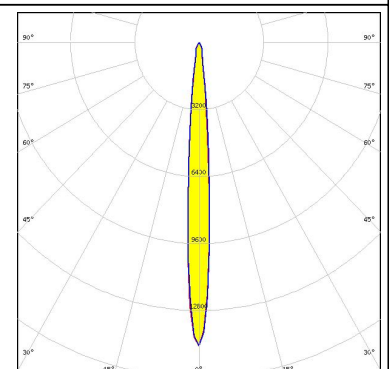
LED CXA/B 15xx  
FWHM 7.0°  
Efficiency 87 %  
Peak intensity 30.120 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13186\_LENA-STD-BASE-CXA15



LED CXA/B 15xx  
FWHM 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



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

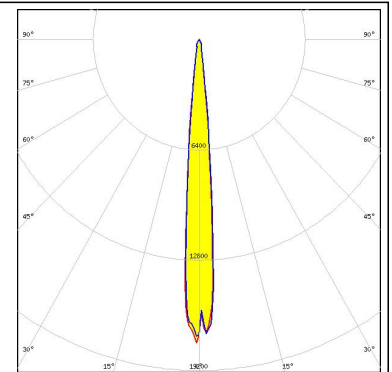




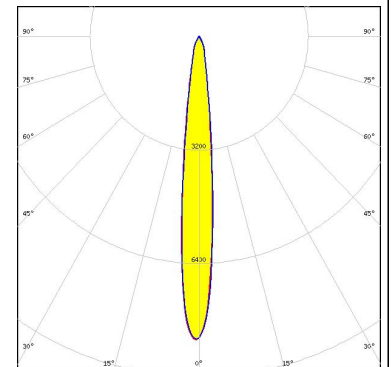
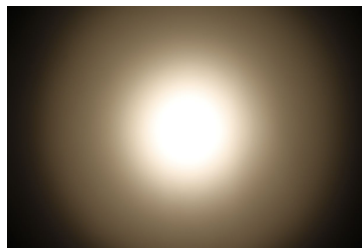
### PHOTOMETRIC DATA (MEASURED):



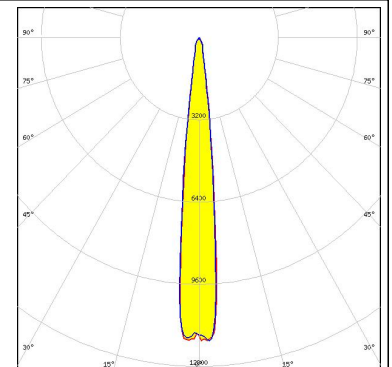
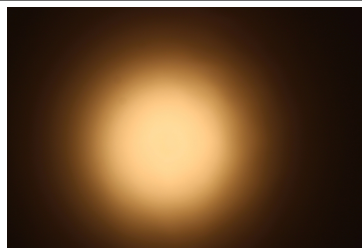
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
FWHM 10.0°  
Efficiency 87 %  
Peak intensity 17.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 437 Typ L1



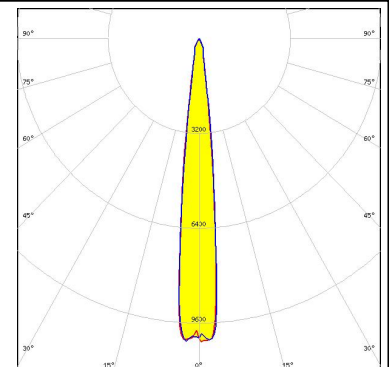
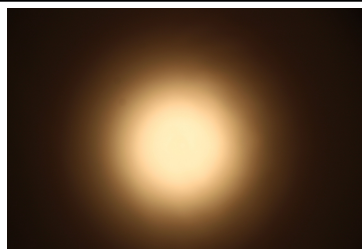
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
FWHM 12.0°  
Efficiency 82 %  
Peak intensity 8.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 437 Typ L1



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



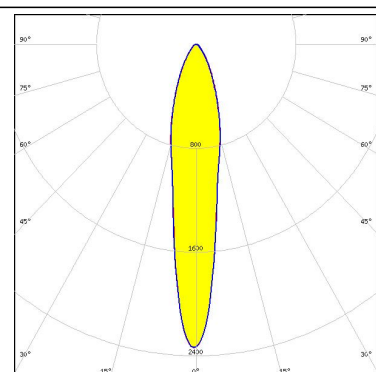
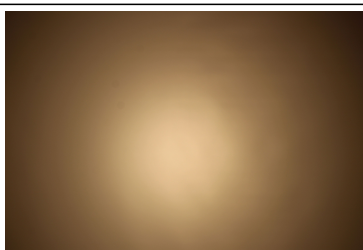
LED CXA/B 1830  
FWHM 12.0°  
Efficiency 82 %  
Peak intensity 10.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C14169\_LENA-CLEAR-LENS  
Bender Wirth: 437 Typ L1



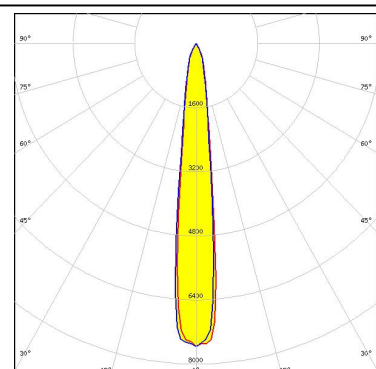
### PHOTOMETRIC DATA (MEASURED):



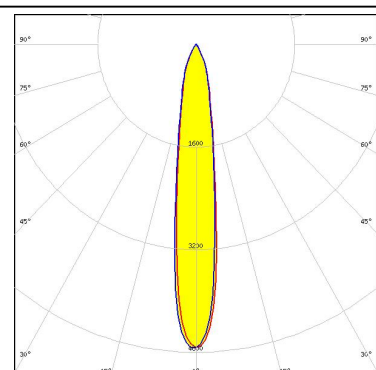
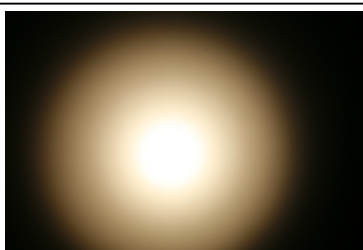
LED CXA/B 1830  
FWHM 18.0°  
Efficiency 75 %  
Peak intensity 2.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C12231\_LENA-FRESNEL-LENS  
Bender Wirth: 437 Typ L1



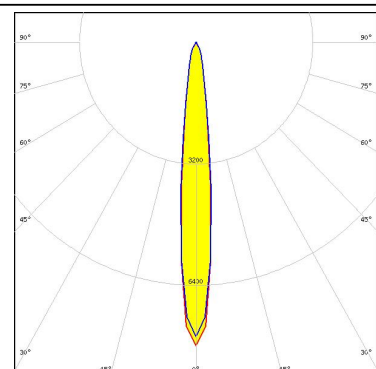
LED CXA/B 25xx  
FWHM 13.0°  
Efficiency 84 %  
Peak intensity 8.000 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13324\_LENA-STD-BASE-CXA25



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



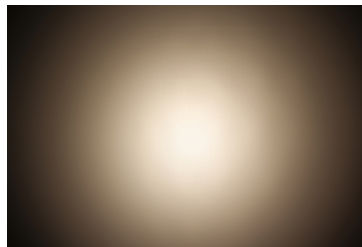
LED CXA2011  
FWHM 11.0°  
Efficiency 80 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12105\_LENA-STD-BASE-CXA20  
C11996\_LENA-LENS



## PHOTOMETRIC DATA (MEASURED):

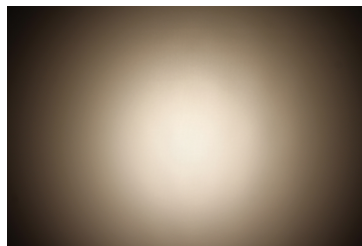
### EVERLIGHT

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



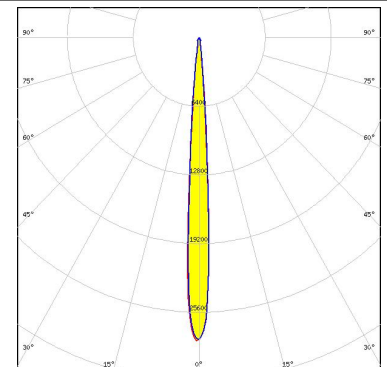
### EVERLIGHT

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



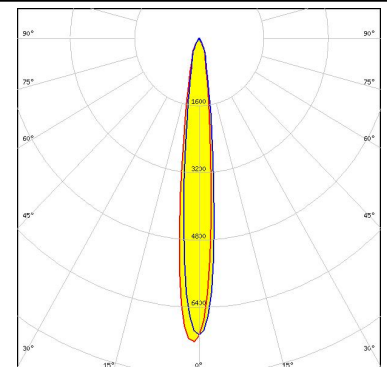
### LUMILEDS

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



### LUMILEDS

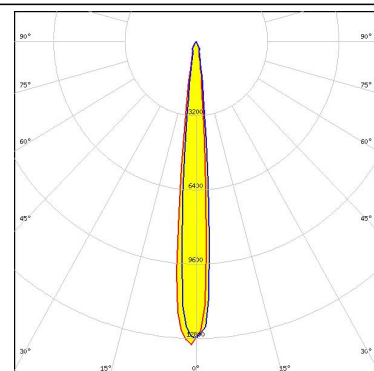
LED LUXEON CoB 1204/1205  
FWHM 12.0°  
Efficiency 77 %  
Peak intensity 7.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12292\_LENA-STD-BASE-MEZ  
C11996\_LENA-LENS



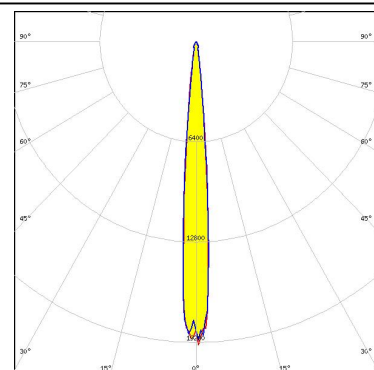
#### PHOTOMETRIC DATA (MEASURED):



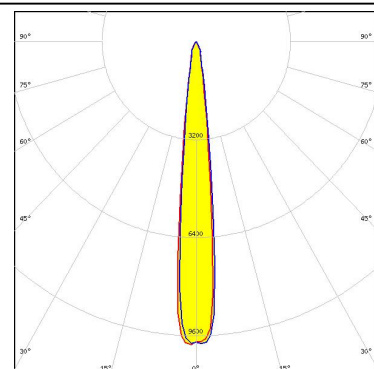
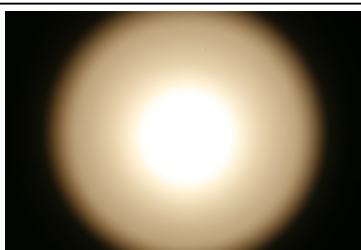
LED LUXEON CoB 1204/1205  
 FWHM 10.0°  
 Efficiency 83 %  
 Peak intensity 13.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ



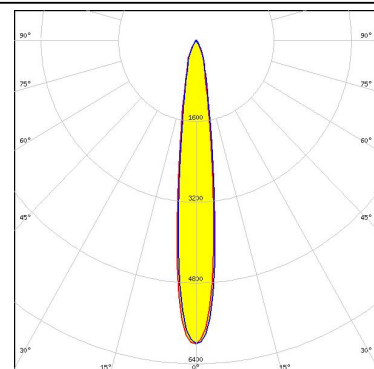
LED LUXEON CoB 1205HD  
 FWHM 9.0°  
 Efficiency 88 %  
 Peak intensity 19.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11981\_LENA-STD-BASE-COB-L110



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



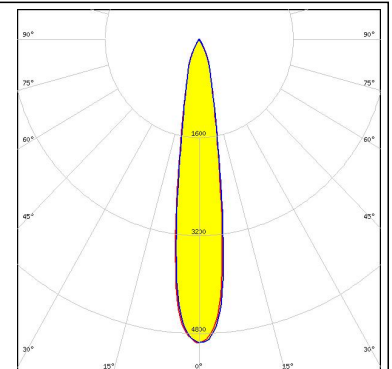
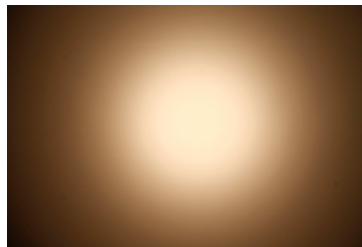
LED LUXEON CoB 1208  
 FWHM 14.0°  
 Efficiency 78 %  
 Peak intensity 6.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



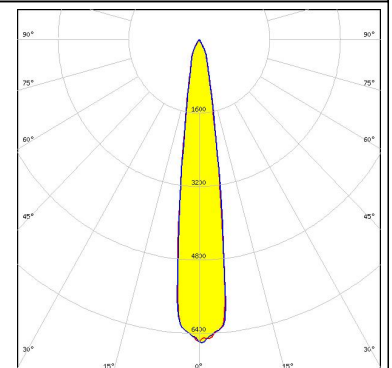
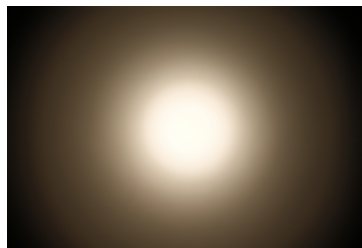
### PHOTOMETRIC DATA (MEASURED):



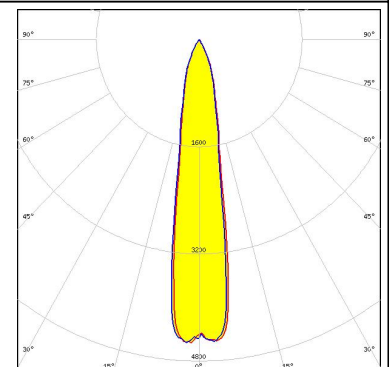
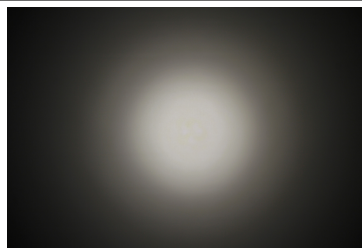
LED LUXEON CoB 1211  
FWHM 17.0°  
Efficiency 80 %  
Peak intensity 5.000 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
Bender Wirth: 431 Typ L3



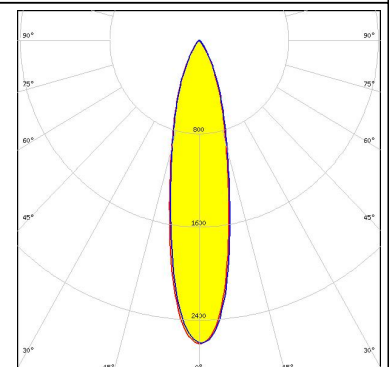
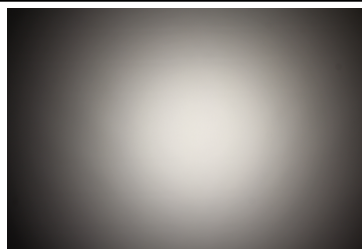
LED LUXEON CoB 1211  
FWHM 16.0°  
Efficiency 85 %  
Peak intensity 6.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
Bender Wirth: 431 Typ L3



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



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

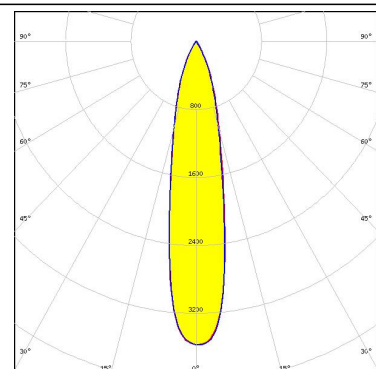
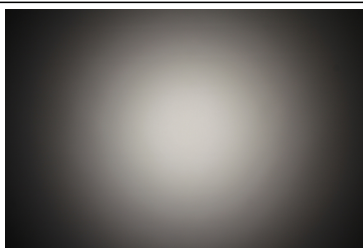




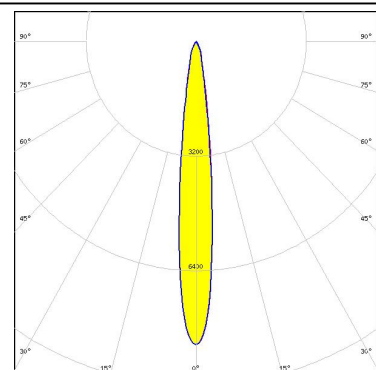
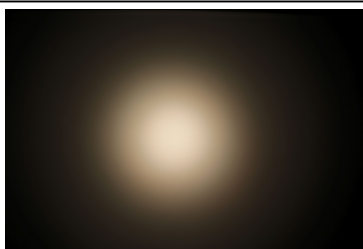
#### PHOTOMETRIC DATA (MEASURED):



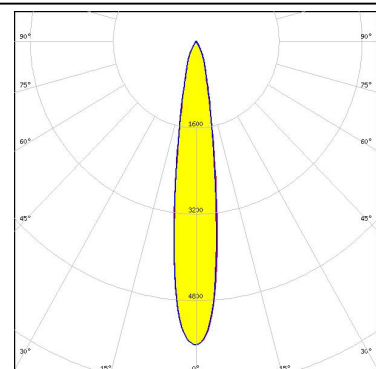
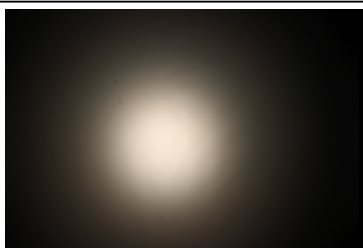
LED LUXEON CoB 1216/1812  
 FWHM 21.0°  
 Efficiency 80 %  
 Peak intensity 3.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



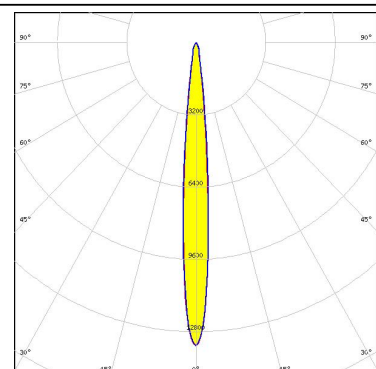
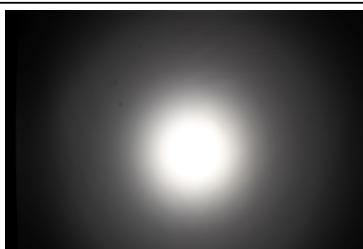
LED CDM-14 (Dim-To-Warm)  
 FWHM 13.0°  
 Efficiency 82 %  
 Peak intensity 8.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 491 Typ L2



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



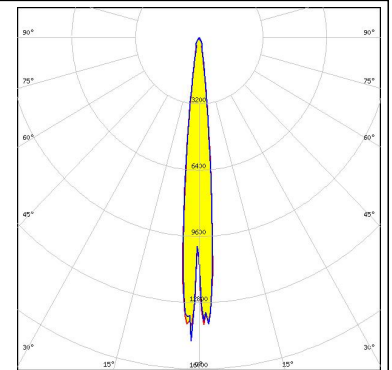
LED CDM-9 (Dim-To-Warm)  
 FWHM 10.0°  
 Efficiency 81 %  
 Peak intensity 13.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 490 Typ L1



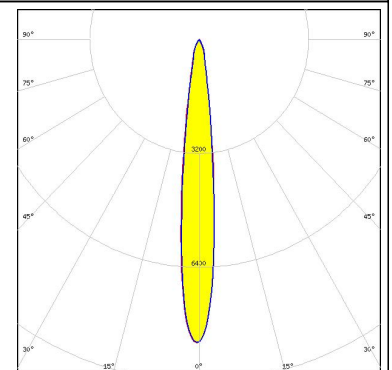
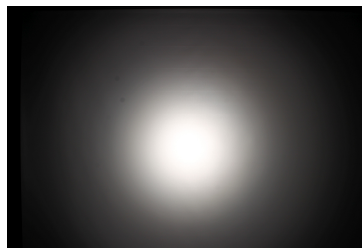
### PHOTOMETRIC DATA (MEASURED):



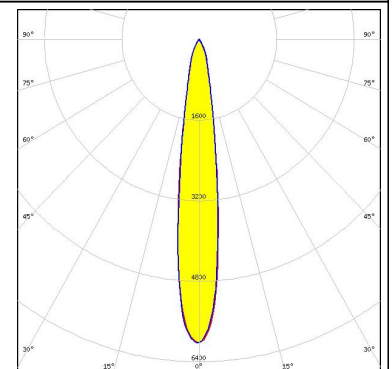
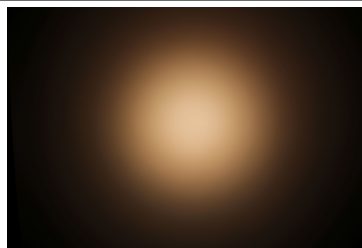
LED CTM-14 (Tunable White)  
FWHM 10.0°  
Efficiency 86 %  
Peak intensity 14.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
Bender Wirth: 442 Typ L3



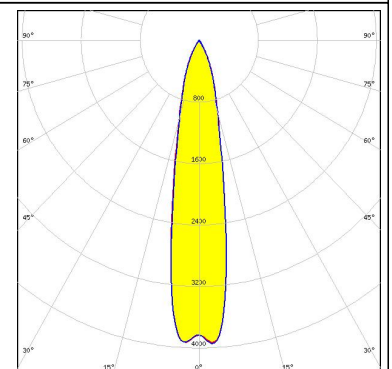
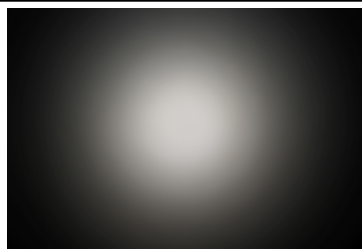
LED CTM-14 (Tunable White)  
FWHM 13.0°  
Efficiency 81 %  
Peak intensity 8.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
C12606\_LENINA-DL  
Bender Wirth: 442 Typ L3



LED CTM-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

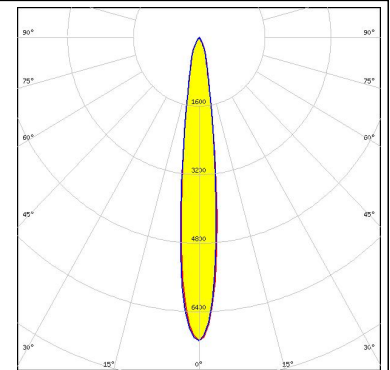




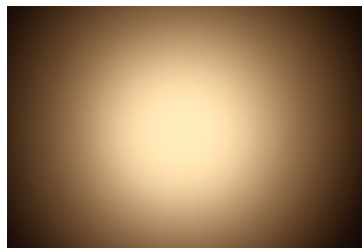
### PHOTOMETRIC DATA (MEASURED):



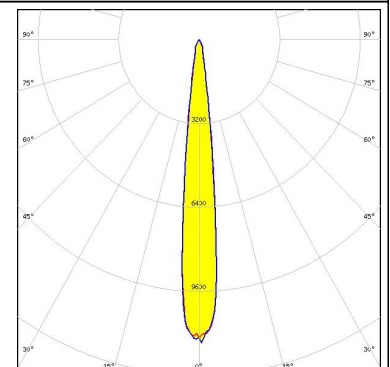
LED CXM-14  
FWHM 14.0°  
Efficiency 80 %  
Peak intensity 7.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030  
C11996\_LENA-LENS



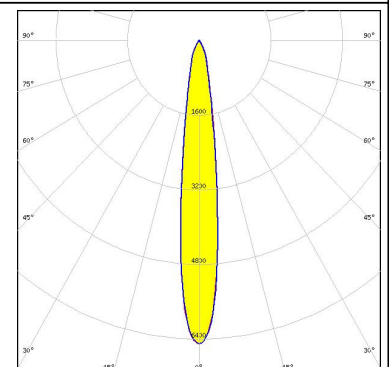
LED CXM-22  
FWHM 21.0°  
Efficiency 80 %  
Peak intensity 3.800 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12692\_LENA-STD-BASE-CLL040  
C11996\_LENA-LENS



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



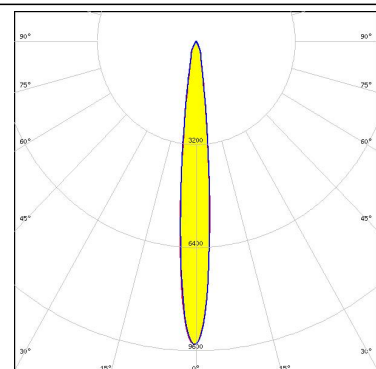
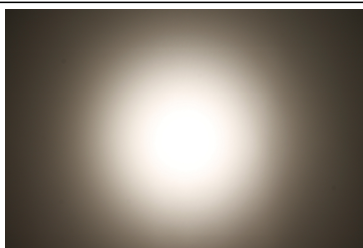
LED COB J-Type  
FWHM 14.0°  
Efficiency 82 %  
Peak intensity 6.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 463 Typ L2



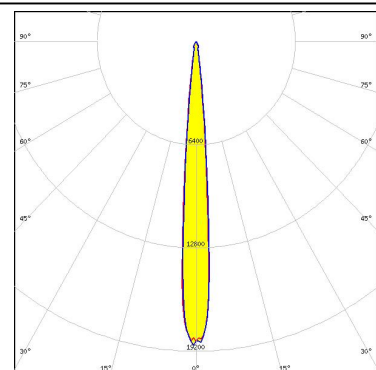
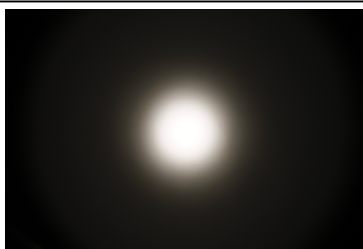
### PHOTOMETRIC DATA (MEASURED):



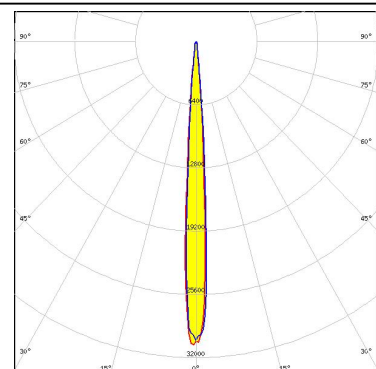
LED COB L-Type (LES 11)  
FWHM 11.0°  
Efficiency 82 %  
Peak intensity 9.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 438 Typ L1



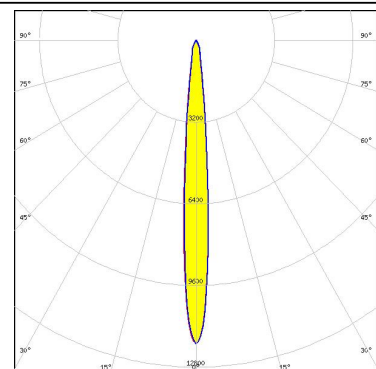
LED COB L-Type (LES 11)  
FWHM 9.0°  
Efficiency 87 %  
Peak intensity 18.800 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 438 Typ L1



LED COB L-Type (LES 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



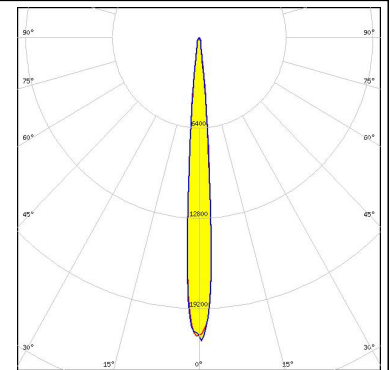
LED COB L-Type (LES 9)  
FWHM 9.0°  
Efficiency 83 %  
Peak intensity 11.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 438 Typ L1



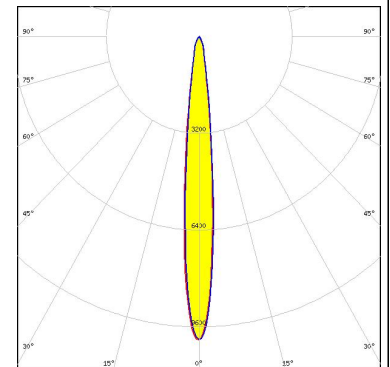
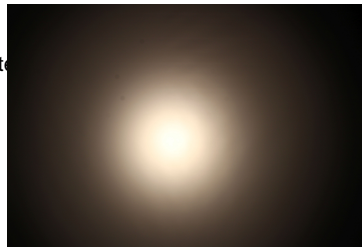
### PHOTOMETRIC DATA (MEASURED):



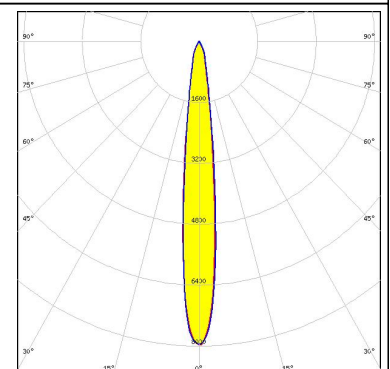
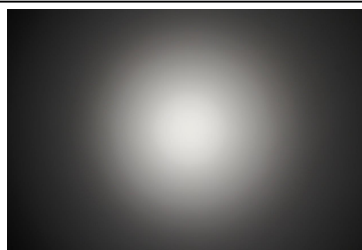
LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
FWHM 9.0°  
Efficiency 87 %  
Peak intensity 21.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 498 Typ L2



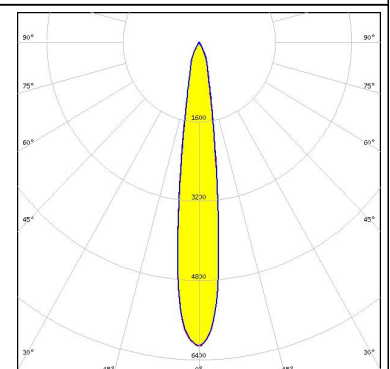
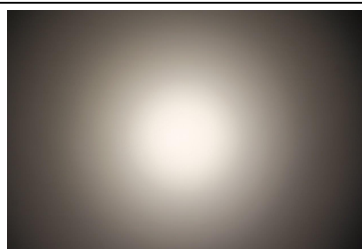
LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
FWHM 11.0°  
Efficiency 81 %  
Peak intensity 10.000 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 498 Typ L2



LED 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



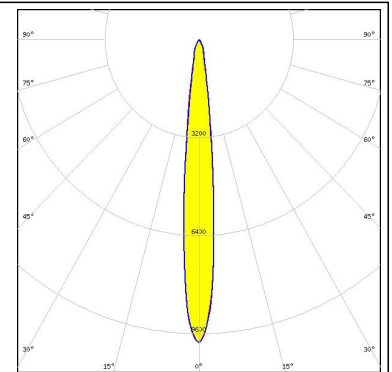
LED Soleriq S19  
FWHM 15.0°  
Efficiency 80 %  
Peak intensity 6.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
Bender Wirth: 462 Typ L3



### PHOTOMETRIC DATA (MEASURED):

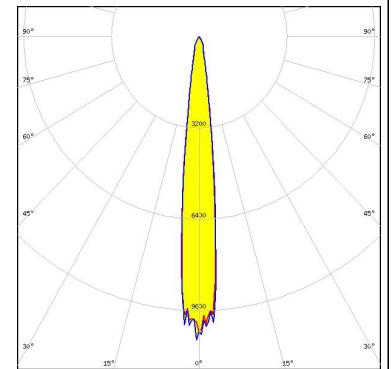
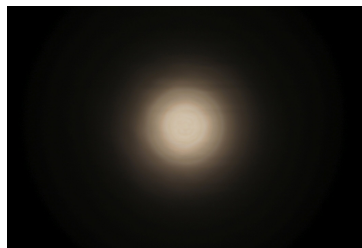
#### PHILIPS

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



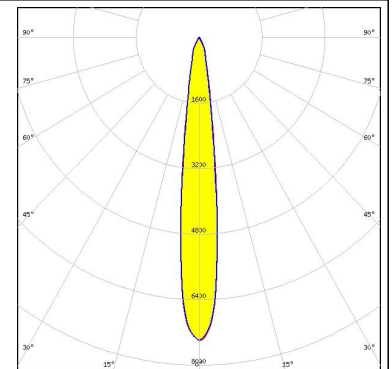
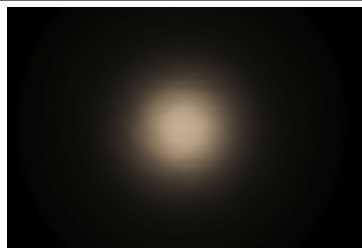
#### PHILIPS

LED Fortimo SLM 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



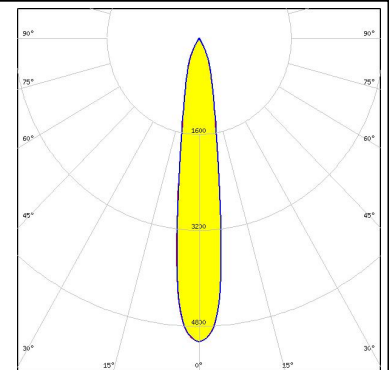
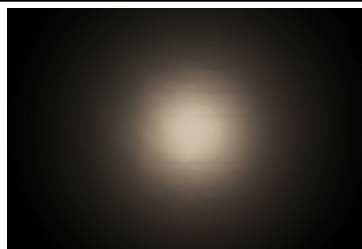
#### PHILIPS

LED Fortimo SLM 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 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

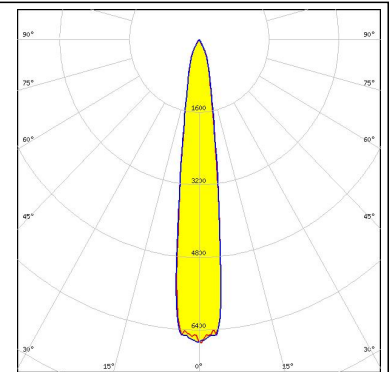




### PHOTOMETRIC DATA (MEASURED):

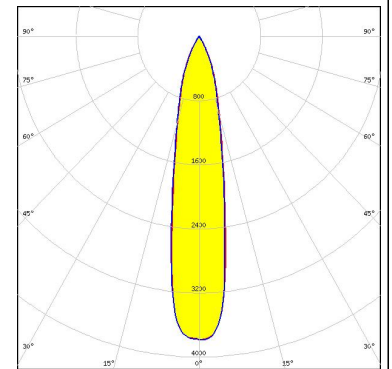
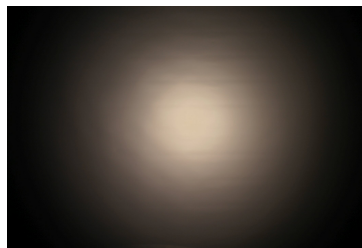
#### PHILIPS

LED Fortimo SLM 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



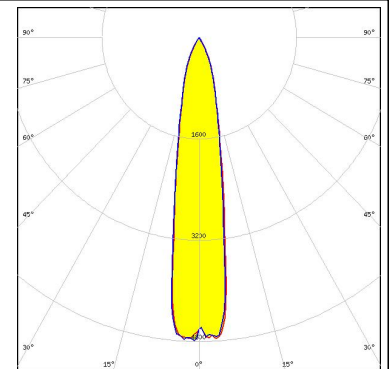
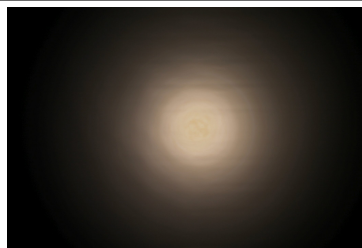
#### PHILIPS

LED Fortimo SLM 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



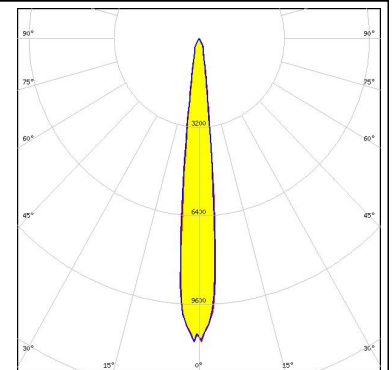
#### PHILIPS

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

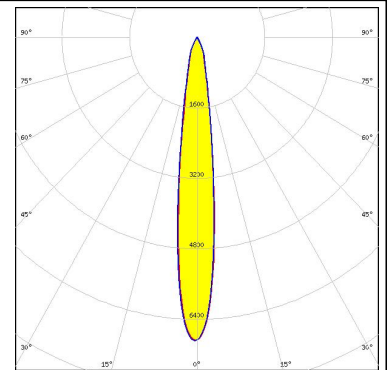
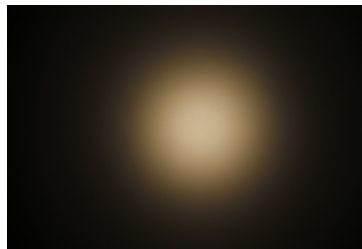
LED COB D Series LES 14.5 mm  
FWHM 12.0°  
Efficiency 85 %  
Peak intensity 11.000 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



### PHOTOMETRIC DATA (MEASURED):

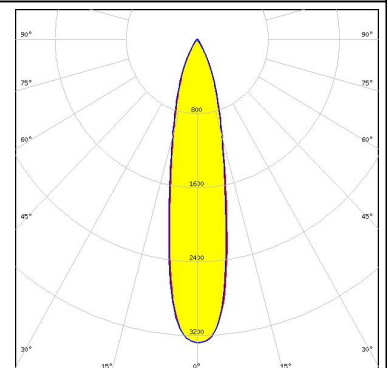
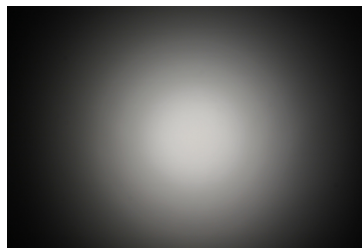
#### SAMSUNG

LED COB D Series LES 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

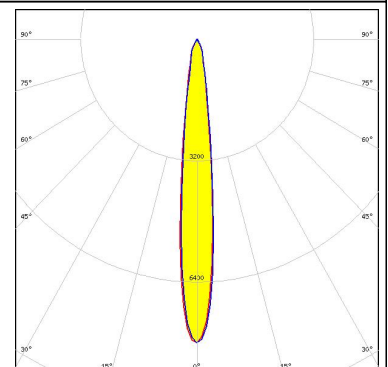
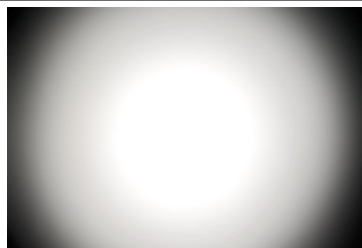


#### SAMSUNG

LED COB D Series LES 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 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

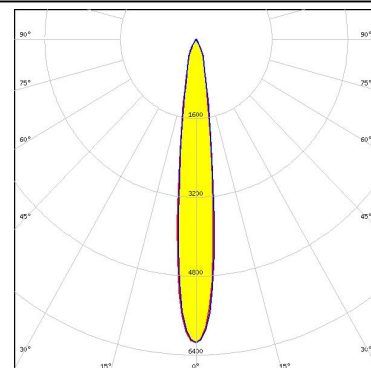
### PHOTOMETRIC DATA (MEASURED):

#### SHARP

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

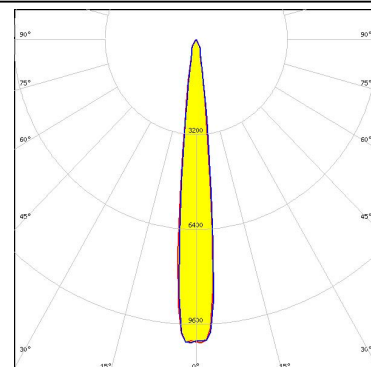
#### SHARP

LED Mega Zenigata (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



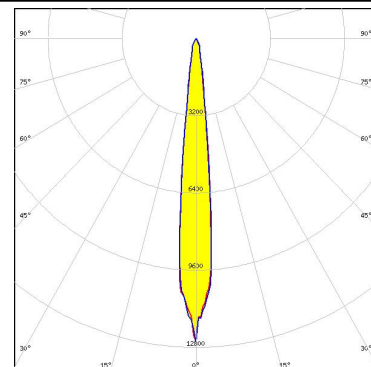
#### SHARP

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

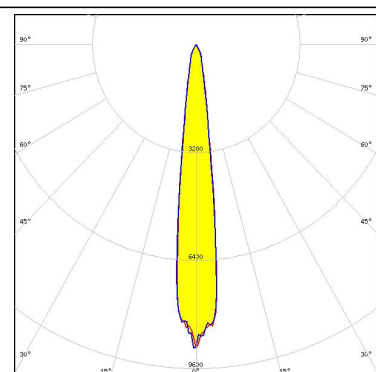
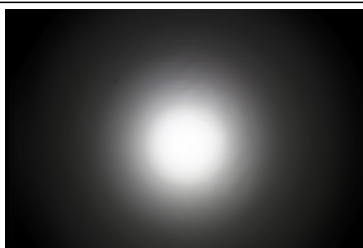




### PHOTOMETRIC DATA (MEASURED):

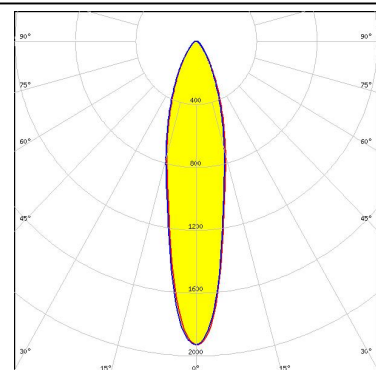
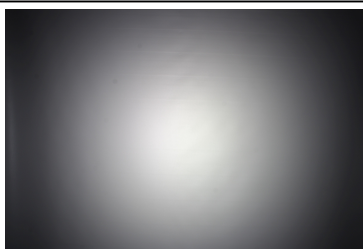
#### TRIDONIC

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



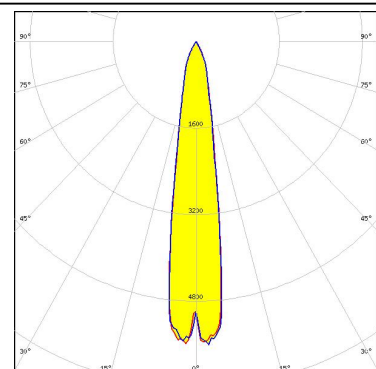
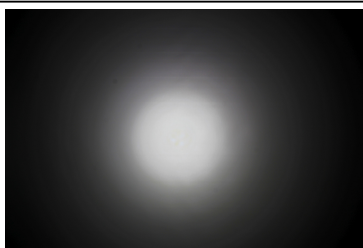
#### TRIDONIC

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-LENS



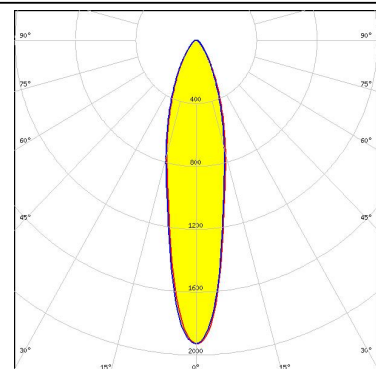
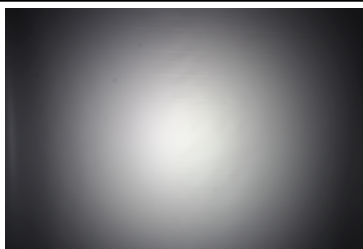
#### TRIDONIC

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



#### TRIDONIC

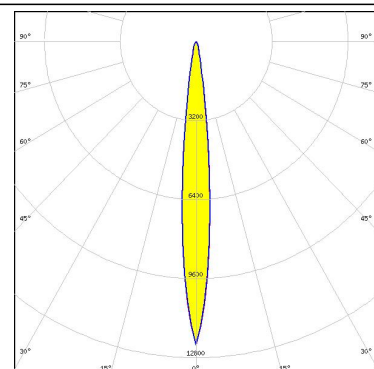
LED SLE G7 LES21 H  
FWHM 23.0°  
Efficiency 73 %  
Peak intensity 1.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14547\_LENA-ADAPTER-B



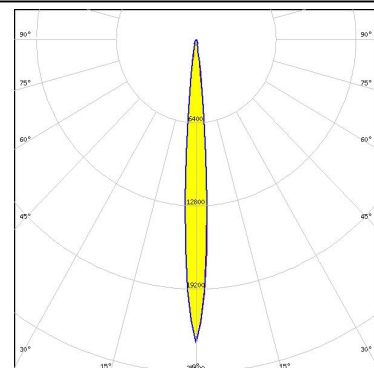
### PHOTOMETRIC DATA (SIMULATED):



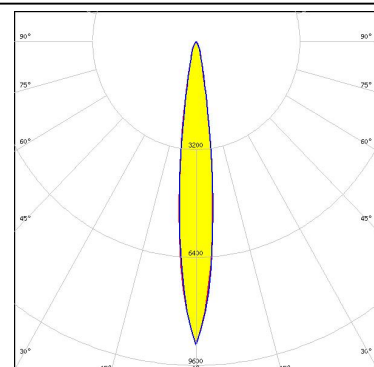
LED V10 Gen7  
FWHM 11.0°  
Efficiency 79 %  
Peak intensity 12.280 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 486 Typ L1



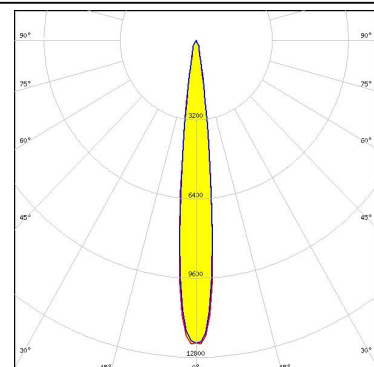
LED V10 Gen7  
FWHM 9.0°  
Efficiency 90 %  
Peak intensity 22.340 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 486 Typ L1



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



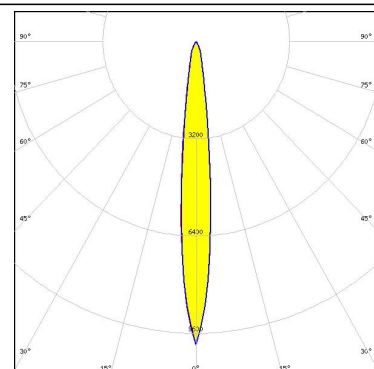
LED V13 Gen7  
FWHM 12.0°  
Efficiency 89 %  
Peak intensity 12.270 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 477 Typ L1



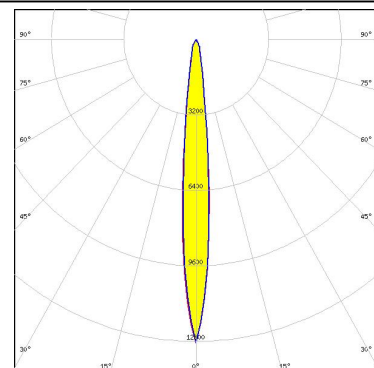
### PHOTOMETRIC DATA (SIMULATED):



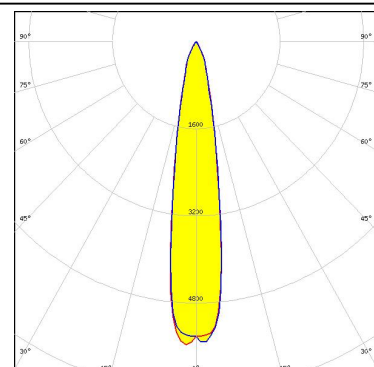
LED V13 Gen7  
FWHM 11.0°  
Efficiency 85 %  
Peak intensity 9.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
IDEAL: 50-2103CT + 50-2100LN



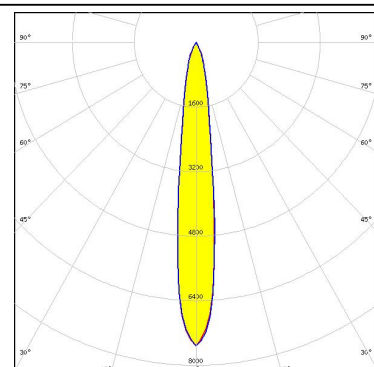
LED V13 Gen7  
FWHM 10.0°  
Efficiency 88 %  
Peak intensity 12.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
IDEAL: 50-2103CT + 50-2100LN



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



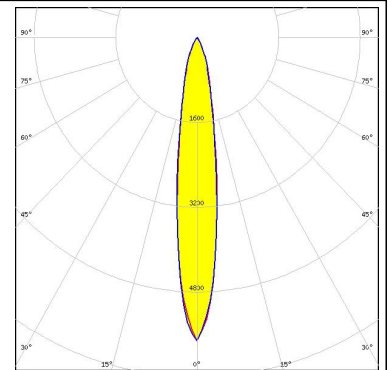
LED CXA/B 30xx  
FWHM 14.0°  
Efficiency 87 %  
Peak intensity 7.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
IDEAL: 50-2234C + 50-2100LN



### 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  
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-14  
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-9  
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

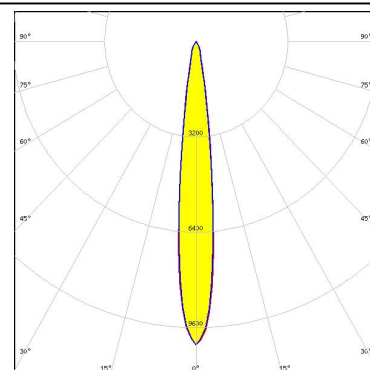
### PHOTOMETRIC DATA (SIMULATED):



**LED** CXM-9  
**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



**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



SEOUL SEMICONDUCTOR


**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



SEOUL SEMICONDUCTOR

**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

## PHOTOMETRIC DATA (SIMULATED):

 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	

 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	

### 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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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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USA

#### Local sales and technical support

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)

#### Shipping locations

Salo, Finland  
Hong Kong, China

#### Distribution Partners

[www.ledil.com/  
where\\_to\\_buy](http://www.ledil.com/where_to_buy)