

## LENA-M

~20° medium beam

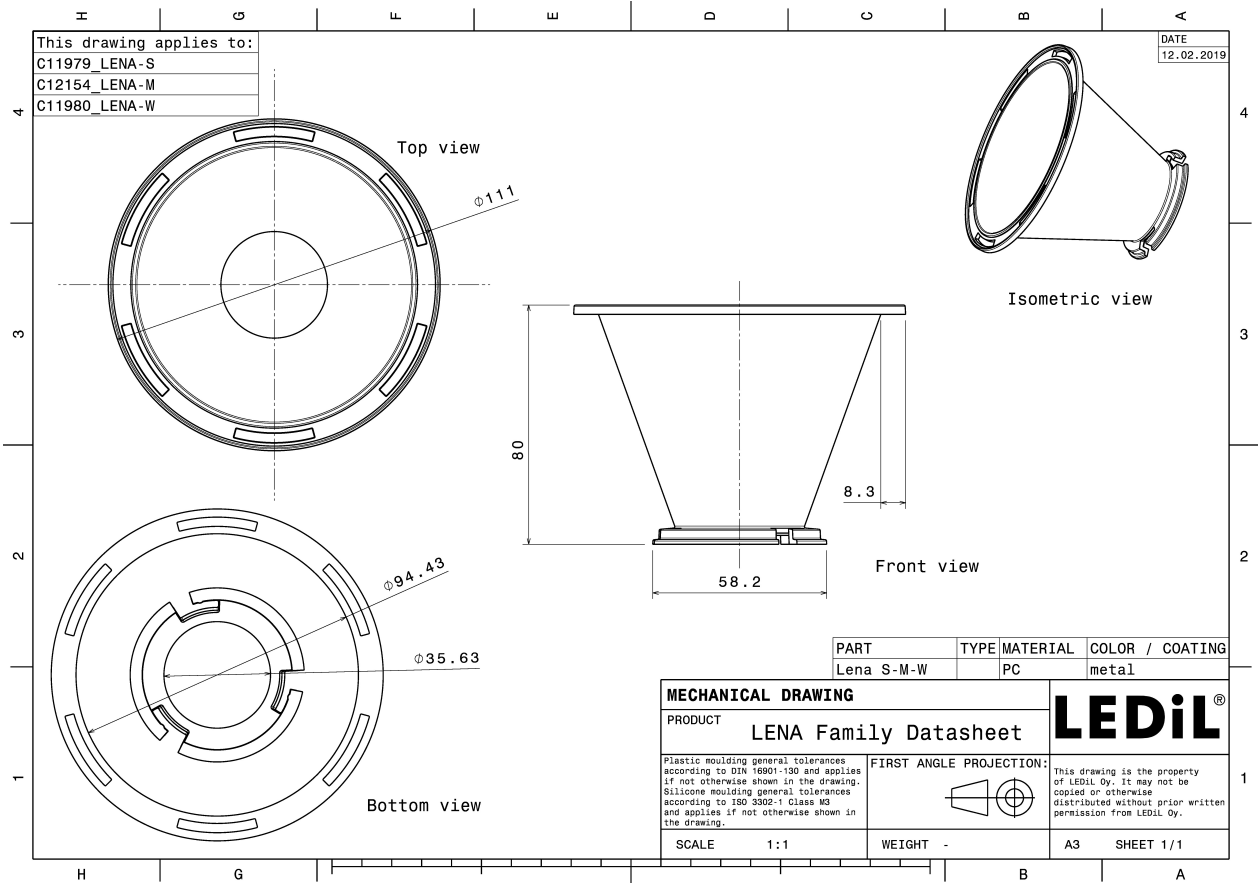
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 111.0 mm
Height	80 mm
Fastening	socket
Colour	metal
Box size	400 x 280 x 380 mm
Box weight	4 kg
Quantity in Box	60 pcs
ROHS compliant	yes ⓘ

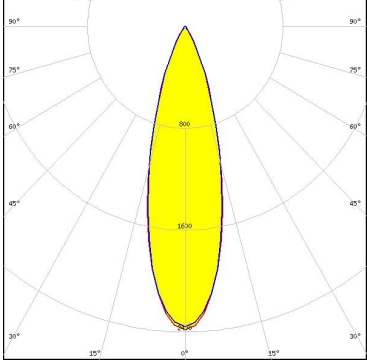


### MATERIAL SPECIFICATIONS:

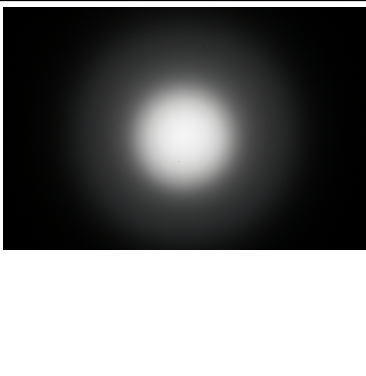

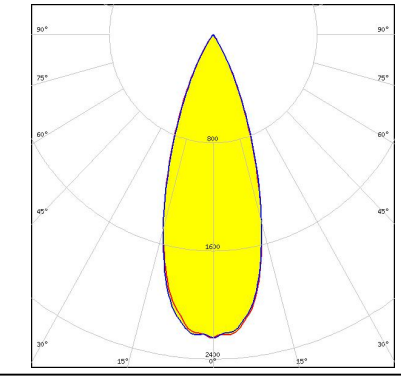
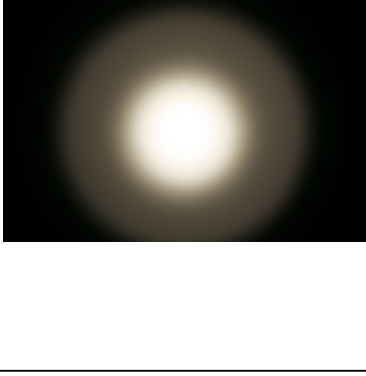
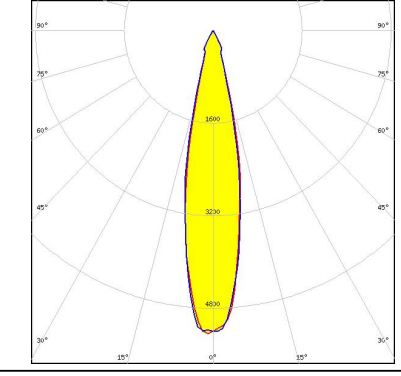

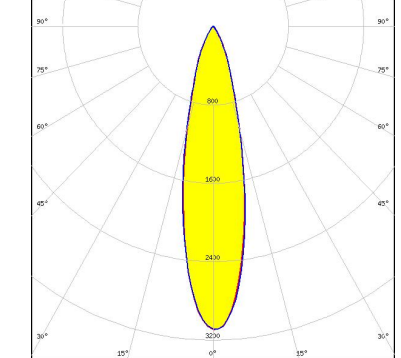
Component	Type	Material	Colour	Coating
LENA-M	Reflector	PC	metal	lacquer




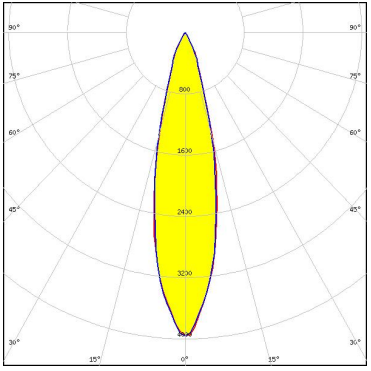
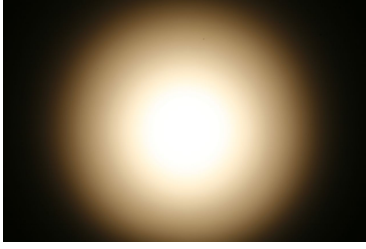
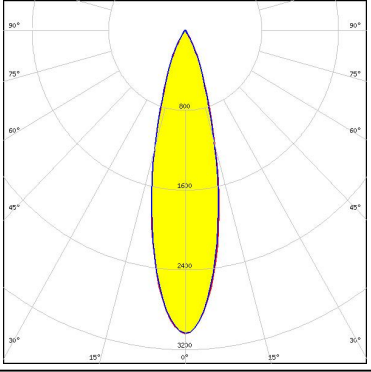

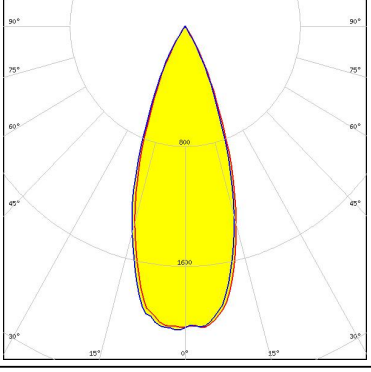

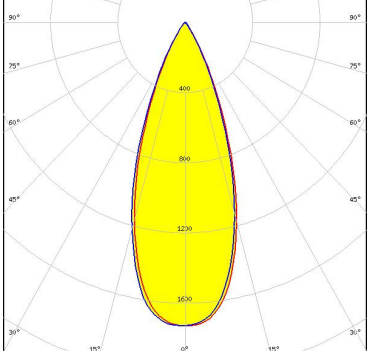
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED BXRA ES Rectangle</p> <p>FWHM 19.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12153_LENA-STD-BASE-BXRA</p>	
<p>bridgelux.</p> <p>LED BXRA ES Rectangle</p> <p>FWHM 20.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12153_LENA-STD-BASE-BXRA C11996_LENA-LENS</p>	
<p>bridgelux.</p> <p>LED BXRA RS</p> <p>FWHM 29.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12229_LENA-STD-BASE-RS C11996_LENA-LENS</p>	
<p>bridgelux.</p> <p>LED BXRA RS</p> <p>FWHM 28.0°</p> <p>Efficiency 84 %</p> <p>Peak intensity cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12229_LENA-STD-BASE-RS</p>	

### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED V10 Gen6 FWHM 18.0° Efficiency 75 % Peak intensity 5.230 cd/lm LEDs/each optic 1 Light colour White Required components: C13186_LENA-STD-BASE-CXA15 C11996_LENA-LENS</p>		
<p>bridgelux.</p> <p>LED Vero SE 29 FWHM 36.0° Efficiency 87 % Peak intensity 2.200 cd/lm LEDs/each optic 1 Light colour White Required components: C15083_LENA-STD-BASE-VERO29</p>		
<p>bridgelux.</p> <p>LED VERO13 FWHM 21.0° Efficiency 88 % Peak intensity 5.200 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18</p>		
<p>bridgelux.</p> <p>LED VERO13 FWHM 24.0° Efficiency 81 % Peak intensity 3.100 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		

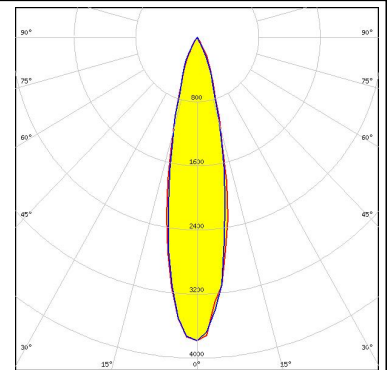
### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED VERO18 FWHM 24.0° Efficiency 86 % Peak intensity 3.960 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18</p>		
<p>bridgelux.</p> <p>LED VERO18 FWHM 26.0° Efficiency 81 % Peak intensity 3.040 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p>bridgelux.</p> <p>LED VERO29 FWHM 38.0° Efficiency 82 % Peak intensity 2.030 cd/lm LEDs/each optic 1 Light colour White Required components: C13867_LENA-STD-BASE-VERO29</p>		
<p>bridgelux.</p> <p>LED VERO29 FWHM 38.0° Efficiency 77 % Peak intensity 1.730 cd/lm LEDs/each optic 1 Light colour White Required components: C13867_LENA-STD-BASE-VERO29 C11996_LENA-LENS</p>		

### PHOTOMETRIC DATA (MEASURED):

#### CITIZEN

LED CL-L340  
 FWHM 24.0°  
 Efficiency 78 %  
 Peak intensity 3.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11995\_LENA-STD-BASE-CL340  
 C11996\_LENA-LENS

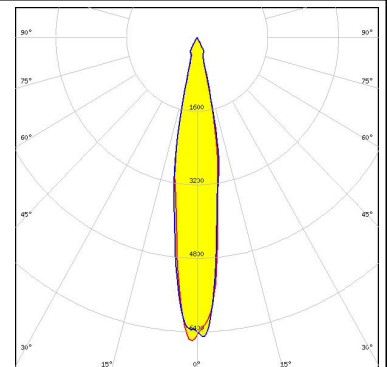


#### CITIZEN

LED CL-L340  
 FWHM 22.0°  
 Efficiency 83 %  
 Peak intensity 4.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11995\_LENA-STD-BASE-CL340

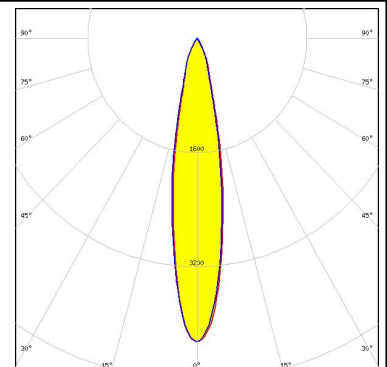
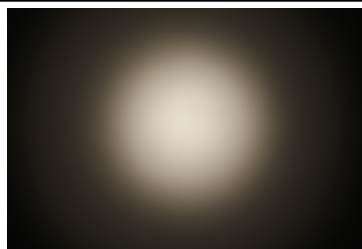
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM 17.0°  
 Efficiency 83 %  
 Peak intensity 6.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 434 Typ L1



#### CITIZEN

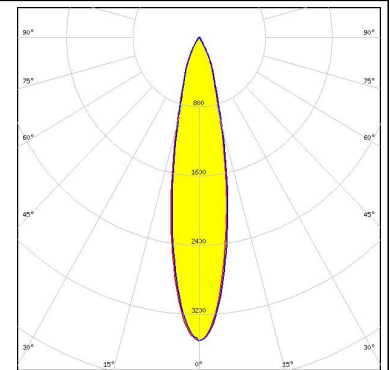
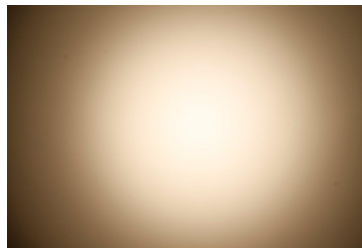
LED CLL02x/CLU02x (LES10)  
 FWHM 20.0°  
 Efficiency 78 %  
 Peak intensity 4.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 434 Typ L1



### PHOTOMETRIC DATA (MEASURED):

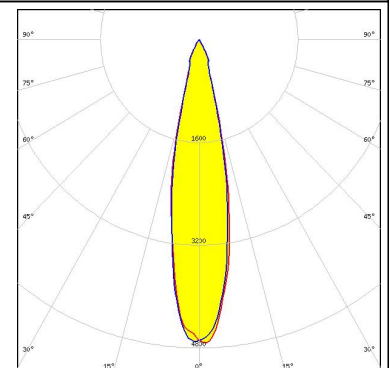
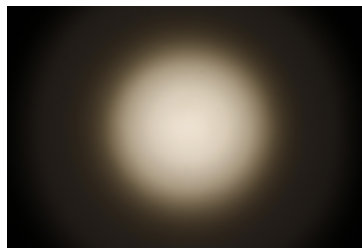
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 22.0°  
 Efficiency 76 %  
 Peak intensity 3.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11996\_LENA-LENS  
 A.A.G. STUCCHI: 8101/G2 + S-8000/11



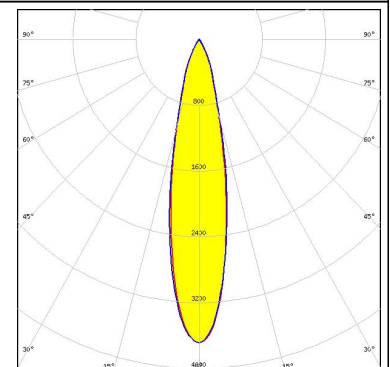
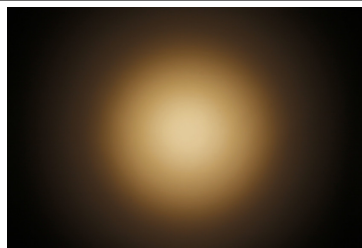
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 22.0°  
 Efficiency 83 %  
 Peak intensity 4.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 433 Typ L1



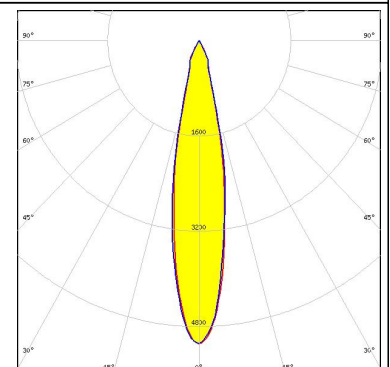
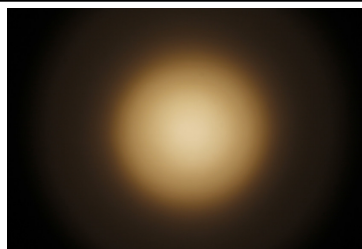
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 22.0°  
 Efficiency 78 %  
 Peak intensity 3.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



#### CITIZEN

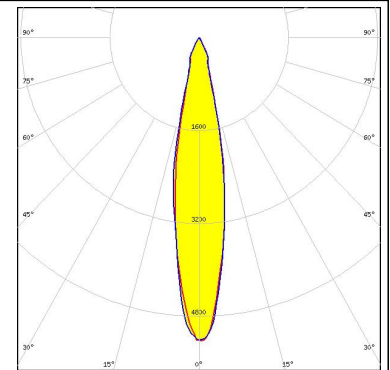
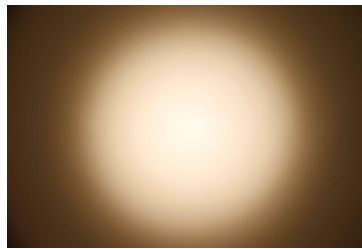
LED CLL03x/CLU03x  
 FWHM 20.0°  
 Efficiency 83 %  
 Peak intensity 5.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



### PHOTOMETRIC DATA (MEASURED):

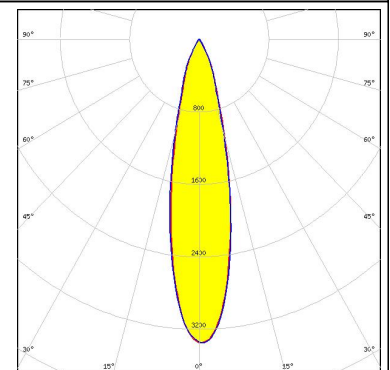
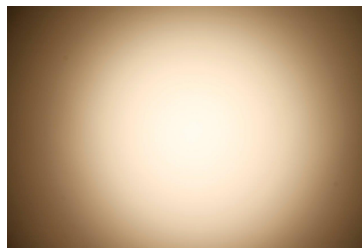
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 20.0°  
 Efficiency 81 %  
 Peak intensity 5.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8101/G2 + S-8000/11



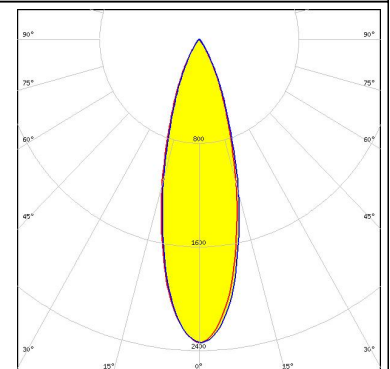
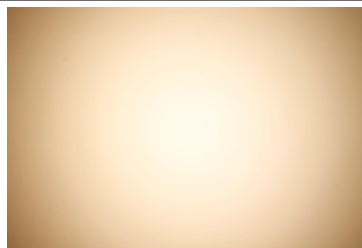
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 23.0°  
 Efficiency 78 %  
 Peak intensity 3.400 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



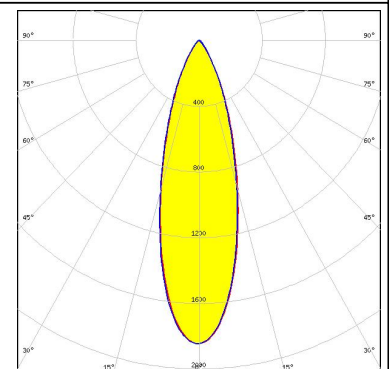
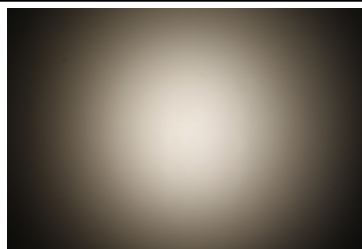
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 30.0°  
 Efficiency 78 %  
 Peak intensity 2.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 431 Typ L3



#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 30.0°  
 Efficiency 71 %  
 Peak intensity 1.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11996\_LENA-LENS  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12

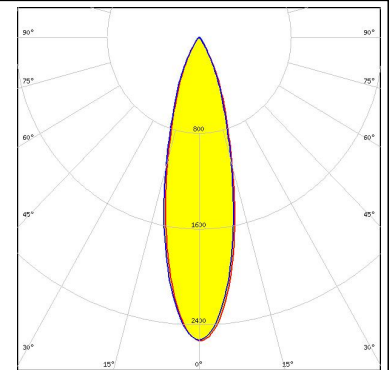




### PHOTOMETRIC DATA (MEASURED):

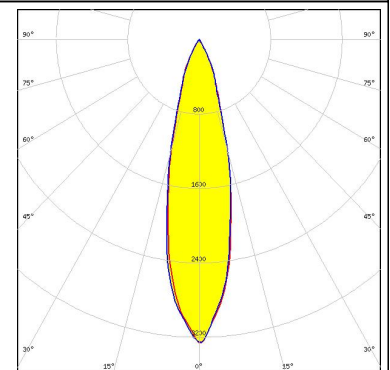
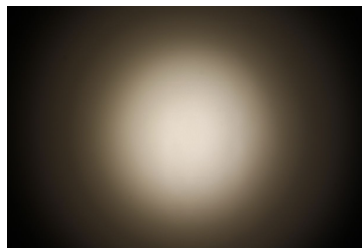
#### CITIZEN

LED CLL04x/CLU04x  
FWHM 27.0°  
Efficiency 78 %  
Peak intensity 2.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C11996\_LENA-LENS  
IDEAL: 50-2204CT + 50-2100LN



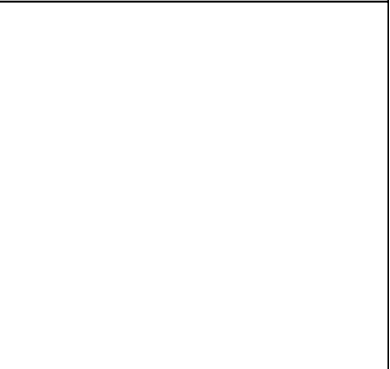
#### CITIZEN

LED CLL04x/CLU04x  
FWHM 25.0°  
Efficiency 76 %  
Peak intensity 3.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
A.A.G. STUCCHI: 8102/G2 + S-8000/12



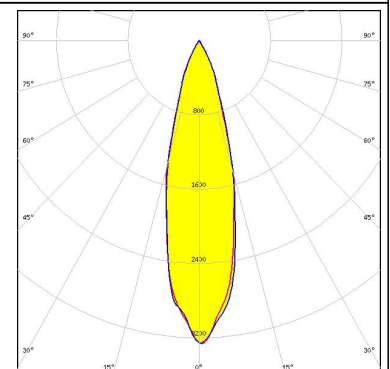
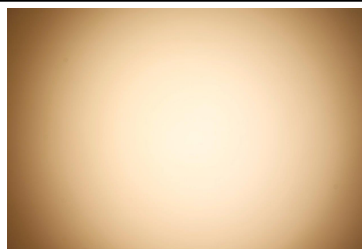
#### CITIZEN

LED CLL04x/CLU04x  
FWHM 24.0°  
Efficiency 77 %  
Peak intensity 2.670 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12692\_LENA-STD-BASE-CLL040  
C11996\_LENA-LENS



#### CITIZEN

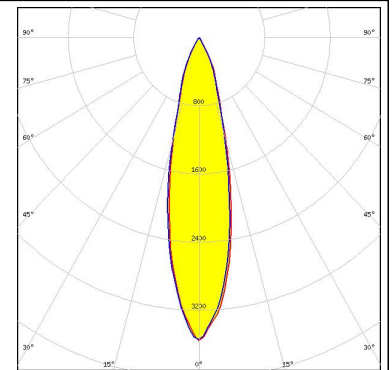
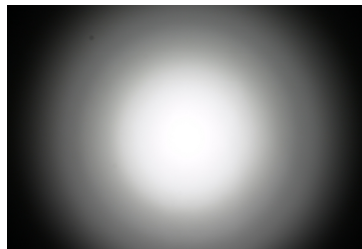
LED CLL04x/CLU04x  
FWHM 27.0°  
Efficiency 83 %  
Peak intensity 3.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
Bender Wirth: 431 Typ L3



### PHOTOMETRIC DATA (MEASURED):

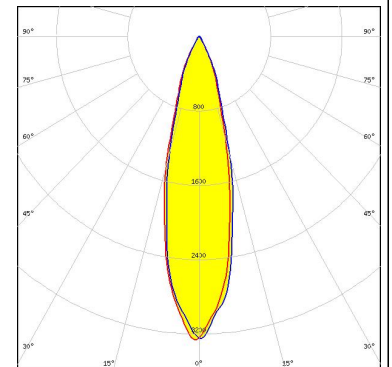
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 24.0°  
 Efficiency 80 %  
 Peak intensity 3.600 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2204CT + 50-2100LN



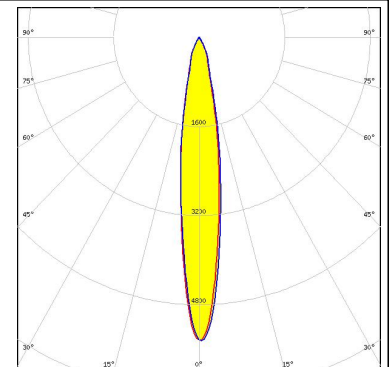
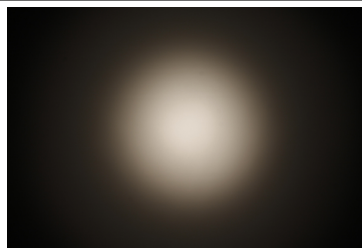
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 26.0°  
 Efficiency 88 %  
 Peak intensity 3.300 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



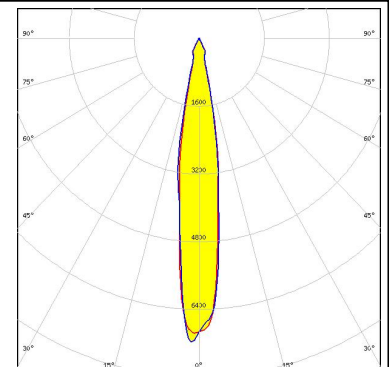
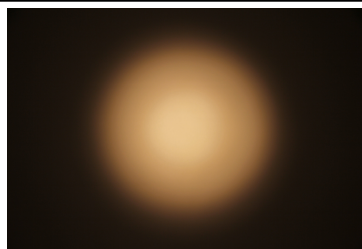
#### CITIZEN

LED CLU700/701  
 FWHM 16.0°  
 Efficiency 78 %  
 Peak intensity 5.500 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 434 Typ L1



#### CITIZEN

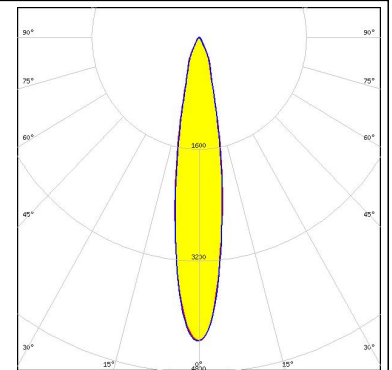
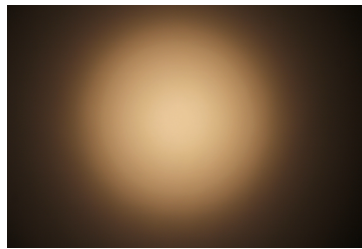
LED CLU710/711  
 FWHM 16.0°  
 Efficiency 86 %  
 Peak intensity 7.200 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



### PHOTOMETRIC DATA (MEASURED):

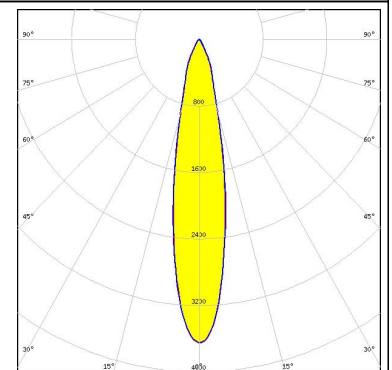
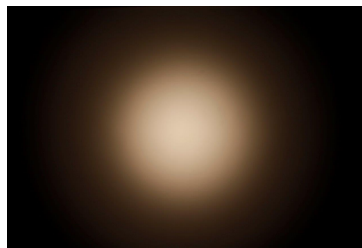
#### CITIZEN

LED CLU710/711  
 FWHM 18.0°  
 Efficiency 81 %  
 Peak intensity 4.300 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



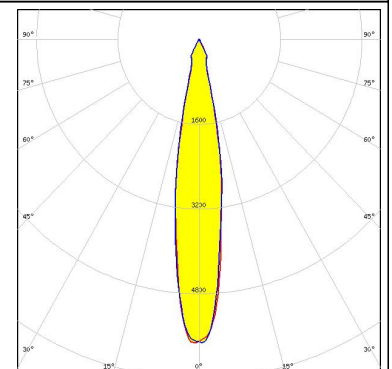
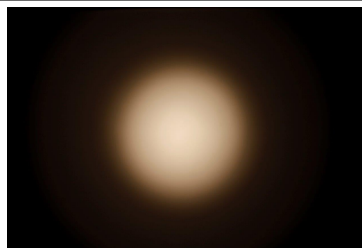
#### CITIZEN

LED CLU720/721  
 FWHM 20.0°  
 Efficiency 77 %  
 Peak intensity 3.700 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



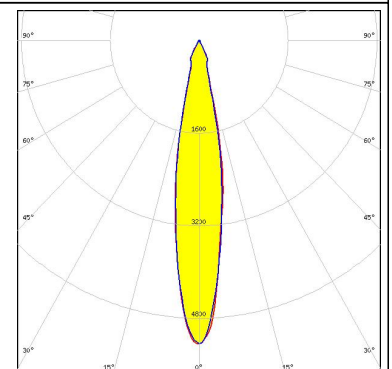
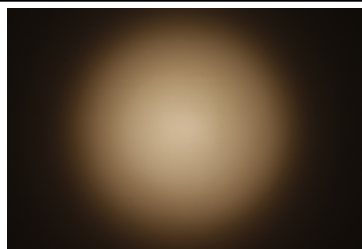
#### CITIZEN

LED CLU720/721  
 FWHM 18.0°  
 Efficiency 83 %  
 Peak intensity 5.700 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



#### CITIZEN

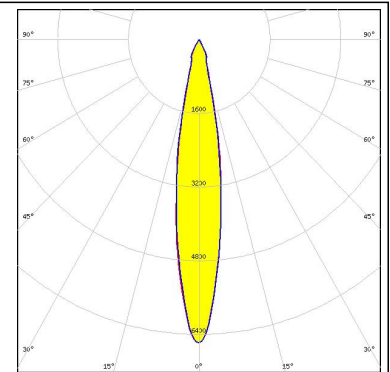
LED CLU730/731  
 FWHM 19.0°  
 Efficiency 80 %  
 Peak intensity 5.200 cd/m  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



### PHOTOMETRIC DATA (MEASURED):

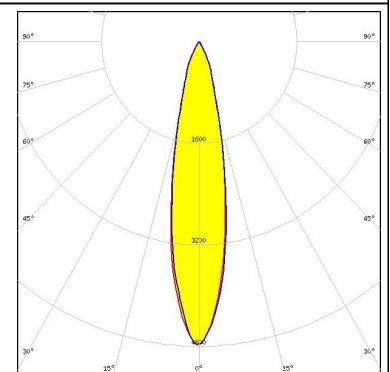
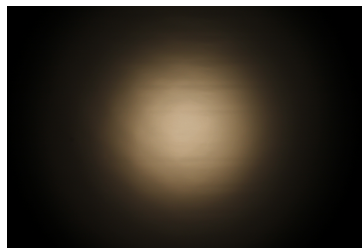
**CREE** 

LED CMA1840  
FWHM 18.0°  
Efficiency 90 %  
Peak intensity 6.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14146\_LENA-STD-BASE-CXA18



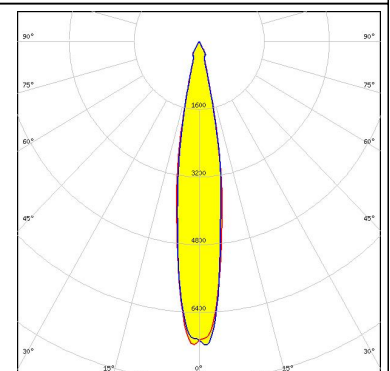
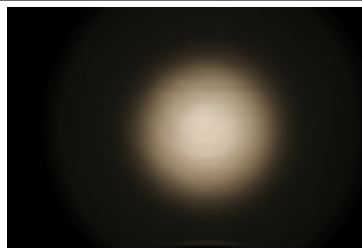
**CREE** 

LED CMA2550  
FWHM 21.0°  
Efficiency 90 %  
Peak intensity 4.800 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13324\_LENA-STD-BASE-CXA25



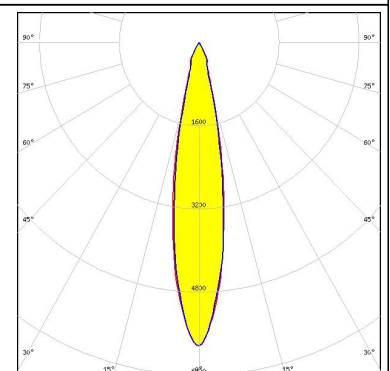
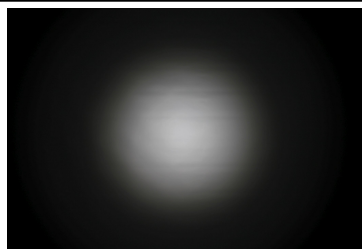
**CREE** 

LED CMT14xx  
FWHM 17.0°  
Efficiency 90 %  
Peak intensity 7.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1



**CREE** 

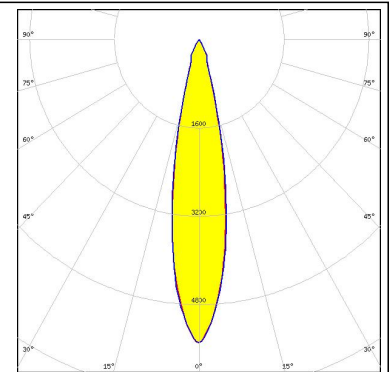
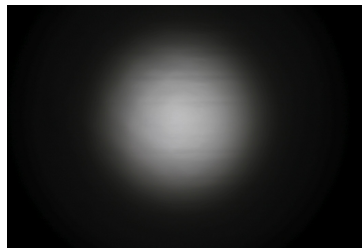
LED CMT19xx  
FWHM 20.0°  
Efficiency 90 %  
Peak intensity 5.838 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



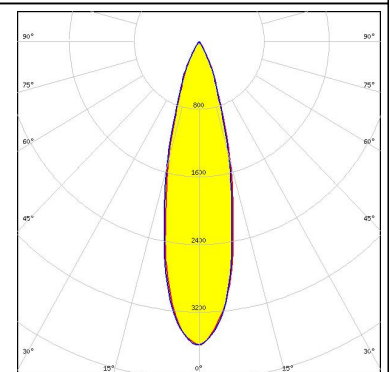
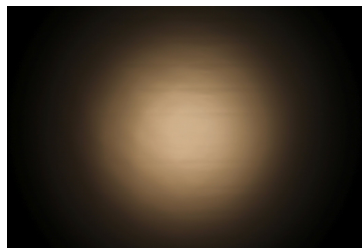
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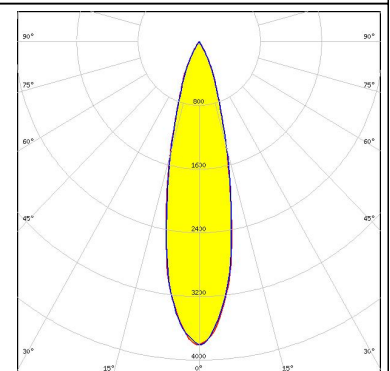
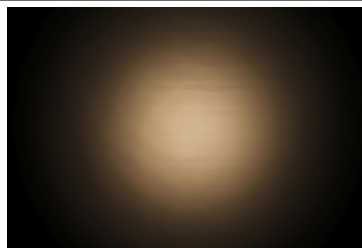
LED CMT19xx  
 FWHM 21.0°  
 Efficiency 90 %  
 Peak intensity 5.495 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 477 Typ L1



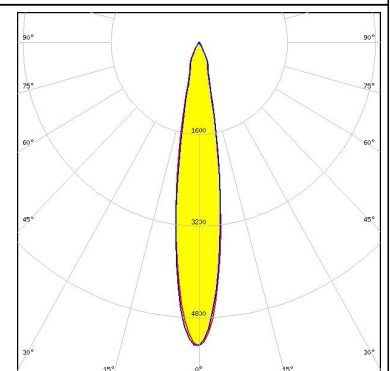
LED CMT28xx  
 FWHM 26.0°  
 Efficiency 90 %  
 Peak intensity 3.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 471 Typ L3



LED CMT28xx  
 FWHM 25.0°  
 Efficiency 90 %  
 Peak intensity 3.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



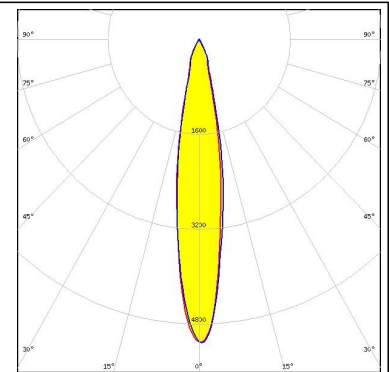
LED CXA/B 15xx  
 FWHM 17.0°  
 Efficiency 79 %  
 Peak intensity 5.290 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13186\_LENA-STD-BASE-CXA15  
 C11996\_LENA-LENS



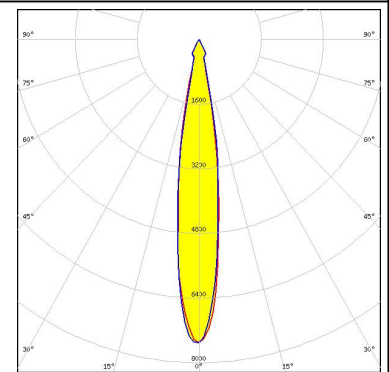
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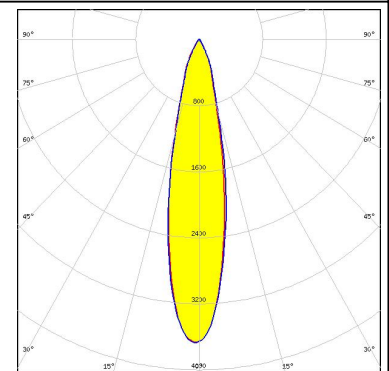
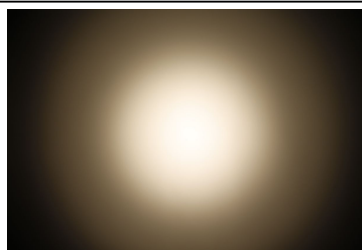
LED CXA/B 15xx  
 FWHM 18.0°  
 Efficiency 78 %  
 Peak intensity 5.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 441 Typ L1



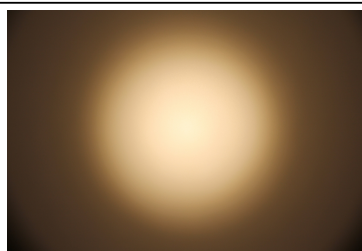
LED CXA/B 15xx  
 FWHM 16.0°  
 Efficiency 84 %  
 Peak intensity 7.510 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13186\_LENA-STD-BASE-CXA15



LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 22.0°  
 Efficiency 80 %  
 Peak intensity 3.700 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



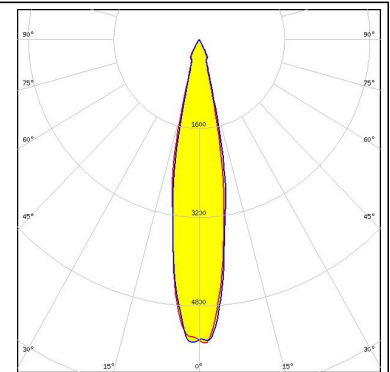
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 17.0°  
 Efficiency 84 %  
 Peak intensity 7.880 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14146\_LENA-STD-BASE-CXA18



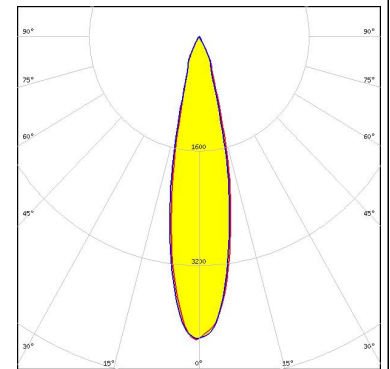
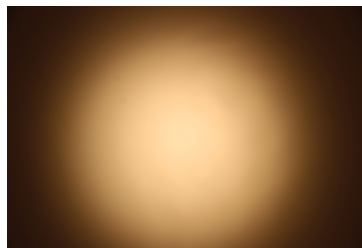
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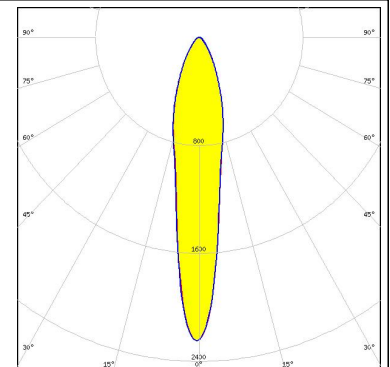
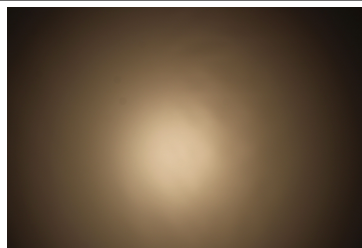
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 21.0°  
 Efficiency 85 %  
 Peak intensity 5.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1



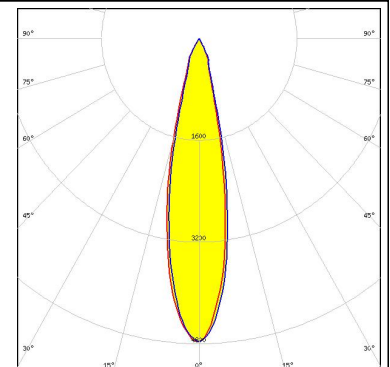
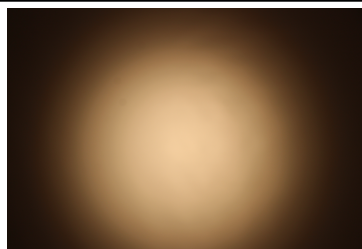
LED CXA/B 1830  
 FWHM 23.0°  
 Efficiency 83 %  
 Peak intensity 4.260 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C14169\_LENA-CLEAR-LENS  
 Bender Wirth: 437 Typ L1



LED CXA/B 1830  
 FWHM 17.0°  
 Efficiency 75 %  
 Peak intensity 2.250 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 1830  
 FWHM 23.0°  
 Efficiency 88 %  
 Peak intensity 4.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1



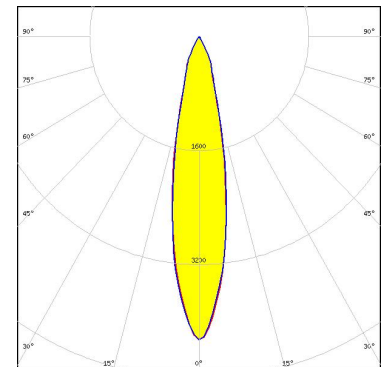
### PHOTOMETRIC DATA (MEASURED):

#### CREE

LED CXA/B 25xx  
 FWHM 21.0°  
 Efficiency 77 %  
 Peak intensity 3.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13324\_LENA-STD-BASE-CXA25  
 C11996\_LENA-LENS

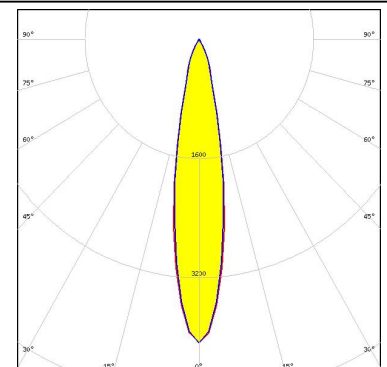
#### CREE

LED CXA/B 25xx  
 FWHM 20.0°  
 Efficiency 82 %  
 Peak intensity 4.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13324\_LENA-STD-BASE-CXA25



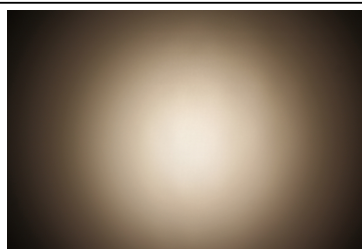
#### CREE

LED CXA2011  
 FWHM 19.0°  
 Efficiency 78 %  
 Peak intensity 4.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12105\_LENA-STD-BASE-CXA20  
 C11996\_LENA-LENS



#### EVERLIGHT

LED CHI3030 19W  
 FWHM 27.0°  
 Efficiency 81 %  
 Peak intensity 2.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 468 Typ L3



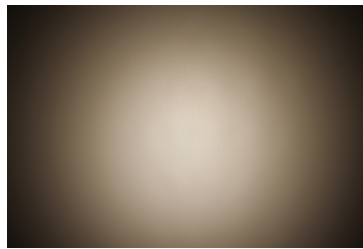


### PHOTOMETRIC DATA (MEASURED):

#### EVERLIGHT

LED CHI3030 29W  
FWHM 34.0°  
Efficiency 78 %  
Peak intensity 1.900 cd/lm  
LEDs/each optic 1  
Light colour White

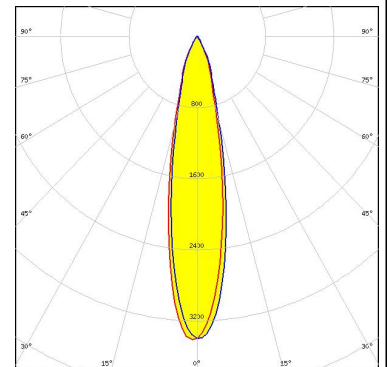
Required components:  
C13867\_LENA-STD-BASE-VERO29  
C11996\_LENA-LENS  
Bender Wirth: 468 Typ L3



#### LUMILEDS

LED LUXEON CoB 1204/1205  
FWHM 21.0°  
Efficiency 74 %  
Peak intensity 3.400 cd/lm  
LEDs/each optic 1  
Light colour White

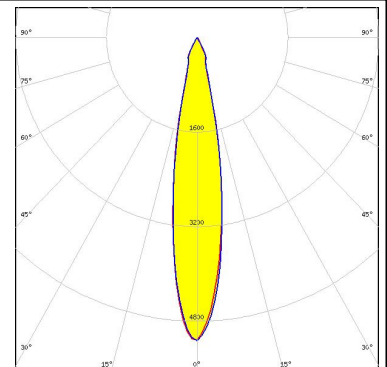
Required components:  
C12292\_LENA-STD-BASE-MEZ  
C11996\_LENA-LENS



#### LUMILEDS

LED LUXEON CoB 1204/1205  
FWHM 19.0°  
Efficiency 79 %  
Peak intensity 5.100 cd/lm  
LEDs/each optic 1  
Light colour White

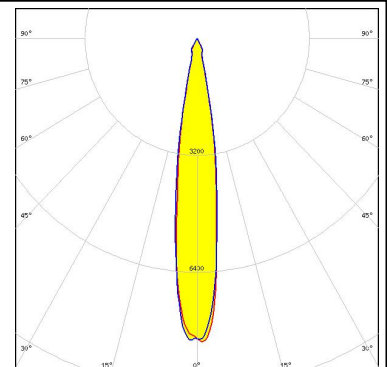
Required components:  
C12292\_LENA-STD-BASE-MEZ



#### LUMILEDS

LED LUXEON CoB 1204HD  
FWHM 15.0°  
Efficiency 90 %  
Peak intensity 8.300 cd/lm  
LEDs/each optic 1  
Light colour White

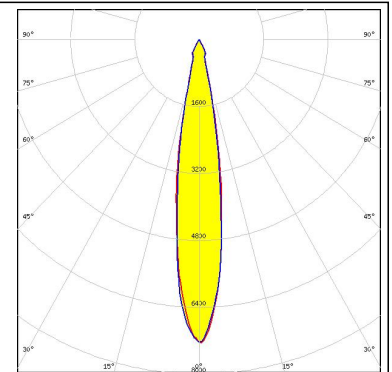
Required components:  
C11981\_LENA-STD-BASE-COB-L110



### PHOTOMETRIC DATA (MEASURED):

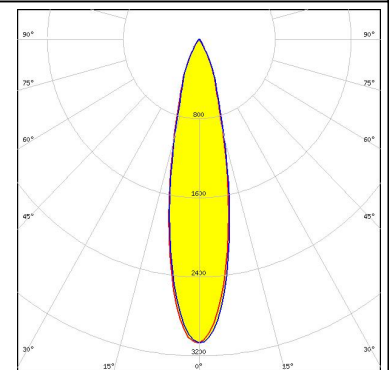
#### LUMILEDS

LED LUXEON CoB 1205HD  
 FWHM 17.0°  
 Efficiency 90 %  
 Peak intensity 7.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11981\_LENA-STD-BASE-COB-L110



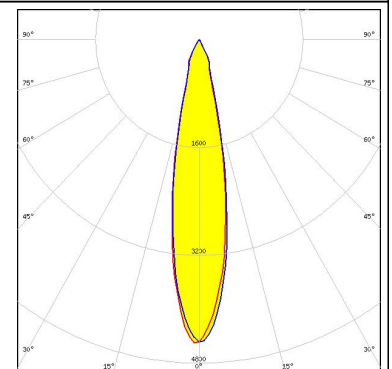
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 23.0°  
 Efficiency 74 %  
 Peak intensity 3.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



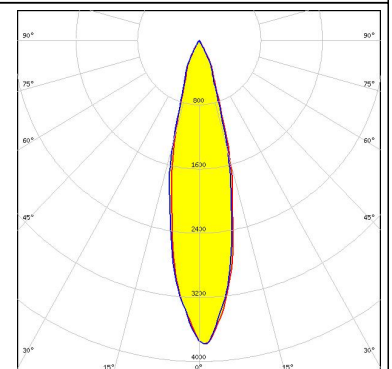
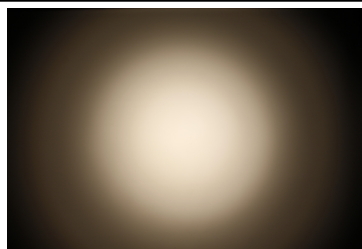
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 21.0°  
 Efficiency 80 %  
 Peak intensity 4.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ



#### LUMILEDS

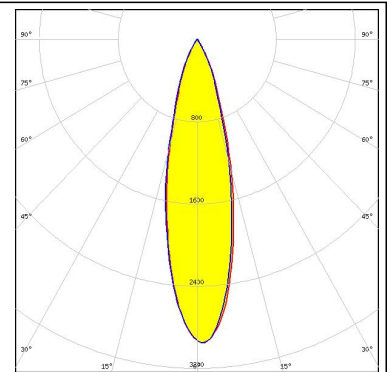
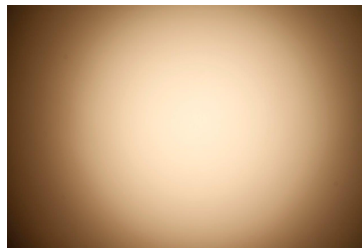
LED LUXEON CoB 1211  
 FWHM 24.0°  
 Efficiency 87 %  
 Peak intensity 3.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 431 Typ L3



### PHOTOMETRIC DATA (MEASURED):

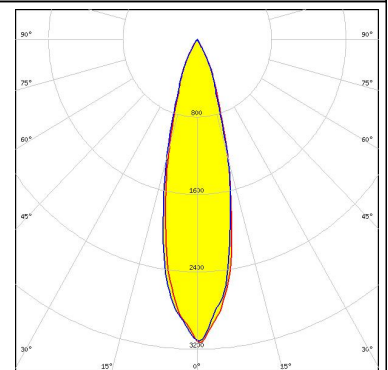
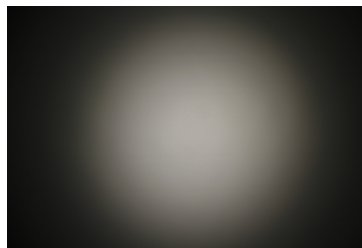
#### LUMILEDS

LED LUXEON CoB 1211  
 FWHM 26.0°  
 Efficiency 78 %  
 Peak intensity 3.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 431 Typ L3



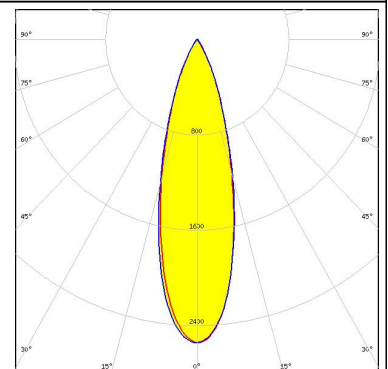
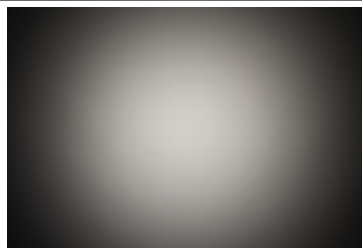
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 26.0°  
 Efficiency 77 %  
 Peak intensity 3.140 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



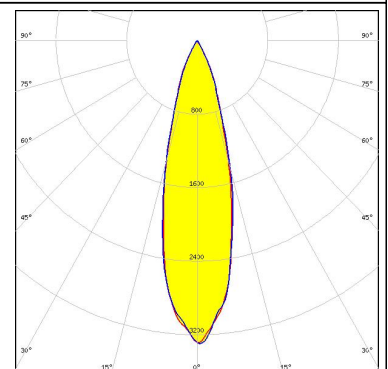
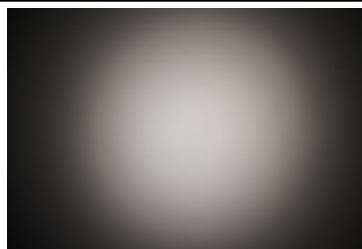
#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 29.0°  
 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

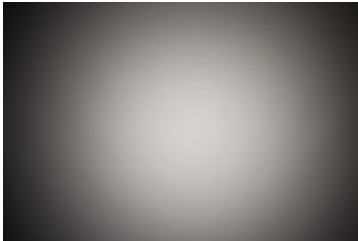
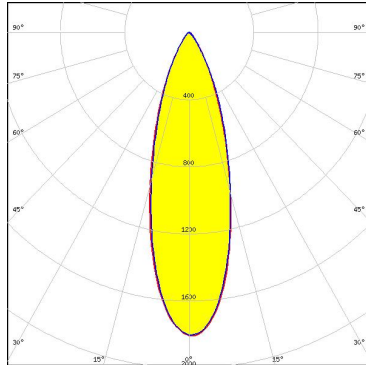
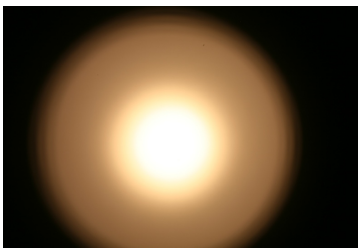
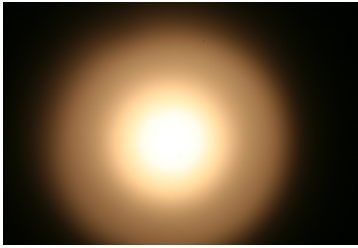



#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 27.0°  
 Efficiency 83 %  
 Peak intensity 3.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



### PHOTOMETRIC DATA (MEASURED):

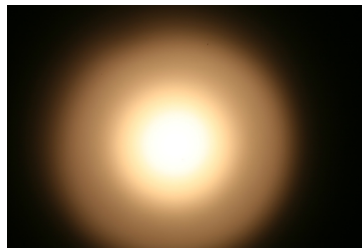
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812            FWHM 31.0°            Efficiency 72 %            Peak intensity 1.800 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C11996_LENA-LENS            A.A.G. STUCCHI: 8102/G2 + S-8000/12</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K12            FWHM 19.0°            Efficiency 80 %            Peak intensity 0.530 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12924_LENA-STD-BASE-LUXEON-K</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K12            FWHM 21.0°            Efficiency 74 %            Peak intensity 4.000 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12924_LENA-STD-BASE-LUXEON-K            C11996_LENA-LENS</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K16            FWHM 20.0°            Efficiency 77 %            Peak intensity 0.460 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12924_LENA-STD-BASE-LUXEON-K</p>		

### PHOTOMETRIC DATA (MEASURED):

#### LUMILEDS

LED LUXEON K16  
 FWHM 22.0°  
 Efficiency 72 %  
 Peak intensity 3.450 cd/lm  
 LEDs/each optic 1  
 Light colour White

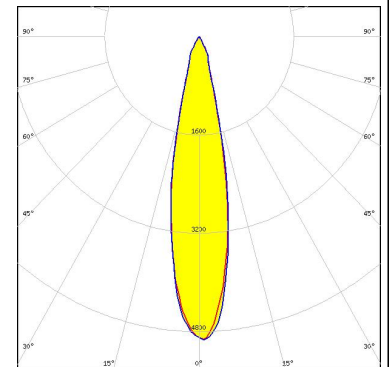
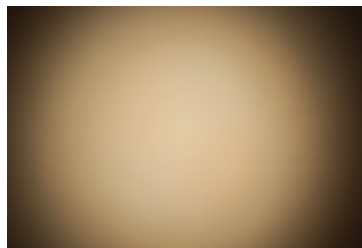
Required components:  
 C12924\_LENA-STD-BASE-LUXEON-K  
 C11996\_LENA-LENS



#### LUMINUS

LED CDM-14 (Dim-To-Warm)  
 FWHM 22.0°  
 Efficiency 87 %  
 Peak intensity 4.900 cd/lm  
 LEDs/each optic 1  
 Light colour White

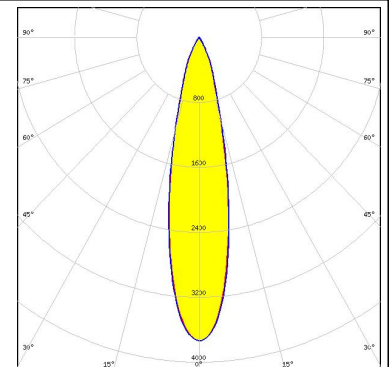
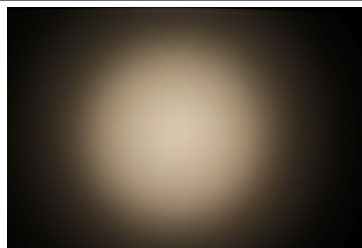
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 491 Typ L2



#### LUMINUS

LED CDM-14 (Dim-To-Warm)  
 FWHM 23.0°  
 Efficiency 82 %  
 Peak intensity 3.700 cd/lm  
 LEDs/each optic 1  
 Light colour White

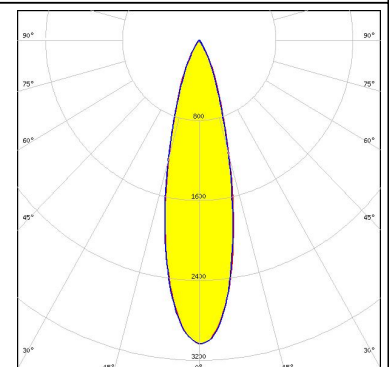
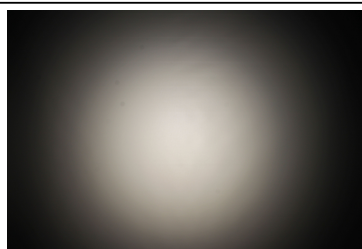
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 491 Typ L2



#### LUMINUS

LED CDM-18 (Dim-To-Warm)  
 FWHM 26.0°  
 Efficiency 82 %  
 Peak intensity 3.000 cd/lm  
 LEDs/each optic 1  
 Light colour White

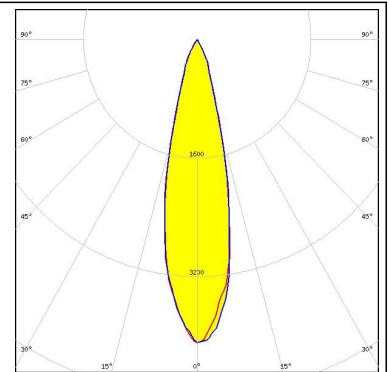
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 491 Typ L2



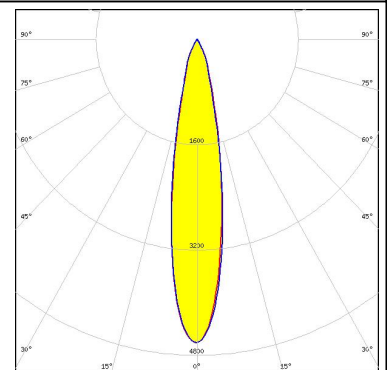
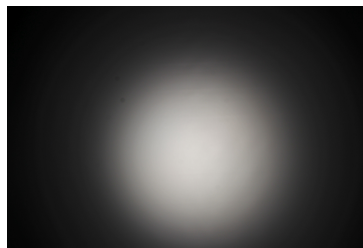
### PHOTOMETRIC DATA (MEASURED):



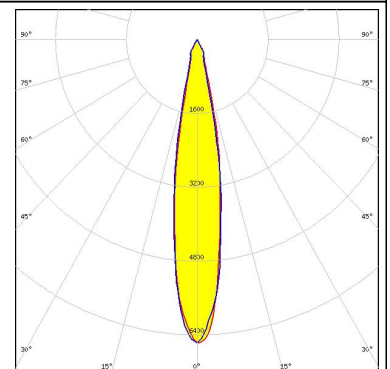
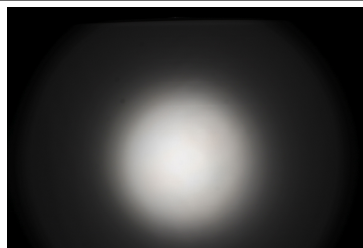
LED CDM-18 (Dim-To-Warm)  
 FWHM 25.0°  
 Efficiency 87 %  
 Peak intensity 4.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 491 Typ L2



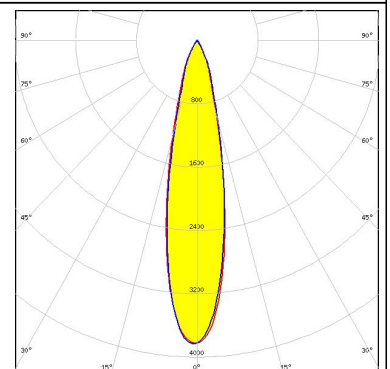
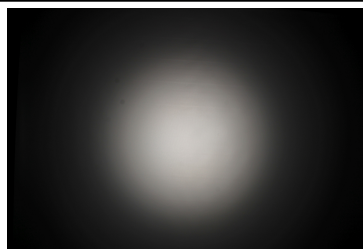
LED CDM-9 (Dim-To-Warm)  
 FWHM 20.0°  
 Efficiency 82 %  
 Peak intensity 4.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 490 Typ L1



LED CDM-9 (Dim-To-Warm)  
 FWHM 18.0°  
 Efficiency 88 %  
 Peak intensity 6.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 490 Typ L1



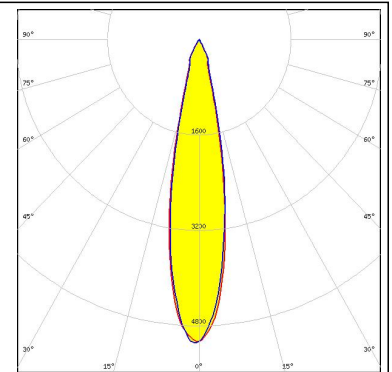
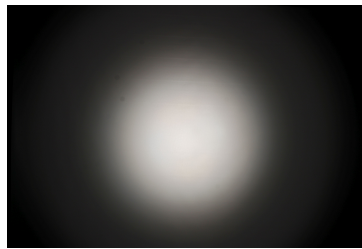
LED CTM-14 (Tunable White)  
 FWHM 22.0°  
 Efficiency 81 %  
 Peak intensity 3.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 442 Typ L3



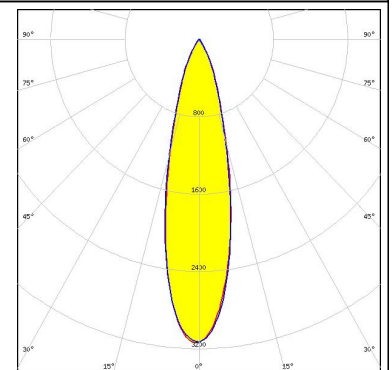
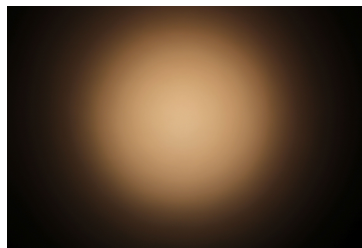
### PHOTOMETRIC DATA (MEASURED):



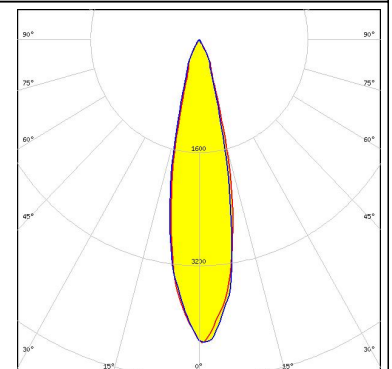
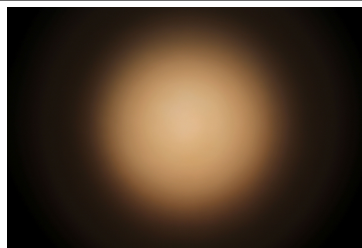
LED CTM-14 (Tunable White)  
 FWHM 21.0°  
 Efficiency 87 %  
 Peak intensity 5.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 442 Typ L3



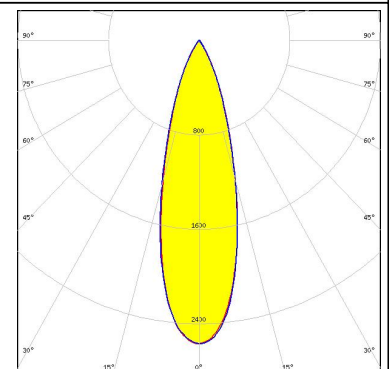
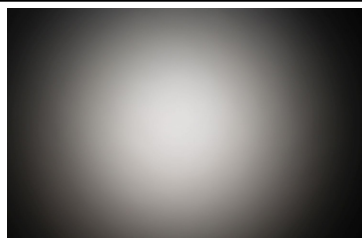
LED CTM-18 (Tunable White)  
 FWHM 25.0°  
 Efficiency 82 %  
 Peak intensity 3.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 442 Typ L3



LED CTM-18 (Tunable White)  
 FWHM 24.0°  
 Efficiency 87 %  
 Peak intensity 4.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 442 Typ L3



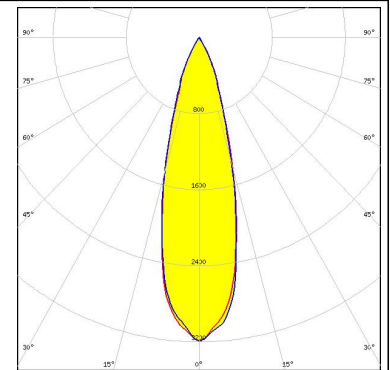
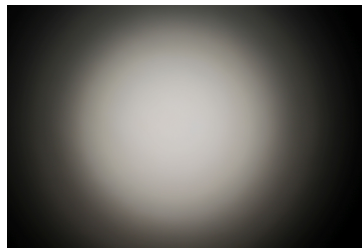
LED CTM-22 (Tunable White)  
 FWHM 29.0°  
 Efficiency 82 %  
 Peak intensity 2.570 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 494 Typ L3



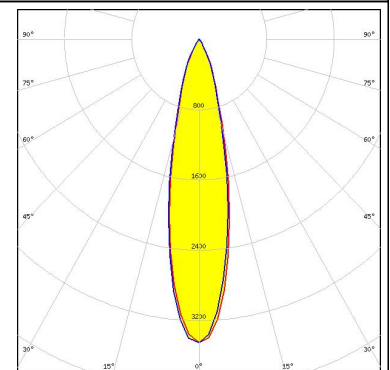
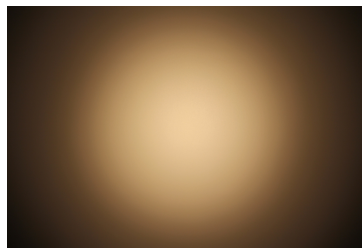
#### PHOTOMETRIC DATA (MEASURED):



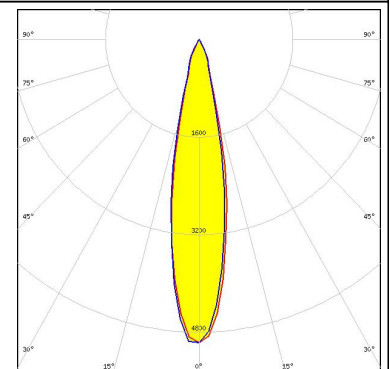
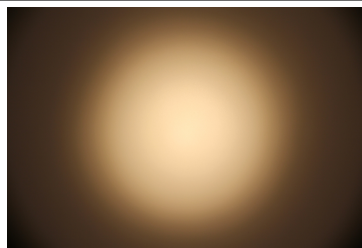
LED CTM-22 (Tunable White)  
 FWHM 28.0°  
 Efficiency 87 %  
 Peak intensity 3.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 494 Typ L3



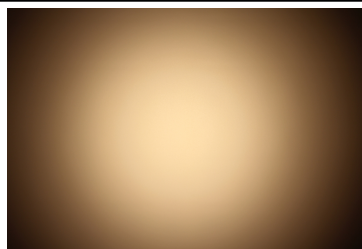
LED CxM-14 (19x19)  
 FWHM 24.0°  
 Efficiency 79 %  
 Peak intensity 3.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



LED CxM-14 (19x19)  
 FWHM 22.0°  
 Efficiency 84 %  
 Peak intensity 5.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



LED CxM-22 (28x28)  
 FWHM 29.0°  
 Efficiency 79 %  
 Peak intensity 2.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS





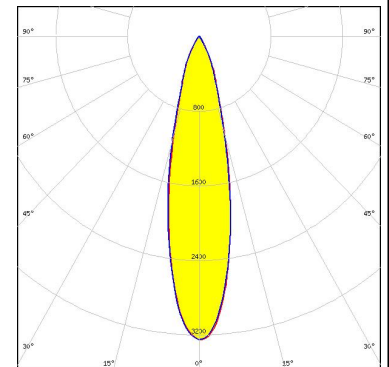
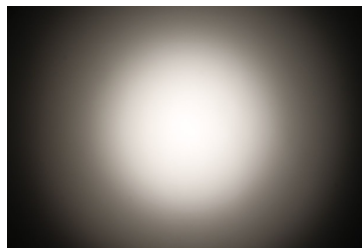
### PHOTOMETRIC DATA (MEASURED):



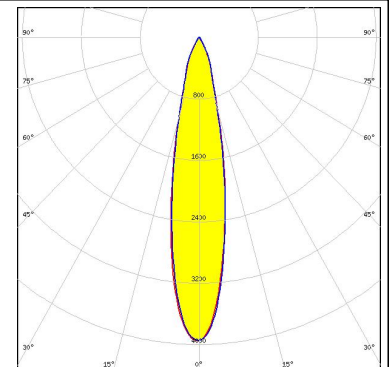
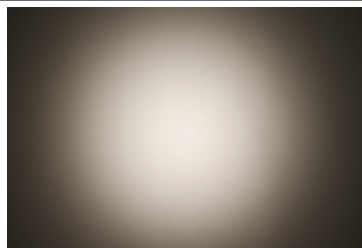
**LED** CxM-22 (28x28)  
**FWHM** 27.0°  
**Efficiency** 84 %  
**Peak intensity** 3.500 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C12692\_LENA-STD-BASE-CLL040



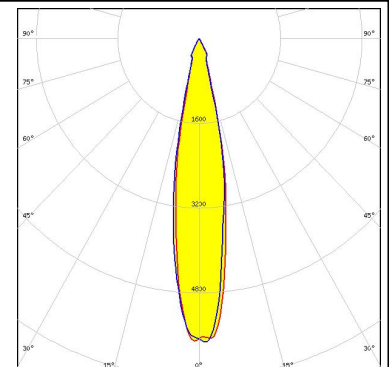
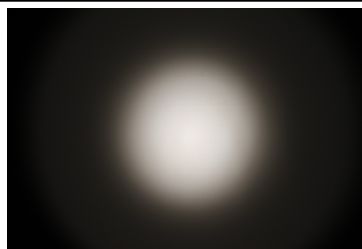
**LED** COB J-Type  
**FWHM** 24.0°  
**Efficiency** 80 %  
**Peak intensity** 3.300 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 463 Typ L2



**LED** COB L-Type (LES 11)  
**FWHM** 21.0°  
**Efficiency** 80 %  
**Peak intensity** 4.000 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



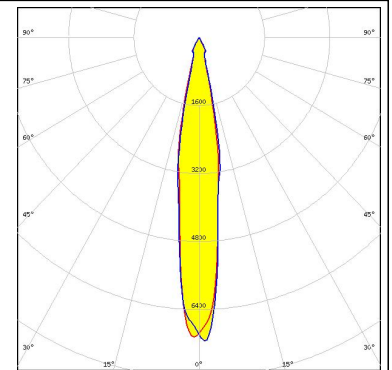
**LED** COB L-Type (LES 11)  
**FWHM** 20.0°  
**Efficiency** 85 %  
**Peak intensity** 5.700 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 438 Typ L1



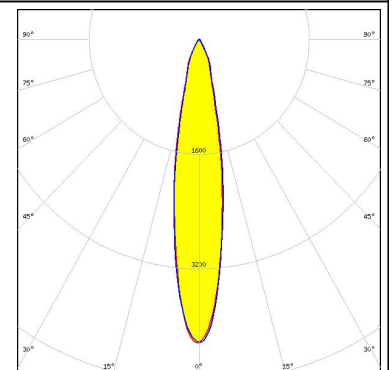
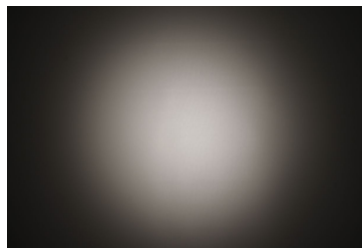
### PHOTOMETRIC DATA (MEASURED):



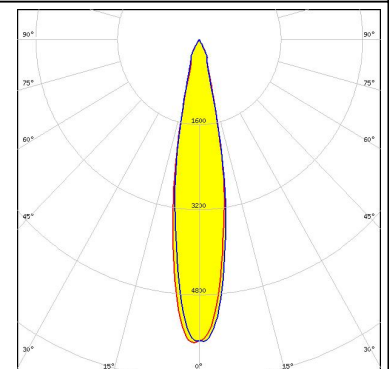
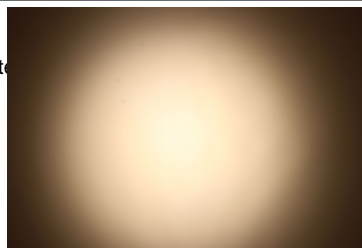
LED COB L-Type (LES 9)  
 FWHM 16.0°  
 Efficiency 86 %  
 Peak intensity 7.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 438 Typ L1



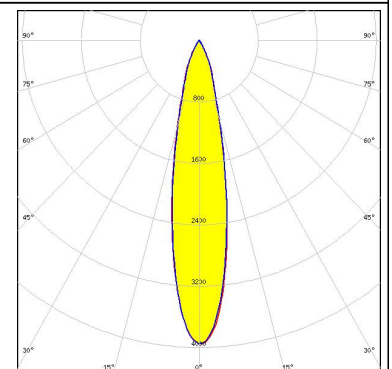
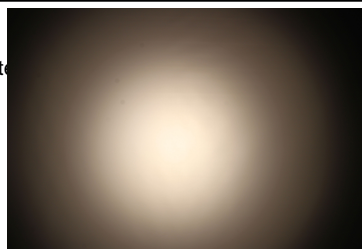
LED COB L-Type (LES 9)  
 FWHM 19.0°  
 Efficiency 81 %  
 Peak intensity 4.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 438 Typ L1



LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM 20.0°  
 Efficiency 87 %  
 Peak intensity 5.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 498 Typ L2



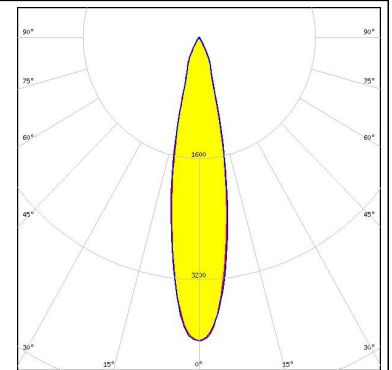
LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM 21.0°  
 Efficiency 82 %  
 Peak intensity 4.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 498 Typ L2



### PHOTOMETRIC DATA (MEASURED):

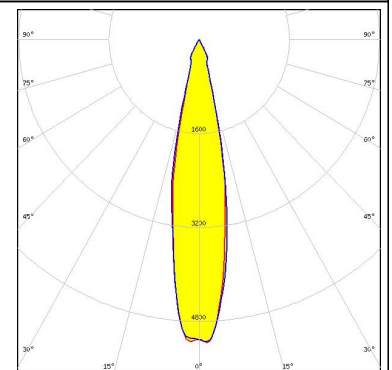
#### OSRAM Opto Semiconductors

LED Soleriq S13  
 FWHM 22.0°  
 Efficiency 78 %  
 Peak intensity 4.000 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



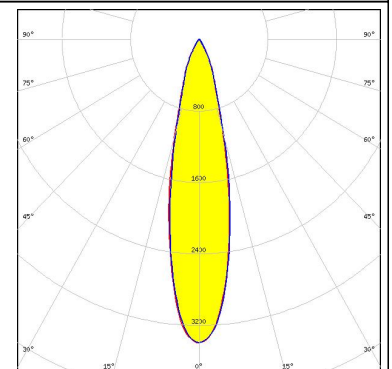
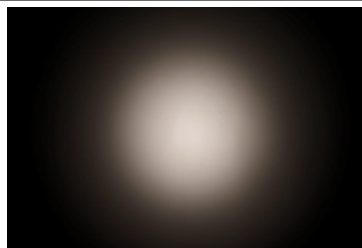
#### OSRAM Opto Semiconductors

LED Soleriq S13  
 FWHM 21.0°  
 Efficiency 83 %  
 Peak intensity 5.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1



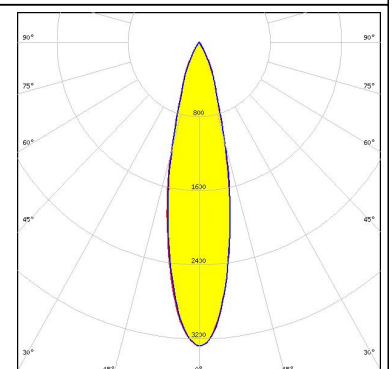
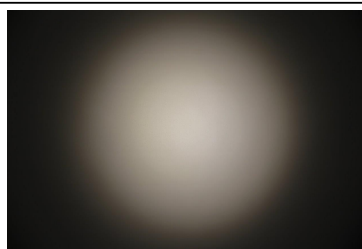
#### OSRAM Opto Semiconductors

LED Soleriq S13  
 FWHM 23.0°  
 Efficiency 81 %  
 Peak intensity 3.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS



#### OSRAM Opto Semiconductors

LED Soleriq S19  
 FWHM 24.0°  
 Efficiency 78 %  
 Peak intensity 3.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 462 Typ L3



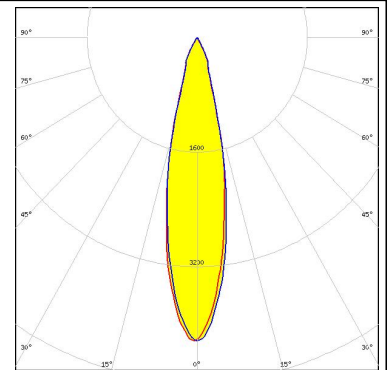
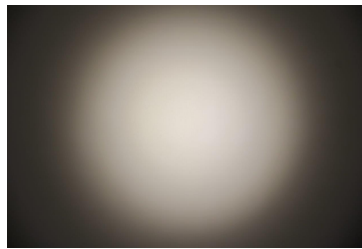
### PHOTOMETRIC DATA (MEASURED):

#### OSRAM

Opto Semiconductors

LED Soleriq S19  
FWHM 23.0°  
Efficiency 83 %  
Peak intensity 4.200 cd/lm  
LEDs/each optic 1  
Light colour White

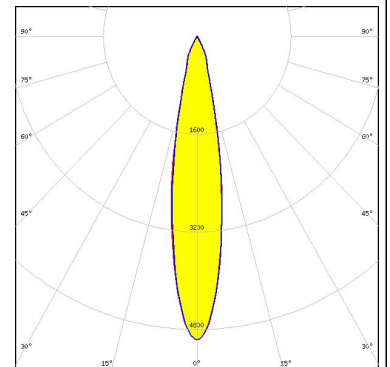
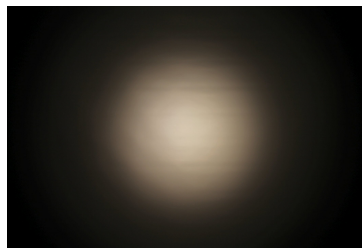
Required components:  
C13867\_LENA-STD-BASE-VERO29  
Bender Wirth: 462 Typ L3



#### PHILIPS

LED Fortimo SLM L13 CoB  
FWHM 19.0°  
Efficiency 84 %  
Peak intensity 5.000 cd/lm  
LEDs/each optic 1  
Light colour White

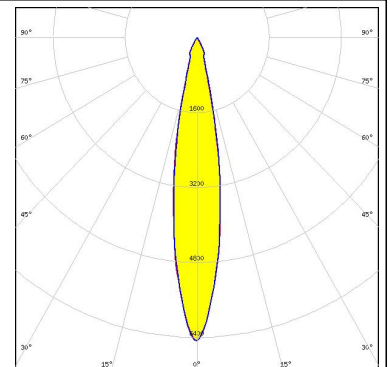
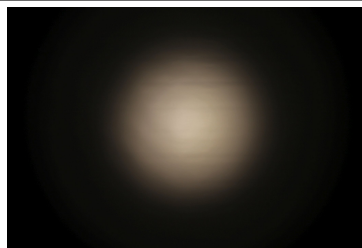
Required components:  
C12292\_LENA-STD-BASE-MEZ  
C11996\_LENA-LENS



#### PHILIPS

LED Fortimo SLM L13 CoB  
FWHM 18.0°  
Efficiency 89 %  
Peak intensity 6.500 cd/lm  
LEDs/each optic 1  
Light colour White

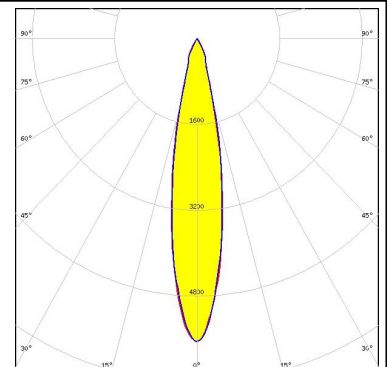
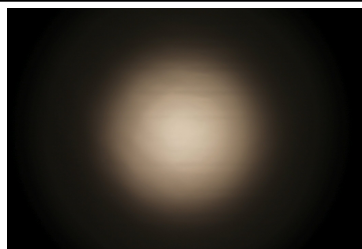
Required components:  
C12292\_LENA-STD-BASE-MEZ



#### PHILIPS

LED Fortimo SLM L15 CoB  
FWHM 20.0°  
Efficiency 90 %  
Peak intensity 5.650 cd/lm  
LEDs/each optic 1  
Light colour White

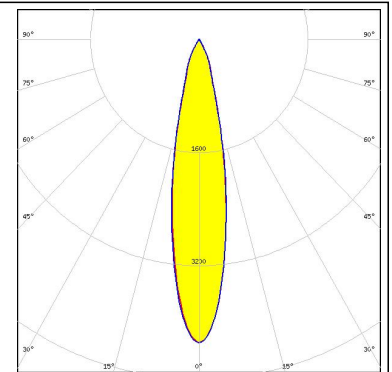
Required components:  
C12292\_LENA-STD-BASE-MEZ



### PHOTOMETRIC DATA (MEASURED):

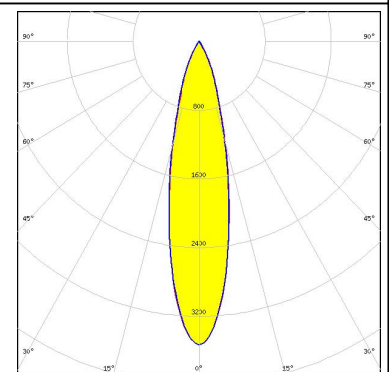
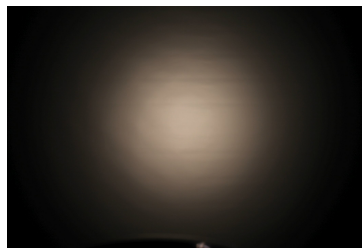
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 21.0°  
 Efficiency 84 %  
 Peak intensity 4.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



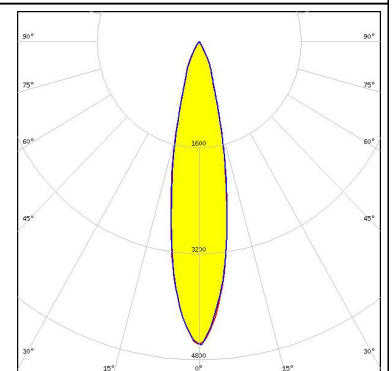
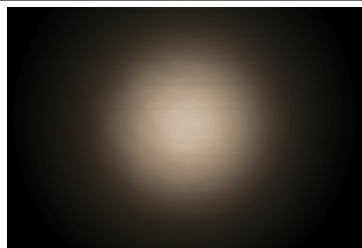
#### PHILIPS

LED Fortimo SLM L19 CoB  
 FWHM 24.0°  
 Efficiency 84 %  
 Peak intensity 3.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



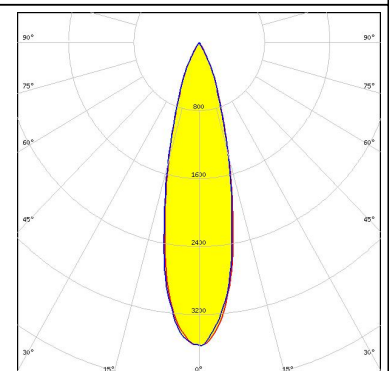
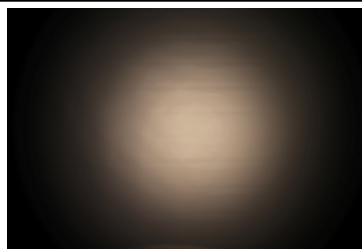
#### PHILIPS

LED Fortimo SLM L19 CoB  
 FWHM 22.0°  
 Efficiency 90 %  
 Peak intensity 4.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



#### PHILIPS

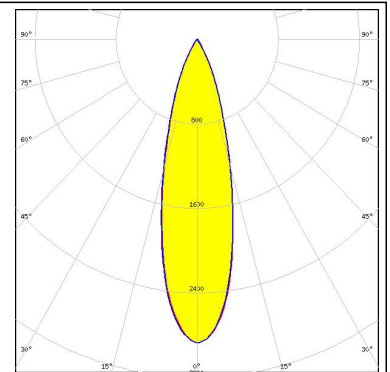
LED Fortimo SLM L23 CoB  
 FWHM 26.0°  
 Efficiency 89 %  
 Peak intensity 3.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



### PHOTOMETRIC DATA (MEASURED):

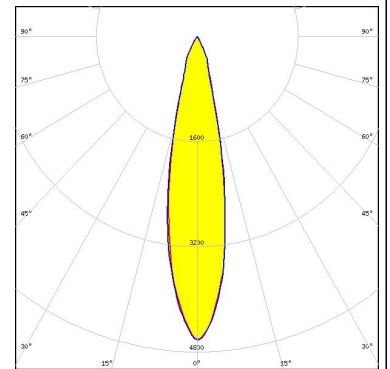
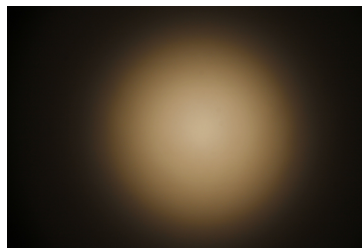
#### PHILIPS

LED Fortimo SLM L23 CoB  
 FWHM 27.0°  
 Efficiency 83 %  
 Peak intensity 2.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



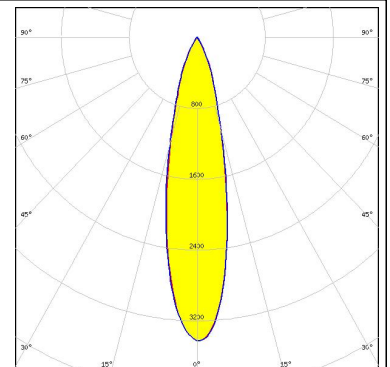
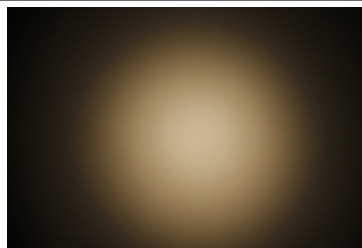
#### SAMSUNG

LED COB D Series LES 14.5 mm  
 FWHM 22.0°  
 Efficiency 86 %  
 Peak intensity 4.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



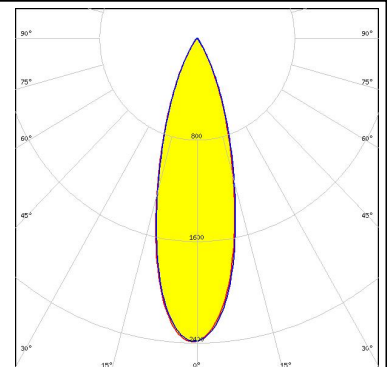
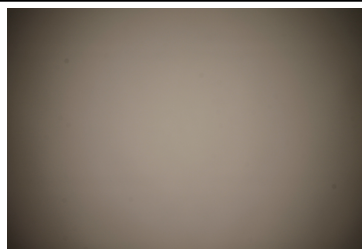
#### SAMSUNG

LED COB D Series LES 14.5 mm  
 FWHM 23.0°  
 Efficiency 81 %  
 Peak intensity 3.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS

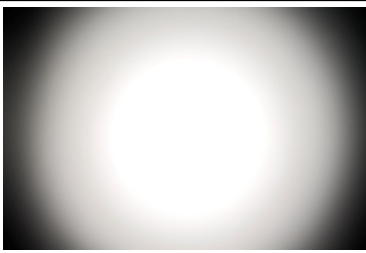
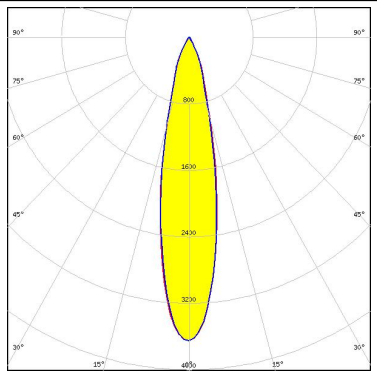
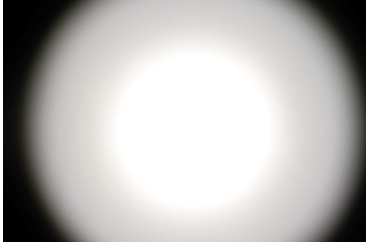
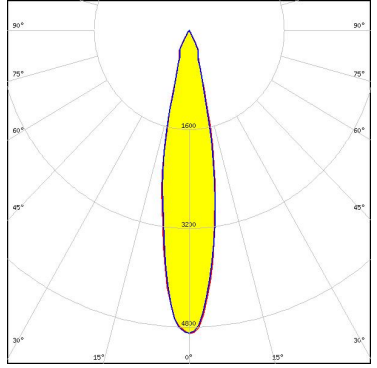

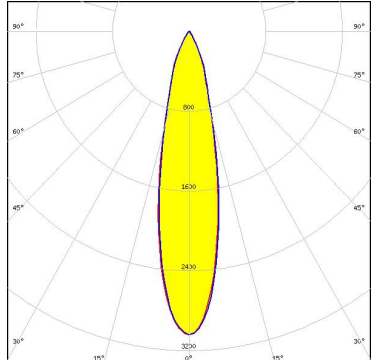


#### SAMSUNG

LED COB D Series LES 22 mm  
 FWHM 30.0°  
 Efficiency 81 %  
 Peak intensity 2.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



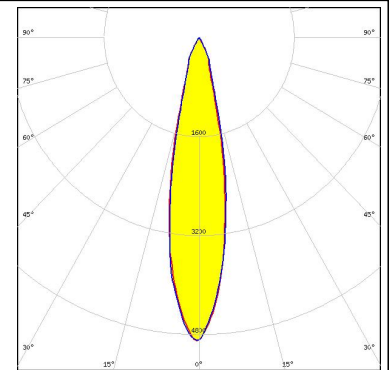
### PHOTOMETRIC DATA (MEASURED):

<p><b>SEOL</b> SEOUL SEMICONDUCTOR</p> <p>LED ZC12/18 FWHM 22.0° Efficiency 78 % Peak intensity 3.650 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C12691_LENA-STD-BASE-CLL030 C11996_LENA-LENS</p>		
<p><b>SEOL</b> SEOUL SEMICONDUCTOR</p> <p>LED ZC12/18 FWHM 21.0° Efficiency 83 % Peak intensity 4.910 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C12691_LENA-STD-BASE-CLL030</p>		
<p><b>SHARP</b></p> <p>LED Mega Zenigata (GW5DGC) FWHM 21.0° Efficiency 79 % Peak intensity cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS</p>		
<p><b>SHARP</b></p> <p>LED Mega Zenigata (GW6DME) FWHM 23.0° Efficiency 73 % Peak intensity 3.040 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS</p>		

### PHOTOMETRIC DATA (MEASURED):

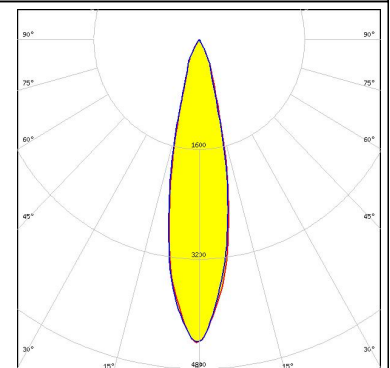
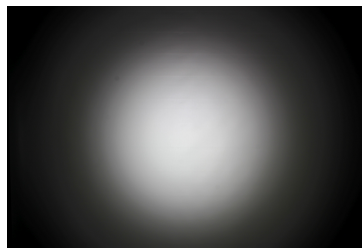
#### TRIDONIC

LED SLE G7 LES15  
FWHM 22.0°  
Efficiency 88 %  
Peak intensity 4.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



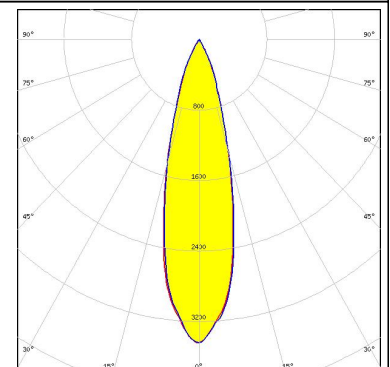
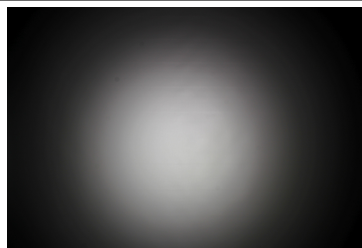
#### TRIDONIC

LED SLE G7 LES17 H  
FWHM 23.0°  
Efficiency 86 %  
Peak intensity 4.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14547\_LENA-ADAPTER-B



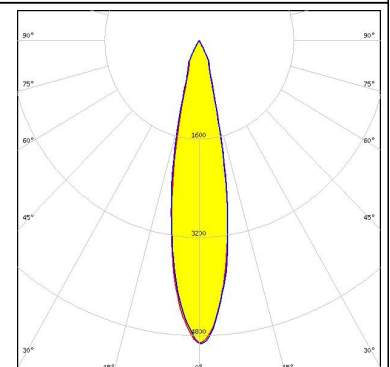
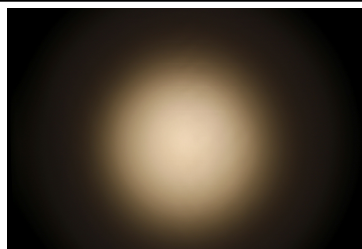
#### TRIDONIC

LED SLE G7 LES21 H  
FWHM 27.0°  
Efficiency 86 %  
Peak intensity 3.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14547\_LENA-ADAPTER-B



#### XICATO

LED XOB 14.5 mm  
FWHM 22.0°  
Efficiency 88 %  
Peak intensity 4.936 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 22.0° Efficiency 81 % Peak intensity 4.650 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 V10 Gen7 FWHM 19.0° Efficiency 88 % Peak intensity 6.610 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 V13 Gen7 FWHM 20.0° Efficiency 84 % Peak intensity 4.900 cd/lm LEDs/each optic 1 Light colour White Required components: C11996_LENA-LENS IDEAL: 50-2103CT + 50-2100LN</p>	
<p>bridgelux.</p> <p>LED V13 Gen7 FWHM 18.0° Efficiency 87 % Peak intensity 5.800 cd/lm LEDs/each optic 1 Light colour White Required components: IDEAL: 50-2103CT + 50-2100LN</p>	

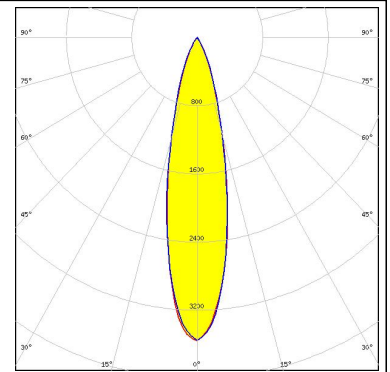
### PHOTOMETRIC DATA (SIMULATED):

<p>bridgelux.</p> <p>LED V13 Gen7 FWHM 23.0° Efficiency 88 % Peak intensity 4.700 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 477 Typ L1</p>	
<p>bridgelux.</p> <p>LED V13 Gen7 FWHM 24.0° Efficiency 82 % Peak intensity 4.090 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>	
<p>bridgelux.</p> <p>LED V22 Gen7 FWHM 28.0° Efficiency 90 % Peak intensity 3.542 cd/lm LEDs/each optic 1 Light colour White Required components: C13867_LENA-STD-BASE-VERO29 C11996_LENA-LENS Bender Wirth: 431 Typ L3</p>	
<p>bridgelux.</p> <p>LED V22 Gen7 FWHM 28.0° Efficiency 94 % Peak intensity 5.815 cd/lm LEDs/each optic 1 Light colour White Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 431 Typ L3</p>	

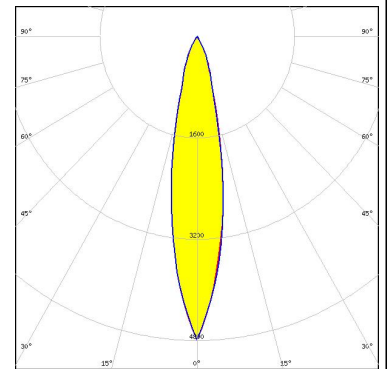
### PHOTOMETRIC DATA (SIMULATED):



LED CXA/B 30xx  
 FWHM 24.0°  
 Efficiency 80 %  
 Peak intensity 3.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11996\_LENA-LENS  
 IDEAL: 50-2234C + 50-2100LN



LED CXA/B 30xx  
 FWHM 20.0°  
 Efficiency 86 %  
 Peak intensity 4.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 IDEAL: 50-2234C + 50-2100LN



LED CxM-14 (19x19)  
 FWHM 22.0°  
 Efficiency 83 %  
 Peak intensity 4.700 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 23.0°  
 Efficiency 78 %  
 Peak intensity 3.400 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):



LED CxM-9 (13.5x13.5)  
FWHM 17.0°  
Efficiency 83 %  
Peak intensity 6.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1



LED CxM-9 (13.5x13.5)  
FWHM 20.0°  
Efficiency 78 %  
Peak intensity 4.300 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 ZC12/18  
FWHM 22.0°  
Efficiency 83 %  
Peak intensity 4.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 433 Typ L1



SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM 23.0°  
Efficiency 78 %  
Peak intensity 3.400 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	20.0°
Efficiency	78 %
Peak intensity	4.300 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	
<hr/>	
	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	17.0°
Efficiency	83 %
Peak intensity	6.600 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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