

## LENA-W

~45° wide beam

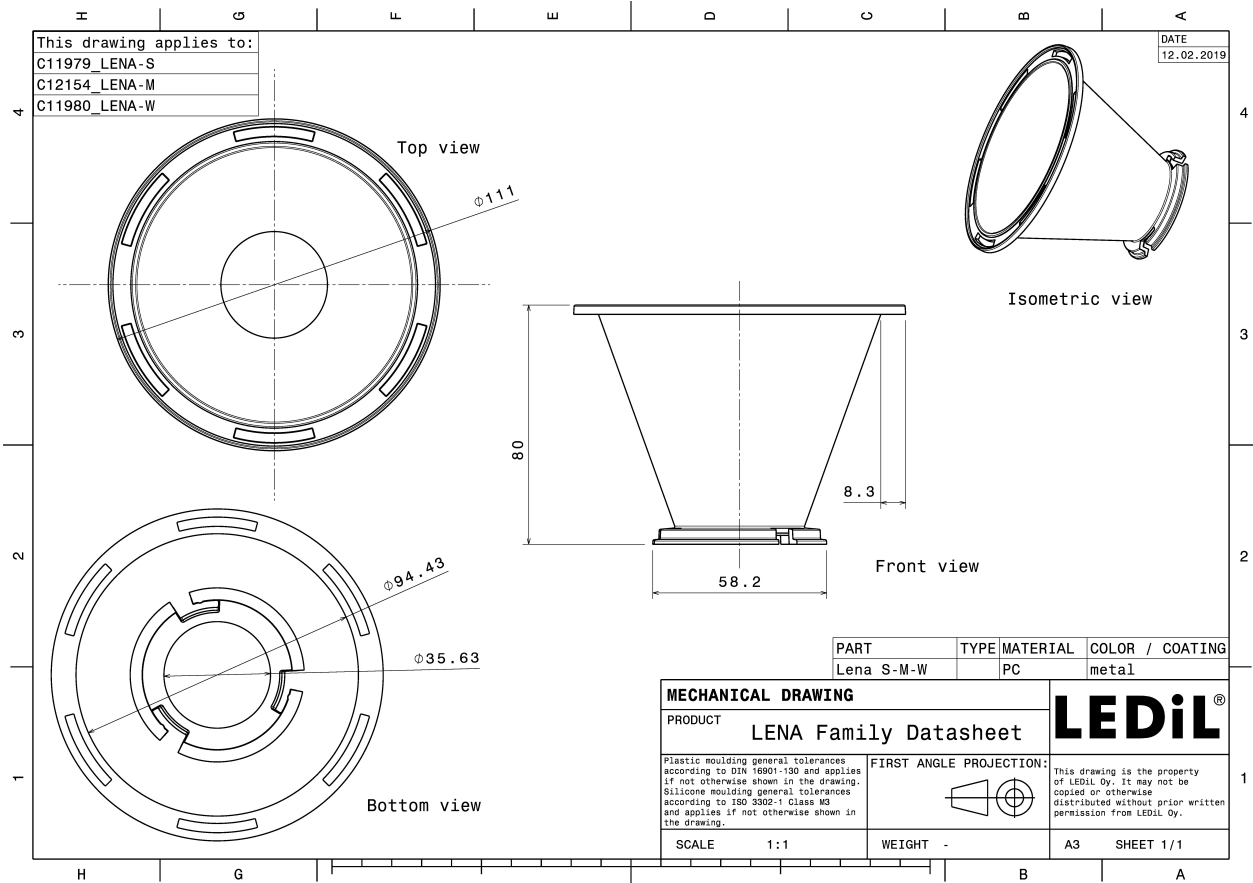
### TECHNICAL SPECIFICATIONS:

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-W	Reflector	PC	metal	lacquer



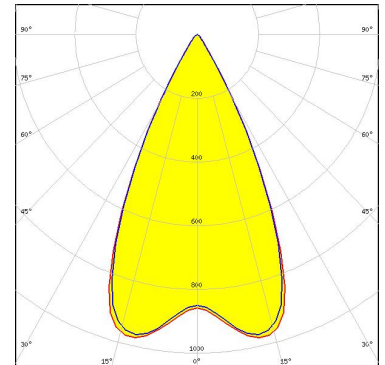
### PHOTOMETRIC DATA (MEASURED):

bridgelux.

LED BXRA ES Rectangle  
FWHM 46.0°  
Efficiency 74 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12153\_LENA-STD-BASE-BXRA  
C11996\_LENA-LENS

bridgelux.

LED BXRA RS  
FWHM 51.0°  
Efficiency 76 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12229\_LENA-STD-BASE-RS  
C11996\_LENA-LENS

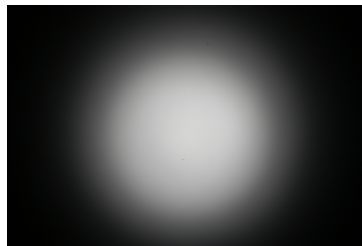


bridgelux.


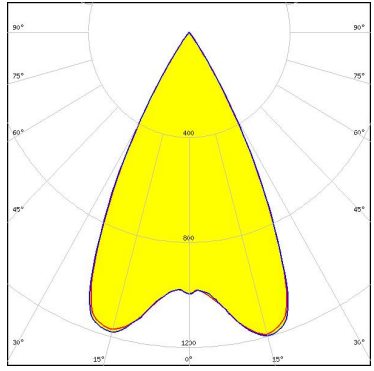

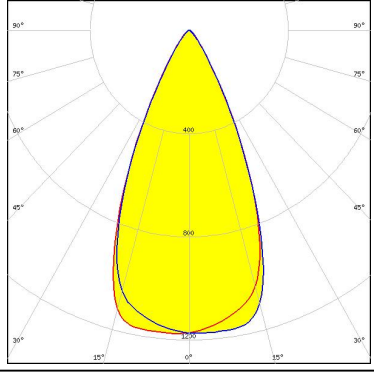
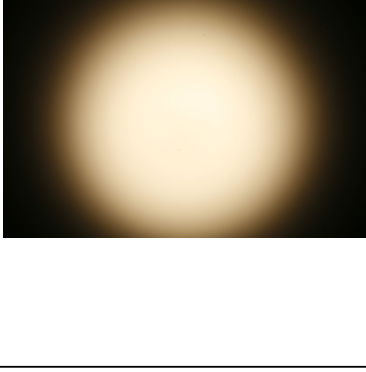
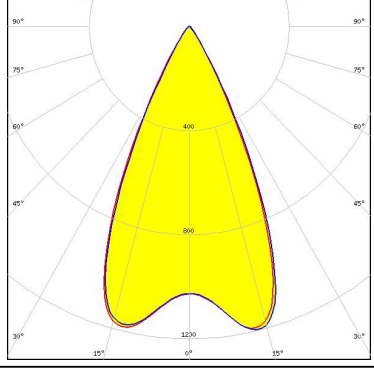

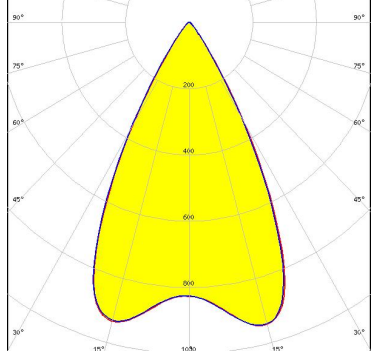
LED BXRA RS  
FWHM 51.0°  
Efficiency 81 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12229\_LENA-STD-BASE-RS

bridgelux.

LED V10 Gen6  
FWHM 39.0°  
Efficiency 74 %  
Peak intensity 1.870 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13186\_LENA-STD-BASE-CXA15  
C11996\_LENA-LENS



#### PHOTOMETRIC DATA (MEASURED):

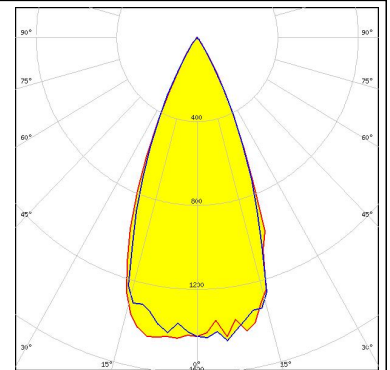
<p>bridgelux.</p> <p>LED Vero SE 29</p> <p>FWHM 57.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.200 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C15083_LENA-STD-BASE-VERO29</p>		
<p>bridgelux.</p> <p>LED VERO13</p> <p>FWHM 48.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.180 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p>bridgelux.</p> <p>LED VERO18</p> <p>FWHM 52.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 1.210 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p>bridgelux.</p> <p>LED VERO29</p> <p>FWHM 57.0°</p> <p>Efficiency 76 %</p> <p>Peak intensity 0.950 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 C11996_LENA-LENS</p>		



#### PHOTOMETRIC DATA (MEASURED):

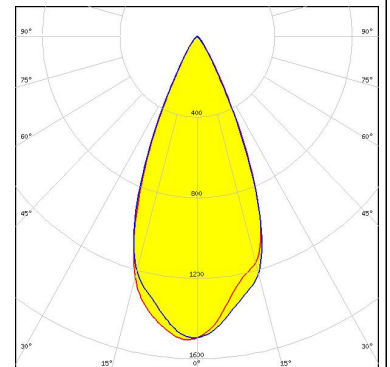
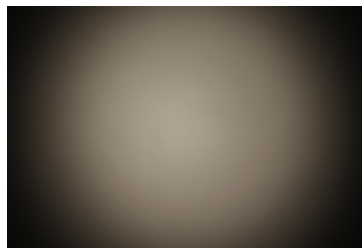
#### CITIZEN

LED CL-L340  
 FWHM 45.0°  
 Efficiency 75 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11995\_LENA-STD-BASE-CL340  
 C11996\_LENA-LENS



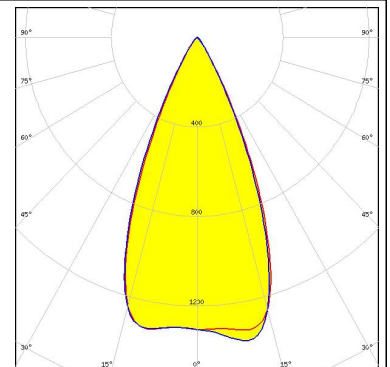
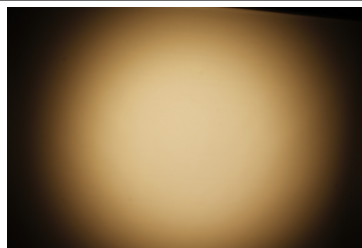
#### CITIZEN

LED CLL02x/CLU02x (LES10)  
 FWHM 45.0°  
 Efficiency 81 %  
 Peak intensity 1.500 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



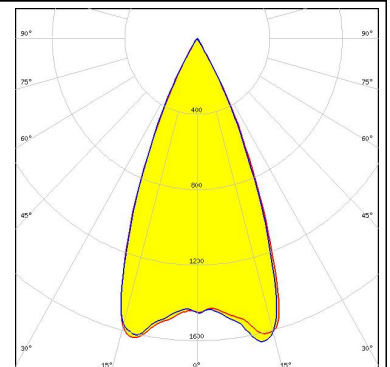
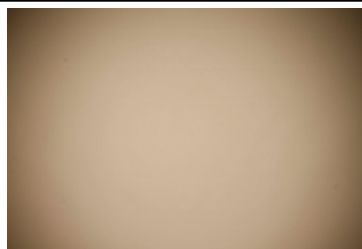
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 47.0°  
 Efficiency 80 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



#### CITIZEN

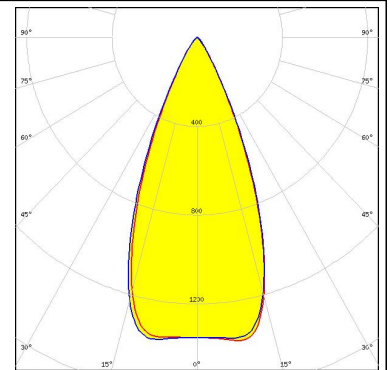
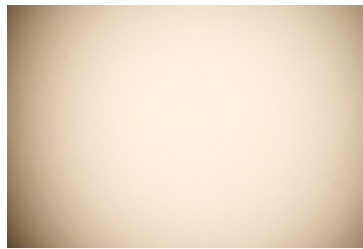
LED CLL03x/CLU03x  
 FWHM 47.0°  
 Efficiency 81 %  
 Peak intensity 1.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 433 Typ L1



### PHOTOMETRIC DATA (MEASURED):

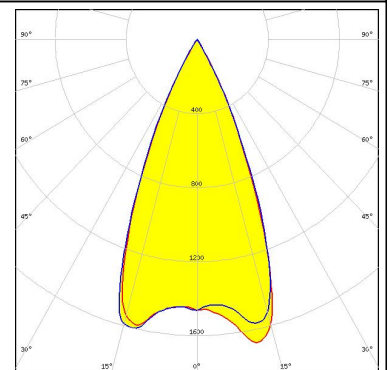
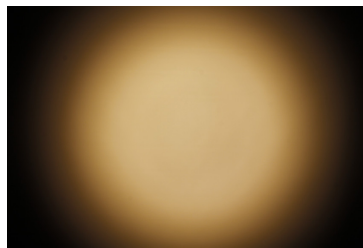
#### CITIZEN

LED CLL03x/CLU03x  
FWHM 45.0°  
Efficiency 79 %  
Peak intensity 1.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C11996\_LENA-LENS  
A.A.G. STUCCHI: 8101/G2 + S-8000/11



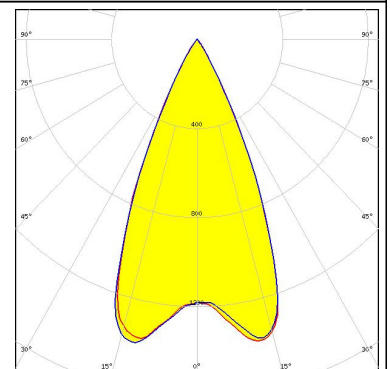
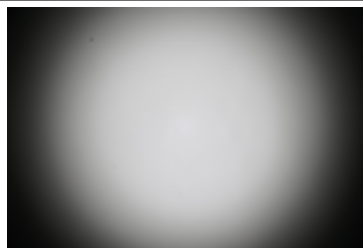
#### CITIZEN

LED CLL03x/CLU03x  
FWHM 47.0°  
Efficiency 85 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



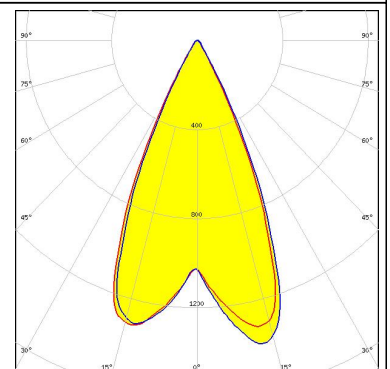
#### CITIZEN

LED CLL04x/CLU04x  
FWHM 50.0°  
Efficiency 81 %  
Peak intensity 1.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
IDEAL: 50-2204CT + 50-2100LN



#### CITIZEN

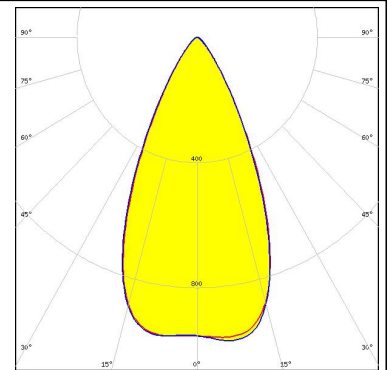
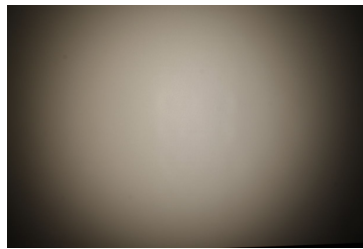
LED CLL04x/CLU04x  
FWHM 52.0°  
Efficiency 86 %  
Peak intensity 1.400 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12692\_LENA-STD-BASE-CLL040



#### PHOTOMETRIC DATA (MEASURED):

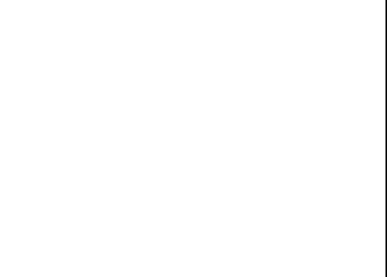
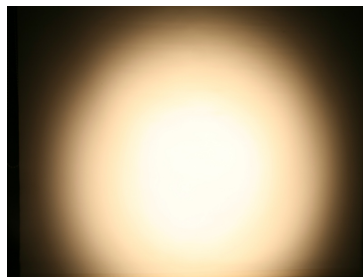
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 50.0°  
 Efficiency 73 %  
 Peak intensity 1.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11996\_LENA-LENS  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



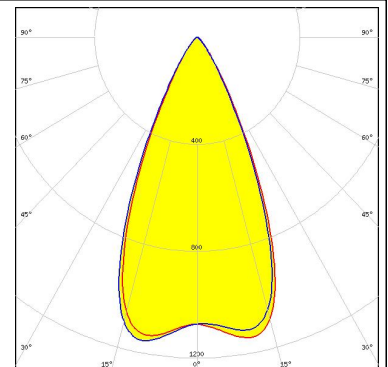
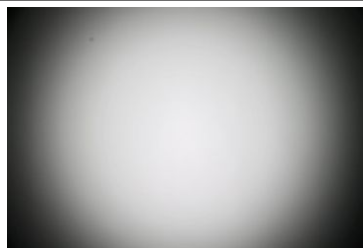
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 46.0°  
 Efficiency 76 %  
 Peak intensity 1.090 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040  
 C11996\_LENA-LENS



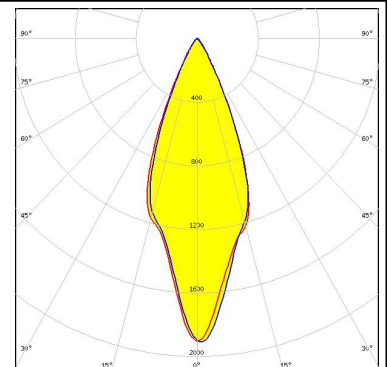
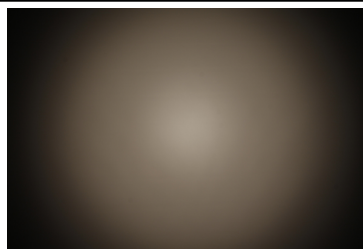
#### CITIZEN

LED CLL04x/CLU04x  
 FWHM 49.0°  
 Efficiency 77 %  
 Peak intensity 1.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11996\_LENA-LENS  
 IDEAL: 50-2204CT + 50-2100LN



#### CITIZEN

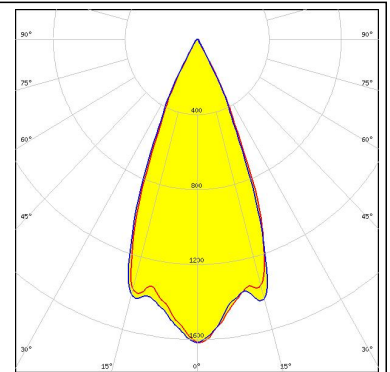
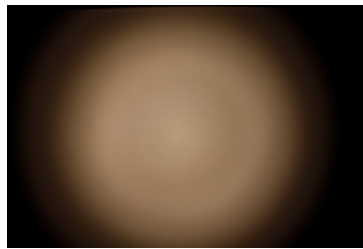
LED CLU700/701  
 FWHM 39.0°  
 Efficiency 81 %  
 Peak intensity 1.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 434 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

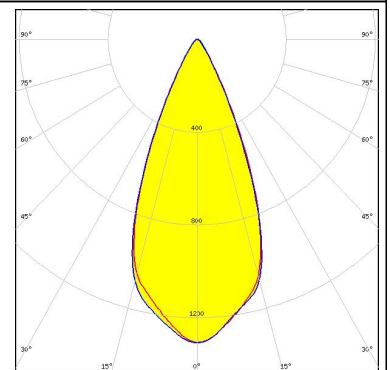
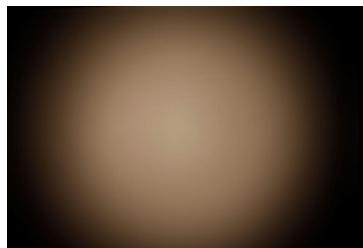
#### CITIZEN

LED CLU720/721  
 FWHM 44.0°  
 Efficiency 81 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030



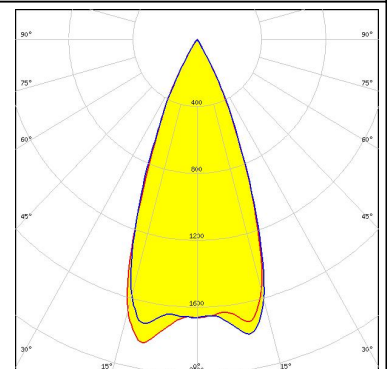
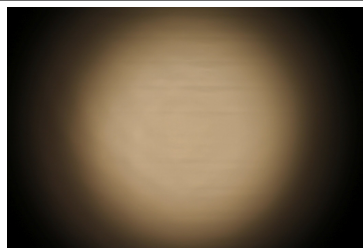
#### CITIZEN

LED CLU720/721  
 FWHM 46.0°  
 Efficiency 76 %  
 Peak intensity 1.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



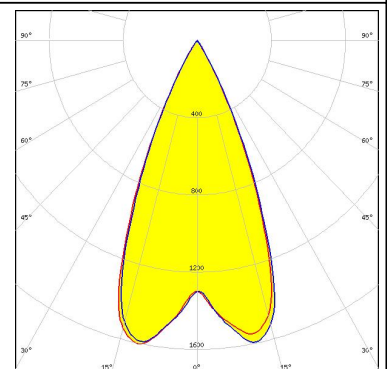
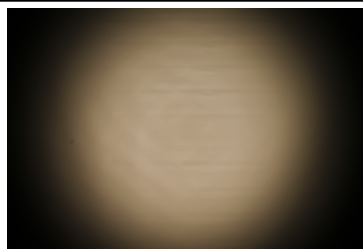
#### CREE

LED CMA1840  
 FWHM 43.0°  
 Efficiency 86 %  
 Peak intensity 1.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14146\_LENA-STD-BASE-CXA18



#### CREE

LED CMA2550  
 FWHM 49.0°  
 Efficiency 86 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13324\_LENA-STD-BASE-CXA25

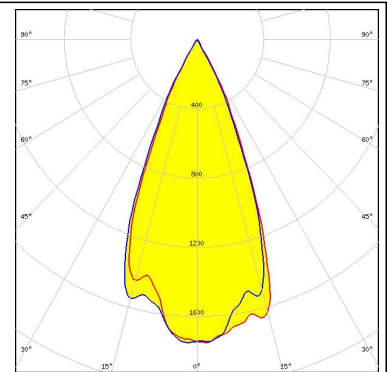
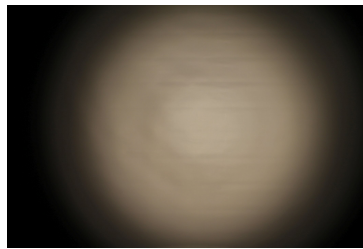




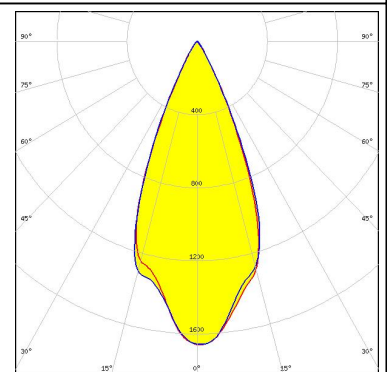
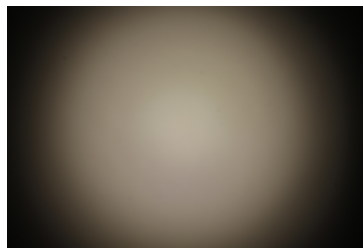
#### PHOTOMETRIC DATA (MEASURED):



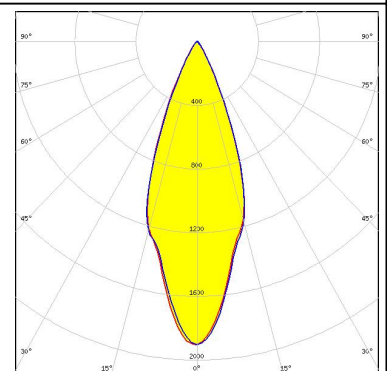
LED CMT14xx  
 FWHM 44.0°  
 Efficiency 85 %  
 Peak intensity 1.750 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 434 Typ L1



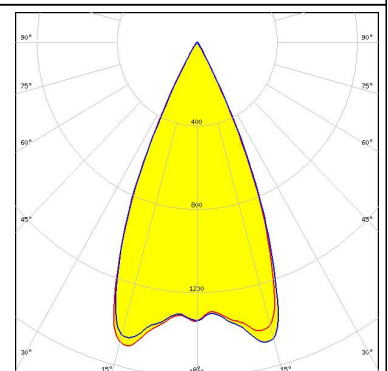
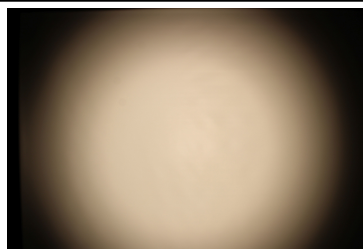
LED CXA/B 15xx  
 FWHM 44.0°  
 Efficiency 81 %  
 Peak intensity 1.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 441 Typ L1



LED CXA/B 15xx  
 FWHM 38.0°  
 Efficiency 77 %  
 Peak intensity 1.910 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13186\_LENA-STD-BASE-CXA15  
 C11996\_LENA-LENS



LED CXA/B 1830  
 FWHM 49.0°  
 Efficiency 82 %  
 Peak intensity 1.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C14169\_LENA-CLEAR-LENS  
 Bender Wirth: 437 Typ L1

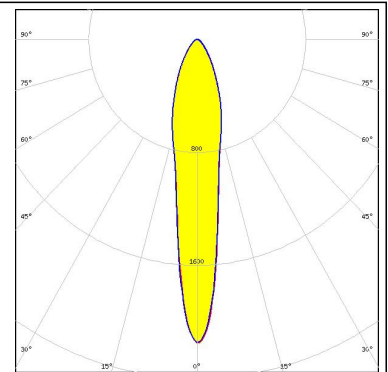
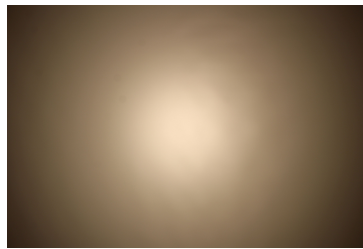


#### PHOTOMETRIC DATA (MEASURED):

**CREE** 

LED CXA/B 1830  
 FWHM 17.0°  
 Efficiency 74 %  
 Peak intensity 2.200 cd/lm  
 LEDs/each optic 1  
 Light colour White

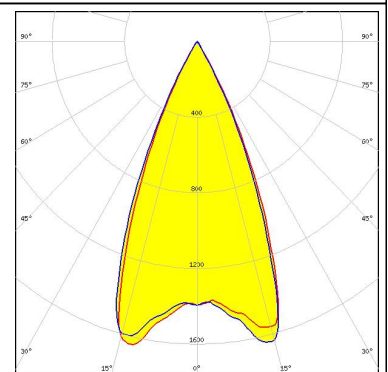
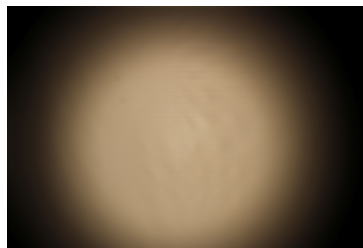
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C12231\_LENA-FRESNEL-LENS  
 Bender Wirth: 437 Typ L1



**CREE** 

LED CXA/B 1830  
 FWHM 48.0°  
 Efficiency 87 %  
 Peak intensity 1.700 cd/lm  
 LEDs/each optic 1  
 Light colour White

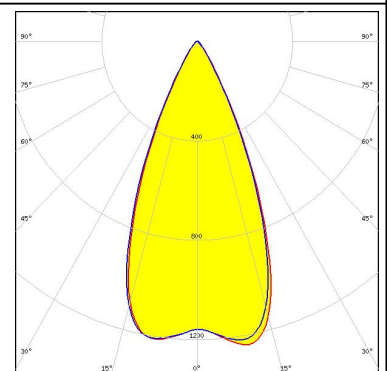
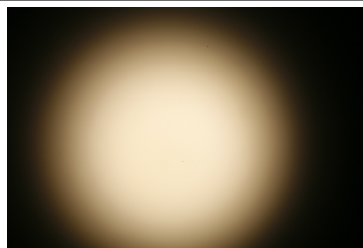
Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 437 Typ L1



**CREE** 

LED CXA/B 25xx  
 FWHM 44.0°  
 Efficiency 76 %  
 Peak intensity 1.300 cd/lm  
 LEDs/each optic 1  
 Light colour White

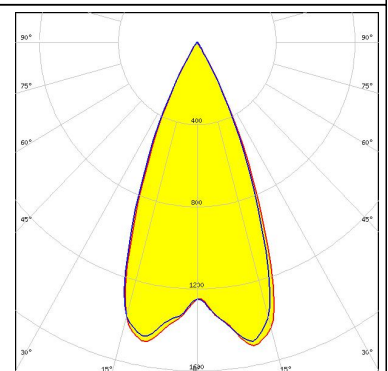
Required components:  
 C13324\_LENA-STD-BASE-CXA25  
 C11996\_LENA-LENS



**CREE** 

LED CXA/B 25xx  
 FWHM 44.0°  
 Efficiency 81 %  
 Peak intensity 1.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

Required components:  
 C13324\_LENA-STD-BASE-CXA25

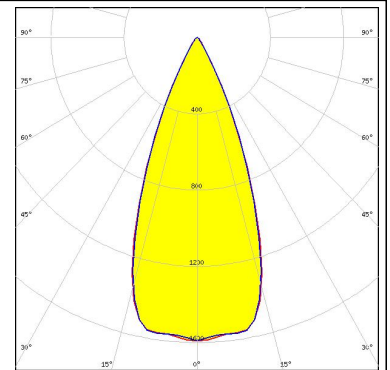




### PHOTOMETRIC DATA (MEASURED):

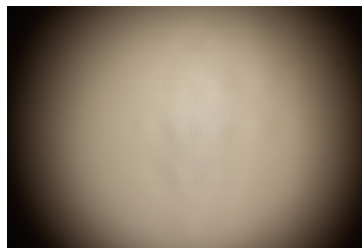
#### CREE

LED CXA2011  
FWHM 42.0°  
Efficiency 75 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12105\_LENA-STD-BASE-CXA20  
C11996\_LENA-LENS



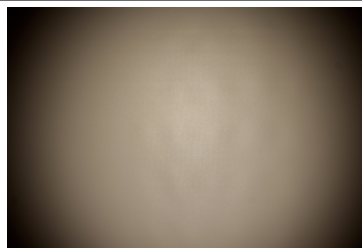
#### EVERLIGHT

LED CHI3030 19W  
FWHM 50.0°  
Efficiency 81 %  
Peak intensity 1.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13867\_LENA-STD-BASE-VERO29  
C11996\_LENA-LENS  
Bender Wirth: 468 Typ L3



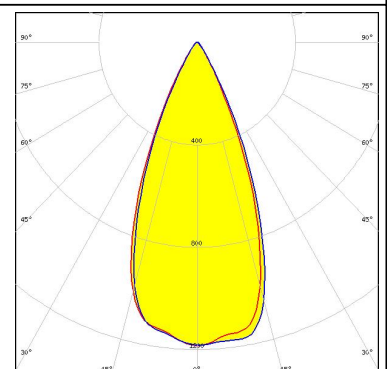
#### EVERLIGHT

LED CHI3030 29W  
FWHM 53.0°  
Efficiency 78 %  
Peak intensity 1.000 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

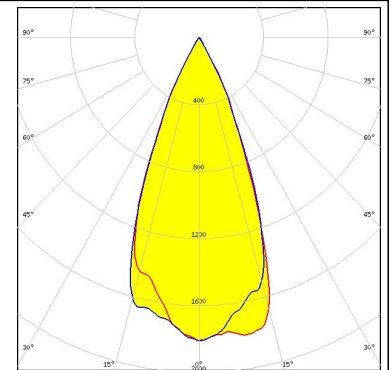
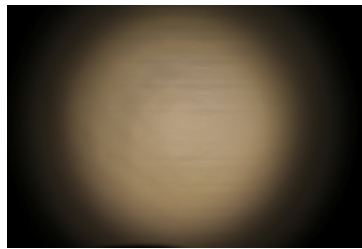
LED LUXEON CoB 1204/1205  
FWHM 44.0°  
Efficiency 68 %  
Peak intensity 1.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12292\_LENA-STD-BASE-MEZ  
C11996\_LENA-LENS



#### PHOTOMETRIC DATA (MEASURED):

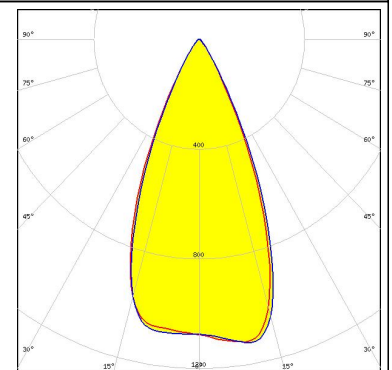
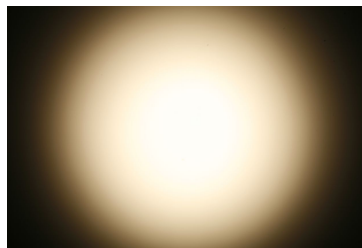
#### LUMILEDS

LED LUXEON CoB 1205HD  
 FWHM 43.0°  
 Efficiency 85 %  
 Peak intensity 1.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C11981\_LENA-STD-BASE-COB-L110



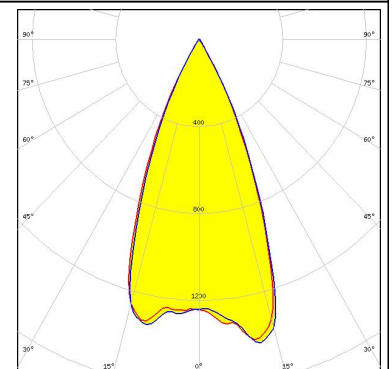
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 46.0°  
 Efficiency 68 %  
 Peak intensity 1.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



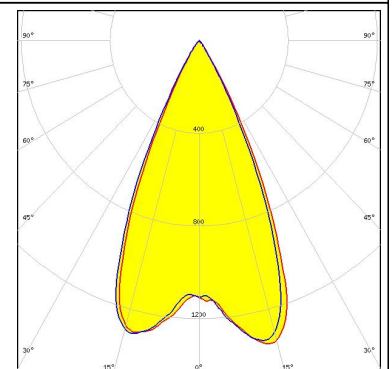
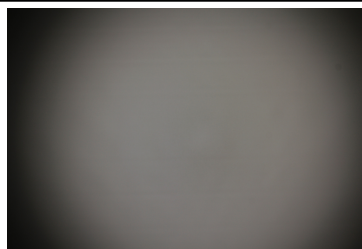
#### LUMILEDS

LED LUXEON CoB 1208  
 FWHM 46.0°  
 Efficiency 73 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ


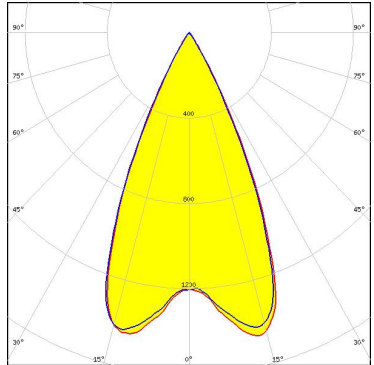
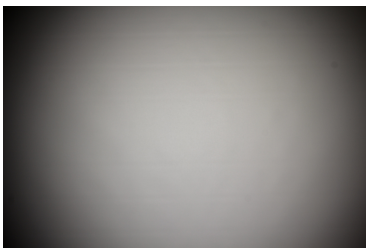
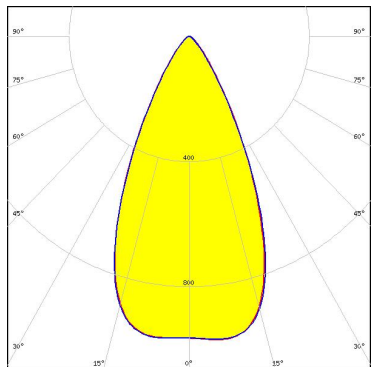

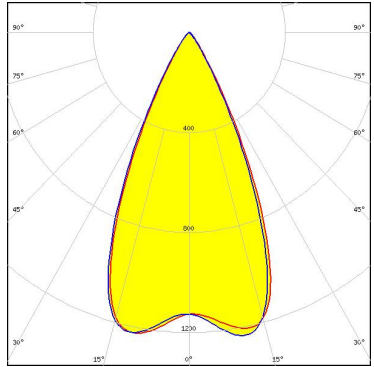



#### LUMILEDS

LED LUXEON CoB 1216/1812  
 FWHM 51.0°  
 Efficiency 79 %  
 Peak intensity 1.350 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 A.A.G. STUCCHI: 8102/G2 + S-8000/12



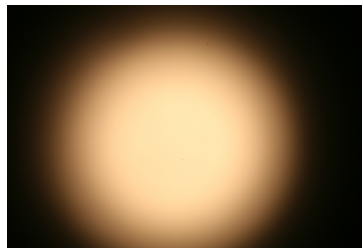
#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812            FWHM 51.0°            Efficiency 86 %            Peak intensity 1.460 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12692_LENA-STD-BASE-CLL040</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1216/1812            FWHM 50.0°            Efficiency 75 %            Peak intensity 0.980 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 CoB 1216/1812            FWHM 50.0°            Efficiency 81 %            Peak intensity 1.200 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12692_LENA-STD-BASE-CLL040            C11996_LENA-LENS</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON K12            FWHM 45.0°            Efficiency 74 %            Peak intensity 1.400 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C12924_LENA-STD-BASE-LUXEON-K            C11996_LENA-LENS</p>		

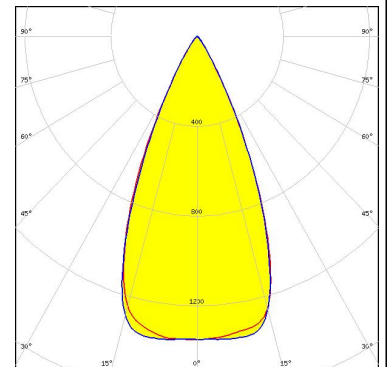
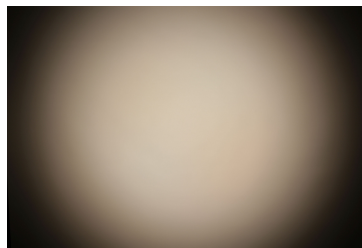
#### PHOTOMETRIC DATA (MEASURED):



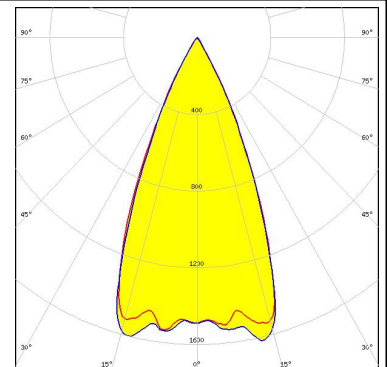
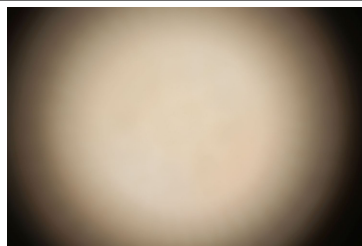
**LED** LUXEON K16  
**FWHM** 46.0°  
**Efficiency** 72 %  
**Peak intensity** 1.300 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C12924\_LENA-STD-BASE-LUXEON-K  
 C11996\_LENA-LENS



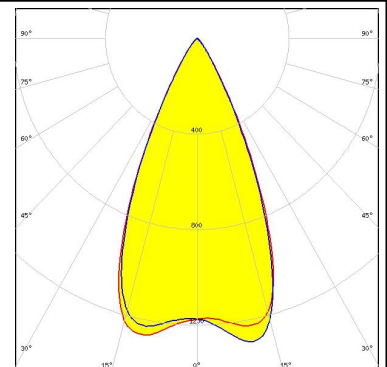
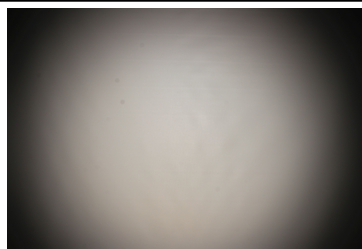
**LED** CDM-14 (Dim-To-Warm)  
**FWHM** 47.0°  
**Efficiency** 82 %  
**Peak intensity** 1.400 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 491 Typ L2



**LED** CDM-14 (Dim-To-Warm)  
**FWHM** 47.0°  
**Efficiency** 87 %  
**Peak intensity** 1.700 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 491 Typ L2



**LED** CDM-18 (Dim-To-Warm)  
**FWHM** 48.0°  
**Efficiency** 82 %  
**Peak intensity** 1.300 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

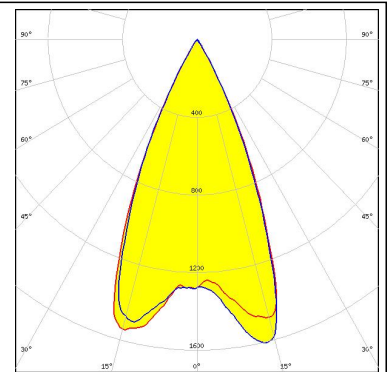




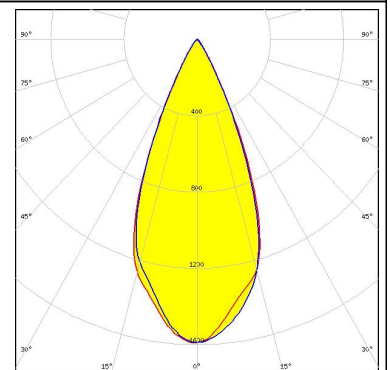
#### PHOTOMETRIC DATA (MEASURED):



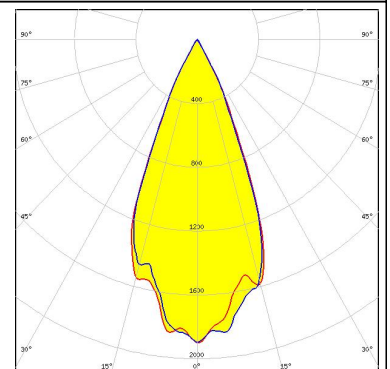
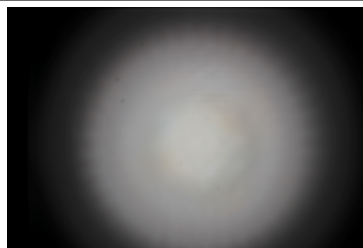
LED CDM-18 (Dim-To-Warm)  
 FWHM 50.0°  
 Efficiency 87 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 491 Typ L2



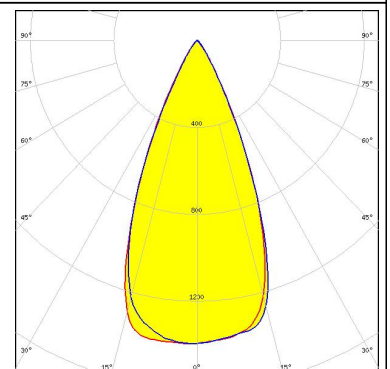
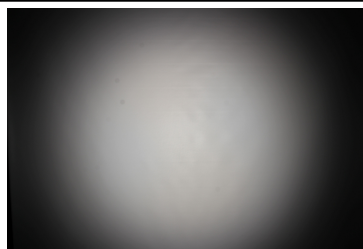
LED CDM-9 (Dim-To-Warm)  
 FWHM 44.0°  
 Efficiency 82 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 490 Typ L1



LED CDM-9 (Dim-To-Warm)  
 FWHM 44.0°  
 Efficiency 87 %  
 Peak intensity 1.900 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 Bender Wirth: 490 Typ L1



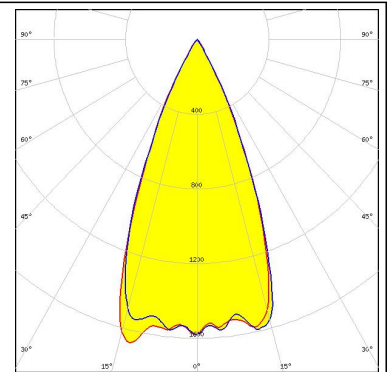
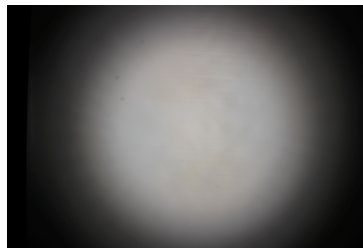
LED CTM-14 (Tunable White)  
 FWHM 46.0°  
 Efficiency 81 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C12606\_LENINA-DL  
 Bender Wirth: 442 Typ L3



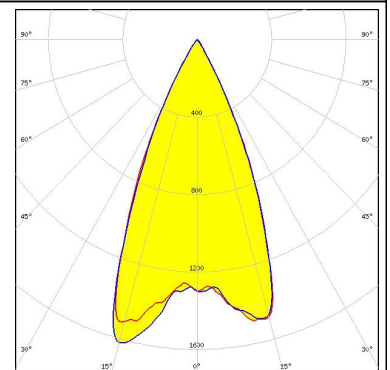
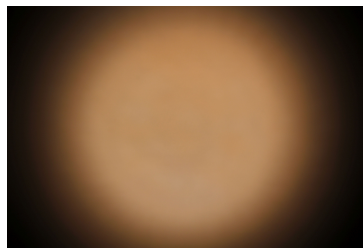
#### PHOTOMETRIC DATA (MEASURED):



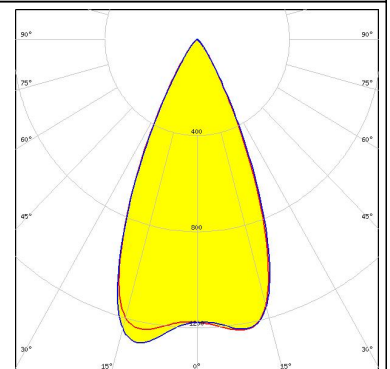
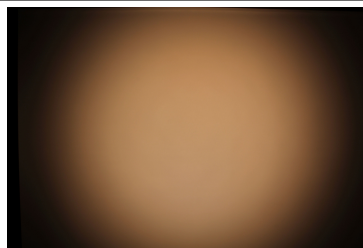
LED CTM-14 (Tunable White)  
 FWHM 45.0°  
 Efficiency 86 %  
 Peak intensity 1.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 442 Typ L3



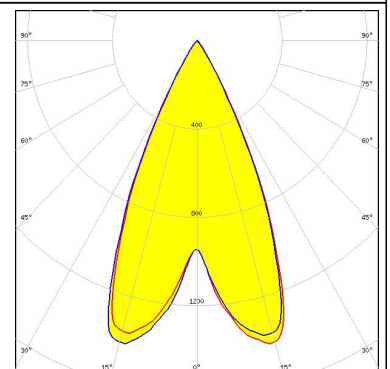
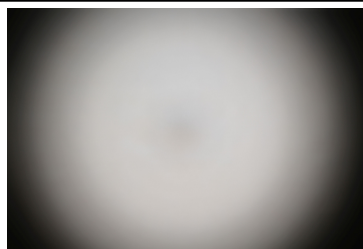
LED CTM-18 (Tunable White)  
 FWHM 49.0°  
 Efficiency 87 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 442 Typ L3



LED CTM-18 (Tunable White)  
 FWHM 49.0°  
 Efficiency 81 %  
 Peak intensity 1.300 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 55.0°  
 Efficiency 86 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 Bender Wirth: 494 Typ L3

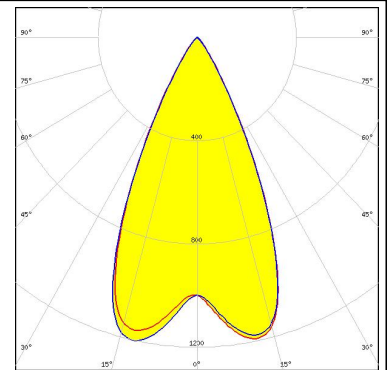




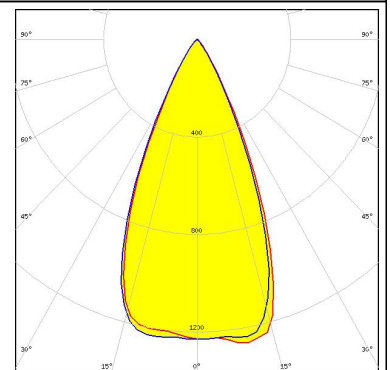
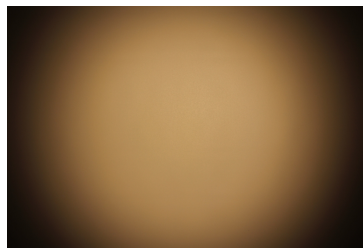
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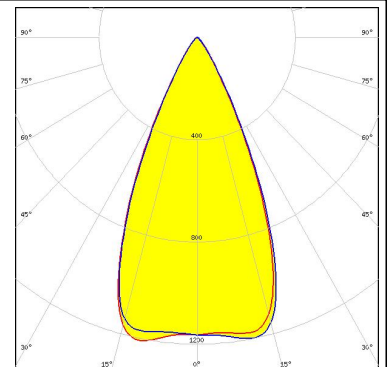
LED CTM-22 (Tunable White)  
 FWHM 53.0°  
 Efficiency 81 %  
 Peak intensity 1.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 489 Typ L6



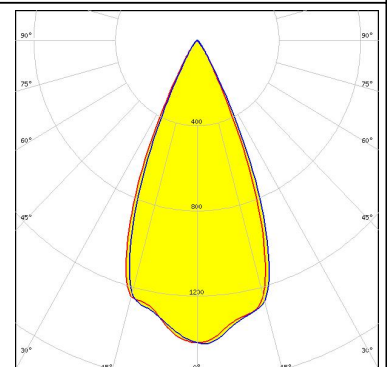
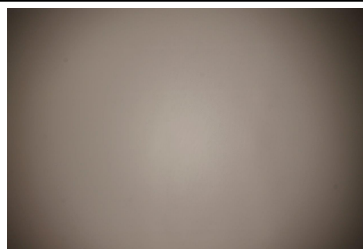
LED CxM-14 (19x19)  
 FWHM 48.0°  
 Efficiency 78 %  
 Peak intensity 1.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12691\_LENA-STD-BASE-CLL030  
 C11996\_LENA-LENS



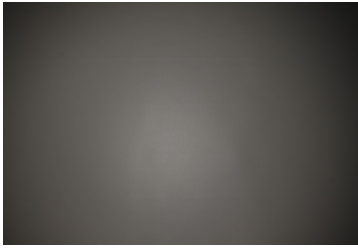
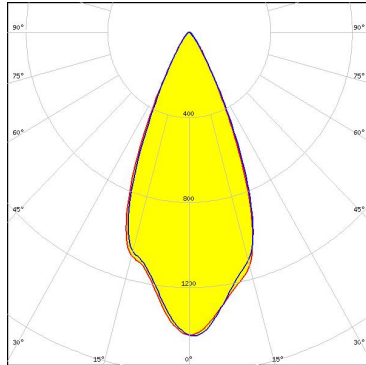
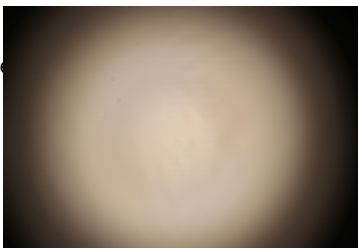
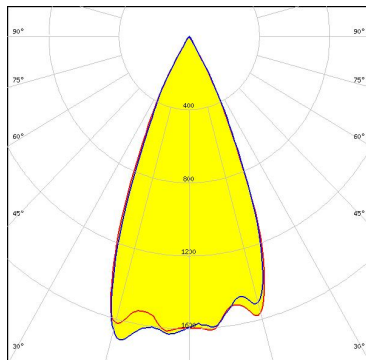

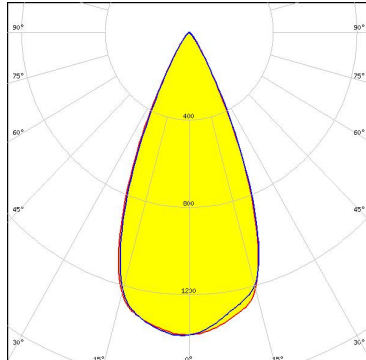
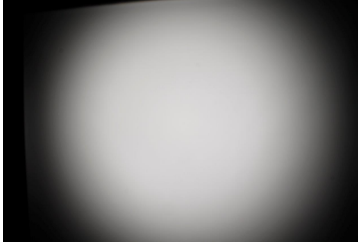
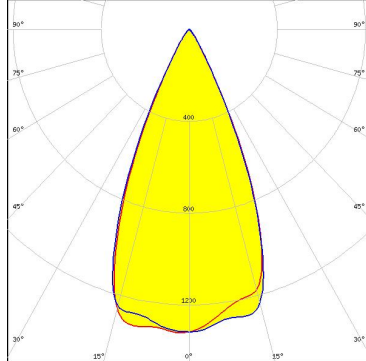
LED COB J-Type  
 FWHM 49.0°  
 Efficiency 79 %  
 Peak intensity 1.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 463 Typ L2



LED COB L-Type (LES 11)  
 FWHM 46.0°  
 Efficiency 79 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13868\_LENA-STD-BASE-VERO13-18  
 C11996\_LENA-LENS  
 Bender Wirth: 438 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)</p> <p>FWHM 45.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.400 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM 45.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.700 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13868_LENA-STD-BASE-VERO13-18            Bender Wirth: 498 Typ L2</p>		
<p><b>NICHIA</b></p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM 46.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.400 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 498 Typ L2</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Soleriq S13</p> <p>FWHM 47.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity 1.400 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 437 Typ L1</p>		

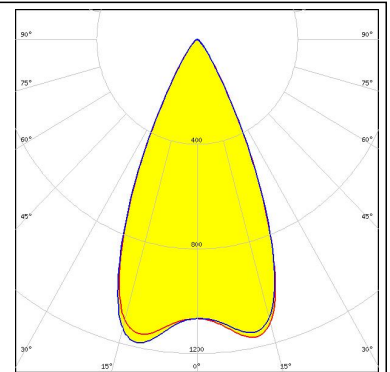
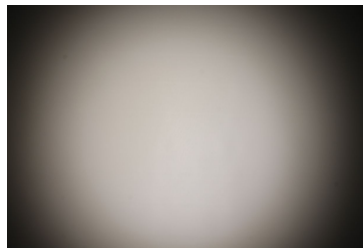
#### PHOTOMETRIC DATA (MEASURED):

#### OSRAM

Opto Semiconductors

LED Soleriq S19  
 FWHM 50.0°  
 Efficiency 78 %  
 Peak intensity 1.200 cd/lm  
 LEDs/each optic 1  
 Light colour White

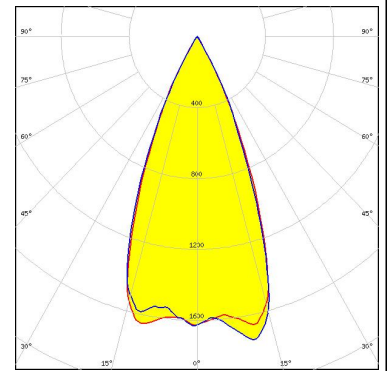
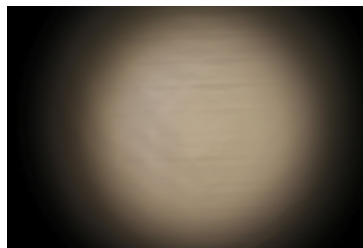
Required components:  
 C13867\_LENA-STD-BASE-VERO29  
 C11996\_LENA-LENS  
 Bender Wirth: 462 Typ L3



#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM 44.0°  
 Efficiency 85 %  
 Peak intensity 1.800 cd/lm  
 LEDs/each optic 1  
 Light colour White

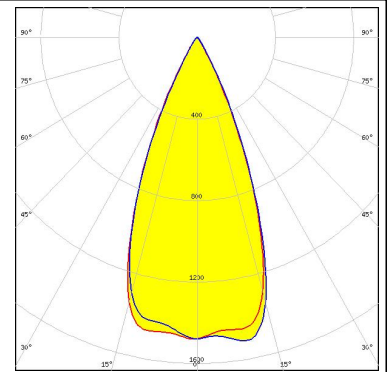
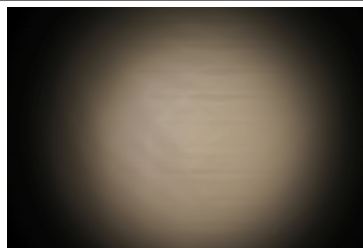
Required components:  
 C12292\_LENA-STD-BASE-MEZ



#### PHILIPS

LED Fortimo SLM L13 CoB  
 FWHM 44.0°  
 Efficiency 79 %  
 Peak intensity 1.500 cd/lm  
 LEDs/each optic 1  
 Light colour White

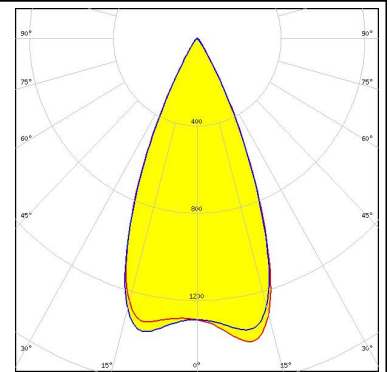
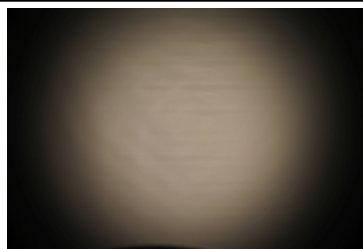
Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 46.0°  
 Efficiency 79 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White

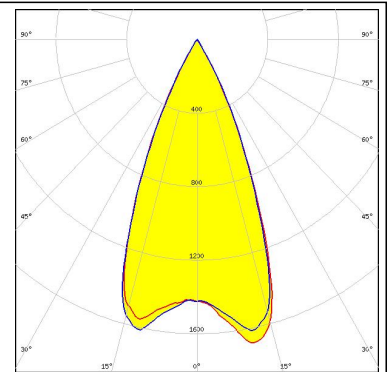
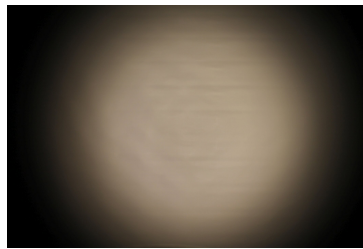
Required components:  
 C12292\_LENA-STD-BASE-MEZ  
 C11996\_LENA-LENS



#### PHOTOMETRIC DATA (MEASURED):

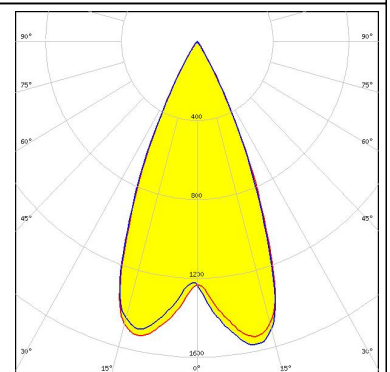
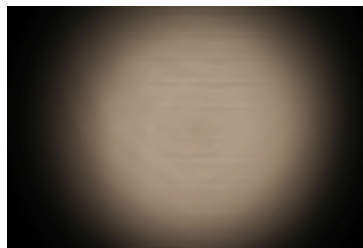
#### PHILIPS

LED Fortimo SLM L15 CoB  
 FWHM 47.0°  
 Efficiency 85 %  
 Peak intensity 1.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12292\_LENA-STD-BASE-MEZ



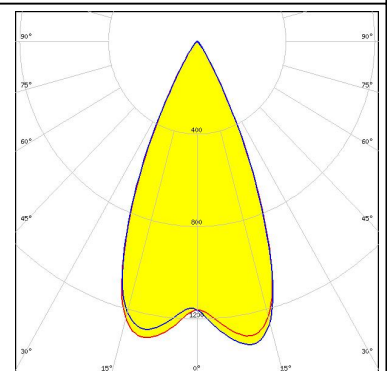
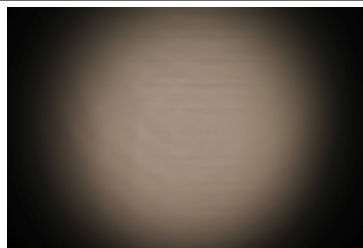
#### PHILIPS

LED Fortimo SLM L19 CoB  
 FWHM 50.0°  
 Efficiency 85 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040



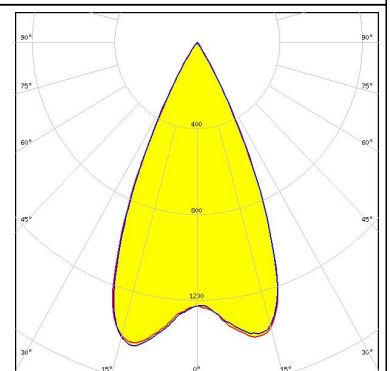
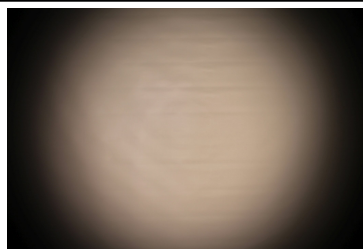
#### PHILIPS

LED Fortimo SLM L19 CoB  
 FWHM 48.0°  
 Efficiency 79 %  
 Peak intensity 1.300 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 51.0°  
 Efficiency 85 %  
 Peak intensity 1.450 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C12692\_LENA-STD-BASE-CLL040

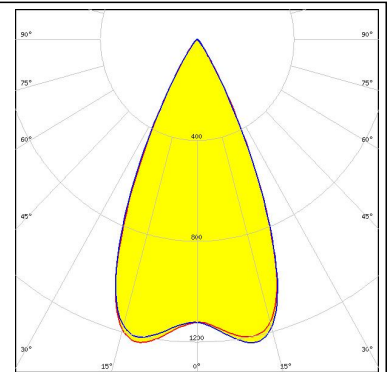




### PHOTOMETRIC DATA (MEASURED):

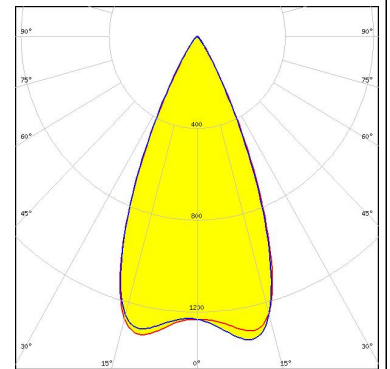
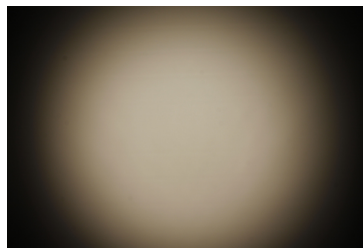
#### PHILIPS

LED Fortimo SLM L23 CoB  
FWHM 50.0°  
Efficiency 79 %  
Peak intensity 1.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12692\_LENA-STD-BASE-CLL040  
C11996\_LENA-LENS



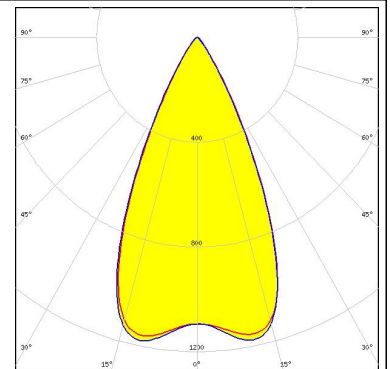
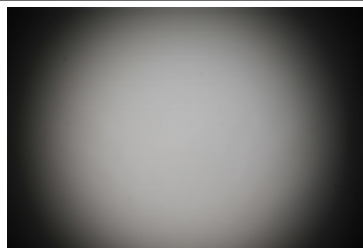
#### SAMSUNG

LED COB D Series LES 14.5 mm  
FWHM 49.0°  
Efficiency 81 %  
Peak intensity 1.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030  
C11996\_LENA-LENS



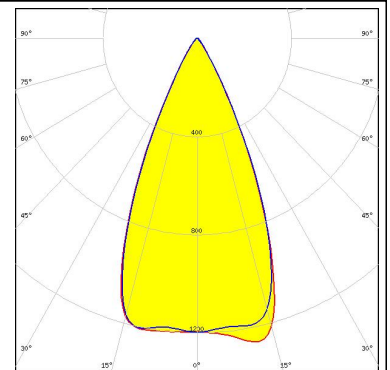
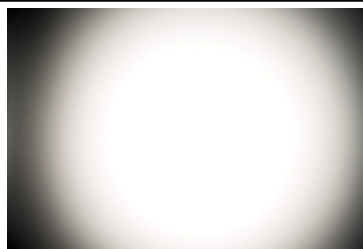
#### SAMSUNG

LED COB D Series LES 22 mm  
FWHM 51.0°  
Efficiency 81 %  
Peak intensity 1.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12692\_LENA-STD-BASE-CLL040  
C11996\_LENA-LENS



SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM 48.0°  
Efficiency 77 %  
Peak intensity 1.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030  
C11996\_LENA-LENS



#### PHOTOMETRIC DATA (MEASURED):

### SHARP

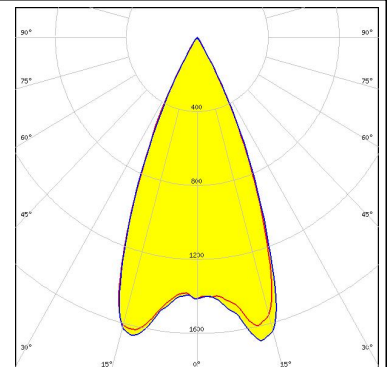
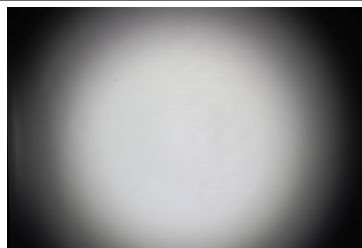
LED Mega Zenigata (GW5DGC)  
FWHM 44.0°  
Efficiency 75 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12292\_LENA-STD-BASE-MEZ  
C11996\_LENA-LENS

### SHARP

LED Mega Zenigata (GW5DGC)  
FWHM 44.0°  
Efficiency 80 %  
Peak intensity cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12292\_LENA-STD-BASE-MEZ

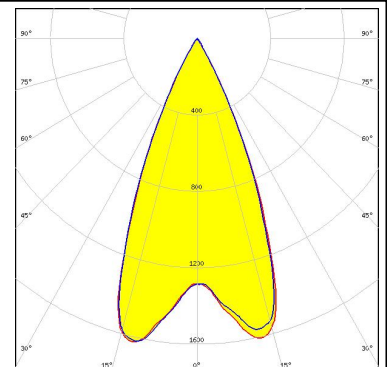
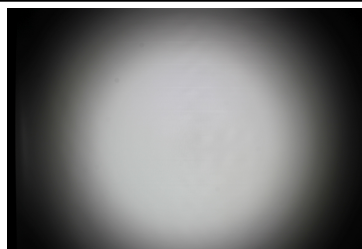
### TRIDONIC

LED SLE G7 LES15  
FWHM 48.0°  
Efficiency 88 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



### TRIDONIC

LED SLE G7 LES17 H  
FWHM 49.0°  
Efficiency 86 %  
Peak intensity 1.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14547\_LENA-ADAPTER-B

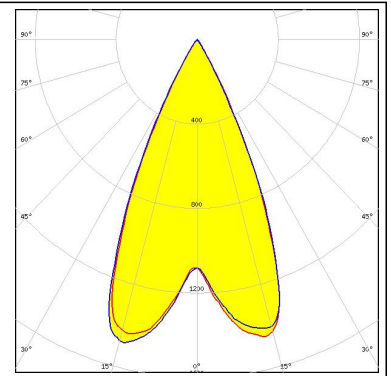




## PHOTOMETRIC DATA (MEASURED):

### TRIDONIC

LED SLE G7 LES21 H  
FWHM 52.0°  
Efficiency 86 %  
Peak intensity 1.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14547\_LENA-ADAPTER-B



#### PHOTOMETRIC DATA (SIMULATED):

<p>bridgelux.</p> <p>LED V10 Gen7            FWHM 46.0°            Efficiency 88 %            Peak intensity 1.770 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            Bender Wirth: 486 Typ L1</p>	
<p>bridgelux.</p> <p>LED V10 Gen7            FWHM 44.0°            Efficiency 81 %            Peak intensity 1.690 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 486 Typ L1</p>	
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 44.0°            Efficiency 87 %            Peak intensity 1.700 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2103CT + 50-2100LN</p>	
<p>bridgelux.</p> <p>LED V13 Gen7            FWHM 42.0°            Efficiency 85 %            Peak intensity 1.600 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C11996_LENA-LENS            IDEAL: 50-2103CT + 50-2100LN</p>	

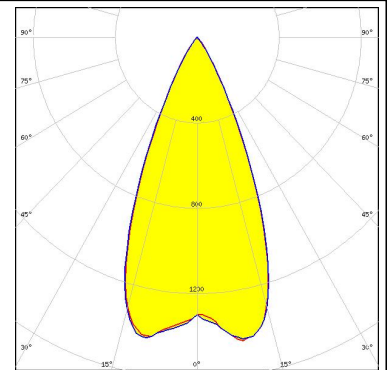
#### PHOTOMETRIC DATA (SIMULATED):

<p><b>bridgelux.</b></p> <p>LED V13 Gen7            FWHM 47.0°            Efficiency 82 %            Peak intensity 1.470 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13868_LENA-STD-BASE-VERO13-18            C11996_LENA-LENS            Bender Wirth: 477 Typ L1</p>	
<p><b>bridgelux.</b></p> <p>LED V22 Gen7            FWHM 51.0°            Efficiency 87 %            Peak intensity 1.402 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><b>bridgelux.</b></p> <p>LED V22 Gen7            FWHM 51.0°            Efficiency 87 %            Peak intensity 1.415 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13867_LENA-STD-BASE-VERO29            Bender Wirth: 431 Typ L3</p>	
<p><b>CREE</b> ⇄</p> <p>LED CXA/B 30xx            FWHM 42.0°            Efficiency 86 %            Peak intensity 1.600 cd/lm            LEDs/each optic 1            Light colour White            Required components:            IDEAL: 50-2234C + 50-2100LN</p>	

#### PHOTOMETRIC DATA (SIMULATED):



LED CXA/B 30xx  
FWHM 43.0°  
Efficiency 81 %  
Peak intensity 1.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C11996\_LENA-LENS  
IDEAL: 50-2234C + 50-2100LN



LED CxM-14 (19x19)  
FWHM 47.0°  
Efficiency 86 %  
Peak intensity 1.600 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 47.0°  
Efficiency 81 %  
Peak intensity 1.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 433 Typ L1



LED CxM-9 (13.5x13.5)  
FWHM 44.0°  
Efficiency 86 %  
Peak intensity 1.900 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
Bender Wirth: 434 Typ L1

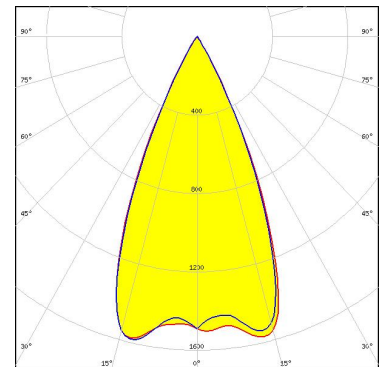
### PHOTOMETRIC DATA (SIMULATED):



LED CxM-9 (13.5x13.5)  
FWHM 45.0°  
Efficiency 81 %  
Peak intensity 1.500 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13868\_LENA-STD-BASE-VERO13-18  
C11996\_LENA-LENS  
Bender Wirth: 434 Typ L1



LED Soleriq S15  
FWHM 48.0°  
Efficiency 88 %  
Peak intensity 1.640 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C12691\_LENA-STD-BASE-CLL030



SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM 47.0°  
Efficiency 86 %  
Peak intensity 1.600 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 47.0°  
Efficiency 81 %  
Peak intensity 1.300 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	44.0°
Efficiency	86 %
Peak intensity	1.900 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
Bender Wirth: 434 Typ L1	
<hr/>	
	
SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	45.0°
Efficiency	81 %
Peak intensity	1.500 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
C11996_LENA-LENS	
Bender Wirth: 434 Typ L1	



### GENERAL INFORMATION:

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

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

### MATERIALS:

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

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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