

LENA-W

~45° wide beam

SPECIFICATION:

| | |
|----------------|------------|
| Dimensions | Ø 111.0 mm |
| Height | 80 mm |
| Fastening | socket |
| ROHS compliant | yes ⓘ |

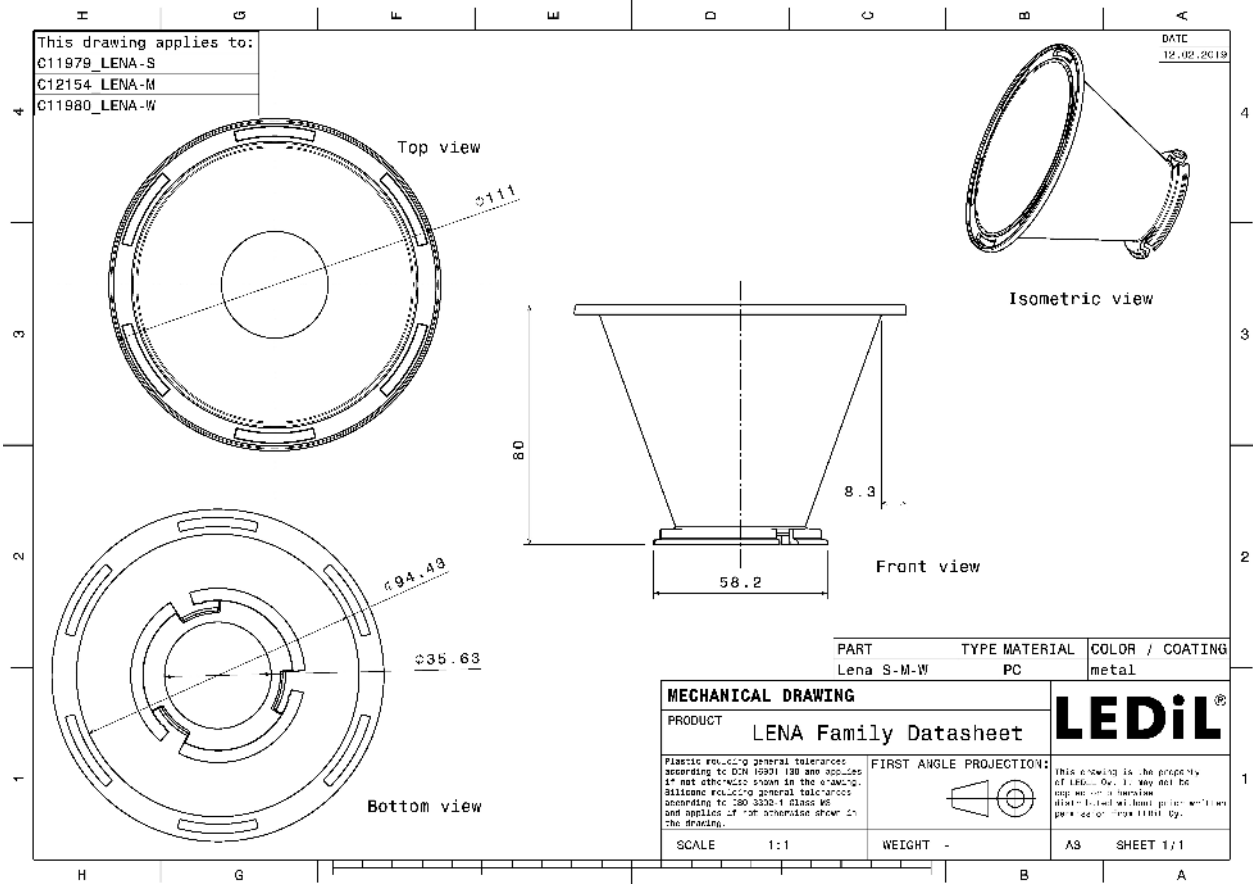
MATERIALS:

| Component | Type | Material | Colour | Finish | Coating |
|-----------|-----------|----------|--------|--------|---------|
| LENA-W | Reflector | PC | metal | | lacquer |






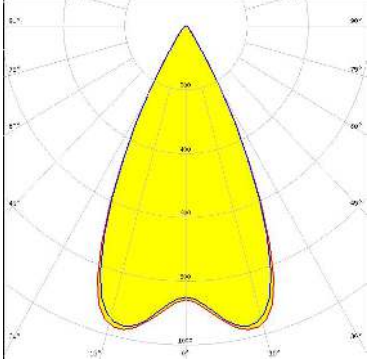


ORDERING INFORMATION:

| Component | Qty in box | MOQ | MPQ | Box weight (kg) |
|---|------------|-----|-----|-----------------|
| C11980_LENA-W » Box size: 400 x 280 x 380 mm | 60 | 60 | 60 | 4.0 |



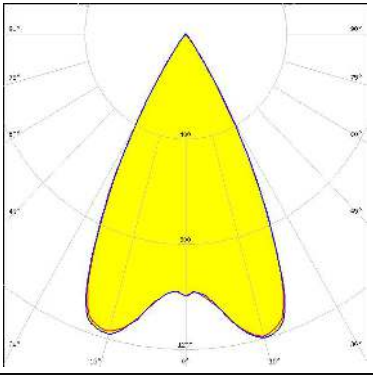


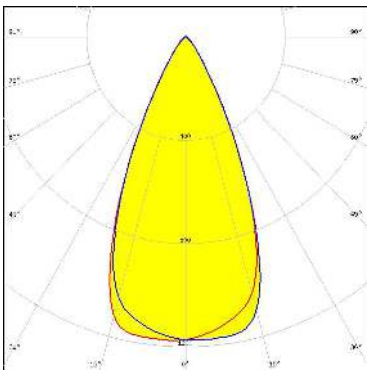


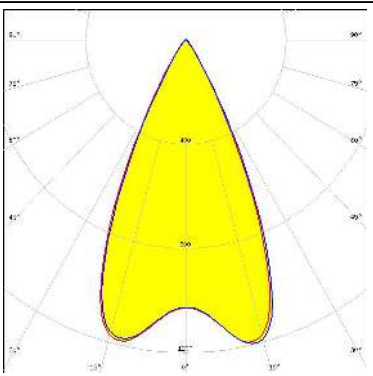


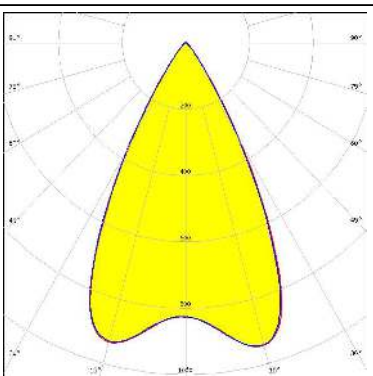


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

| | |
|--|---|
| <p></p> <p>LED BXRA ES Rectangle FWHM / FWTM 46.0° / 64.0° Efficiency 74 % LEDs/each optic 1 Light colour White</p> <p>Required components: C12153_LENA-STD-BASE-BXRA C11996_LENA-LENS</p> | |
| <p></p> <p>LED BXRA RS FWHM / FWTM 51.0° Efficiency 81 % LEDs/each optic 1 Light colour White</p> <p>Required components: C12229_LENA-STD-BASE-RS</p> | |
| <p></p> <p>LED BXRA RS FWHM / FWTM 51.0° Efficiency 76 % LEDs/each optic 1 Light colour White</p> <p>Required components: C12229_LENA-STD-BASE-RS C11996_LENA-LENS</p> |  |
| <p></p> <p>LED V10 Gen6 FWHM / FWTM 39.0° / 64.0° Efficiency 74 % Peak intensity 1.9 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13186_LENA-STD-BASE-CXA15 C11996_LENA-LENS</p> |  |

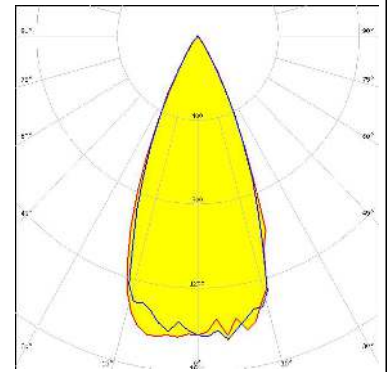
OPTICAL RESULTS (MEASURED):

| | | |
|--|--|---|
| <p></p> <p>LED Vero SE 29 FWHM / FWTM 57.0° / 70.0° Efficiency 86 % Peak intensity 1.2 cd/lm LEDs/each optic 1 Light colour White Required components: C15083_LENA-STD-BASE-VERO29</p> |  |  |
| <p></p> <p>LED VERO13 FWHM / FWTM 48.0° / 71.0° Efficiency 80 % Peak intensity 1.2 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p> |  |  |
| <p></p> <p>LED VERO18 FWHM / FWTM 52.0° / 69.0° Efficiency 80 % Peak intensity 1.2 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p> |  |  |
| <p></p> <p>LED VERO29 FWHM / FWTM 57.0° / 75.0° Efficiency 76 % Peak intensity 1 cd/lm LEDs/each optic 1 Light colour White Required components: C13867_LENA-STD-BASE-VERO29 C11996_LENA-LENS</p> |  |  |

OPTICAL RESULTS (MEASURED):

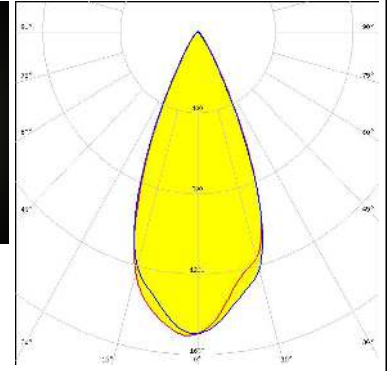
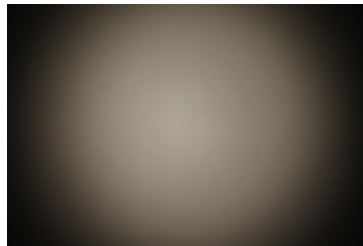
CITIZEN

LED CL-L340
 FWHM / FWTM 45.0° / 63.0°
 Efficiency 75 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11995_LENA-STD-BASE-CL340
 C11996_LENA-LENS



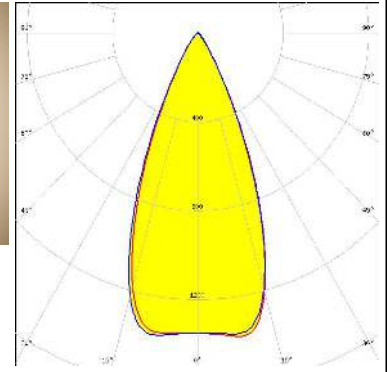
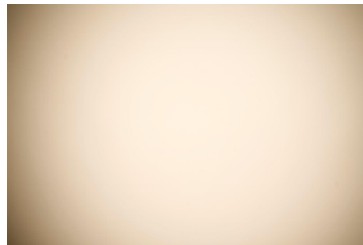
CITIZEN

LED CLL02x/CLU02x (LES10)
 FWHM / FWTM 45.0° / 64.0°
 Efficiency 81 %
 Peak intensity 1.5 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



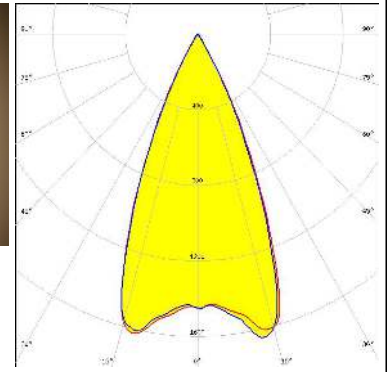
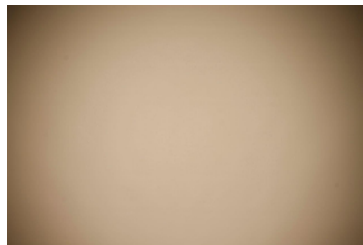
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 45.0° / 66.0°
 Efficiency 79 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11996_LENA-LENS
 A.A.G. STUCCHI: 8101-G2 + S-8000-11



CITIZEN

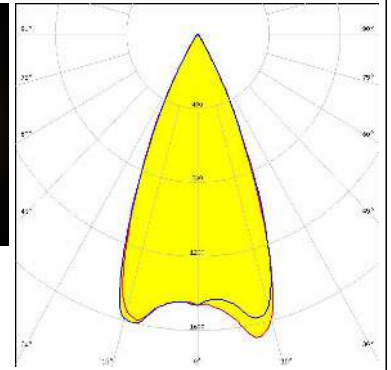
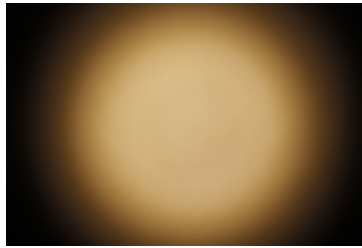
LED CLL03x/CLU03x
 FWHM / FWTM 47.0° / 67.0°
 Efficiency 81 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 433 Typ L1



OPTICAL RESULTS (MEASURED):

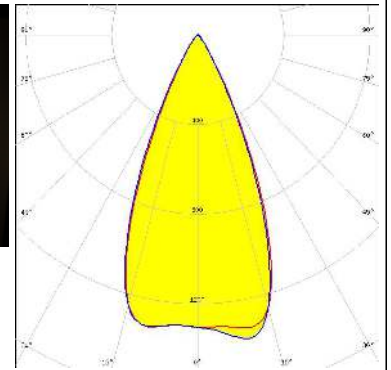
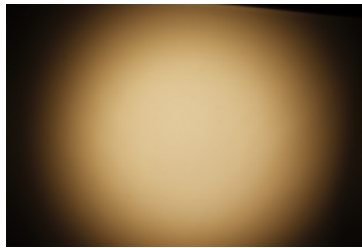
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 47.0° / 61.0°
 Efficiency 85 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



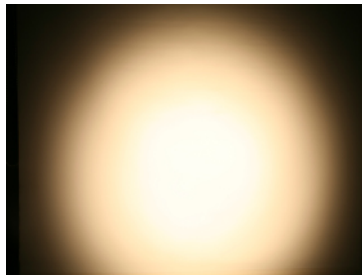
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 47.0° / 65.0°
 Efficiency 80 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



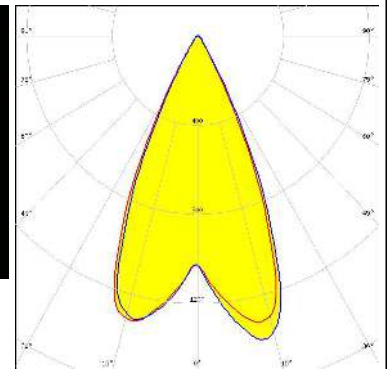
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 46.0° / 64.0°
 Efficiency 76 %
 Peak intensity 1.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



CITIZEN

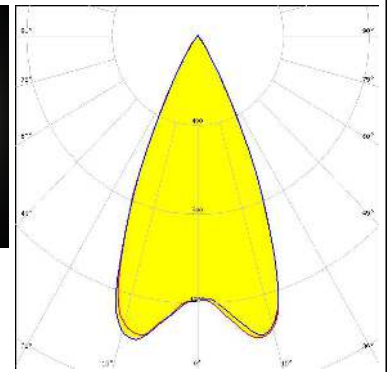
LED CLL04x/CLU04x
 FWHM / FWTM 52.0° / 66.0°
 Efficiency 86 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



OPTICAL RESULTS (MEASURED):

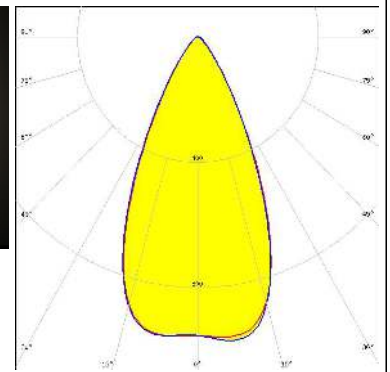
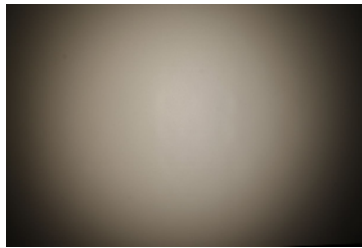
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 50.0° / 65.0°
 Efficiency 81 %
 Peak intensity 1.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2204CT + 50-2100LN



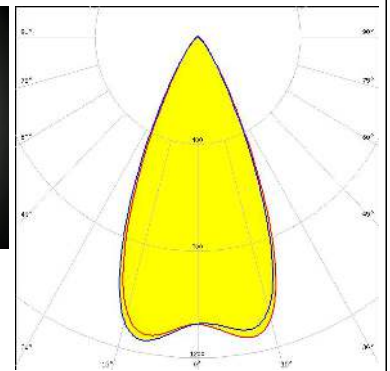
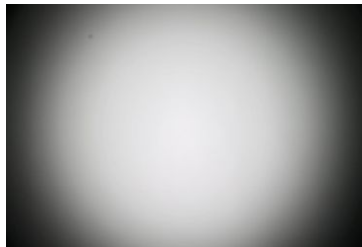
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 50.0° / 78.0°
 Efficiency 73 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11996_LENA-LENS
 A.A.G. STUCCHI: 8102-G2 + S-8000-12



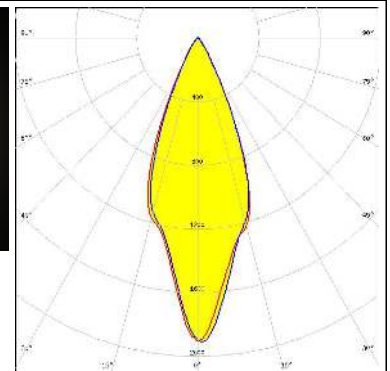
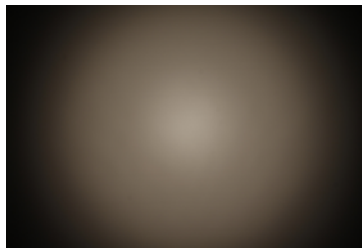
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 49.0° / 72.0°
 Efficiency 77 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11996_LENA-LENS
 IDEAL: 50-2204CT + 50-2100LN



CITIZEN

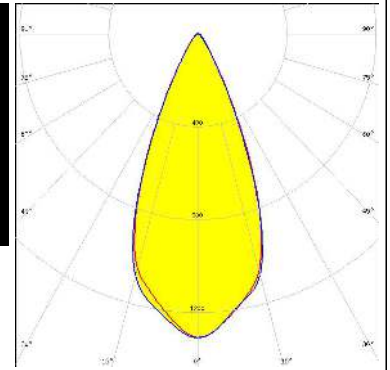
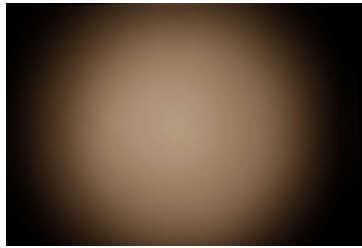
LED CLU700/701/702/703
 FWHM / FWTM 39.0° / 61.0°
 Efficiency 81 %
 Peak intensity 1.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 434 Typ L1



OPTICAL RESULTS (MEASURED):

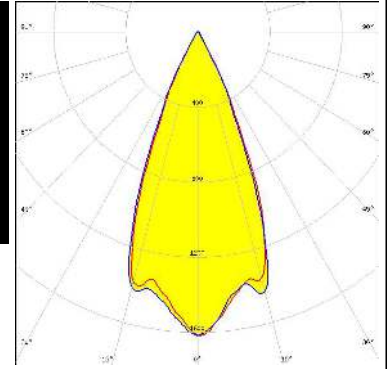
CITIZEN

LED CLU720/721/723
 FWHM / FWTM 46.0° / 66.0°
 Efficiency 76 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



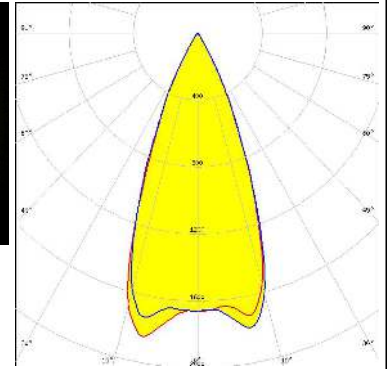
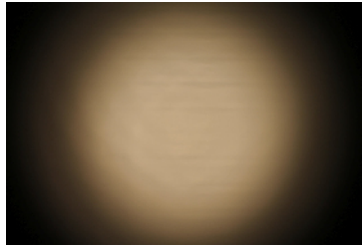
CITIZEN

LED CLU720/721/723
 FWHM / FWTM 44.0° / 60.0°
 Efficiency 81 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



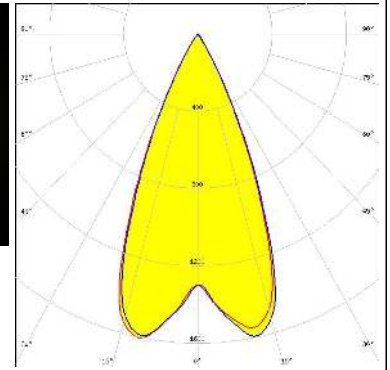
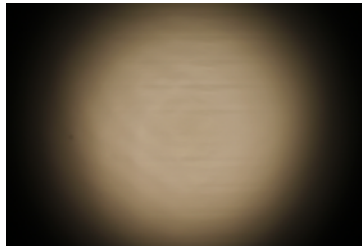
CREE LED

LED CMA1840
 FWHM / FWTM 43.0° / 60.0°
 Efficiency 86 %
 Peak intensity 1.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14146_LENA-STD-BASE-CXA18



CREE LED

LED CMA2550
 FWHM / FWTM 49.0° / 63.0°
 Efficiency 86 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13324_LENA-STD-BASE-CXA25



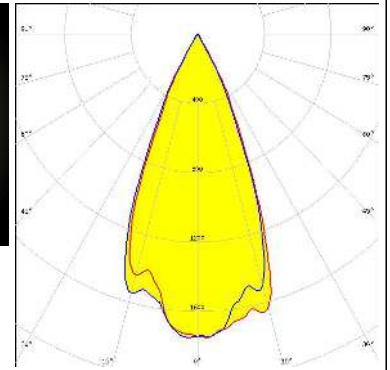
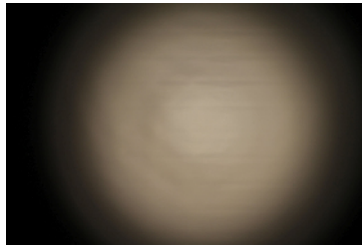
OPTICAL RESULTS (MEASURED):

CREE LED

LED CMT14xx
 FWHM / FWTM 44.0° / 60.0°
 Efficiency 85 %
 Peak intensity 1.8 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 434 Typ L1

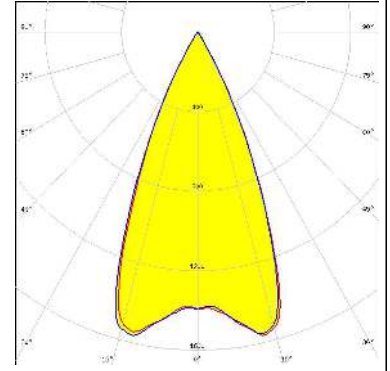


CREE LED

LED CMT19xx
 FWHM / FWTM 47.0° / 61.0°
 Efficiency 86 %
 Peak intensity 1.6 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 477 Typ L1

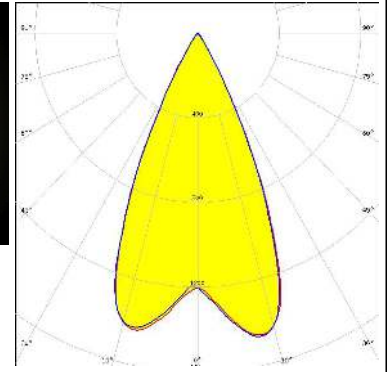


CREE LED

LED CMT28xx
 FWHM / FWTM 51.0° / 64.0°
 Efficiency 86 %
 Peak intensity 1.5 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C12692_LENA-STD-BASE-CLL040

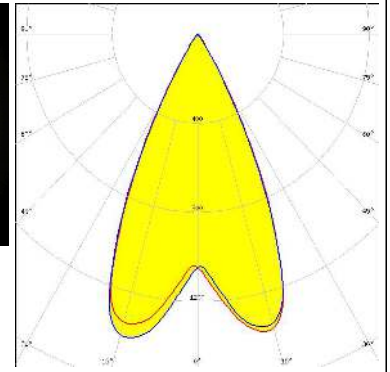
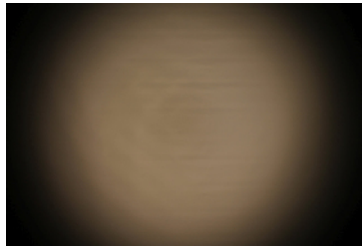


CREE LED

LED CMT28xx
 FWHM / FWTM 54.0° / 66.0°
 Efficiency 85 %
 Peak intensity 1.4 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C13867_LENA-STD-BASE-VERO29
 Bender Wirth: 471 Typ L3



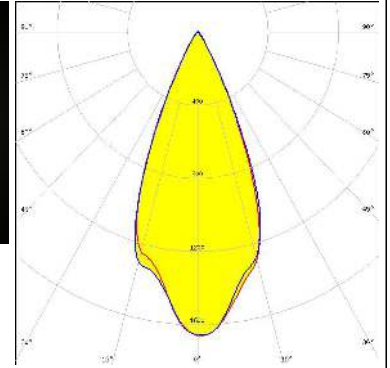
OPTICAL RESULTS (MEASURED):

CREE LED

LED CXA/B 15xx
FWHM / FWTM 44.0° / 61.0°
Efficiency 81 %
Peak intensity 1.7 cd/m
LEDs/each optic 1
Light colour White

Required components:

C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 441 Typ L1

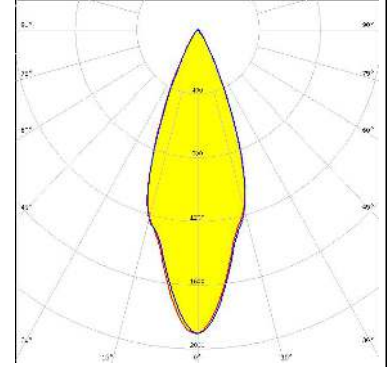


CREE LED

LED CXA/B 15xx
FWHM / FWTM 38.0° / 59.0°
Efficiency 77 %
Peak intensity 1.9 cd/m
LEDs/each optic 1
Light colour White

Required components:

C13186_LENA-STD-BASE-CXA15
C11996_LENA-LENS

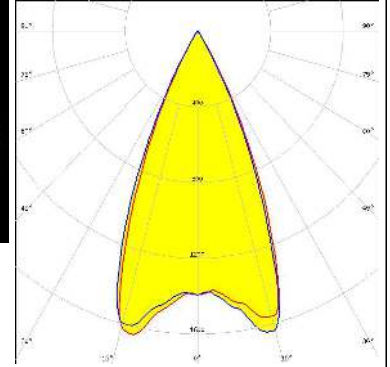
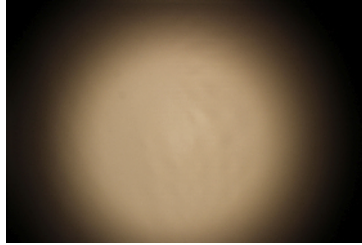


CREE LED

LED CXA/B 1830
FWHM / FWTM 48.0° / 61.0°
Efficiency 87 %
Peak intensity 1.7 cd/m
LEDs/each optic 1
Light colour White

Required components:

C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 437 Typ L1

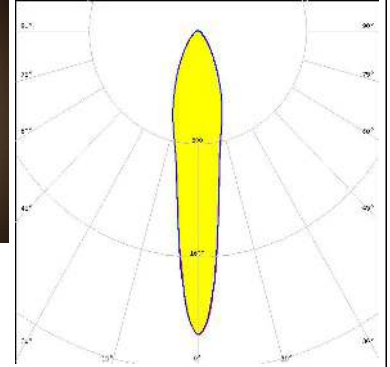


CREE LED

LED CXA/B 1830
FWHM / FWTM 17.0° / 64.0°
Efficiency 74 %
Peak intensity 2.2 cd/m
LEDs/each optic 1
Light colour White

Required components:

C13868_LENA-STD-BASE-VERO13-18
C12231_LENA-FRESNEL
Bender Wirth: 437 Typ L1



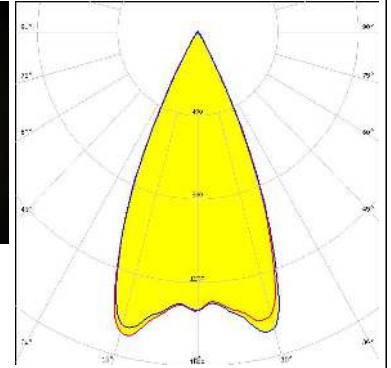
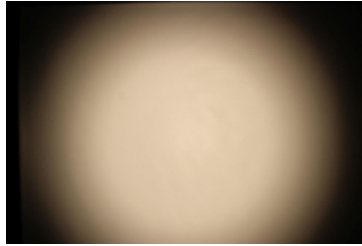
OPTICAL RESULTS (MEASURED):

CREE LED

LED CXA/B 1830
 FWHM / FWTM 49.0° / 60.0°
 Efficiency 82 %
 Peak intensity 1.5 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

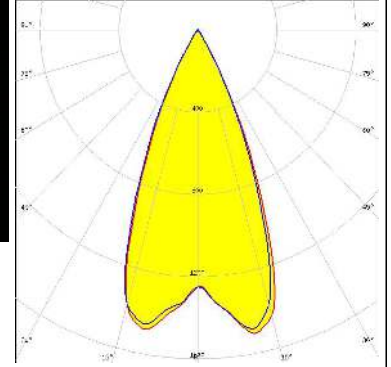


CREE LED

LED CXA/B 25xx
 FWHM / FWTM 44.0° / 60.0°
 Efficiency 81 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C13324_LENA-STD-BASE-CXA25

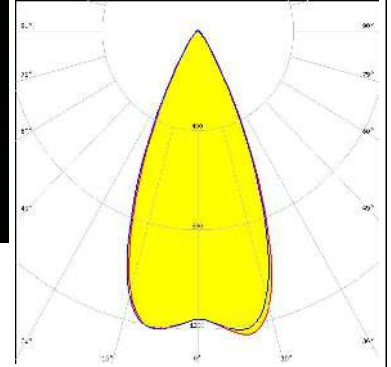


CREE LED

LED CXA/B 25xx
 FWHM / FWTM 44.0° / 61.0°
 Efficiency 76 %
 Peak intensity 1.3 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C13324_LENA-STD-BASE-CXA25
 C11996_LENA-LENS

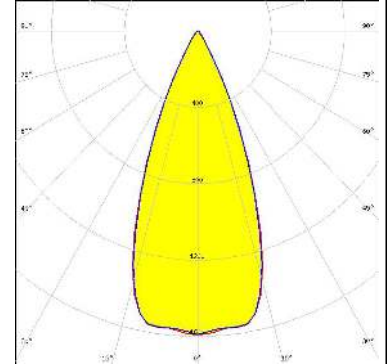


CREE LED

LED CXA2011
 FWHM / FWTM 42.0°
 Efficiency 75 %
 LEDs/each optic 1
 Light colour White

Required components:

C12105_LENA-STD-BASE-CXA20
 C11996_LENA-LENS



OPTICAL RESULTS (MEASURED):

EVERLIGHT

LED CHI3030 19W
 FWHM / FWTM 50.0° / 70.0°
 Efficiency 81 %
 Peak intensity 1.2 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 / FWTM 53.0° / 76.0°
 Efficiency 78 %
 Peak intensity 1 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C13867_LENA-STD-BASE-VERO29
 C11996_LENA-LENS
 Bender Wirth: 468 Typ L3

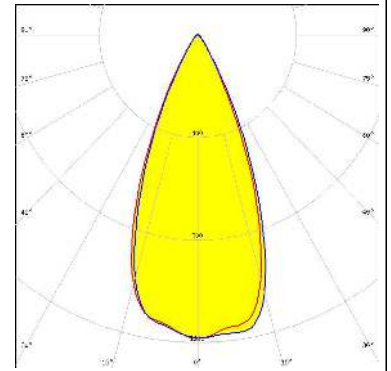


LUMILEDS

LED LUXEON CoB 1204/1205
 FWHM / FWTM 44.0° / 66.0°
 Efficiency 68 %
 Peak intensity 1.2 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS

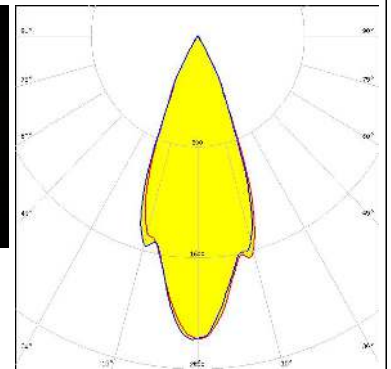
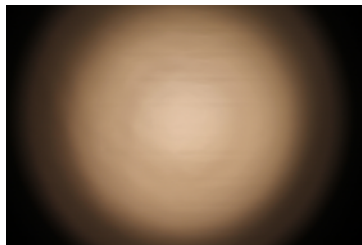


LUMILEDS


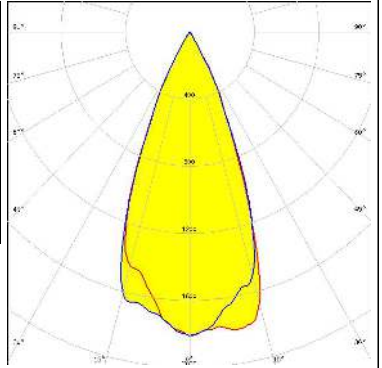
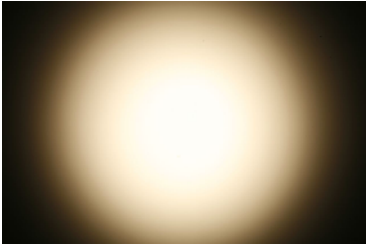
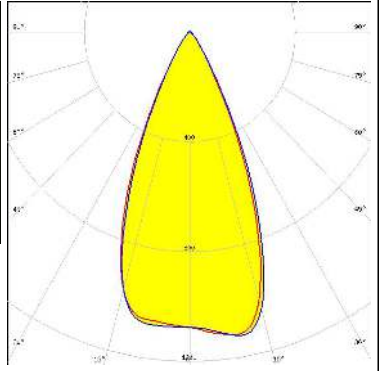

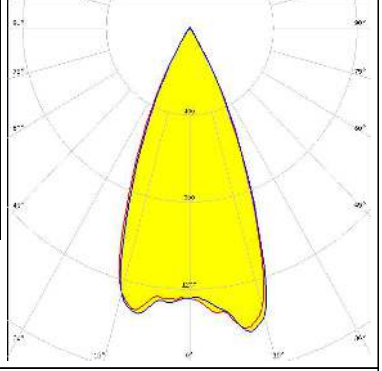
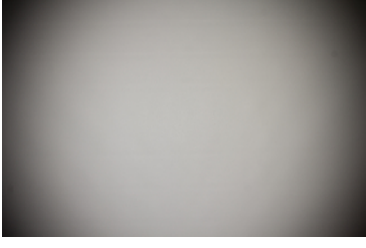
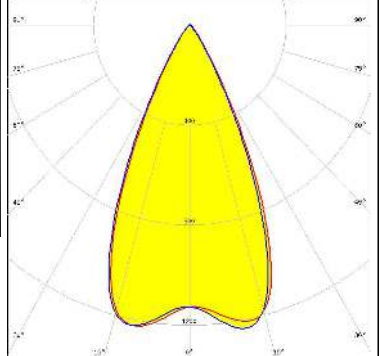
LED LUXEON CoB 1204HD
 FWHM / FWTM 40.0° / 58.0°
 Efficiency 86 %
 Peak intensity 2.2 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:


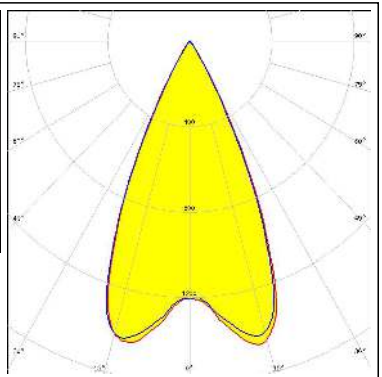

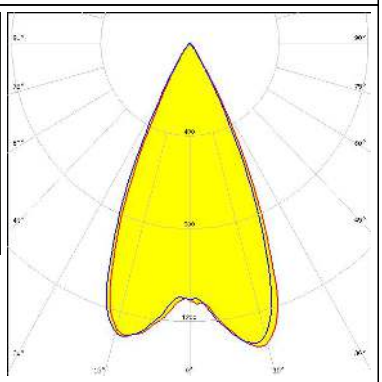
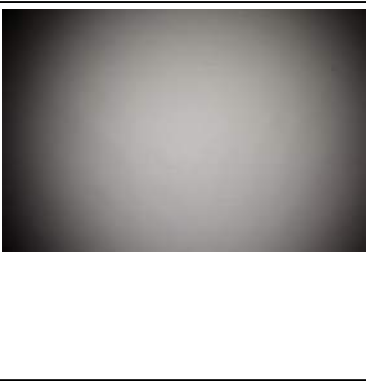
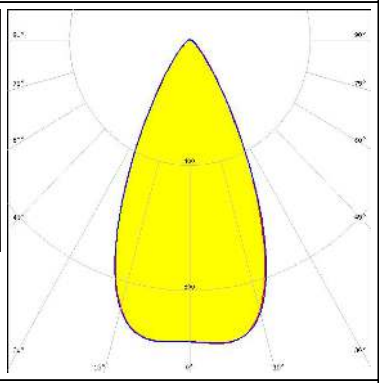

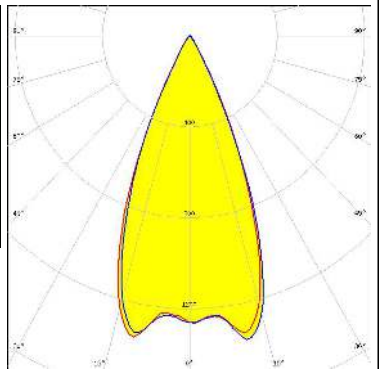
C11981_LENA-STD-BASE-COB-L110




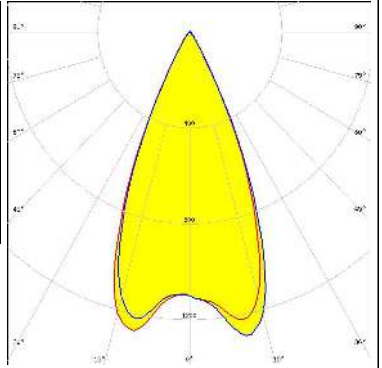
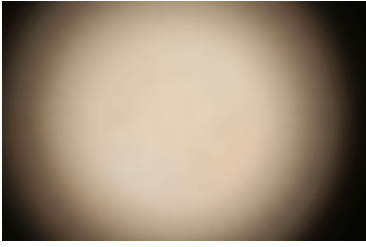
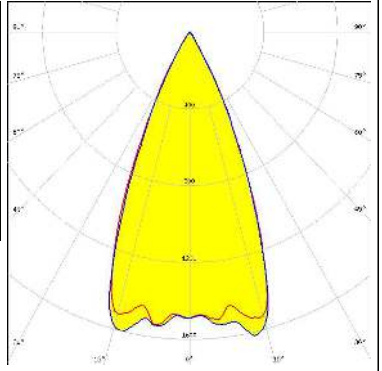
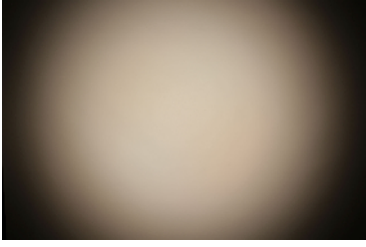
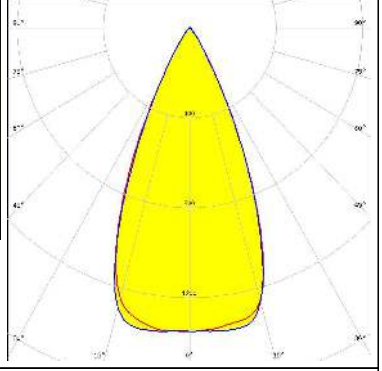

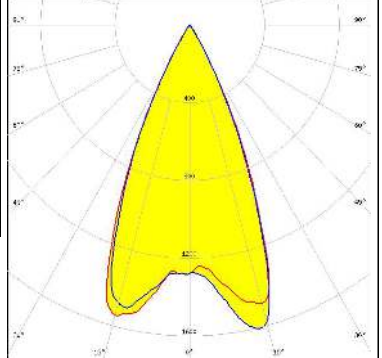
OPTICAL RESULTS (MEASURED):

| | | |
|---|--|---|
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 43.0° / 60.0°</p> <p>Efficiency 85 %</p> <p>Peak intensity 1.8 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C11981_LENA-STD-BASE-COB-L110</p> |  |  |
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 46.0° / 67.0°</p> <p>Efficiency 68 %</p> <p>Peak intensity 1.1 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS</p> |  |  |
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1208</p> <p>FWHM / FWTM 46.0° / 62.0°</p> <p>Efficiency 73 %</p> <p>Peak intensity 1.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ</p> |  |  |
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 50.0° / 69.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12692_LENA-STD-BASE-CLL040 C11996_LENA-LENS</p> |  |  |


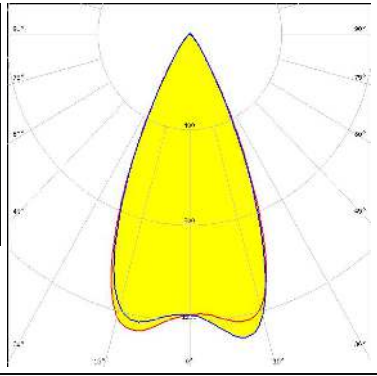

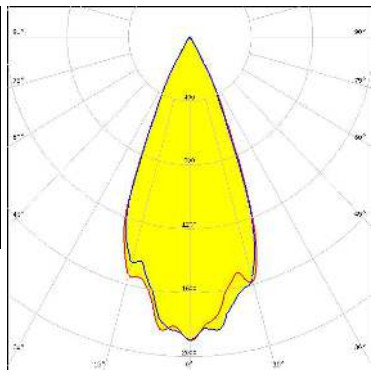

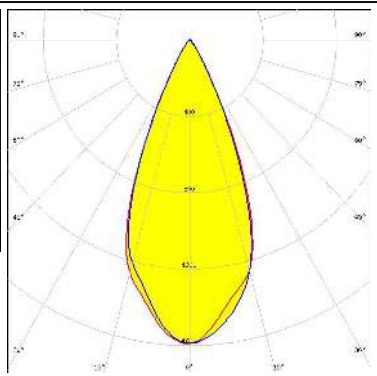

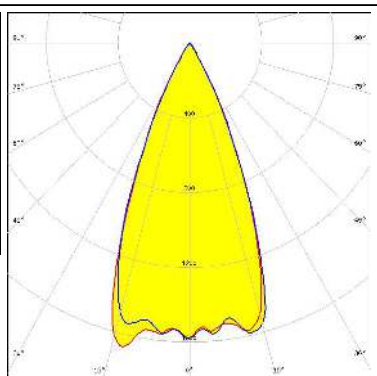
OPTICAL RESULTS (MEASURED):

| | | |
|--|--|---|
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 51.0° / 64.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.5 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12692_LENA-STD-BASE-CLL040</p> |  |  |
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 51.0° / 65.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: A.A.G. STUCCHI: 8102-G2 + S-8000-12</p> |  |  |
| <p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 50.0° / 79.0°</p> <p>Efficiency 75 %</p> <p>Peak intensity 1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C11996_LENA-LENS A.A.G. STUCCHI: 8102-G2 + S-8000-12</p> |  |  |
| <p>LUMILEDS</p> <p>LED LUXEON K12</p> <p>FWHM / FWTM 45.0° / 61.0°</p> <p>Efficiency 74 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12924_LENA-STD-BASE-LUXEON-K C11996_LENA-LENS</p> |  |  |

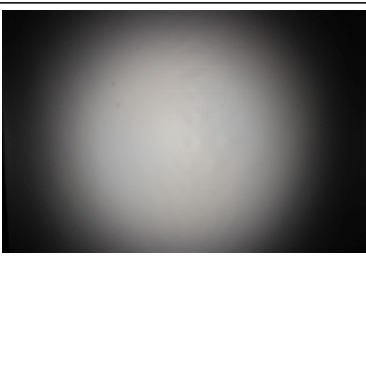
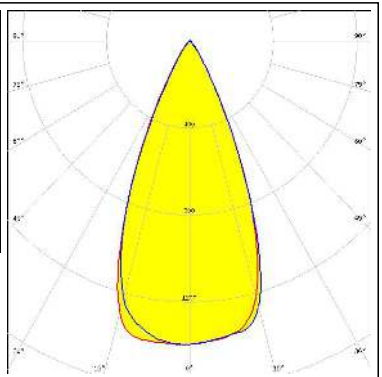

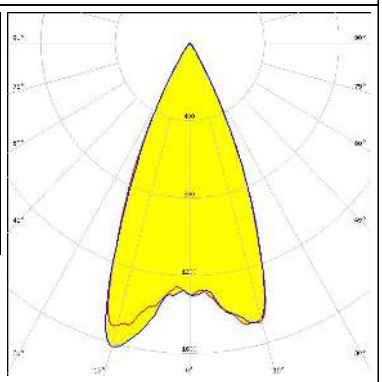
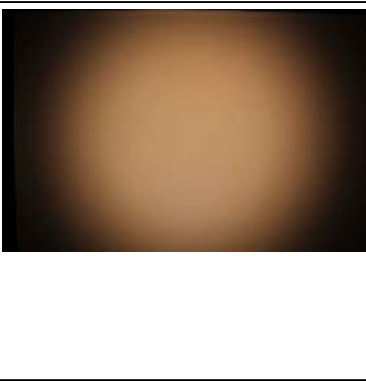
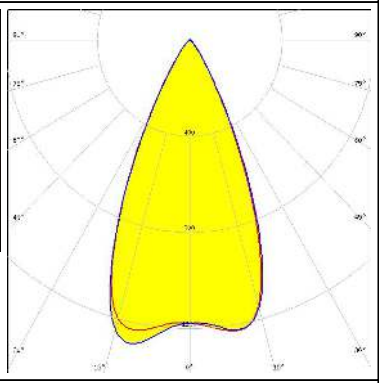

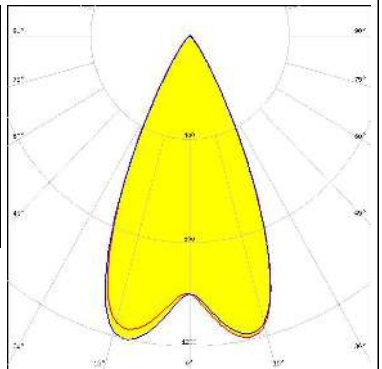
OPTICAL RESULTS (MEASURED):

| | | |
|---|--|---|
| <p>LUMILEDS</p> <p>LED LUXEON K16</p> <p>FWHM / FWTM 46.0° / 62.0°</p> <p>Efficiency 72 %</p> <p>Peak intensity 1.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12924_LENA-STD-BASE-LUXEON-K C11996_LENA-LENS</p> |  |  |
| <p>LUMINUS</p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 47.0° / 61.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.7 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: 491 Typ L2</p> |  |  |
| <p>LUMINUS</p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 47.0° / 67.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS Bender Wirth: 491 Typ L2</p> |  |  |
| <p>LUMINUS</p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 50.0° / 63.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.6 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: 491 Typ L2</p> |  |  |

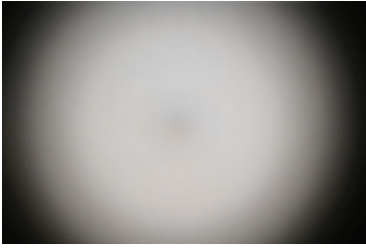
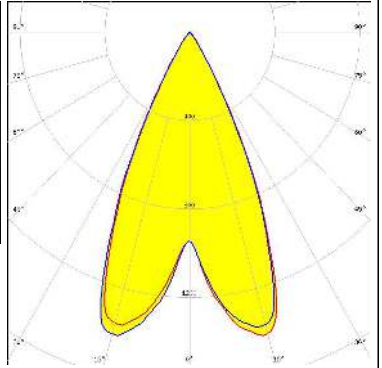
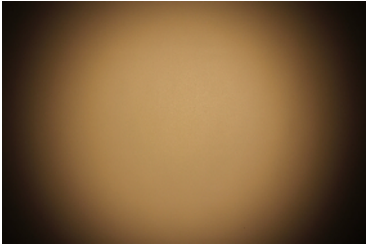
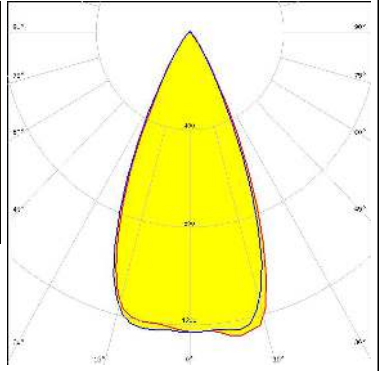
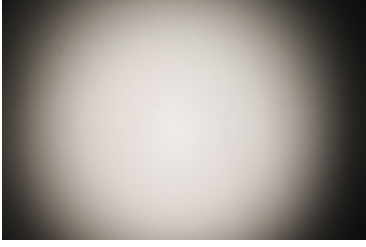
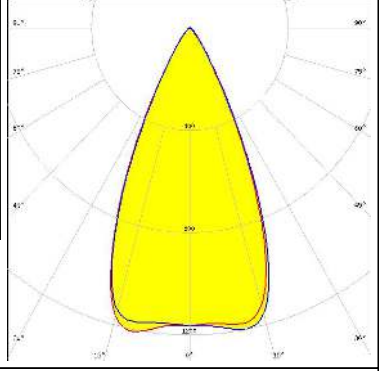
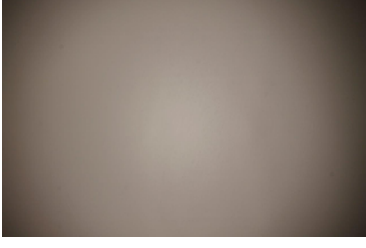
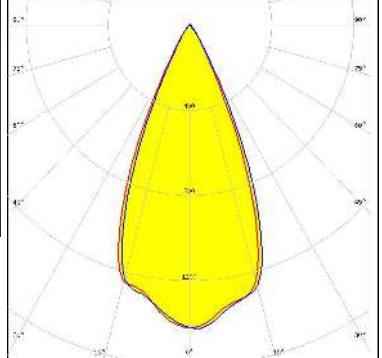
OPTICAL RESULTS (MEASURED):

| | | |
|---|--|---|
| <p>LUMINUS</p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 48.0° / 68.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.3 cd/m</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: 491 Typ L2</p> |  |  |
| <p>LUMINUS</p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 44.0° / 59.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.9 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 490 Typ L1</p> |  |  |
| <p>LUMINUS</p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 44.0° / 63.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 1.6 cd/m</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: 490 Typ L1</p> |  |  |
| <p>LUMINUS</p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 45.0° / 61.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.7 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 442 Typ L3</p> |  |  |

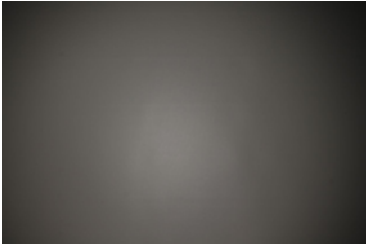
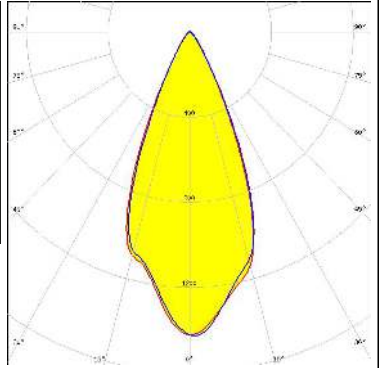

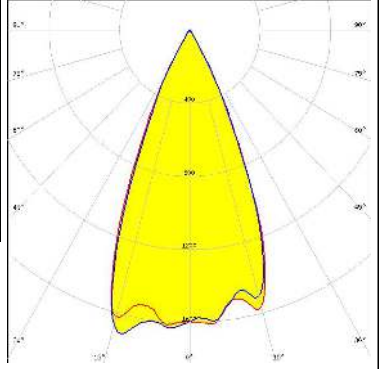
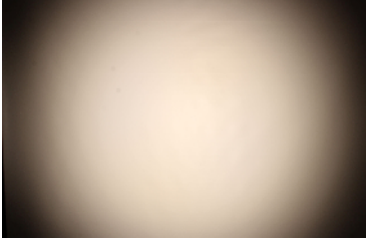
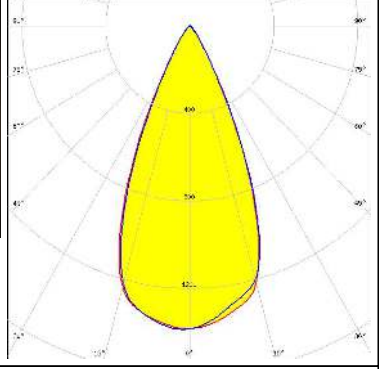
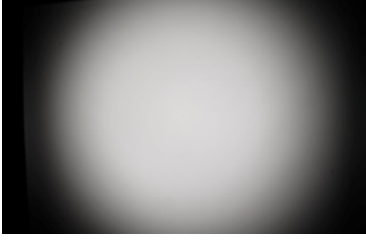
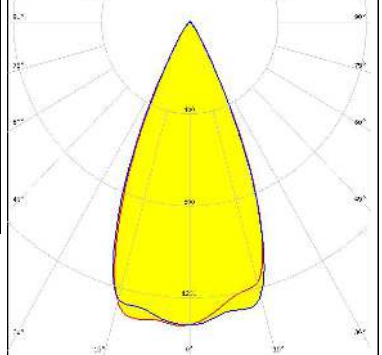
OPTICAL RESULTS (MEASURED):

| | | |
|--|--|---|
| <p>LUMINUS</p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 46.0° / 65.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13867_LENA-STD-BASE-VERO29</p> <p>C12606_LENINA-DL</p> <p>Bender Wirth: 442 Typ L3</p> |  |  |
| <p>LUMINUS</p> <p>LED CTM-18 (Tunable White)</p> <p>FWHM / FWTM 49.0° / 63.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13867_LENA-STD-BASE-VERO29</p> <p>Bender Wirth: 442 Typ L3</p> |  |  |
| <p>LUMINUS</p> <p>LED CTM-18 (Tunable White)</p> <p>FWHM / FWTM 49.0° / 69.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.3 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13867_LENA-STD-BASE-VERO29</p> <p>C11996_LENA-LENS</p> <p>Bender Wirth: 442 Typ L3</p> |  |  |
| <p>LUMINUS</p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 53.0° / 72.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.2 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>C13867_LENA-STD-BASE-VERO29</p> <p>C11996_LENA-LENS</p> <p>Bender Wirth: 489 Typ L6</p> |  |  |

OPTICAL RESULTS (MEASURED):

| | | |
|---|--|---|
| <p>LUMINUS</p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 55.0° / 68.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.4 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 494 Typ L3</p> |  |  |
| <p>LUMINUS</p> <p>LED CxM-14 (19x19)</p> <p>FWHM / FWTM 48.0° / 68.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity 1.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12691_LENA-STD-BASE-CLL030 C11996_LENA-LENS</p> |  |  |
| <p>NICHIA</p> <p>LED COB J-Type</p> <p>FWHM / FWTM 49.0° / 69.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.2 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: 463 Typ L2</p> |  |  |
| <p>NICHIA</p> <p>LED COB L-Type (LES 11)</p> <p>FWHM / FWTM 46.0° / 63.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.4 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> |  |  |

OPTICAL RESULTS (MEASURED):

| | | |
|--|--|---|
| <p>NICHIA</p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 45.0° / 66.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 1.4 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>NICHIA</p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 45.0° / 60.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.7 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>NICHIA</p> <p>LED NVCWJ024Z-V1MT: COB J-Type Tunable White</p> <p>FWHM / FWTM 46.0° / 66.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 1.4 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>OSRAM Opto Semiconductors</p> <p>LED Soleriq S13</p> <p>FWHM / FWTM 47.0° / 64.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity 1.4 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> |  |  |

OPTICAL RESULTS (MEASURED):

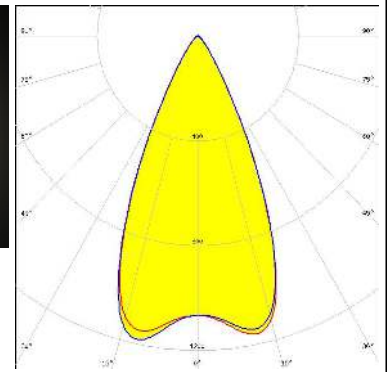
OSRAM

Opto Semiconductors

LED Soleriq S19
 FWHM / FWTM 50.0° / 71.0°
 Efficiency 78 %
 Peak intensity 1.2 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C13867_LENA-STD-BASE-VERO29
 C11996_LENA-LENS
 Bender Wirth: 462 Typ L3

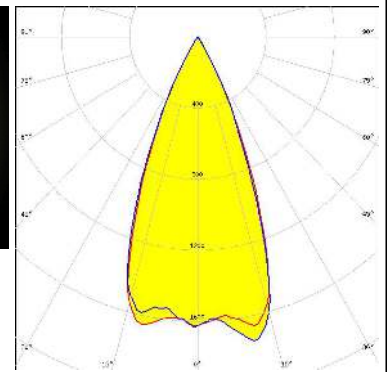


PHILIPS

LED Fortimo SLM L13 CoB
 FWHM / FWTM 44.0° / 60.0°
 Efficiency 85 %
 Peak intensity 1.8 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C12292_LENA-STD-BASE-MEZ

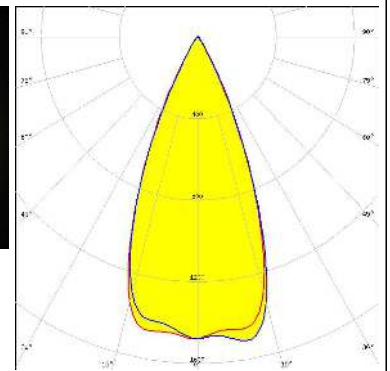
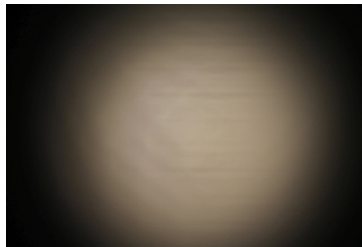


PHILIPS

LED Fortimo SLM L13 CoB
 FWHM / FWTM 44.0° / 61.0°
 Efficiency 79 %
 Peak intensity 1.5 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS

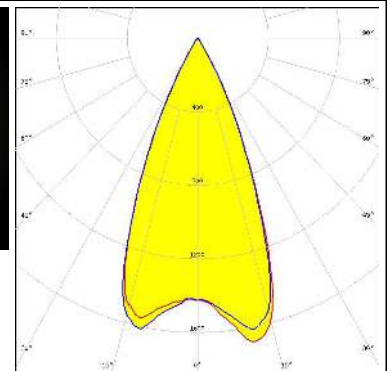
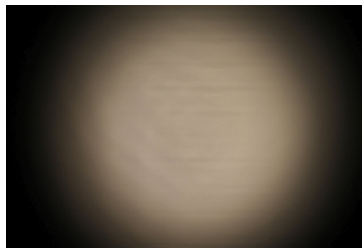


PHILIPS

LED Fortimo SLM L15 CoB
 FWHM / FWTM 47.0° / 61.0°
 Efficiency 85 %
 Peak intensity 1.7 cd/m
 LEDs/each optic 1
 Light colour White

Required components:

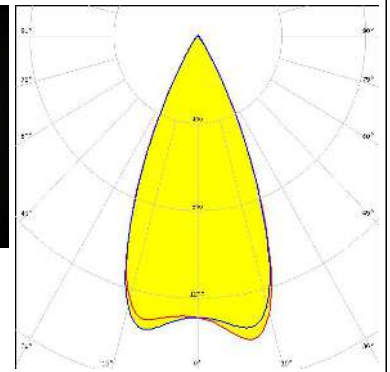
C12292_LENA-STD-BASE-MEZ



OPTICAL RESULTS (MEASURED):

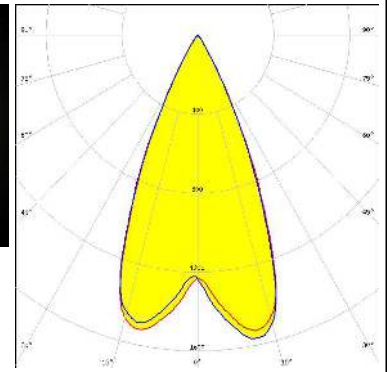
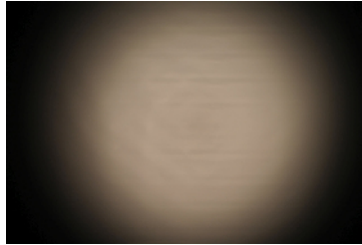
PHILIPS

LED Fortimo SLM L15 CoB
 FWHM / FWTM 46.0° / 63.0°
 Efficiency 79 %
 Peak intensity 1.4 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS



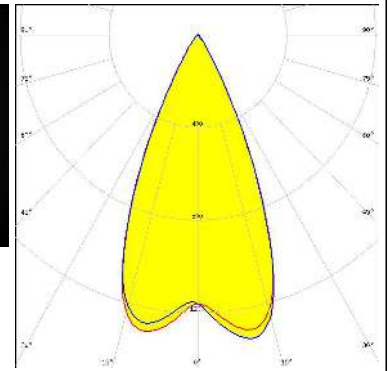
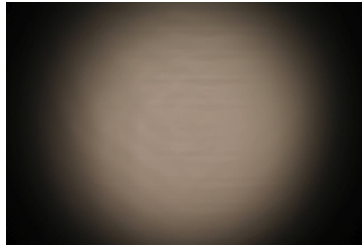
PHILIPS

LED Fortimo SLM L19 CoB
 FWHM / FWTM 50.0° / 63.0°
 Efficiency 85 %
 Peak intensity 1.6 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



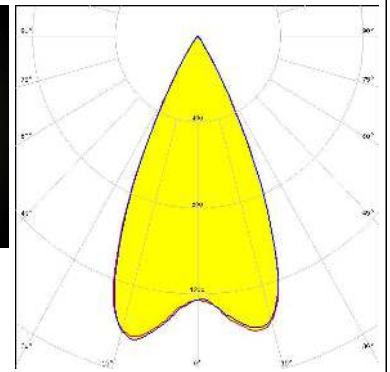
PHILIPS

LED Fortimo SLM L19 CoB
 FWHM / FWTM 48.0° / 65.0°
 Efficiency 79 %
 Peak intensity 1.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



PHILIPS

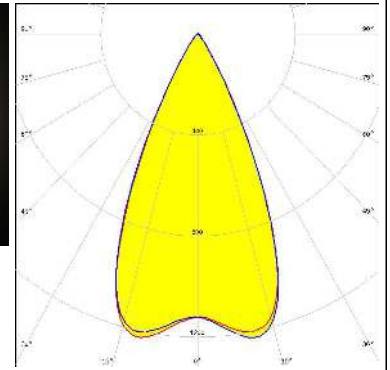
LED Fortimo SLM L23 CoB
 FWHM / FWTM 51.0° / 64.0°
 Efficiency 85 %
 Peak intensity 1.5 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



OPTICAL RESULTS (MEASURED):

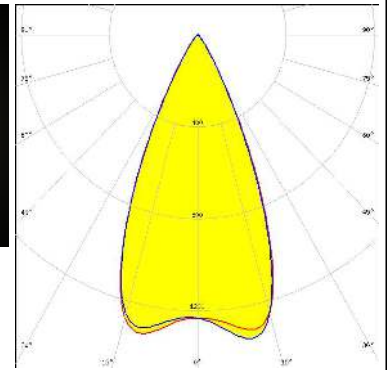
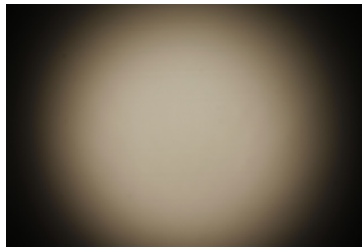
PHILIPS

LED Fortimo SLM L23 CoB
 FWHM / FWTM 50.0° / 67.0°
 Efficiency 79 %
 Peak intensity 1.2 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



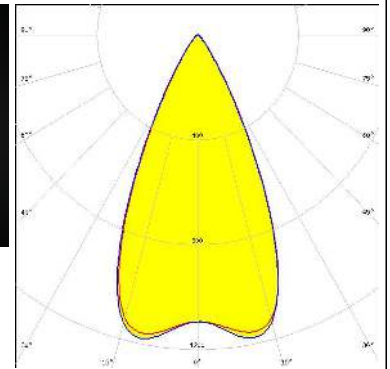
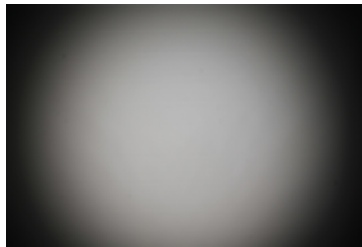
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
 FWHM / FWTM 49.0° / 66.0°
 Efficiency 81 %
 Peak intensity 1.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS

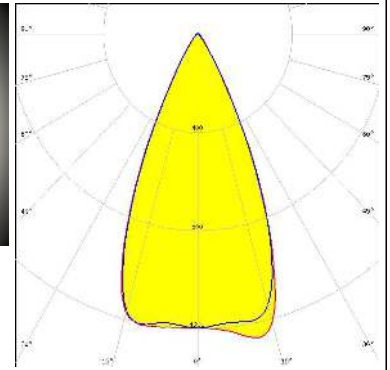


SAMSUNG

LED LC040D / LC060D / LC080D
 FWHM / FWTM 51.0° / 71.0°
 Efficiency 81 %
 Peak intensity 1.2 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



SEOUL SEMICONDUCTOR
 LED ZC12/18
 FWHM / FWTM 48.0° / 66.0°
 Efficiency 77 %
 Peak intensity 1.3 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



OPTICAL RESULTS (MEASURED):

SHARP

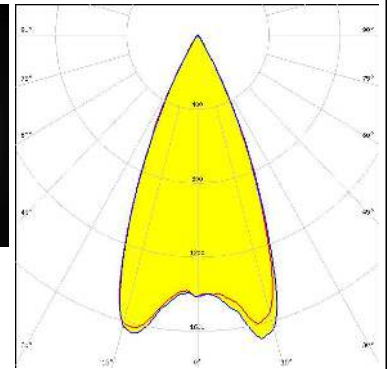
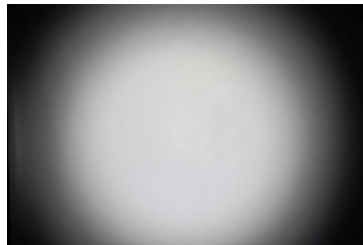
LED Mega Zenigata (GW5DGC)
FWHM / FWTM 44.0° / 64.0°
Efficiency 75 %
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ
C11996_LENA-LENS

SHARP

LED Mega Zenigata (GW5DGC)
FWHM / FWTM 44.0° / 60.0°
Efficiency 80 %
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ

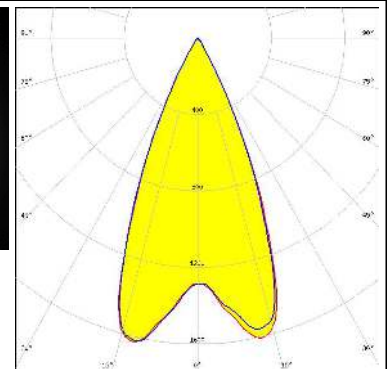
TRIDONIC

LED SLE G7 LES15
FWHM / FWTM 48.0° / 62.0°
Efficiency 88 %
Peak intensity 1.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



TRIDONIC

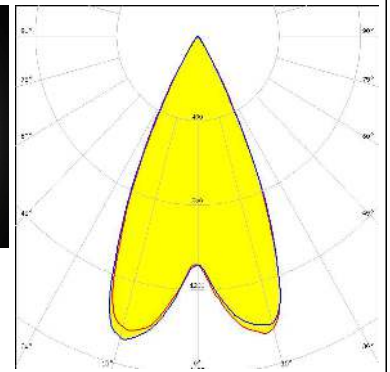
LED SLE G7 LES17 H
FWHM / FWTM 49.0° / 62.0°
Efficiency 86 %
Peak intensity 1.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14547_LENA-ADAPTER-B



OPTICAL RESULTS (MEASURED):

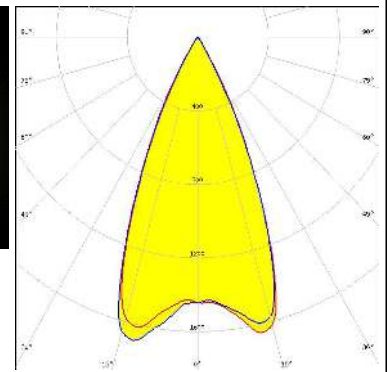
TRIDONIC

LED SLE G7 LES21 H
 FWHM / FWTM 52.0° / 64.0°
 Efficiency 86 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14547_LENA-ADAPTER-B


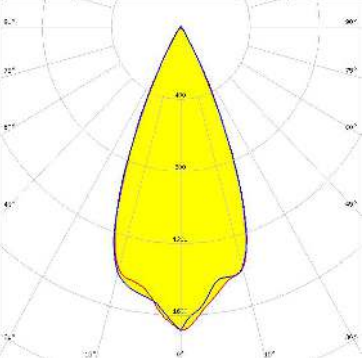

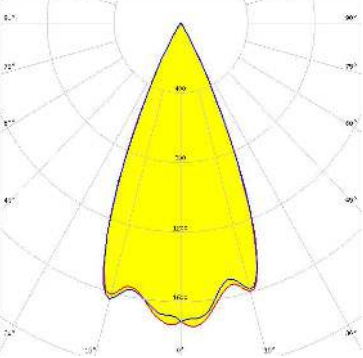

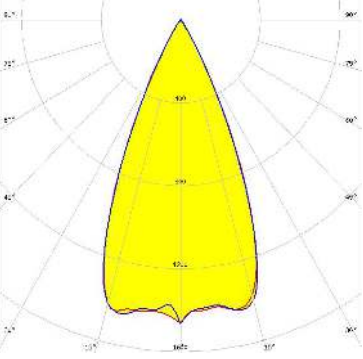

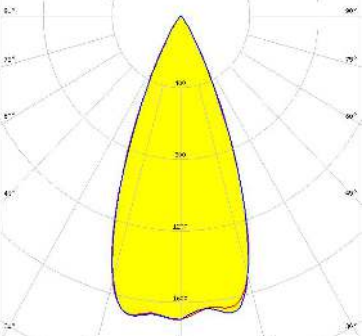


XICATO


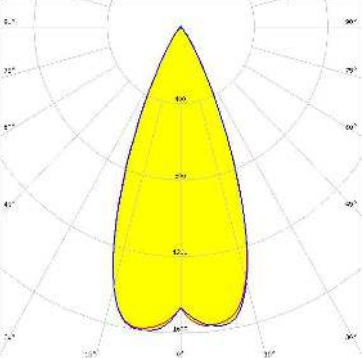

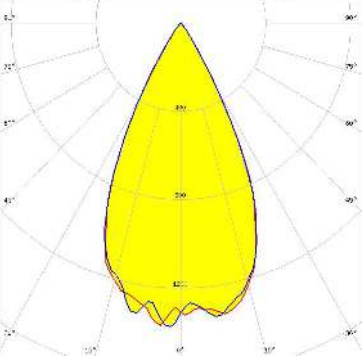

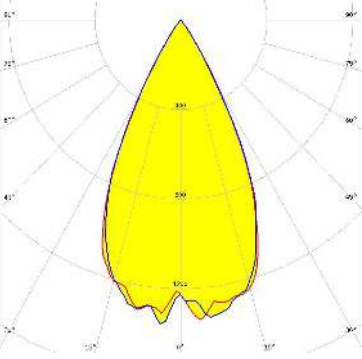

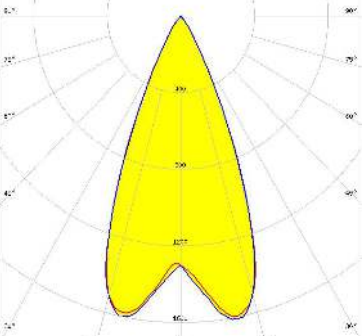
LED XOB 14.5 mm
 FWHM / FWTM 46.0° / 60.0°
 Efficiency 89 %
 Peak intensity 1.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



OPTICAL RESULTS (SIMULATED):

| | |
|--|---|
| <p></p> <p>LED V10 Gen7 FWHM / FWTM 44.0° / 60.0° Efficiency 81 % Peak intensity 1.7 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS Bender Wirth: 486 Typ L1</p> |  |
| <p></p> <p>LED V10 Gen7 FWHM / FWTM 46.0° / 59.0° Efficiency 88 % Peak intensity 1.8 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 486 Typ L1</p> |  |
| <p></p> <p>LED V13 Gen7 FWHM / FWTM 47.0° / 63.0° Efficiency 82 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS Bender Wirth: 477 Typ L1</p> |  |
| <p></p> <p>LED V13 Gen7 FWHM / FWTM 44.0° / 62.0° Efficiency 87 % Peak intensity 1.7 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100LN</p> |  |

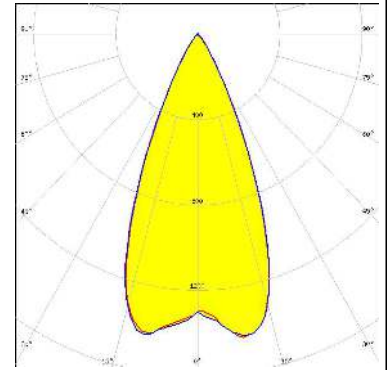
OPTICAL RESULTS (SIMULATED):

| | |
|---|---|
| <p></p> <p>LED V13 Gen7 FWHM / FWTM 42.0° / 64.0° Efficiency 85 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White Required components: C11996_LENA-LENS IDEAL: 50-2103CT + 50-2100LN</p> |  |
| <p></p> <p>LED V22 Gen7 FWHM / FWTM 51.0° / 67.0° Efficiency 87 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 431 Typ L3</p> |  |
| <p></p> <p>LED V22 Gen7 FWHM / FWTM 51.0° / 67.0° Efficiency 87 % Peak intensity 1.4 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></p> <p>LED CXA/B 30xx FWHM / FWTM 42.0° / 62.0° Efficiency 86 % Peak intensity 1.6 cd/lm LEDs/each optic 1 Light colour White Required components: IDEAL: 50-2234C + 50-2100LN</p> |  |

OPTICAL RESULTS (SIMULATED):



LED CXA/B 30xx
 FWHM / FWTM 43.0° / 64.0°
 Efficiency 81 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11996_LENA-LENS
 IDEAL: 50-2234C + 50-2100LN



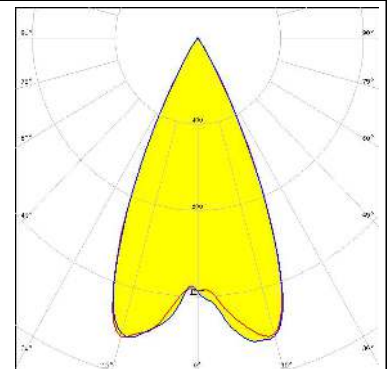
LED CxM-14 (19x19)
 FWHM / FWTM 47.0° / 61.0°
 Efficiency 86 %
 Peak intensity 1.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 433 Typ L1



LED CxM-14 (19x19)
 FWHM / FWTM 47.0° / 67.0°
 Efficiency 81 %
 Peak intensity 1.3 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-22 (28x28)
 FWHM / FWTM 48.0° / 62.0°
 Efficiency 83 %
 Peak intensity 1.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



OPTICAL RESULTS (SIMULATED):



LED CxM-9 (13.5x13.5)
FWHM / FWTM 44.0° / 59.0°
Efficiency 86 %
Peak intensity 1.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 434 Typ L1

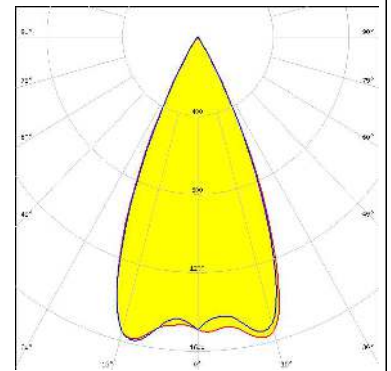


LED CxM-9 (13.5x13.5)
FWHM / FWTM 45.0° / 64.0°
Efficiency 81 %
Peak intensity 1.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 434 Typ L1






Opto Semiconductors

LED Soleriq S15
FWHM / FWTM 48.0° / 61.0°
Efficiency 88 %
Peak intensity 1.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C12691_LENA-STD-BASE-CLL030



LED ZC12/18
FWHM / FWTM 47.0° / 67.0°
Efficiency 81 %
Peak intensity 1.3 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

OPTICAL RESULTS (SIMULATED):

| | |
|--|---------------|
|  SEOUL SEMICONDUCTOR | |
| LED | ZC12/18 |
| FWHM / FWTM | 47.0° / 61.0° |
| Efficiency | 86 % |
| Peak intensity | 1.6 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 | ZC4/6 |
| FWHM / FWTM | 44.0° / 59.0° |
| Efficiency | 86 % |
| Peak intensity | 1.9 cd/lm |
| LEDs/each optic | 1 |
| Light colour | White |
| Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 434 Typ L1 | |
|  SEOUL SEMICONDUCTOR | |
| LED | ZC4/6 |
| FWHM / FWTM | 45.0° / 64.0° |
| Efficiency | 81 % |
| Peak intensity | 1.5 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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LEDiL Oy

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P.R.CHINA

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where_to_buy](http://www.ledil.com/where_to_buy)

Shipping locations

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Hong Kong, China

Distribution Partners

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