

LENA-S

~11° spot beam

SPECIFICATION:

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

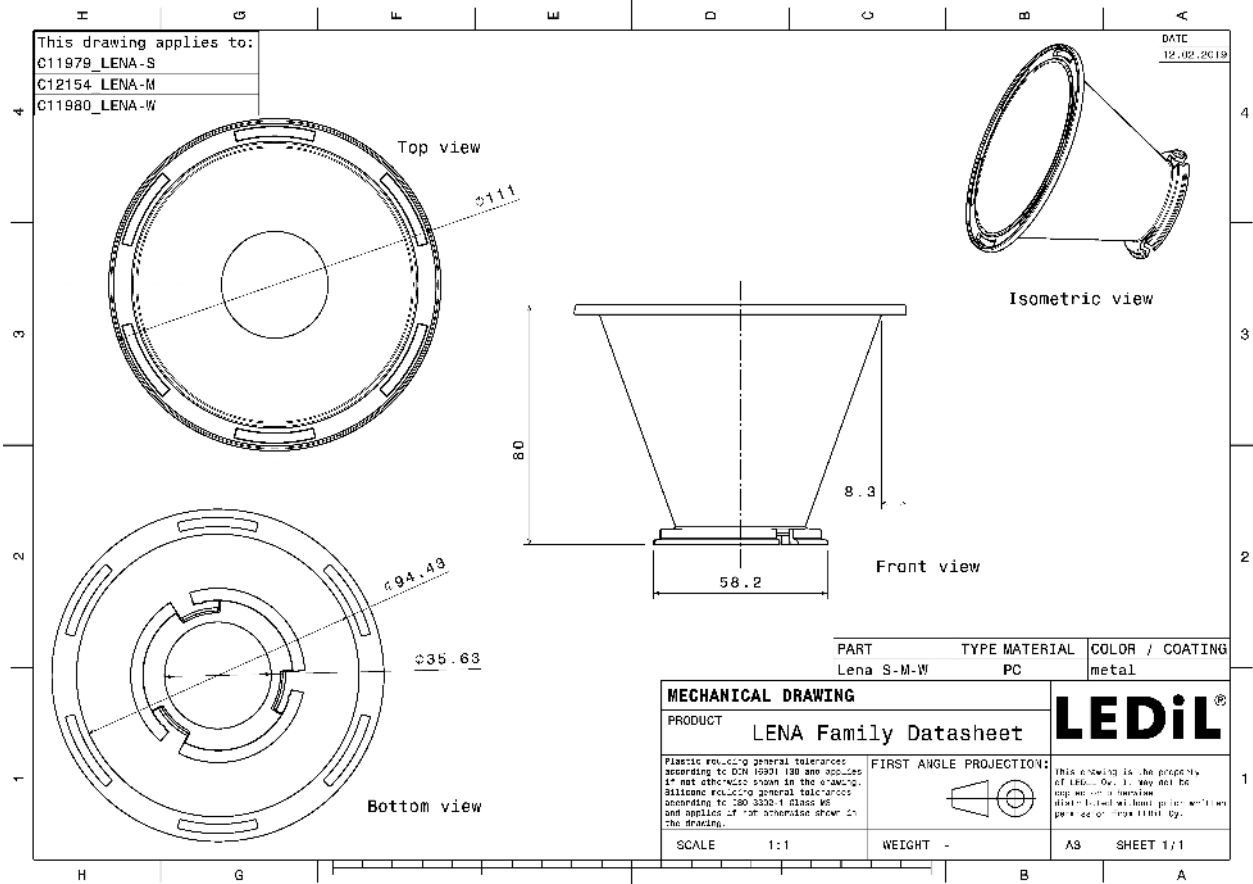
MATERIALS:

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





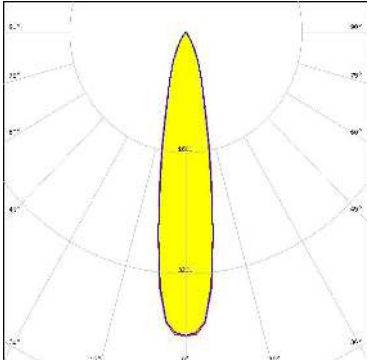

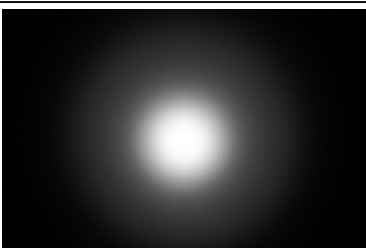

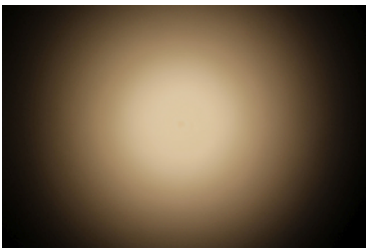
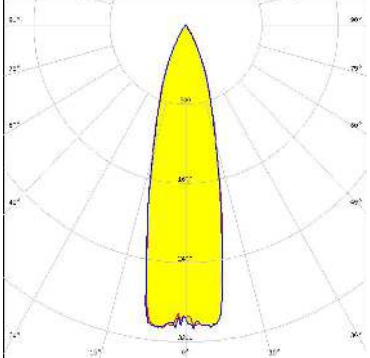
ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C11979_LENA-S » Box size: 400 x 280 x 380 mm	60	60	60	3.8



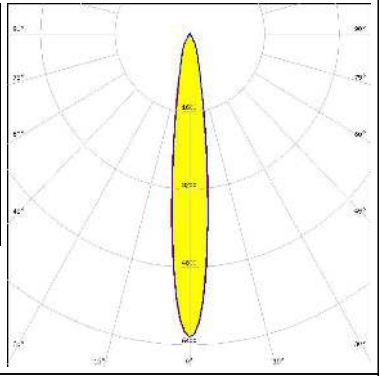


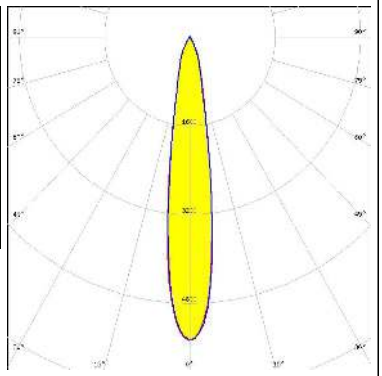


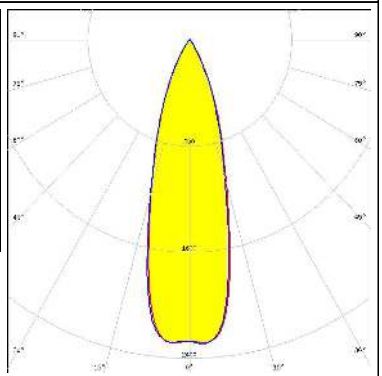

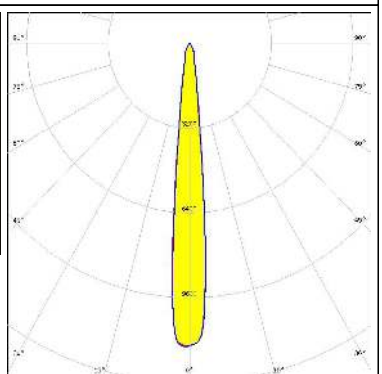


See also our general installation guide: www.ledil.com/installation_guide

OPTICAL RESULTS (MEASURED):

<p></p> <p>LED BXRA ES Rectangle FWHM / FWTM 11.0° / 25.0° Efficiency 78 % 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 20.0° Efficiency 80 % 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 9.0° / 24.0° Efficiency 76 % Peak intensity 12.1 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13186_LENA-STD-BASE-CXA15 C11996_LENA-LENS</p>	
<p></p> <p>LED Vero SE 29 FWHM / FWTM 27.0° / 55.0° Efficiency 87 % Peak intensity 3.1 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C15083_LENA-STD-BASE-VERO29</p>	 

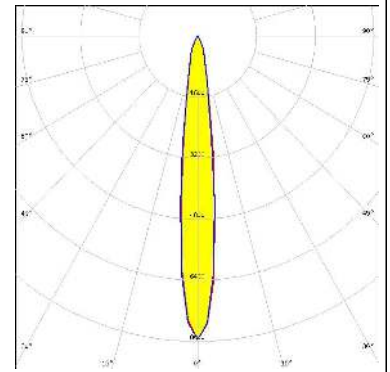
OPTICAL RESULTS (MEASURED):

<p></p> <p>LED VERO13 FWHM / FWTM 14.0° / 35.0° Efficiency 83 % Peak intensity 6.3 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p></p> <p>LED VERO18 FWHM / FWTM 17.0° / 39.0° Efficiency 83 % Peak intensity 5.5 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS</p>		
<p></p> <p>LED VERO29 FWHM / FWTM 30.0° / 56.0° Efficiency 80 % Peak intensity 2.3 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29</p>		
<p>CITIZEN</p> <p>LED CL-L340 FWHM / FWTM 11.0° / 24.0° Efficiency 86 % Peak intensity 11.5 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C11995_LENA-STD-BASE-CL340</p>		

OPTICAL RESULTS (MEASURED):

CITIZEN

LED CL-L340
 FWHM / FWTM 14.0° / 31.0°
 Efficiency 79 %
 Peak intensity 8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11995_LENA-STD-BASE-CL340
 C11996_LENA-LENS

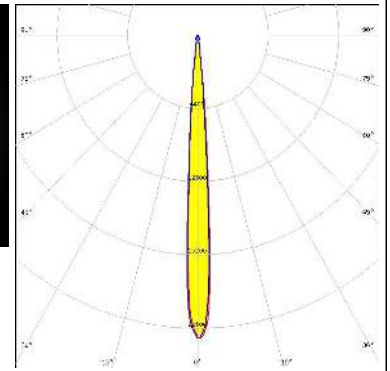


CITIZEN

LED CL-L340
 FWHM / FWTM 11.0° / 25.0°
 Efficiency 84 %
 Peak intensity 10.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C11995_LENA-STD-BASE-CL340

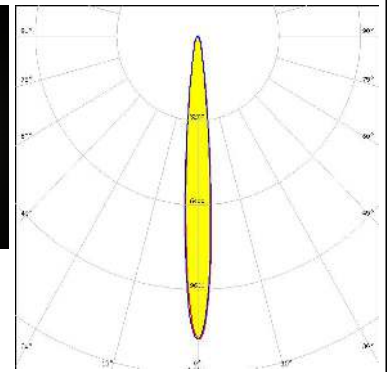
CITIZEN

LED CLL02x/CLU02x (LES10)
 FWHM / FWTM 8.0° / 14.0°
 Efficiency 85 %
 Peak intensity 26.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 434 Typ L1



CITIZEN

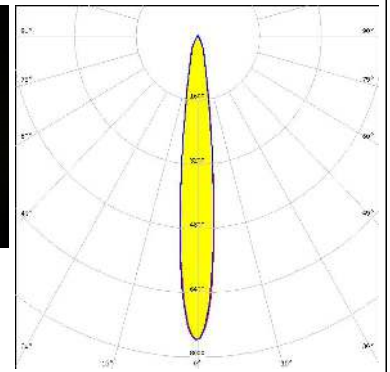
LED CLL02x/CLU02x (LES10)
 FWHM / FWTM 10.0° / 22.0°
 Efficiency 80 %
 Peak intensity 11.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 434 Typ L1



OPTICAL RESULTS (MEASURED):

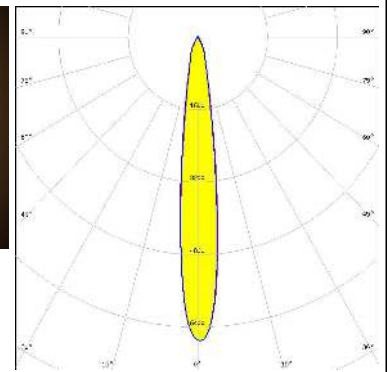
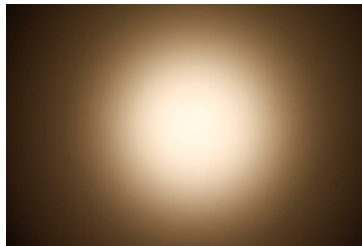
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 13.0° / 30.0°
 Efficiency 80 %
 Peak intensity 7.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



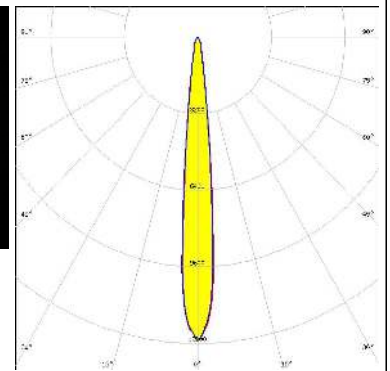
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 14.0° / 32.0°
 Efficiency 80 %
 Peak intensity 6.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 433 Typ L1



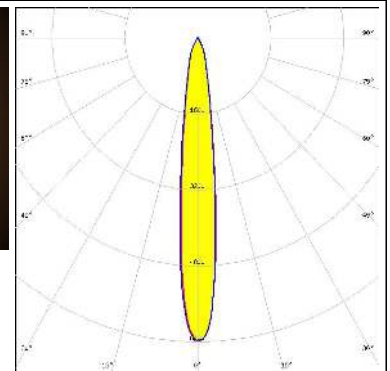
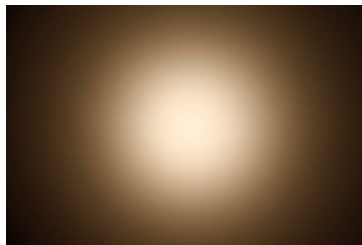
CITIZEN

LED CLL03x/CLU03x
 FWHM / FWTM 11.0° / 22.0°
 Efficiency 85 %
 Peak intensity 13 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



CITIZEN

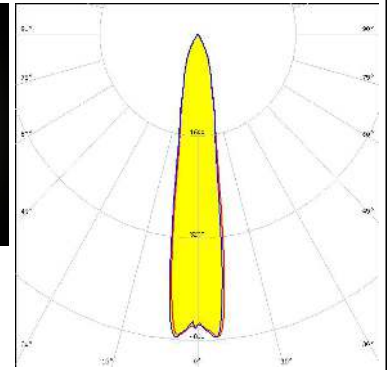
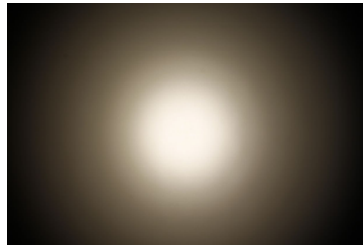
LED CLL03x/CLU03x
 FWHM / FWTM 13.0° / 34.0°
 Efficiency 78 %
 Peak intensity 6.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8101-G2 + S-8000-11



OPTICAL RESULTS (MEASURED):

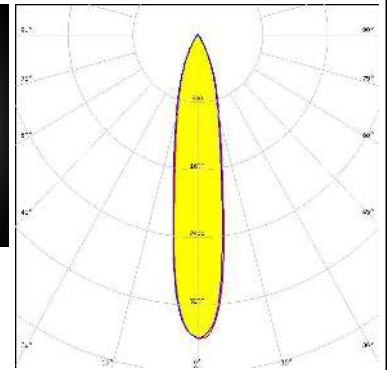
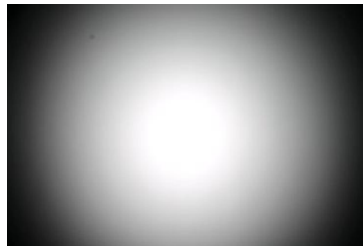
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 17.0° / 45.0°
 Efficiency 78 %
 Peak intensity 4.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8102-G2 + S-8000-12



CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 19.0° / 51.0°
 Efficiency 81 %
 Peak intensity 3.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2204CT + 50-2100LN



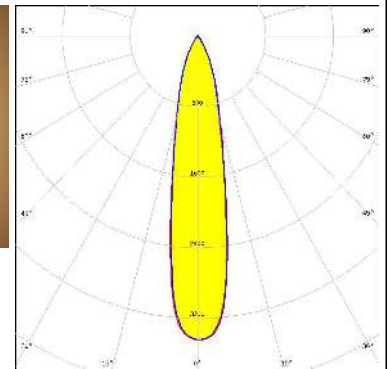
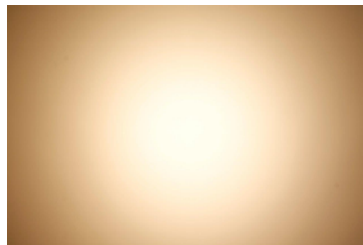
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 15.0° / 40.0°
 Efficiency 84 %
 Peak intensity 5.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



CITIZEN

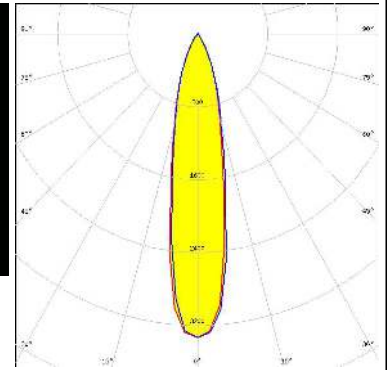
LED CLL04x/CLU04x
 FWHM / FWTM 21.0° / 51.0°
 Efficiency 80 %
 Peak intensity 3.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13867_LENA-STD-BASE-VERO29
 Bender Wirth: 431 Typ L3



OPTICAL RESULTS (MEASURED):

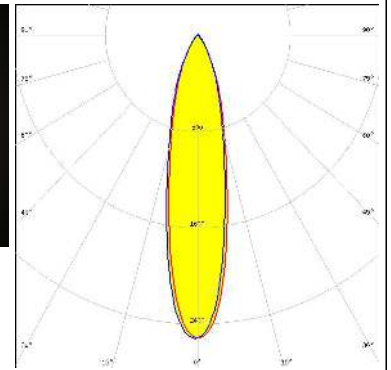
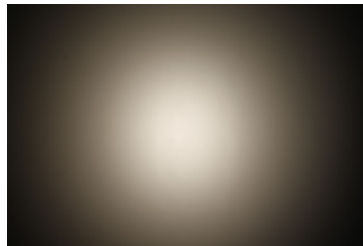
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 16.0° / 46.0°
 Efficiency 79 %
 Peak intensity 3.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



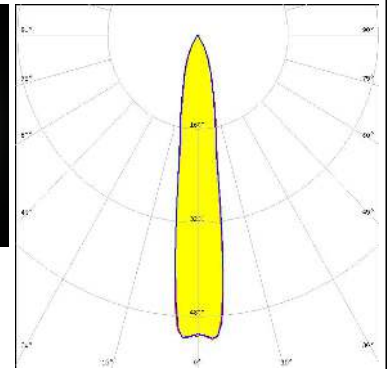
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 23.0° / 56.0°
 Efficiency 73 %
 Peak intensity 2.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8102-G2 + S-8000-12



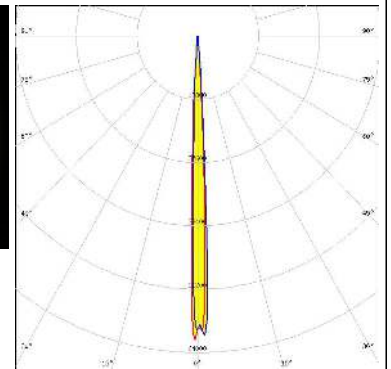
CITIZEN

LED CLL04x/CLU04x
 FWHM / FWTM 16.0° / 45.0°
 Efficiency 85 %
 Peak intensity 5.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2204CT + 50-2100LN



CITIZEN

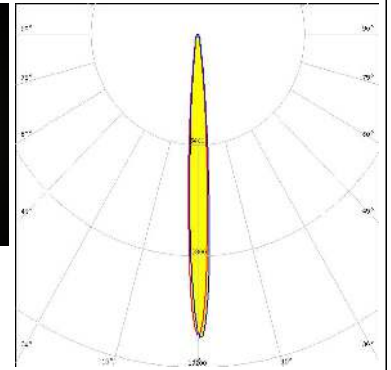
LED CLU700/701/702/703
 FWHM / FWTM 5.0° / 9.0°
 Efficiency 87 %
 Peak intensity 61.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 434 Typ L1



OPTICAL RESULTS (MEASURED):

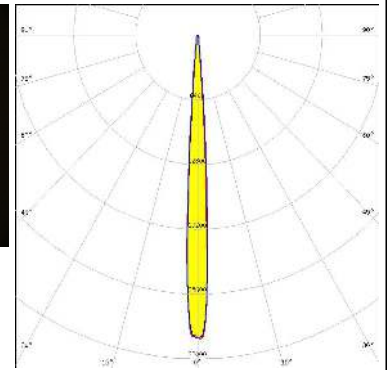
CITIZEN

LED CLU700/701/702/703
 FWHM / FWTM 8.0° / 17.0°
 Efficiency 80 %
 Peak intensity 17.5 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



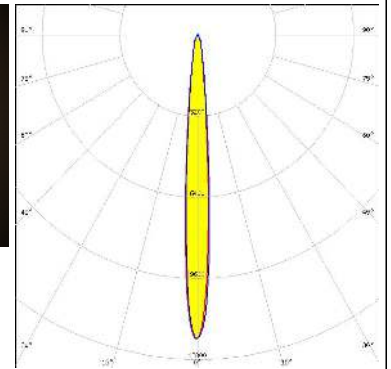
CITIZEN

LED CLU710/711
 FWHM / FWTM 7.0° / 13.0°
 Efficiency 90 %
 Peak intensity 30 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



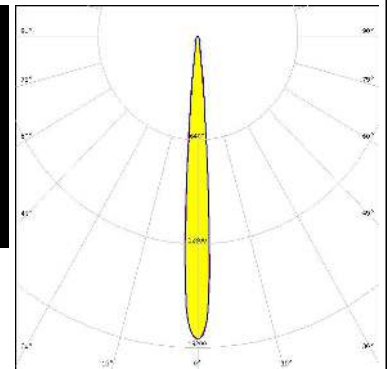
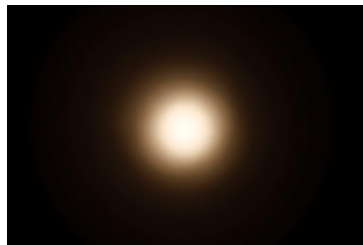
CITIZEN

LED CLU710/711
 FWHM / FWTM 9.0° / 21.0°
 Efficiency 83 %
 Peak intensity 12 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



CITIZEN

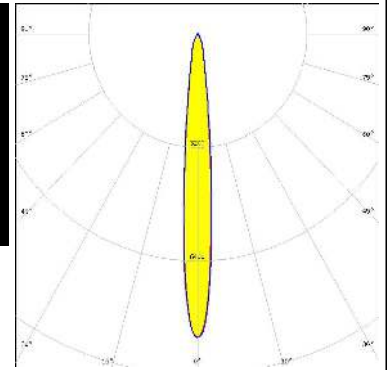
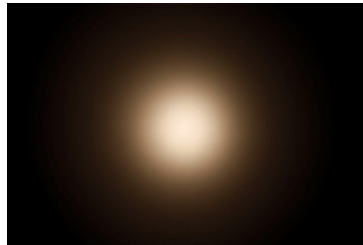
LED CLU720/721/723
 FWHM / FWTM 9.0° / 16.0°
 Efficiency 85 %
 Peak intensity 18.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



OPTICAL RESULTS (MEASURED):

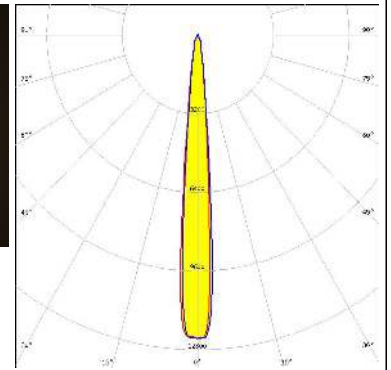
CITIZEN

LED CLU720/721/723
 FWHM / FWTM 11.0° / 26.0°
 Efficiency 79 %
 Peak intensity 8.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



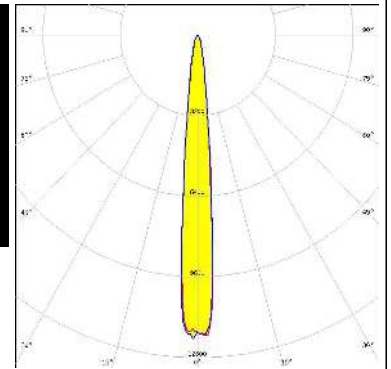
CITIZEN

LED CLU730/731/733
 FWHM / FWTM 10.0° / 21.0°
 Efficiency 82 %
 Peak intensity 12.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



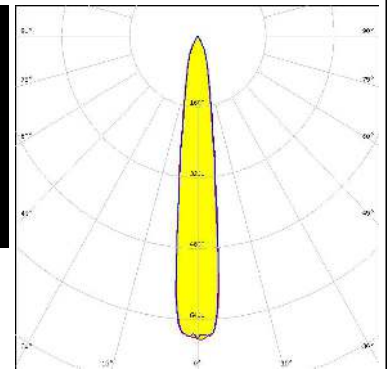
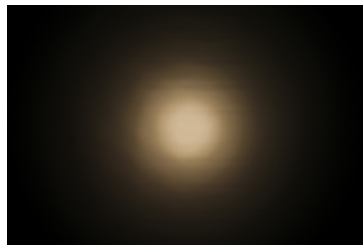
CREE LED

LED CMA1840
 FWHM / FWTM 11.0° / 25.0°
 Efficiency 88 %
 Peak intensity 12 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14146_LENA-STD-BASE-CXA18



CREE LED

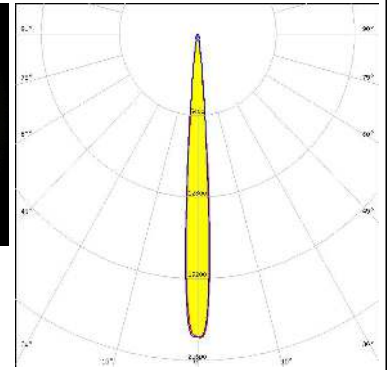
LED CMA2550
 FWHM / FWTM 14.0° / 38.0°
 Efficiency 86 %
 Peak intensity 6.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13324_LENA-STD-BASE-CXA25



OPTICAL RESULTS (MEASURED):

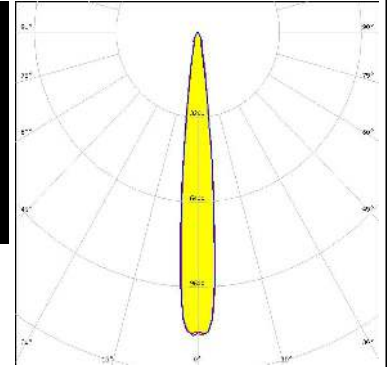
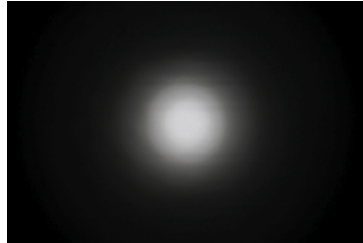
CREE LED

LED CMT14xx
 FWHM / FWTM 8.0° / 15.0°
 Efficiency 88 %
 Peak intensity 24.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 434 Typ L1



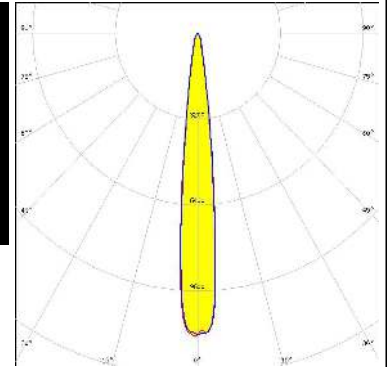
CREE LED

LED CMT19xx
 FWHM / FWTM 12.0° / 24.0°
 Efficiency 88 %
 Peak intensity 11.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



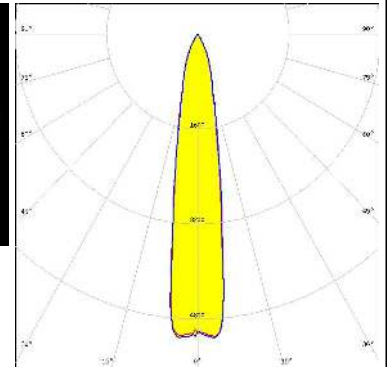
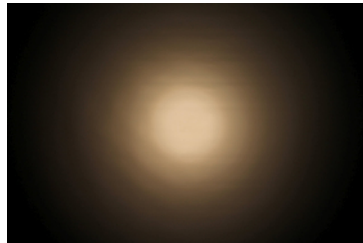
CREE LED

LED CMT19xx
 FWHM / FWTM 12.0° / 24.0°
 Efficiency 87 %
 Peak intensity 11.3 cd/lm
 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 18.0° / 46.0°
 Efficiency 87 %
 Peak intensity 5.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



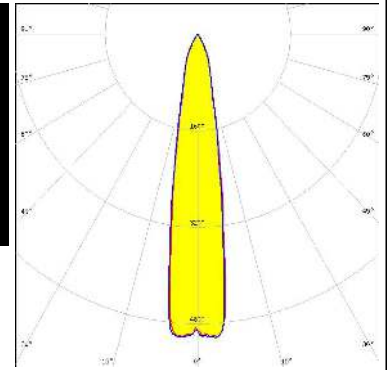
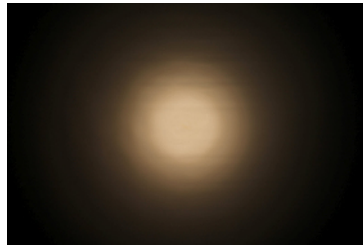
OPTICAL RESULTS (MEASURED):

CREE LED

LED CMT28xx
FWHM / FWTM 19.0° / 45.0°
Efficiency 87 %
Peak intensity 5.1 cd/lm
LEDs/each optic 1
Light colour White

Required components:

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

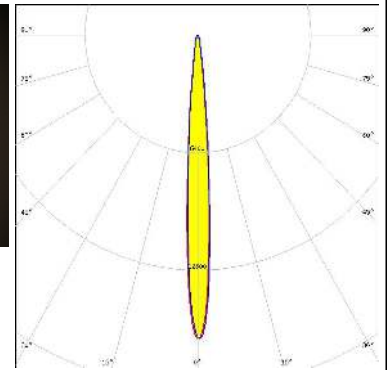


CREE LED

LED CXA/B 15xx
FWHM / FWTM 8.0° / 18.0°
Efficiency 80 %
Peak intensity 16.5 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

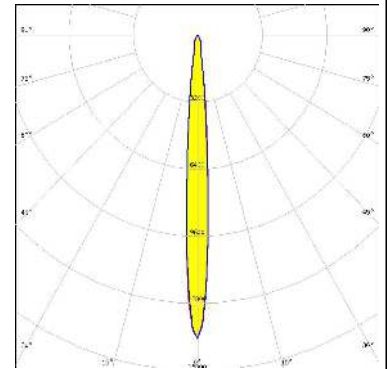


CREE LED

LED CXA/B 15xx
FWHM / FWTM 8.0° / 19.0°
Efficiency 81 %
Peak intensity 15.5 cd/lm
LEDs/each optic 1
Light colour White

Required components:

C13186_LENA-STD-BASE-CXA15
C11996_LENA-LENS

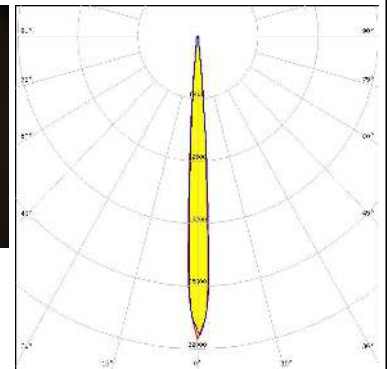


CREE LED


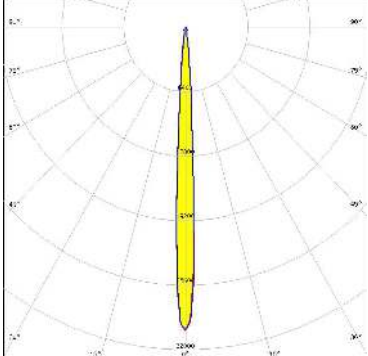


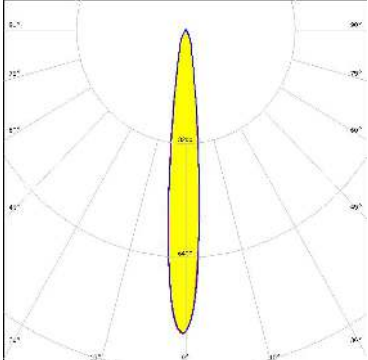


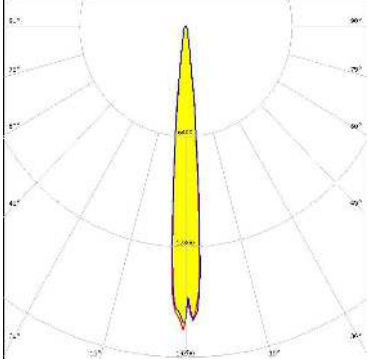


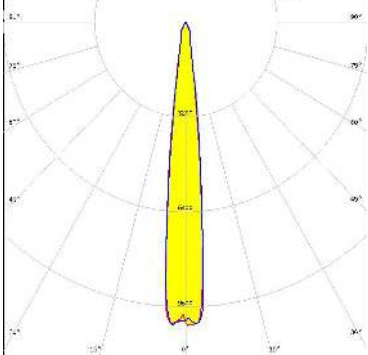
LED CXA/B 15xx
FWHM / FWTM 7.0° / 13.0°
Efficiency 86 %
Peak intensity 31.3 cd/lm
LEDs/each optic 1
Light colour White

Required components:

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



OPTICAL RESULTS (MEASURED):

<p>CREE  LED</p> <p>LED CXA/B 15xx FWHM / FWTM 7.0° / 13.0° Efficiency 87 % Peak intensity 30.1 cd/lm LEDs/each optic 1 Light colour White Required components: C13186_LENA-STD-BASE-CXA15</p>		
<p>CREE  LED</p> <p>LED CXA/B 1816 & CXA/B 1820 & CXA 1850 FWHM / FWTM 12.0° / 28.0° Efficiency 82 % Peak intensity 8.6 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS Bender Wirth: 437 Typ L1</p>		
<p>CREE  LED</p> <p>LED CXA/B 1816 & CXA/B 1820 & CXA 1850 FWHM / FWTM 10.0° / 18.0° Efficiency 87 % Peak intensity 17.6 cd/lm LEDs/each optic 1 Light colour White Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 437 Typ L1</p>		
<p>CREE  LED</p> <p>LED CXA/B 1830 FWHM / FWTM 12.0° / 23.0° Efficiency 82 % Peak intensity 10.3 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</p>		

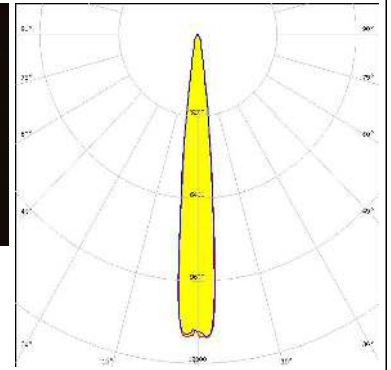
OPTICAL RESULTS (MEASURED):

CREE LED

LED CXA/B 1830
 FWHM / FWTM 12.0° / 23.0°
 Efficiency 87 %
 Peak intensity 11.9 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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

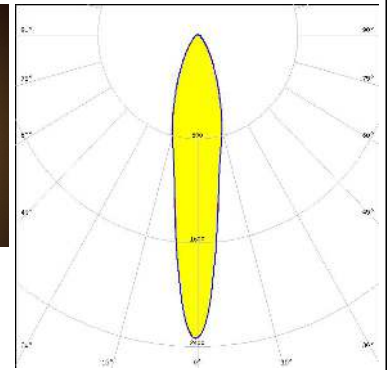
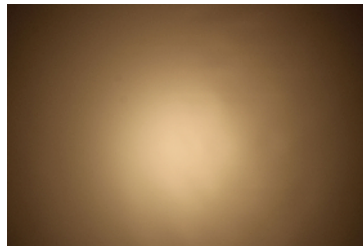


CREE LED

LED CXA/B 1830
 FWHM / FWTM 18.0° / 60.0°
 Efficiency 75 %
 Peak intensity 2.3 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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

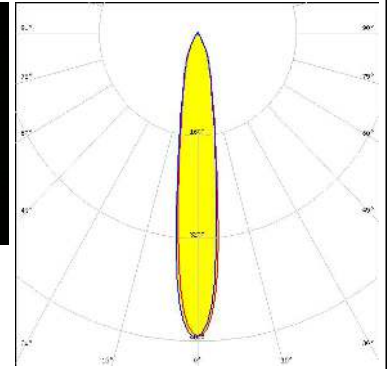


CREE LED

LED CXA/B 25xx
 FWHM / FWTM 13.0° / 39.0°
 Efficiency 79 %
 Peak intensity 5.9 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C13324_LENA-STD-BASE-CXA25
 C11996_LENA-LENS

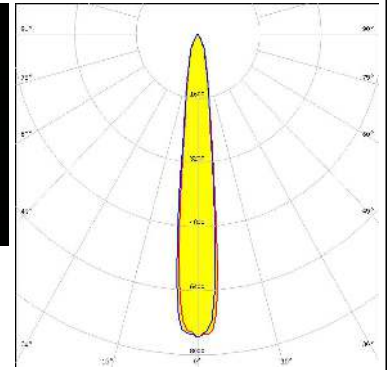


CREE LED

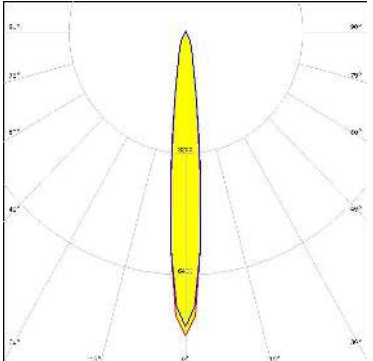

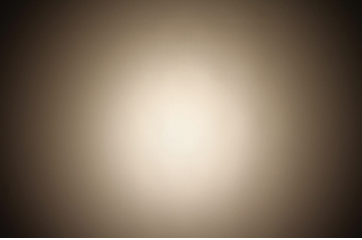
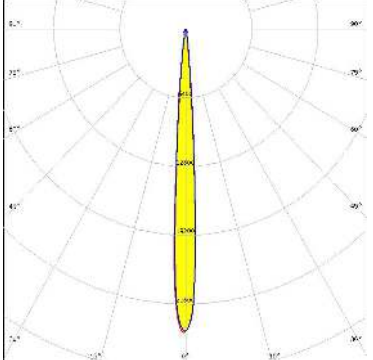
LED CXA/B 25xx
 FWHM / FWTM 13.0° / 33.0°
 Efficiency 84 %
 Peak intensity 8 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

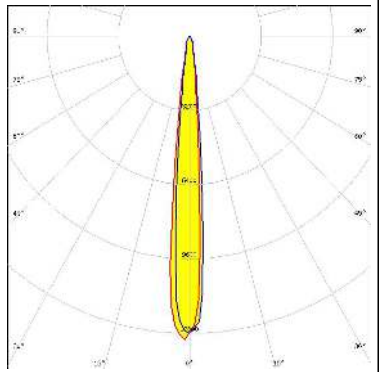
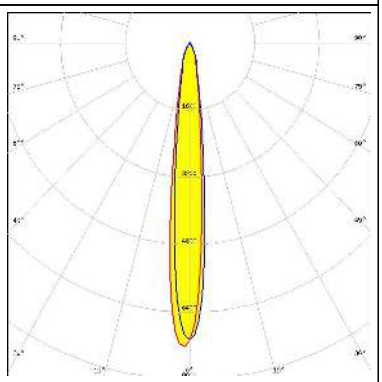

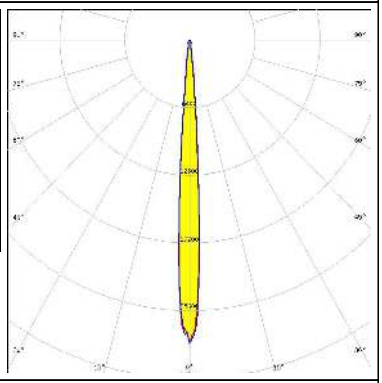

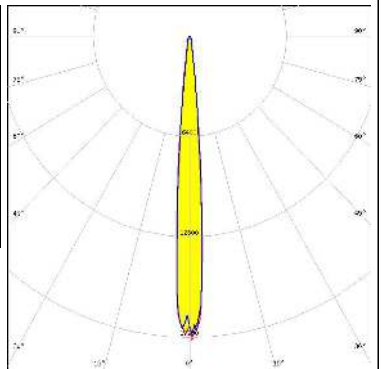
C13324_LENA-STD-BASE-CXA25



OPTICAL RESULTS (MEASURED):

<p>CREE LED</p> <p>LED: CXA2011 FWHM / FWTM: 11.0° Efficiency: 80 % LEDs/each optic: 1 Light colour: White</p> <p>Required components: C12105_LENA-STD-BASE-CXA20 C11996_LENA-LENS</p>	
<p>EVERLIGHT</p> <p>LED: CHI3030 19W FWHM / FWTM: 20.0° / 50.0° Efficiency: 86 % Peak intensity: 4.1 cd/lm LEDs/each optic: 1 Light colour: White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 468 Typ L3</p>	
<p>EVERLIGHT</p> <p>LED: CHI3030 29W FWHM / FWTM: 25.0° / 57.0° Efficiency: 80 % Peak intensity: 2.7 cd/lm LEDs/each optic: 1 Light colour: White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 468 Typ L3</p>	
<p>LUMILEDS</p> <p>LED: LUXEON CoB 1202/1203 FWHM / FWTM: 7.0° / 14.0° Efficiency: 87 % Peak intensity: 28.3 cd/lm LEDs/each optic: 1 Light colour: White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 438 Typ L1</p>	

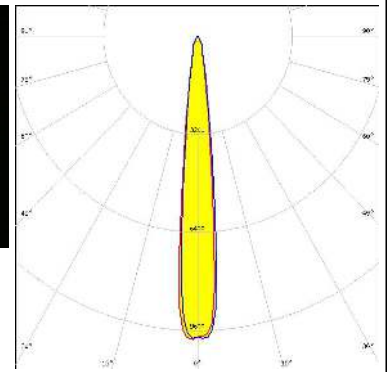
OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON CoB 1204/1205</p> <p>FWHM / FWTM 10.0° / 21.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 13.1 cd/lm</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 1204/1205</p> <p>FWHM / FWTM 12.0° / 30.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 7.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1204HD</p> <p>FWHM / FWTM 7.5° / 14.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 28.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C11981_LENA-STD-BASE-COB-L110</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1205HD</p> <p>FWHM / FWTM 9.0° / 17.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 19.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C11981_LENA-STD-BASE-COB-L110</p>		

OPTICAL RESULTS (MEASURED):

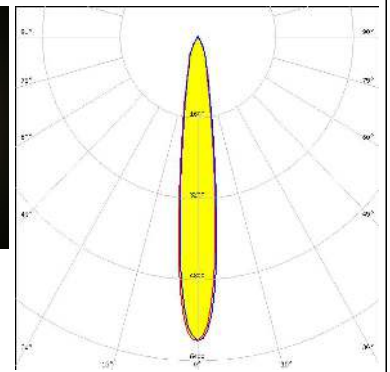
LUMILEDS

LED LUXEON CoB 1208
 FWHM / FWTM 12.0° / 25.0°
 Efficiency 84 %
 Peak intensity 9.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ



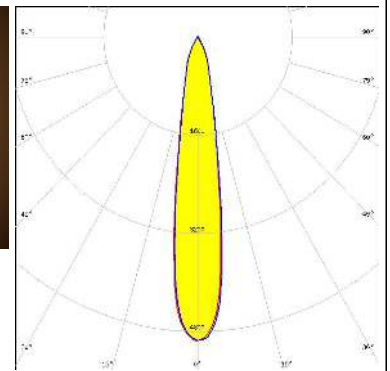
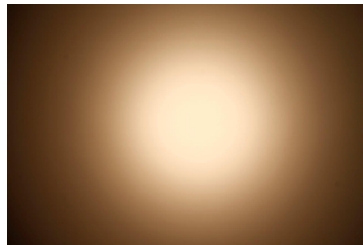
LUMILEDS

LED LUXEON CoB 1208
 FWHM / FWTM 14.0° / 35.0°
 Efficiency 78 %
 Peak intensity 6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS



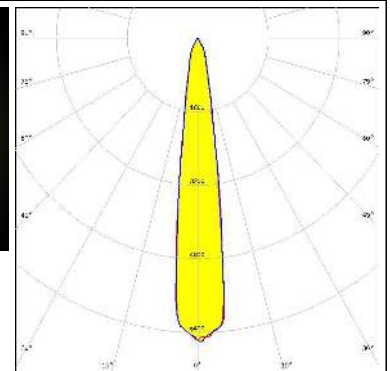
LUMILEDS

LED LUXEON CoB 1211
 FWHM / FWTM 17.0° / 42.0°
 Efficiency 80 %
 Peak intensity 5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13867_LENA-STD-BASE-VERO29
 Bender Wirth: 431 Typ L3

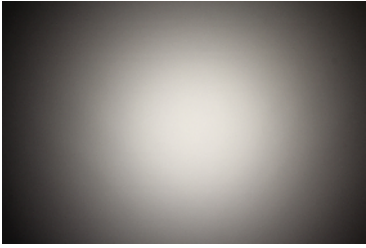
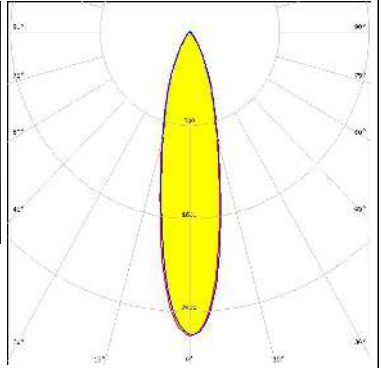
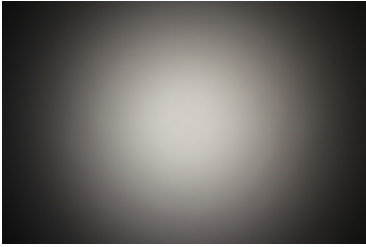
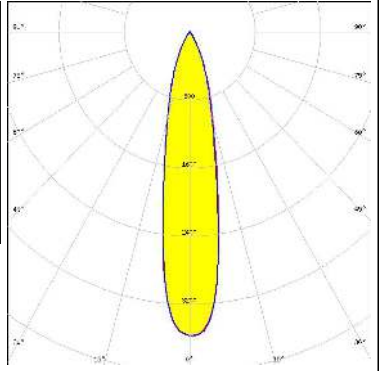
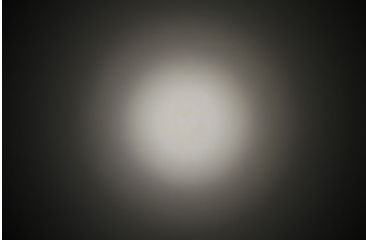
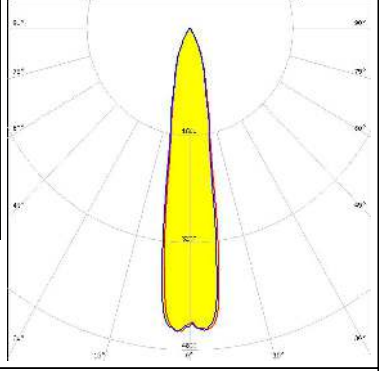

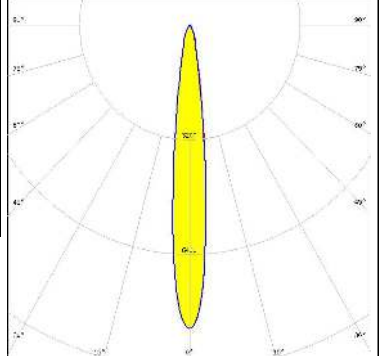


LUMILEDS


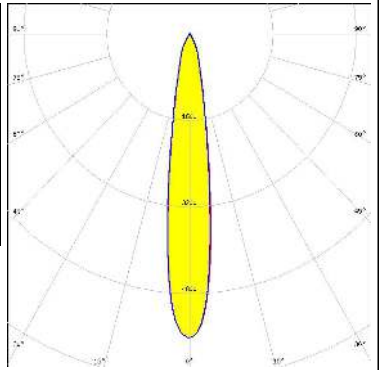

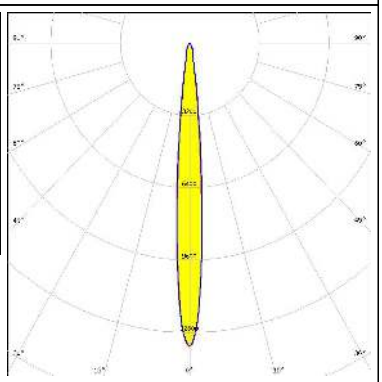

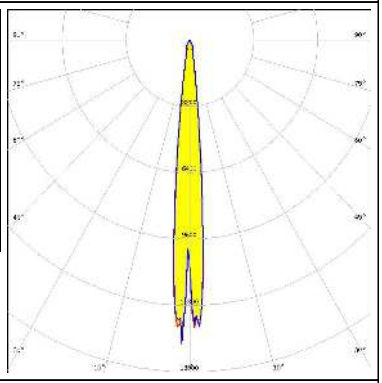

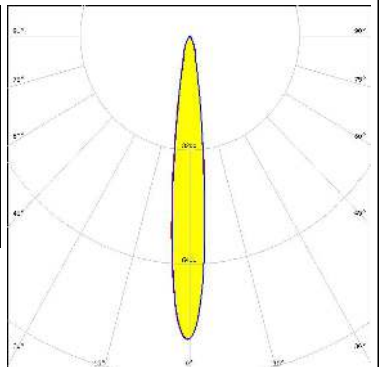
LED LUXEON CoB 1211
 FWHM / FWTM 16.0° / 35.0°
 Efficiency 85 %
 Peak intensity 6.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13867_LENA-STD-BASE-VERO29
 Bender Wirth: 431 Typ L3




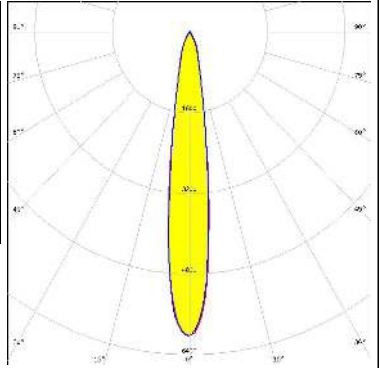

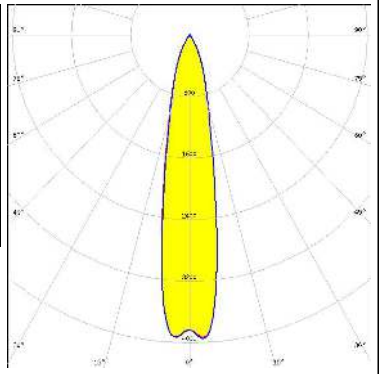

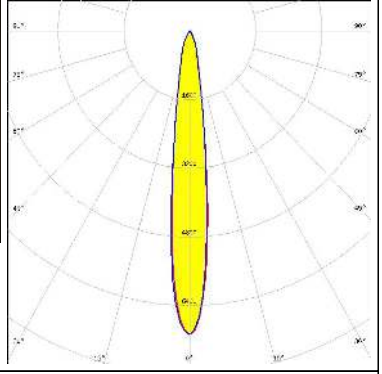
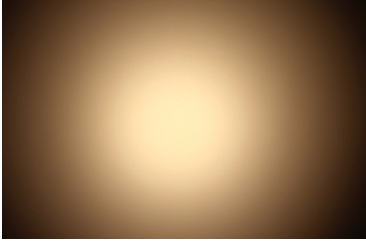

OPTICAL RESULTS (MEASURED):

<p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 23.0° / 56.0°</p> <p>Efficiency 74 %</p> <p>Peak intensity 2.6 cd/m</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 21.0° / 50.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 3.6 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>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1216/1812</p> <p>FWHM / FWTM 18.0° / 47.0°</p> <p>Efficiency 79 %</p> <p>Peak intensity 4.5 cd/m</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>LUMINUS</p> <p>LED CDM-14 (Dim-To-Warm)</p> <p>FWHM / FWTM 13.0° / 28.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 8.5 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>		


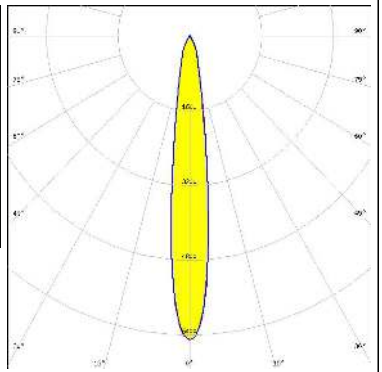

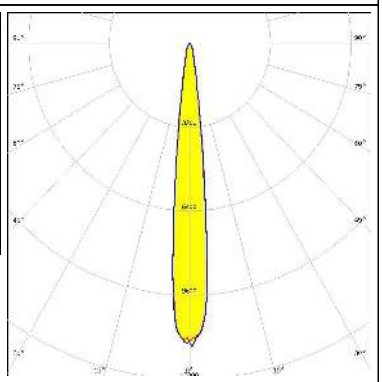

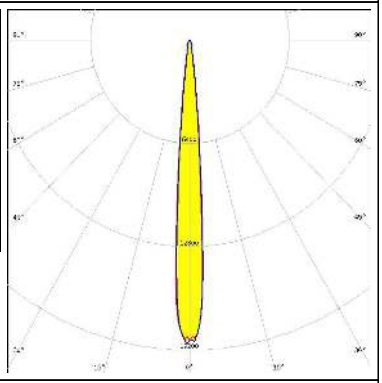

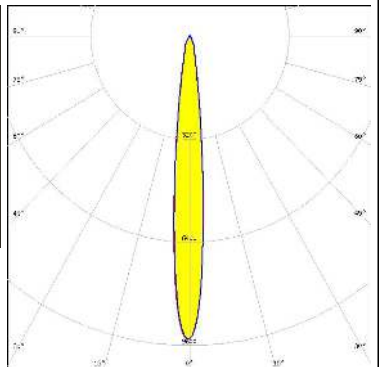
OPTICAL RESULTS (MEASURED):

<p>LUMINUS</p> <p>LED CDM-18 (Dim-To-Warm)</p> <p>FWHM / FWTM 16.0° / 38.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 5.6 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-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 10.0° / 21.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 13.4 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: 490 Typ L1</p>		
<p>LUMINUS</p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 10.0° / 20.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 14.9 cd/lm</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>		
<p>LUMINUS</p> <p>LED CTM-14 (Tunable White)</p> <p>FWHM / FWTM 13.0° / 28.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 8.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 C12606_LENINA-DL Bender Wirth: 442 Typ L3</p>		


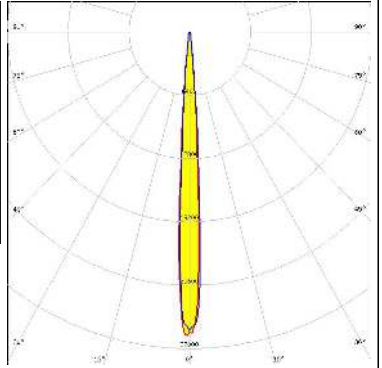
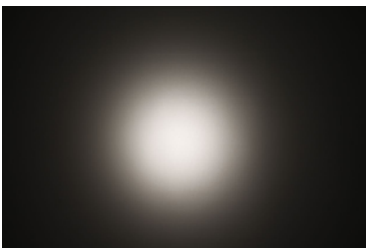
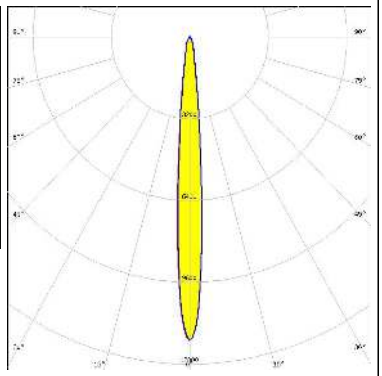

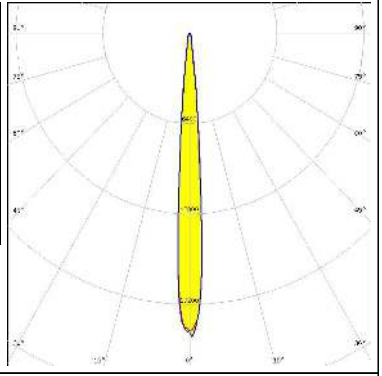

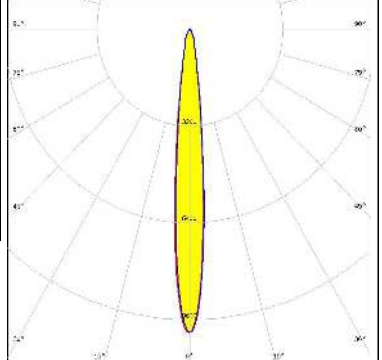
OPTICAL RESULTS (MEASURED):

<p>LUMINUS</p> <p>LED CTM-18 (Tunable White)</p> <p>FWHM / FWTM 15.0° / 36.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 6 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 C11996_LENA-LENS Bender Wirth: 442 Typ L3</p>		
<p>LUMINUS</p> <p>LED CTM-22 (Tunable White)</p> <p>FWHM / FWTM 20.0° / 48.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 4 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 C11996_LENA-LENS Bender Wirth: 494 Typ L3</p>		
<p>LUMINUS</p> <p>LED CxM-14 (19x19)</p> <p>FWHM / FWTM 14.0° / 33.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 7.1 cd/m</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>LUMINUS</p> <p>LED CxM-22 (28x28)</p> <p>FWHM / FWTM 21.0° / 52.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 3.8 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>NICHIA</p> <p>LED COB J-Type FWHM / FWTM 14.0° / 34.0° Efficiency 82 % Peak intensity 6.5 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 C11996_LENA-LENS Bender Wirth: 463 Typ L2</p>		
<p>NICHIA</p> <p>LED COB J-Type FWHM / FWTM 12.0° / 24.0° Efficiency 87 % Peak intensity 11.6 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 463 Typ L2</p>		
<p>NICHIA</p> <p>LED COB L-Type (LES 11) FWHM / FWTM 9.0° / 17.0° Efficiency 87 % Peak intensity 18.8 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p>NICHIA</p> <p>LED COB L-Type (LES 11) FWHM / FWTM 11.0° / 26.0° Efficiency 82 % Peak intensity 9.4 cd/lm LEDs/each optic 1 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 7.0° / 13.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 30.7 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: 438 Typ L1</p>		
<p>NICHIA</p> <p>LED COB L-Type (LES 9)</p> <p>FWHM / FWTM 9.0° / 22.0°</p> <p>Efficiency 83 %</p> <p>Peak intensity 11.9 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 9.0° / 16.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 21.5 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 11.0° / 25.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 10 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>		

OPTICAL RESULTS (MEASURED):

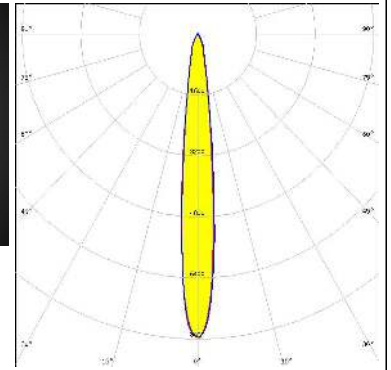
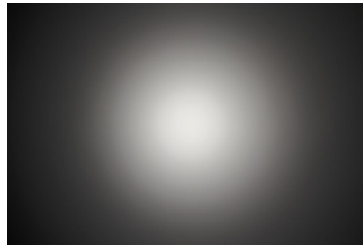
OSRAM

Opto Semiconductors

LED Soleriq S13
 FWHM / FWTM 12.0° / 30.0°
 Efficiency 80 %
 Peak intensity 8 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 437 Typ L1



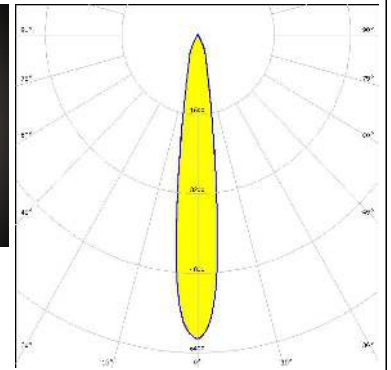
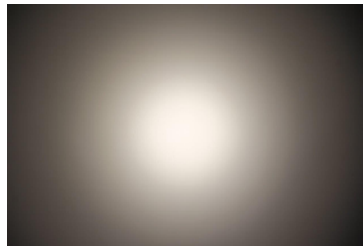
OSRAM

Opto Semiconductors

LED Soleriq S19
 FWHM / FWTM 15.0° / 35.0°
 Efficiency 80 %
 Peak intensity 6.1 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

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

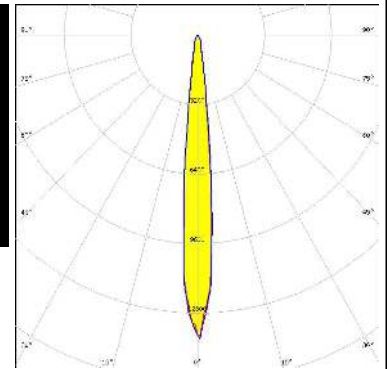


PHILIPS

LED Fortimo SLM L13 CoB
 FWHM / FWTM 10.0° / 21.0°
 Efficiency 87 %
 Peak intensity 14.4 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

C12292_LENA-STD-BASE-MEZ

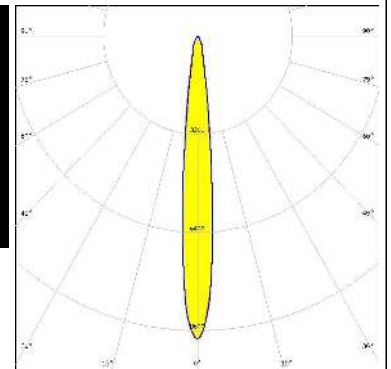


PHILIPS

LED Fortimo SLM L13 CoB
 FWHM / FWTM 11.0° / 25.0°
 Efficiency 81 %
 Peak intensity 9.9 cd/lm
 LEDs/each optic 1
 Light colour White

Required components:

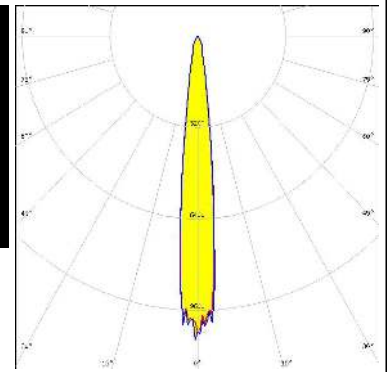
C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS



OPTICAL RESULTS (MEASURED):

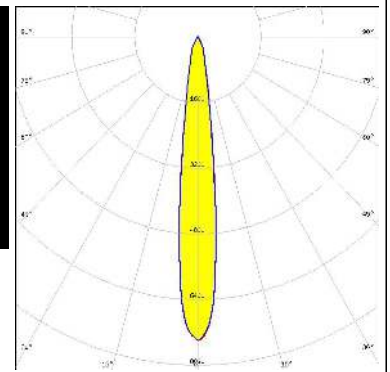
PHILIPS

LED Fortimo SLM L15 CoB
 FWHM / FWTM 13.0° / 26.0°
 Efficiency 87 %
 Peak intensity 10.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ



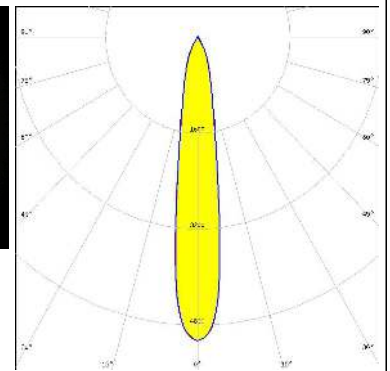
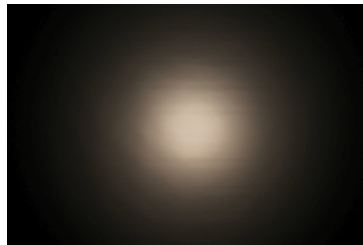
PHILIPS

LED Fortimo SLM L15 CoB
 FWHM / FWTM 14.0° / 31.0°
 Efficiency 81 %
 Peak intensity 7.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS



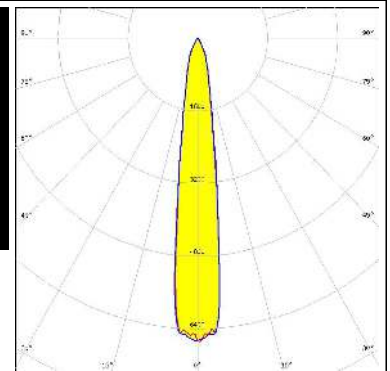
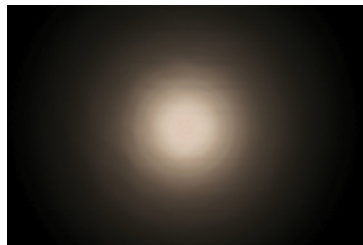
PHILIPS

LED Fortimo SLM L19 CoB
 FWHM / FWTM 16.0° / 43.0°
 Efficiency 81 %
 Peak intensity 5.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



PHILIPS

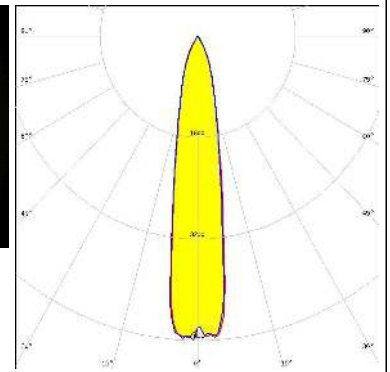
LED Fortimo SLM L19 CoB
 FWHM / FWTM 15.0° / 38.0°
 Efficiency 87 %
 Peak intensity 6.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



OPTICAL RESULTS (MEASURED):

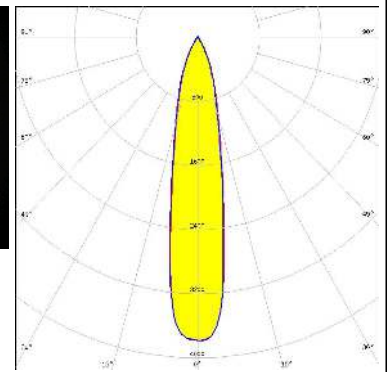
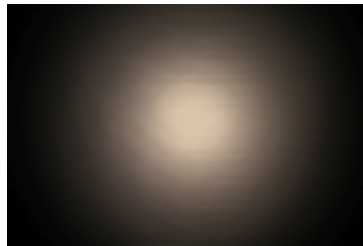
PHILIPS

LED Fortimo SLM L23 CoB
 FWHM / FWTM 19.0° / 47.0°
 Efficiency 87 %
 Peak intensity 4.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040



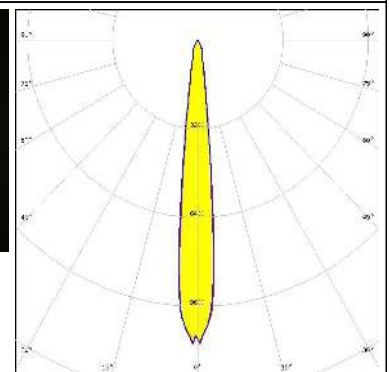
PHILIPS

LED Fortimo SLM L23 CoB
 FWHM / FWTM 20.0° / 50.0°
 Efficiency 81 %
 Peak intensity 3.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



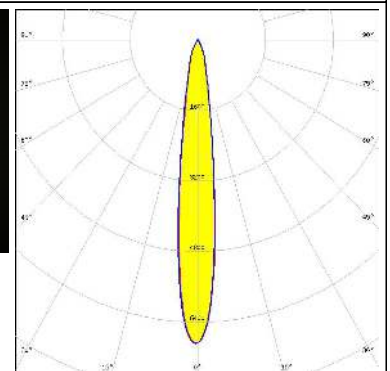
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
 FWHM / FWTM 12.0° / 24.0°
 Efficiency 85 %
 Peak intensity 11 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



SAMSUNG

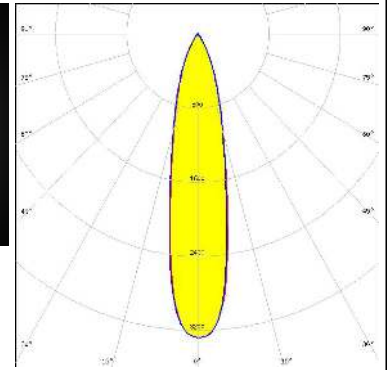
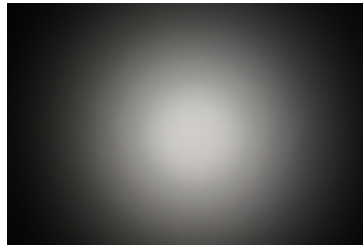
LED LC016D / LC019D / LC026D / LC033D
 FWHM / FWTM 14.0° / 32.0°
 Efficiency 80 %
 Peak intensity 6.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



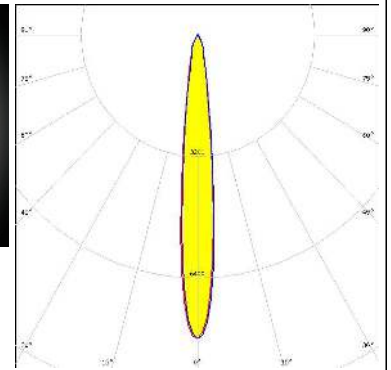
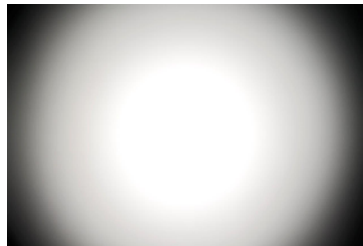
OPTICAL RESULTS (MEASURED):

SAMSUNG

LED LC040D / LC060D / LC080D
 FWHM / FWTM 22.0° / 52.0°
 Efficiency 80 %
 Peak intensity 3.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12692_LENA-STD-BASE-CLL040
 C11996_LENA-LENS



LED ZC12/18
 FWHM / FWTM 12.0° / 29.0°
 Efficiency 80 %
 Peak intensity 8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030
 C11996_LENA-LENS



SHARP

LED Mega Zenigata (GW5DGC)
 FWHM / FWTM 14.0° / 31.0°
 Efficiency 80 %
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS

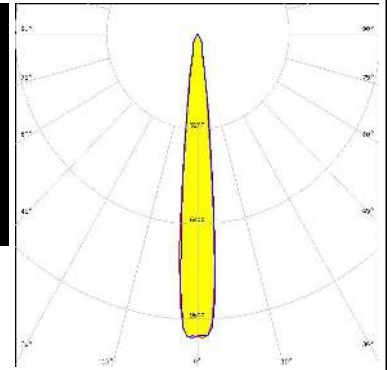
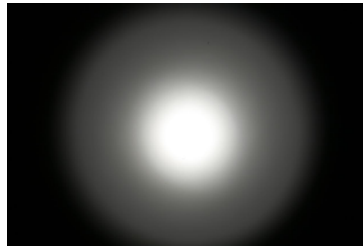
SHARP

LED Mega Zenigata (GW5DGC)
 FWHM / FWTM 13.5° / 27.0°
 Efficiency 85 %
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ

OPTICAL RESULTS (MEASURED):

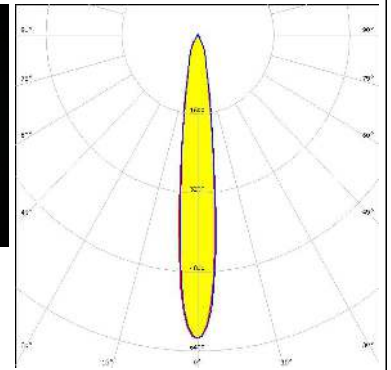
SHARP

LED Mega Zenigata (GW6DME)
 FWHM / FWTM 12.0° / 24.0°
 Efficiency 83 %
 Peak intensity 10.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ



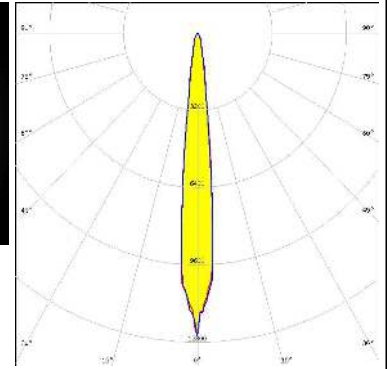
SHARP

LED Mega Zenigata (GW6DME)
 FWHM / FWTM 14.0° / 34.0°
 Efficiency 77 %
 Peak intensity 6.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12292_LENA-STD-BASE-MEZ
 C11996_LENA-LENS



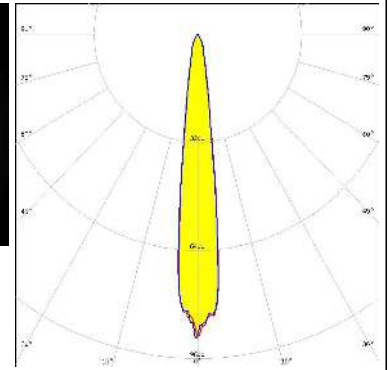
TRIDONIC

LED SLE G7 LES15
 FWHM / FWTM 11.0° / 23.0°
 Efficiency 88 %
 Peak intensity 12.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



TRIDONIC

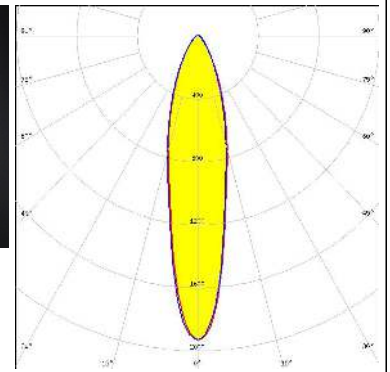
LED SLE G7 LES17 H
 FWHM / FWTM 14.0° / 29.0°
 Efficiency 86 %
 Peak intensity 9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14547_LENA-ADAPTER-B



OPTICAL RESULTS (MEASURED):

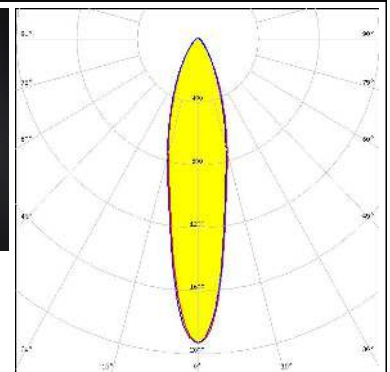
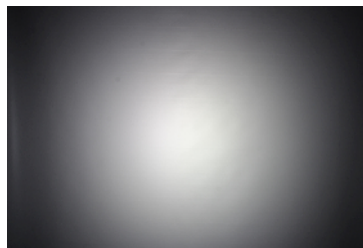
TRIDONIC

LED SLE G7 LES21 H
 FWHM / FWTM 23.0° / 64.0°
 Efficiency 73 %
 Peak intensity 1.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12231_LENA-FRESNEL



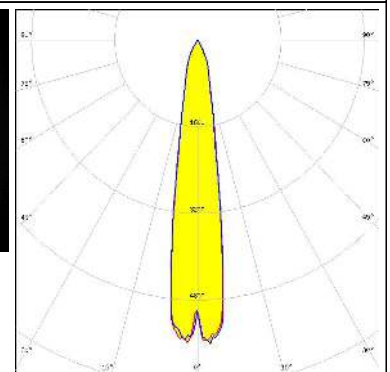
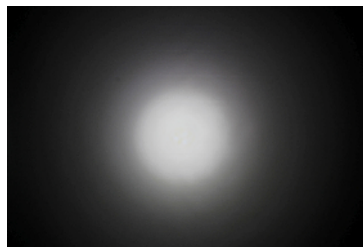
TRIDONIC

LED SLE G7 LES21 H
 FWHM / FWTM 23.0° / 64.0°
 Efficiency 73 %
 Peak intensity 1.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14547_LENA-ADAPTER-B



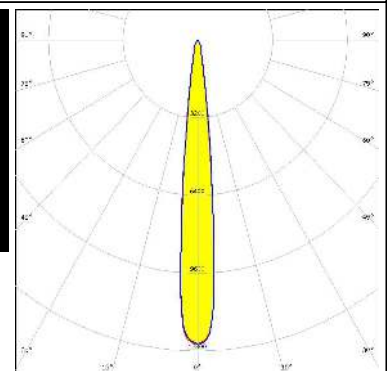
TRIDONIC

LED SLE G7 LES21 H
 FWHM / FWTM 18.0° / 42.0°
 Efficiency 86 %
 Peak intensity 5.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14547_LENA-ADAPTER-B


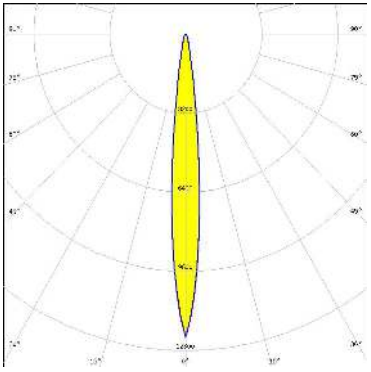

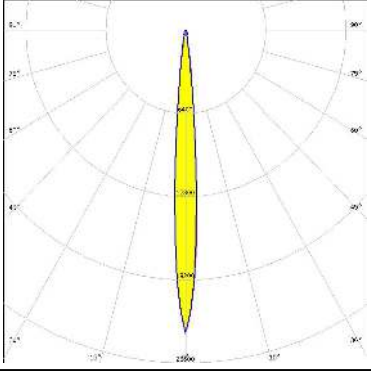

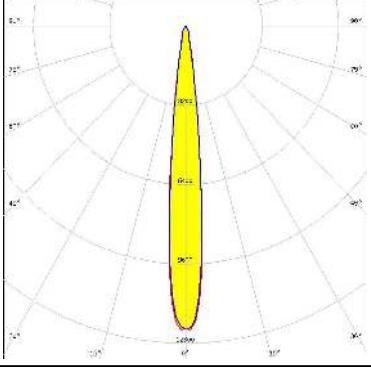

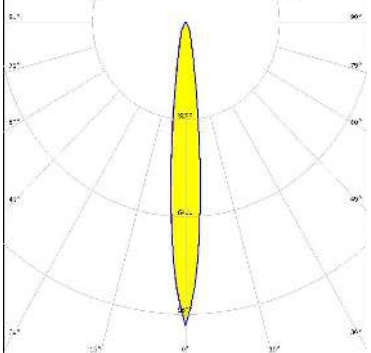


XICATO


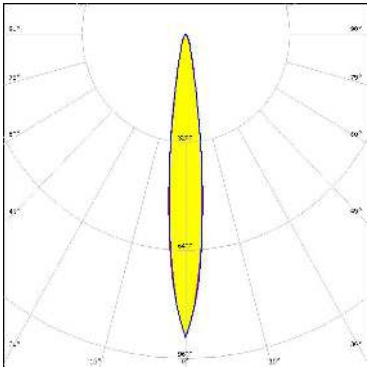

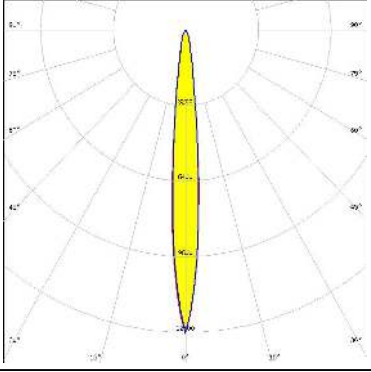

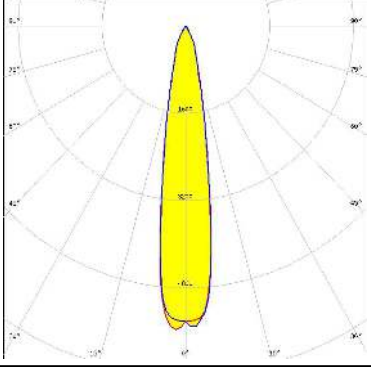

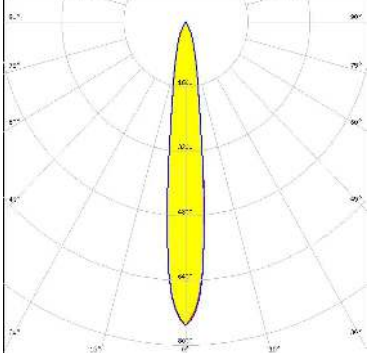
LED XOB 14.5 mm
 FWHM / FWTM 12.0° / 23.0°
 Efficiency 89 %
 Peak intensity 12.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED V10 Gen7 FWHM / FWTM 11.0° / 23.0° Efficiency 79 % Peak intensity 12.3 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 9.0° / 17.0° Efficiency 90 % Peak intensity 22.3 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 12.0° / 24.0° Efficiency 89 % Peak intensity 12.3 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13868_LENA-STD-BASE-VERO13-18 Bender Wirth: 477 Typ L1</p>	
<p></p> <p>LED V13 Gen7 FWHM / FWTM 11.0° / 28.0° Efficiency 85 % Peak intensity 9.9 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C11996_LENA-LENS IDEAL: 50-2103CT + 50-2100LN</p>	

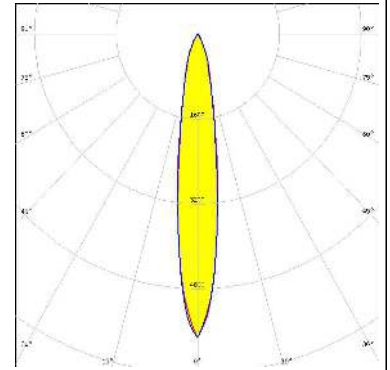
OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED V13 Gen7 FWHM / FWTM 13.0° / 28.0° Efficiency 81 % Peak intensity 9 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 10.0° / 24.0° Efficiency 88 % Peak intensity 12.9 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: IDEAL: 50-2103CT + 50-2100LN</p>	
<p></p> <p>LED V22 Gen7 FWHM / FWTM 18.0° / 41.0° Efficiency 90 % Peak intensity 5.6 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: C13867_LENA-STD-BASE-VERO29 Bender Wirth: 431 Typ L3</p>	
<p></p> <p>LED CXA/B 30xx FWHM / FWTM 14.0° / 35.0° Efficiency 87 % Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White</p> <p>Required components: IDEAL: 50-2234C + 50-2100LN</p>	

OPTICAL RESULTS (SIMULATED):



LED CXA/B 30xx
 FWHM / FWTM 16.0° / 40.0°
 Efficiency 80 %
 Peak intensity 5.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2234C + 50-2100LN



LED CxM-14 (19x19)
 FWHM / FWTM 14.0° / 32.0°
 Efficiency 80 %
 Peak intensity 6.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 433 Typ L1



LED CxM-14 (19x19)
 FWHM / FWTM 12.0° / 23.0°
 Efficiency 85 %
 Peak intensity 11.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 433 Typ L1



LED CxM-9 (13.5x13.5)
 FWHM / FWTM 8.0° / 14.0°
 Efficiency 85 %
 Peak intensity 26.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 434 Typ L1

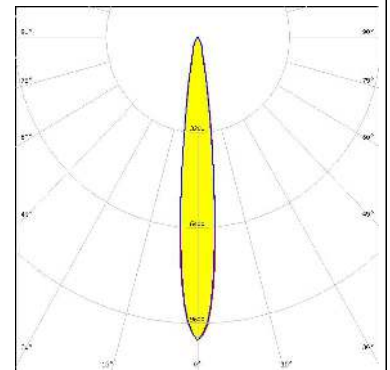
OPTICAL RESULTS (SIMULATED):



LED CxM-9 (13.5x13.5)
 FWHM / FWTM 10.0° / 22.0°
 Efficiency 80 %
 Peak intensity 11.5 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



LED Soleriq S15
 FWHM / FWTM 13.0° / 26.0°
 Efficiency 88 %
 Peak intensity 10.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C12691_LENA-STD-BASE-CLL030



LED ZC12/18
 FWHM / FWTM 14.0° / 32.0°
 Efficiency 80 %
 Peak intensity 6.7 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 ZC12/18
 FWHM / FWTM 12.0° / 23.0°
 Efficiency 85 %
 Peak intensity 11.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 433 Typ L1

OPTICAL RESULTS (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	10.0° / 22.0°
Efficiency	80 %
Peak intensity	11.5 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	
<hr/>	
 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	8.0° / 14.0°
Efficiency	85 %
Peak intensity	26.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
Bender Wirth: 434 Typ L1	

GENERAL INFORMATION:

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

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

MATERIALS:

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

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LEDiL Oy

Joensuunkatu 13
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Ledil Optics Technology (Shenzhen) Co., Ltd.

405 , Block B
Casic Motor Building
Shenzhen 518057
P.R.CHINA

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