

LENA-M

~20° medium beam

TECHNICAL SPECIFICATIONS:

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

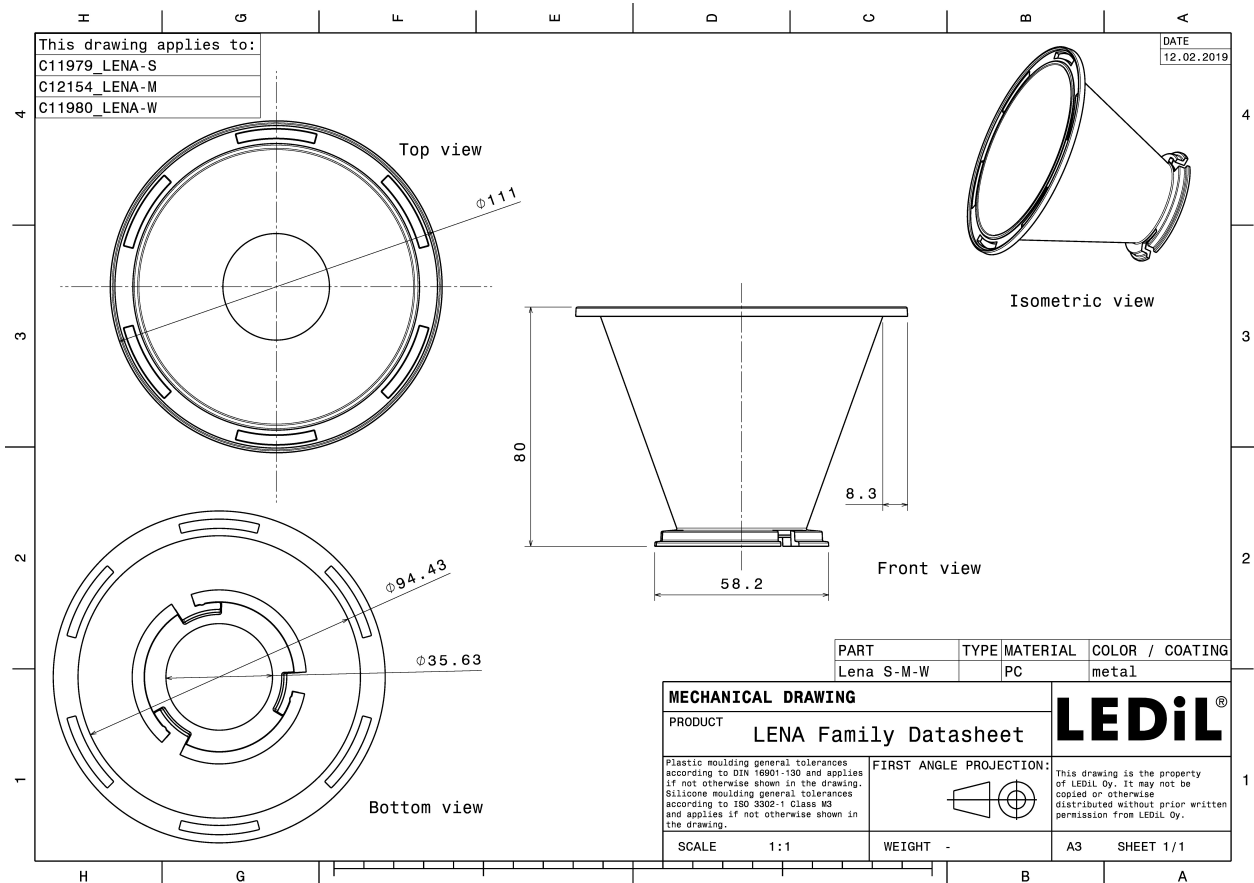
MATERIAL SPECIFICATIONS:

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

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C12154_LENA-M » Box size: 400 x 280 x 380 mm	60	60	60	4.0





PHOTOMETRIC DATA (MEASURED):



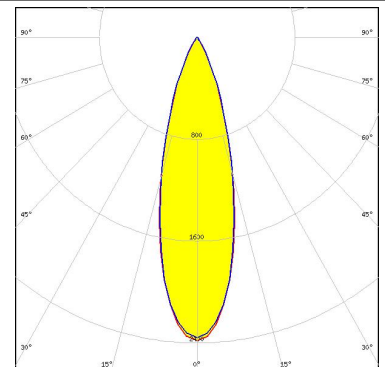
LED BXRA ES Rectangle
FWHM 19.0°
Efficiency 83 %
LEDs/each optic 1
Light colour White
Required components:
C12153_LENA-STD-BASE-BXRA



LED BXRA ES Rectangle
FWHM 20.0°
Efficiency 77 %
LEDs/each optic 1
Light colour White
Required components:
C12153_LENA-STD-BASE-BXRA
C11996_LENA-LENS



LED BXRA RS
FWHM 29.0°
Efficiency 79 %
LEDs/each optic 1
Light colour White
Required components:
C12229_LENA-STD-BASE-RS
C11996_LENA-LENS

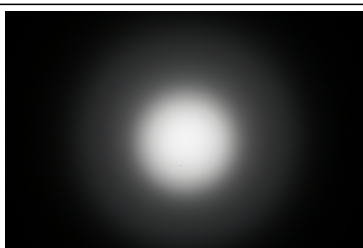


LED BXRA RS
FWHM 28.0°
Efficiency 84 %
LEDs/each optic 1
Light colour White
Required components:
C12229_LENA-STD-BASE-RS

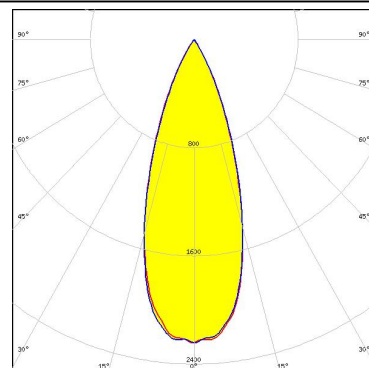
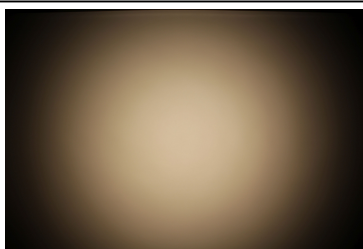
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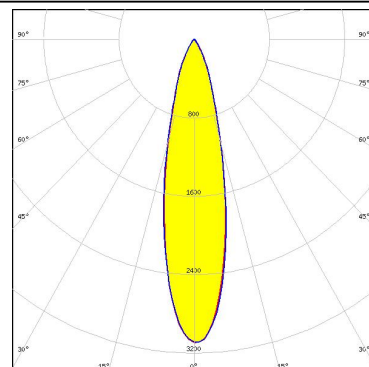
LED V10 Gen6
FWHM 18.0°
Efficiency 75 %
Peak intensity 5.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13186_LENA-STD-BASE-CXA15
 C11996_LENA-LENS



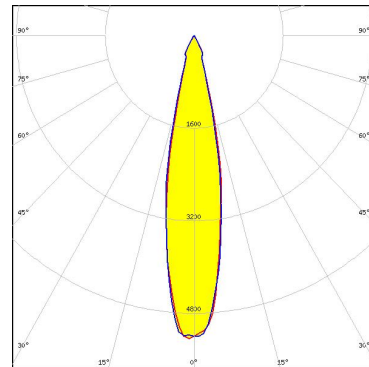
LED Vero SE 29
FWHM 36.0°
Efficiency 87 %
Peak intensity 2.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C15083_LENA-STD-BASE-VERO29



LED VERO13
FWHM 24.0°
Efficiency 81 %
Peak intensity 3.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS



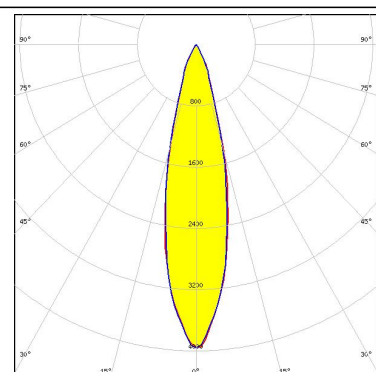
LED VERO13
FWHM 21.0°
Efficiency 88 %
Peak intensity 5.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18



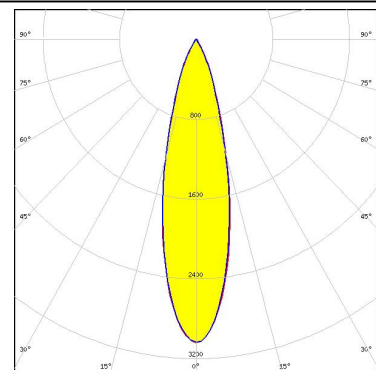
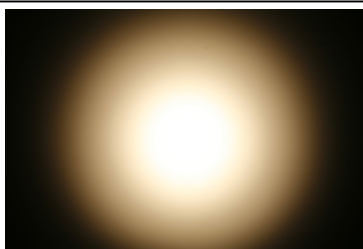
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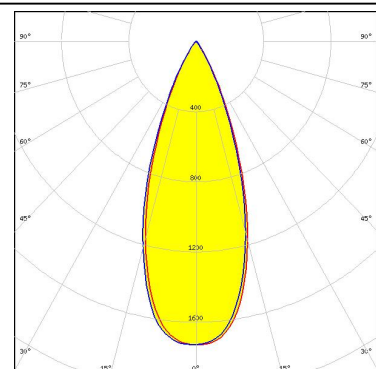
LED VERO18
FWHM 24.0°
Efficiency 86 %
Peak intensity 4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18



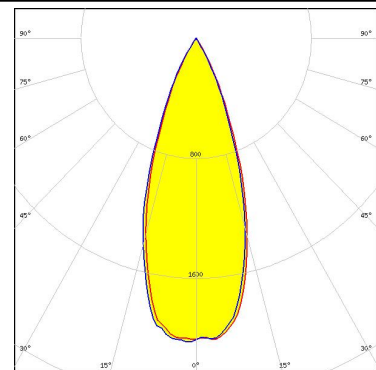
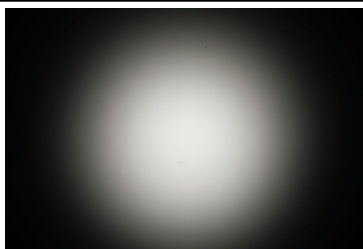
LED VERO18
FWHM 26.0°
Efficiency 81 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS



LED VERO29
FWHM 38.0°
Efficiency 77 %
Peak intensity 1.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS



LED VERO29
FWHM 38.0°
Efficiency 82 %
Peak intensity 2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29



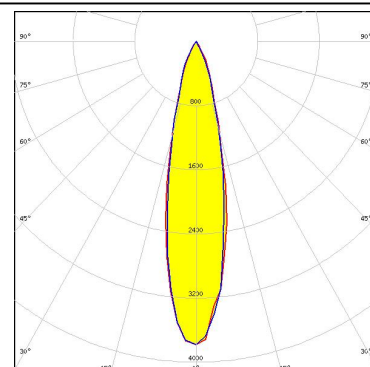
PHOTOMETRIC DATA (MEASURED):

CITIZEN

LED CL-L340
FWHM 22.0°
Efficiency 83 %
Peak intensity 4.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11995_LENA-STD-BASE-CL340

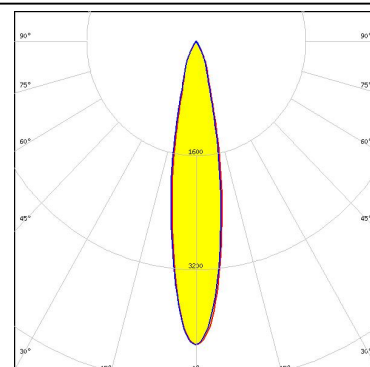
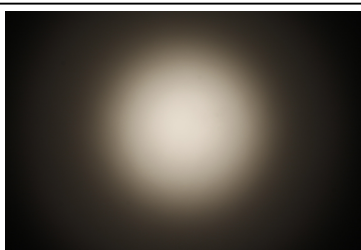
CITIZEN

LED CL-L340
FWHM 24.0°
Efficiency 78 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11995_LENA-STD-BASE-CL340
C11996_LENA-LENS



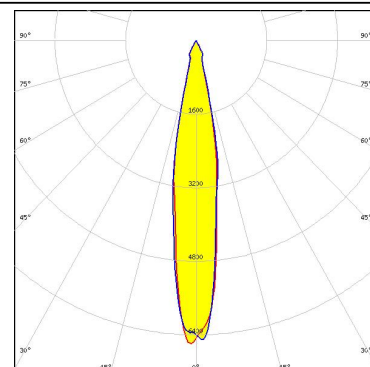
CITIZEN

LED CLL02x/CLU02x (LES10)
FWHM 20.0°
Efficiency 78 %
Peak intensity 4.3 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

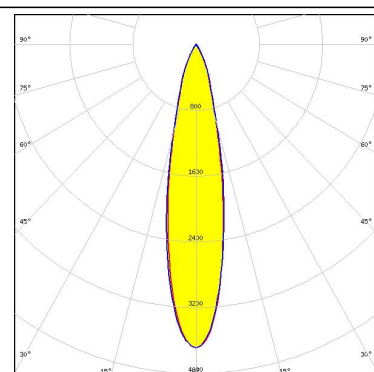
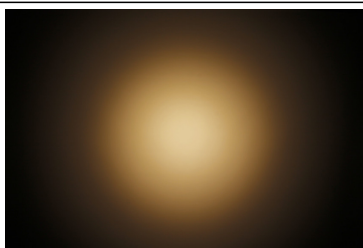
LED CLL02x/CLU02x (LES10)
FWHM 17.0°
Efficiency 83 %
Peak intensity 6.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 434 Typ L1



PHOTOMETRIC DATA (MEASURED):

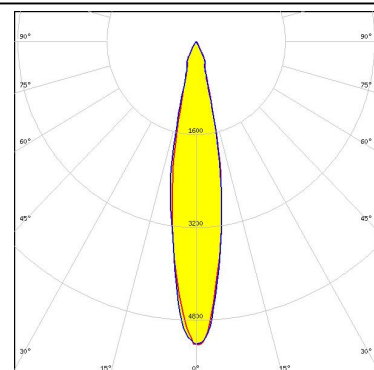
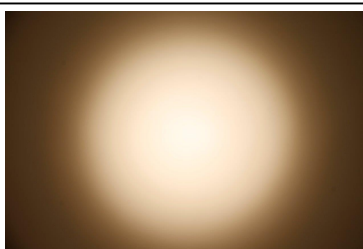
CITIZEN

LED CLL03x/CLU03x
FWHM 22.0°
Efficiency 78 %
Peak intensity 3.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030
C11996_LENA-LENS



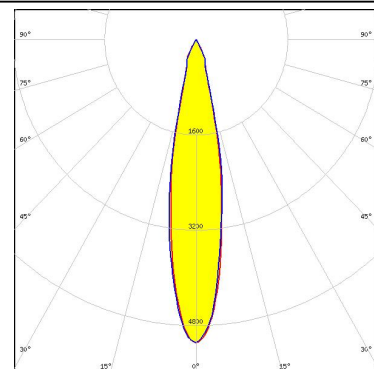
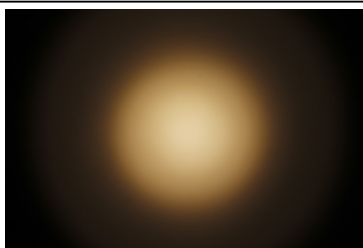
CITIZEN

LED CLL03x/CLU03x
FWHM 20.0°
Efficiency 81 %
Peak intensity 5.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8101/G2 + S-8000/11



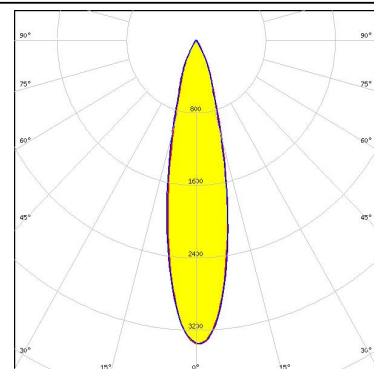
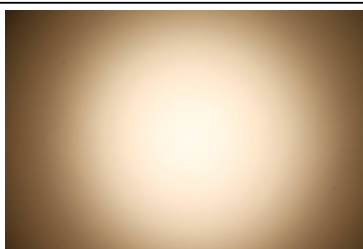
CITIZEN

LED CLL03x/CLU03x
FWHM 20.0°
Efficiency 83 %
Peak intensity 5.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



CITIZEN

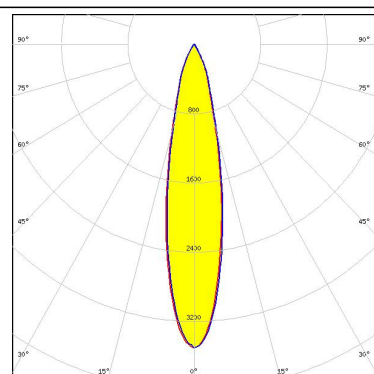
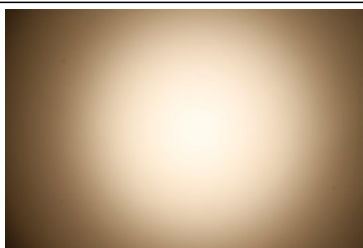
LED CLL03x/CLU03x
FWHM 23.0°
Efficiency 78 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 433 Typ L1



PHOTOMETRIC DATA (MEASURED):

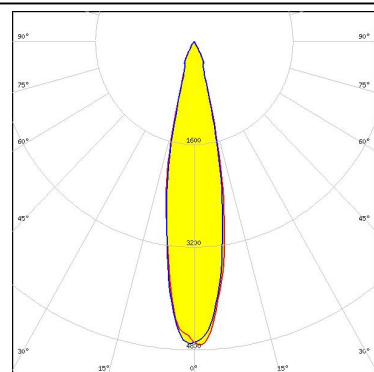
CITIZEN

LED CLL03x/CLU03x
FWHM 22.0°
Efficiency 76 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11996_LENA-LENS
A.A.G. STUCCHI: 8101/G2 + S-8000/11



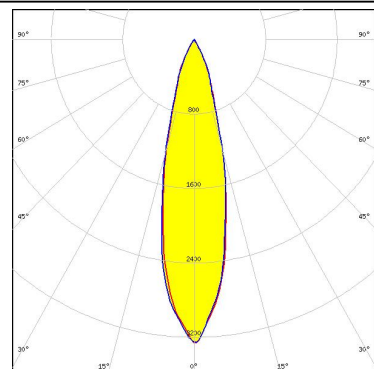
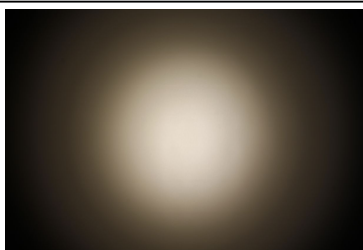
CITIZEN

LED CLL03x/CLU03x
FWHM 22.0°
Efficiency 83 %
Peak intensity 4.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 433 Typ L1



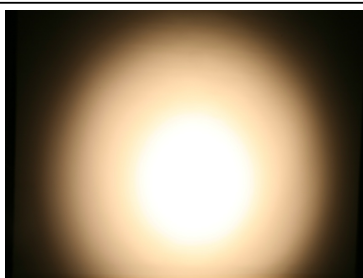
CITIZEN

LED CLL04x/CLU04x
FWHM 25.0°
Efficiency 76 %
Peak intensity 3.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8102/G2 + S-8000/12



CITIZEN

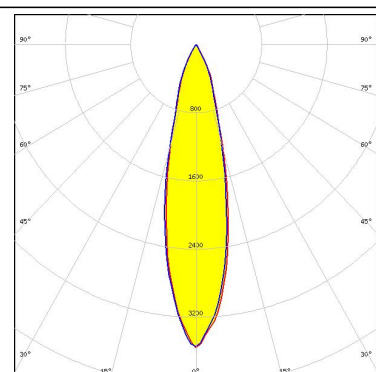
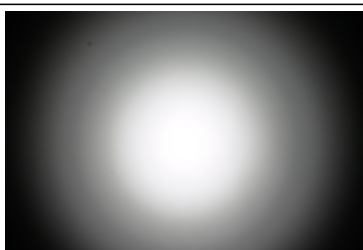
LED CLL04x/CLU04x
FWHM 24.0°
Efficiency 77 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040
C11996_LENA-LENS



PHOTOMETRIC DATA (MEASURED):

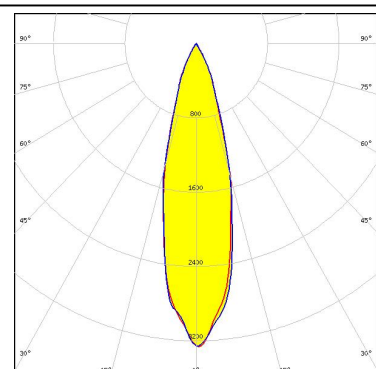
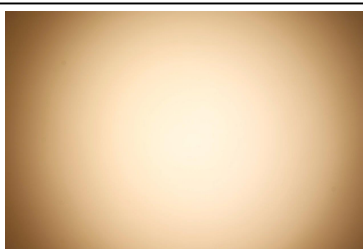
CITIZEN

LED CLL04x/CLU04x
FWHM 24.0°
Efficiency 80 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2204CT + 50-2100LN



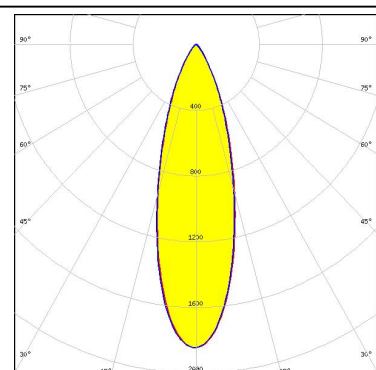
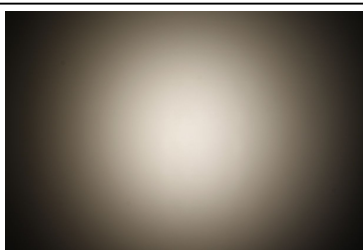
CITIZEN

LED CLL04x/CLU04x
FWHM 27.0°
Efficiency 83 %
Peak intensity 3.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 431 Typ L3



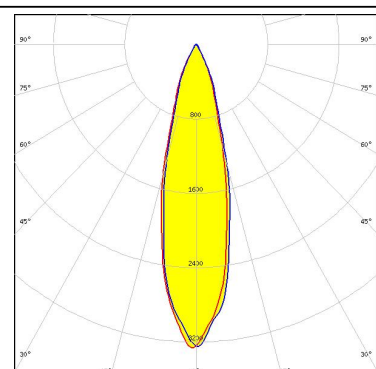
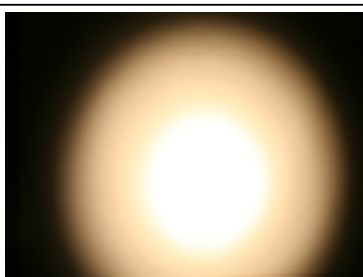
CITIZEN

LED CLL04x/CLU04x
FWHM 30.0°
Efficiency 71 %
Peak intensity 1.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11996_LENA-LENS
A.A.G. STUCCHI: 8102/G2 + S-8000/12



CITIZEN

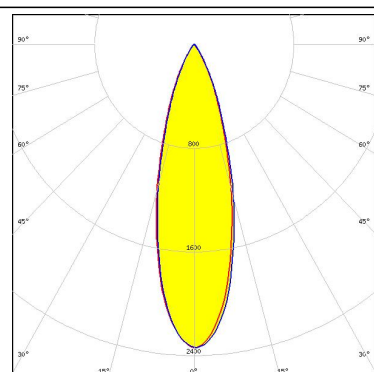
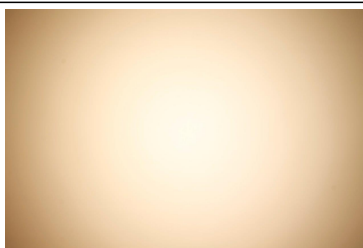
LED CLL04x/CLU04x
FWHM 26.0°
Efficiency 88 %
Peak intensity 3.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



PHOTOMETRIC DATA (MEASURED):

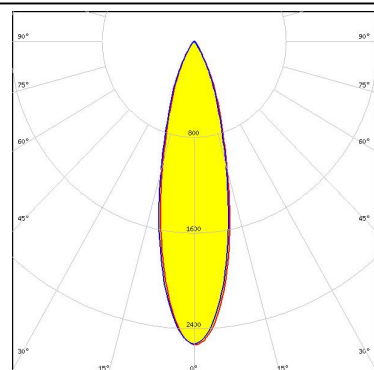
CITIZEN

LED CLL04x/CLU04x
FWHM 30.0°
Efficiency 78 %
Peak intensity 2.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 431 Typ L3



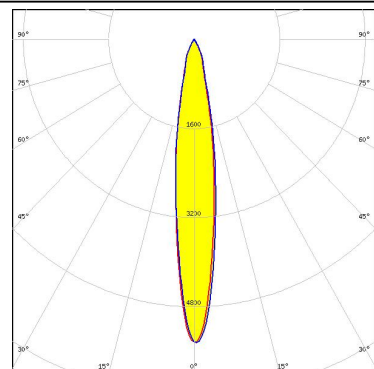
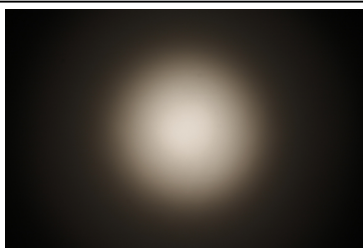
CITIZEN

LED CLL04x/CLU04x
FWHM 27.0°
Efficiency 78 %
Peak intensity 2.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11996_LENA-LENS
IDEAL: 50-2204CT + 50-2100LN



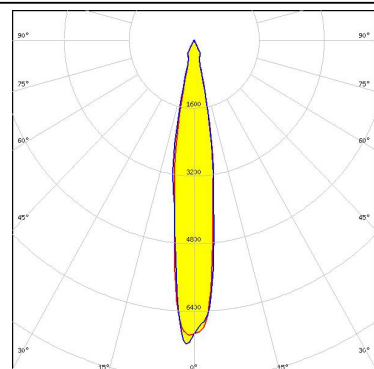
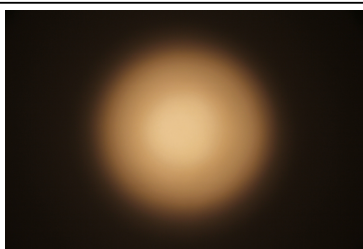
CITIZEN

LED CLU700/701/702
FWHM 16.0°
Efficiency 78 %
Peak intensity 5.5 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

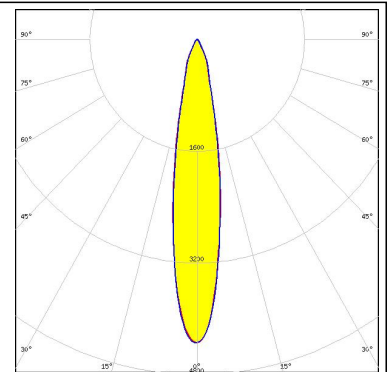
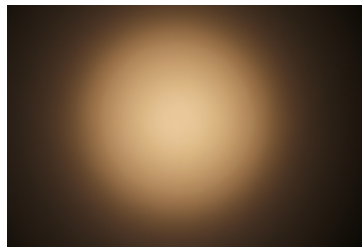
LED CLU710/711
FWHM 16.0°
Efficiency 86 %
Peak intensity 7.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



PHOTOMETRIC DATA (MEASURED):

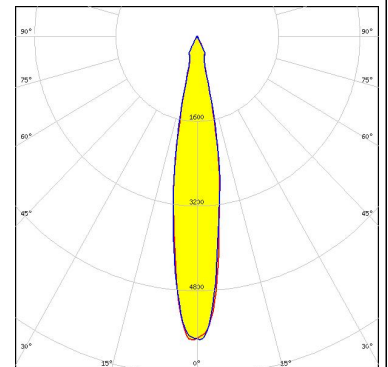
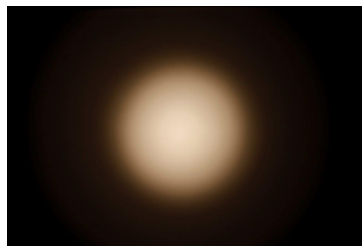
CITIZEN

LED CLU710/711
FWHM 18.0°
Efficiency 81 %
Peak intensity 4.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030
C11996_LENA-LENS



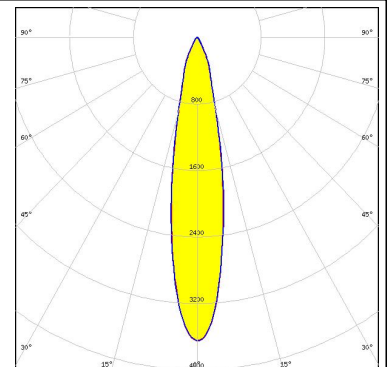
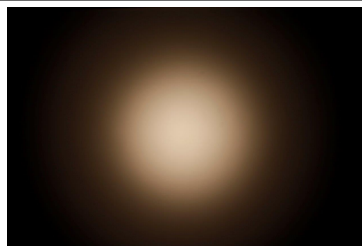
CITIZEN

LED CLU720/721
FWHM 18.0°
Efficiency 83 %
Peak intensity 5.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



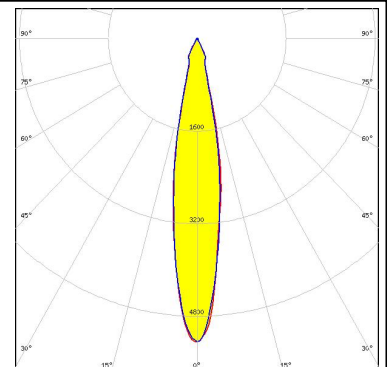
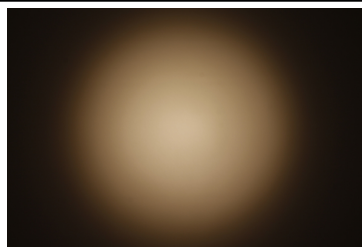
CITIZEN

LED CLU720/721
FWHM 20.0°
Efficiency 77 %
Peak intensity 3.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030
C11996_LENA-LENS



CITIZEN

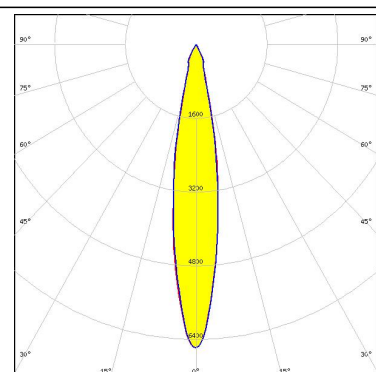
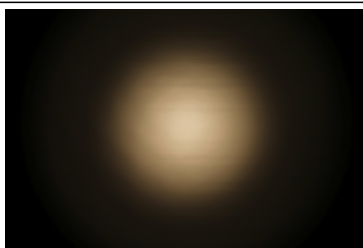
LED CLU730/731
FWHM 19.0°
Efficiency 80 %
Peak intensity 5.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



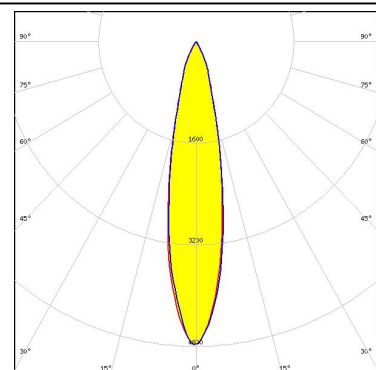
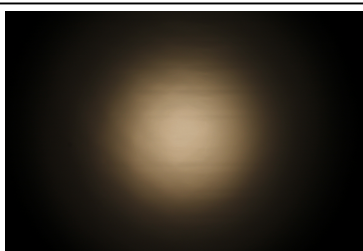
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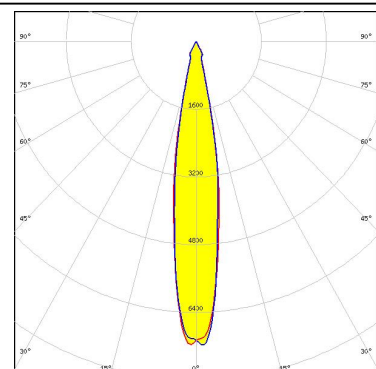
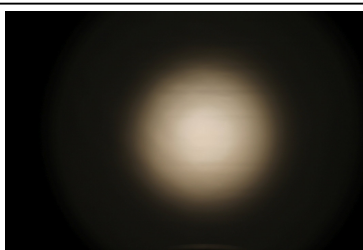
LED CMA1840
FWHM 18.0°
Efficiency 90 %
Peak intensity 6.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14146_LENA-STD-BASE-CXA18



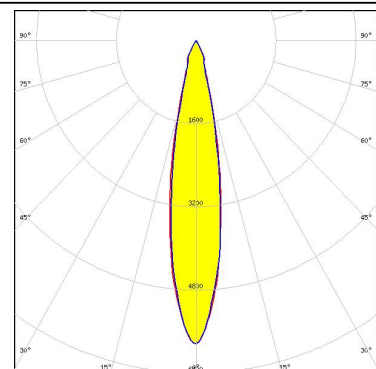
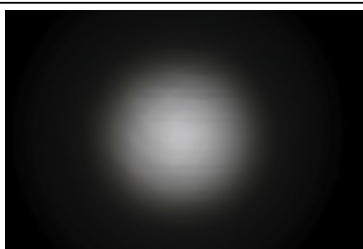
LED CMA2550
FWHM 21.0°
Efficiency 90 %
Peak intensity 4.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13324_LENA-STD-BASE-CXA25



LED CMT14xx
FWHM 17.0°
Efficiency 90 %
Peak intensity 7.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 434 Typ L1



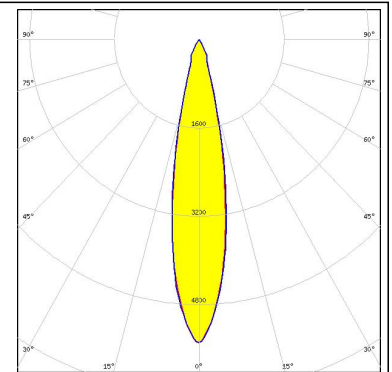
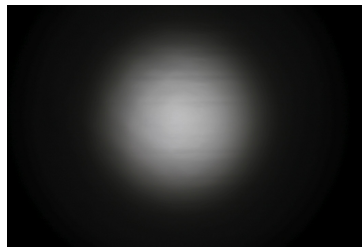
LED CMT19xx
FWHM 20.0°
Efficiency 90 %
Peak intensity 5.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



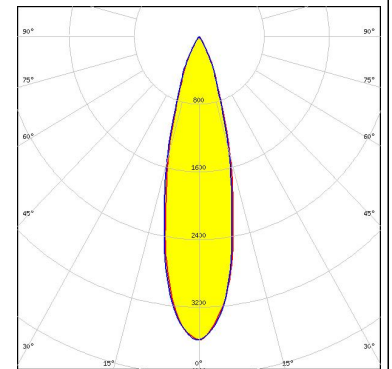
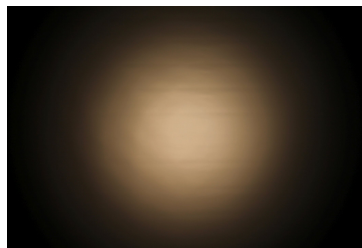
PHOTOMETRIC DATA (MEASURED):



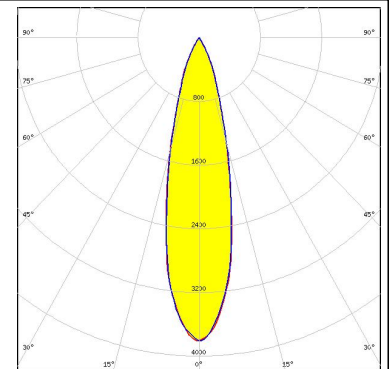
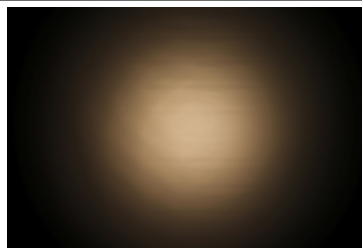
LED CMT19xx
FWHM 21.0°
Efficiency 90 %
Peak intensity 5.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 477 Typ L1



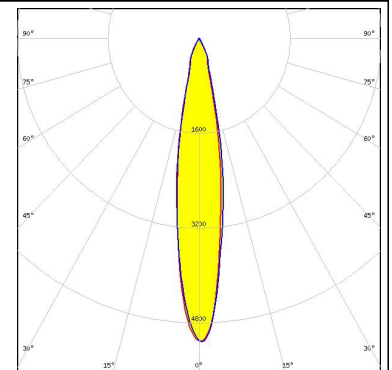
LED CMT28xx
FWHM 26.0°
Efficiency 90 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 471 Typ L3



LED CMT28xx
FWHM 25.0°
Efficiency 90 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



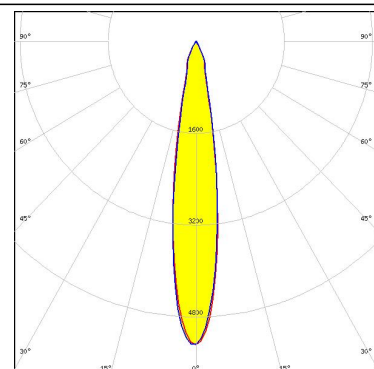
LED CXA/B 15xx
FWHM 18.0°
Efficiency 78 %
Peak intensity 5.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 441 Typ L1



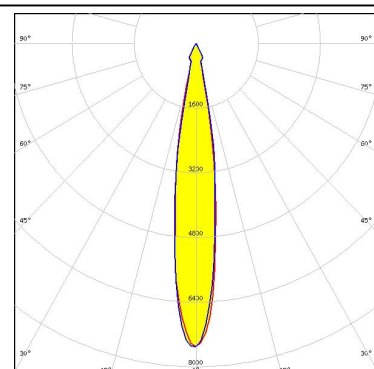
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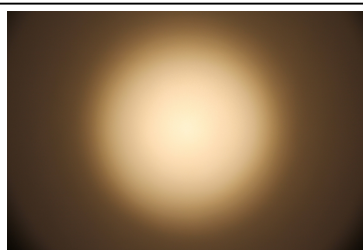
LED CXA/B 15xx
FWHM 17.0°
Efficiency 79 %
Peak intensity 5.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13186_LENA-STD-BASE-CXA15
C11996_LENA-LENS



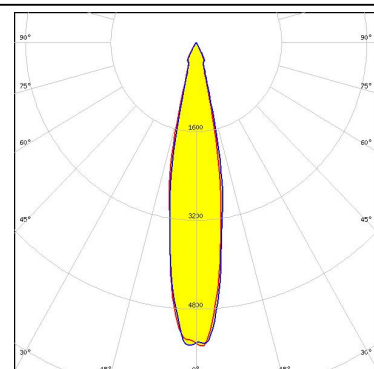
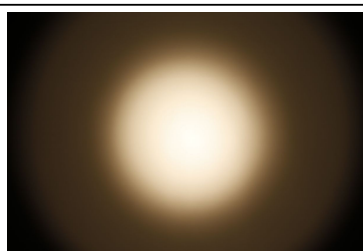
LED CXA/B 15xx
FWHM 16.0°
Efficiency 84 %
Peak intensity 7.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13186_LENA-STD-BASE-CXA15



LED CXA/B 1816 & CXA/B 1820 & CXA 1850
FWHM 17.0°
Efficiency 84 %
Peak intensity 7.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14146_LENA-STD-BASE-CXA18



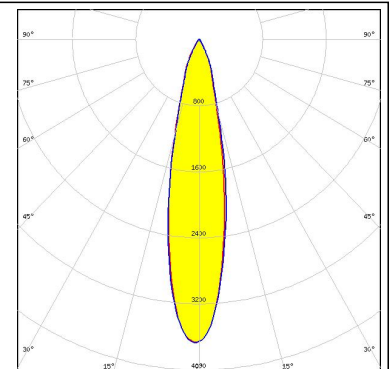
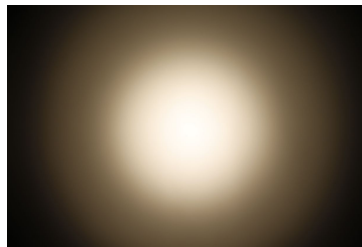
LED CXA/B 1816 & CXA/B 1820 & CXA 1850
FWHM 21.0°
Efficiency 85 %
Peak intensity 5.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 437 Typ L1



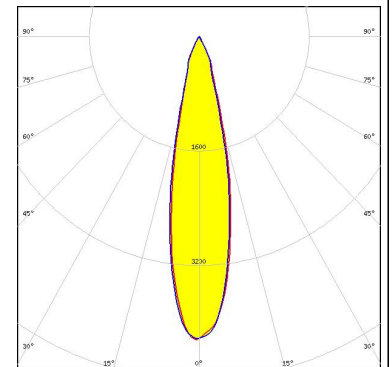
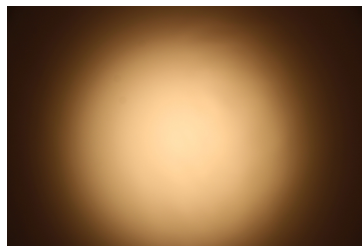
PHOTOMETRIC DATA (MEASURED):



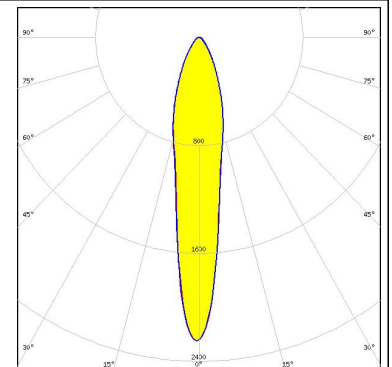
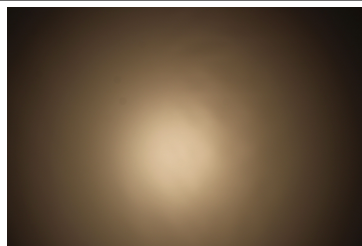
LED CXA/B 1816 & CXA/B 1820 & CXA 1850
FWHM 22.0°
Efficiency 80 %
Peak intensity 3.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 437 Typ L1



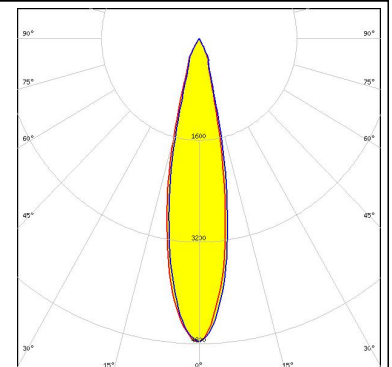
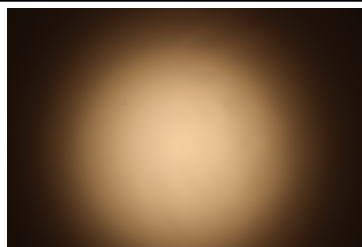
LED CXA/B 1830
FWHM 23.0°
Efficiency 83 %
Peak intensity 4.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C14169_LENA-CLEAR-LENS
Bender Wirth: 437 Typ L1



LED CXA/B 1830
FWHM 17.0°
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



LED CXA/B 1830
FWHM 23.0°
Efficiency 88 %
Peak intensity 4.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 437 Typ L1



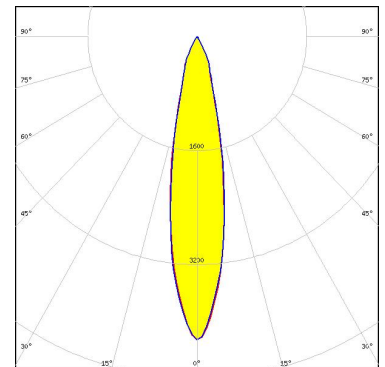
PHOTOMETRIC DATA (MEASURED):

CREE

LED CXA/B 25xx
FWHM 21.0°
Efficiency 77 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13324_LENA-STD-BASE-CXA25
C11996_LENA-LENS

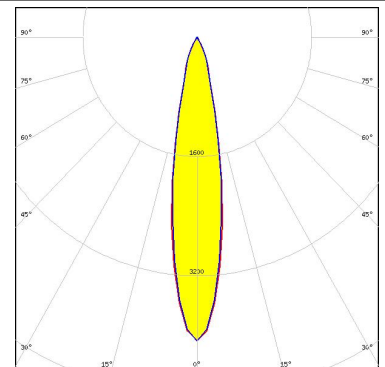
CREE

LED CXA/B 25xx
FWHM 20.0°
Efficiency 82 %
Peak intensity 4.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13324_LENA-STD-BASE-CXA25



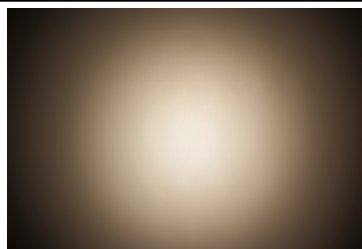
CREE

LED CXA2011
FWHM 19.0°
Efficiency 78 %
Peak intensity 4.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12105_LENA-STD-BASE-CXA20
C11996_LENA-LENS



EVERLIGHT

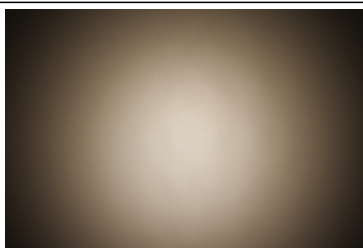
LED CHI3030 19W
FWHM 27.0°
Efficiency 81 %
Peak intensity 2.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 468 Typ L3



PHOTOMETRIC DATA (MEASURED):

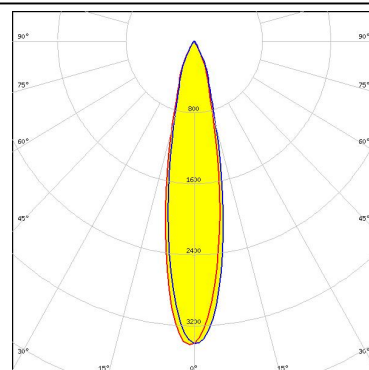
EVERLIGHT

LED CHI3030 29W
FWHM 34.0°
Efficiency 78 %
Peak intensity 1.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 468 Typ L3



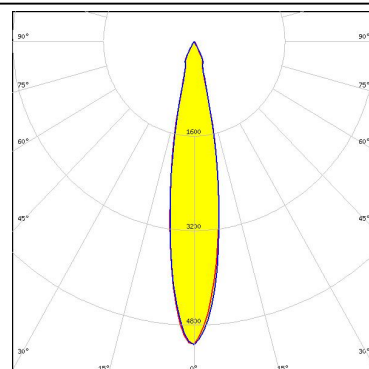
LUMILEDS

LED LUXEON CoB 1204/1205
FWHM 21.0°
Efficiency 74 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ
C11996_LENA-LENS



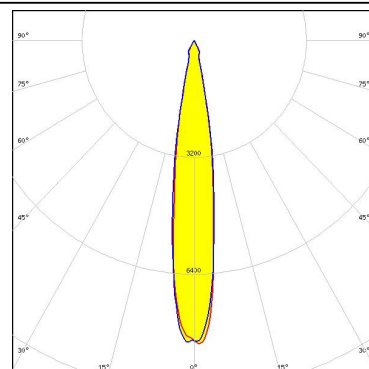
LUMILEDS

LED LUXEON CoB 1204/1205
FWHM 19.0°
Efficiency 79 %
Peak intensity 5.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ



LUMILEDS

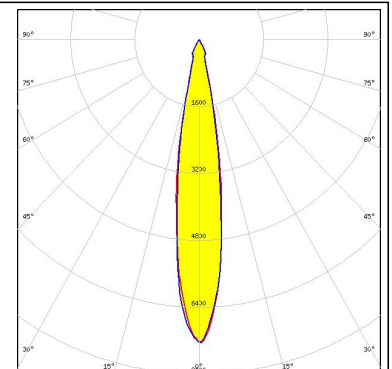
LED LUXEON CoB 1204HD
FWHM 15.0°
Efficiency 90 %
Peak intensity 8.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11981_LENA-STD-BASE-COB-L110



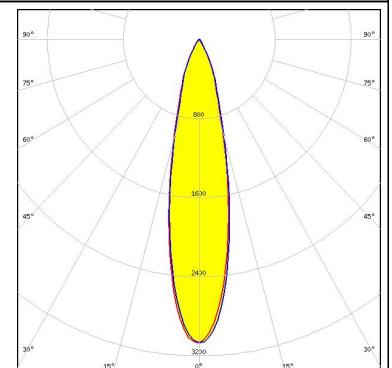
PHOTOMETRIC DATA (MEASURED):



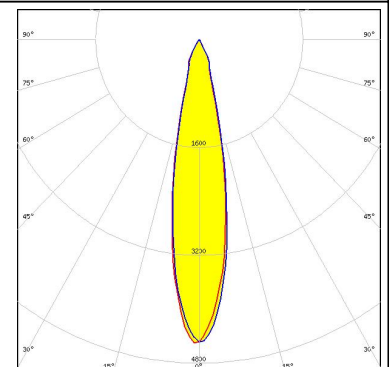
LED LUXEON CoB 1205HD
FWHM 17.0°
Efficiency 90 %
Peak intensity 7.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11981_LENA-STD-BASE-COB-L110



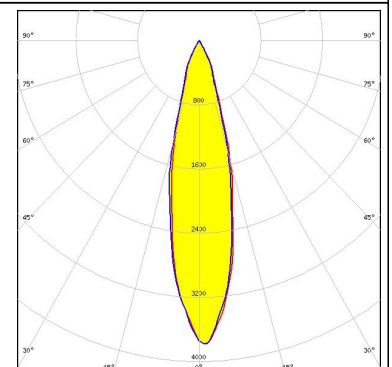
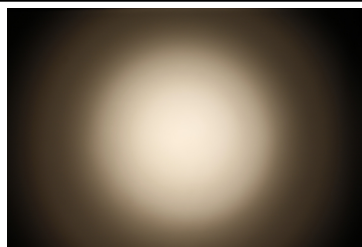
LED LUXEON CoB 1208
FWHM 23.0°
Efficiency 74 %
Peak intensity 3.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ
C11996_LENA-LENS



LED LUXEON CoB 1208
FWHM 21.0°
Efficiency 80 %
Peak intensity 4.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ



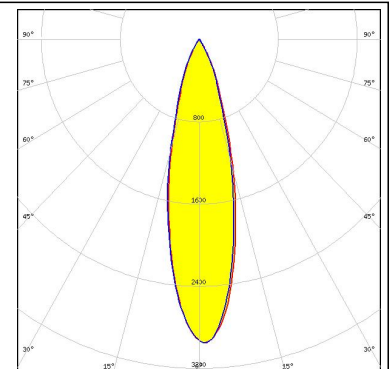
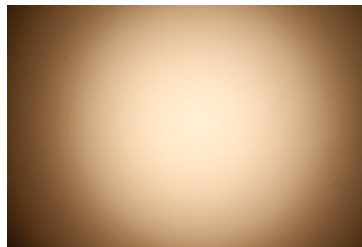
LED LUXEON CoB 1211
FWHM 24.0°
Efficiency 87 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 431 Typ L3



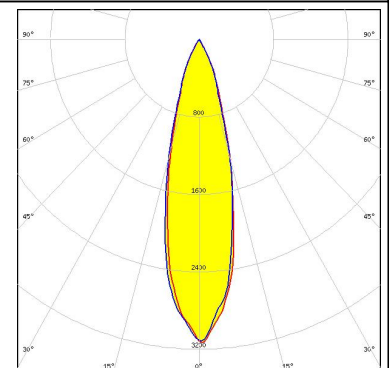
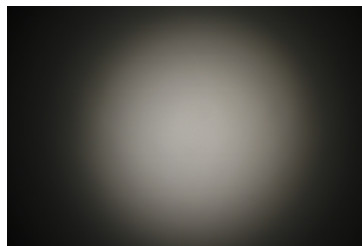
PHOTOMETRIC DATA (MEASURED):



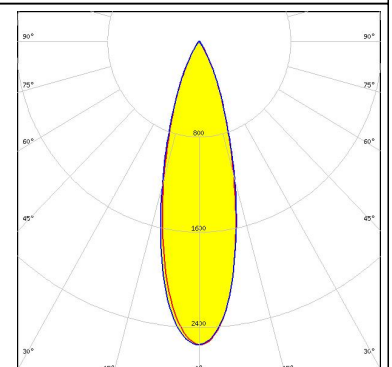
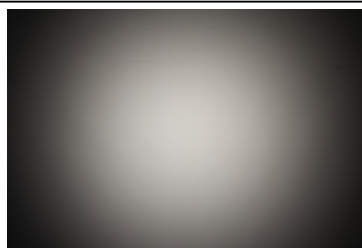
LED LUXEON CoB 1211
FWHM 26.0°
Efficiency 78 %
Peak intensity 3 cd/Im
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 431 Typ L3



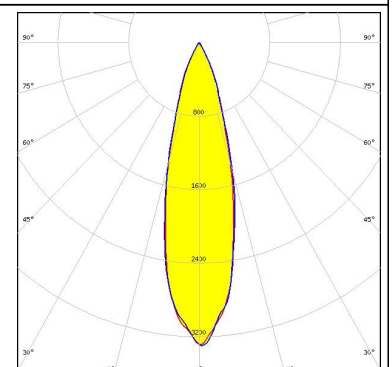
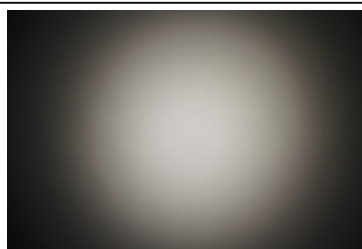
LED LUXEON CoB 1216/1812
FWHM 26.0°
Efficiency 77 %
Peak intensity 3.1 cd/Im
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8102/G2 + S-8000/12



LED LUXEON CoB 1216/1812
FWHM 29.0°
Efficiency 80 %
Peak intensity 3.6 cd/Im
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040
C11996_LENA-LENS



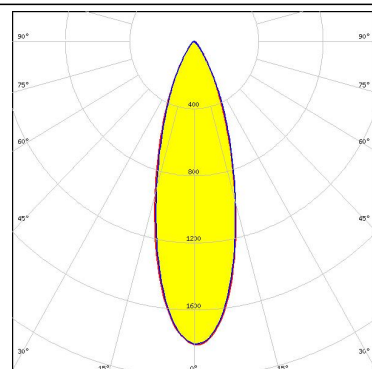
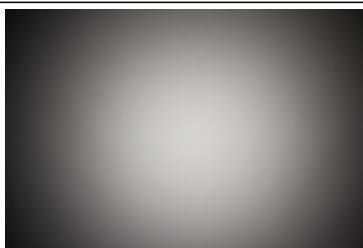
LED LUXEON CoB 1216/1812
FWHM 27.0°
Efficiency 83 %
Peak intensity 3.3 cd/Im
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



PHOTOMETRIC DATA (MEASURED):



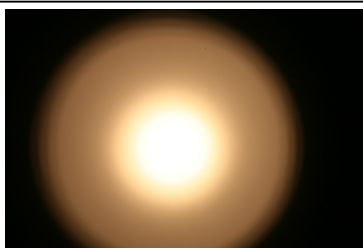
LED LUXEON CoB 1216/1812
FWHM 31.0°
Efficiency 72 %
Peak intensity 1.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11996_LENA-LENS
A.A.G. STUCCHI: 8102/G2 + S-8000/12



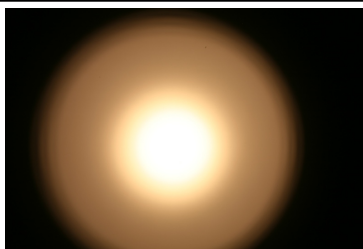
LED LUXEON K12
FWHM 21.0°
Efficiency 74 %
Peak intensity 4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12924_LENA-STD-BASE-LUXEON-K
C11996_LENA-LENS



LED LUXEON K12
FWHM 19.0°
Efficiency 80 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12924_LENA-STD-BASE-LUXEON-K



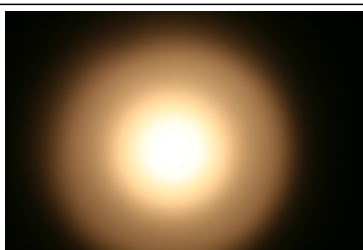
LED LUXEON K16
FWHM 20.0°
Efficiency 77 %
Peak intensity 0.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12924_LENA-STD-BASE-LUXEON-K



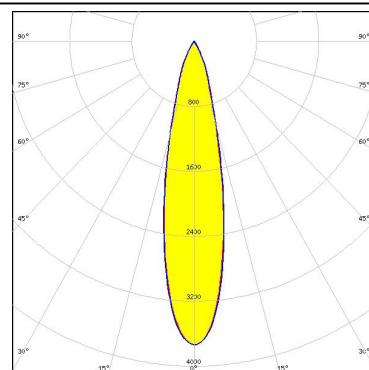
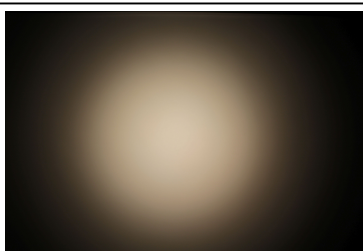
PHOTOMETRIC DATA (MEASURED):



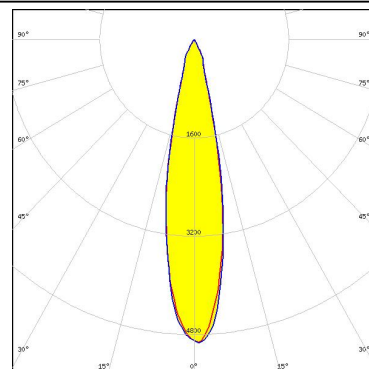
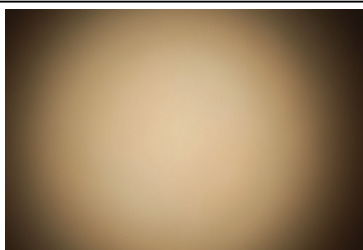
LED LUXEON K16
FWHM 22.0°
Efficiency 72 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12924_LENA-STD-BASE-LUXEON-K
C11996_LENA-LENS



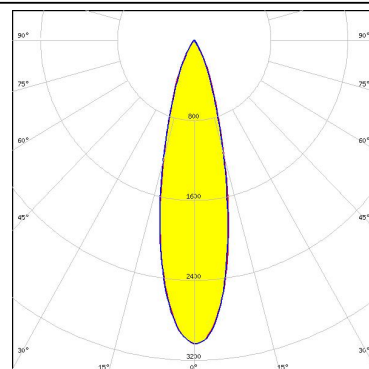
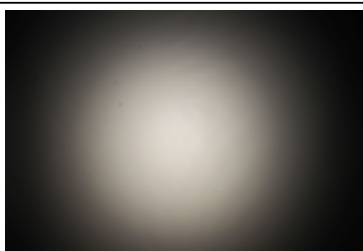
LED CDM-14 (Dim-To-Warm)
FWHM 23.0°
Efficiency 82 %
Peak intensity 3.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 491 Typ L2



LED CDM-14 (Dim-To-Warm)
FWHM 22.0°
Efficiency 87 %
Peak intensity 4.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 491 Typ L2



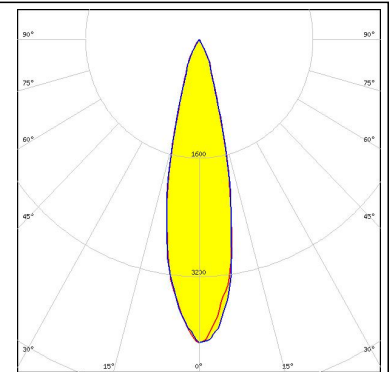
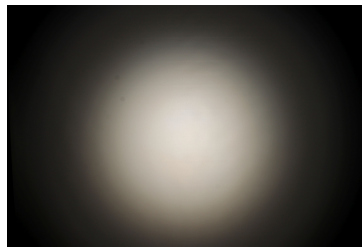
LED CDM-18 (Dim-To-Warm)
FWHM 26.0°
Efficiency 82 %
Peak intensity 3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 491 Typ L2



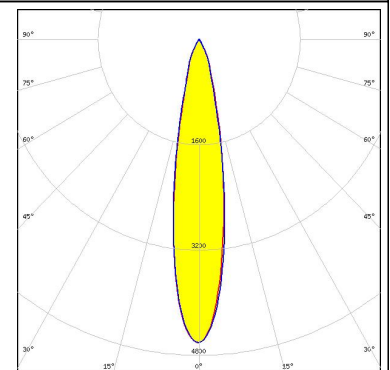
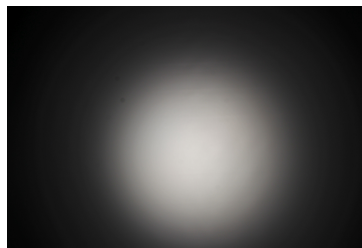
PHOTOMETRIC DATA (MEASURED):



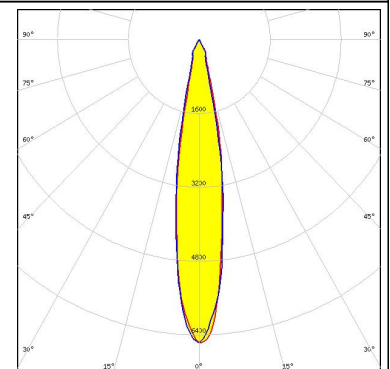
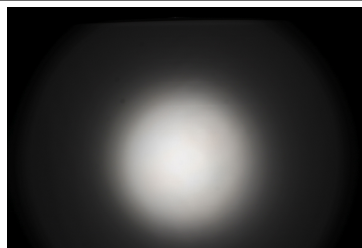
LED CDM-18 (Dim-To-Warm)
FWHM 25.0°
Efficiency 87 %
Peak intensity 4.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 491 Typ L2



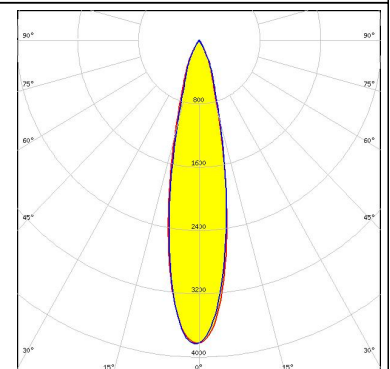
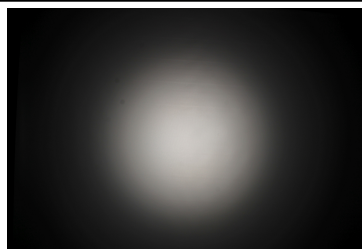
LED CDM-9 (Dim-To-Warm)
FWHM 20.0°
Efficiency 82 %
Peak intensity 4.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 490 Typ L1



LED CDM-9 (Dim-To-Warm)
FWHM 18.0°
Efficiency 88 %
Peak intensity 6.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 490 Typ L1



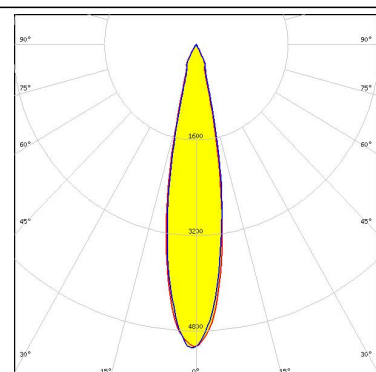
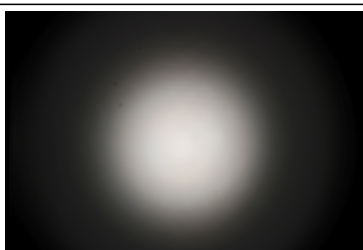
LED CTM-14 (Tunable White)
FWHM 22.0°
Efficiency 81 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C12606_LENINA-DL
Bender Wirth: 442 Typ L3



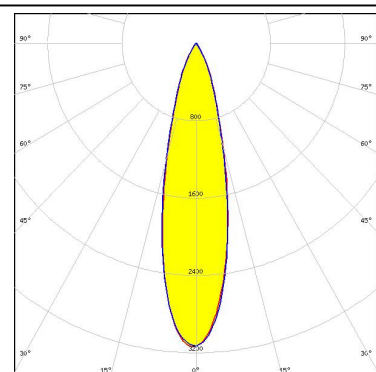
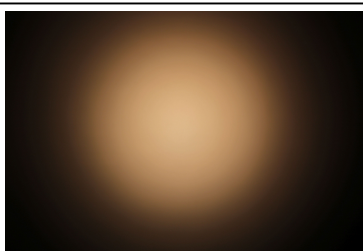
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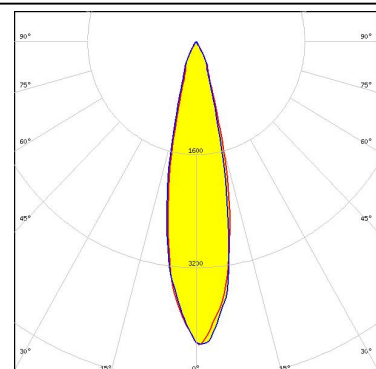
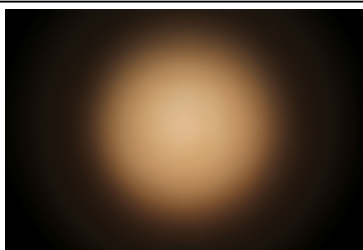
LED CTM-14 (Tunable White)
FWHM 21.0°
Efficiency 87 %
Peak intensity 5.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 442 Typ L3



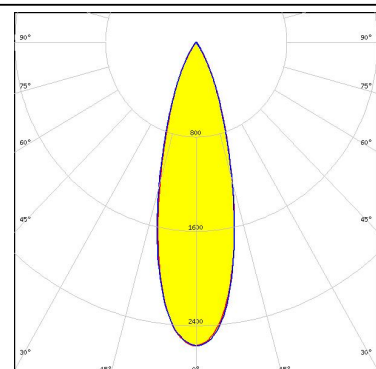
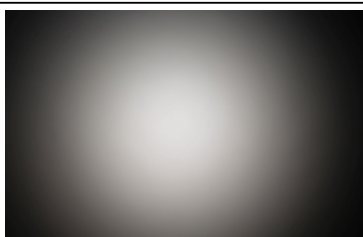
LED CTM-18 (Tunable White)
FWHM 25.0°
Efficiency 82 %
Peak intensity 3.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 442 Typ L3



LED CTM-18 (Tunable White)
FWHM 24.0°
Efficiency 87 %
Peak intensity 4.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 442 Typ L3



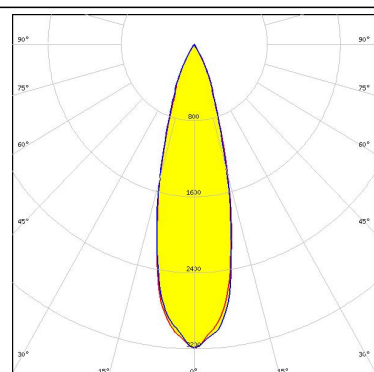
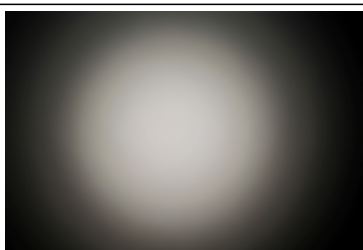
LED CTM-22 (Tunable White)
FWHM 29.0°
Efficiency 82 %
Peak intensity 2.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 494 Typ L3



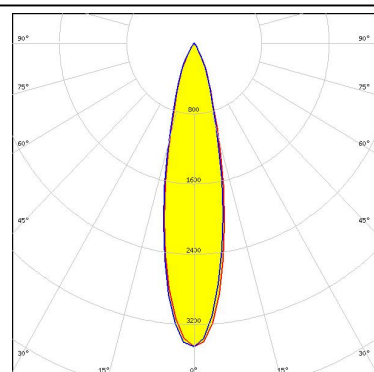
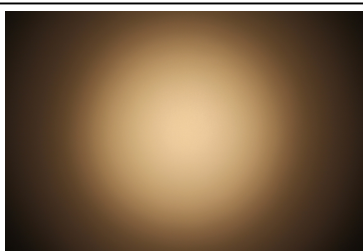
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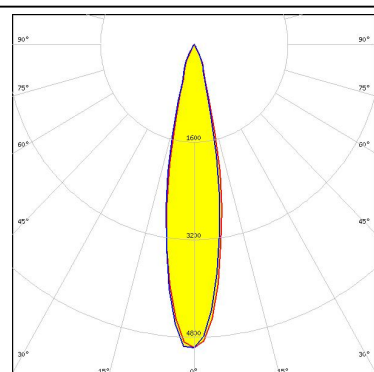
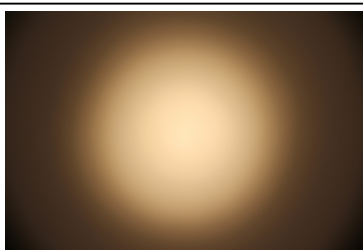
LED CTM-22 (Tunable White)
FWHM 28.0°
Efficiency 87 %
Peak intensity 3.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 494 Typ L3



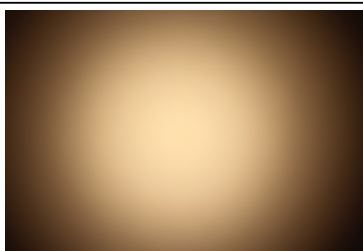
LED CxM-14 (19x19)
FWHM 24.0°
Efficiency 79 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030
C11996_LENA-LENS



LED CxM-14 (19x19)
FWHM 22.0°
Efficiency 84 %
Peak intensity 5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



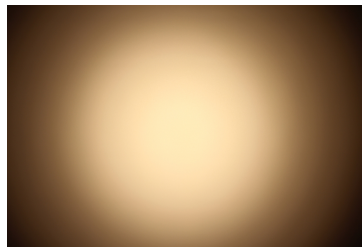
LED CxM-22 (28x28)
FWHM 29.0°
Efficiency 79 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040
C11996_LENA-LENS



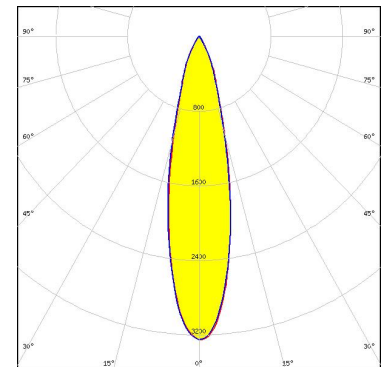
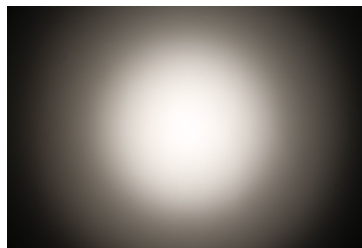
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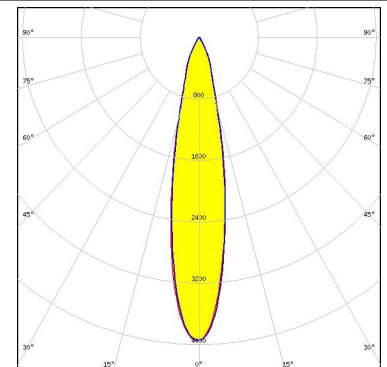
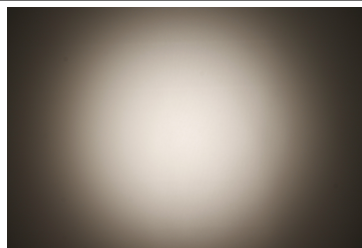
LED CxM-22 (28x28)
FWHM 27.0°
Efficiency 84 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



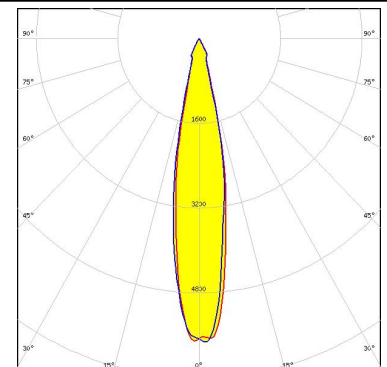
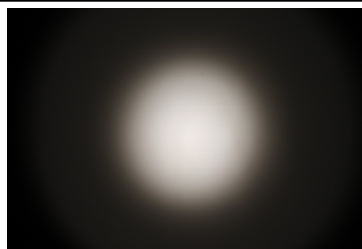
LED COB J-Type
FWHM 24.0°
Efficiency 80 %
Peak intensity 3.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 463 Typ L2



LED COB L-Type (LES 11)
FWHM 21.0°
Efficiency 80 %
Peak intensity 4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 438 Typ L1



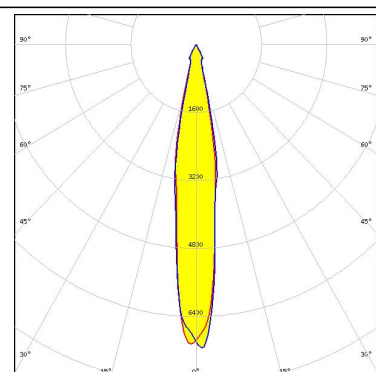
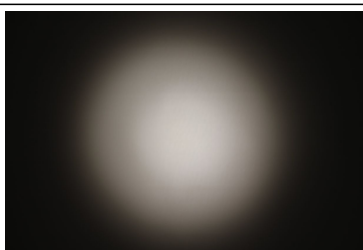
LED COB L-Type (LES 11)
FWHM 20.0°
Efficiency 85 %
Peak intensity 5.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 438 Typ L1



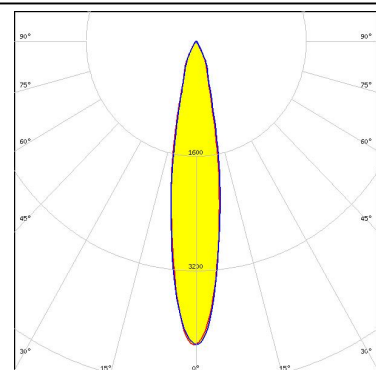
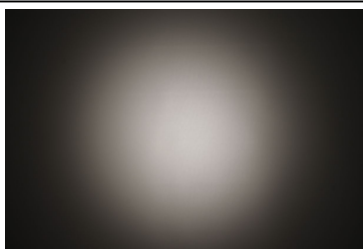
PHOTOMETRIC DATA (MEASURED):



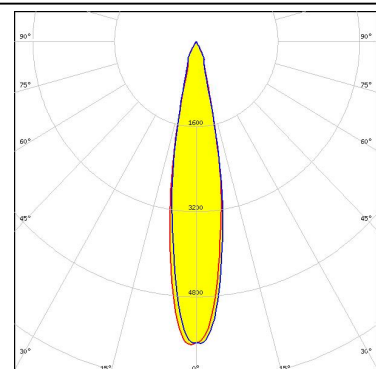
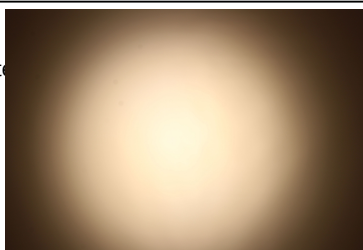
LED COB L-Type (LES 9)
FWHM 16.0°
Efficiency 86 %
Peak intensity 7.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 438 Typ L1



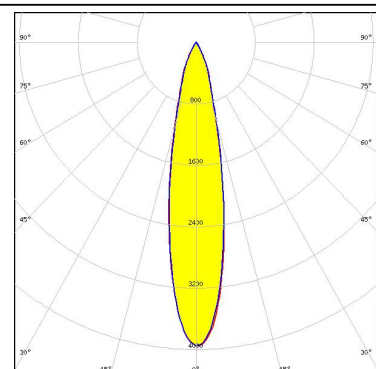
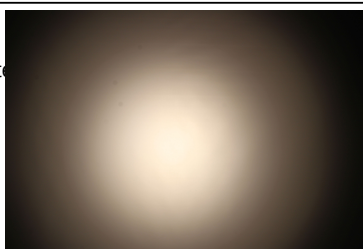
LED COB L-Type (LES 9)
FWHM 19.0°
Efficiency 81 %
Peak intensity 4.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 438 Typ L1



LED NVCWJ024Z-V1MT: COB J-Type Tunable White
FWHM 20.0°
Efficiency 87 %
Peak intensity 5.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 498 Typ L2



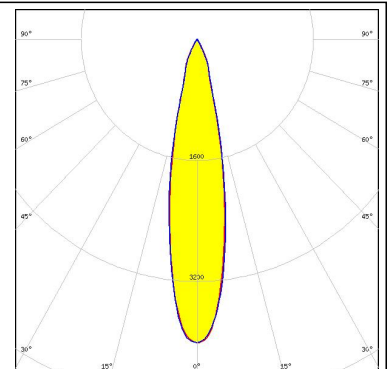
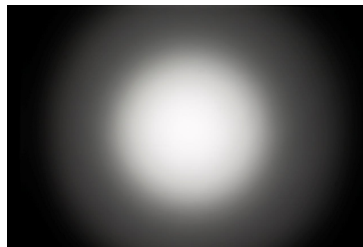
LED NVCWJ024Z-V1MT: COB J-Type Tunable White
FWHM 21.0°
Efficiency 82 %
Peak intensity 4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 498 Typ L2



PHOTOMETRIC DATA (MEASURED):

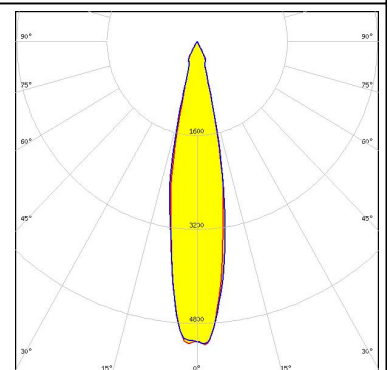
OSRAM
Opto Semiconductors

LED Soleriq S13
FWHM 22.0°
Efficiency 78 %
Peak intensity 4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 437 Typ L1



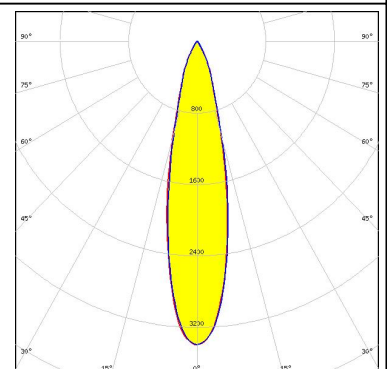
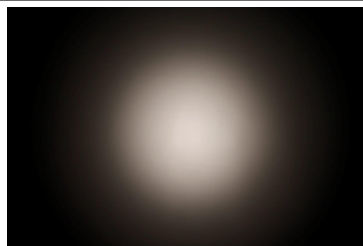
OSRAM
Opto Semiconductors

LED Soleriq S13
FWHM 21.0°
Efficiency 83 %
Peak intensity 5.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 437 Typ L1



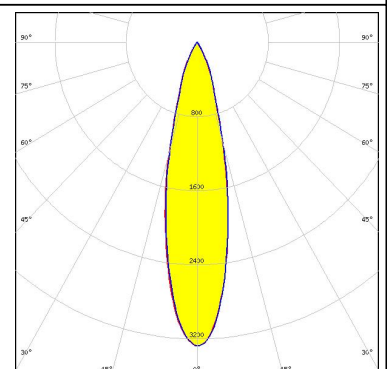
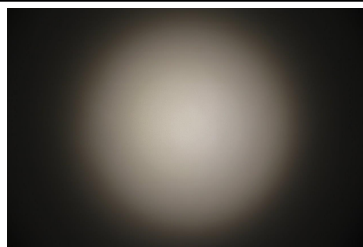
OSRAM
Opto Semiconductors

LED Soleriq S13
FWHM 23.0°
Efficiency 81 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS



OSRAM
Opto Semiconductors

LED Soleriq S19
FWHM 24.0°
Efficiency 78 %
Peak intensity 3.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 462 Typ L3

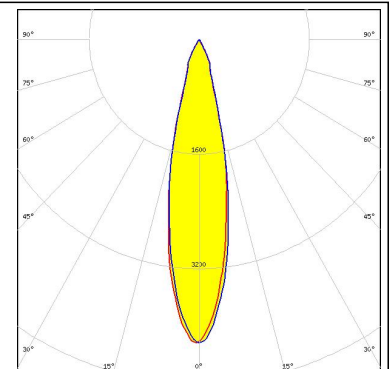
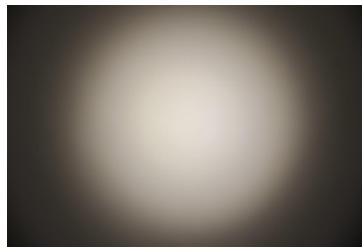


PHOTOMETRIC DATA (MEASURED):

OSRAM

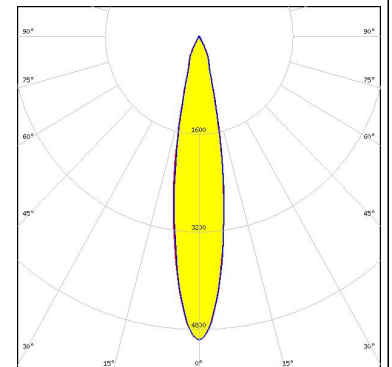
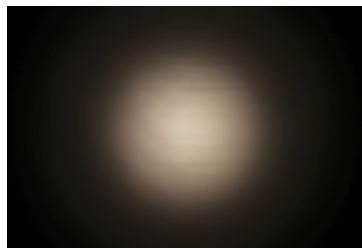
Opto Semiconductors

LED Soleriq S19
FWHM 23.0°
Efficiency 83 %
Peak intensity 4.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 462 Typ L3



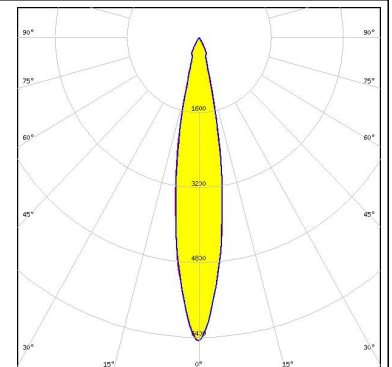
PHILIPS

LED Fortimo SLM L13 CoB
FWHM 19.0°
Efficiency 84 %
Peak intensity 5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ
C11996_LENA-LENS



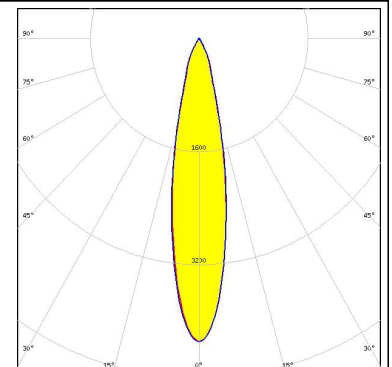
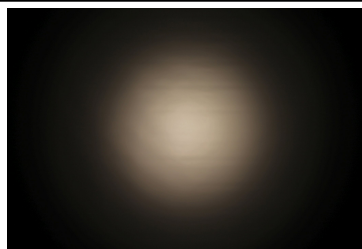
PHILIPS

LED Fortimo SLM L13 CoB
FWHM 18.0°
Efficiency 89 %
Peak intensity 6.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ



PHILIPS

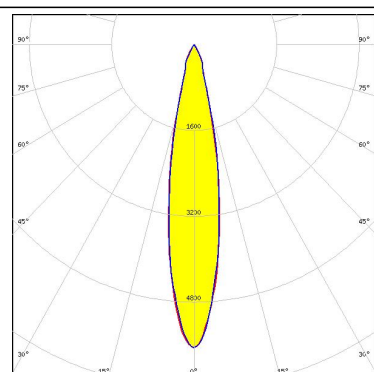
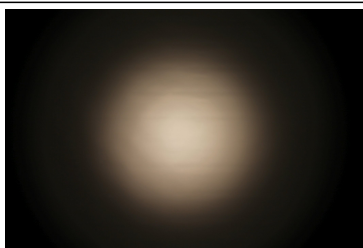
LED Fortimo SLM L15 CoB
FWHM 21.0°
Efficiency 84 %
Peak intensity 4.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ
C11996_LENA-LENS



PHOTOMETRIC DATA (MEASURED):

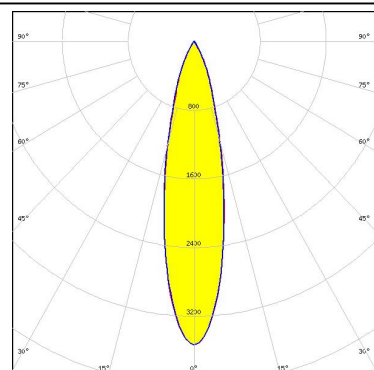
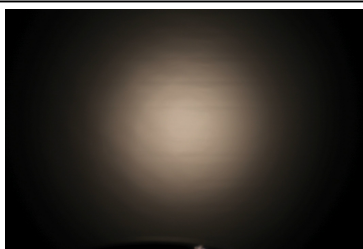
PHILIPS

LED Fortimo SLM L15 CoB
FWHM 20.0°
Efficiency 90 %
Peak intensity 5.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12292_LENA-STD-BASE-MEZ



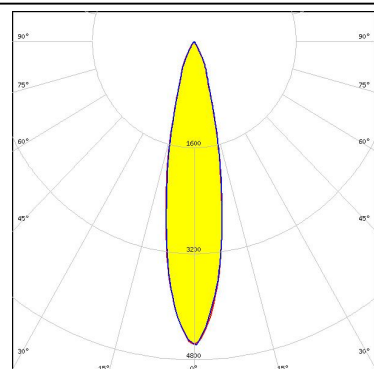
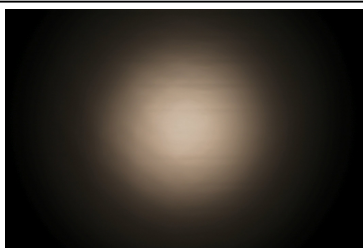
PHILIPS

LED Fortimo SLM L19 CoB
FWHM 24.0°
Efficiency 84 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040
C11996_LENA-LENS



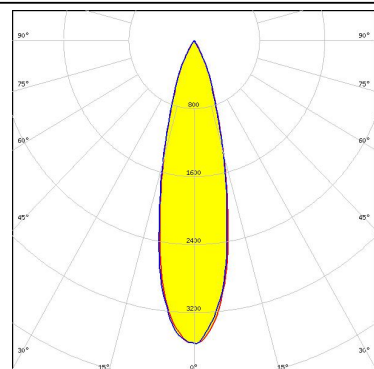
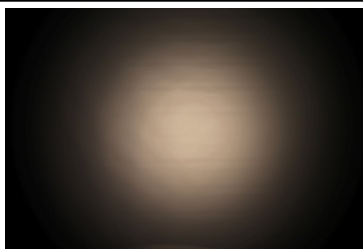
PHILIPS

LED Fortimo SLM L19 CoB
FWHM 22.0°
Efficiency 90 %
Peak intensity 4.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



PHILIPS

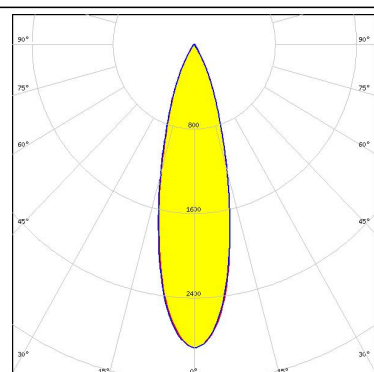
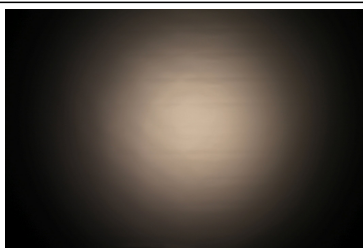
LED Fortimo SLM L23 CoB
FWHM 26.0°
Efficiency 89 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



PHOTOMETRIC DATA (MEASURED):

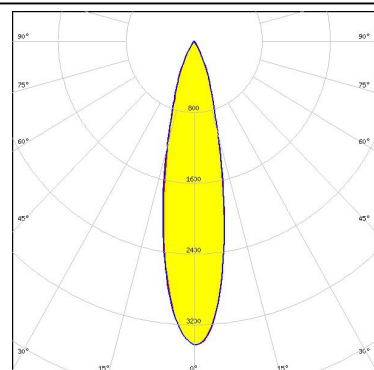
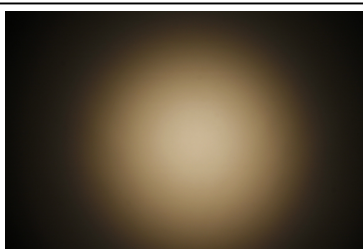
PHILIPS

LED Fortimo SLM L23 CoB
FWHM 27.0°
Efficiency 83 %
Peak intensity 2.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040
C11996_LENA-LENS



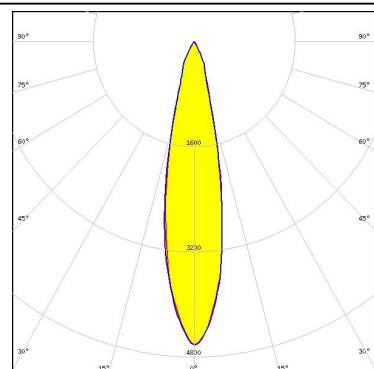
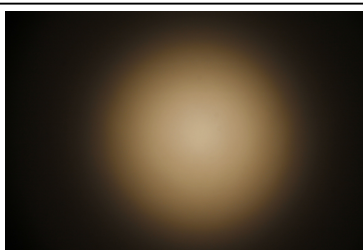
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
FWHM 23.0°
Efficiency 81 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030
C11996_LENA-LENS



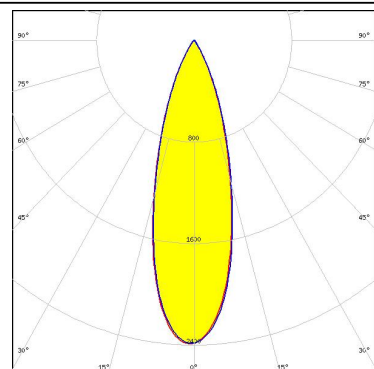
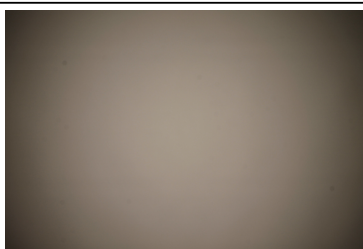
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
FWHM 22.0°
Efficiency 86 %
Peak intensity 4.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030

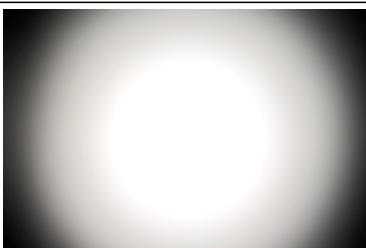
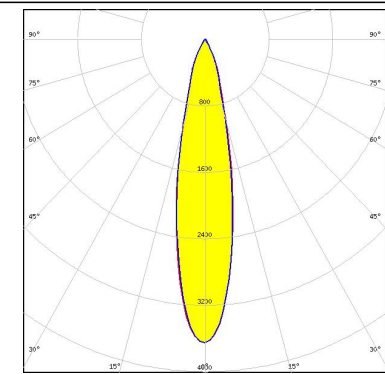
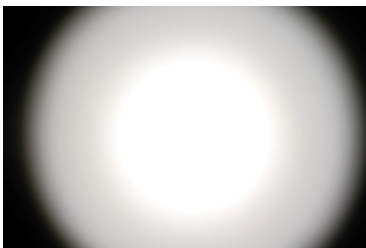
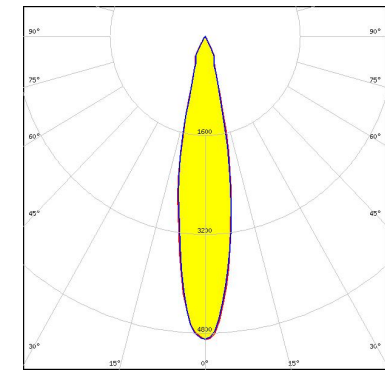
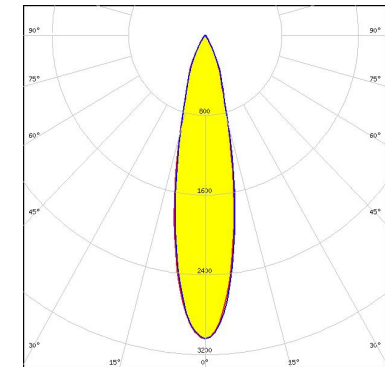


SAMSUNG

LED LC040D / LC060D / LC080D
FWHM 30.0°
Efficiency 81 %
Peak intensity 2.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040
C11996_LENA-LENS



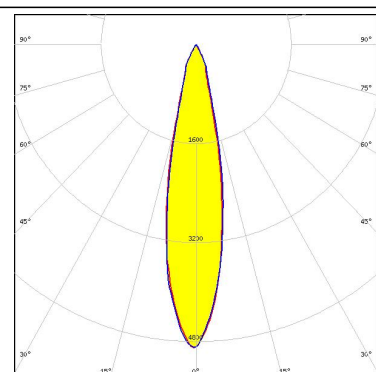
PHOTOMETRIC DATA (MEASURED):

SEOUL SEOUL SEMICONDUCTOR LED ZC12/18 FWHM 22.0° Efficiency 78 % Peak intensity 3.7 cd/lm LEDs/each optic 1 Light colour White Required components: C12691_LENA-STD-BASE-CLL030 C11996_LENA-LENS		
SEOUL SEOUL SEMICONDUCTOR LED ZC12/18 FWHM 21.0° Efficiency 83 % Peak intensity 4.9 cd/lm LEDs/each optic 1 Light colour White Required components: C12691_LENA-STD-BASE-CLL030		
SHARP LED Mega Zenigata (GW5DGC) FWHM 21.0° Efficiency 79 % LEDs/each optic 1 Light colour White Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS		
SHARP LED Mega Zenigata (GW6DME) FWHM 23.0° Efficiency 73 % Peak intensity 3 cd/lm LEDs/each optic 1 Light colour White Required components: C12292_LENA-STD-BASE-MEZ C11996_LENA-LENS		

PHOTOMETRIC DATA (MEASURED):

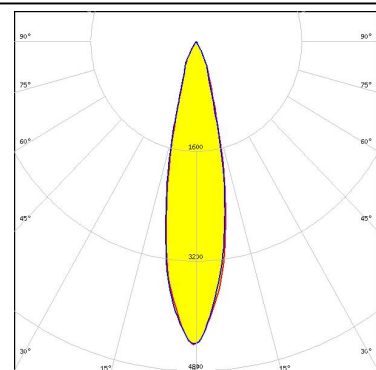
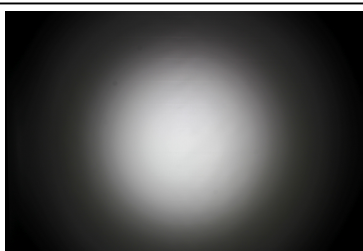
TRIDONIC

LED SLE G7 LES15
FWHM 22.0°
Efficiency 88 %
Peak intensity 4.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



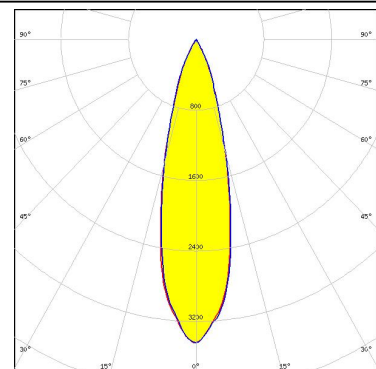
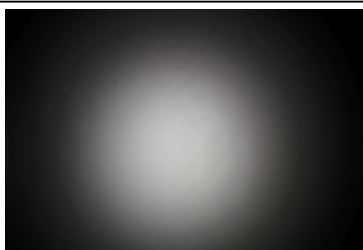
TRIDONIC

LED SLE G7 LES17 H
FWHM 23.0°
Efficiency 86 %
Peak intensity 4.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14547_LENA-ADAPTER-B



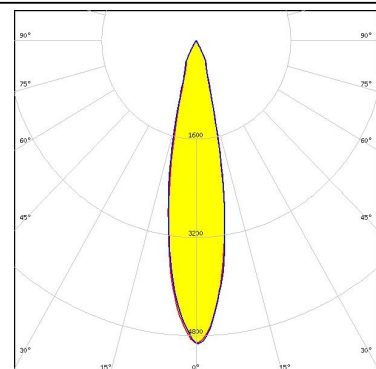
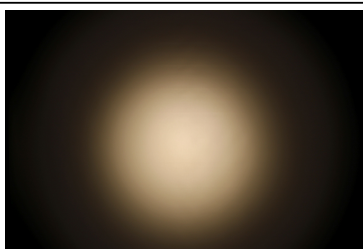
TRIDONIC

LED SLE G7 LES21 H
FWHM 27.0°
Efficiency 86 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14547_LENA-ADAPTER-B



XICATO

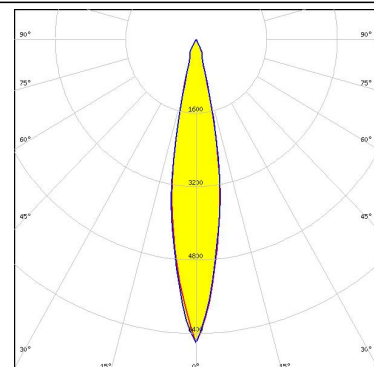
LED XOB 14.5 mm
FWHM 22.0°
Efficiency 88 %
Peak intensity 4.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12691_LENA-STD-BASE-CLL030



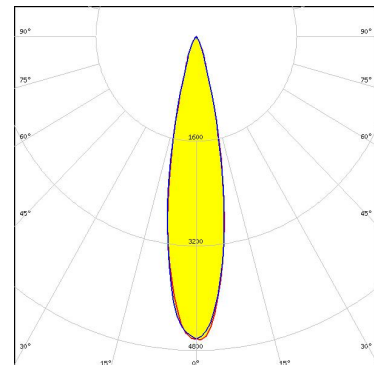
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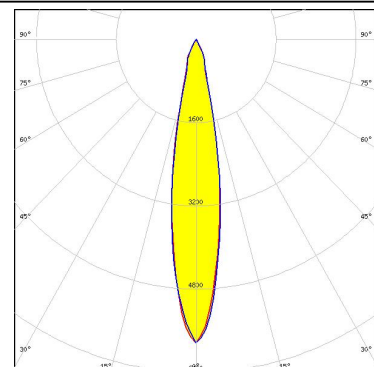
LED V10 Gen7
FWHM 19.0°
Efficiency 88 %
Peak intensity 6.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 486 Typ L1



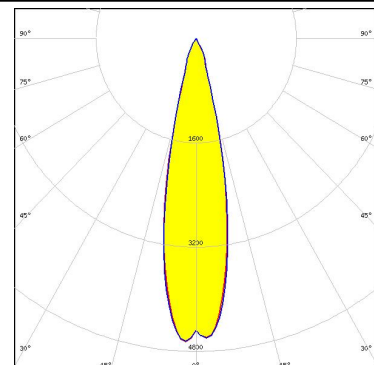
LED V10 Gen7
FWHM 22.0°
Efficiency 81 %
Peak intensity 4.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18
 C11996_LENA-LENS
 Bender Wirth: 486 Typ L1



LED V13 Gen7
FWHM 18.0°
Efficiency 87 %
Peak intensity 5.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 IDEAL: 50-2103CT + 50-2100LN



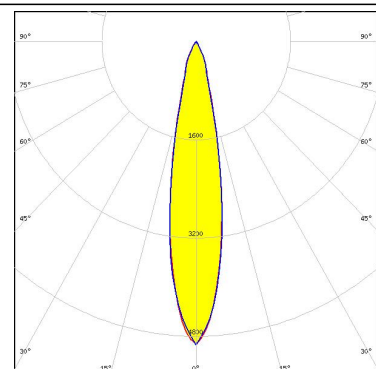
LED V13 Gen7
FWHM 23.0°
Efficiency 88 %
Peak intensity 4.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
 C13868_LENA-STD-BASE-VERO13-18
 Bender Wirth: 477 Typ L1



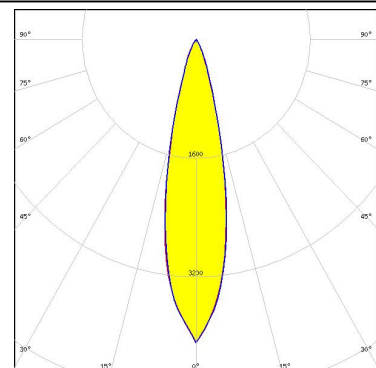
PHOTOMETRIC DATA (SIMULATED):



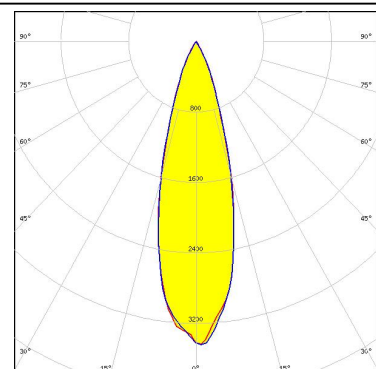
LED V13 Gen7
FWHM 20.0°
Efficiency 84 %
Peak intensity 4.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11996_LENA-LENS
IDEAL: 50-2103CT + 50-2100LN



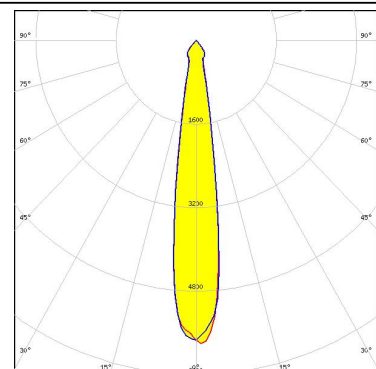
LED V13 Gen7
FWHM 24.0°
Efficiency 82 %
Peak intensity 4.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS



LED V22 Gen7
FWHM 28.0°
Efficiency 90 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
C11996_LENA-LENS
Bender Wirth: 431 Typ L3



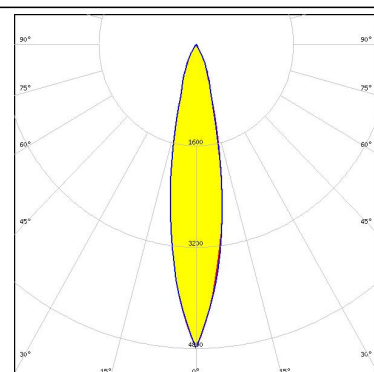
LED V22 Gen7
FWHM 28.0°
Efficiency 94 %
Peak intensity 5.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13867_LENA-STD-BASE-VERO29
Bender Wirth: 431 Typ L3



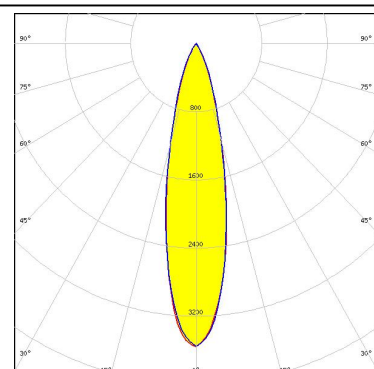
PHOTOMETRIC DATA (SIMULATED):



LED CXA/B 30xx
FWHM 20.0°
Efficiency 86 %
Peak intensity 4.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2234C + 50-2100LN



LED CXA/B 30xx
FWHM 24.0°
Efficiency 80 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C11996_LENA-LENS
IDEAL: 50-2234C + 50-2100LN



LED CxM-14 (19x19)
FWHM 22.0°
Efficiency 83 %
Peak intensity 4.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 433 Typ L1

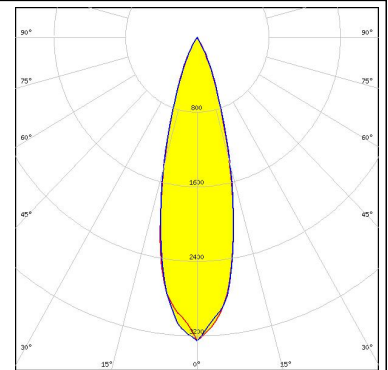


LED CxM-14 (19x19)
FWHM 23.0°
Efficiency 78 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
C11996_LENA-LENS
Bender Wirth: 433 Typ L1

PHOTOMETRIC DATA (SIMULATED):



LED CxM-22 (28x28)
FWHM 28.0°
Efficiency 83 %
Peak intensity 3.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C12692_LENA-STD-BASE-CLL040



LED CxM-9 (13.5x13.5)
FWHM 20.0°
Efficiency 78 %
Peak intensity 4.3 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 CxM-9 (13.5x13.5)
FWHM 17.0°
Efficiency 83 %
Peak intensity 6.6 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 ZC12/18
FWHM 22.0°
Efficiency 83 %
Peak intensity 4.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13868_LENA-STD-BASE-VERO13-18
Bender Wirth: 433 Typ L1

PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC12/18
FWHM	23.0°
Efficiency	78 %
Peak intensity	3.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
C11996_LENA-LENS	
Bender Wirth: 433 Typ L1	

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	20.0°
Efficiency	78 %
Peak intensity	4.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13868_LENA-STD-BASE-VERO13-18	
C11996_LENA-LENS	
Bender Wirth: 434 Typ L1	

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	17.0°
Efficiency	83 %
Peak intensity	6.6 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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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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