

ANGELA-S

~10° spot beam

TECHNICAL SPECIFICATIONS:

Dimensions	Ø 119.5 mm
Height	74.3 mm
Fastening	socket
ROHS compliant	yes 

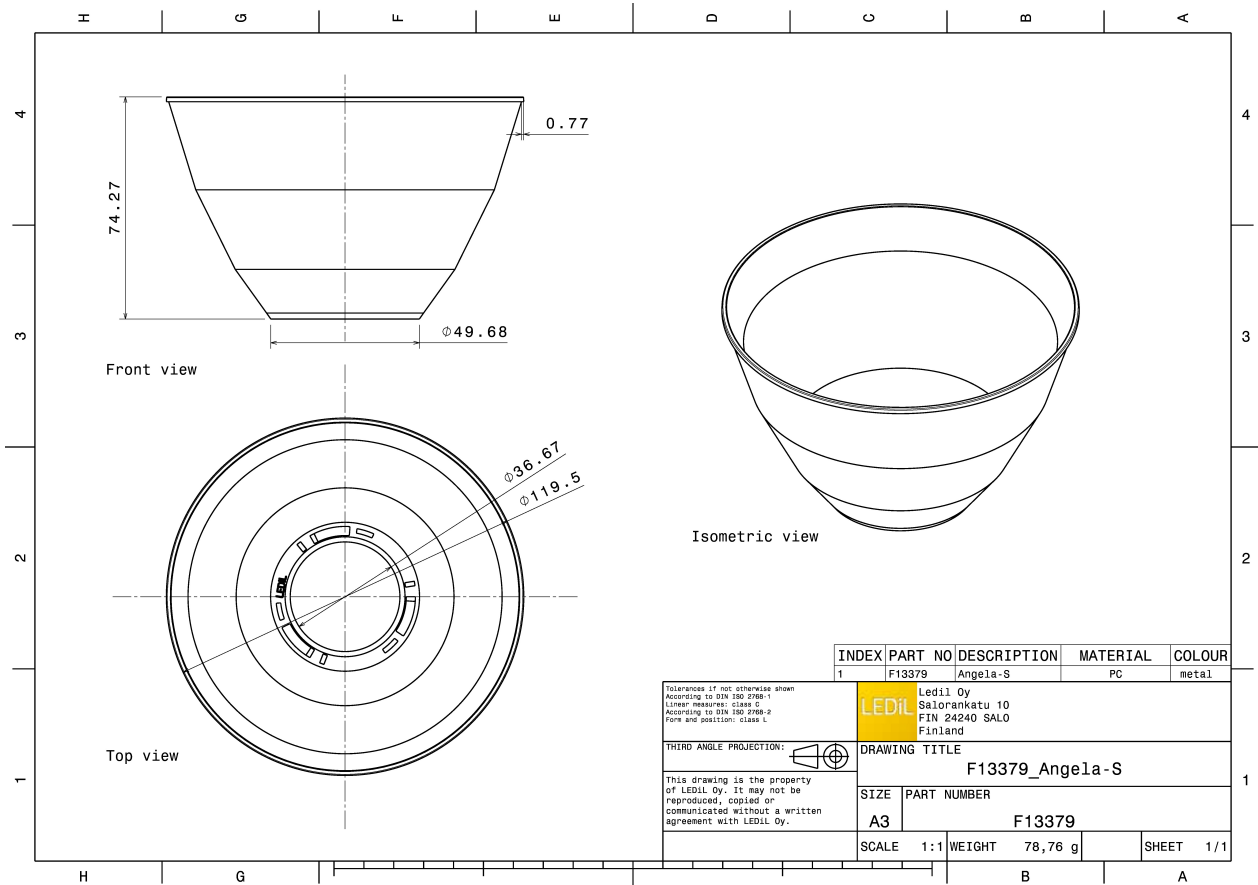
MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish	Coating
ANGELA-S	Reflector	PC	metal		HMDS



ORDERING INFORMATION:

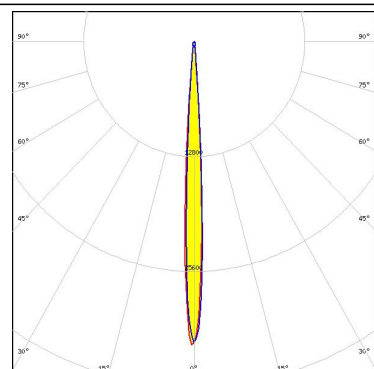
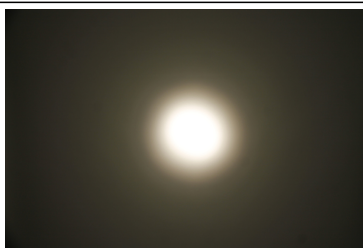
Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13379_ANGELA-S » Box size: 398 x 298 x 265 mm	200	100	50	9.3



PHOTOMETRIC DATA (MEASURED):

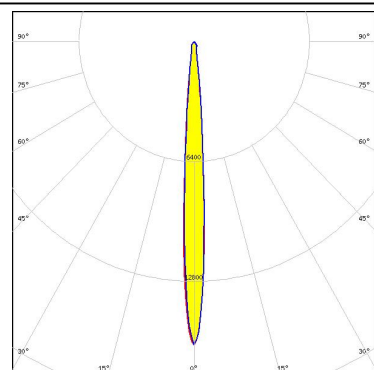
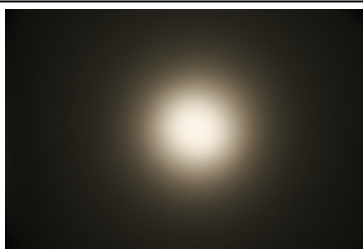
bridgelux

LED V10 Gen7
FWHM 6.0°
Efficiency 89 %
Peak intensity 33.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 434 Typ L1



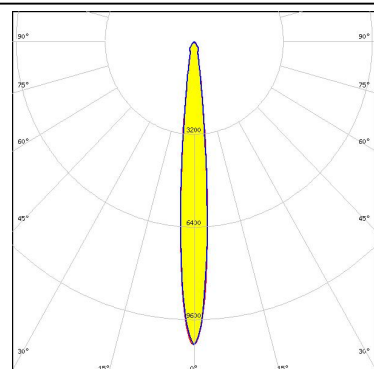
bridgelux

LED V10 Gen7
FWHM 8.0°
Efficiency 84 %
Peak intensity 16.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
F13671_ANGE-RZ-LENS
Bender Wirth: 434 Typ L1



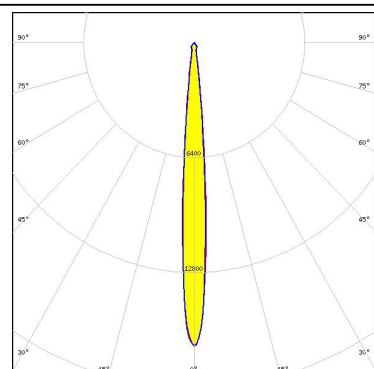
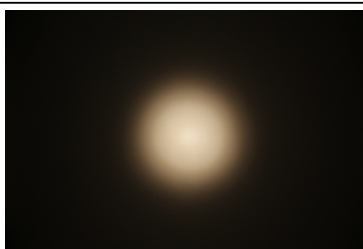
bridgelux

LED V13 Gen7
FWHM 10.0°
Efficiency 86 %
Peak intensity 10.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



bridgelux

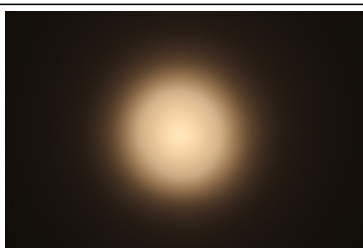
LED V13 Gen7
FWHM 9.0°
Efficiency 90 %
Peak intensity 17 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



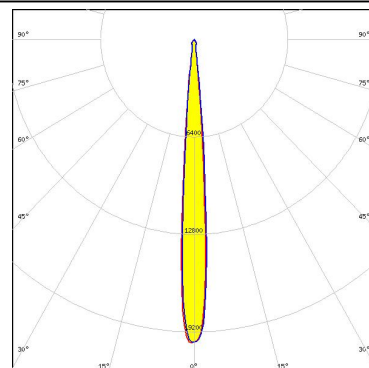
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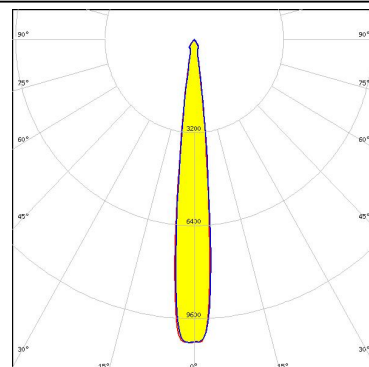
LED V15 Gen6
FWHM 10.0°
Efficiency 92 %
Peak intensity 15.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 456 Typ L2



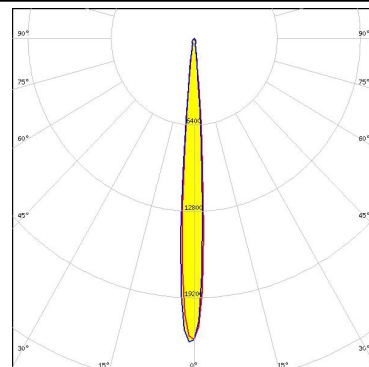
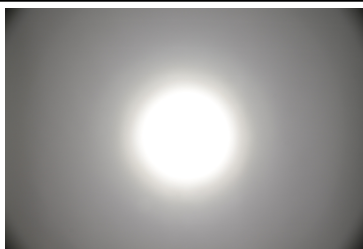
LED Vero SE 13
FWHM 9.0°
Efficiency 92 %
Peak intensity 19.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C16402_CLAMP-VEROSE-13-18



LED Vero SE 18
FWHM 12.0°
Efficiency 91 %
Peak intensity 10.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C16402_CLAMP-VEROSE-13-18



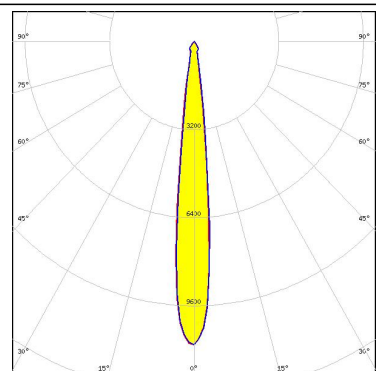
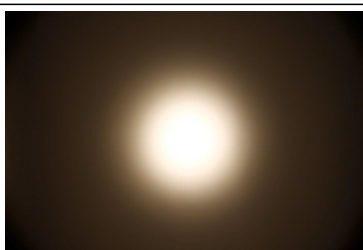
LED VERO13
FWHM 8.0°
Efficiency 94 %
Peak intensity 22.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18



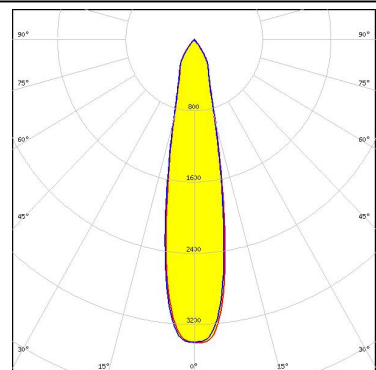
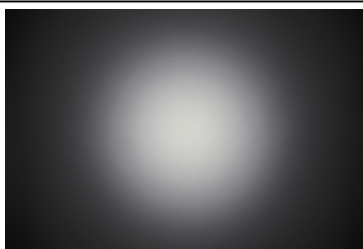
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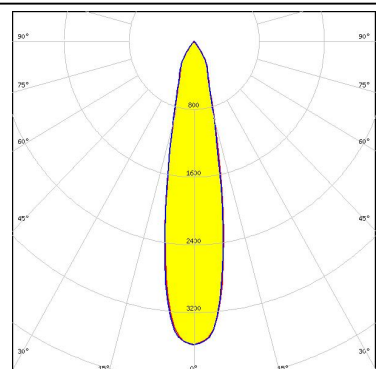
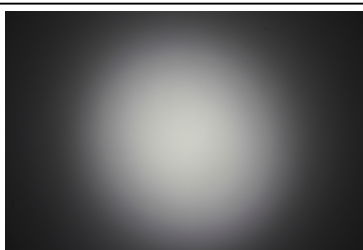
LED VERO18
FWHM 12.0°
Efficiency 93 %
Peak intensity 11 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18



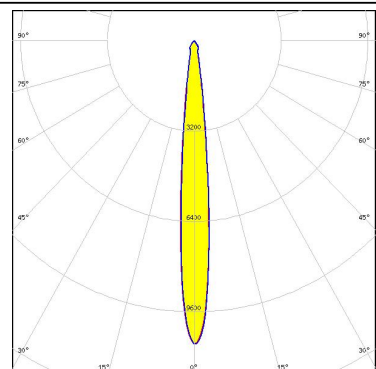
LED VERO29
FWHM 22.0°
Efficiency 85 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS



LED VERO29
FWHM 22.0°
Efficiency 85 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS



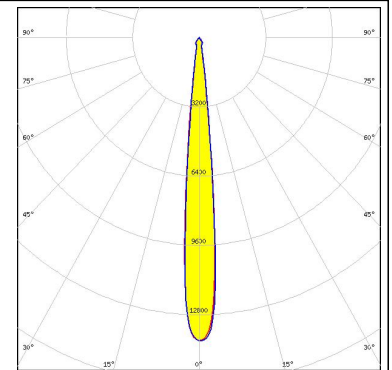
LED Vesta TW 15mm DP
FWHM 11.0°
Efficiency 88 %
Peak intensity 10.8 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13658_CLAMP-VERO13-18
F13671_ANGE-RZ-LENS
Bender Wirth: 482 Typ L2



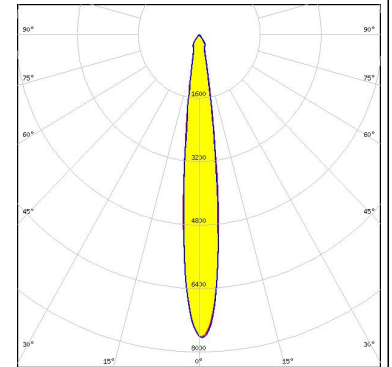
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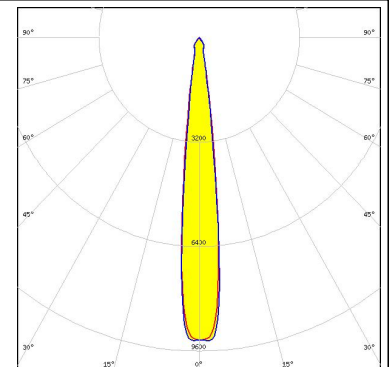
LED Vesta TW 15mm DP
FWHM 11.0°
Efficiency 92 %
Peak intensity 14 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 482 Typ L2



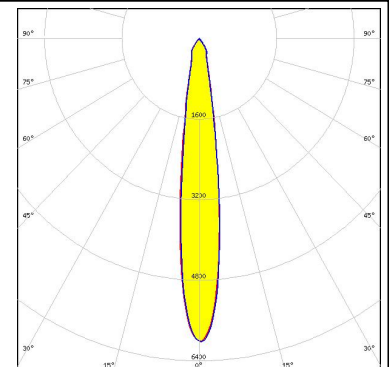
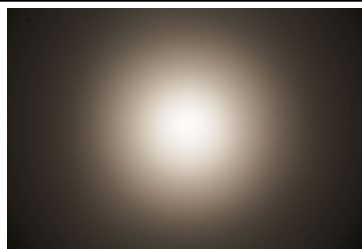
LED Vesta TW 18mm (31W) DP
FWHM 13.0°
Efficiency 87 %
Peak intensity 7.7 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS
Bender Wirth: 483 Typ L3



LED Vesta TW 18mm (31W) DP
FWHM 13.0°
Efficiency 92 %
Peak intensity 9.3 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13584_CLAMP-VERO29
Bender Wirth: 483 Typ L3



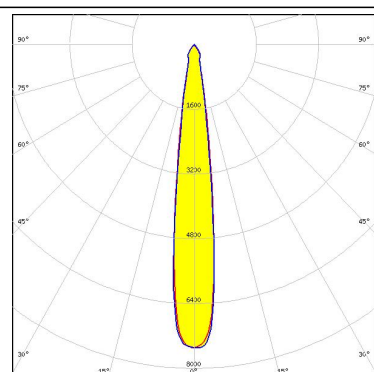
LED Vesta TW 22mm DP
FWHM 15.0°
Efficiency 87 %
Peak intensity 6 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS
Bender Wirth: 494 Typ L3



PHOTOMETRIC DATA (MEASURED):

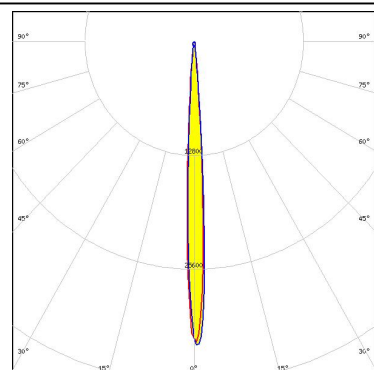


LED Vesta TW 22mm DP
FWHM 14.0°
Efficiency 92 %
Peak intensity 7.5 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13584_CLAMP-VERO29
Bender Wirth: 494 Typ L3



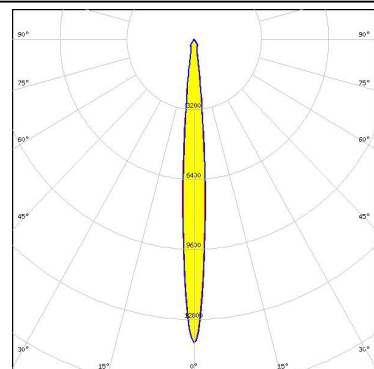
CITIZEN

LED CLL02x/CLU02x (LES10)
FWHM 6.0°
Efficiency 90 %
Peak intensity 34.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 434 Typ L1



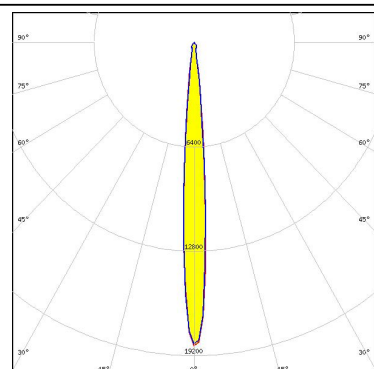
CITIZEN

LED CLL03x/CLU03x
FWHM 9.0°
Efficiency 88 %
Peak intensity 14 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2103CT + 50-2100AN



CITIZEN

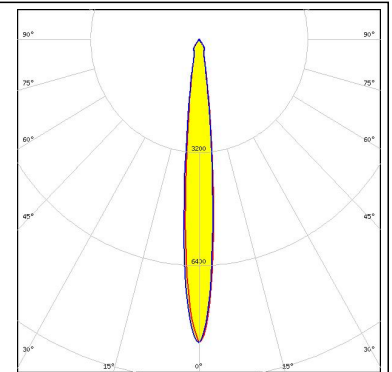
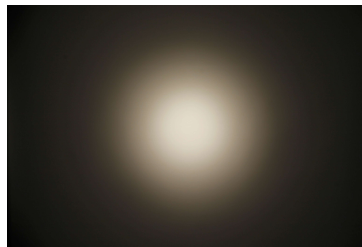
LED CLL03x/CLU03x
FWHM 9.0°
Efficiency 94 %
Peak intensity 18.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (MEASURED):

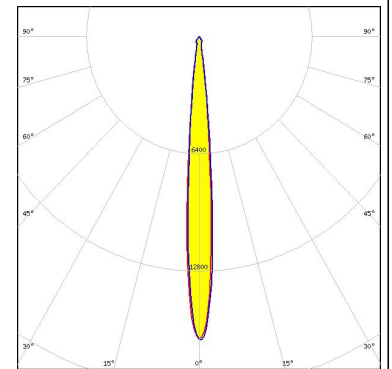
CITIZEN

LED CLL03x/CLU03x
FWHM 11.0°
Efficiency 84 %
Peak intensity 8.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
IDEAL: 50-2103CT + 50-2100AN



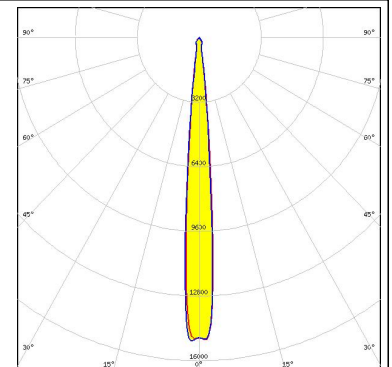
CITIZEN

LED CLL03x/CLU03x
FWHM 9.0°
Efficiency 93 %
Peak intensity 16.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C16791_CLAMP-Z45-A
TE: 2325807-3



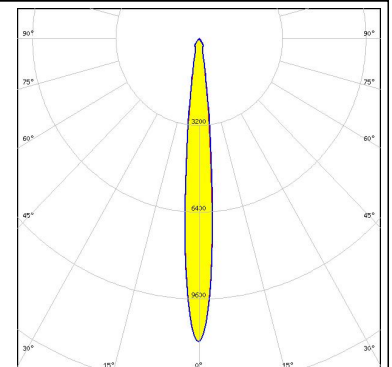
CITIZEN

LED CLL03x/CLU03x
FWHM 10.0°
Efficiency 88 %
Peak intensity 15 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 433 Typ L1



CITIZEN

LED CLL03x/CLU03x
FWHM 10.0°
Efficiency 89 %
Peak intensity 11.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C16791_CLAMP-Z45-A
F13671_ANGE-RZ-LENS
TE: 2325807-3



PHOTOMETRIC DATA (MEASURED):

CITIZEN

LED CLL03x/CLU03x

FWHM 11.0°

Efficiency 85 %

Peak intensity 10 cd/lm

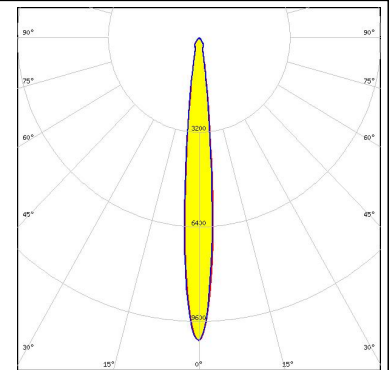
LEDs/each optic 1

Light colour White

Required components:

F13671_ANGE-RZ-LENS

TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



CITIZEN

LED CLL04x/CLU04x

FWHM 14.0°

Efficiency 89 %

Peak intensity 6.8 cd/lm

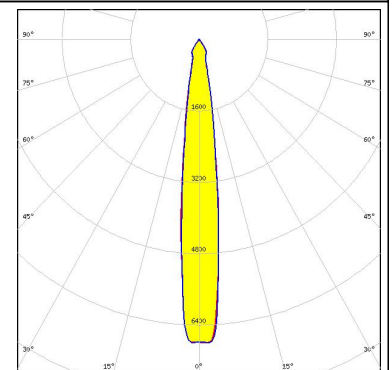
LEDs/each optic 1

Light colour White

Required components:

C13584_CLAMP-VERO29

Bender Wirth: 431 Typ L3



CITIZEN

LED CLL04x/CLU04x

FWHM 16.0°

Efficiency 85 %

Peak intensity 5.2 cd/lm

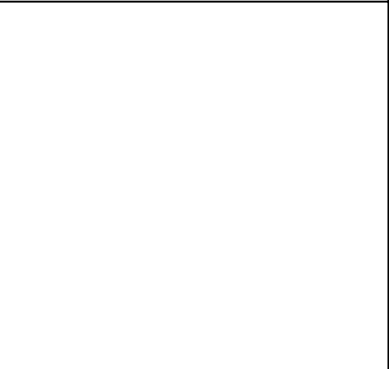
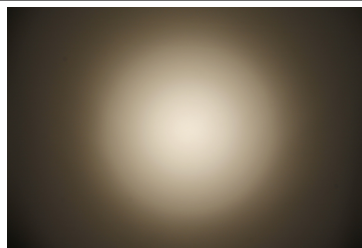
LEDs/each optic 1

Light colour White

Required components:

F13671_ANGE-RZ-LENS

IDEAL: 50-2204-CT + 50-2100AN



CITIZEN

LED CLU700/701/702

FWHM 5.0°

Efficiency 88 %

Peak intensity 57.8 cd/lm

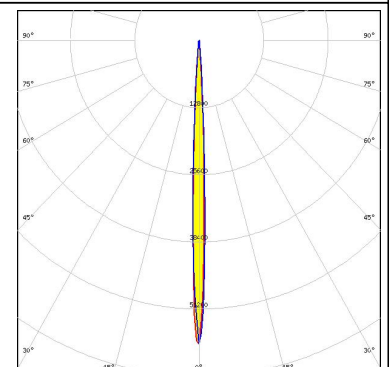
LEDs/each optic 1

Light colour White

Required components:

C13658_CLAMP-VERO13-18

Bender Wirth: 434 Typ L1

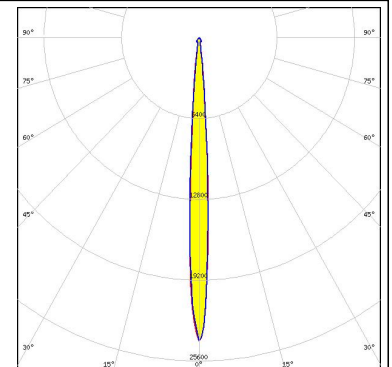
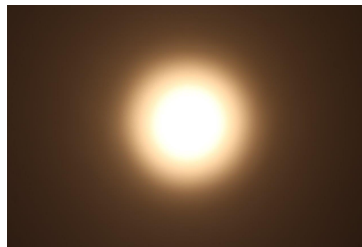


PHOTOMETRIC DATA (MEASURED):

CITIZEN

LED CLU720/721
FWHM 7.0°
Efficiency 94 %
Peak intensity 24 cd/lm
LEDs/each optic 1
Light colour White
Required components:

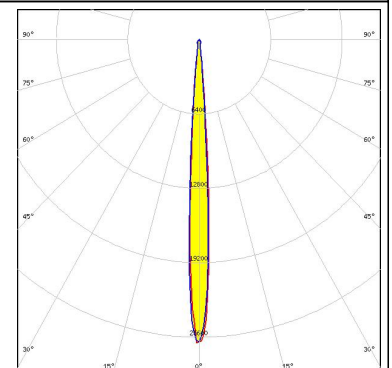
TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



CITIZEN

LED CLU720/721
FWHM 7.0°
Efficiency 88 %
Peak intensity 26.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:

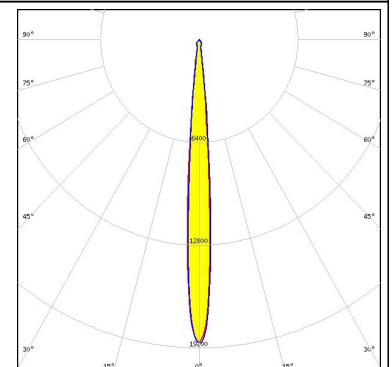
C13658_CLAMP-VERO13-18
Bender Wirth: 433 Typ L1



CITIZEN

LED CLU730/731
FWHM 8.5°
Efficiency 91 %
Peak intensity 18.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:

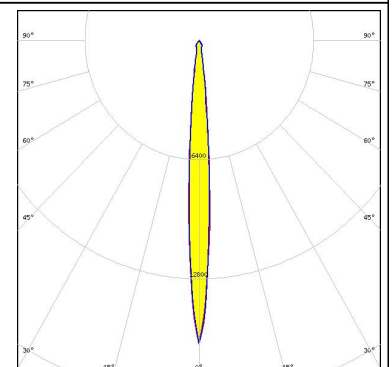
C13584_CLAMP-VERO29
Bender Wirth: 471 Typ L3



CITIZEN

LED CLU730/731
FWHM 8.0°
Efficiency 88 %
Peak intensity 16.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:

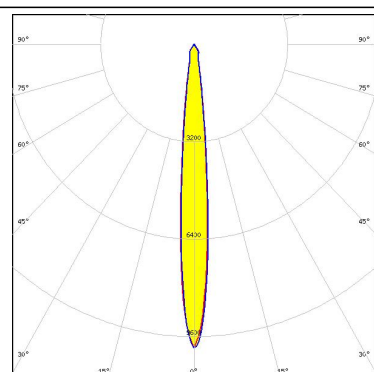
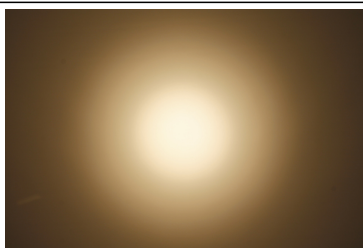
IDEAL: 50-2204-CT + 50-2100AN



PHOTOMETRIC DATA (MEASURED):

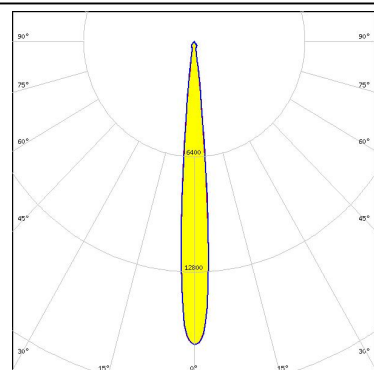
CITIZEN

LED CLU730/731
FWHM 10.0°
Efficiency 85 %
Peak intensity 10 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
IDEAL: 50-2204-CT + 50-2100AN



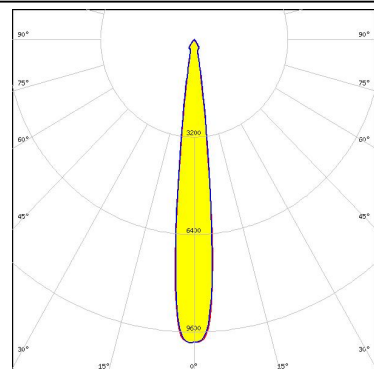
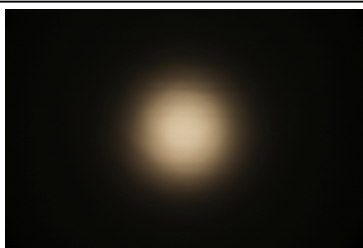
CREE

LED CMA1840
FWHM 9.7°
Efficiency 93 %
Peak intensity 16.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14123_CLAMP-CXA15-18



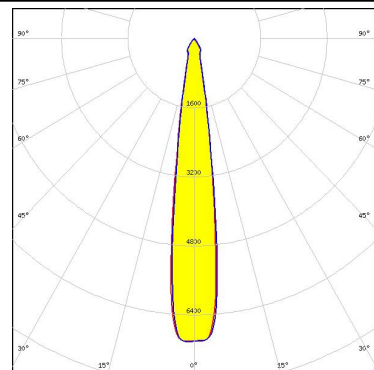
CREE

LED CMA2550
FWHM 13.0°
Efficiency 92 %
Peak intensity 10 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14036_CLAMP_CXA25-30



CREE

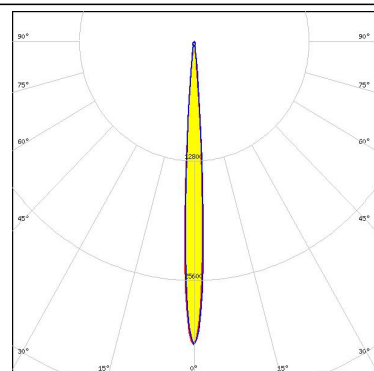
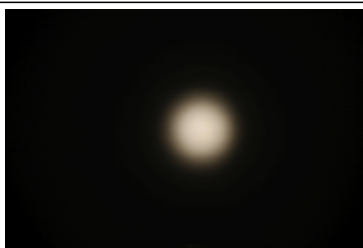
LED CMA3090
FWHM 15.0°
Efficiency 92 %
Peak intensity 7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C14036_CLAMP_CXA25-30



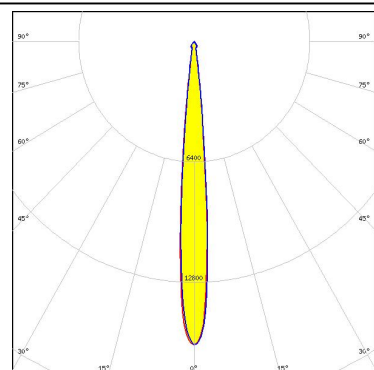
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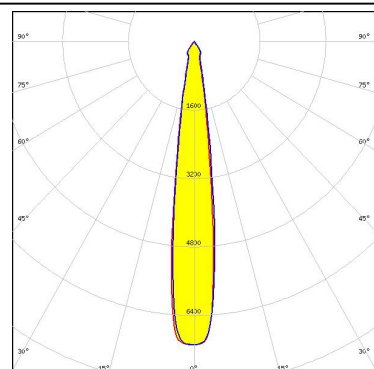
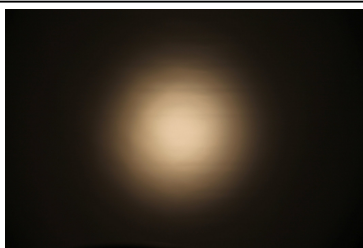
LED CMT14xx
FWHM 7.0°
Efficiency 93 %
Peak intensity 33 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 434 Typ L1



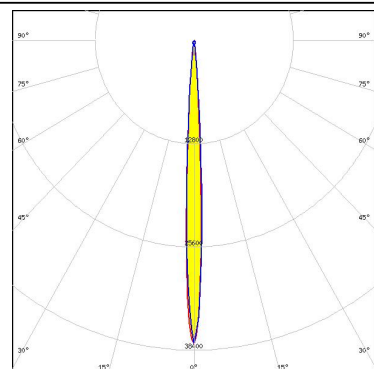
LED CMT19xx
FWHM 10.0°
Efficiency 92 %
Peak intensity 16.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 477 Typ L1



LED CMT28xx
FWHM 15.0°
Efficiency 91 %
Peak intensity 7.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
Bender Wirth: 471 Typ L3



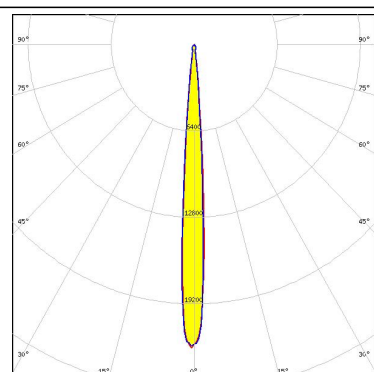
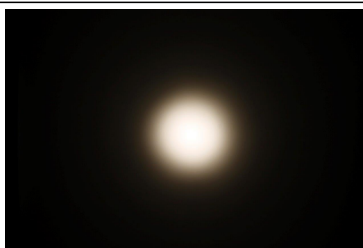
LED CXA/B 15xx
FWHM 5.8°
Efficiency 92 %
Peak intensity 37.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 441 Typ L1



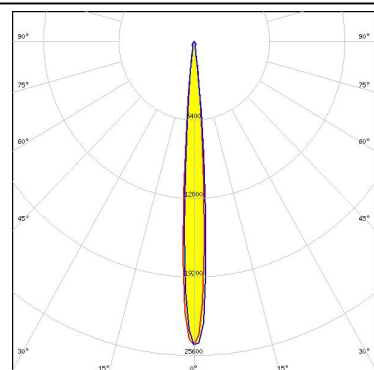
PHOTOMETRIC DATA (MEASURED):



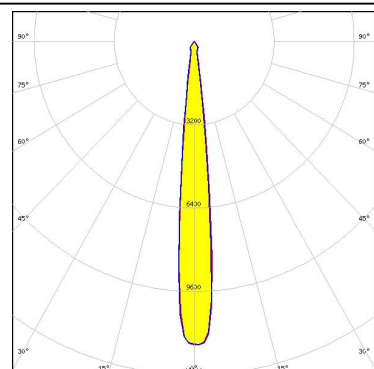
LED CXA/B 1816 & CXA/B 1820 & CXA 1850
 FWHM 8.0°
 Efficiency 89 %
 Peak intensity 22.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 437 Typ L1



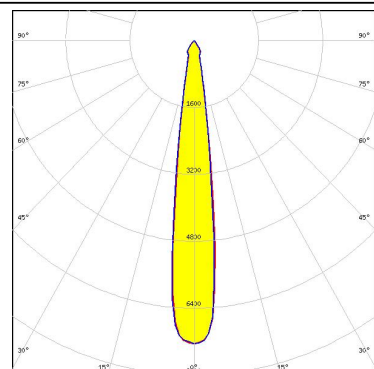
LED CXA/B 1816 & CXA/B 1820 & CXA 1850
 FWHM 9.0°
 Efficiency 91 %
 Peak intensity 24.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14123_CLAMP-CXA15-18



LED CXA/B 25xx
 FWHM 11.0°
 Efficiency 92 %
 Peak intensity 11.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14036_CLAMP_CXA25-30



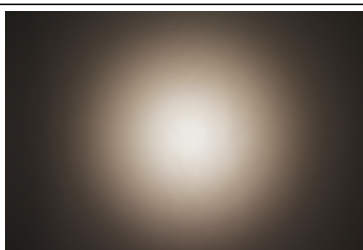
LED CXA/B 30xx
 FWHM 14.0°
 Efficiency 92 %
 Peak intensity 7.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C14036_CLAMP_CXA25-30



PHOTOMETRIC DATA (MEASURED):

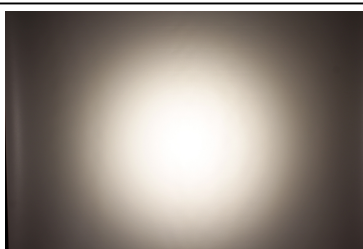
EVERLIGHT

LED CHI3030 19W
FWHM 14.0°
Efficiency 85 %
Peak intensity 6.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS
Bender Wirth: 468 Typ L3



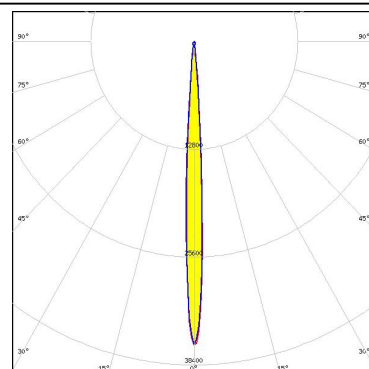
EVERLIGHT

LED CHI3030 29W
FWHM 18.0°
Efficiency 85 %
Peak intensity 5.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS
Bender Wirth: 468 Typ L3



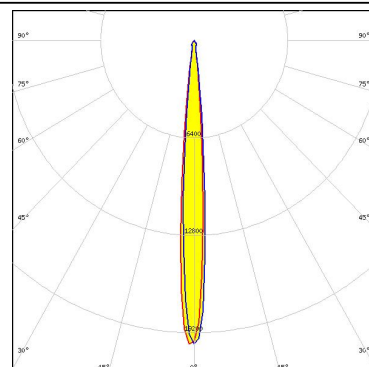
LUMILEDS

LED LUXEON CoB 1202/1203
FWHM 6.0°
Efficiency 91 %
Peak intensity 36 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 438 Typ L1



LUMILEDS

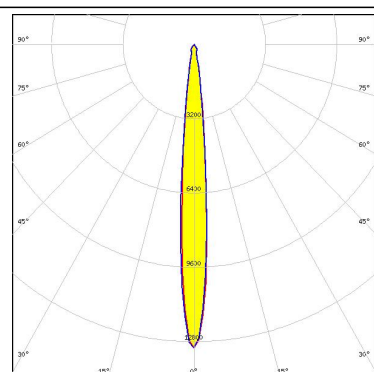
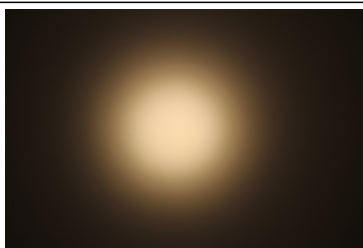
LED LUXEON CoB 1204/1205
FWHM 8.0°
Efficiency 94 %
Peak intensity 19.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



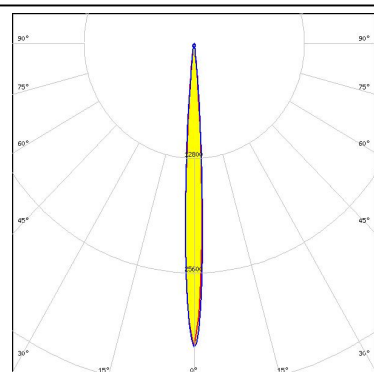
PHOTOMETRIC DATA (MEASURED):



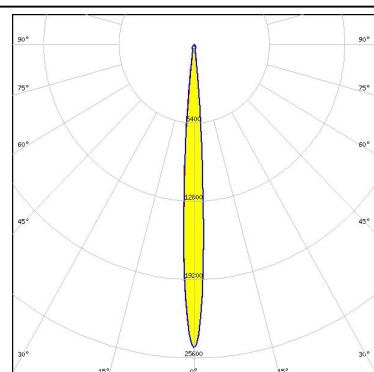
LED LUXEON CoB 1204/1205
FWHM 10.0°
Efficiency 85 %
Peak intensity 13.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



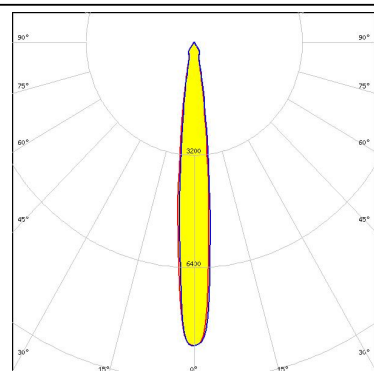
LED LUXEON CoB 1204HD
FWHM 6.4°
Efficiency 93 %
Peak intensity 34 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



LED LUXEON CoB 1205HD
FWHM 7.5°
Efficiency 93 %
Peak intensity 24.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



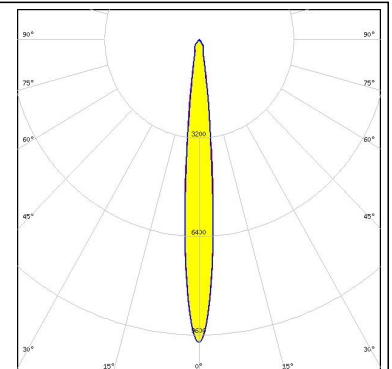
LED LUXEON CoB 1208
FWHM 12.0°
Efficiency 88 %
Peak intensity 8.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2204-CT + 50-2100AN



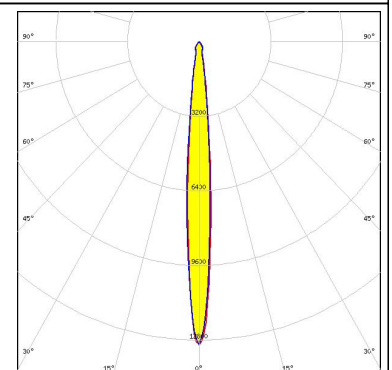
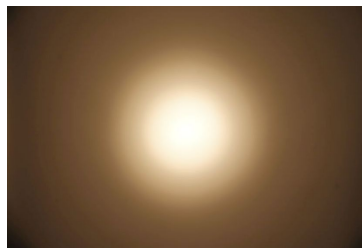
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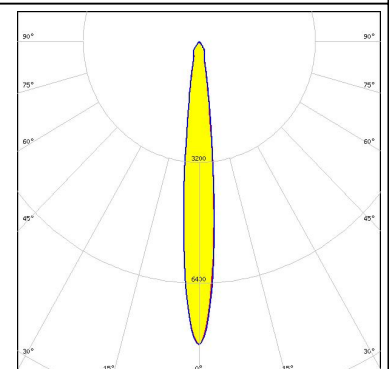
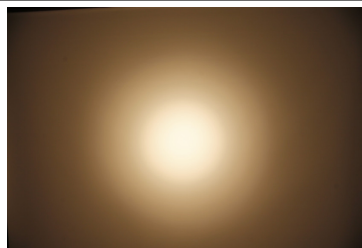
LED LUXEON CoB 1208
 FWHM 11.0°
 Efficiency 85 %
 Peak intensity 9.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



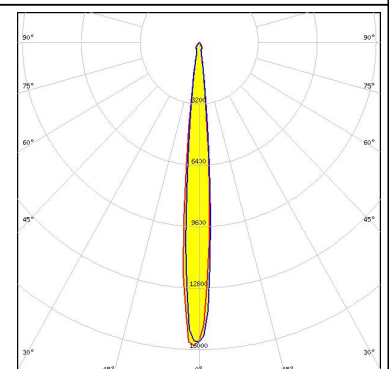
LED LUXEON CoB 1208
 FWHM 9.0°
 Efficiency 89 %
 Peak intensity 13 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2100SH + 50-2100AN



LED LUXEON CoB 1208
 FWHM 12.0°
 Efficiency 84 %
 Peak intensity 8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 IDEAL: 50-2100SH + 50-2100AN



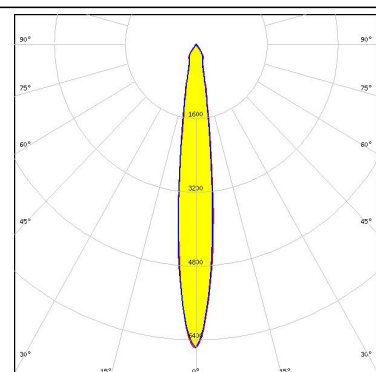
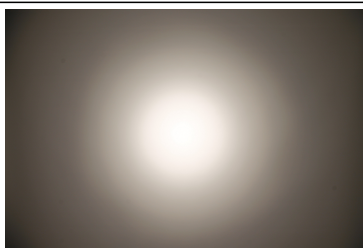
LED LUXEON CoB 1208
 FWHM 10.0°
 Efficiency 94 %
 Peak intensity 15.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



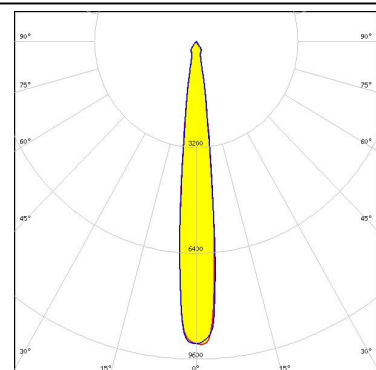
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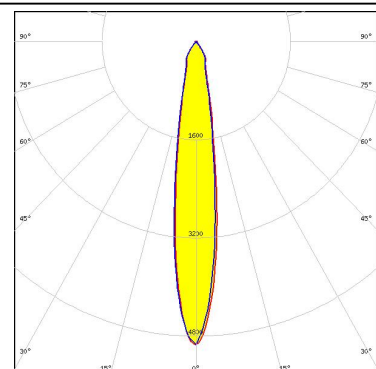
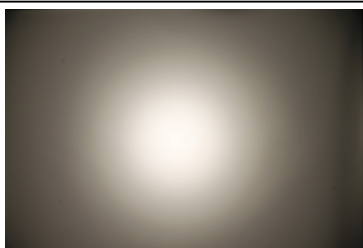
LED LUXEON CoB 1211
 FWHM 13.0°
 Efficiency 84 %
 Peak intensity 6.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 IDEAL: 50-2204-CT + 50-2100AN



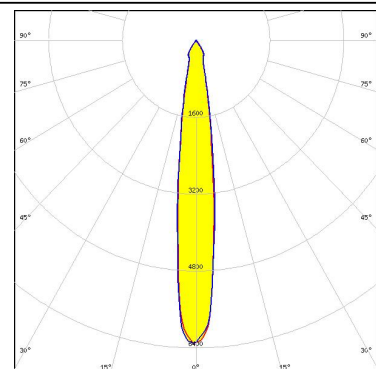
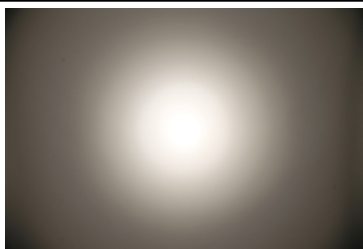
LED LUXEON CoB 1211
 FWHM 13.0°
 Efficiency 90 %
 Peak intensity 9.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 Bender Wirth: 431 Typ L3



LED LUXEON CoB 1216/1812
 FWHM 16.0°
 Efficiency 84 %
 Peak intensity 4.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 IDEAL: 50-2204-CT + 50-2100AN



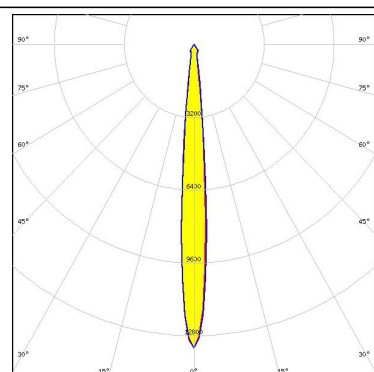
LED LUXEON CoB 1216/1812
 FWHM 14.0°
 Efficiency 88 %
 Peak intensity 6.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2204-CT + 50-2100AN



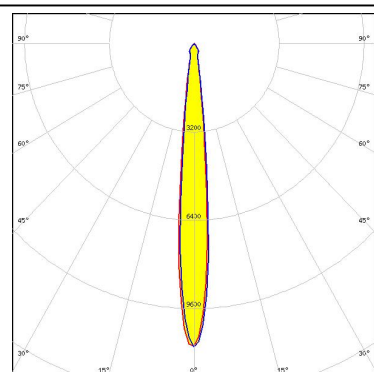
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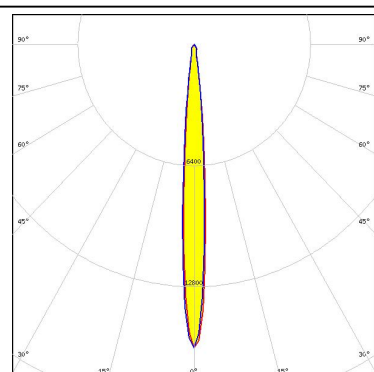
LED LUXEON K12
FWHM 9.0°
Efficiency 90 %
Peak intensity 13 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1



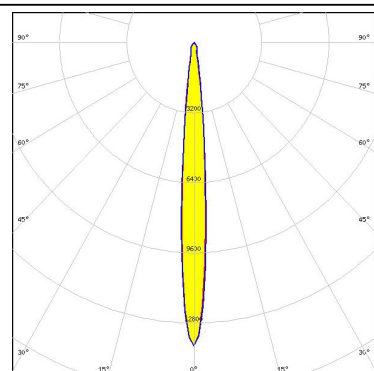
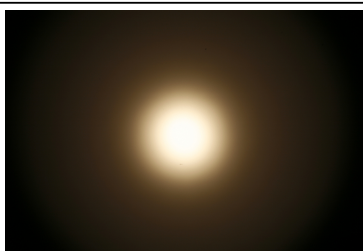
LED LUXEON K16
FWHM 10.0°
Efficiency 90 %
Peak intensity 11 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: 2213134-2 + OPTIC CLIP Z50 TYPE1 2213194-1



LED LUXEON S2000
FWHM 9.0°
Efficiency 87 %
Peak intensity 16 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13395_CLAMP-S2000
F13671_ANGE-RZ-LENS



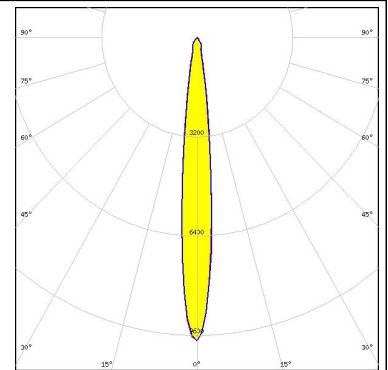
LED LUXEON S3000
FWHM 10.0°
Efficiency 87 %
Peak intensity 13.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13397_CLAMP-S3000
F13671_ANGE-RZ-LENS



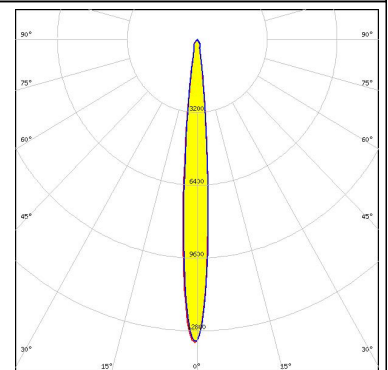
PHOTOMETRIC DATA (MEASURED):



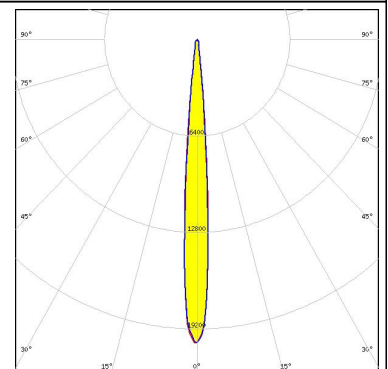
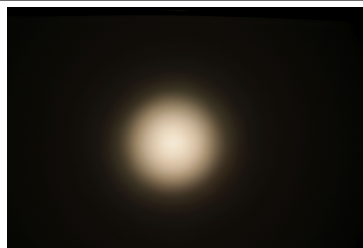
LED LUXEON S5000
FWHM 12.0°
Efficiency 86 %
Peak intensity 9.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13399_CLAMP-S5000
F13671_ANGE-RZ-LENS



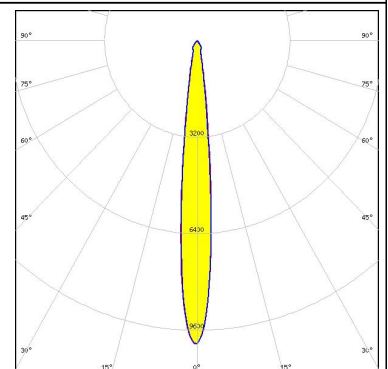
LED CDM-14 (Dim-To-Warm)
FWHM 9.5°
Efficiency 87 %
Peak intensity 13.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
F13671_ANGE-RZ-LENS
Bender Wirth: 491 Typ L2



LED CDM-14 (Dim-To-Warm)
FWHM 8.6°
Efficiency 92 %
Peak intensity 20.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 491 Typ L2



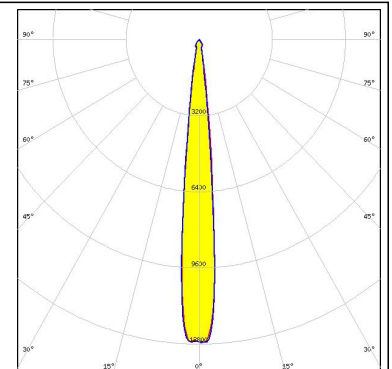
LED CDM-18 (Dim-To-Warm)
FWHM 11.0°
Efficiency 88 %
Peak intensity 10 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
F13671_ANGE-RZ-LENS
Bender Wirth: 491 Typ L2



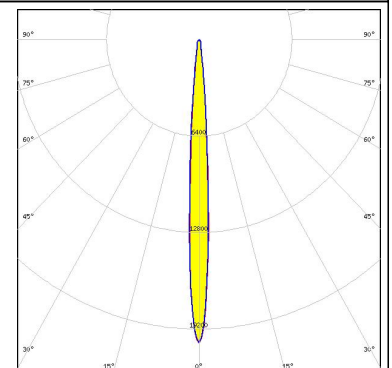
PHOTOMETRIC DATA (MEASURED):



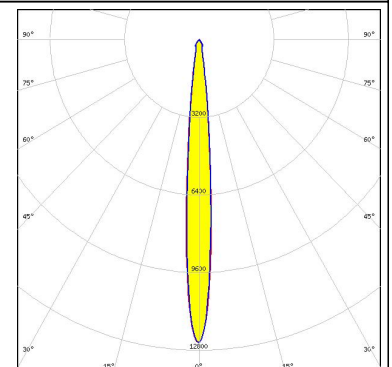
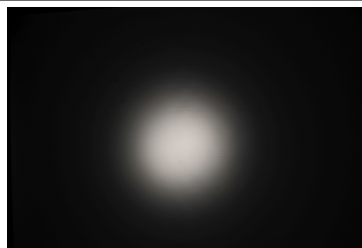
LED CDM-18 (Dim-To-Warm)
 FWHM 11.0°
 Efficiency 92 %
 Peak intensity 12.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 491 Typ L2



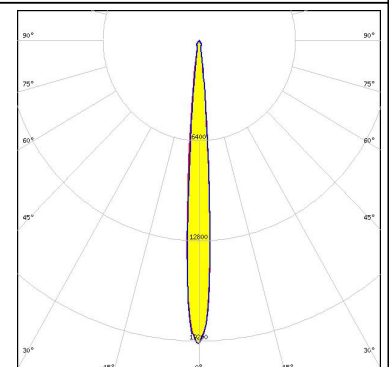
LED CDM-9 (Dim-To-Warm)
 FWHM 7.2°
 Efficiency 85 %
 Peak intensity 20.1 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 F13671_ANGE-RZ-LENS
 Bender Wirth: 490 Typ L1



LED CTM-14 (Tunable White)
 FWHM 9.0°
 Efficiency 85 %
 Peak intensity 12.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 F13671_ANGE-RZ-LENS
 Bender Wirth: 442 Typ L3



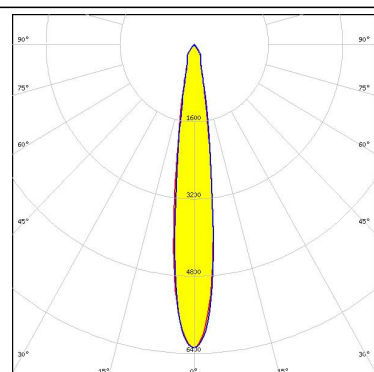
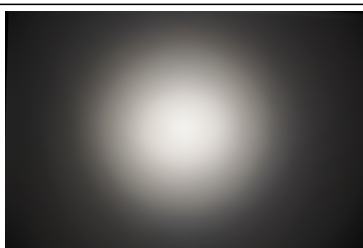
LED CTM-14 (Tunable White)
 FWHM 8.0°
 Efficiency 90 %
 Peak intensity 19.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 Bender Wirth: 442 Typ L3



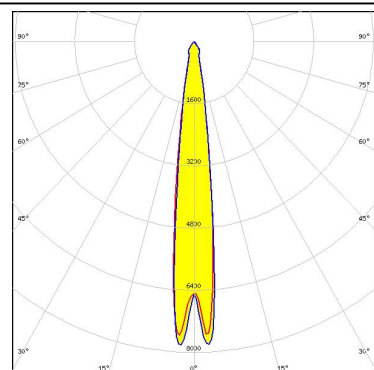
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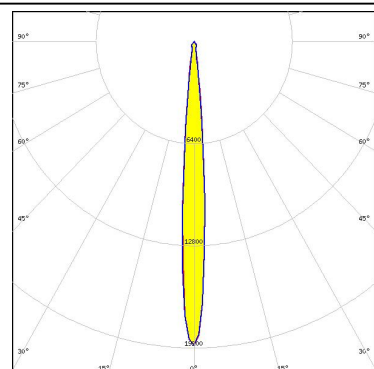
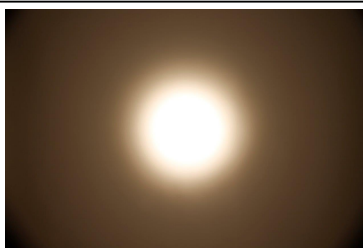
LED CTM-22 (Tunable White)
 FWHM 15.0°
 Efficiency 85 %
 Peak intensity 6.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 F13671_ANGE-RZ-LENS
 Bender Wirth: 494 Typ L3



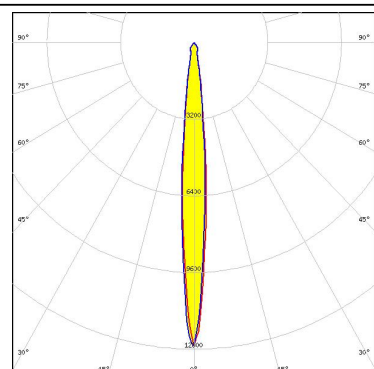
LED CTM-22 (Tunable White)
 FWHM 14.0°
 Efficiency 90 %
 Peak intensity 7.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13584_CLAMP-VERO29
 Bender Wirth: 494 Typ L3



LED CxM-14 (19x19)
 FWHM 9.0°
 Efficiency 94 %
 Peak intensity 19 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



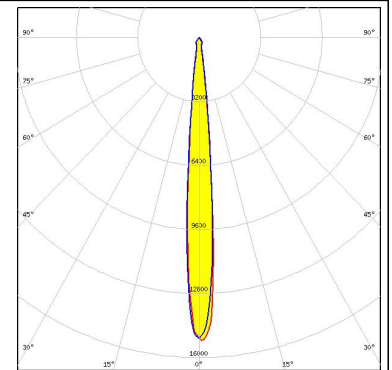
LED COB J-Type
 FWHM 9.0°
 Efficiency 91 %
 Peak intensity 12.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2103NC + 50-2100AN



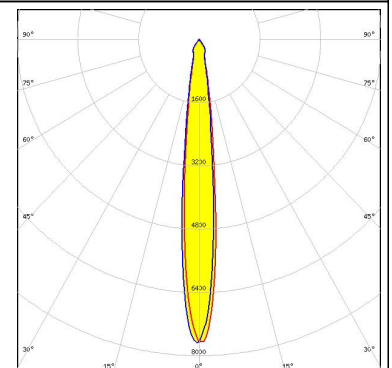
PHOTOMETRIC DATA (MEASURED):



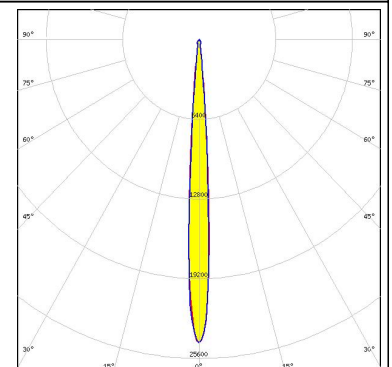
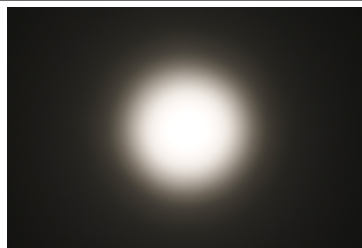
LED COB J-Type
 FWHM 9.0°
 Efficiency 89 %
 Peak intensity 15.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 463 Typ L2



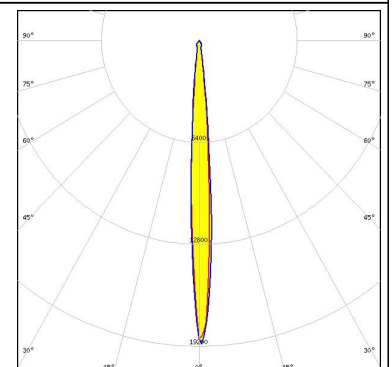
LED COB J-Type
 FWHM 12.0°
 Efficiency 86 %
 Peak intensity 7.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 IDEAL: 50-2103NC + 50-2100AN



LED COB L-Type (LES 11)
 FWHM 7.0°
 Efficiency 89 %
 Peak intensity 24.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 438 Typ L1



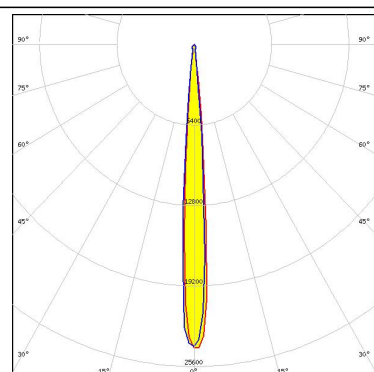
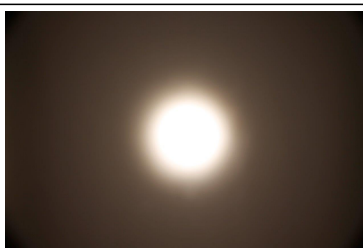
LED COB L-Type (LES 11)
 FWHM 8.0°
 Efficiency 88 %
 Peak intensity 19 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 IDEAL: 50-2100NC + 50-2100AN



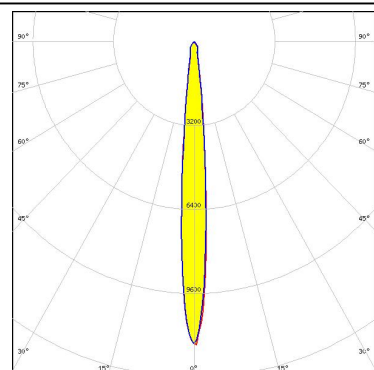
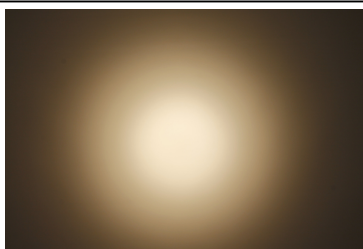
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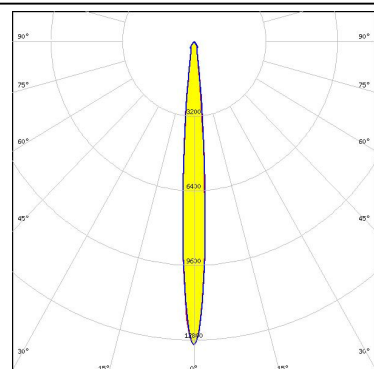
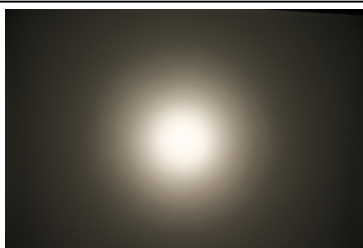
LED COB L-Type (LES 11)
 FWHM 8.0°
 Efficiency 94 %
 Peak intensity 24 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 Molex: 180580-0005



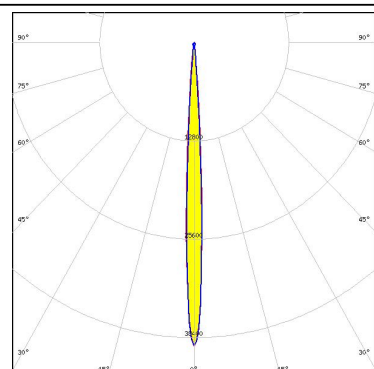
LED COB L-Type (LES 11)
 FWHM 9.0°
 Efficiency 84 %
 Peak intensity 12 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 IDEAL: 50-2100NC + 50-2100AN



LED COB L-Type (LES 11)
 FWHM 9.0°
 Efficiency 84 %
 Peak intensity 13 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



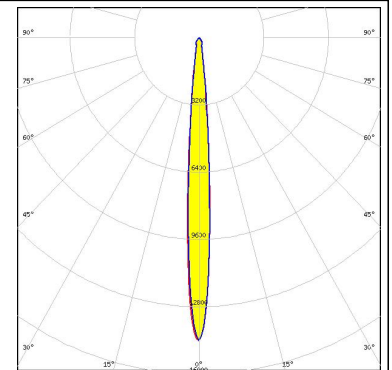
LED COB L-Type (LES 9)
 FWHM 6.0°
 Efficiency 93 %
 Peak intensity 39 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 438 Typ L1



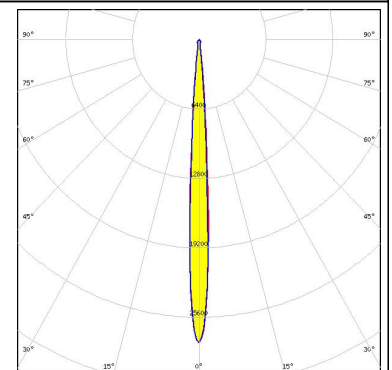
PHOTOMETRIC DATA (MEASURED):



LED NVCWJ024Z-V1MT: COB J-Type Tunable White
 FWHM 9.0°
 Efficiency 86 %
 Peak intensity 14.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 F13671_ANGE-RZ-LENS
 Bender Wirth: 498 Typ L2

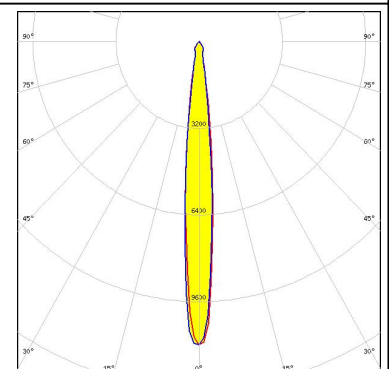


LED NVCWJ024Z-V1MT: COB J-Type Tunable White
 FWHM 7.0°
 Efficiency 91 %
 Peak intensity 28 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 C13658_CLAMP-VERO13-18
 Bender Wirth: 498 Typ L2



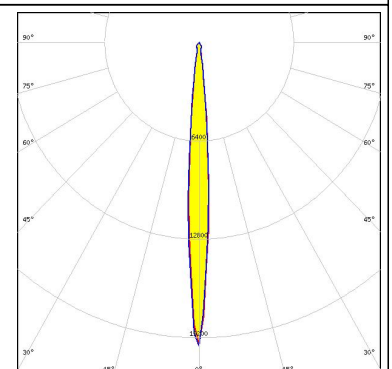
OSRAM

LED PrevaLED Core AC (LEP-2000)
 FWHM 11.0°
 Efficiency 92 %
 Peak intensity 11.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM

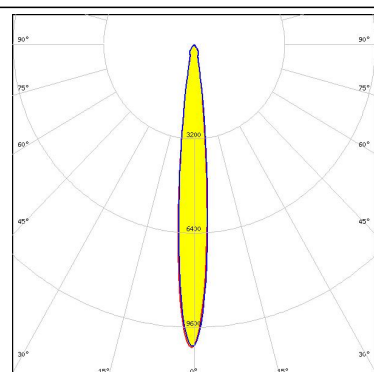
LED PrevaLED Core AC (LEP-800)
 FWHM 8.0°
 Efficiency 94 %
 Peak intensity 19.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (MEASURED):

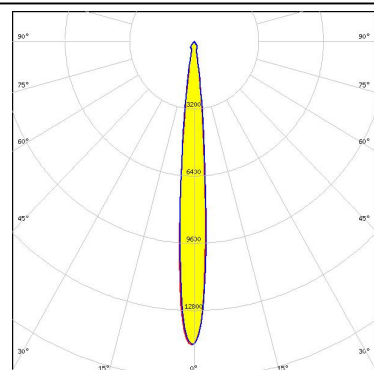
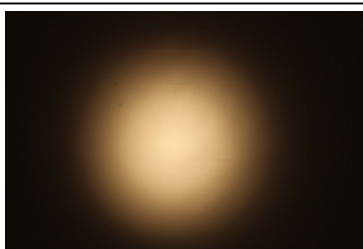
OSRAM

LED PrevaLED Core G7 L15 H1
FWHM 11.0°
Efficiency 89 %
Peak intensity 10.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C16685_CLAMP-PRV-A
F13671_ANGE-RZ-LENS



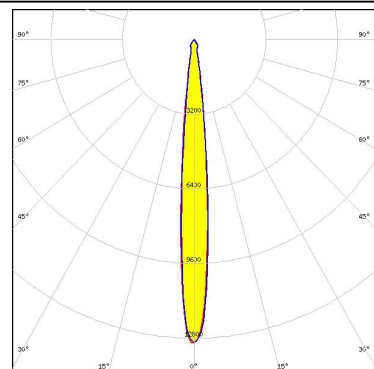
OSRAM

LED PrevaLED Core G7 L15 H1
FWHM 10.0°
Efficiency 93 %
Peak intensity 14.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C16685_CLAMP-PRV-A



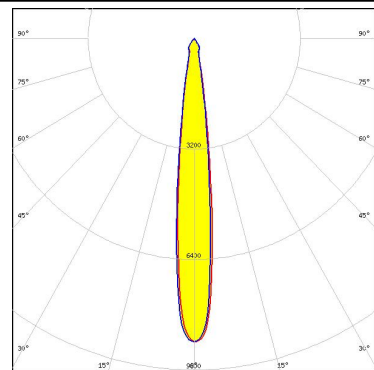
OSRAM

LED PrevaLED Core Z3 LES19
FWHM 10.0°
Efficiency 93 %
Peak intensity 13 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM

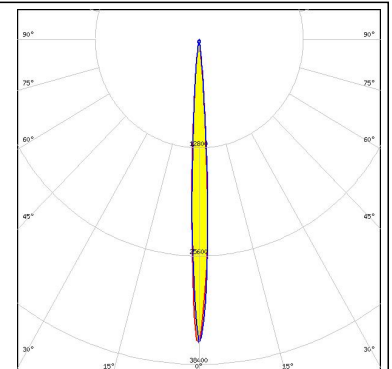
LED PrevaLED Core Z3 LES23
FWHM 13.0°
Efficiency 93 %
Peak intensity 8.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (MEASURED):

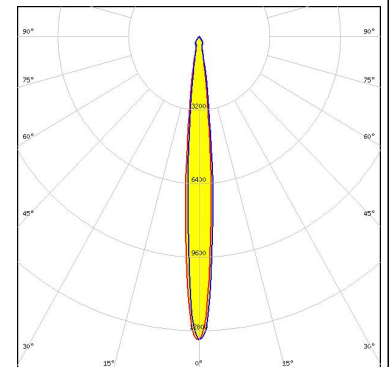
OSRAM

LED PrevaLED Core Z3 LES9
FWHM 6.0°
Efficiency 94 %
Peak intensity 36 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



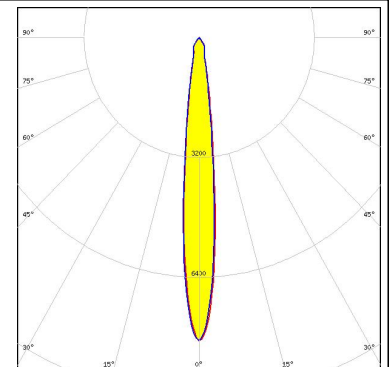
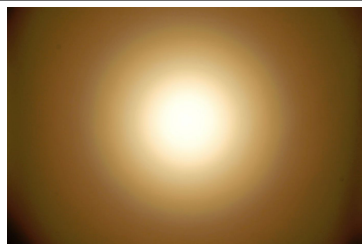
OSRAM

LED PrevaLED Core Z4 LES19
FWHM 10.0°
Efficiency 93 %
Peak intensity 13.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM

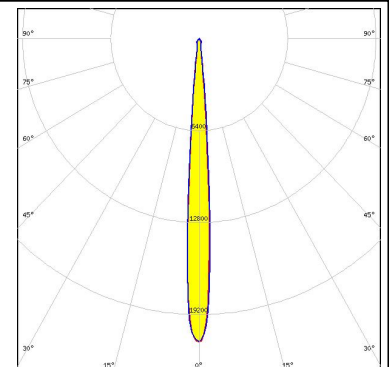
LED PrevaLED Core Z4 LES19
FWHM 12.0°
Efficiency 85 %
Peak intensity 8.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM

Opto Semiconductors

LED Soleriq S13
FWHM 8.0°
Efficiency 89 %
Peak intensity 21 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 437 Typ L1

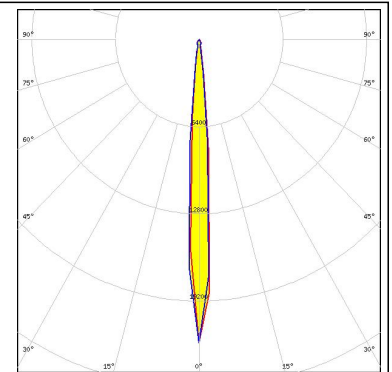


PHOTOMETRIC DATA (MEASURED):

OSRAM Opto Semiconductors

LED Soleriq S13
FWHM 8.0°
Efficiency 94 %
Peak intensity 22 cd/lm
LEDs/each optic 1
Light colour White
Required components:

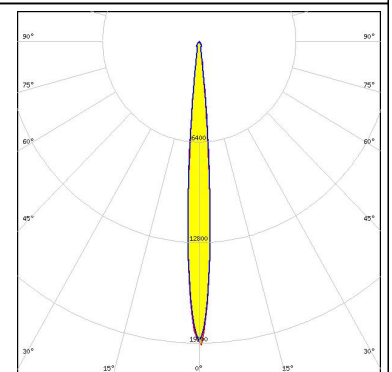
TE: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM Opto Semiconductors

LED Soleriq S13 19x19
FWHM 8.0°
Efficiency 90 %
Peak intensity 19 cd/lm
LEDs/each optic 1
Light colour White
Required components:

TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1

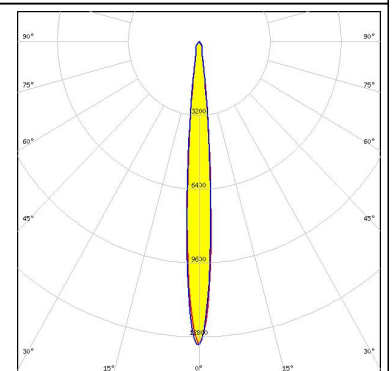


OSRAM Opto Semiconductors

LED Soleriq S13 19x19
FWHM 9.0°
Efficiency 85 %
Peak intensity 13 cd/lm
LEDs/each optic 1
Light colour White
Required components:

F13671_ANGE-RZ-LENS

TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1

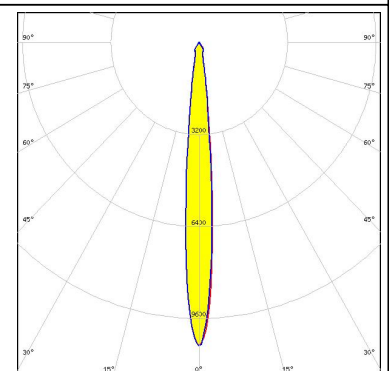
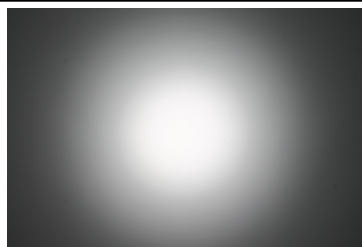


OSRAM Opto Semiconductors

LED Soleriq S13 19x19
FWHM 10.0°
Efficiency 84 %
Peak intensity 11 cd/lm
LEDs/each optic 1
Light colour White
Required components:

F13671_ANGE-RZ-LENS

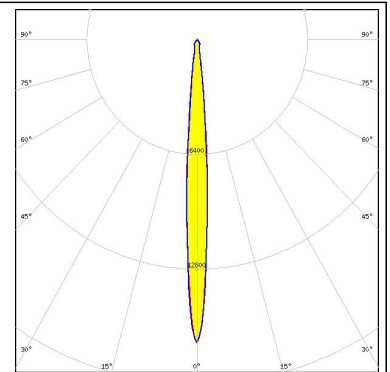
IDEAL: 50-2103CT + 50-2100AN



PHOTOMETRIC DATA (MEASURED):

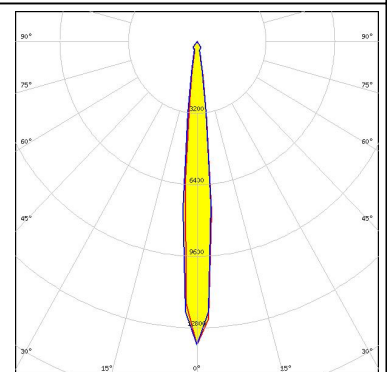
OSRAM Opto Semiconductors

LED Soleriq S13 19x19
FWHM 8.0°
Efficiency 88 %
Peak intensity 16.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2103CT + 50-2100AN



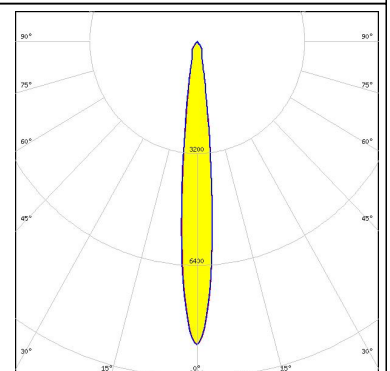
OSRAM Opto Semiconductors

LED Soleriq S19
FWHM 10.0°
Efficiency 94 %
Peak intensity 13.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1



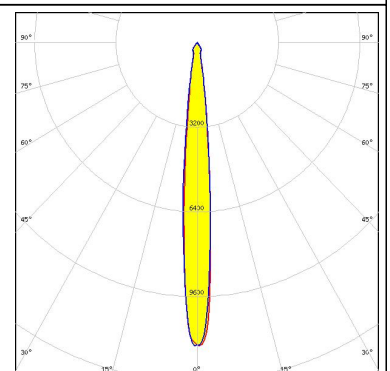
OSRAM Opto Semiconductors

LED Soleriq S19
FWHM 12.0°
Efficiency 85 %
Peak intensity 8.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1



OSRAM Opto Semiconductors

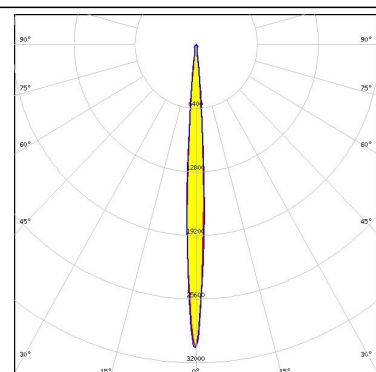
LED Soleriq S19
FWHM 11.0°
Efficiency 90 %
Peak intensity 11.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
Bender Wirth: 462 Typ L3



PHOTOMETRIC DATA (MEASURED):

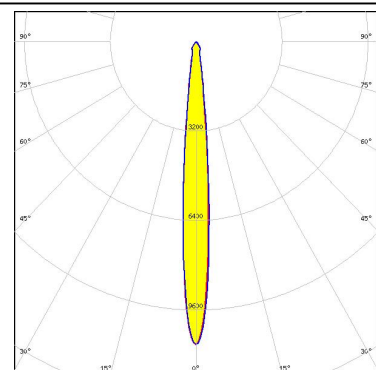
PHILIPS

LED Fortimo SLM L09 + SLM holder
 FWHM 7.0°
 Efficiency 91 %
 Peak intensity 30.6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



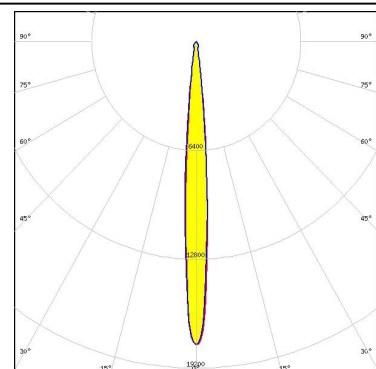
PHILIPS

LED Fortimo SLM L13 + SLM holder
 FWHM 10.0°
 Efficiency 84 %
 Peak intensity 11 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



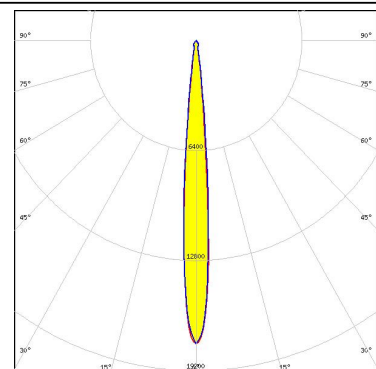
PHILIPS

LED Fortimo SLM L13 + SLM holder
 FWHM 8.5°
 Efficiency 91 %
 Peak intensity 17.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: OPTIC CLIP Z50 TYPE1 2213194-1



PHILIPS

LED Fortimo SLM L13 CoB
 FWHM 9.0°
 Efficiency 92 %
 Peak intensity 17.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (MEASURED):

PHILIPS

LED Fortimo SLM L13 CoB

FWHM 10.0°

Efficiency 86 %

Peak intensity 11.5 cd/lm

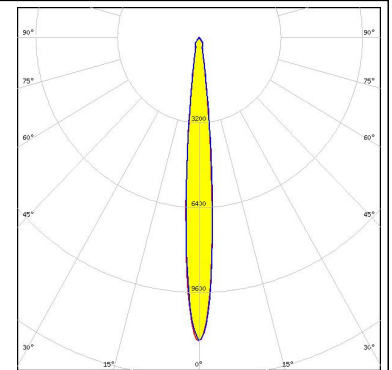
LEDs/each optic 1

Light colour White

Required components:

F13671_ANGE-RZ-LENS

TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHILIPS

LED Fortimo SLM L15 + SLM holder

FWHM 11.0°

Efficiency 84 %

Peak intensity 9.2 cd/lm

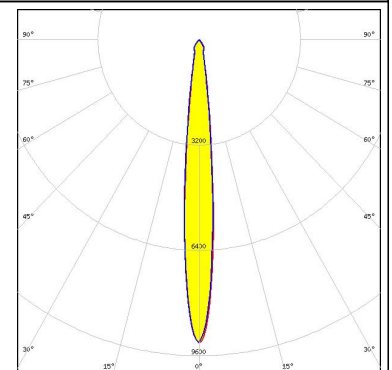
LEDs/each optic 1

Light colour White

Required components:

F13671_ANGE-RZ-LENS

TE: OPTIC CLIP Z50 TYPE1 2213194-1



PHILIPS

LED Fortimo SLM L15 + SLM holder

FWHM 10.0°

Efficiency 89 %

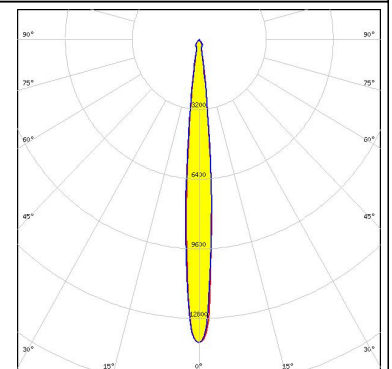
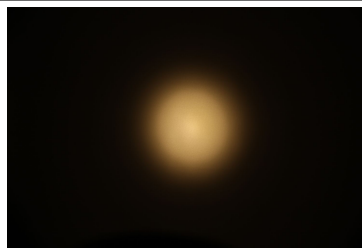
Peak intensity 13.9 cd/lm

LEDs/each optic 1

Light colour White

Required components:

TE: OPTIC CLIP Z50 TYPE1 2213194-1



PHILIPS

LED Fortimo SLM L15 CoB

FWHM 10.0°

Efficiency 92 %

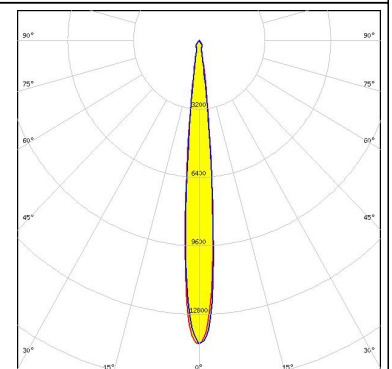
Peak intensity 14.2 cd/lm

LEDs/each optic 1

Light colour White

Required components:

TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (MEASURED):

PHILIPS

LED Fortimo SLM L15 CoB

FWHM 11.0°

Efficiency 86 %

Peak intensity 9.7 cd/lm

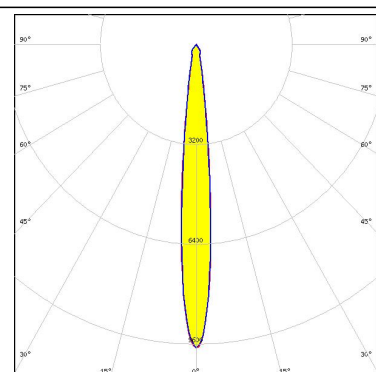
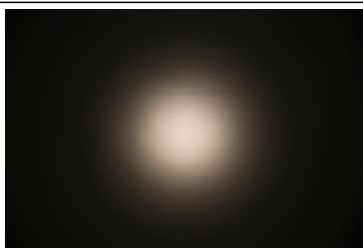
LEDs/each optic 1

Light colour White

Required components:

F13671_ANGE-RZ-LENS

TE: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHILIPS

LED Fortimo SLM L19 + SLM holder

FWHM 13.0°

Efficiency 84 %

Peak intensity 6.8 cd/lm

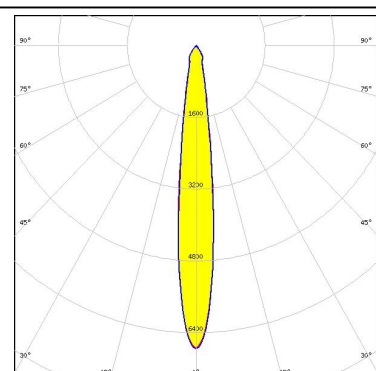
LEDs/each optic 1

Light colour White

Required components:

F13671_ANGE-RZ-LENS

TE: OPTIC CLIP Z50 TYPE1 2213194-1



PHILIPS

LED Fortimo SLM L19 + SLM holder

FWHM 13.0°

Efficiency 88 %

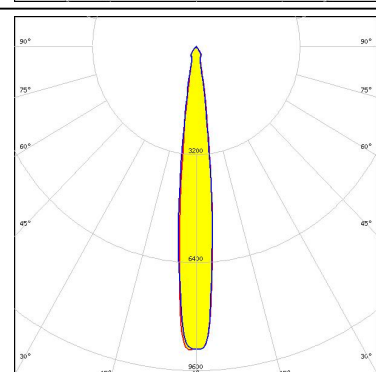
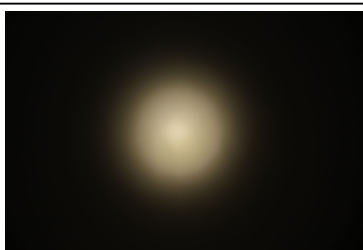
Peak intensity 9 cd/lm

LEDs/each optic 1

Light colour White

Required components:

TE: OPTIC CLIP Z50 TYPE1 2213194-1



SAMSUNG

LED LC026B / 033B / 040B

FWHM 11.0°

Efficiency 93 %

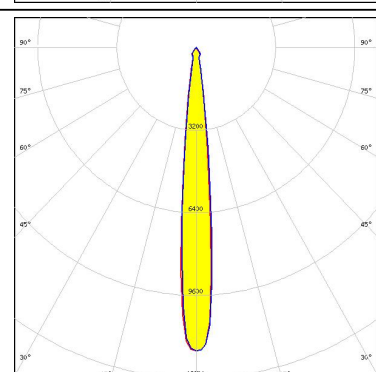
Peak intensity 11.8 cd/lm

LEDs/each optic 1

Light colour White

Required components:

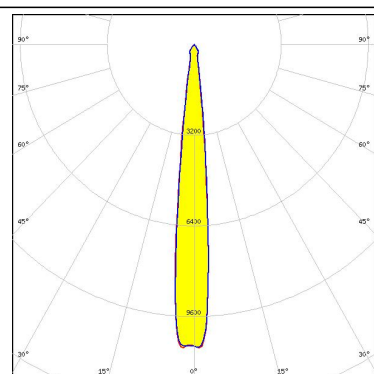
TE: 2213258-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (MEASURED):

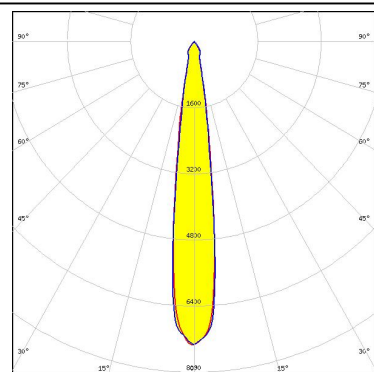
SAMSUNG

LED LC026B / 033B / 040B
FWHM 11.0°
Efficiency 8 %
Peak intensity 10.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 450 Typ L2



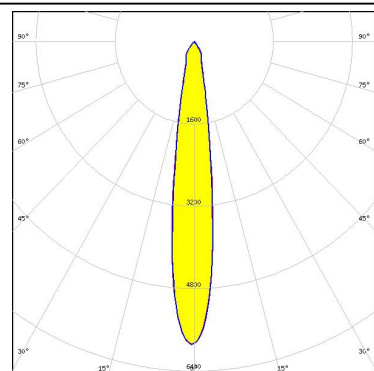
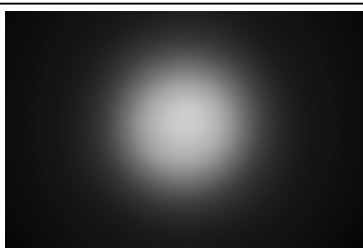
SAMSUNG

LED LC035T (Tunable white)
FWHM 15.0°
Efficiency 92 %
Peak intensity 7.3 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13584_CLAMP-VERO29
Bender Wirth: 502 Typ L3



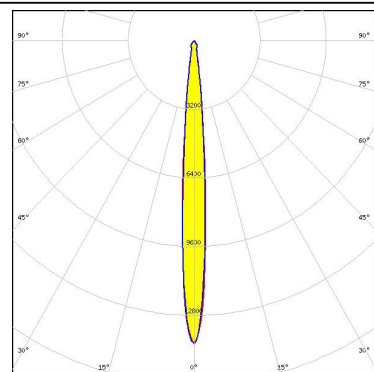
SAMSUNG

LED LC035T (Tunable white)
FWHM 15.0°
Efficiency 87 %
Peak intensity 5.9 cd/lm
LEDs/each optic 1
Light colour Tunable White
Required components:
C13584_CLAMP-VERO29
F13671_ANGE-RZ-LENS
Bender Wirth: 502 Typ L3



SAMSUNG

LED LC040C
FWHM 9.0°
Efficiency 85 %
Peak intensity 14 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1

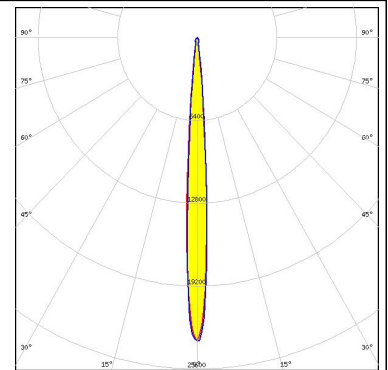


PHOTOMETRIC DATA (MEASURED):

SAMSUNG

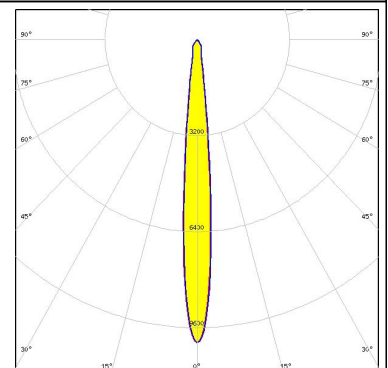
LED LC040C
FWHM 7.0°
Efficiency 89 %
Peak intensity 23 cd/Im
LEDs/each optic 1
Light colour White
Required components:

TE: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



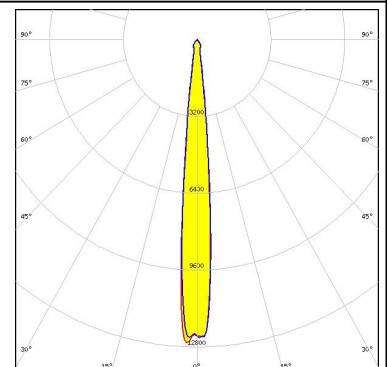
SEOUL SEMICONDUCTOR

LED AC Zhaga COB
FWHM 10.0°
Efficiency 84 %
Peak intensity 10.1 cd/Im
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
Optosource: SEHSMJD-A



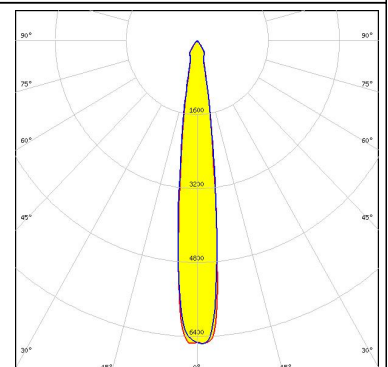
SEOUL SEMICONDUCTOR

LED MJT COB LES 14.5
FWHM 10.0°
Efficiency 88 %
Peak intensity 12.6 cd/Im
LEDs/each optic 1
Light colour White
Required components:
TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



SEOUL SEMICONDUCTOR

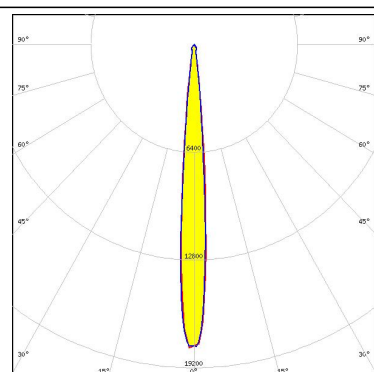
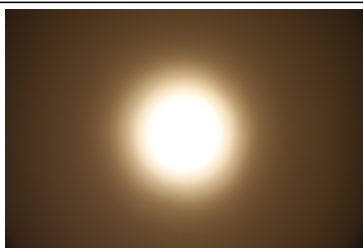
LED MJT COB LES 22
FWHM 14.0°
Efficiency 88 %
Peak intensity 6.6 cd/Im
LEDs/each optic 1
Light colour White
Required components:
C13584_CLAMP-VERO29
Bender Wirth: 431 Typ L3



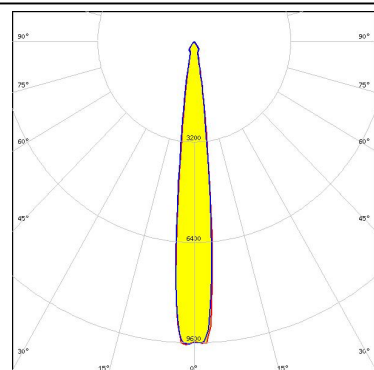
PHOTOMETRIC DATA (MEASURED):



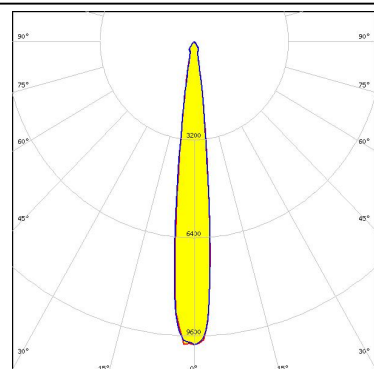
LED WU-M-461
FWHM 9.0°
Efficiency 93 %
Peak intensity 18 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



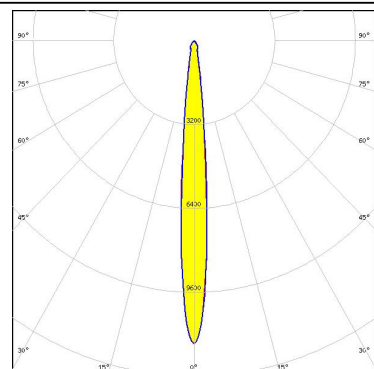
LED WU-M-462
FWHM 13.0°
Efficiency 92 %
Peak intensity 9.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



LED WU-M-464
FWHM 12.0°
Efficiency 92 %
Peak intensity 9.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



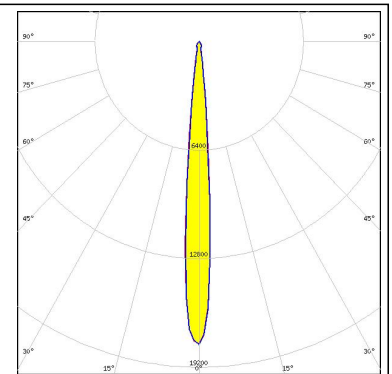
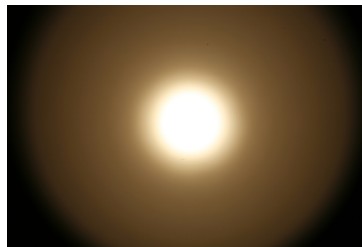
LED WU-M-484
FWHM 10.0°
Efficiency 84 %
Peak intensity 12 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
TE: OPTIC CLIP Z50 TYPE1 2213194-1



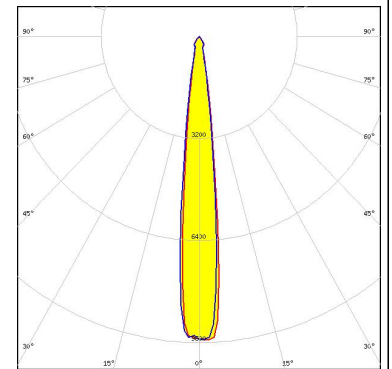
PHOTOMETRIC DATA (MEASURED):



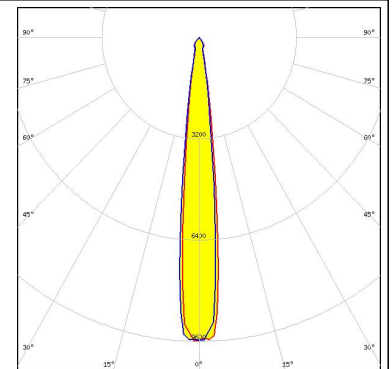
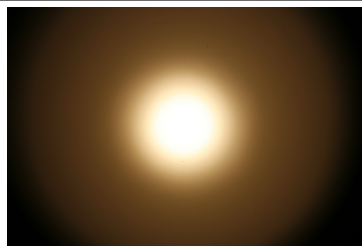
LED WU-M-484
FWHM 9.0°
Efficiency 93 %
Peak intensity 17.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



LED WU-M-485
FWHM 13.0°
Efficiency 93 %
Peak intensity 9.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



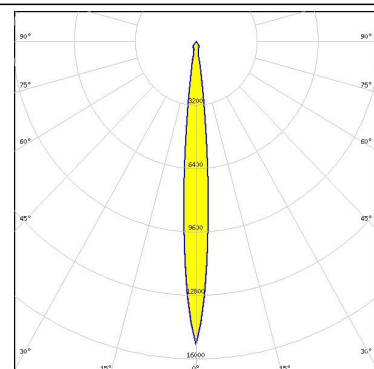
LED WU-M-486
FWHM 13.0°
Efficiency 93 %
Peak intensity 9.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: OPTIC CLIP Z50 TYPE1 2213194-1



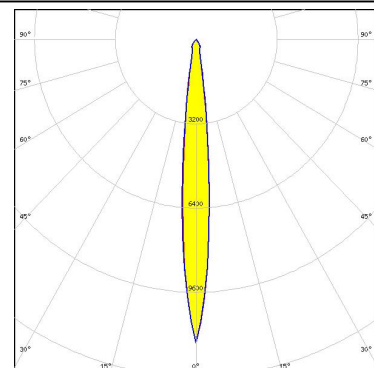
PHOTOMETRIC DATA (SIMULATED):



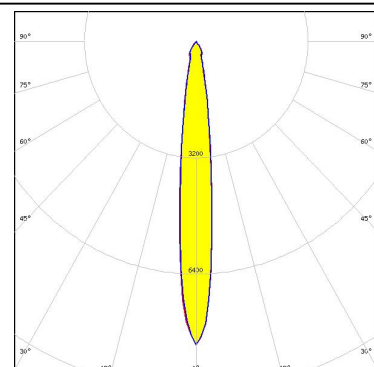
LED V10 Gen7
FWHM 10.0°
Efficiency 91 %
Peak intensity 15.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 434 Typ L1



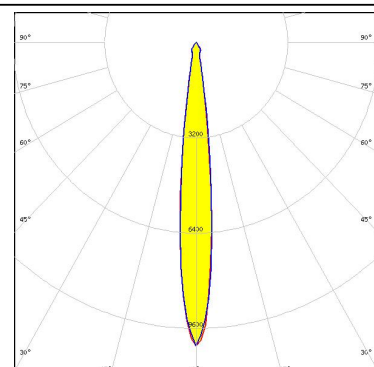
LED V13 Gen7
FWHM 11.0°
Efficiency 90 %
Peak intensity 11.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2103CT + 50-2100AN



LED V22 Gen7
FWHM 12.0°
Efficiency 93 %
Peak intensity 8.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
IDEAL: 50-2204-CT + 50-2100AN



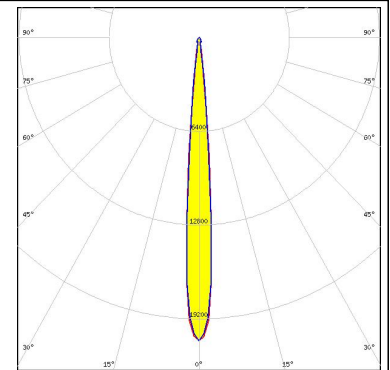
LED CXA/B 1830
FWHM 12.0°
Efficiency 88 %
Peak intensity 10.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (SIMULATED):



LED LUXEON CoB 1204/1205
FWHM 10.0°
Efficiency 92 %
Peak intensity 20.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:



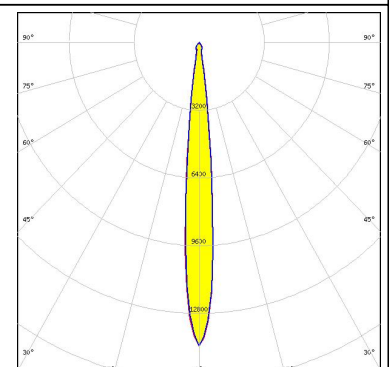
LED CxM-14 (19x19)
FWHM 10.0°
Efficiency 88 %
Peak intensity 15 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 486 Typ L1



LED CxM-9 (13.5x13.5)
FWHM 6.0°
Efficiency 90 %
Peak intensity 34.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C13658_CLAMP-VERO13-18
Bender Wirth: 434 Typ L1



LED Soleriq S15
FWHM 10.0°
Efficiency 90 %
Peak intensity 14.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
TE: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC12/18
FWHM	10.0°
Efficiency	88 %
Peak intensity	15 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13658_CLAMP-VERO13-18	
Bender Wirth: 433 Typ L1	

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	6.0°
Efficiency	90 %
Peak intensity	34.1 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
C13658_CLAMP-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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LEDiL Oy

Joensuunkatu 13
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Local sales and technical support

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

Shipping locations

Salo, Finland
Hong Kong, China

Distribution Partners

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