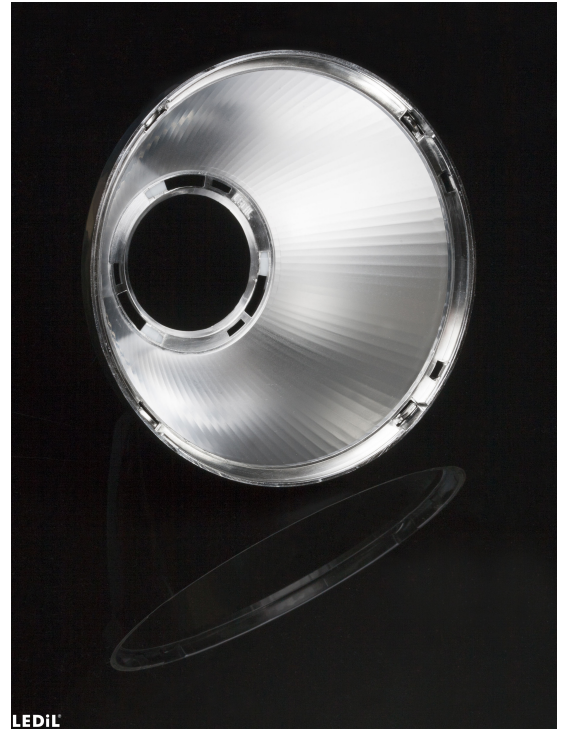


## ANGELETTE-S

~10° spot beam

### SPECIFICATION:

Dimensions	Ø 110.0
Height	57.3 mm
Fastening	socket
ROHS compliant	yes ⓘ

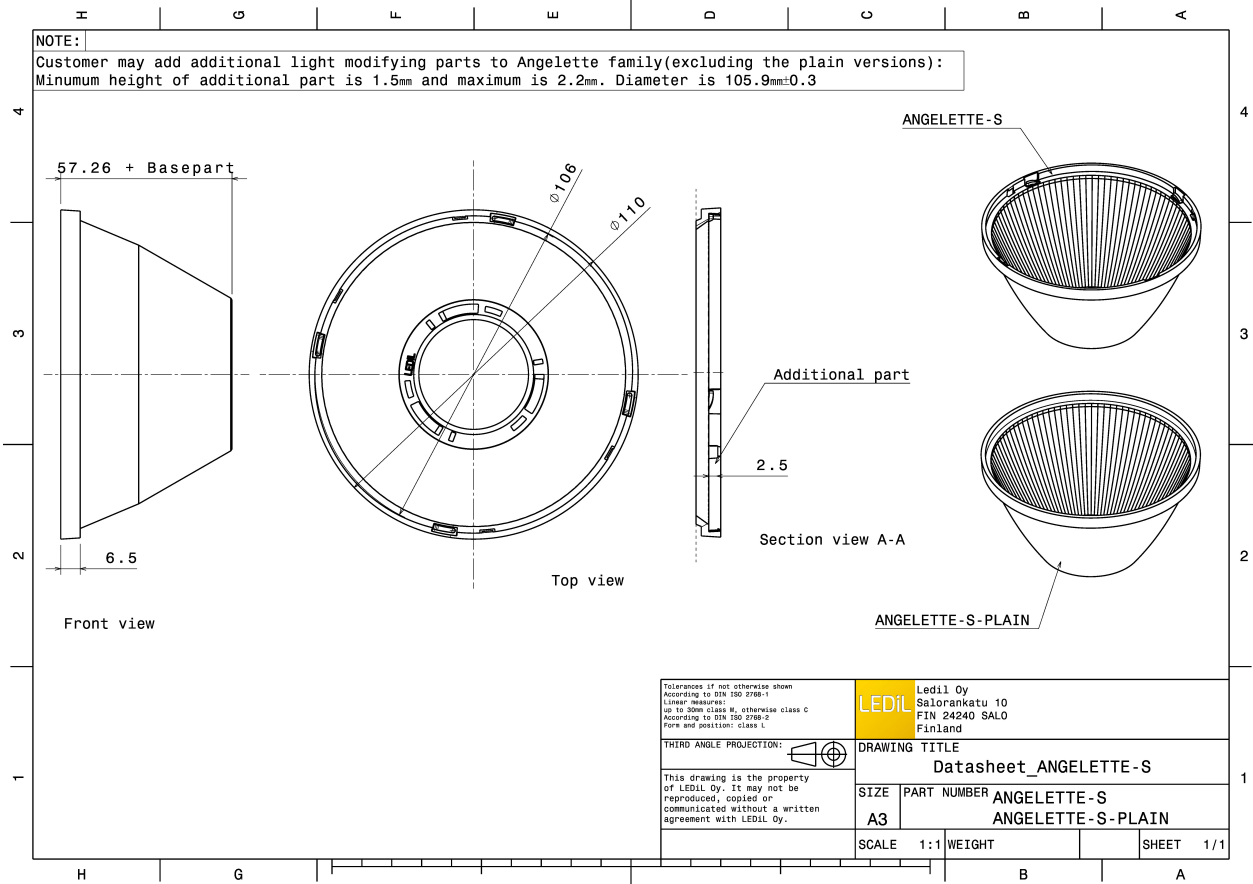


### MATERIALS:

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

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F14532_ANGELETTE-S » Box size: 398 x 298 x 265 mm	180	90	45	7.4



See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)



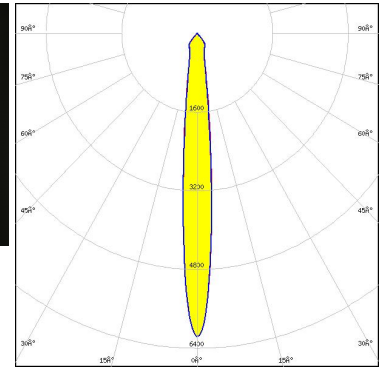
#### OPTICAL RESULTS (MEASURED):

bridgelux

LED V10 Gen7  
 FWHM / FWTM 11.0° / 31.0°  
 Efficiency 85 %  
 Peak intensity 6.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 434 Typ L1



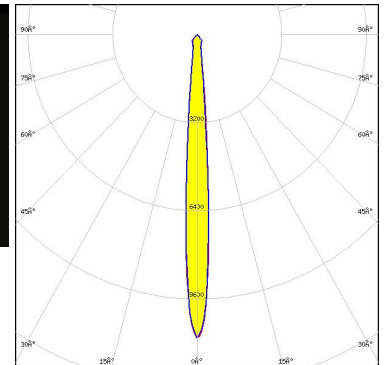
Light distribution files

bridgelux

LED V10 Gen7  
 FWHM / FWTM 8.5° / 20.0°  
 Efficiency 89 %  
 Peak intensity 11 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

C13658\_CLAMP-VERO13-18  
 Bender Wirth: 486 Typ L1



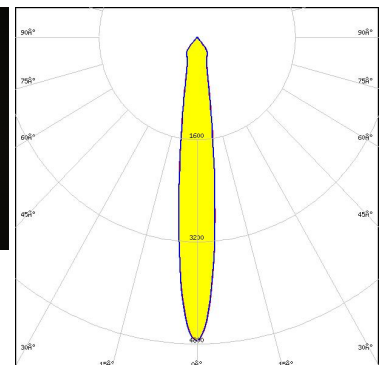
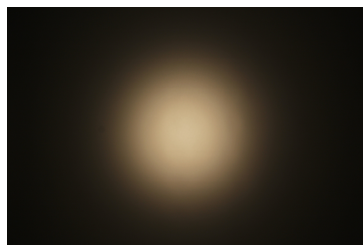
Light distribution files

bridgelux

LED V13 Gen7  
 FWHM / FWTM 14.0° / 40.0°  
 Efficiency 86 %  
 Peak intensity 4.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

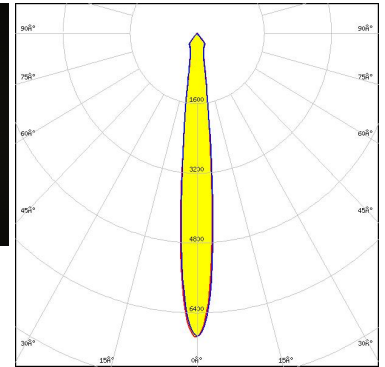
#### OPTICAL RESULTS (MEASURED):



LED V13 Gen7  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 91 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

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



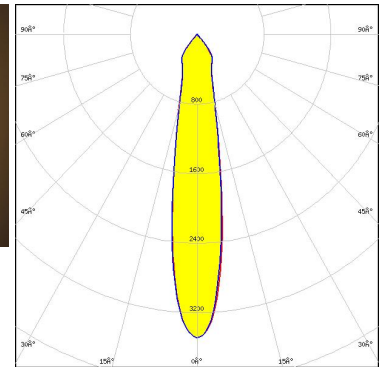
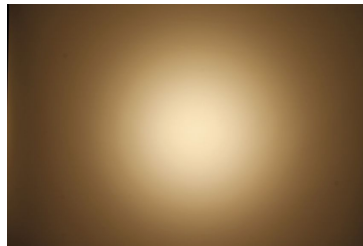
Light distribution files



LED V22 Gen6  
 FWHM / FWTM 19.0° / 64.0°  
 Efficiency 90 %  
 Peak intensity 3.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

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



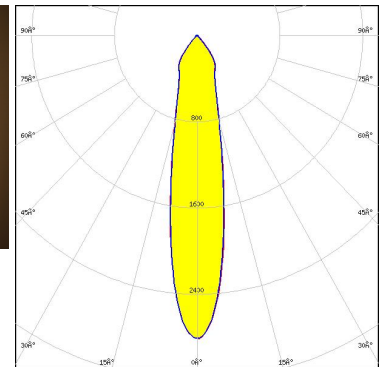
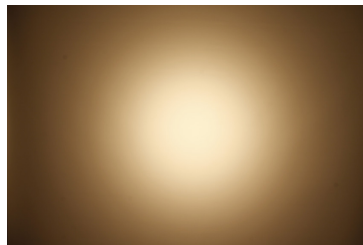
Light distribution files



LED V22 Gen6  
 FWHM / FWTM 21.0° / 71.0°  
 Efficiency 85 %  
 Peak intensity 2.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN

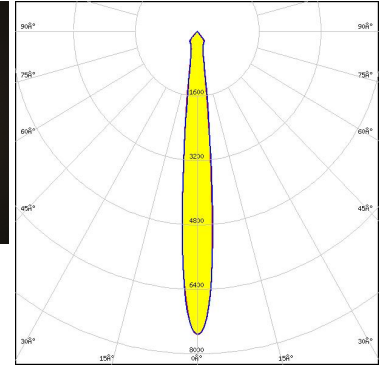


Light distribution files

### OPTICAL RESULTS (MEASURED):



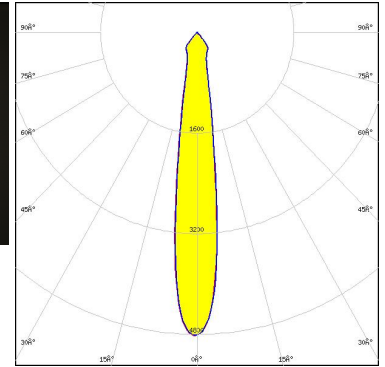
LED Vero SE 13  
FWHM / FWTM 11.0° / 26.0°  
Efficiency 90 %  
Peak intensity 7.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
C16402\_CLAMP-VEROSE-13-18



Light distribution files



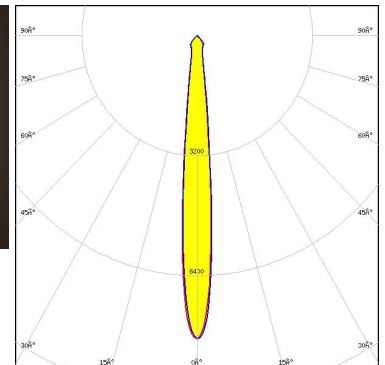
LED Vero SE 18  
FWHM / FWTM 16.0° / 39.0°  
Efficiency 90 %  
Peak intensity 4.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
C16402\_CLAMP-VEROSE-13-18



Light distribution files



LED VERO13  
FWHM / FWTM 11.0° / 25.0°  
Efficiency 90 %  
Peak intensity 8.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
C13658\_CLAMP-VERO13-18

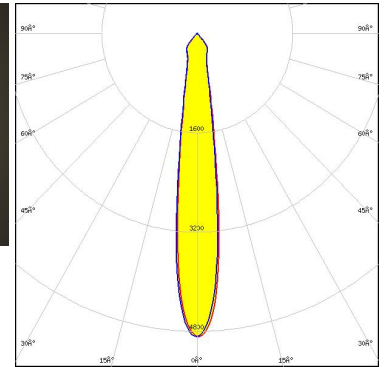


Light distribution files

#### OPTICAL RESULTS (MEASURED):



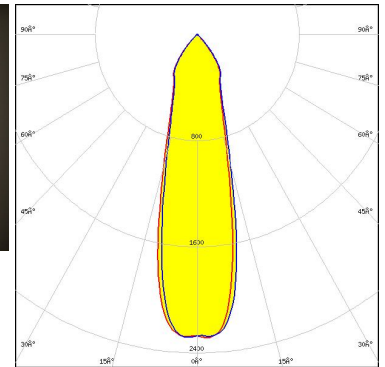
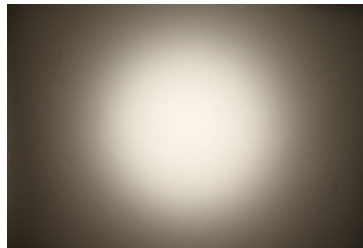
**LED** VERO18  
**FWHM / FWTM** 15.0° / 38.0°  
**Efficiency** 90 %  
**Peak intensity** 4.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 C13658\_CLAMP-VERO13-18



Light distribution files



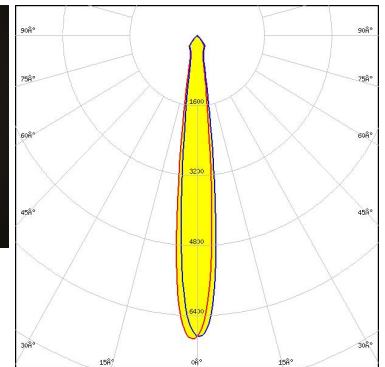
**LED** VERO29  
**FWHM / FWTM** 27.0° / 76.0°  
**Efficiency** 90 %  
**Peak intensity** 2.3 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 C13584\_CLAMP-VERO29



Light distribution files



**LED** Vesta TW 15mm DP  
**FWHM / FWTM** 13.0° / 29.0°  
**Efficiency** 92 %  
**Peak intensity** 6.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** Tunable White  
**Required components:**  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 482 Typ L2



Light distribution files

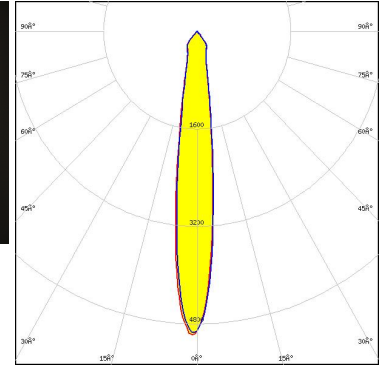
#### OPTICAL RESULTS (MEASURED):



LED Vesta TW 15mm DP  
 FWHM / FWTM 15.0° / 38.0°  
 Efficiency 87 %  
 Peak intensity 5 cd/lm  
 LEDs/each optic 1  
 Light colour/type Tunable White

Required components:

C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 482 Typ L2



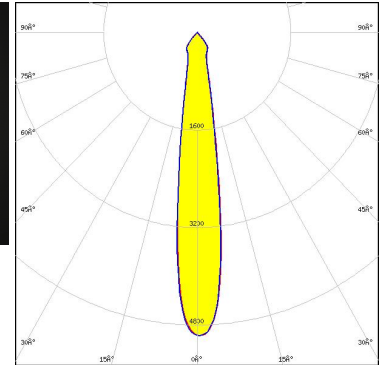
Light distribution files



LED Vesta TW 18mm (31W) DP  
 FWHM / FWTM 16.0° / 38.0°  
 Efficiency 92 %  
 Peak intensity 5 cd/lm  
 LEDs/each optic 1  
 Light colour/type Tunable White

Required components:

C13584\_CLAMP-VERO29  
 Bender Wirth: 483 Typ L3



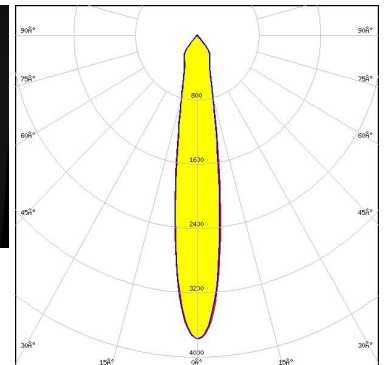
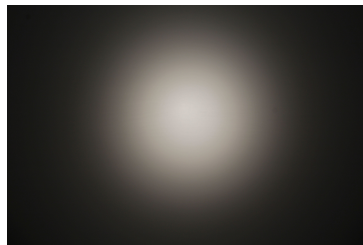
Light distribution files



LED Vesta TW 18mm (31W) DP  
 FWHM / FWTM 17.0° / 51.0°  
 Efficiency 87 %  
 Peak intensity 3.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type Tunable White

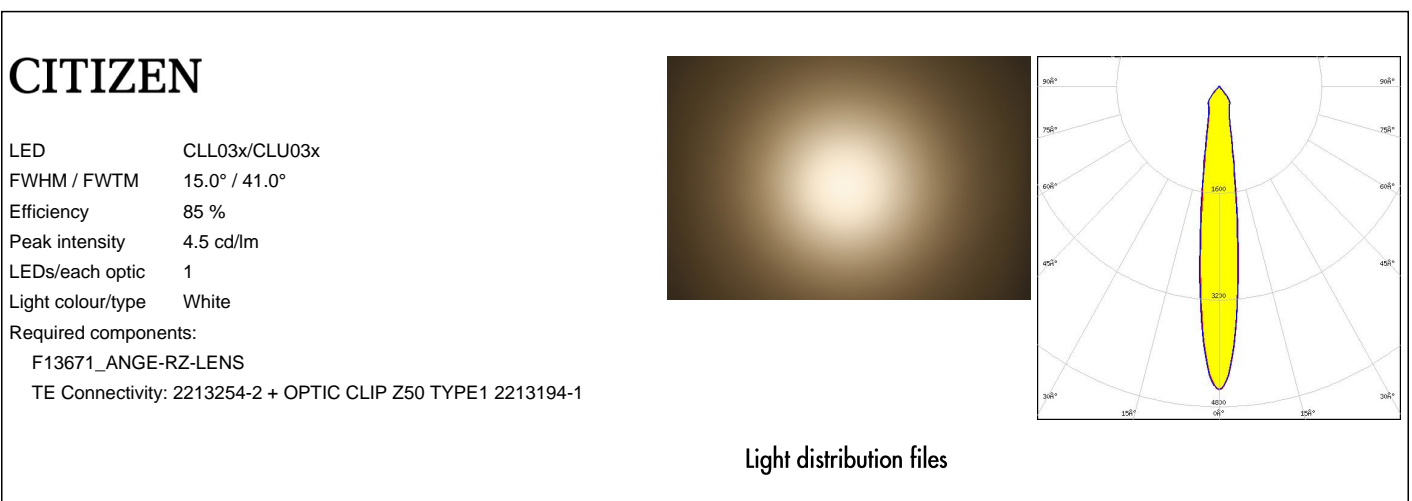
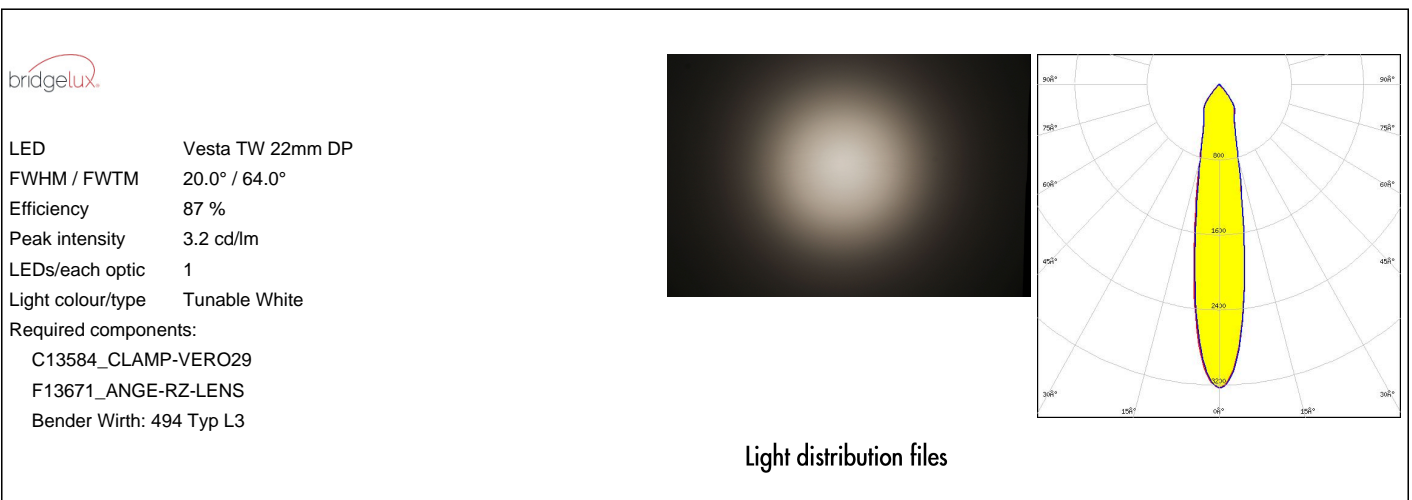
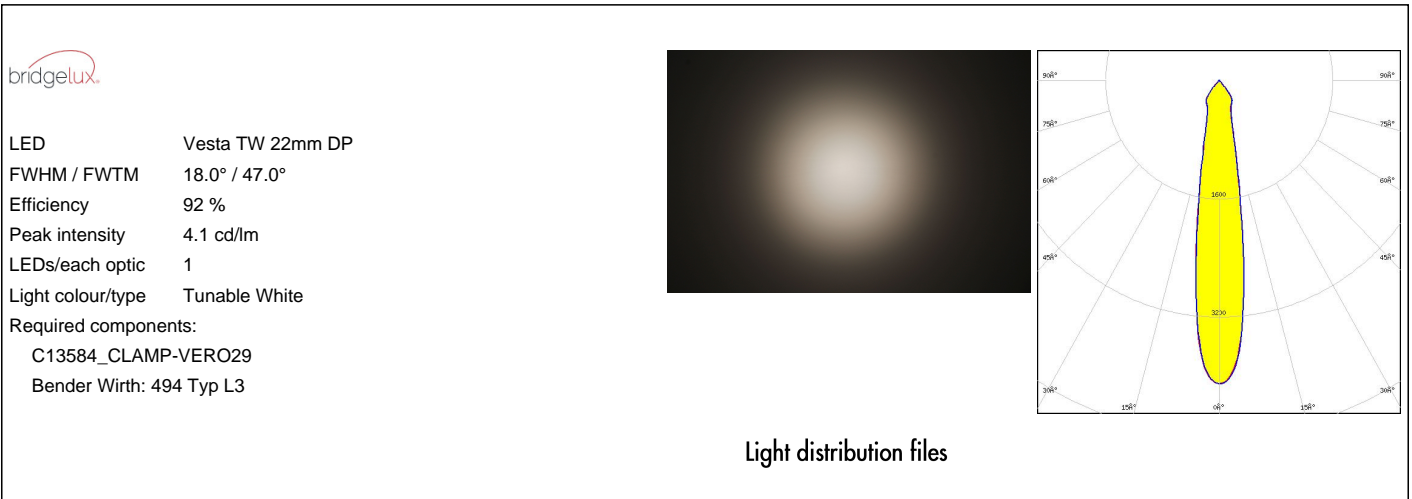
Required components:

C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 483 Typ L3



Light distribution files

#### OPTICAL RESULTS (MEASURED):

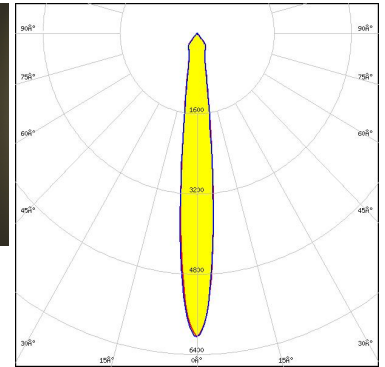




#### OPTICAL RESULTS (MEASURED):

### CITIZEN

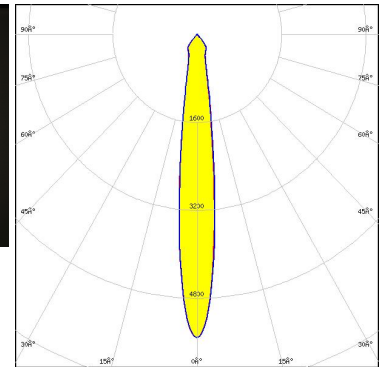
LED CLL03x/CLU03x  
FWHM / FWTM 13.0° / 33.0°  
Efficiency 89 %  
Peak intensity 6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
IDEAL: 50-2103CT + 50-2100AN



Light distribution files

### CITIZEN

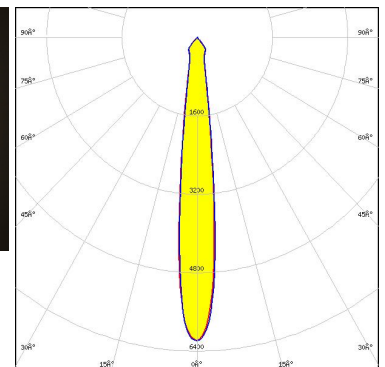
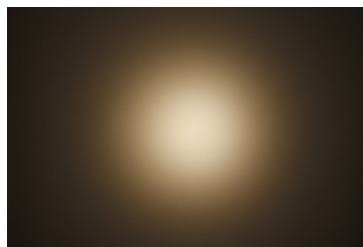
LED CLL03x/CLU03x  
FWHM / FWTM 14.0° / 35.0°  
Efficiency 89 %  
Peak intensity 5.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
C16791\_CLAMP-Z45-A  
F13671\_ANGE-RZ-LENS  
TE Connectivity: 2325807-3



Light distribution files

### CITIZEN

LED CLL03x/CLU03x  
FWHM / FWTM 13.0° / 31.0°  
Efficiency 90 %  
Peak intensity 6.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



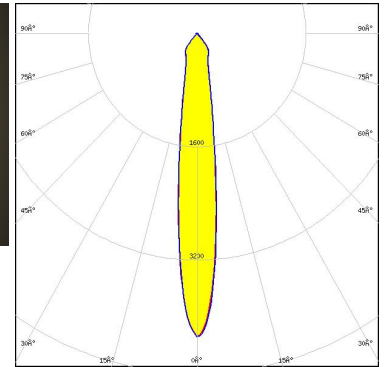
Light distribution files



#### OPTICAL RESULTS (MEASURED):

### CITIZEN

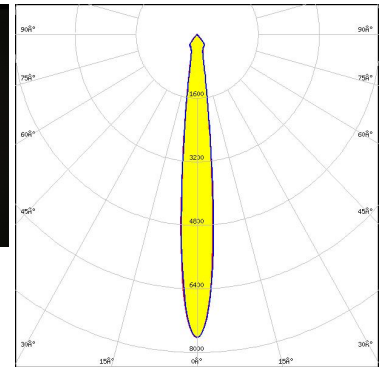
LED CLL03x/CLU03x  
 FWHM / FWTM 15.0° / 44.0°  
 Efficiency 85 %  
 Peak intensity 4.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2103CT + 50-2100AN



Light distribution files

### CITIZEN

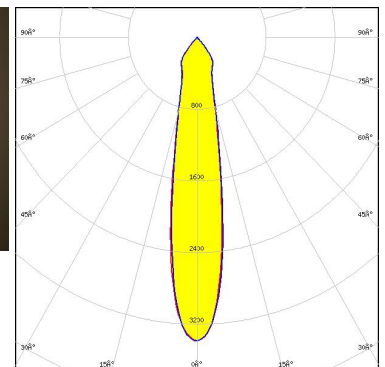
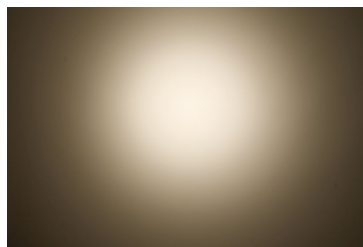
LED CLL03x/CLU03x  
 FWHM / FWTM 12.0° / 27.0°  
 Efficiency 93 %  
 Peak intensity 7.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C16791\_CLAMP-Z45-A  
 TE Connectivity: 2325807-3



Light distribution files

### CITIZEN

LED CLL04x/CLU04x  
 FWHM / FWTM 19.0° / 65.0°  
 Efficiency 90 %  
 Peak intensity 3.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN

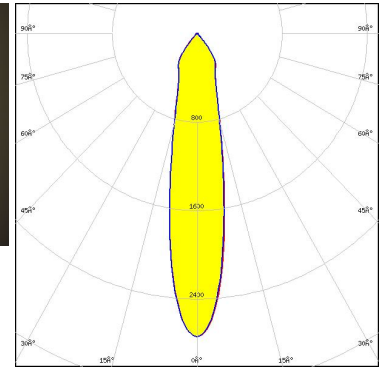


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### CITIZEN

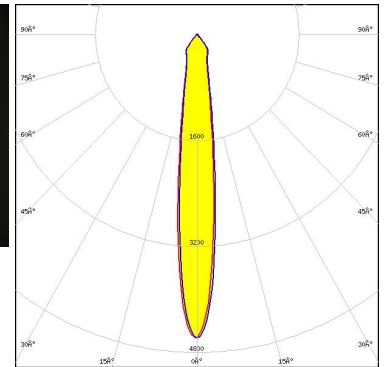
LED CLL04x/CLU04x  
 FWHM / FWTM 21.0° / 71.0°  
 Efficiency 85 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN



Light distribution files

### CITIZEN

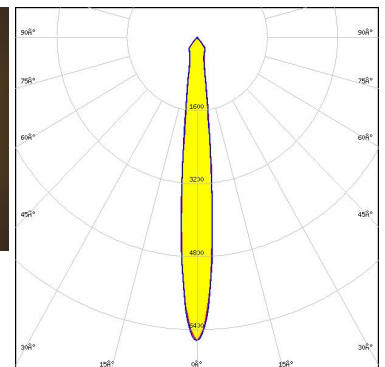
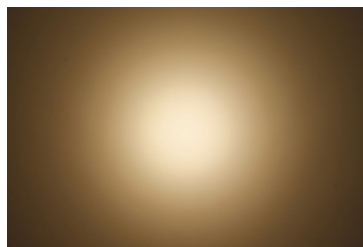
LED CLU730/731/733  
 FWHM / FWTM 14.0° / 41.0°  
 Efficiency 85 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2204-CT + 50-2100AN



Light distribution files

### CITIZEN

LED CLU730/731/733  
 FWHM / FWTM 12.0° / 30.0°  
 Efficiency 89 %  
 Peak intensity 6.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN

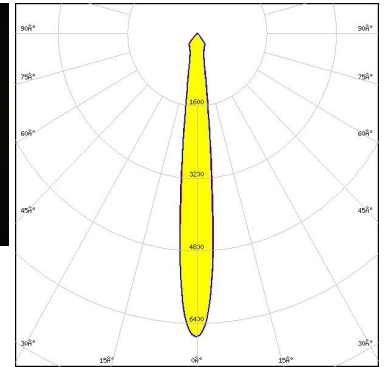


Light distribution files

#### OPTICAL RESULTS (MEASURED):



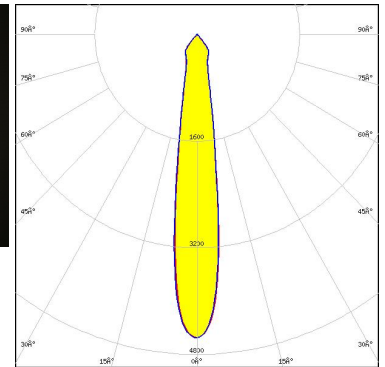
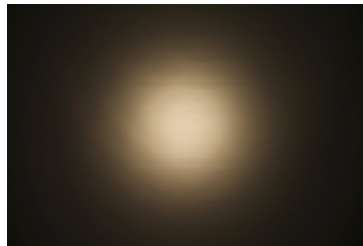
LED CMA1840  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 91 %  
 Peak intensity 6.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14123\_CLAMP-CXA15-18



Light distribution files



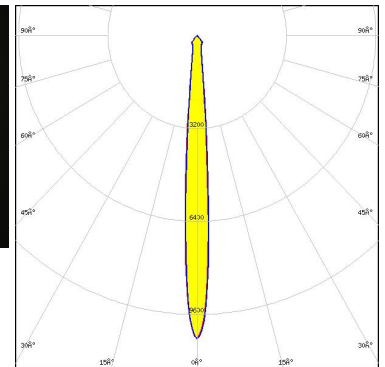
LED CMA2550  
 FWHM / FWTM 16.0° / 43.0°  
 Efficiency 91 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



Light distribution files



LED CMT14xx  
 FWHM / FWTM 9.0° / 21.0°  
 Efficiency 91 %  
 Peak intensity 10.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 434 Typ L1

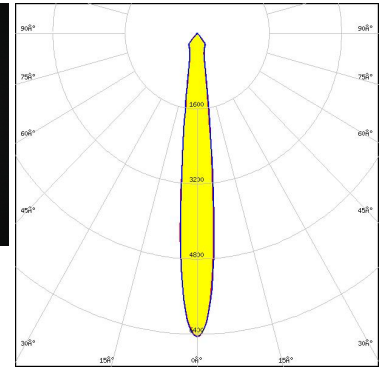
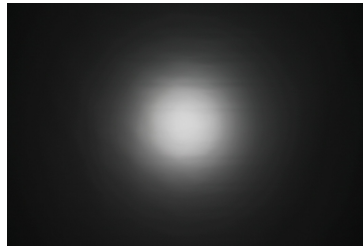


Light distribution files

#### OPTICAL RESULTS (MEASURED):



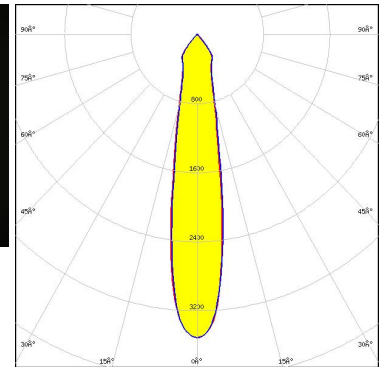
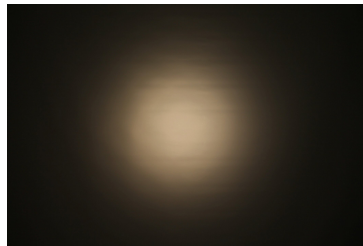
**LED** CMT19xx  
**FWHM / FWTM** 12.0° / 31.0°  
**Efficiency** 91 %  
**Peak intensity** 6.5 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 477 Typ L1



Light distribution files



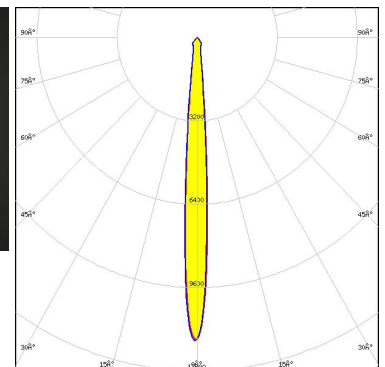
**LED** CMT28xx  
**FWHM / FWTM** 19.0° / 61.0°  
**Efficiency** 90 %  
**Peak intensity** 3.5 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 471 Typ L3



Light distribution files



**LED** CXA/B 15xx  
**FWHM / FWTM** 8.0° / 20.0°  
**Efficiency** 90 %  
**Peak intensity** 12 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 C14123\_CLAMP-CXA15-18

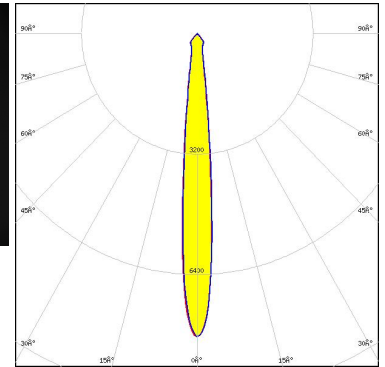
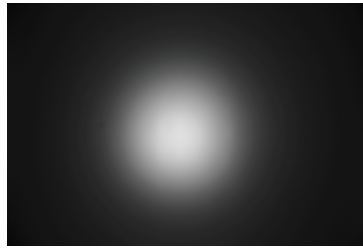


Light distribution files

#### OPTICAL RESULTS (MEASURED):



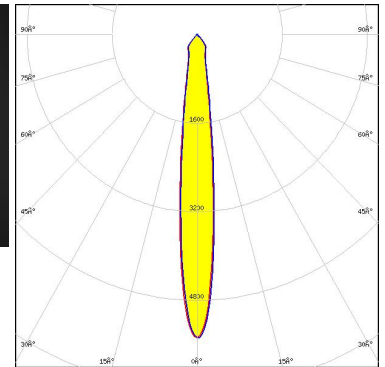
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 11.0° / 26.0°  
 Efficiency 91 %  
 Peak intensity 8.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files



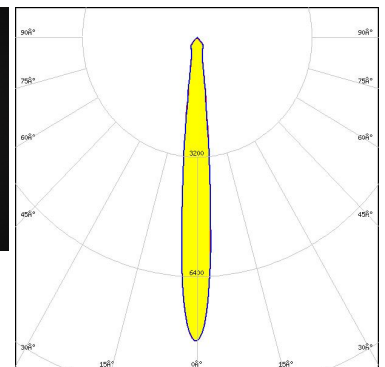
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 13.0° / 35.0°  
 Efficiency 86 %  
 Peak intensity 5.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213401-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files



LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 11.0° / 25.0°  
 Efficiency 90 %  
 Peak intensity 8.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14123\_CLAMP-CXA15-18

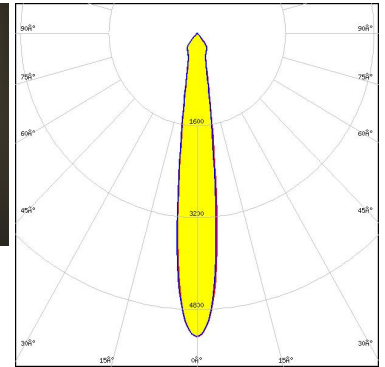


Light distribution files

#### OPTICAL RESULTS (MEASURED):



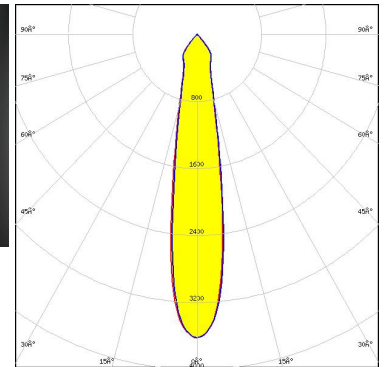
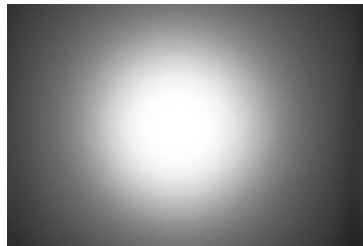
LED CXA/B 25xx  
 FWHM / FWTM 15.0° / 38.0°  
 Efficiency 90 %  
 Peak intensity 5.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



Light distribution files



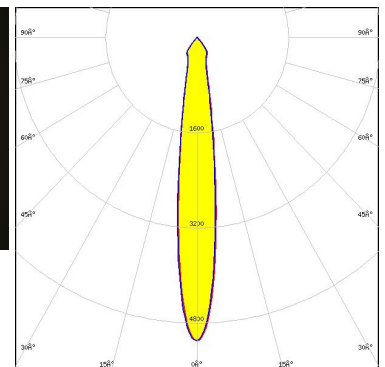
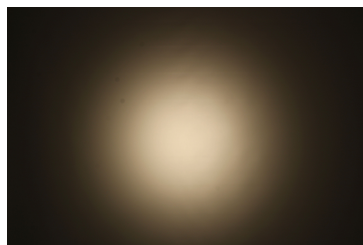
LED CXA/B 30xx  
 FWHM / FWTM 19.0° / 55.0°  
 Efficiency 90 %  
 Peak intensity 3.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14036\_CLAMP\_CXA25-30



Light distribution files



LED PrevaLED Core G7 L15 H1  
 FWHM / FWTM 15.0° / 37.0°  
 Efficiency 89 %  
 Peak intensity 5.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C16685\_CLAMP-PRV-A  
 F13671\_ANGE-RZ-LENS



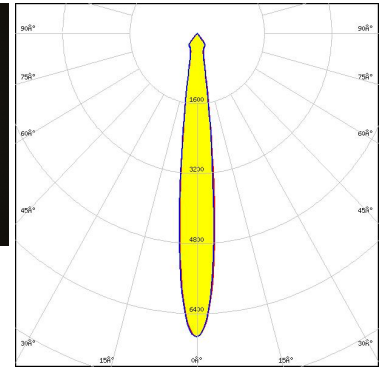
Light distribution files



### OPTICAL RESULTS (MEASURED):

#### inventronics

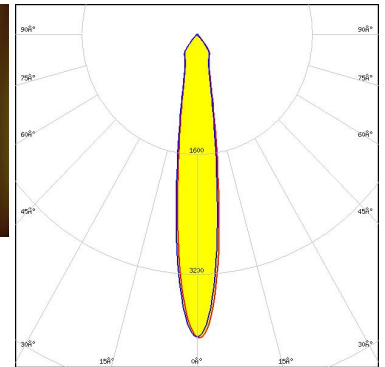
LED PrevaLED Core G7 L15 H1  
FWHM / FWMTM 13.0° / 29.0°  
Efficiency 93 %  
Peak intensity 6.9 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
C16685\_CLAMP-PRV-A



Light distribution files

#### inventronics

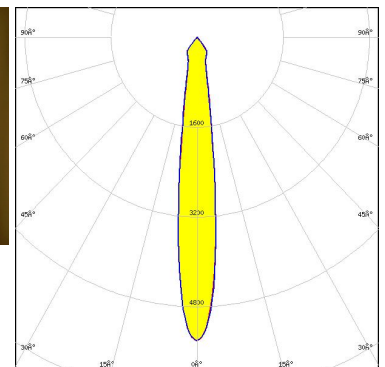
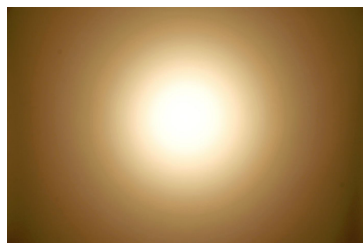
LED PrevaLED Core Z4 LES19  
FWHM / FWMTM 16.0° / 48.0°  
Efficiency 86 %  
Peak intensity 4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
F13671\_ANGE-RZ-LENS  
TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

#### inventronics

LED PrevaLED Core Z4 LES19  
FWHM / FWMTM 14.0° / 36.0°  
Efficiency 90 %  
Peak intensity 5.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files



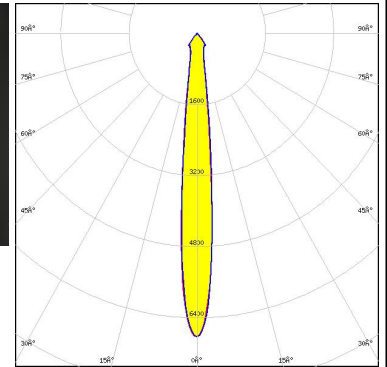
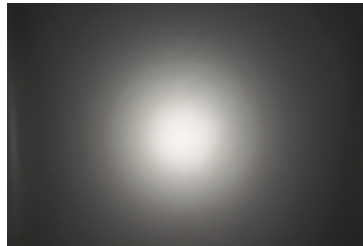
#### OPTICAL RESULTS (MEASURED):



LED LUXEON CoB 1204/1205  
 FWHM / FWTM 12.0° / 28.0°  
 Efficiency 88 %  
 Peak intensity 6.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

F15176\_ANGELETTE-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



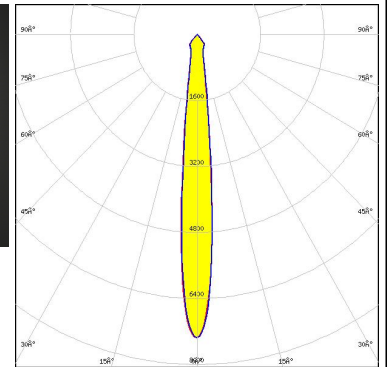
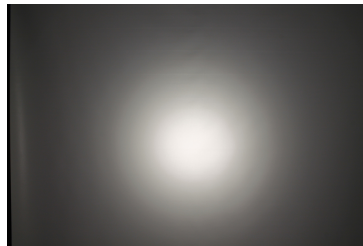
Light distribution files



LED LUXEON CoB 1204/1205  
 FWHM / FWTM 12.0° / 28.0°  
 Efficiency 90 %  
 Peak intensity 7.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

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



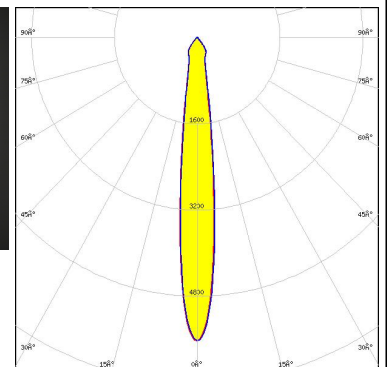
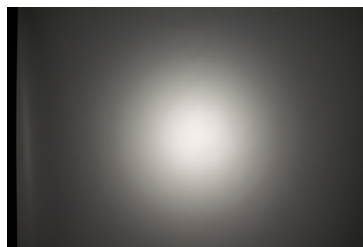
Light distribution files



LED LUXEON CoB 1204/1205  
 FWHM / FWTM 13.0° / 33.0°  
 Efficiency 87 %  
 Peak intensity 5.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

F15412\_ANGELETTE-DL  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

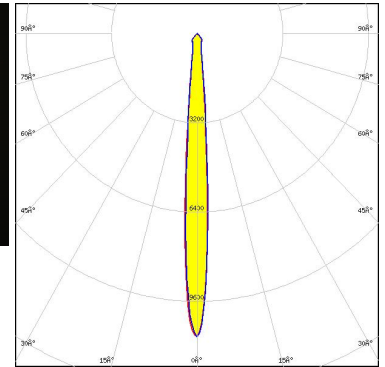
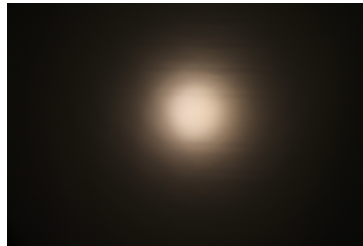
#### OPTICAL RESULTS (MEASURED):



LED LUXEON CoB 1204HD  
 FWHM / FWTM 8.5° / 21.0°  
 Efficiency 90 %  
 Peak intensity 10.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

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



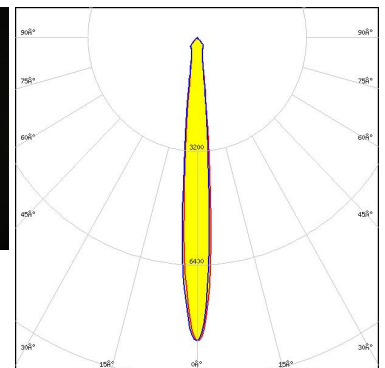
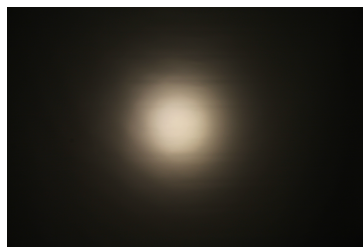
Light distribution files



LED LUXEON CoB 1205HD  
 FWHM / FWTM 10.0° / 25.0°  
 Efficiency 90 %  
 Peak intensity 8.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

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



Light distribution files

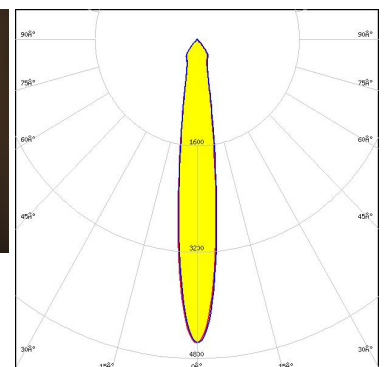
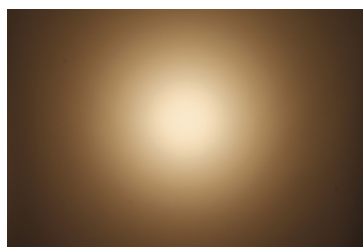


LED LUXEON CoB 1208  
 FWHM / FWTM 15.0° / 41.0°  
 Efficiency 85 %  
 Peak intensity 4.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

F13671\_ANGE-RZ-LENS

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

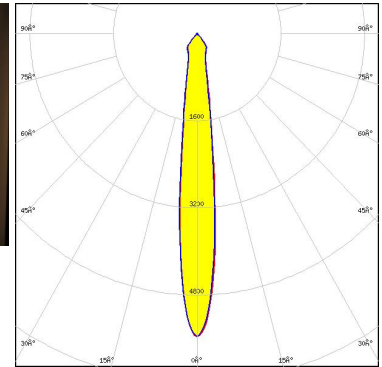


Light distribution files

#### OPTICAL RESULTS (MEASURED):



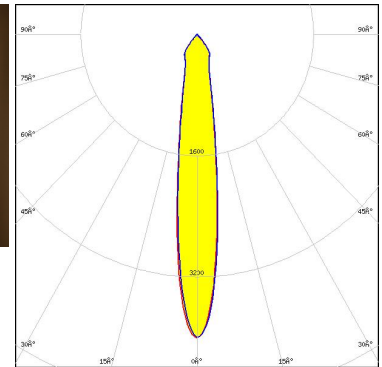
LED LUXEON CoB 1208  
 FWHM / FWTM 13.0° / 35.0°  
 Efficiency 89 %  
 Peak intensity 5.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2100SH + 50-2100AN



Light distribution files



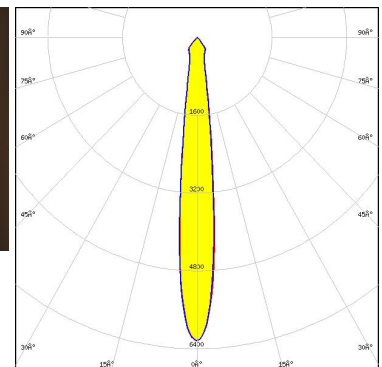
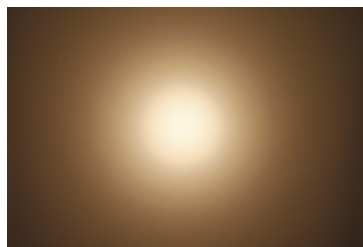
LED LUXEON CoB 1208  
 FWHM / FWTM 16.0° / 48.0°  
 Efficiency 85 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2100SH + 50-2100AN



Light distribution files



LED LUXEON CoB 1208  
 FWHM / FWTM 13.0° / 31.0°  
 Efficiency 89 %  
 Peak intensity 6.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1

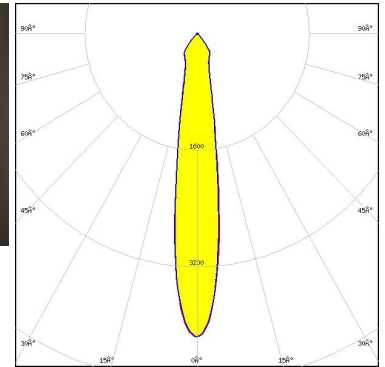


Light distribution files

### OPTICAL RESULTS (MEASURED):



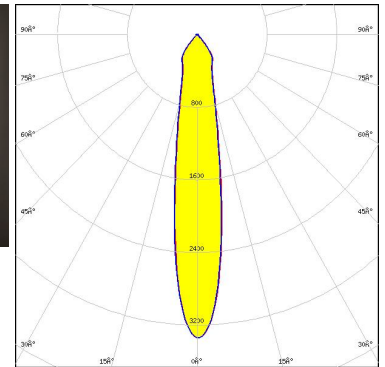
LED LUXEON CoB 1211  
FWHM / FWTM 17.0° / 48.0°  
Efficiency 89 %  
Peak intensity 4.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
IDEAL: 50-2204-CT + 50-2100AN



Light distribution files



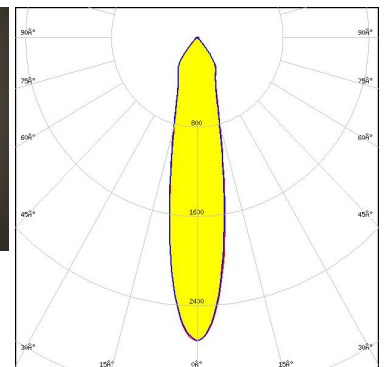
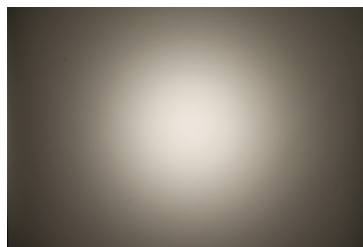
LED LUXEON CoB 1211  
FWHM / FWTM 18.0° / 62.0°  
Efficiency 86 %  
Peak intensity 3.3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
F13671\_ANGE-RZ-LENS  
IDEAL: 50-2204-CT + 50-2100AN



Light distribution files



LED LUXEON CoB 1213/1216/1812  
FWHM / FWTM 21.0° / 71.0°  
Efficiency 86 %  
Peak intensity 2.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
F13671\_ANGE-RZ-LENS  
IDEAL: 50-2204-CT + 50-2100AN

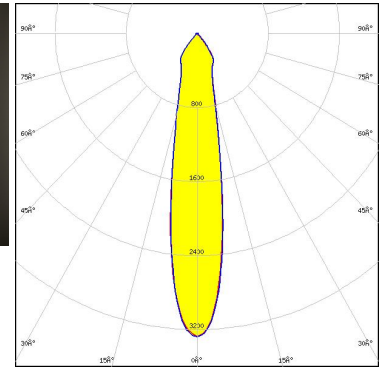
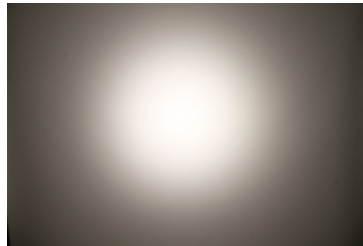


Light distribution files

#### OPTICAL RESULTS (MEASURED):



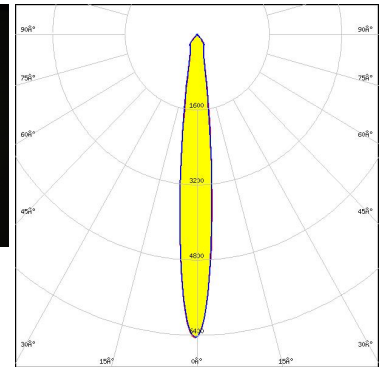
LED LUXEON CoB 1213/1216/1812  
 FWHM / FWTM 20.0° / 68.0°  
 Efficiency 89 %  
 Peak intensity 3.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2204-CT + 50-2100AN



Light distribution files



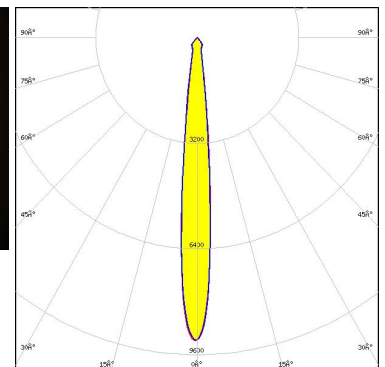
LED CDM-14 (Dim-To-Warm)  
 FWHM / FWTM 12.0° / 31.0°  
 Efficiency 87 %  
 Peak intensity 6.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 491 Typ L2



Light distribution files



LED CDM-14 (Dim-To-Warm)  
 FWHM / FWTM 11.0° / 24.0°  
 Efficiency 91 %  
 Peak intensity 9.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 491 Typ L2

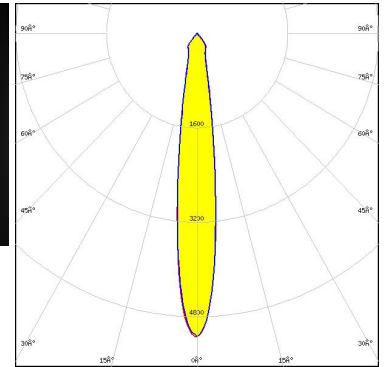


Light distribution files

#### OPTICAL RESULTS (MEASURED):



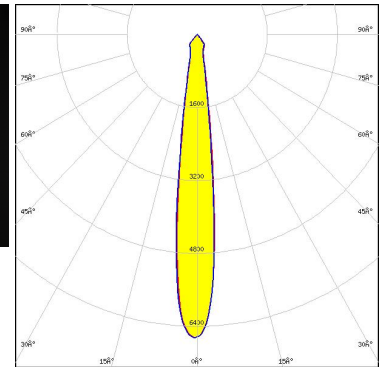
LED CDM-18 (Dim-To-Warm)  
 FWHM / FWTM 15.0° / 36.0°  
 Efficiency 87 %  
 Peak intensity 5.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 491 Typ L2



Light distribution files



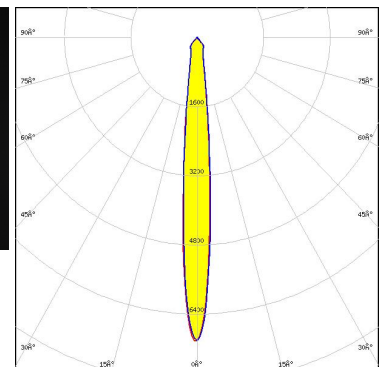
LED CDM-18 (Dim-To-Warm)  
 FWHM / FWTM 14.0° / 30.0°  
 Efficiency 92 %  
 Peak intensity 6.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 491 Typ L2



Light distribution files



LED CDM-9 (Dim-To-Warm)  
 FWHM / FWTM 11.0° / 28.0°  
 Efficiency 84 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 490 Typ L1



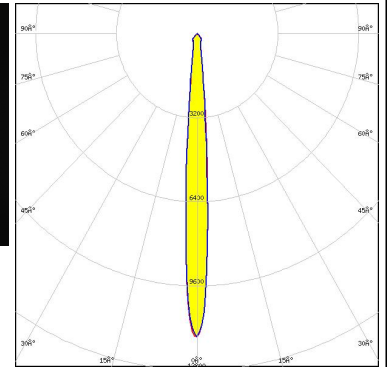
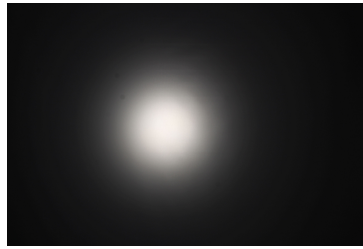
Light distribution files



#### OPTICAL RESULTS (MEASURED):



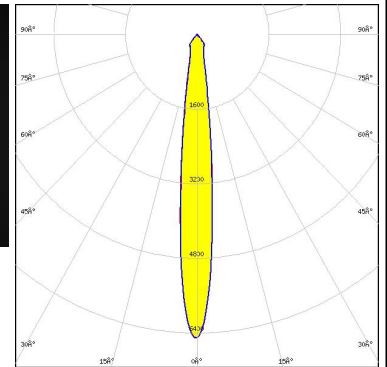
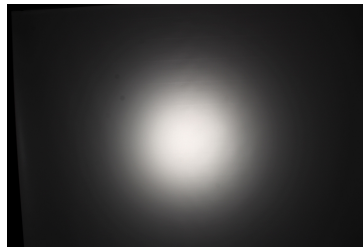
LED CDM-9 (Dim-To-Warm)  
 FWHM / FWTM 8.4° / 20.0°  
 Efficiency 89 %  
 Peak intensity 11.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 490 Typ L1



Light distribution files



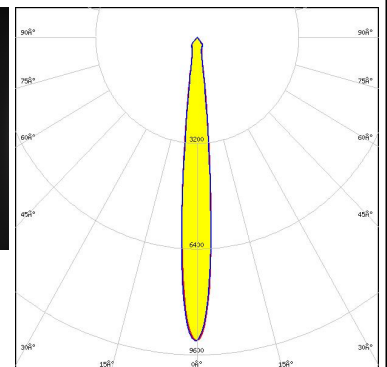
LED CTM-14 (Tunable White)  
 FWHM / FWTM 12.0° / 30.0°  
 Efficiency 87 %  
 Peak intensity 6.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 442 Typ L3



Light distribution files



LED CTM-14 (Tunable White)  
 FWHM / FWTM 11.0° / 24.0°  
 Efficiency 92 %  
 Peak intensity 9.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 442 Typ L3



Light distribution files



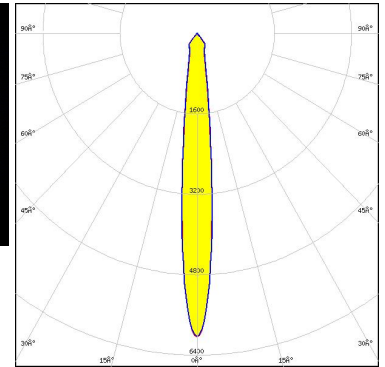
#### OPTICAL RESULTS (MEASURED):



LED CTM-14 RGBW  
 FWHM / FWTM 12.0° / 33.0°  
 Efficiency 86 %  
 Peak intensity 6 cd/m  
 LEDs/each optic 1  
 Light colour/type RGBW

Required components:

C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 500 Typ L3-1



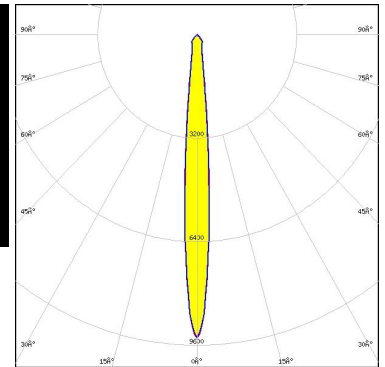
Light distribution files



LED CTM-14 RGBW  
 FWHM / FWTM 10.0° / 24.0°  
 Efficiency 90 %  
 Peak intensity 9.4 cd/m  
 LEDs/each optic 1  
 Light colour/type RGBW

Required components:

C13584\_CLAMP-VERO29  
 Bender Wirth: 500 Typ L3-1



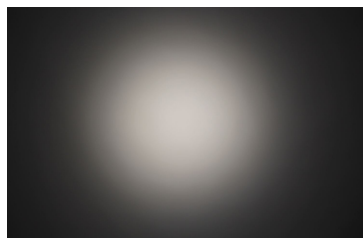
Light distribution files



LED CTM-22 (Tunable White)  
 FWHM / FWTM 19.0° / 63.0°  
 Efficiency 84 %  
 Peak intensity 3.1 cd/m  
 LEDs/each optic 1  
 Light colour/type White

Required components:

C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 494 Typ L3

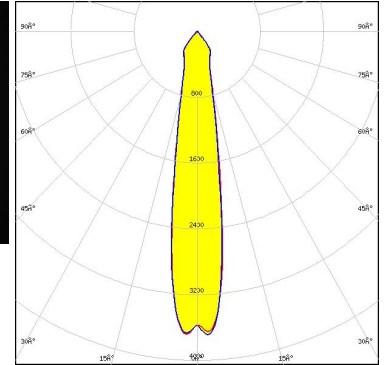


Light distribution files

#### OPTICAL RESULTS (MEASURED):



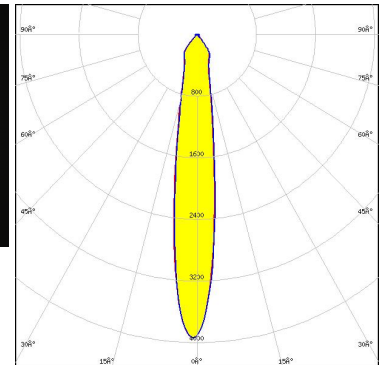
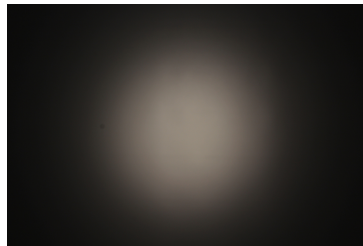
LED CTM-22 (Tunable White)  
 FWHM / FWTM 18.0° / 52.0°  
 Efficiency 88 %  
 Peak intensity 3.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 494 Typ L3



Light distribution files



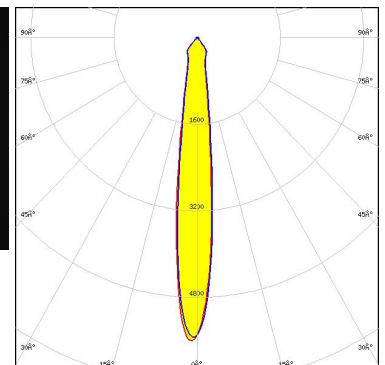
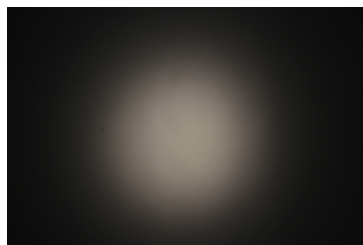
LED COB J-Type  
 FWHM / FWTM 16.0° / 49.0°  
 Efficiency 86 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2103NC + 50-2100AN



Light distribution files

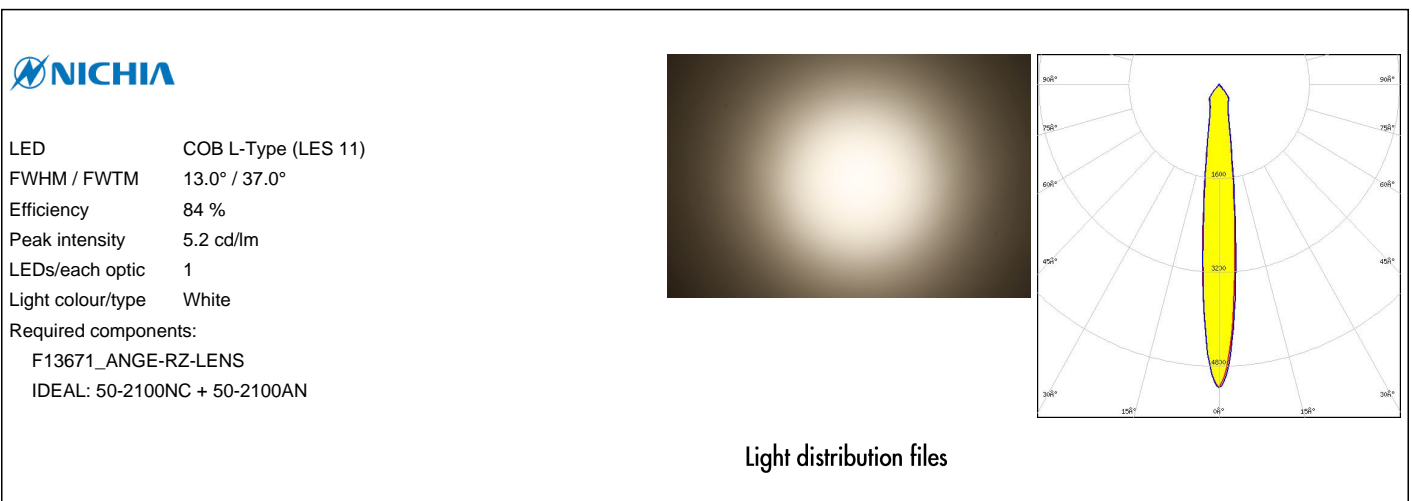
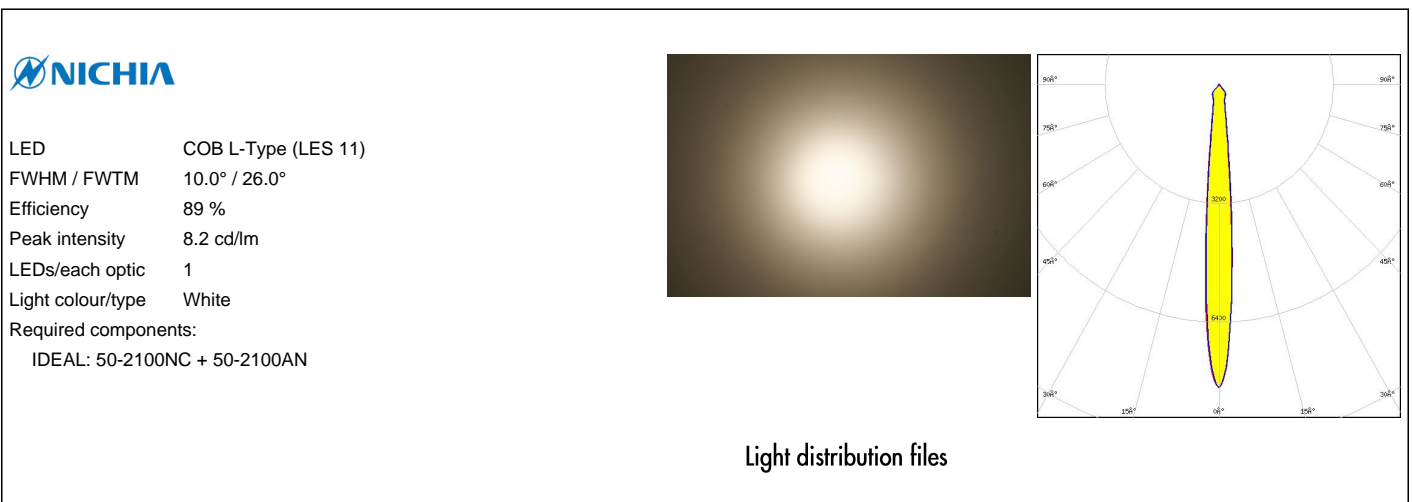
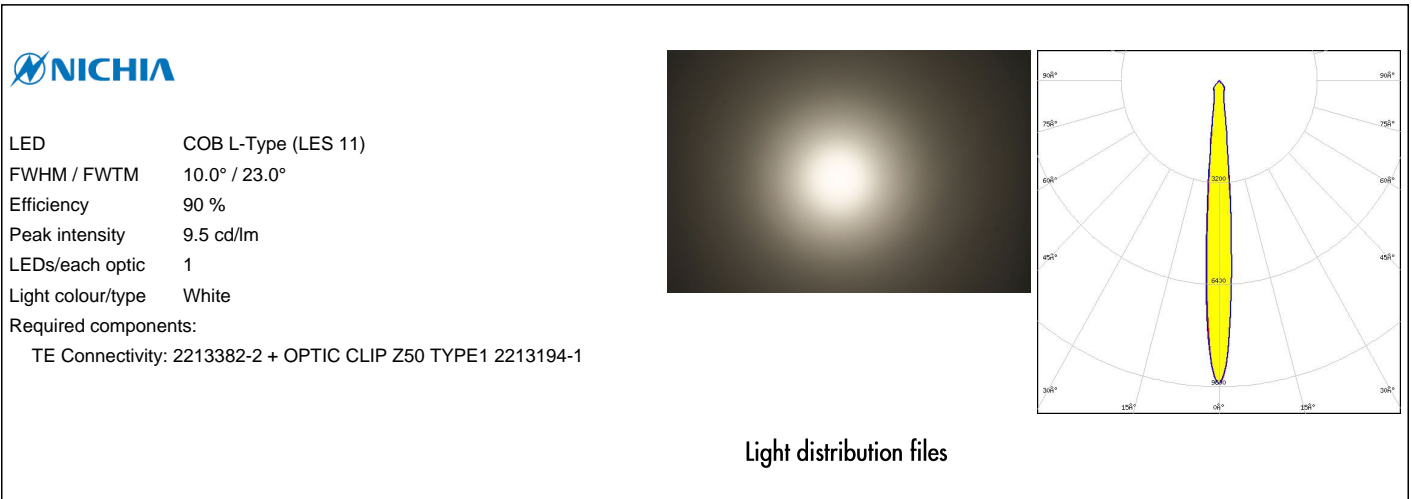


LED COB J-Type  
 FWHM / FWTM 13.0° / 35.0°  
 Efficiency 91 %  
 Peak intensity 5.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2103NC + 50-2100AN



Light distribution files

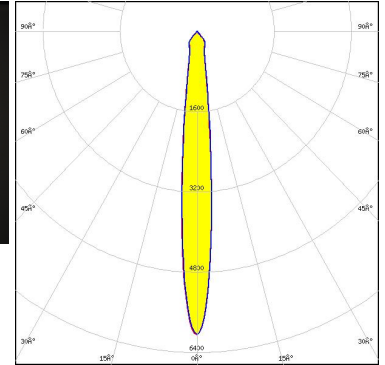
#### OPTICAL RESULTS (MEASURED):



### OPTICAL RESULTS (MEASURED):



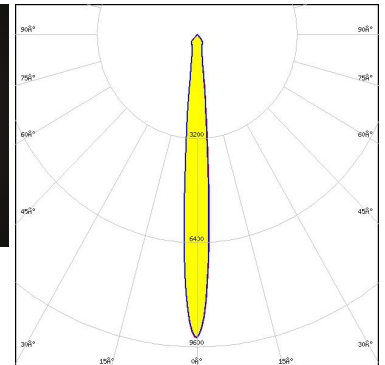
LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM / FWTM 12.0° / 32.0°  
 Efficiency 85 %  
 Peak intensity 6.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 498 Typ L2



Light distribution files



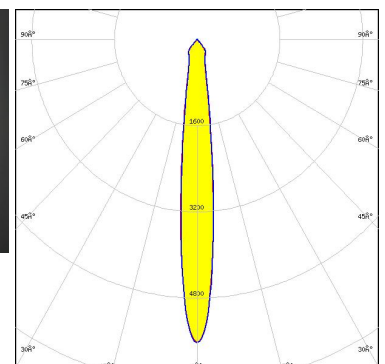
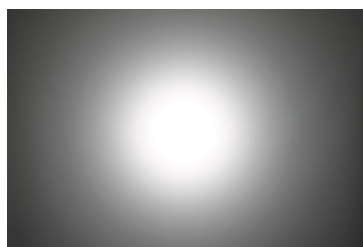
LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM / FWTM 10.0° / 23.0°  
 Efficiency 90 %  
 Peak intensity 9.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13658\_CLAMP-VERO13-18  
 Bender Wirth: 498 Typ L2



Light distribution files



LED Soleriq S13 19x19  
 FWHM / FWTM 13.0° / 34.0°  
 Efficiency 85 %  
 Peak intensity 5.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1

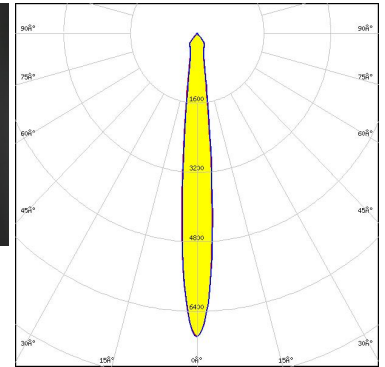


Light distribution files

#### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

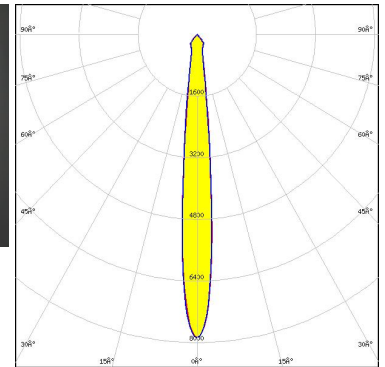
LED Soleriq S13 19x19  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 89 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



Light distribution files

**OSRAM**  
Opto Semiconductors

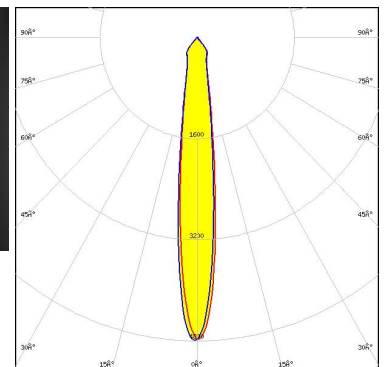
LED Soleriq S13 19x19  
 FWHM / FWTM 11.0° / 26.0°  
 Efficiency 89 %  
 Peak intensity 7.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 TE Connectivity: 2213254-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

**OSRAM**  
Opto Semiconductors

LED Soleriq S13 19x19  
 FWHM / FWTM 14.0° / 39.0°  
 Efficiency 84 %  
 Peak intensity 4.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 IDEAL: 50-2103CT + 50-2100AN

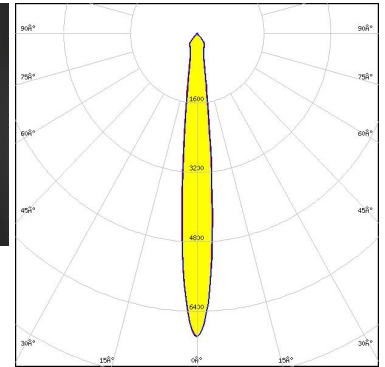


Light distribution files

#### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

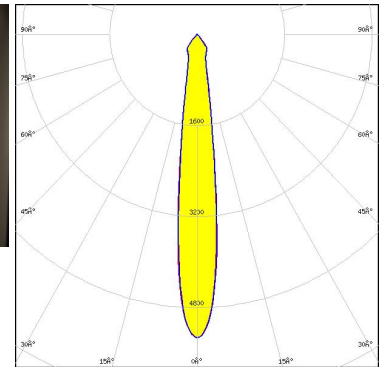
LED Soleriq S13 19x19  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 89 %  
 Peak intensity 7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 IDEAL: 50-2103CT + 50-2100AN



Light distribution files

**OSRAM**  
Opto Semiconductors

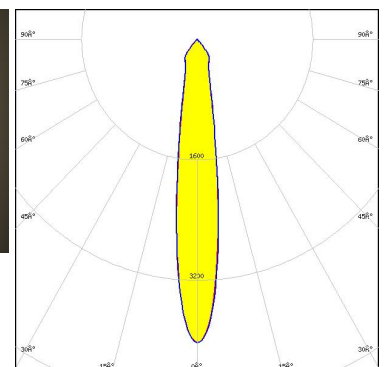
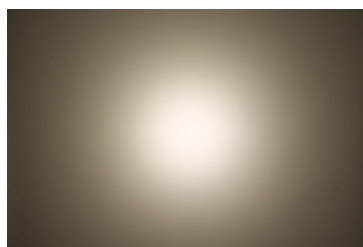
LED Soleriq S19  
 FWHM / FWTM 14.0° / 36.0°  
 Efficiency 90 %  
 Peak intensity 5.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 TE Connectivity: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

**OSRAM**  
Opto Semiconductors

LED Soleriq S19  
 FWHM / FWTM 16.0° / 47.0°  
 Efficiency 85 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213407-2 + OPTIC CLIP Z50 TYPE1 2213194-1



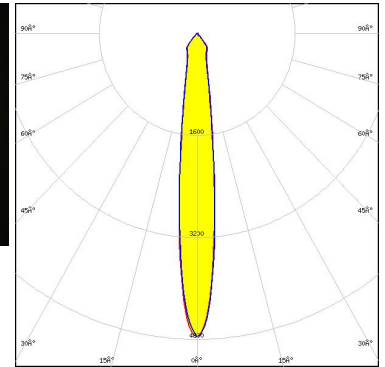
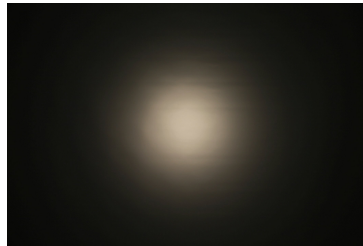
Light distribution files



#### OPTICAL RESULTS (MEASURED):

### PHILIPS

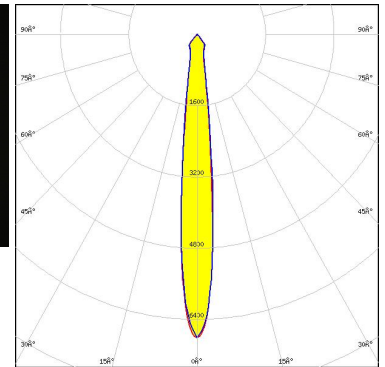
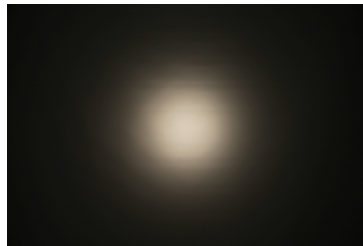
LED Fortimo SLM L13 CoB  
 FWHM / FWTM 14.0° / 39.0°  
 Efficiency 85 %  
 Peak intensity 4.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

### PHILIPS

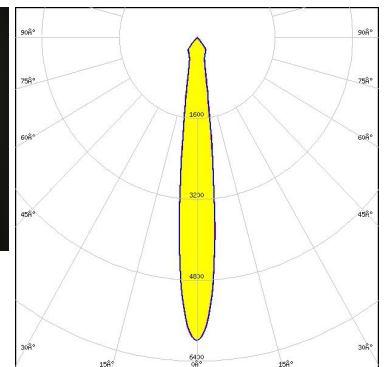
LED Fortimo SLM L13 CoB  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 91 %  
 Peak intensity 6.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

### PHILIPS

LED Fortimo SLM L15 + SLM holder  
 FWHM / FWTM 13.0° / 32.0°  
 Efficiency 89 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



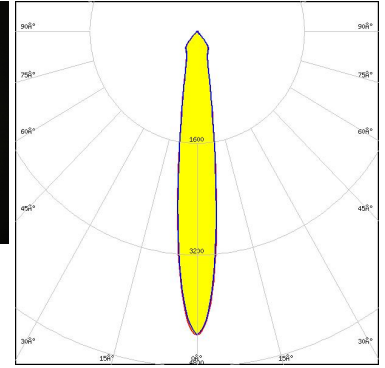
Light distribution files



#### OPTICAL RESULTS (MEASURED):

### PHILIPS

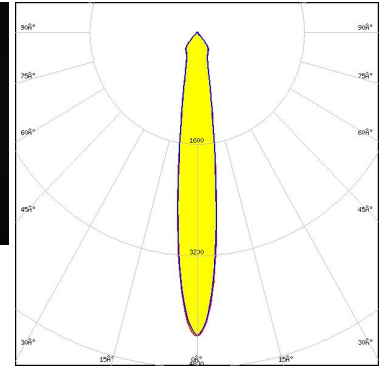
LED Fortimo SLM L15 CoB  
 FWHM / FWTM 15.0° / 43.0°  
 Efficiency 85 %  
 Peak intensity 4.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

### PHILIPS

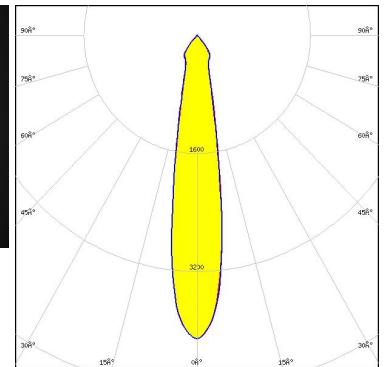
LED Fortimo SLM L15 CoB  
 FWHM / FWTM 15.0° / 43.0°  
 Efficiency 85 %  
 Peak intensity 4.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213130-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 18.0° / 46.0°  
 Efficiency 92 %  
 Peak intensity 4.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type Tunable White  
 Required components:  
 C13584\_CLAMP-VERO29  
 Bender Wirth: 502 Typ L3



Light distribution files

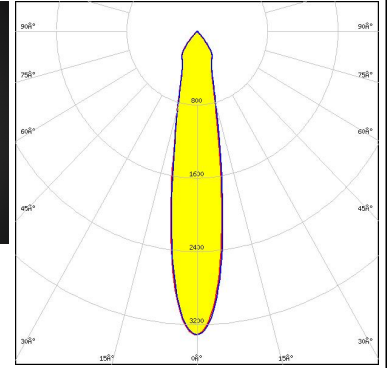
#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

LED LC035T (Tunable white)  
 FWHM / FWTM 20.0° / 62.0°  
 Efficiency 87 %  
 Peak intensity 3.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type Tunable White

Required components:

C13584\_CLAMP-VERO29  
 F13671\_ANGE-RZ-LENS  
 Bender Wirth: 502 Typ L3



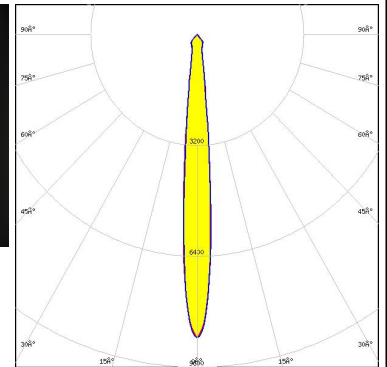
Light distribution files

### SAMSUNG

LED LC040C  
 FWHM / FWTM 10.0° / 24.0°  
 Efficiency 90 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

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



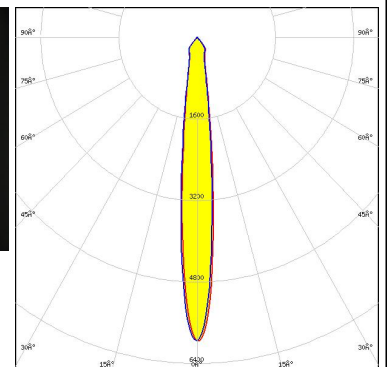
Light distribution files

### SAMSUNG

LED LC040C  
 FWHM / FWTM 12.0° / 32.0°  
 Efficiency 86 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

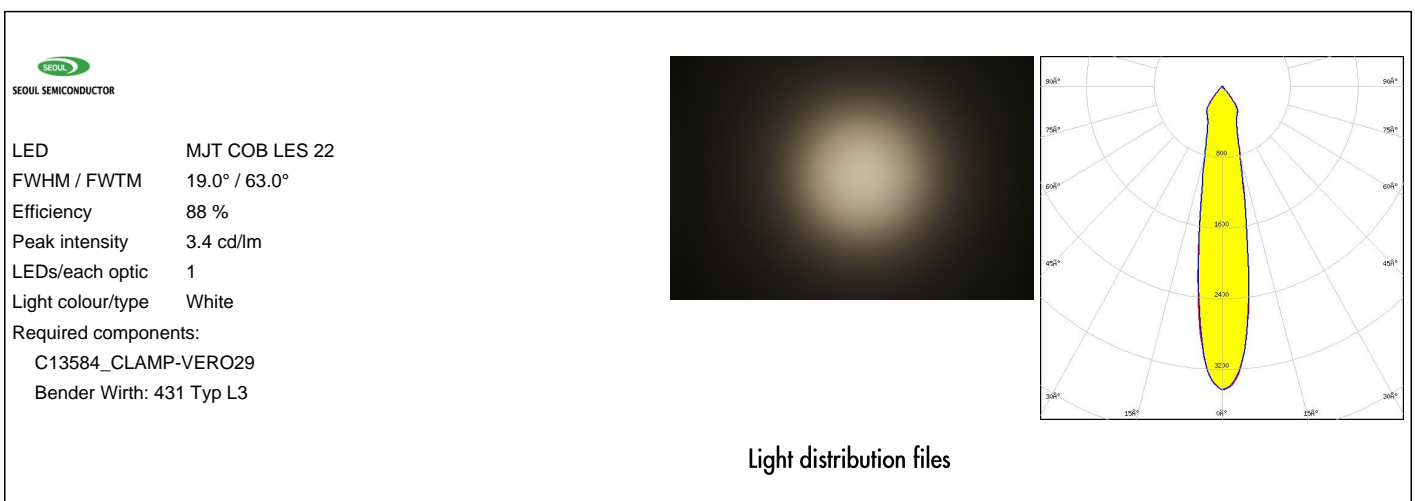
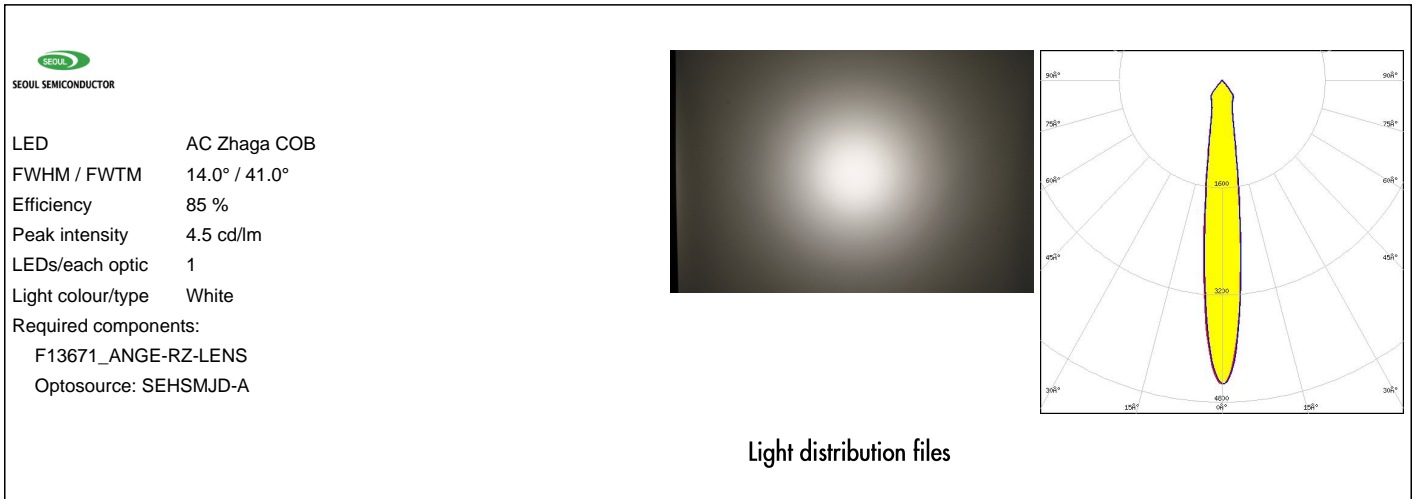
Required components:

F13671\_ANGE-RZ-LENS  
 TE Connectivity: 2213382-2 + OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files

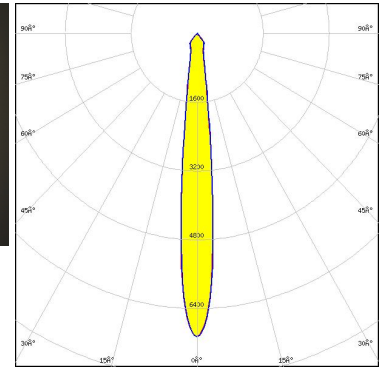
#### OPTICAL RESULTS (MEASURED):



#### OPTICAL RESULTS (MEASURED):



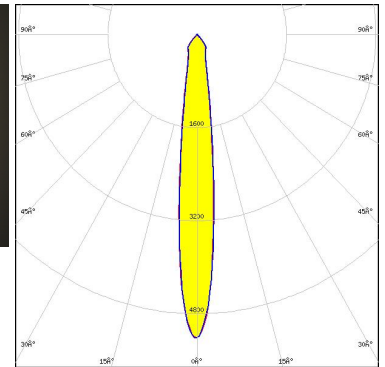
**LED** WU-M-484  
**FWHM / FWTM** 12.0° / 29.0°  
**Efficiency** 89 %  
**Peak intensity** 7.1 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files



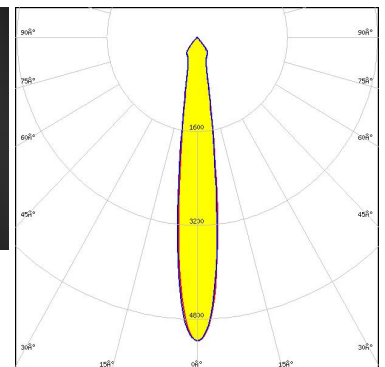
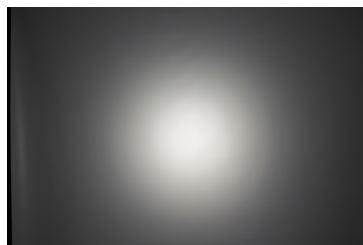
**LED** WU-M-484  
**FWHM / FWTM** 13.0° / 36.0°  
**Efficiency** 85 %  
**Peak intensity** 5.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 F13671\_ANGE-RZ-LENS  
 TE Connectivity: OPTIC CLIP Z50 TYPE1 2213194-1



Light distribution files



**LED** XTM - 19mm LES  
**FWHM / FWTM** 15.0° / 37.0°  
**Efficiency** 91 %  
**Peak intensity** 5.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 C16491\_XTM-ADAPTER-50-A



Light distribution files

### OPTICAL RESULTS (SIMULATED):

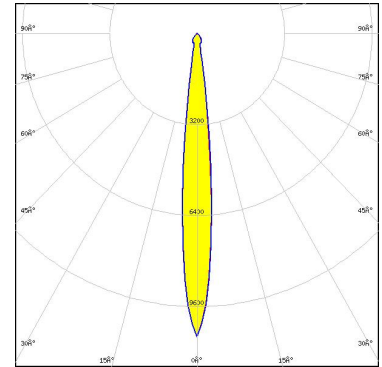
bridgelux

LED V13 Gen7  
FWHM / FWTM 11.0° / 22.0°  
Efficiency 92 %  
Peak intensity 10.7 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C13658\_CLAMP-VERO13-18

Bender Wirth: 477 Typ L1



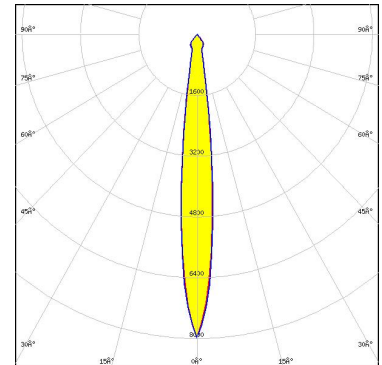
Light distribution files

bridgelux

LED V13 Gen7  
FWHM / FWTM 12.0° / 26.0°  
Efficiency 92 %  
Peak intensity 8 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

IDEAL: 50-2103CT + 50-2100AN



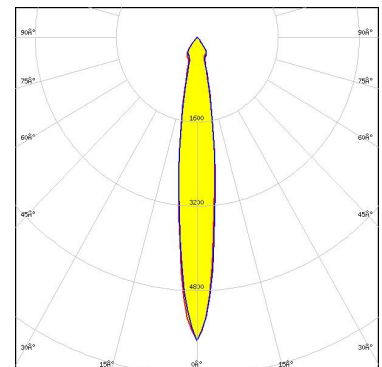
Light distribution files

bridgelux

LED V22 Gen7  
FWHM / FWTM 14.0° / 34.0°  
Efficiency 94 %  
Peak intensity 5.8 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

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



Light distribution files

### GENERAL INFORMATION:

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

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

### MATERIALS:

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

### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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