

## BARBARA-W-PF

~35° wide beam

### SPECIFICATION:

Dimensions	Ø 70.0 mm
Height	41.7 mm
Fastening	socket
ROHS compliant	yes ⓘ

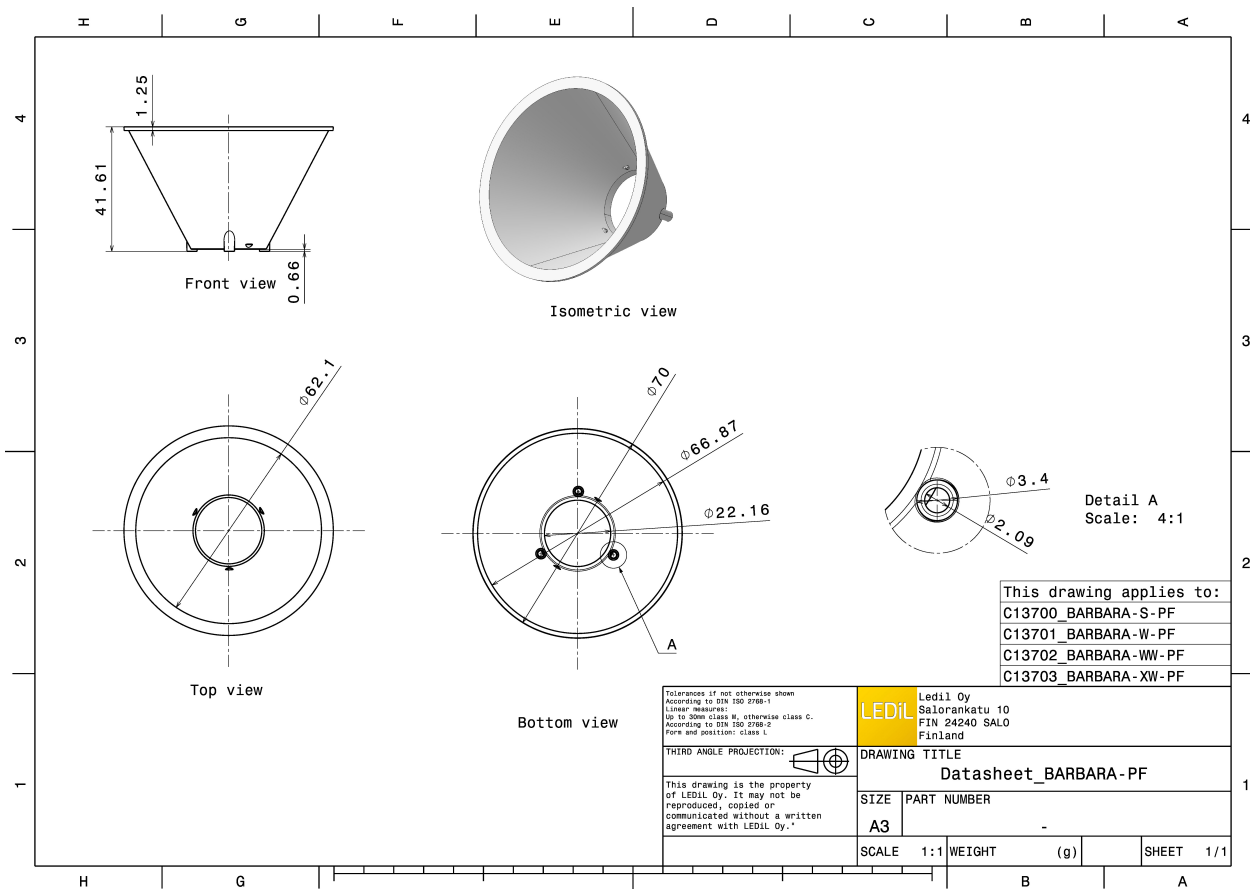
### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
BARBARA-W-PF	Reflector	PC	metal		HMDS



### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13701_BARBARA-W-PF » Box size: 480 x 280 x 300 mm	288	90	18	5.6



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

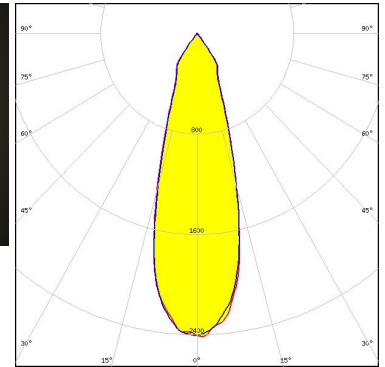
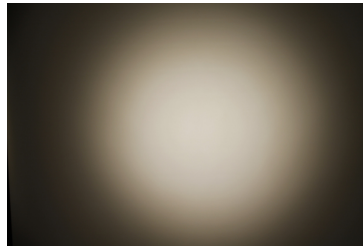
#### OPTICAL RESULTS (MEASURED):



LED V10 Gen7  
FWHM / FWTM 31.0° / 70.0°  
Efficiency 90 %  
Peak intensity 2.4 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 434 Typ L1



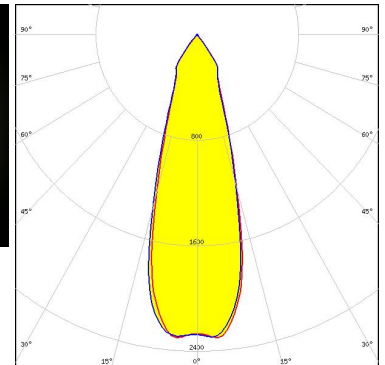
Light distribution files



LED VERO10  
FWHM / FWTM 31.0° / 71.0°  
Efficiency 91 %  
Peak intensity 2.3 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C13708\_PF-SOCKET-VERO10



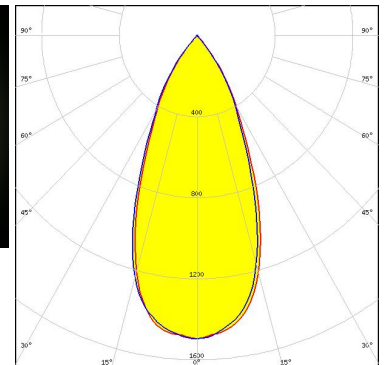
Light distribution files



LED VERO13  
FWHM / FWTM 36.0° / 72.0°  
Efficiency 93 %  
Peak intensity 2 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18

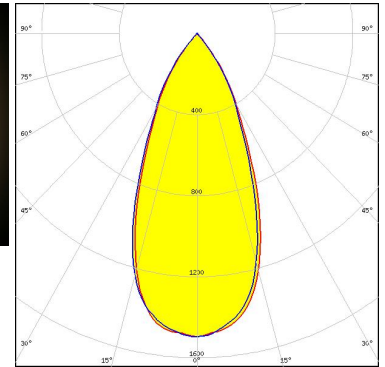
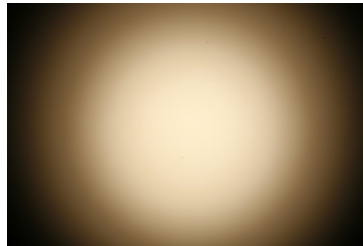


Light distribution files

#### OPTICAL RESULTS (MEASURED):



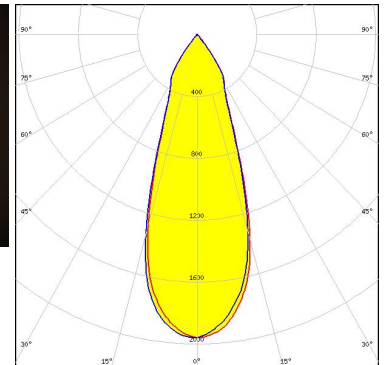
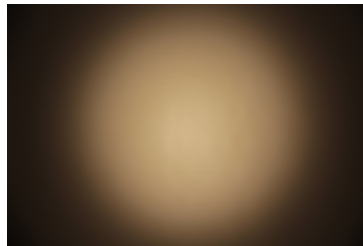
LED VERO18  
 FWHM / FWTM 45.0° / 76.0°  
 Efficiency 92 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18



Light distribution files



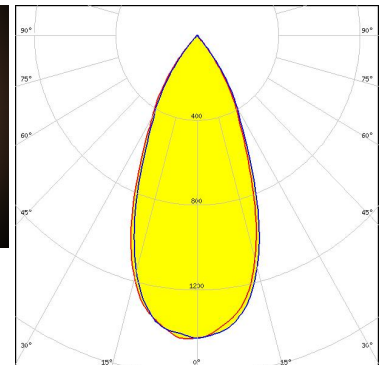
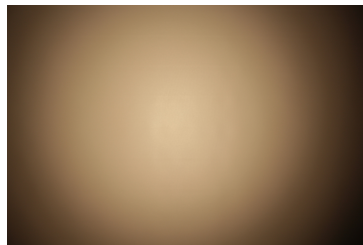
LED Xenio Point 13mm  
 FWHM / FWTM 36.0° / 73.0°  
 Efficiency 91 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18



Light distribution files



LED Xenio Point 18mm  
 FWHM / FWTM 46.0° / 77.0°  
 Efficiency 89 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18



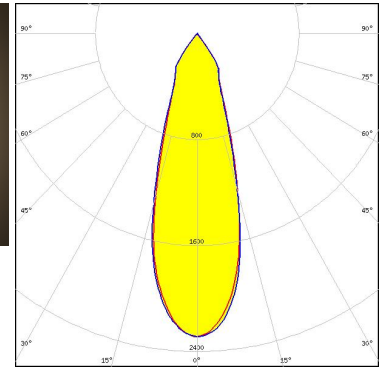
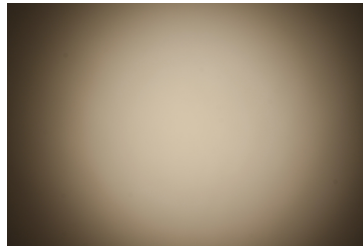
Light distribution files



#### OPTICAL RESULTS (MEASURED):

### CITIZEN

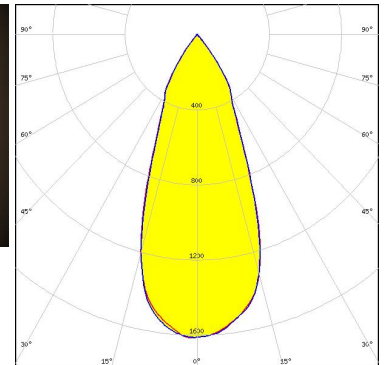
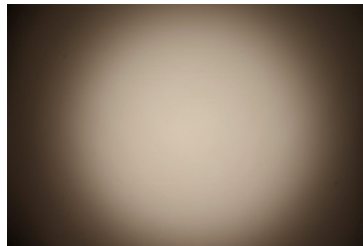
LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 32.0° / 71.0°  
 Efficiency 88 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 434 Typ L1



Light distribution files

### CITIZEN

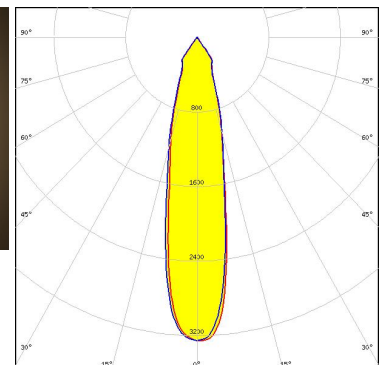
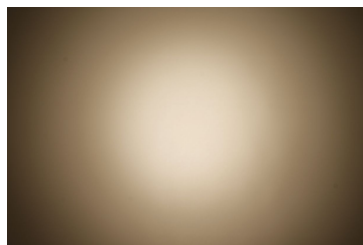
LED CLL03x/CLU03x  
 FWHM / FWTM 41.0° / 73.0°  
 Efficiency 87 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 433 Typ L1



Light distribution files

### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 22.0° / 61.0°  
 Efficiency 89 %  
 Peak intensity 3.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 434 Typ L1

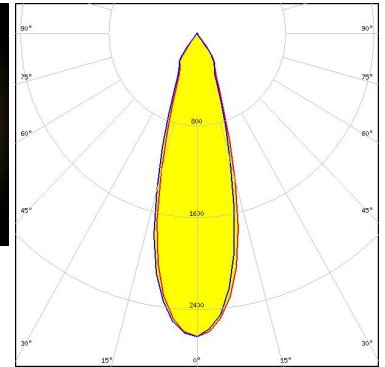


Light distribution files

#### OPTICAL RESULTS (MEASURED):



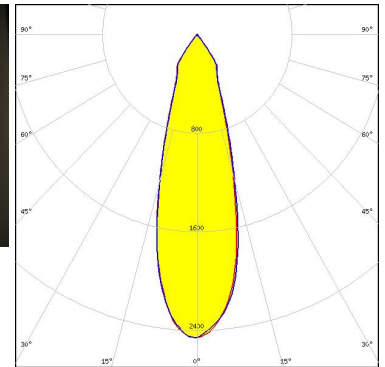
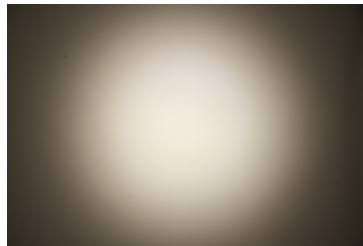
LED CXA/B 15xx  
 FWHM / FWTM 30.0° / 69.0°  
 Efficiency 91 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14115\_PF-SOCKET-CXA15-18



Light distribution files



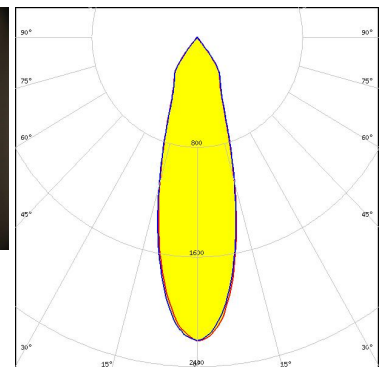
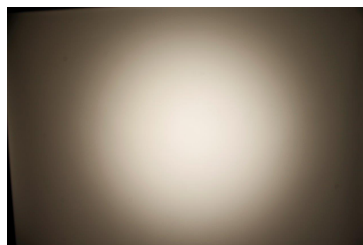
LED CXA/B 15xx  
 FWHM / FWTM 30.0° / 70.0°  
 Efficiency 88 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 441 Typ L1



Light distribution files



LED CXA/B 15xx  
 FWHM / FWTM 30.0° / 73.0°  
 Efficiency 85 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13083\_PF-SOCKET  
 C14658\_BARBARA-RZ-LENS

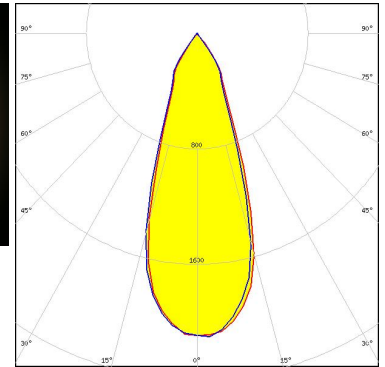


Light distribution files

#### OPTICAL RESULTS (MEASURED):



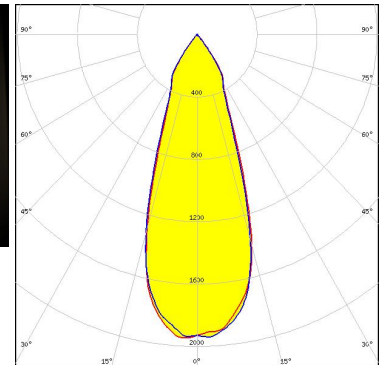
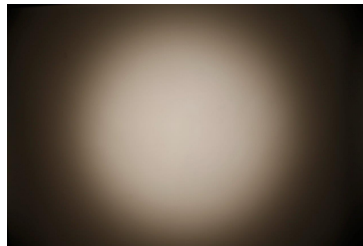
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 36.0° / 71.0°  
 Efficiency 94 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14115\_PF-SOCKET-CXA15-18



Light distribution files



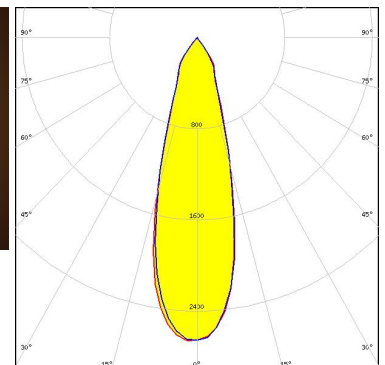
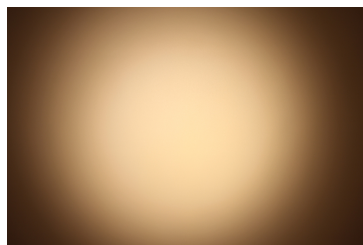
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM / FWTM 36.0° / 72.0°  
 Efficiency 88 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 437 Typ L1



Light distribution files



LED LUXEON CoB 1202/1203  
 FWHM / FWTM 30.0° / 68.0°  
 Efficiency 91 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14037\_PF-NSX-SOCKET

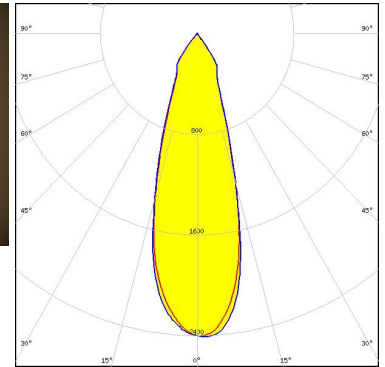
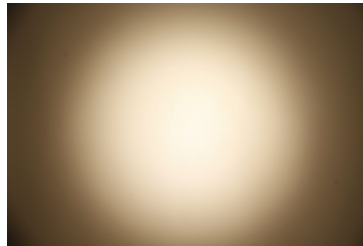


Light distribution files

#### OPTICAL RESULTS (MEASURED):



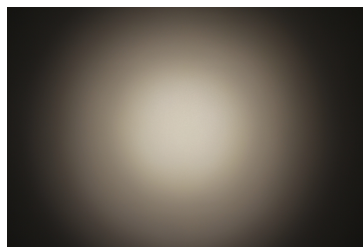
LED LUXEON CoB 1202/1203  
 FWHM / FWTM 31.0° / 70.0°  
 Efficiency 90 %  
 Peak intensity 2.4 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 438 Typ L1



Light distribution files



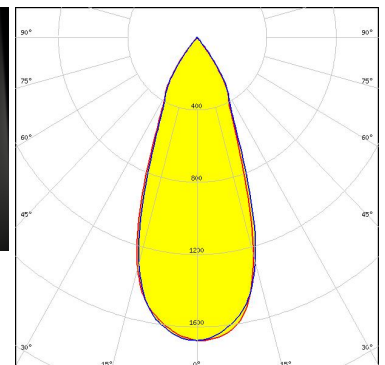
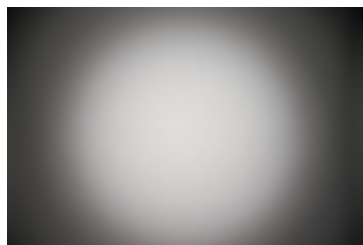
LED LUXEON CoB 1202s  
 FWHM / FWTM 20.0° / 52.0°  
 Efficiency 92 %  
 Peak intensity 4.1 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13761\_PF-SOCKET-CXA15



Light distribution files



LED COB J-Type  
 FWHM / FWTM 40.0° / 73.0°  
 Efficiency 88 %  
 Peak intensity 1.7 cd/m  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 463 Typ L2

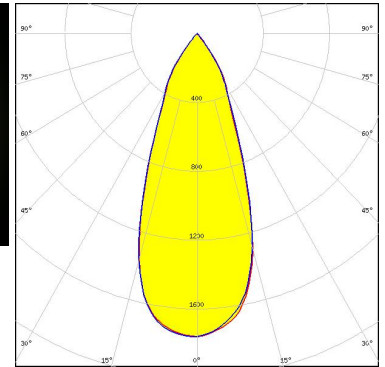
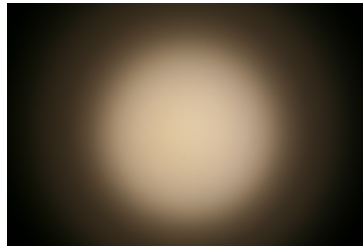


Light distribution files

#### OPTICAL RESULTS (MEASURED):



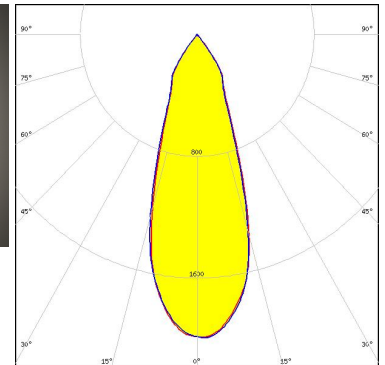
LED COB J-Type  
 FWHM / FWTM 41.0° / 74.0°  
 Efficiency 92 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14037\_PF-NSX-SOCKET



Light distribution files



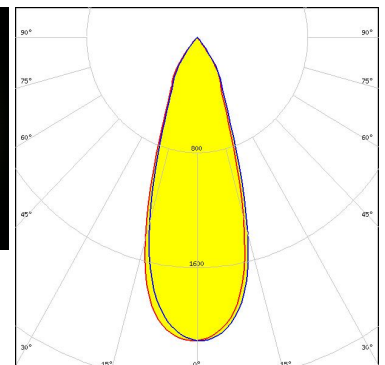
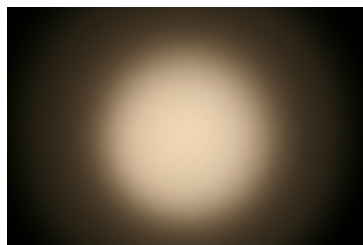
LED COB L-Type (LES 11)  
 FWHM / FWTM 35.0° / 72.0°  
 Efficiency 88 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 438 Typ L1



Light distribution files



LED COB L-Type (LES 11)  
 FWHM / FWTM 35.0° / 71.0°  
 Efficiency 91 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14037\_PF-NSX-SOCKET

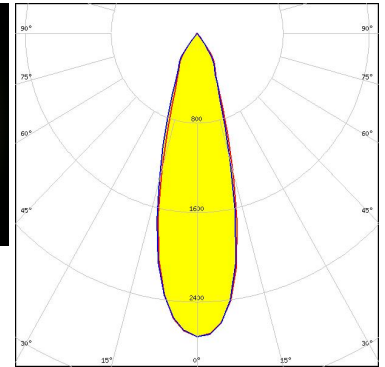


Light distribution files

#### OPTICAL RESULTS (MEASURED):



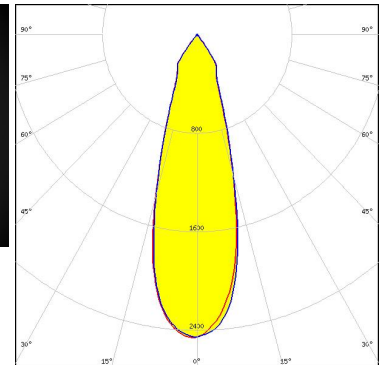
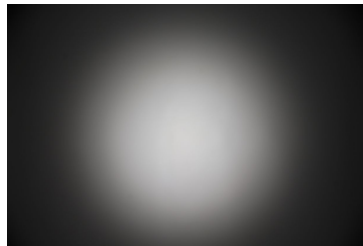
LED COB L-Type (LES 9)  
 FWHM / FWTM 30.0° / 68.0°  
 Efficiency 92 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14037\_PF-NSX-SOCKET



Light distribution files



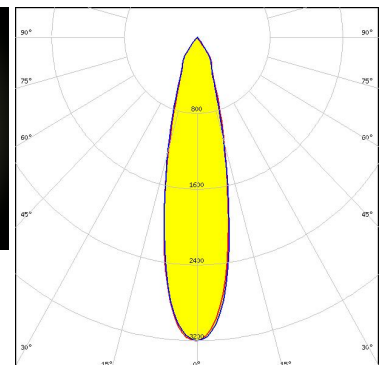
LED COB L-Type (LES 9)  
 FWHM / FWTM 30.0° / 70.0°  
 Efficiency 91 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 438 Typ L1



Light distribution files



LED NSCxL036A  
 FWHM / FWTM 25.0° / 60.0°  
 Efficiency 90 %  
 Peak intensity 3.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C14037\_PF-NSX-SOCKET



Light distribution files



#### OPTICAL RESULTS (MEASURED):

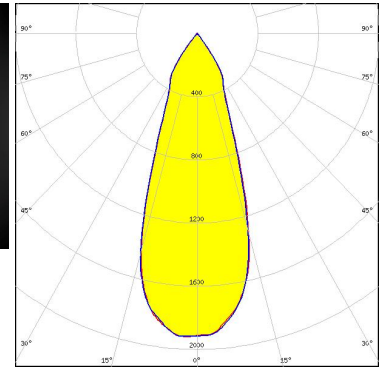
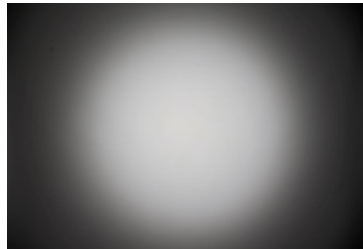
**OSRAM**  
Opto Semiconductors

LED Soleriq S13  
FWHM / FWTM 37.0° / 72.0°  
Efficiency 89 %  
Peak intensity 1.9 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 437 Typ L1



Light distribution files

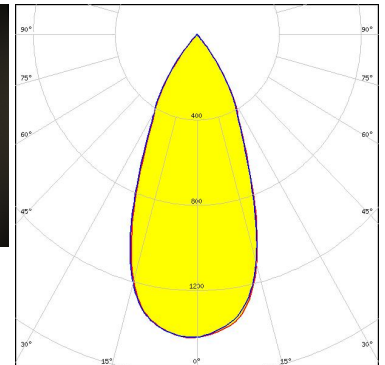
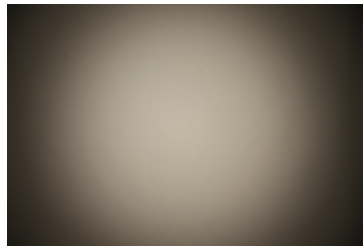
**SAMSUNG**

LED LC026B / 033B / 040B  
FWHM / FWTM 45.0° / 76.0°  
Efficiency 87 %  
Peak intensity 1.4 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 450 Typ L2



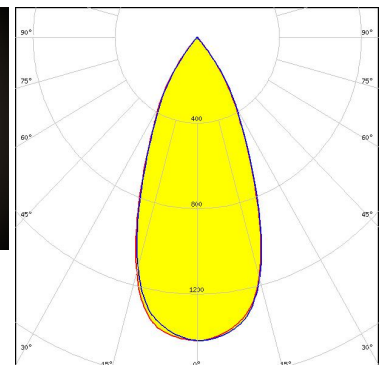
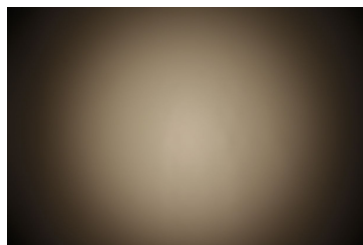
Light distribution files

**XICATO**

LED XTM - 19mm LES  
FWHM / FWTM 45.0° / 75.0°  
Efficiency 86 %  
Peak intensity 1.4 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:

C14636\_XTM-PF-ADAPTER



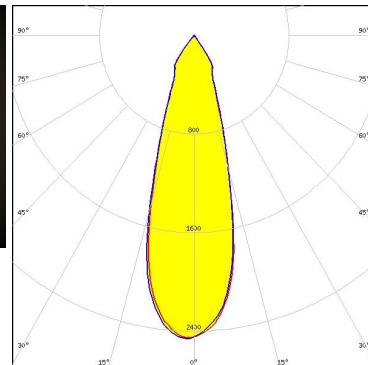
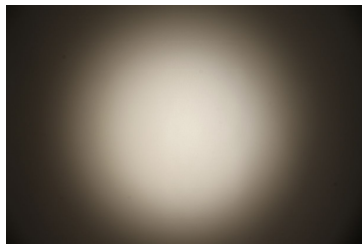
Light distribution files



## OPTICAL RESULTS (MEASURED):

### XICATO

LED	XTM - 9mm LES
FWHM / FWTM	30.0° / 70.0°
Efficiency	89 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	
	C14636_XTM-PF-ADAPTER

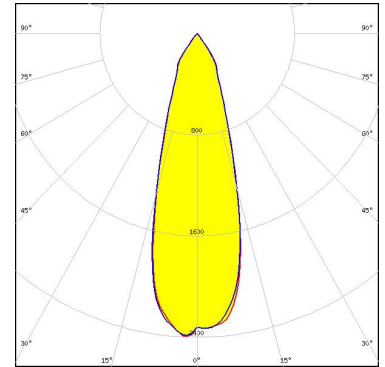


Light distribution files

#### OPTICAL RESULTS (SIMULATED):



LED V10 Gen7  
 FWHM / FWTM 31.0° / 69.0°  
 Efficiency 90 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18



Bender Wirth: 486 Typ L1

Light distribution files



LED VERO10  
 FWHM / FWTM 30.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Light distribution files



LED VERO13  
 FWHM / FWTM 34.0°  
 Efficiency %  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

Light distribution files

### OPTICAL RESULTS (SIMULATED):



LED	VERO18
FWHM / FWTM	43.0°
Efficiency	%
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files



LED	CXA/B 15xx
FWHM / FWTM	28.0°
Efficiency	%
LEDs/each optic	1
Light colour/type	White
Required components:	



LED	LUXEON CoB Compact
FWHM / FWTM	20.0° / 52.0°
Efficiency	92 %
Peak intensity	4.1 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	
C13761_PF-SOCKET-CXA15	

Light distribution files

#### OPTICAL RESULTS (SIMULATED):



LED CxM-14 (19x19)  
 FWHM / FWTM 41.0° / 73.0°  
 Efficiency 87 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 433 Typ L1

Light distribution files



LED CxM-9 (13.5x13.5)  
 FWHM / FWTM 32.0° / 71.0°  
 Efficiency 88 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 434 Typ L1

Light distribution files



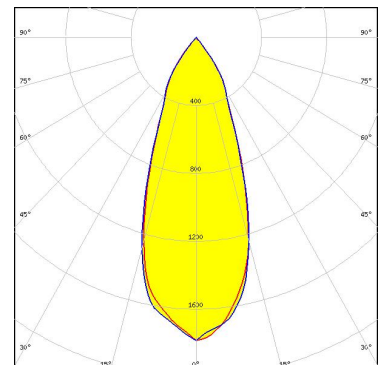
LED Soleriq S15  
 FWHM / FWTM 39.0° / 74.0°  
 Efficiency 90 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 433 Typ L1

Light distribution files

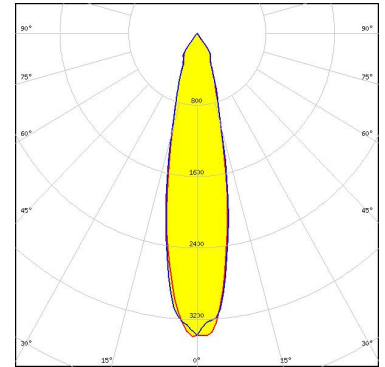


#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

LED LC010C  
FWHM / FWTM 23.0° / 54.0°  
Efficiency 90 %  
Peak intensity 3.5 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:  
C13709\_PF-SOCKET-VERO13-18



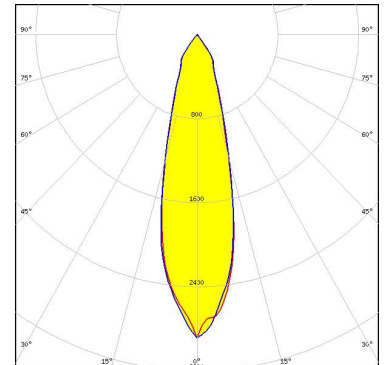
Bender Wirth: 479 Typ L1

Light distribution files

### SAMSUNG

LED LC020C  
FWHM / FWTM 27.0° / 65.0°  
Efficiency 89 %  
Peak intensity 2.9 cd/lm  
LEDs/each optic 1  
Light colour/type White

Required components:  
C13709\_PF-SOCKET-VERO13-18



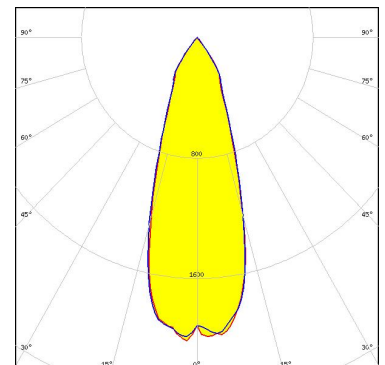
Bender Wirth: 479 Typ L1

Light distribution files

### SAMSUNG

LED LC040C  
FWHM / FWTM 33.0° / 70.0°  
Efficiency 85 %  
Peak intensity 2.1 cd/lm  
LEDs/each optic 1  
Light colour/type White


Required components:  
C13709\_PF-SOCKET-VERO13-18




Bender Wirth: 480 Typ L1

Light distribution files

### OPTICAL RESULTS (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC12/18
FWHM / FWTM	41.0° / 73.0°
Efficiency	87 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components: C13709_PF-SOCKET-VERO13-18	
Bender Wirth: 433 Typ L1	

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	32.0° / 71.0°
Efficiency	88 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components: C13709_PF-SOCKET-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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