

## BARBARA-S-PF

~15° spot beam

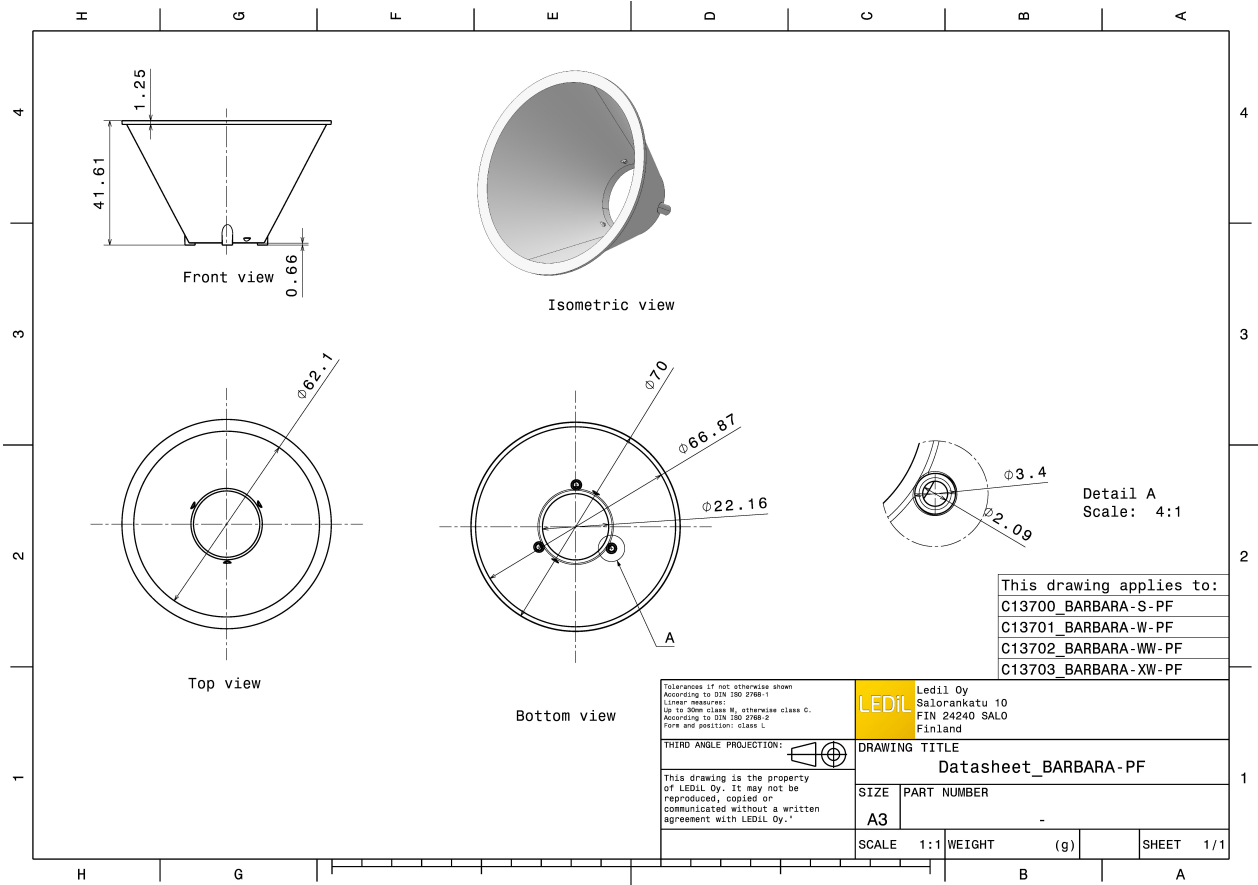
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 70 mm
Height	41.7 mm
Fastening	socket
Colour	metal
Box size	480 x 280 x 300 mm
Box weight	6.1 kg
Quantity in Box	288 pcs
ROHS compliant	yes ⓘ


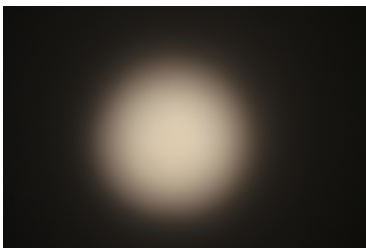

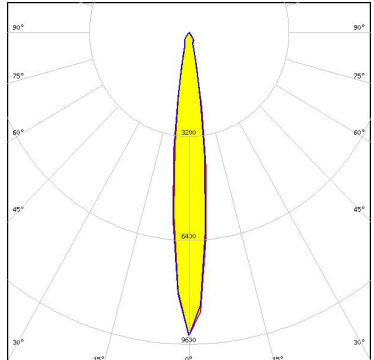

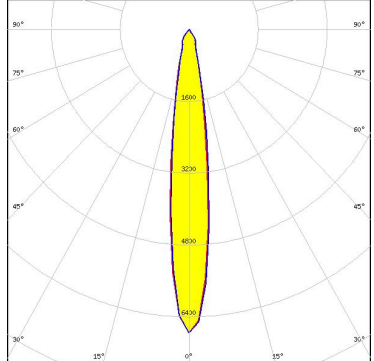


### MATERIAL SPECIFICATIONS:


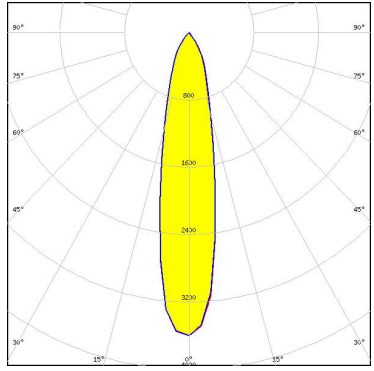

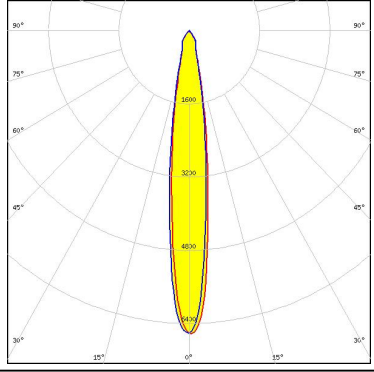

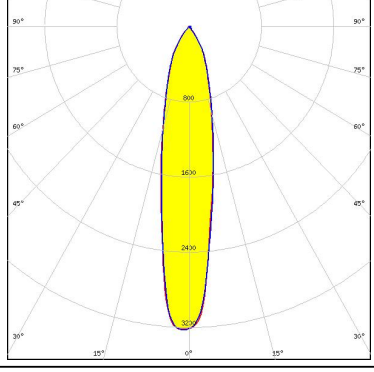

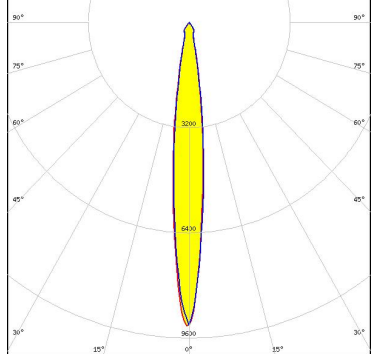
Component	Type	Material	Colour	Coating
BARBARA-S-PF	Reflector	PC	metal	HMDS



**PHOTOMETRIC DATA (MEASURED):**

<p>bridgelux.</p> <p>LED V15 Gen6 FWHM 18.0° Efficiency 92 % Peak intensity 4.750 cd/lm Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 456 Typ L2</p>		
<p>bridgelux.</p> <p>LED V8 Gen6 FWHM 13.0° Efficiency 86 % Peak intensity 10.600 cd/lm Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 460 Typ L1</p>		
<p>bridgelux.</p> <p>LED VERO10 FWHM 13.0° Efficiency 90 % Peak intensity 9.300 cd/lm Required components: C13708_PF-SOCKET-VERO10</p>		
<p>bridgelux.</p> <p>LED VERO13 FWHM 15.0° Efficiency 91 % Peak intensity 6.800 cd/lm Required components: C13709_PF-SOCKET-VERO13-18</p>		

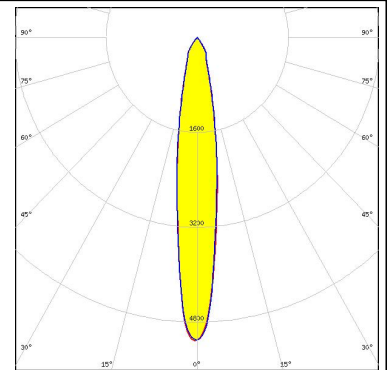
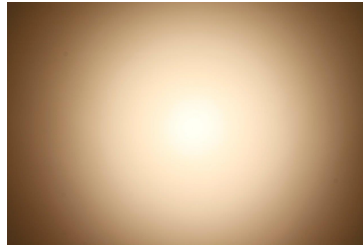
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED VERO18</p> <p>FWHM 22.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 3.600 cd/lm</p> <p>Required components: C13709_PF-SOCKET-VERO13-18</p>		
<p>bridgelux.</p> <p>LED Xenio Point 13mm</p> <p>FWHM 14.0°</p> <p>Efficiency 91 %</p> <p>Peak intensity 6.640 cd/lm</p> <p>Required components: C13709_PF-SOCKET-VERO13-18</p>		
<p>bridgelux.</p> <p>LED Xenio Point 18mm</p> <p>FWHM 21.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 3.230 cd/lm</p> <p>Required components: C13709_PF-SOCKET-VERO13-18</p>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)</p> <p>FWHM 12.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 9.200 cd/lm</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 434 Typ L1</p>		

#### PHOTOMETRIC DATA (MEASURED):

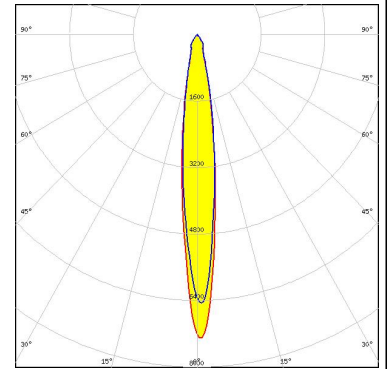
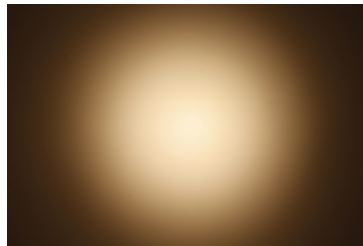
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 16.0°  
 Efficiency 88 %  
 Peak intensity 5.100 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 433 Typ L1



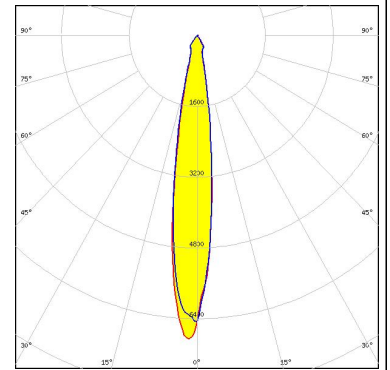
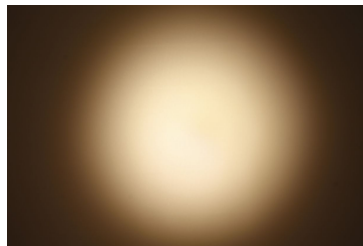
#### CITIZEN

LED CLU720/721  
 FWHM 14.0°  
 Efficiency 87 %  
 Peak intensity 7.300 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 433 Typ L1



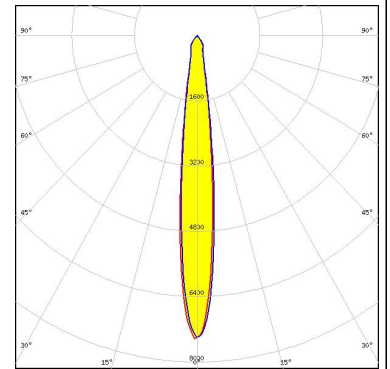
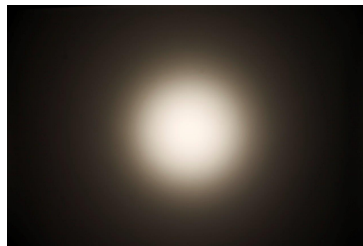
#### CREE

LED CXA/B 15xx  
 FWHM 15.0°  
 Efficiency 89 %  
 Peak intensity 6.900 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 441 Typ L1



#### CREE

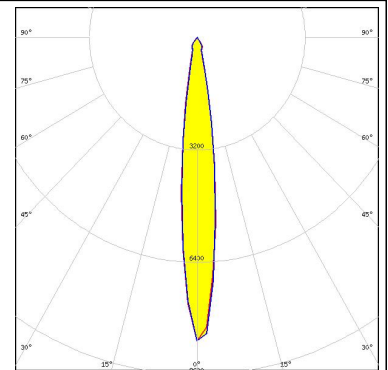
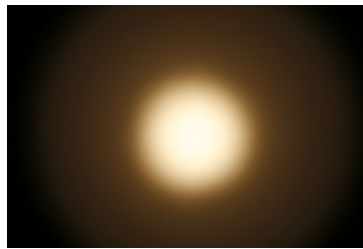
LED CXA/B 15xx  
 FWHM 13.0°  
 Efficiency 85 %  
 Peak intensity 7.400 cd/lm  
 Required components:  
 C13083\_PF-SOCKET  
 C14658\_BARBARA-RZ-LENS



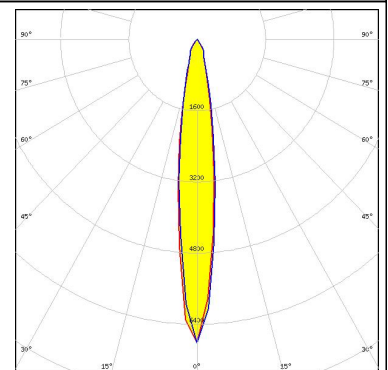
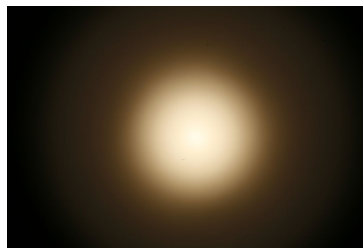
#### PHOTOMETRIC DATA (MEASURED):



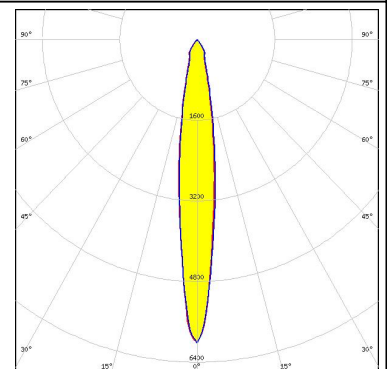
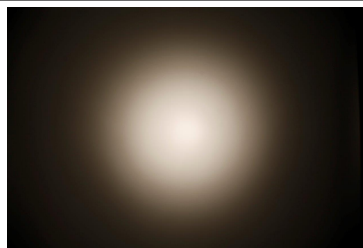
LED CXA/B 15xx  
FWHM 14.0°  
Efficiency 91 %  
Peak intensity 8.600 cd/lm  
Required components:  
C14115\_PF-SOCKET-CXA15-18



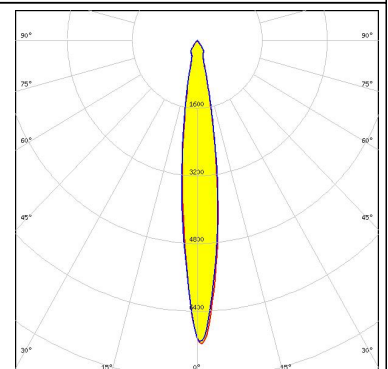
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
FWHM 15.0°  
Efficiency 92 %  
Peak intensity 6.800 cd/lm  
Required components:  
C14115\_PF-SOCKET-CXA15-18



LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
FWHM 14.0°  
Efficiency 86 %  
Peak intensity 6.100 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 437 Typ L1



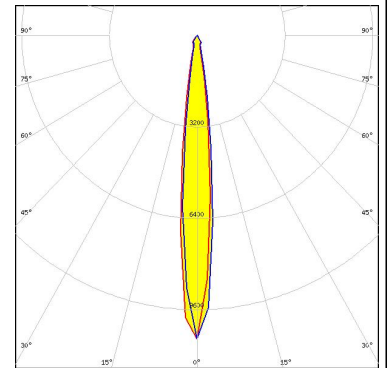
LED LUXEON CoB 1202/1203  
FWHM 14.0°  
Efficiency 88 %  
Peak intensity 7.300 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 438 Typ L1



#### PHOTOMETRIC DATA (MEASURED):



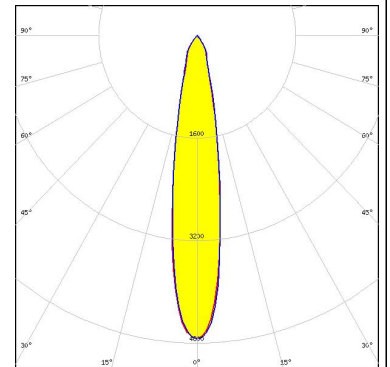
LED LUXEON CoB 1202/1203  
 FWHM 12.0°  
 Efficiency 90 %  
 Peak intensity 10.600 cd/lm  
 Required components:  
 C14037\_PF-NSX-SOCKET



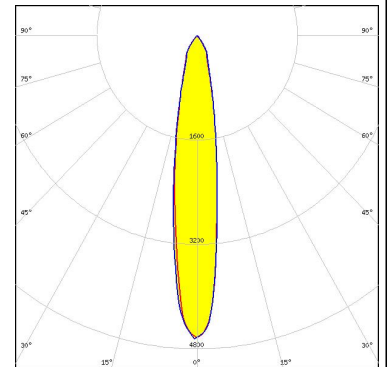
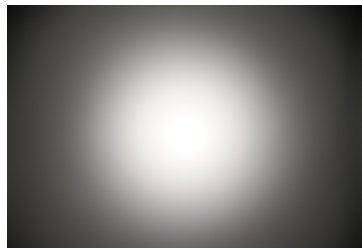
LED LUXEON CoB 1202s  
 FWHM 9.0°  
 Efficiency 90 %  
 Peak intensity 19.600 cd/lm  
 Required components:  
 C13761\_PF-SOCKET-CXA15



LED COB J-Type  
 FWHM 19.0°  
 Efficiency 91 %  
 Peak intensity 4.730 cd/lm  
 Required components:  
 C14037\_PF-NSX-SOCKET



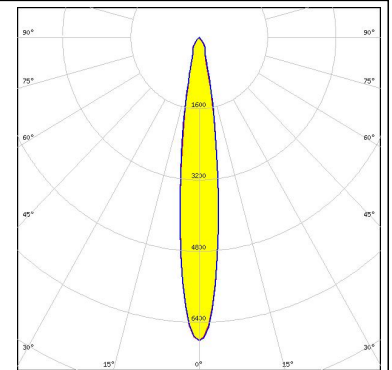
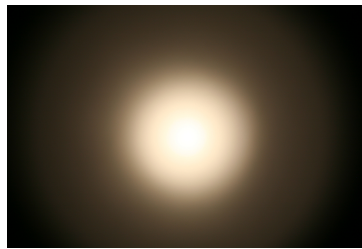
LED COB J-Type  
 FWHM 17.0°  
 Efficiency 88 %  
 Peak intensity 4.600 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 463 Typ L2



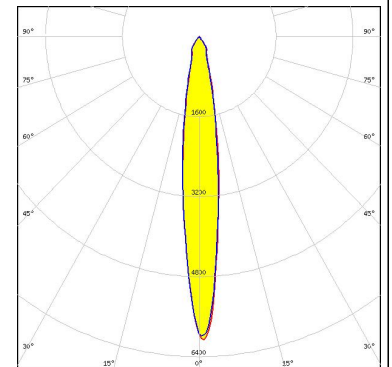
#### PHOTOMETRIC DATA (MEASURED):



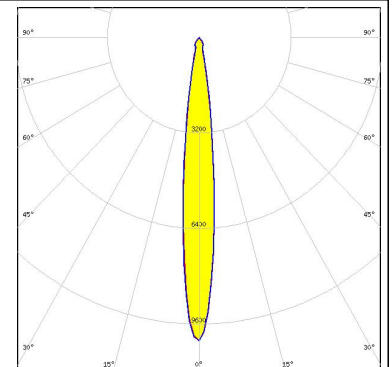
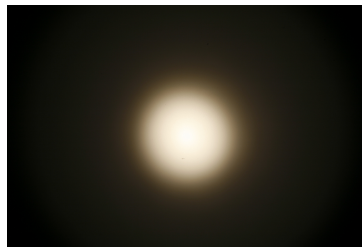
LED COB L-Type (LES 11)  
 FWHM 15.0°  
 Efficiency 90 %  
 Peak intensity 6.800 cd/lm  
 Required components:  
 C14037\_PF-NSX-SOCKET



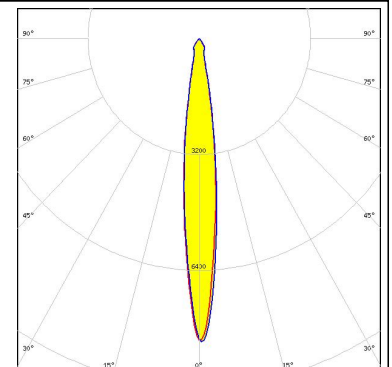
LED COB L-Type (LES 11)  
 FWHM 14.0°  
 Efficiency 86 %  
 Peak intensity 6.100 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 438 Typ L1



LED COB L-Type (LES 9)  
 FWHM 13.0°  
 Efficiency 90 %  
 Peak intensity 10.100 cd/lm  
 Required components:  
 C14037\_PF-NSX-SOCKET



LED COB L-Type (LES 9)  
 FWHM 13.0°  
 Efficiency 90 %  
 Peak intensity 8.400 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 438 Typ L1

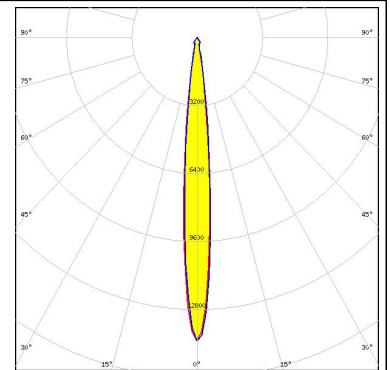
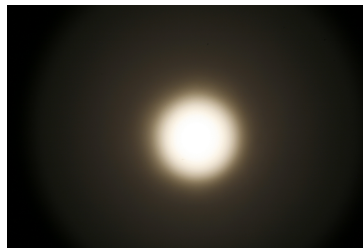




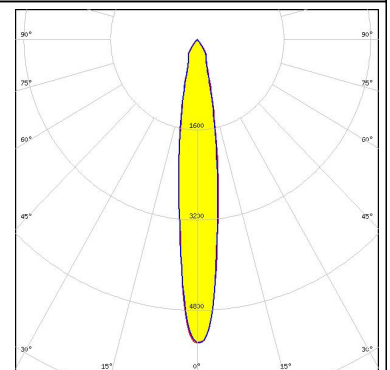
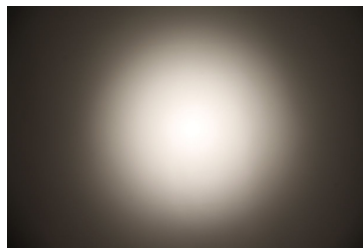
#### PHOTOMETRIC DATA (MEASURED):



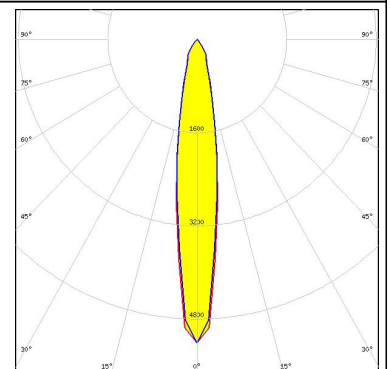
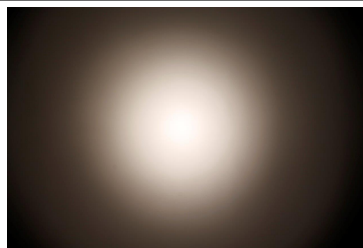
LED NSCxL036A  
 FWHM 11.0°  
 Efficiency 89 %  
 Peak intensity 14.120 cd/lm  
 Required components:  
 C14037\_PF-NSX-SOCKET



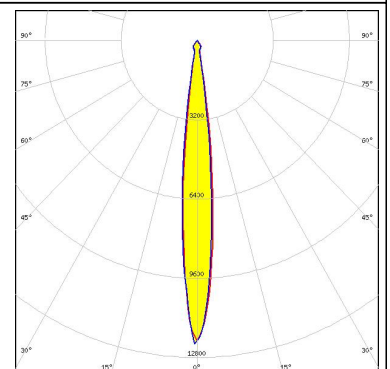
LED Soleriq P13  
 FWHM 16.0°  
 Efficiency 91 %  
 Peak intensity 5.400 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 437 Typ L1



LED Soleriq P13  
 FWHM 15.0°  
 Efficiency 89 %  
 Peak intensity 5.380 cd/lm  
 Required components:  
 C14115\_PF-SOCKET-CXA15-18



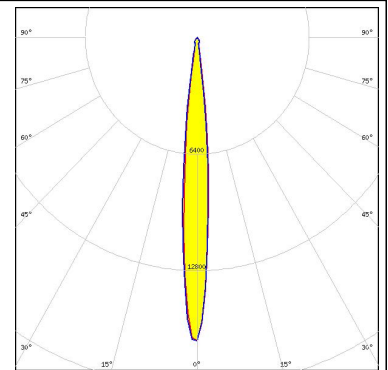
LED Soleriq P6  
 FWHM 12.0°  
 Efficiency 89 %  
 Peak intensity 12.000 cd/lm  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 446 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

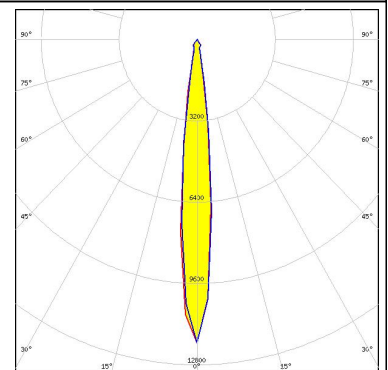
**OSRAM**  
Opto Semiconductors

LED Soleriq P6  
FWHM 10.0°  
Efficiency 90 %  
Peak intensity 16.700 cd/lm  
Required components:  
C13761\_PF-SOCKET-CXA15



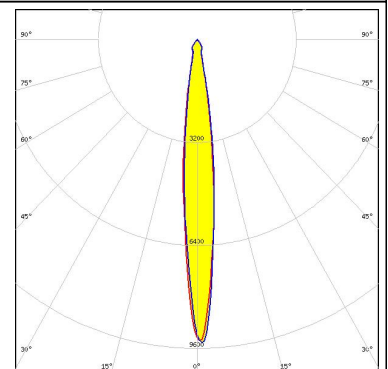
**OSRAM**  
Opto Semiconductors

LED Soleriq P9  
FWHM 12.0°  
Efficiency 91 %  
Peak intensity 11.800 cd/lm  
Required components:  
C13761\_PF-SOCKET-CXA15



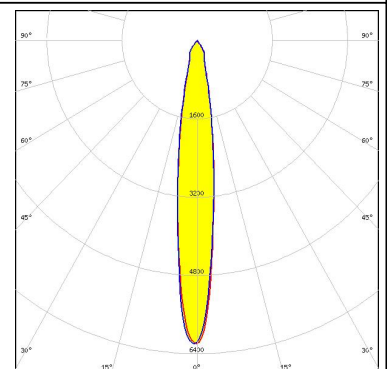
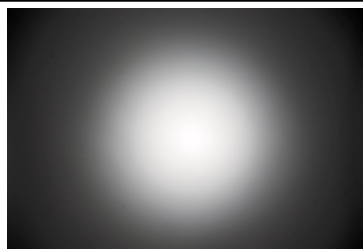
**OSRAM**  
Opto Semiconductors

LED Soleriq P9  
FWHM 12.0°  
Efficiency 92 %  
Peak intensity 9.600 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 461 Typ L1



**OSRAM**  
Opto Semiconductors

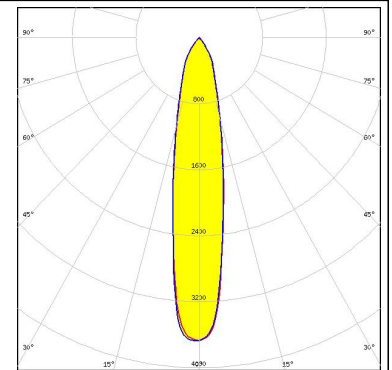
LED Soleriq S13  
FWHM 14.0°  
Efficiency 89 %  
Peak intensity 6.200 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 437 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

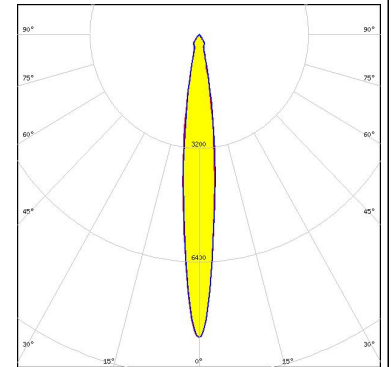
### SAMSUNG

LED LC026B / 033B / 040B  
FWHM 20.0°  
Efficiency 88 %  
Peak intensity 3.700 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 450 Typ L2



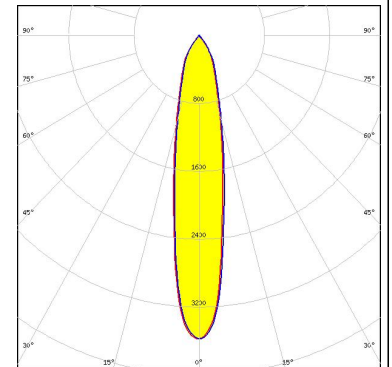
### TRIDONIC

LED SLE G5 LES11  
FWHM 13.0°  
Efficiency 91 %  
Peak intensity 8.500 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 434 Typ L1



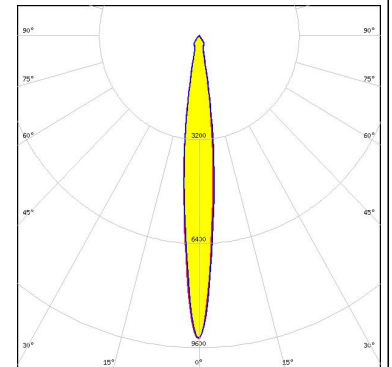
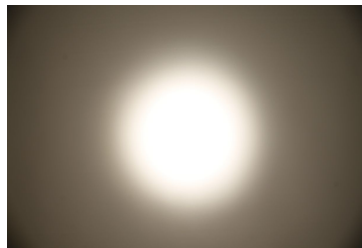
### XICATO

LED XTM - 19mm LES  
FWHM 20.0°  
Efficiency 88 %  
Peak intensity 3.600 cd/lm  
Required components:  
C14636\_XTM-PF-ADAPTER


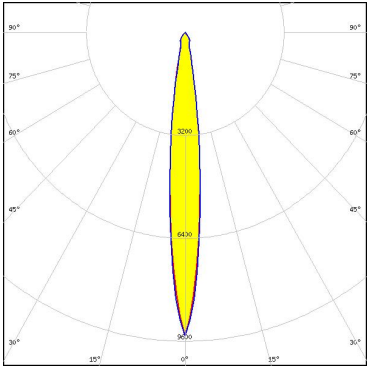





### XICATO

LED XTM - 9mm LES  
FWHM 12.0°  
Efficiency 90 %  
Peak intensity 9.300 cd/lm  
Required components:  
C14636\_XTM-PF-ADAPTER



#### PHOTOMETRIC DATA (SIMULATED):

 LED V10 Gen7 FWHM 12.0° Efficiency 91 % Peak intensity 9.440 cd/lm Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 434 Typ L1	
 LED VERO10 FWHM 13.0° Efficiency 0 % Peak intensity 0.000 cd/lm Required components:	
 LED VERO13 FWHM 15.0° Efficiency 0 % Peak intensity 0.000 cd/lm Required components:	
 LED VERO18 FWHM 21.0° Efficiency 0 % Peak intensity 0.000 cd/lm Required components:	

## PHOTOMETRIC DATA (SIMULATED):

### CREE

LED CXA/B 15xx  
FWHM 12.0°  
Efficiency 0 %  
Peak intensity 0.000 cd/lm  
Required components:

### LUMILEDS

LED LUXEON CoB Compact  
FWHM 9.0°  
Efficiency 90 %  
Peak intensity 19.600 cd/lm  
Required components:  
C13761\_PF-SOCKET-CXA15

### LUMINUS

LED CXM-14  
FWHM 16.0°  
Efficiency 88 %  
Peak intensity 5.130 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 433 Typ L1

### LUMINUS

LED CXM-9  
FWHM 12.0°  
Efficiency 89 %  
Peak intensity 9.200 cd/lm  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 434 Typ L1

#### PHOTOMETRIC DATA (SIMULATED):

**OSRAM**  
Opto Semiconductors

LED Soleriq S15

FWHM 20.0°

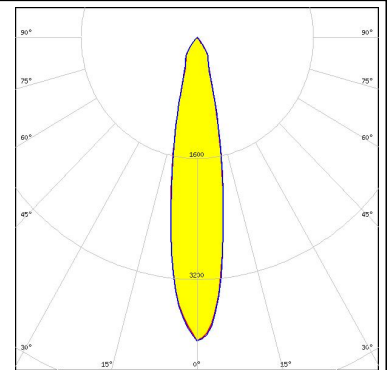
Efficiency 88 %

Peak intensity 4.013 cd/lm

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 433 Typ L1



**SAMSUNG**

LED LC010C

FWHM 9.1°

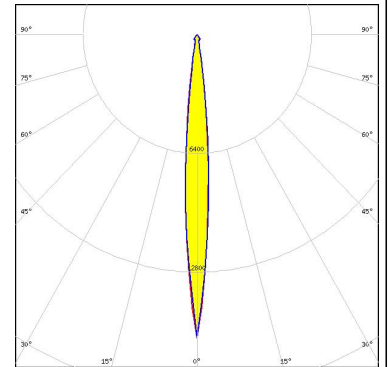
Efficiency 89 %

Peak intensity 16.300 cd/lm

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 479 Typ L1



**SAMSUNG**

LED LC020C

FWHM 10.0°

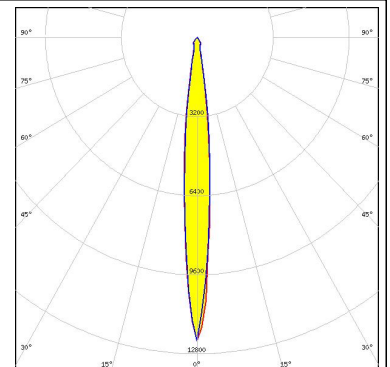
Efficiency 89 %

Peak intensity 12.300 cd/lm

Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 479 Typ L1



**SAMSUNG**

LED LC040C

FWHM 13.0°

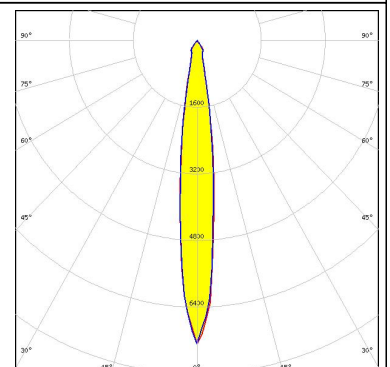
Efficiency 85 %

Peak intensity 7.300 cd/lm


Required components:

C13709\_PF-SOCKET-VERO13-18

Bender Wirth: 480 Typ L1



## PHOTOMETRIC DATA (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC12/18
FWHM	16.0°
Efficiency	88 %
Peak intensity	5.100 cd/lm
Required components:	
C13709_PF-SOCKET-VERO13-18	
Bender Wirth: 433 Typ L1	
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 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM	12.0°
Efficiency	89 %
Peak intensity	9.200 cd/lm
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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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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#### Shipping locations

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