

## BARBARA-WW-PF

~60° wide beam

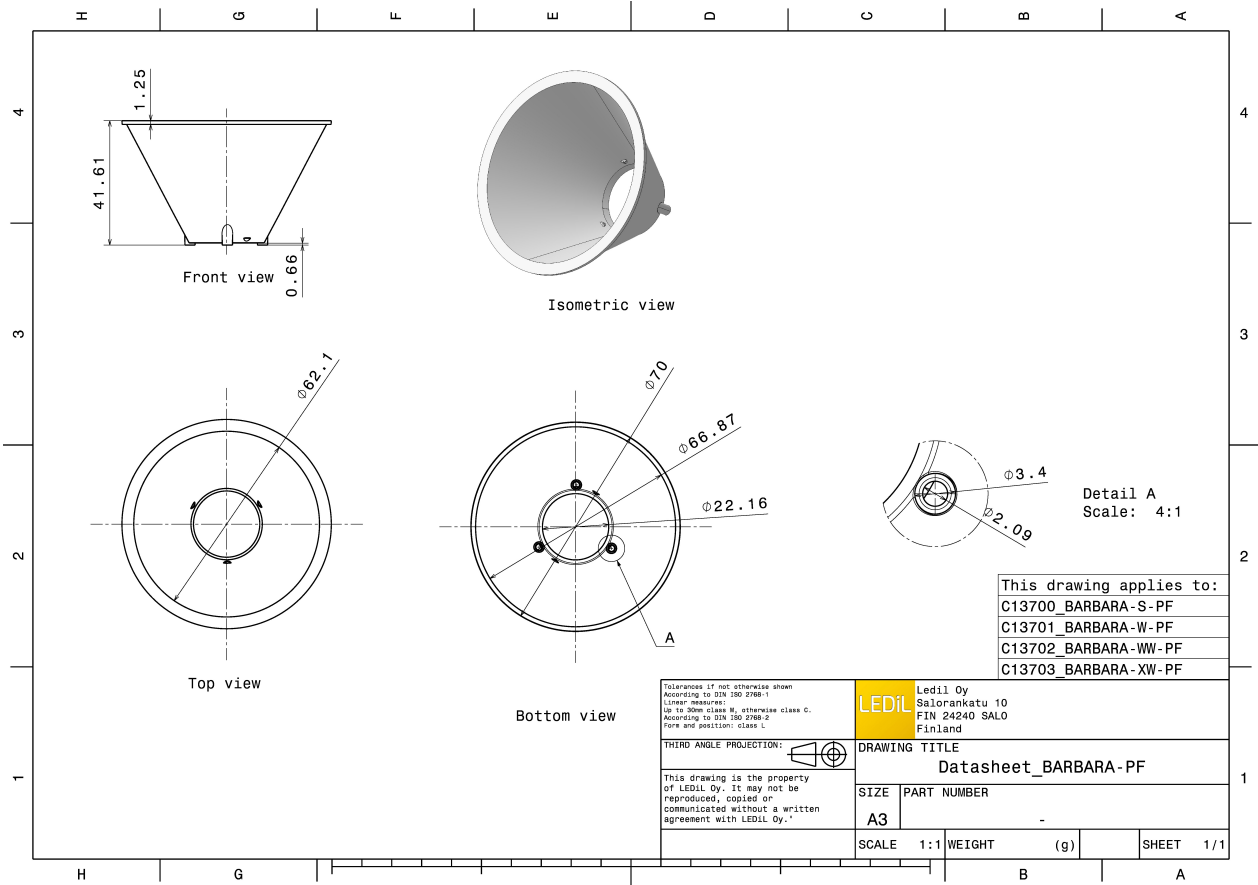
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 70.0 mm
Height	41.7 mm
Fastening	socket
Colour	metal
Box size	480 x 280 x 300 mm
Box weight	6.3 kg
Quantity in Box	288 pcs
ROHS compliant	yes ⓘ


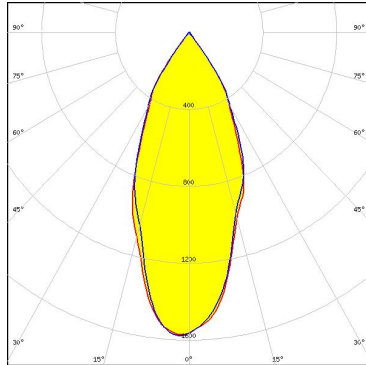
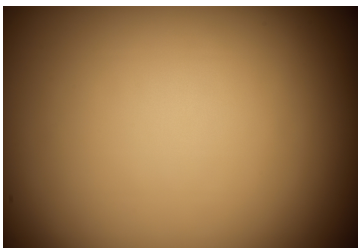


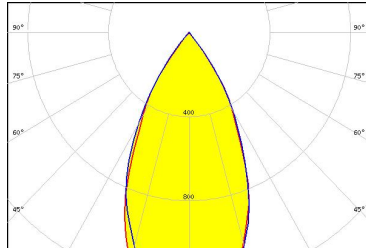
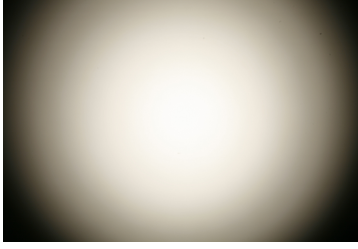
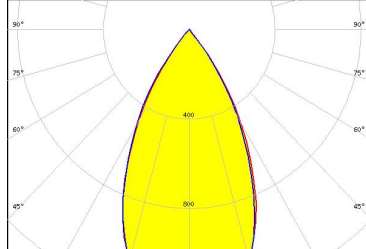


### MATERIAL SPECIFICATIONS:

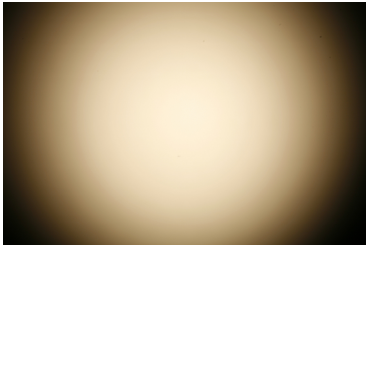
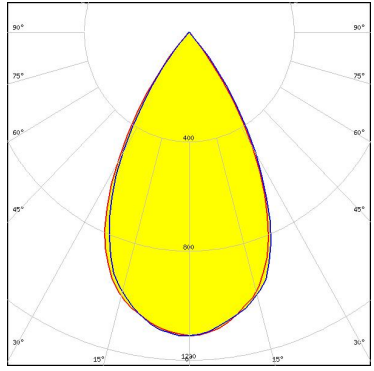
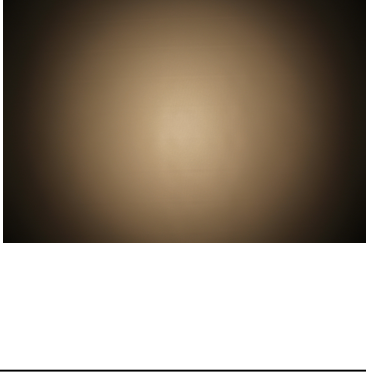
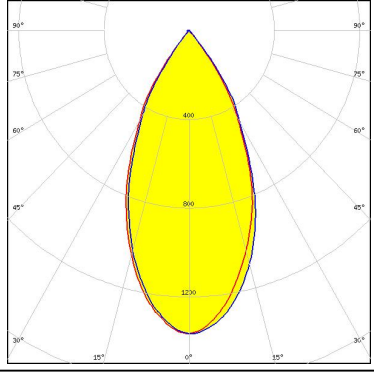
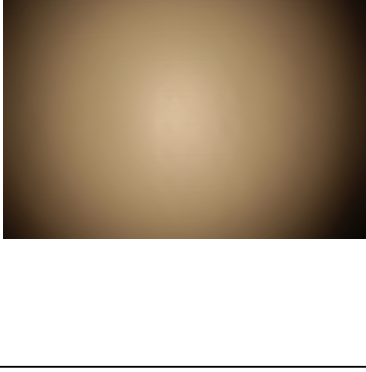
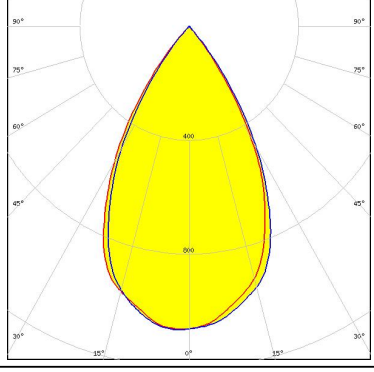
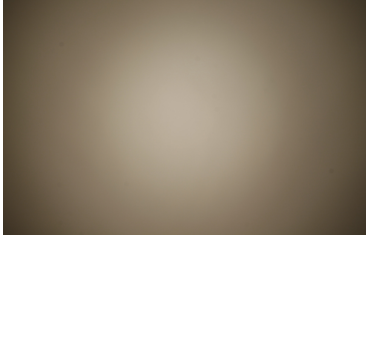
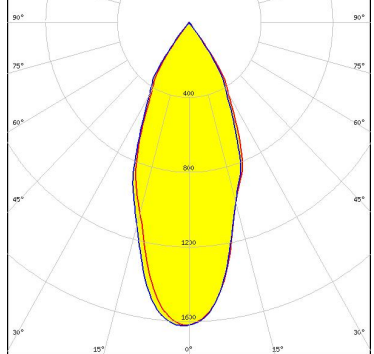
Component	Type	Material	Colour	Coating
BARBARA-WW-PF	Reflector	PC	metal	HMDS



#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED V10 Gen7</p> <p>FWHM 44.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.600 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 434 Typ L1</p>		
<p>bridgelux.</p> <p>LED V15 Gen6</p> <p>FWHM 51.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.390 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 456 Typ L2</p>		
<p>bridgelux.</p> <p>LED VERO10</p> <p>FWHM 49.0°</p> <p>Efficiency 89 %</p> <p>Peak intensity 1.500 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13708_PF-SOCKET-VERO10</p>		
<p>bridgelux.</p> <p>LED VERO13</p> <p>FWHM 51.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.400 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18</p>		

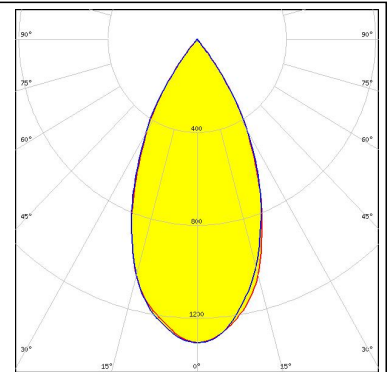
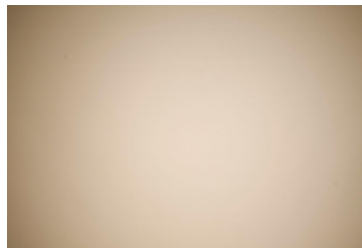
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED VERO18            FWHM 58.0°            Efficiency 91 %            Peak intensity 1.170 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18</p>		
<p>bridgelux.</p> <p>LED Xenio Point 13mm            FWHM 49.0°            Efficiency 89 %            Peak intensity 1.370 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18</p>		
<p>bridgelux.</p> <p>LED Xenio Point 18mm            FWHM 59.0°            Efficiency 88 %            Peak intensity 1.070 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18</p>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM 43.0°            Efficiency 88 %            Peak intensity 1.600 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 434 Typ L1</p>		

#### PHOTOMETRIC DATA (MEASURED):

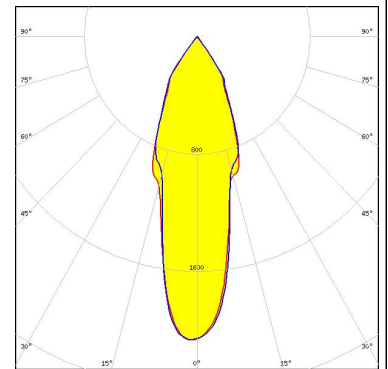
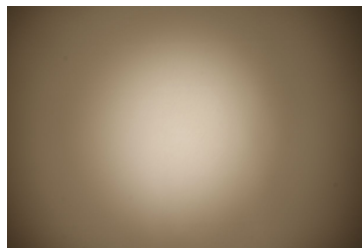
#### CITIZEN

LED CLL03x/CLU03x  
 FWHM 50.0°  
 Efficiency 86 %  
 Peak intensity 1.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 433 Typ L1



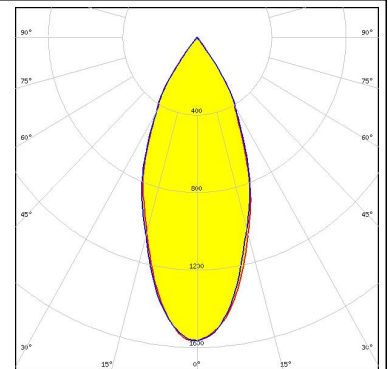
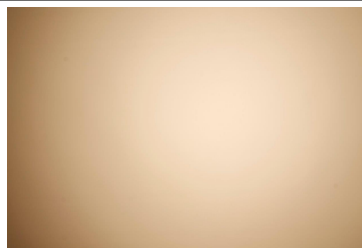
#### CITIZEN

LED CLU700/701  
 FWHM 28.0°  
 Efficiency 88 %  
 Peak intensity 2.100 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 434 Typ L1



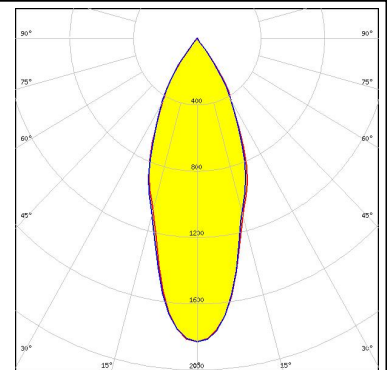
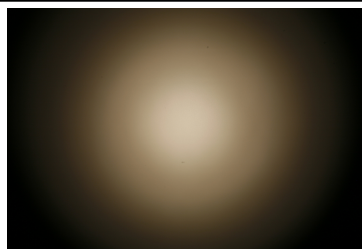
#### CITIZEN

LED CLU720/721  
 FWHM 43.0°  
 Efficiency 86 %  
 Peak intensity cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 433 Typ L1



#### CREE

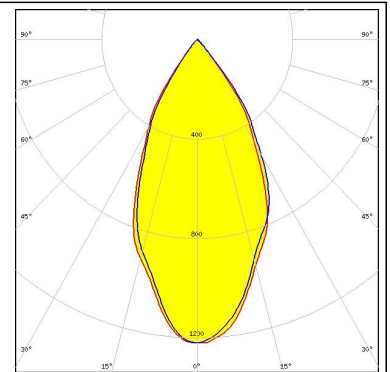
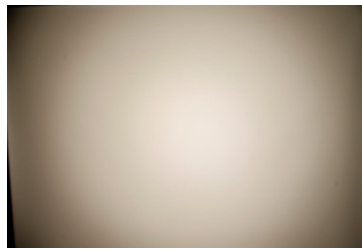
LED CXA/B 15xx  
 FWHM 40.0°  
 Efficiency 89 %  
 Peak intensity 1.800 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14115\_PF-SOCKET-CXA15-18



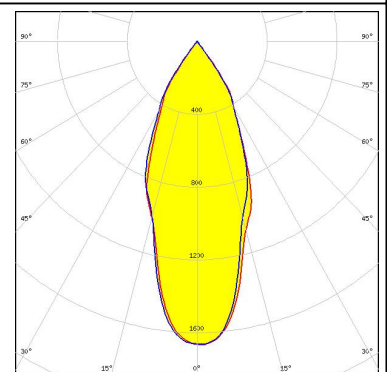
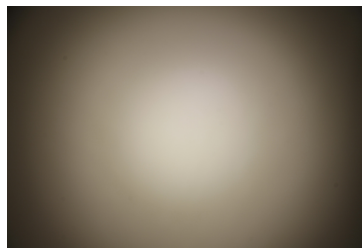
#### PHOTOMETRIC DATA (MEASURED):



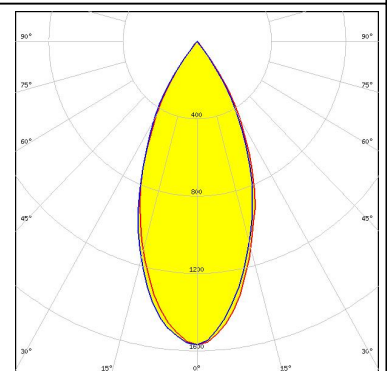
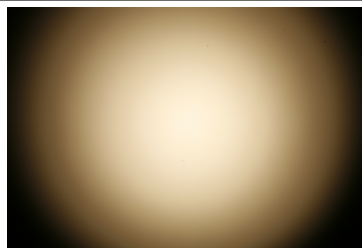
LED CXA/B 15xx  
 FWHM 51.0°  
 Efficiency 85 %  
 Peak intensity 1.200 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13083\_PF-SOCKET  
 C14658\_BARBARA-RZ-LENS



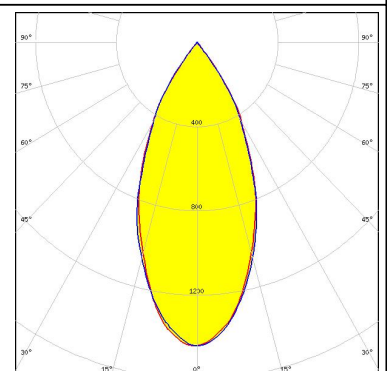
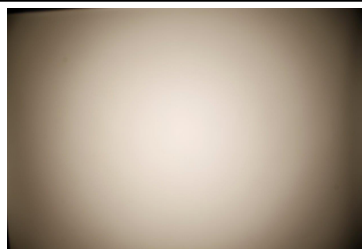
LED CXA/B 15xx  
 FWHM 41.0°  
 Efficiency 87 %  
 Peak intensity 1.700 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 441 Typ L1



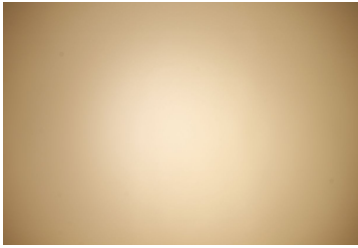
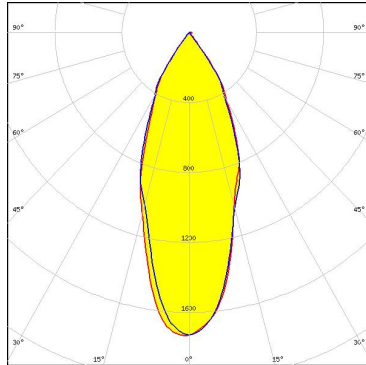
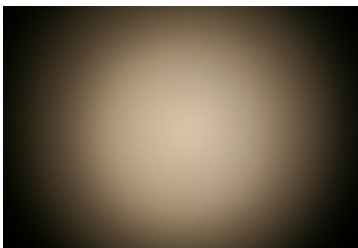
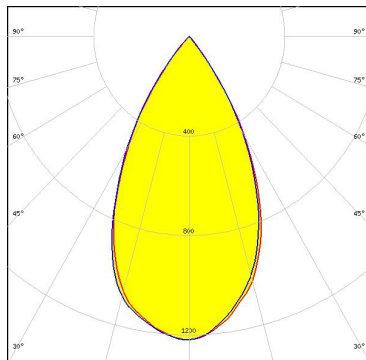

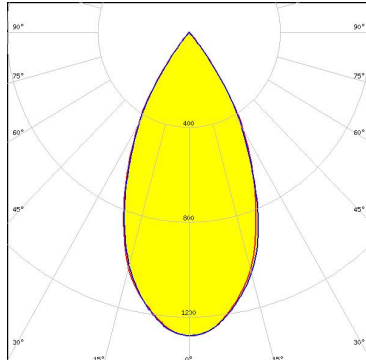

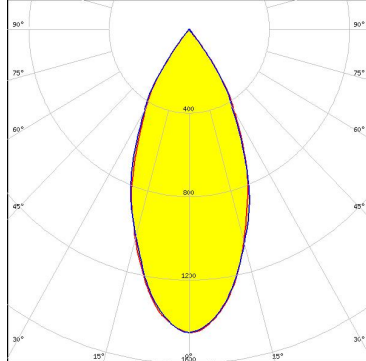
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 46.0°  
 Efficiency 90 %  
 Peak intensity 1.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C14115\_PF-SOCKET-CXA15-18




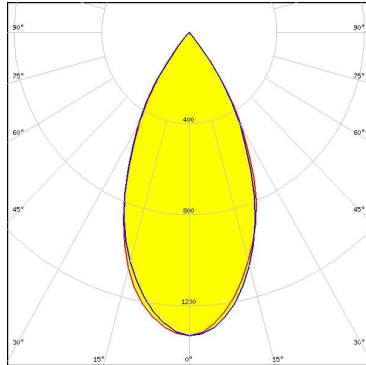
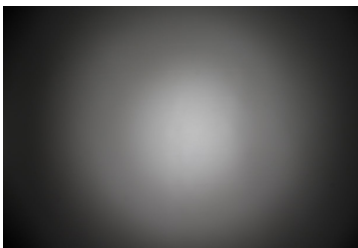
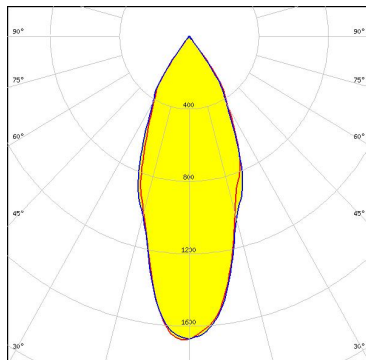

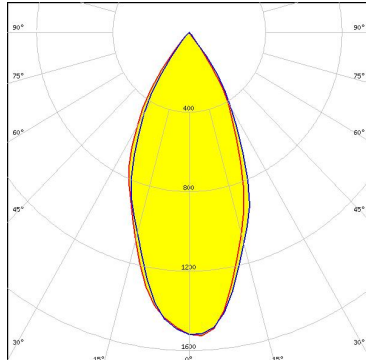

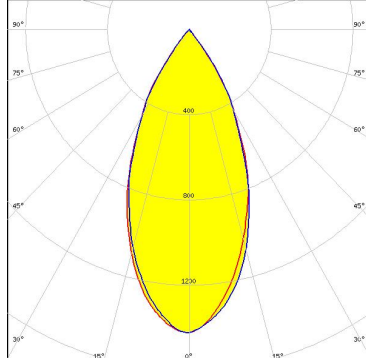
LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 46.0°  
 Efficiency 86 %  
 Peak intensity 1.400 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C13709\_PF-SOCKET-VERO13-18  
 Bender Wirth: 437 Typ L1



#### PHOTOMETRIC DATA (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CoB 1202/1203</p> <p>FWHM 39.0°</p> <p>Efficiency 88 %</p> <p>Peak intensity 1.700 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM 55.0°</p> <p>Efficiency 90 %</p> <p>Peak intensity 1.220 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C14037_PF-NSX-SOCKET</p>		
<p><b>NICHIA</b></p> <p>LED COB J-Type</p> <p>FWHM 51.0°</p> <p>Efficiency 86 %</p> <p>Peak intensity 1.300 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 463 Typ L2</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)</p> <p>FWHM 46.0°</p> <p>Efficiency 87 %</p> <p>Peak intensity 1.500 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 438 Typ L1</p>		

#### PHOTOMETRIC DATA (MEASURED):

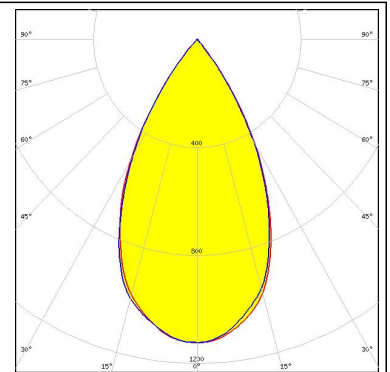
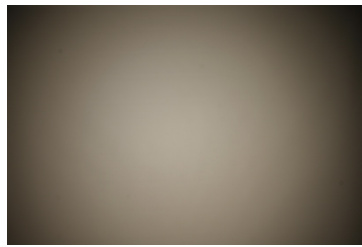
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 11)            FWHM 51.0°            Efficiency 90 %            Peak intensity 1.330 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14037_PF-NSX-SOCKET</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)            FWHM 41.0°            Efficiency 89 %            Peak intensity 1.700 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 438 Typ L1</p>		
<p><b>NICHIA</b></p> <p>LED COB L-Type (LES 9)            FWHM 47.0°            Efficiency 91 %            Peak intensity 1.500 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C14037_PF-NSX-SOCKET</p>		
<p><b>OSRAM</b>  <small>Opto Semiconductors</small></p> <p>LED Soleriq S13            FWHM 47.0°            Efficiency 87 %            Peak intensity 1.400 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C13709_PF-SOCKET-VERO13-18            Bender Wirth: 437 Typ L1</p>		



#### PHOTOMETRIC DATA (MEASURED):

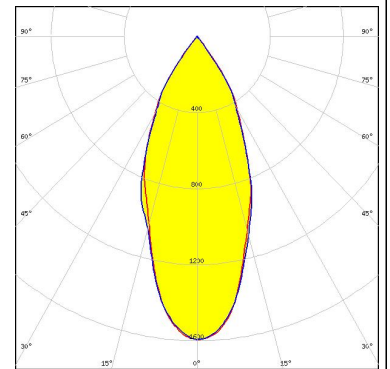
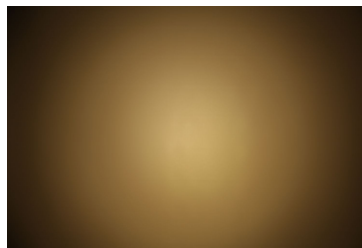
#### SAMSUNG

LED LC026B / 033B / 040B  
FWHM 55.0°  
Efficiency 86 %  
Peak intensity 1.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 450 Typ L2



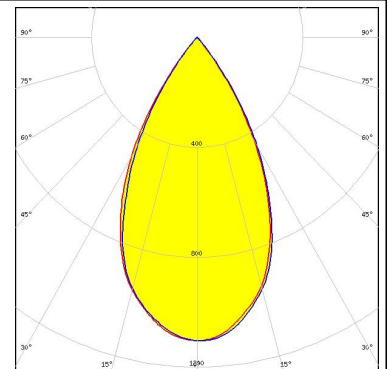
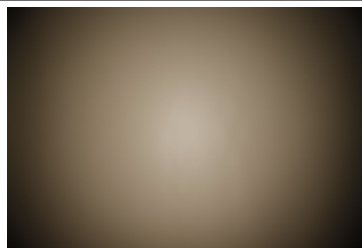
#### TRIDONIC

LED SLE G5 LES11  
FWHM 43.0°  
Efficiency 89 %  
Peak intensity 1.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 434 Typ L1



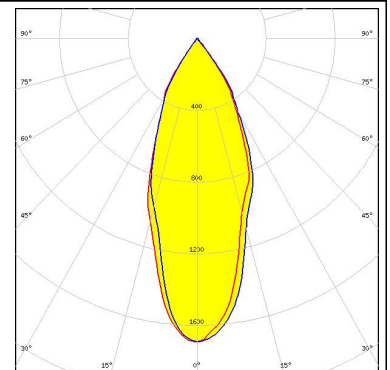
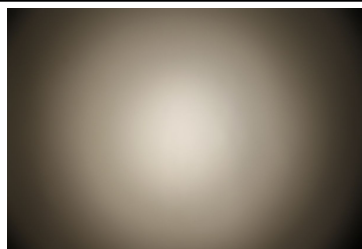
#### XICATO

LED XTM - 19mm LES  
FWHM 55.0°  
Efficiency 84 %  
Peak intensity 1.100 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14636\_XTM-PF-ADAPTER







#### XICATO

LED XTM - 9mm LES  
FWHM 42.0°  
Efficiency 87 %  
Peak intensity 1.700 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C14636\_XTM-PF-ADAPTER



#### PHOTOMETRIC DATA (SIMULATED):

 LED VERO10 FWHM 66.0° Efficiency % Peak intensity cd/lm LEDs/each optic 1 Light colour White Required components:
 LED VERO13 FWHM 67.0° Efficiency % Peak intensity cd/lm LEDs/each optic 1 Light colour White Required components:
 LED VERO18 FWHM 68.0° Efficiency % Peak intensity cd/lm LEDs/each optic 1 Light colour White Required components:
 LED CxM-14 (19x19) FWHM 50.0° Efficiency 86 % Peak intensity 1.300 cd/lm LEDs/each optic 1 Light colour White Required components: C13709_PF-SOCKET-VERO13-18 Bender Wirth: 433 Typ L1

#### PHOTOMETRIC DATA (SIMULATED):

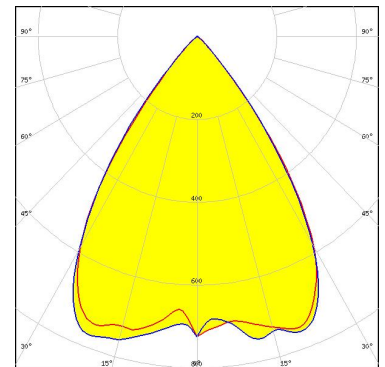


LED CxM-9 (13.5x13.5)  
FWHM 43.0°  
Efficiency 88 %  
Peak intensity 1.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 434 Typ L1



Opto Semiconductors

LED Soleriq S15  
FWHM 73.0°  
Efficiency 90 %  
Peak intensity 0.770 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 433 Typ L1



SEOUL SEMICONDUCTOR

LED ZC12/18  
FWHM 50.0°  
Efficiency 86 %  
Peak intensity 1.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C13709\_PF-SOCKET-VERO13-18  
Bender Wirth: 433 Typ L1



SEOUL SEMICONDUCTOR

LED ZC4/6  
FWHM 43.0°  
Efficiency 88 %  
Peak intensity 1.600 cd/lm  
LEDs/each optic 1  
Light colour 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.

#### 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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