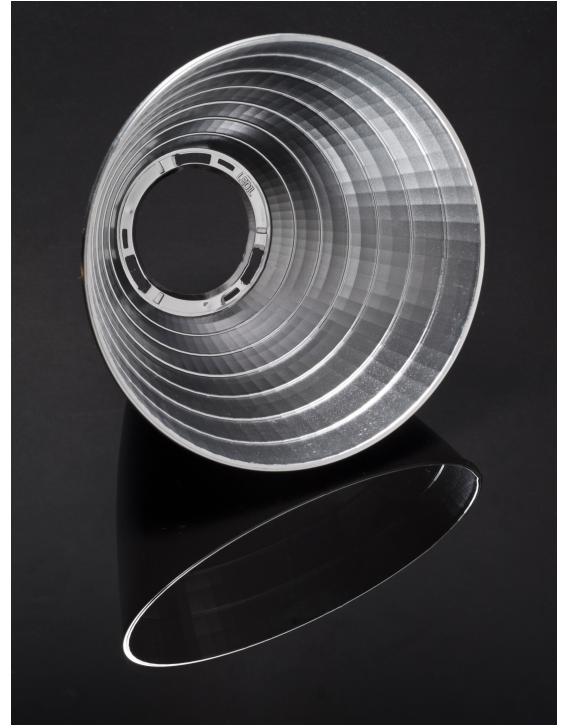


ANGELA-M-B

~30° medium beam compatible with BJB connectors

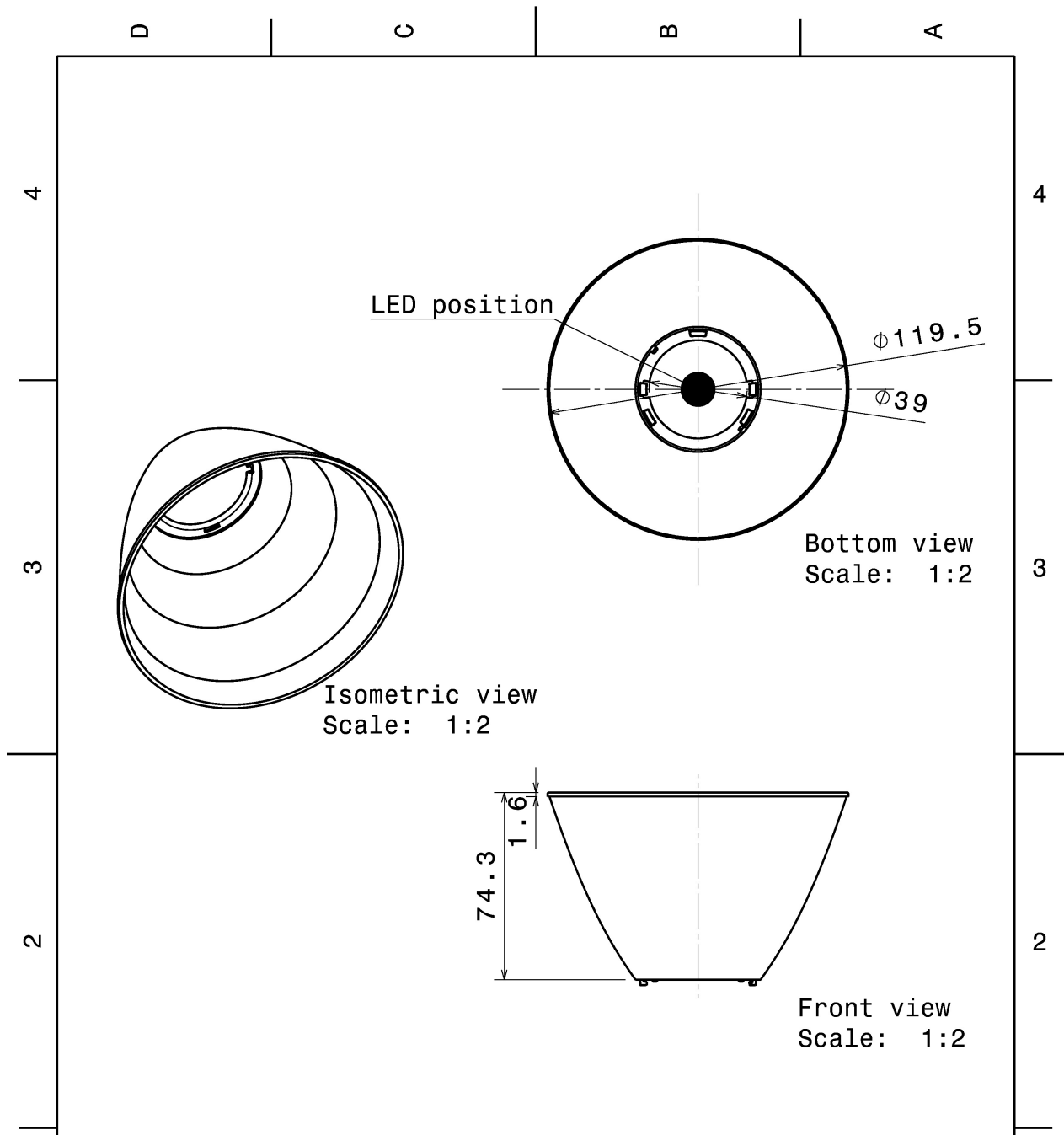
TECHNICAL SPECIFICATIONS:

Dimensions	Ø 119.5 mm
Height	74.5 mm
Fastening	socket
Colour	metal
Box size	398 x 298 x 265 mm
Box weight	9.1 kg
Quantity in Box	180 pcs
ROHS compliant	yes ⓘ



MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Coating
ANGELA-M-B	Reflector	PC	metal	HMDS



Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
Up to 30mm class M, otherwise class C.
According to DIN ISO 2768-2
Form and position: class L

LEDiL Ledil Oy
Salorankatu 10
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:


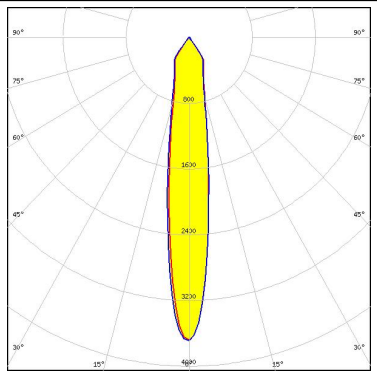
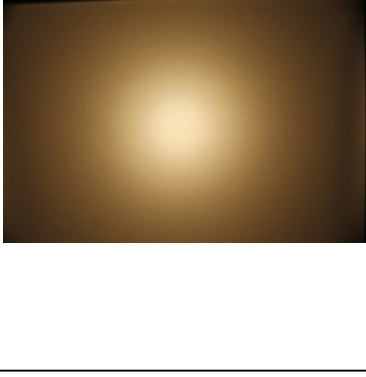
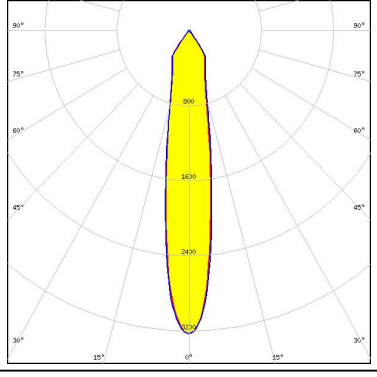
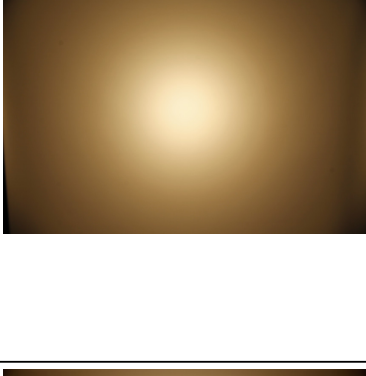
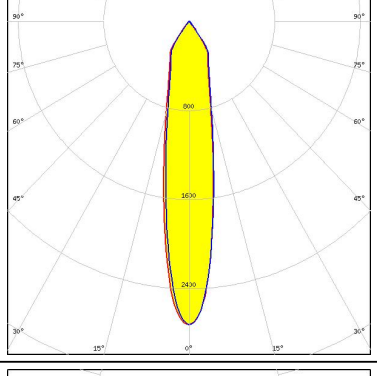

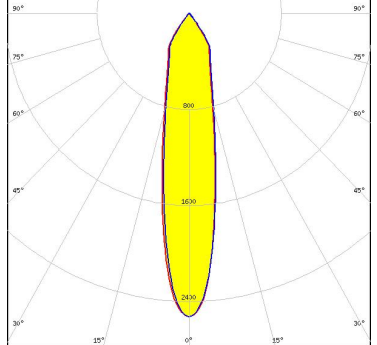
DRAWING TITLE
Angela-B

This drawing is the property of LEDiL Oy. It may not be reproduced, copied or communicated without a written agreement with LEDiL Oy."


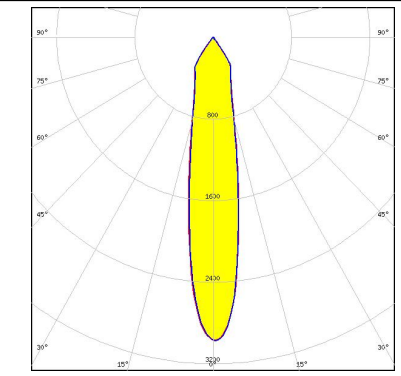
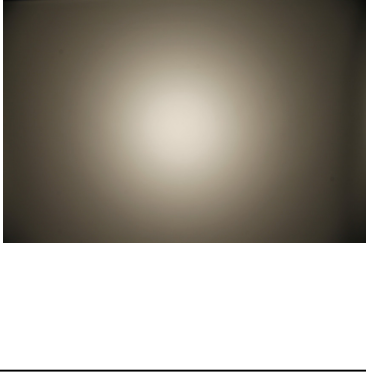
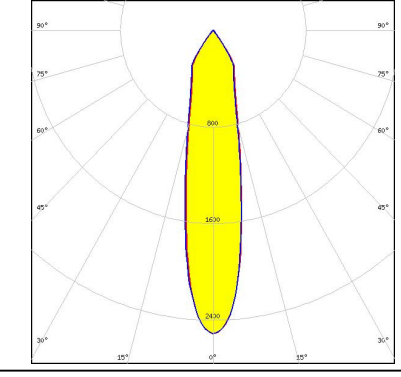
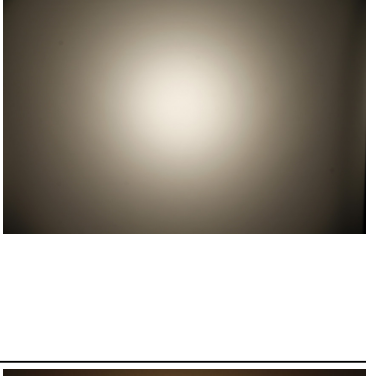
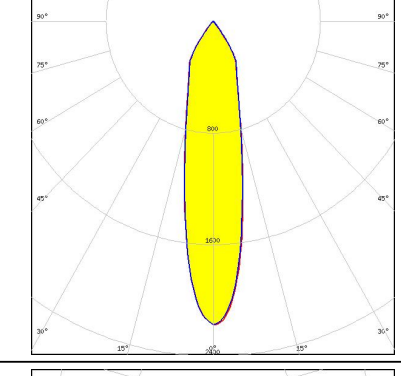
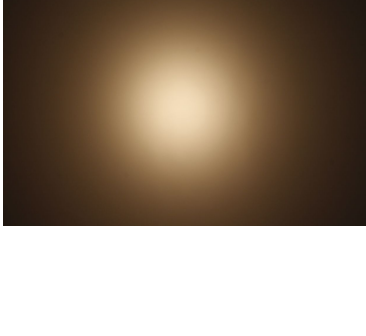
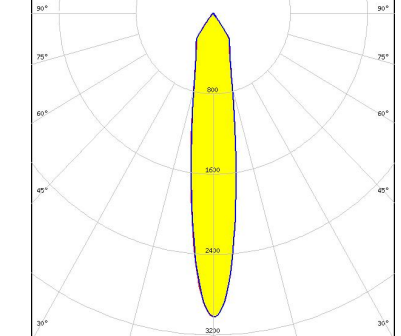
SIZE	PART NUMBER
A4	-

SCALE	1:2	WEIGHT	-	SHEET	1/1
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PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED BXRA ES Rectangle</p> <p>FWHM 16.0°</p> <p>Efficiency 82 %</p> <p>Peak intensity 3.690 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: BJB: 47.319.2040</p>		
<p>bridgelux.</p> <p>LED V15 Gen6</p> <p>FWHM 18.0°</p> <p>Efficiency 80 %</p> <p>Peak intensity 3.200 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: BJB: 47.319.2224</p>		
<p>bridgelux.</p> <p>LED V15 Gen6</p> <p>FWHM 19.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 2.700 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGLE-RZ-LENS BJB: 47.319.2224</p>		
<p>bridgelux.</p> <p>LED V18 Gen6</p> <p>FWHM 21.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 2.500 cd/m</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F13671_ANGLE-RZ-LENS BJB: 47.319.2274</p>		

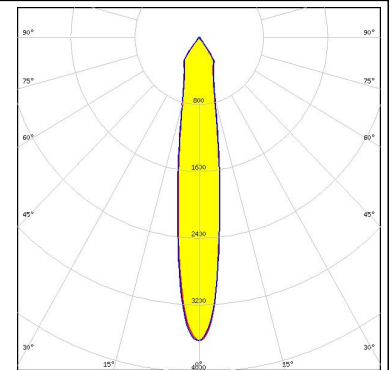
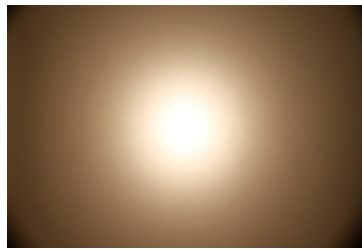
PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED V18 Gen7 FWHM 19.0° Efficiency 81 % Peak intensity 3.000 cd/lm LEDs/each optic 1 Light colour White Required components: BJB: 47.319.2350</p>		
<p>bridgelux.</p> <p>LED V22 Gen6 FWHM 22.0° Efficiency 78 % Peak intensity 2.500 cd/lm LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8102/G2</p>		
<p>bridgelux.</p> <p>LED V22 Gen6 FWHM 23.0° Efficiency 74 % Peak intensity 2.200 cd/lm LEDs/each optic 1 Light colour White Required components: F13671_ANGLE-RZ-LENS A.A.G. STUCCHI: 8102/G2</p>		
<p>CITIZEN</p> <p>LED CLL03x/CLU03x FWHM 18.0° Efficiency 77 % Peak intensity 3.000 cd/lm LEDs/each optic 1 Light colour White Required components: F13671_ANGLE-RZ-LENS A.A.G. STUCCHI: 8101/G2</p>		

PHOTOMETRIC DATA (MEASURED):

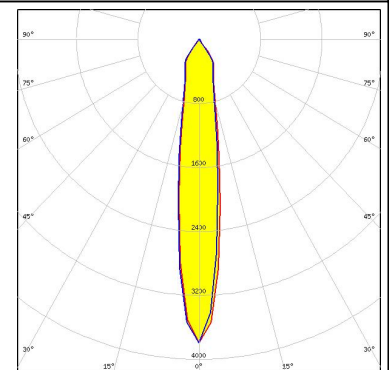
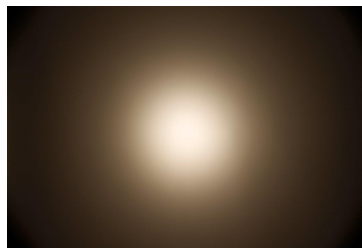
CITIZEN

LED CLL03x/CLU03x
FWHM 16.0°
Efficiency 83 %
Peak intensity 3.630 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8101/G2



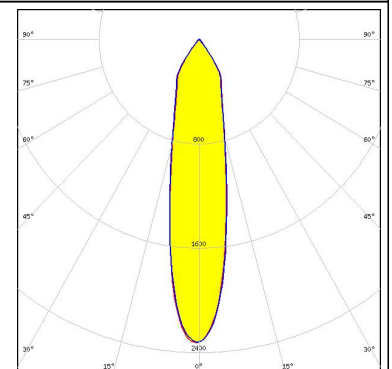
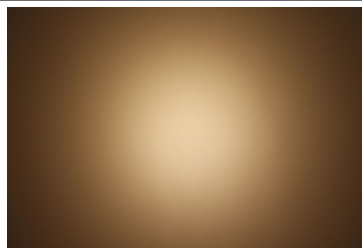
CITIZEN

LED CLL03x/CLU03x
FWHM 16.0°
Efficiency 83 %
Peak intensity 3.800 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



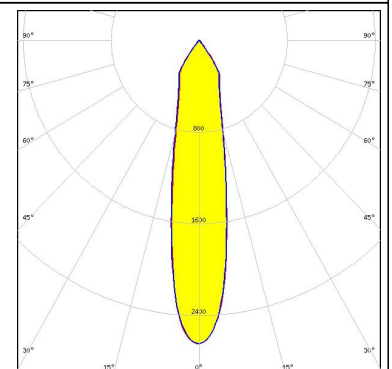
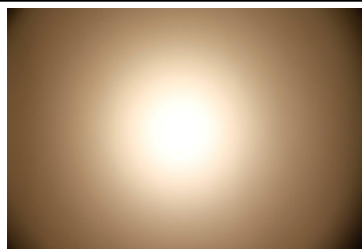
CITIZEN

LED CLL04x/CLU04x
FWHM 22.0°
Efficiency 76 %
Peak intensity 2.330 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGLE-RZ-LENS
A.A.G. STUCCHI: 8102/G2



CITIZEN

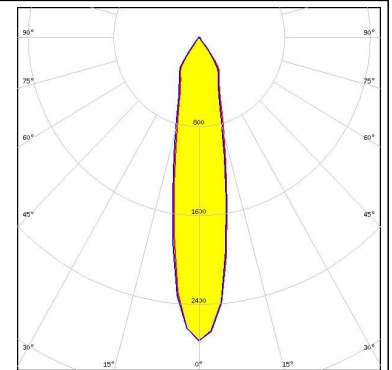
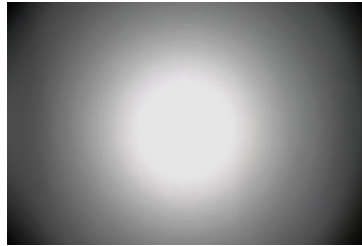
LED CLL04x/CLU04x
FWHM 21.0°
Efficiency 81 %
Peak intensity 2.650 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8102/G2



PHOTOMETRIC DATA (MEASURED):

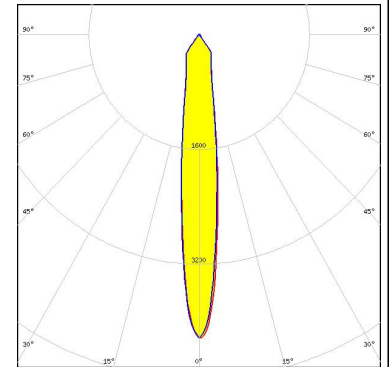
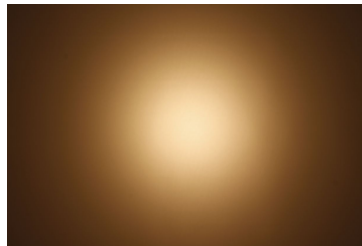
CITIZEN

LED CLL04x/CLU04x
 FWHM 21.0°
 Efficiency 81 %
 Peak intensity 2.730 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



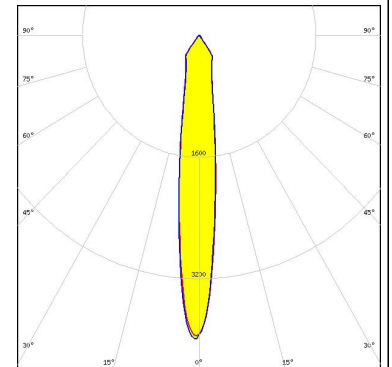
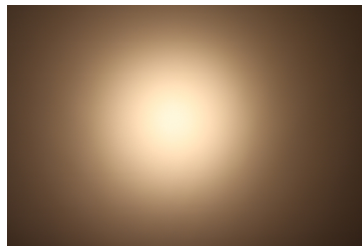
CITIZEN

LED CLU720/721
 FWHM 14.0°
 Efficiency 82 %
 Peak intensity 4.200 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



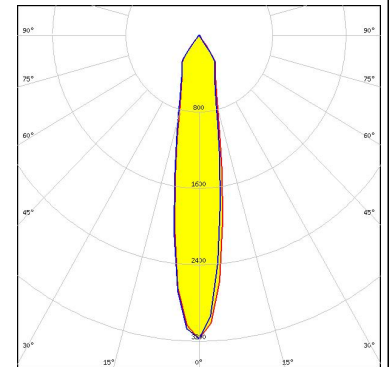
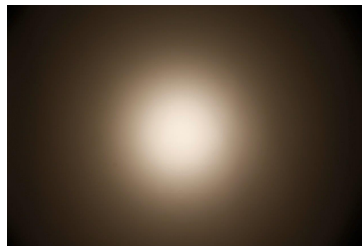
CITIZEN

LED CLU720/721
 FWHM 14.0°
 Efficiency 83 %
 Peak intensity 4.000 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8101/G2



CREE

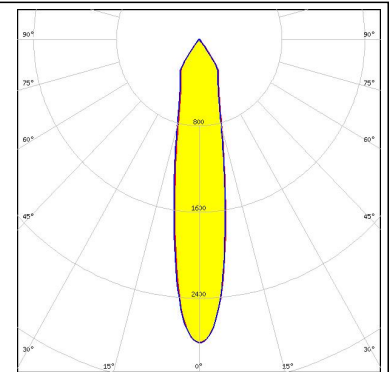
LED CXA/B 25xx
 FWHM 18.0°
 Efficiency 82 %
 Peak intensity 3.180 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8401/G2



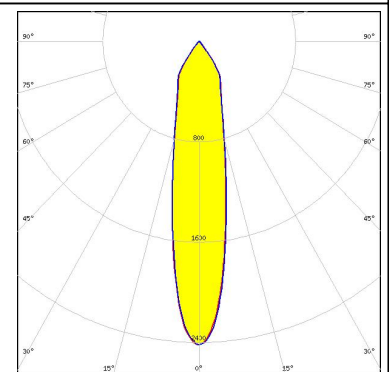
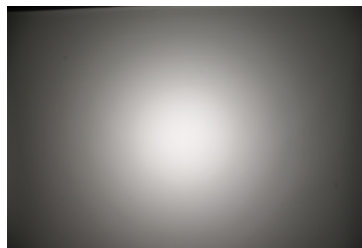
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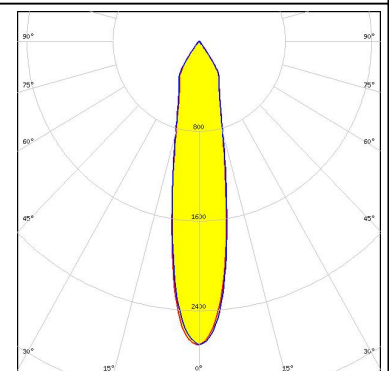
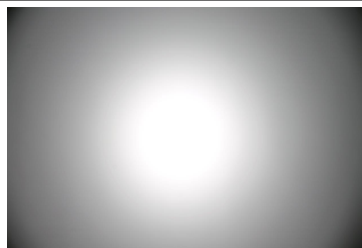
LED CXA/B 25xx
 FWHM 20.0°
 Efficiency 79 %
 Peak intensity 2.800 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2141



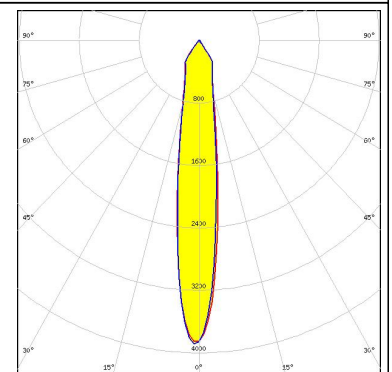
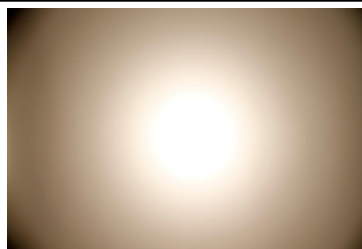
LED CXA/B 25xx
 FWHM 21.0°
 Efficiency 76 %
 Peak intensity 2.400 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 BJB: 47.319.2141




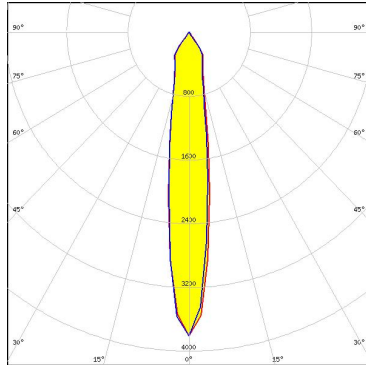
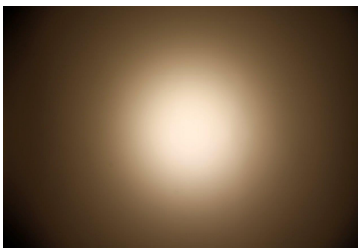
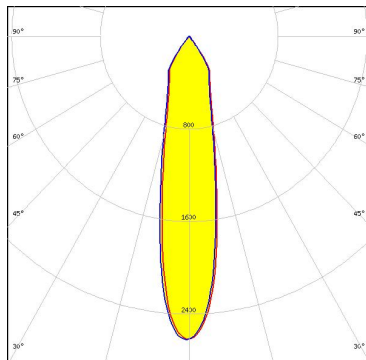

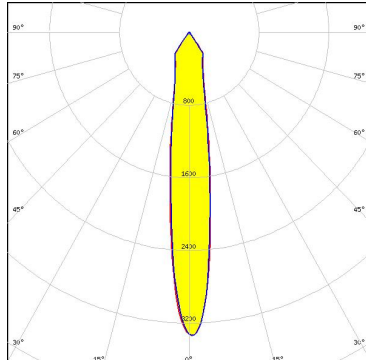
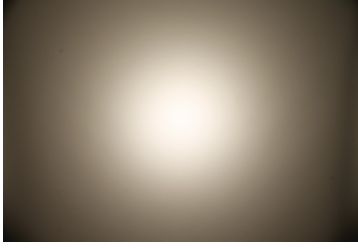
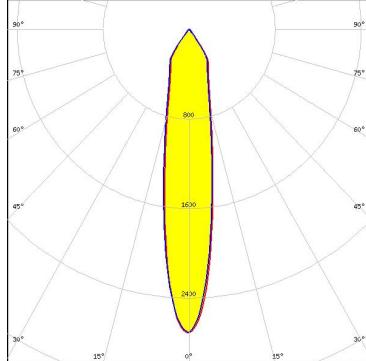
LED CXA/B 30xx
 FWHM 21.0°
 Efficiency 80 %
 Peak intensity 2.700 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8404/G2



LED COB 10W/13W/17W/24W
 FWHM 16.0°
 Efficiency 83 %
 Peak intensity 3.900 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2080



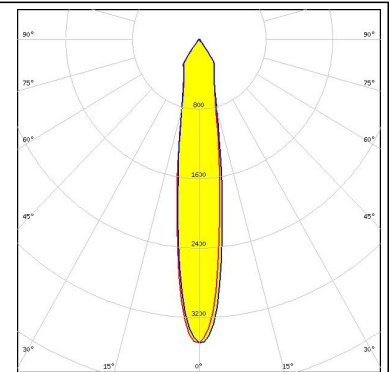
PHOTOMETRIC DATA (MEASURED):

<p>LG Innotek</p> <p>LED COB 10W/13W/17W/24W FWHM 16.0° Efficiency 82 % Peak intensity 3.800 cd/m LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8600/G2</p>		
<p>LG Innotek</p> <p>LED COB 40W/60W FWHM 22.0° Efficiency 81 % Peak intensity 2.630 cd/m LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8102/G2</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1204/1205 FWHM 16.0° Efficiency 82 % Peak intensity 3.840 cd/m LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8301/G2</p>		
<p>LUMILEDS</p> <p>LED LUXEON CoB 1208 FWHM 19.0° Efficiency 77 % Peak intensity 2.700 cd/m LEDs/each optic 1 Light colour White Required components: F13671_ANGE-RZ-LENS A.A.G. STUCCHI: 8301/G2</p>		

PHOTOMETRIC DATA (MEASURED):

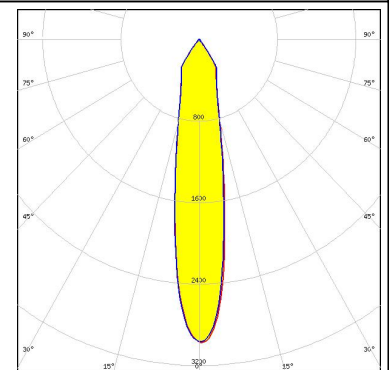
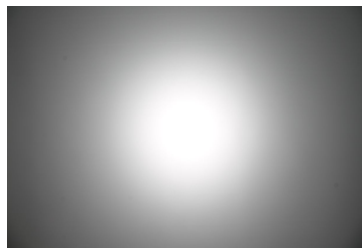
LUMILEDS

LED LUXEON CoB 1208
 FWHM 17.0°
 Efficiency 83 %
 Peak intensity 3.500 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8301/G2



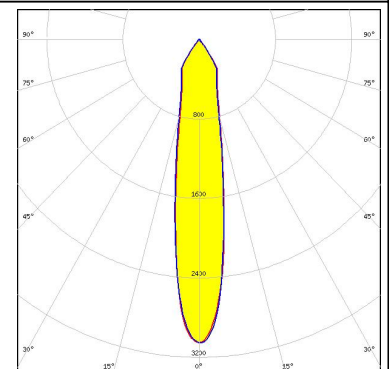
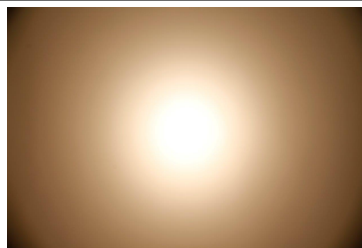
LUMILEDS

LED LUXEON CoB 1211
 FWHM 19.0°
 Efficiency 80 %
 Peak intensity 3.000 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



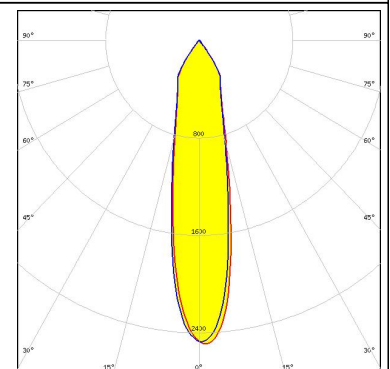
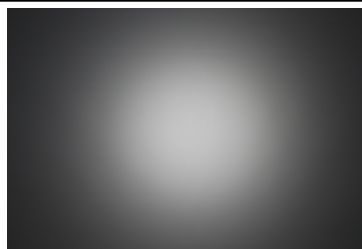
LUMILEDS

LED LUXEON CoB 1211
 FWHM 19.0°
 Efficiency 81 %
 Peak intensity 3.060 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8102/G2



LUMILEDS

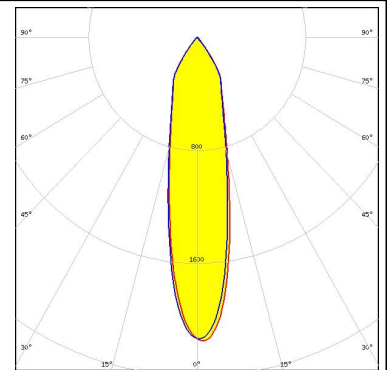
LED LUXEON CoB 1216/1812
 FWHM 22.0°
 Efficiency 79 %
 Peak intensity 2.490 cd/m
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



PHOTOMETRIC DATA (MEASURED):

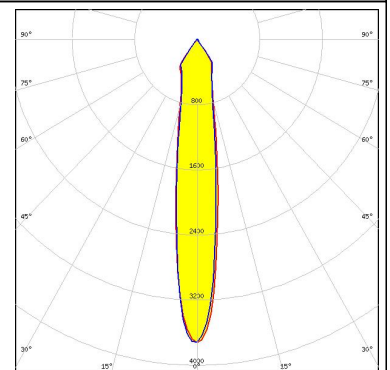
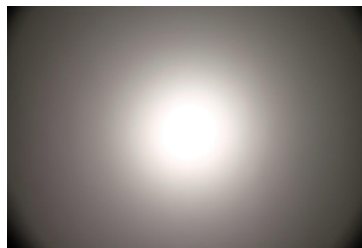
LUMILEDS

LED LUXEON CoB 1216/1812
 FWHM 24.0°
 Efficiency 75 %
 Peak intensity 2.150 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 BJB: 47.319.2030



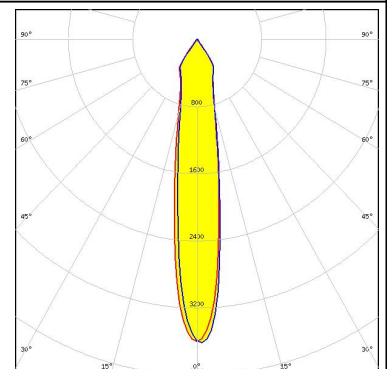
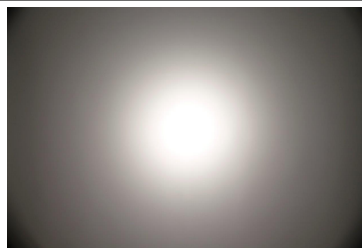
LUMILEDS

LED LUXEON K12
 FWHM 17.0°
 Efficiency 87 %
 Peak intensity 3.700 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2070



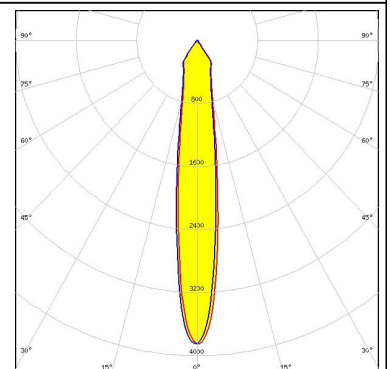
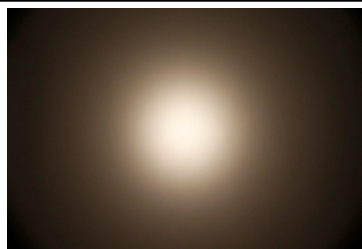
LUMILEDS

LED LUXEON K16
 FWHM 17.0°
 Efficiency 87 %
 Peak intensity 3.700 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2070


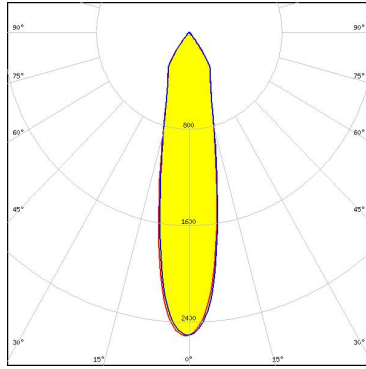
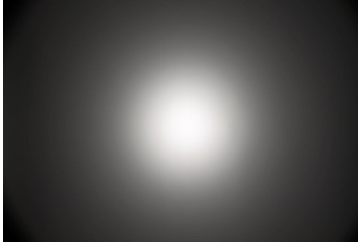
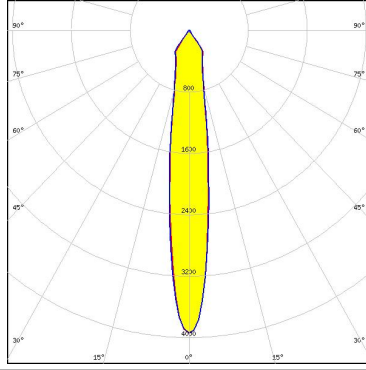

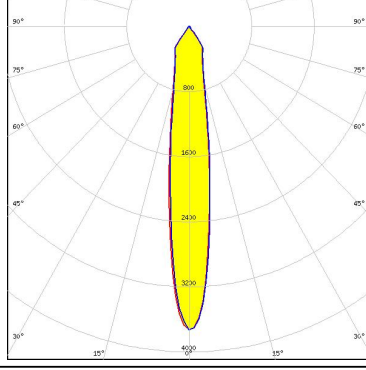
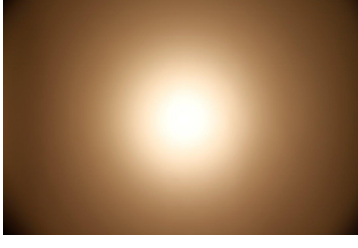
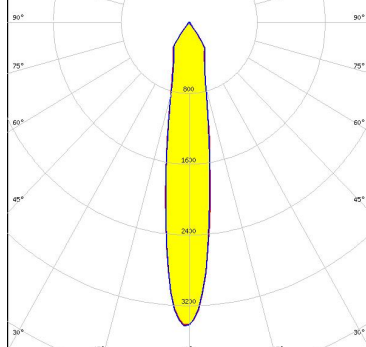


LUMINUS

LED CxM-14 (19x19)
 FWHM 16.0°
 Efficiency 82 %
 Peak intensity 3.900 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



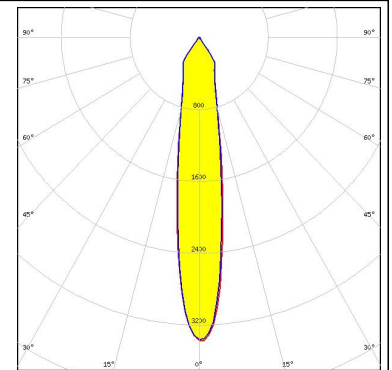
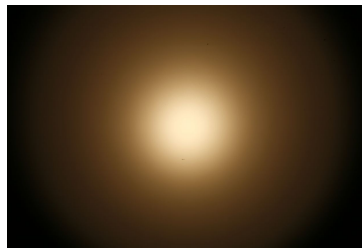
PHOTOMETRIC DATA (MEASURED):

<p>LUMINUS</p> <p>LED CxM-22 (28x28) FWHM 22.0° Efficiency 81 % Peak intensity 2.500 cd/lm LEDs/each optic 1 Light colour White Required components: BJB: 47.319.2030</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED Soleriq S13 FWHM 15.0° Efficiency 83 % Peak intensity 4.000 cd/lm LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8502/G2</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED Soleriq S13 19x19 FWHM 16.0° Efficiency 80 % Peak intensity 3.730 cd/lm LEDs/each optic 1 Light colour White Required components: BJB: 47.319.2021</p>		
<p>OSRAM <small>Opto Semiconductors</small></p> <p>LED Soleriq S19 FWHM 17.0° Efficiency 83 % Peak intensity 3.400 cd/lm LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8503/G2</p>		

PHOTOMETRIC DATA (MEASURED):

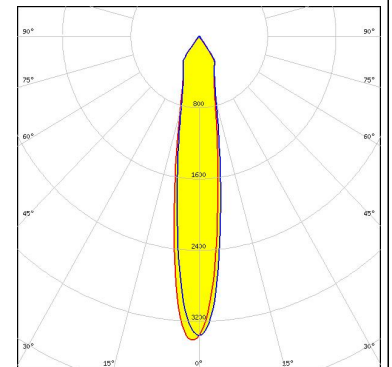
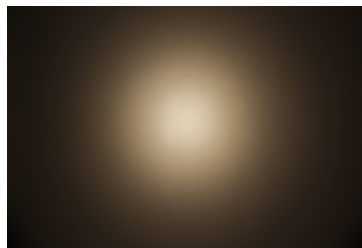
OSRAM
Opto Semiconductors

LED Soleriq S19
FWHM 18.0°
Efficiency 83 %
Peak intensity 3.380 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2170



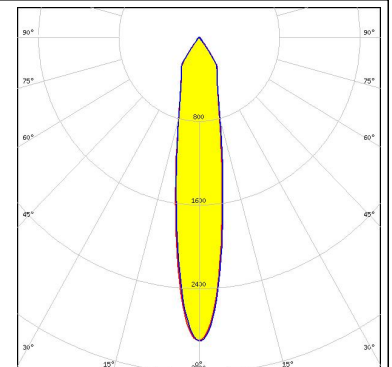
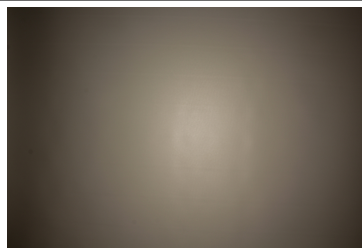
SAMSUNG

LED COB D Series LES 14.5 mm
FWHM 17.0°
Efficiency 81 %
Peak intensity 3.400 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



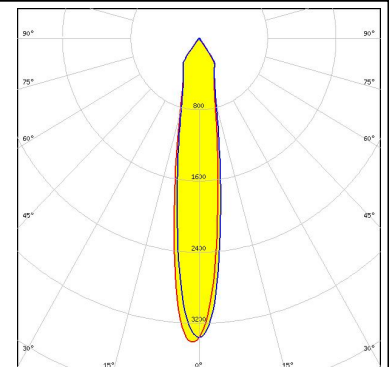
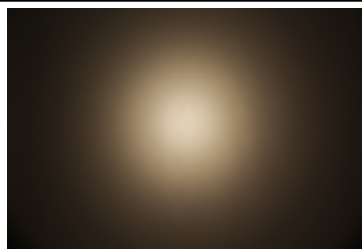
SAMSUNG

LED COB D Series LES 14.5 mm
FWHM 18.0°
Efficiency 78 %
Peak intensity 2.900 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGLE-RZ-LENS
BJB: 47.319.2021



SAMSUNG

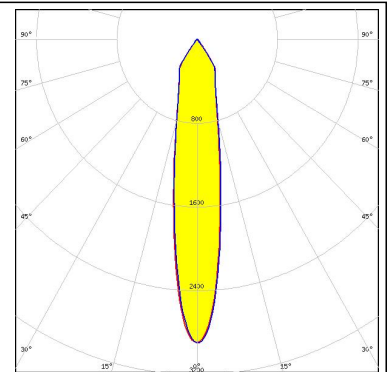
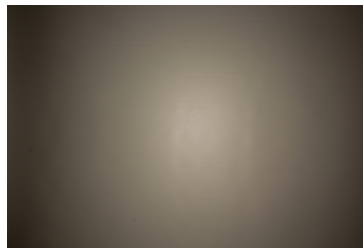
LED COB D Series LES 14.5 mm
FWHM 17.0°
Efficiency 81 %
Peak intensity 3.400 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8101/G2



PHOTOMETRIC DATA (MEASURED):

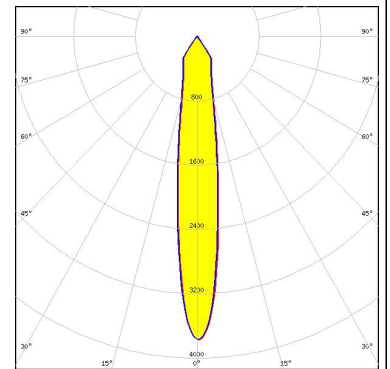
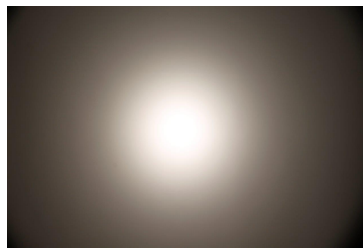
SAMSUNG

LED COB D Series LES 14.5 mm
 FWHM 18.0°
 Efficiency 78 %
 Peak intensity 2.900 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 A.A.G. STUCCHI: 8101/G2



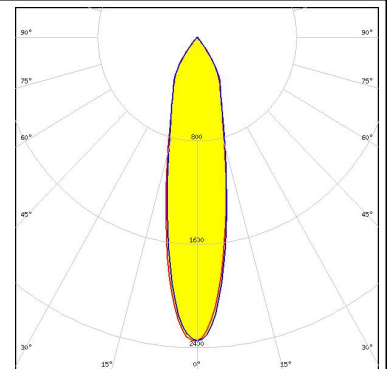
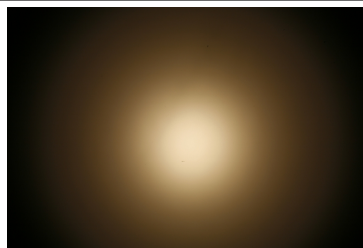
SEOUL SEMICONDUCTOR

LED ZC12/18
 FWHM 16.0°
 Efficiency 82 %
 Peak intensity 3.770 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8101/G2



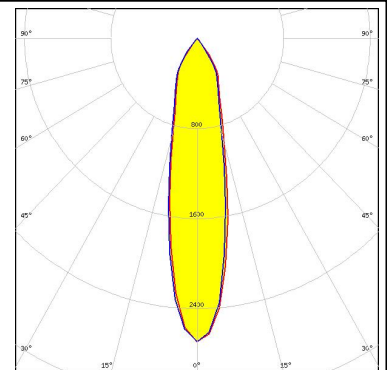
SEOUL SEMICONDUCTOR

LED ZC25/40/60
 FWHM 24.0°
 Efficiency 77 %
 Peak intensity 2.350 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 BJB: 47.319.2030



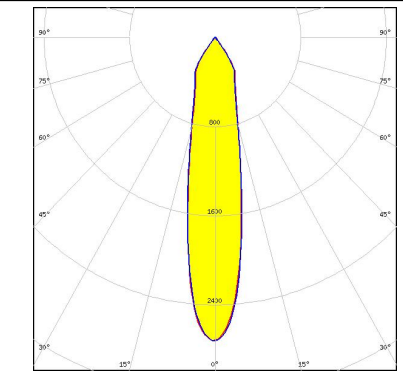

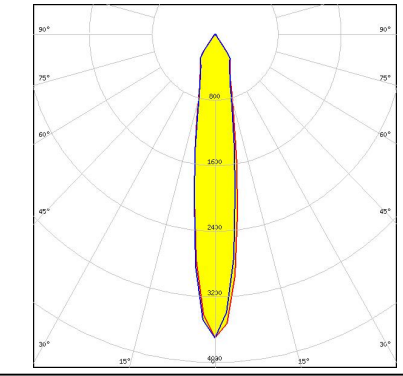
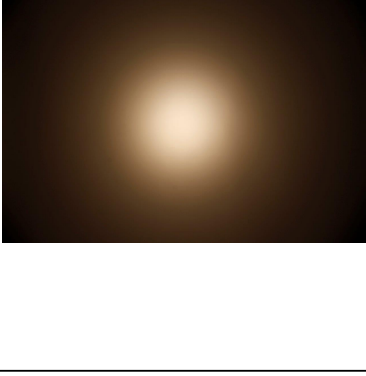
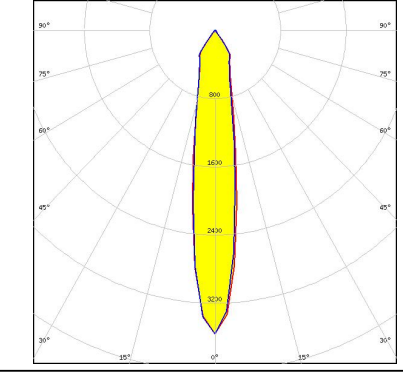

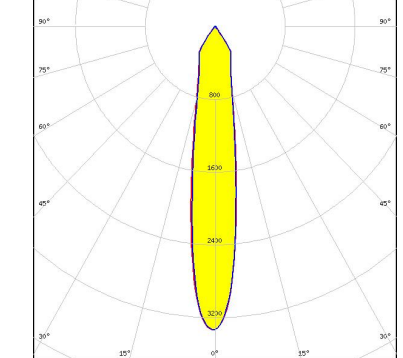


SEOUL SEMICONDUCTOR

LED ZC25/40/60
 FWHM 23.0°
 Efficiency 81 %
 Peak intensity 2.700 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



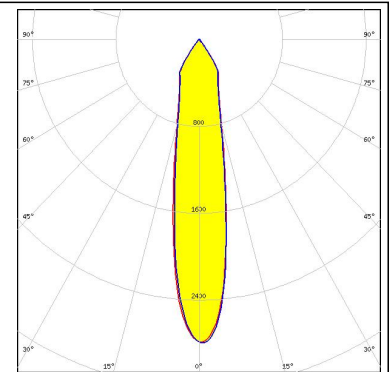
PHOTOMETRIC DATA (MEASURED):

<p> SEOUL SEMICONDUCTOR</p> <p>LED ZC25/40/60 FWHM 21.0° Efficiency 81 % Peak intensity 2.720 cd/lm LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8102/G2</p>		
<p>SHARP</p> <p>LED Mega Zenigata (GW6DME) FWHM 17.0° Efficiency 84 % Peak intensity 3.700 cd/lm LEDs/each optic 1 Light colour White Required components: BJB: 47.319.2011</p>		
<p>SHARP</p> <p>LED Mega Zenigata (GW6DME) FWHM 17.0° Efficiency 83 % Peak intensity 3.560 cd/lm LEDs/each optic 1 Light colour White Required components: A.A.G. STUCCHI: 8301/G2</p>		
<p>TRIDONIC</p> <p>LED SLE G7 LES17 H FWHM 17.0° Efficiency 80 % Peak intensity 3.300 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

PHOTOMETRIC DATA (MEASURED):

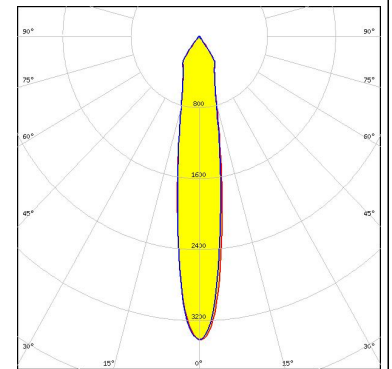
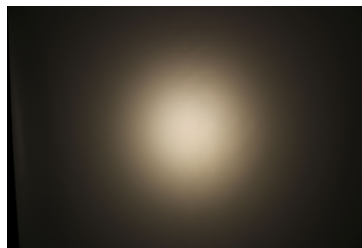
TRIDONIC

LED SLE G7 LES21 H
FWHM 20.0°
Efficiency 80 %
Peak intensity 2.800 cd/m
LEDs/each optic 1
Light colour White
Required components:



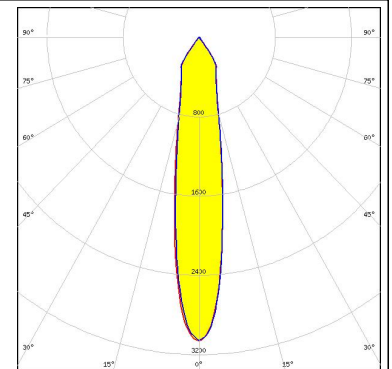
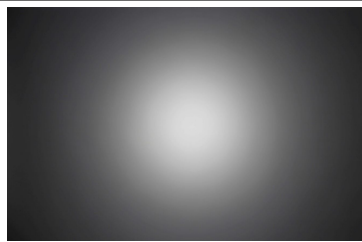
XICATO

LED XOB 14.5 mm
FWHM 17.0°
Efficiency 82 %
Peak intensity 3.418 cd/m
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



XICATO

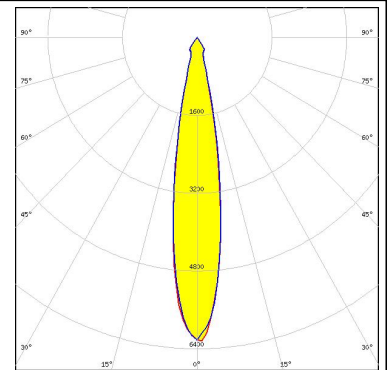
LED XTM - 19mm LES
FWHM 19.0°
Efficiency 81 %
Peak intensity 3.100 cd/m
LEDs/each optic 1
Light colour White
Required components:
C15743_XTM-ADAPTER-50-B



PHOTOMETRIC DATA (SIMULATED):

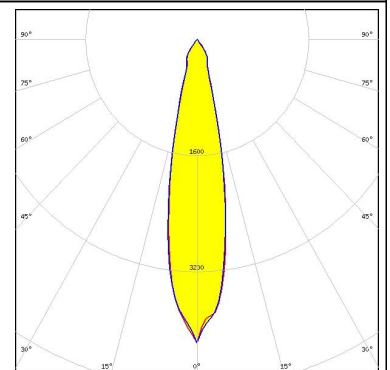
CITIZEN

LED CLL03x/CLU03x
 FWHM 18.0°
 Efficiency 94 %
 Peak intensity 6.300 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



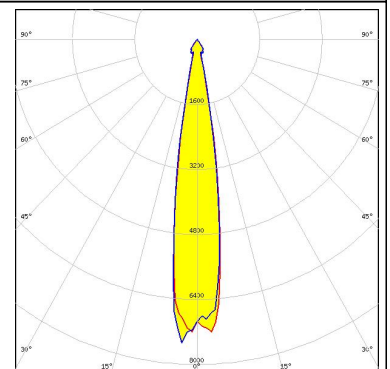
CITIZEN

LED CLL04x/CLU04x
 FWHM 22.0°
 Efficiency 88 %
 Peak intensity 4.200 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



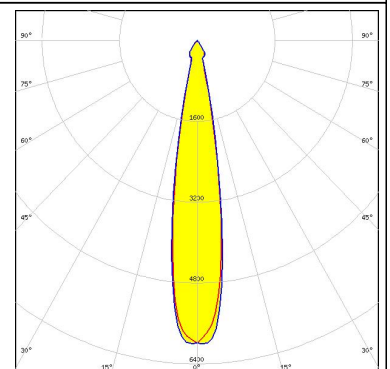
CITIZEN

LED CLU730/731
 FWHM 16.0°
 Efficiency 91 %
 Peak intensity cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



OSRAM

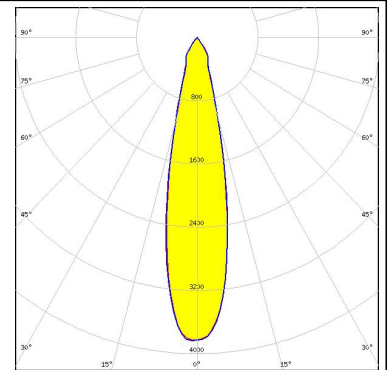
Opto Semiconductors
 LED Soleriq S15
 FWHM 18.0°
 Efficiency 90 %
 Peak intensity 6.012 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



PHOTOMETRIC DATA (SIMULATED):

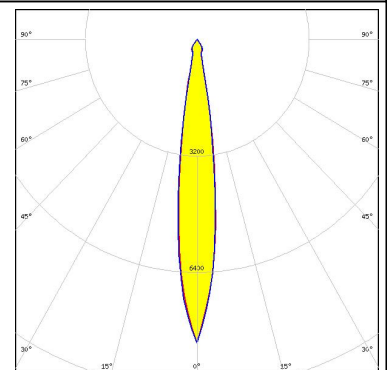
SAMSUNG

LED COB D Series LES 22 mm
 FWHM 23.0°
 Efficiency 87 %
 Peak intensity 3.840 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



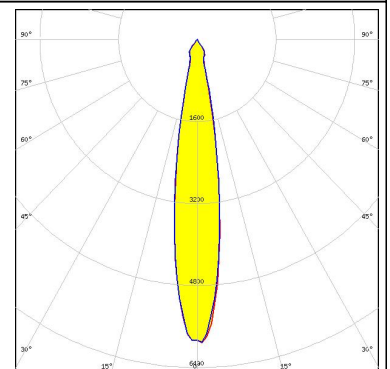
TRIDONIC

LED SLE G6 LES15 H D50
 FWHM 15.0°
 Efficiency 89 %
 Peak intensity 8.300 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



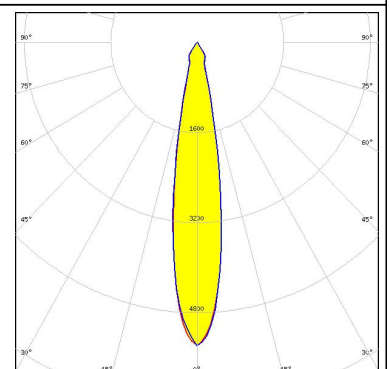
TRIDONIC

LED SLE G6 LES17 H
 FWHM 17.0°
 Efficiency 88 %
 Peak intensity 5.900 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



TRIDONIC

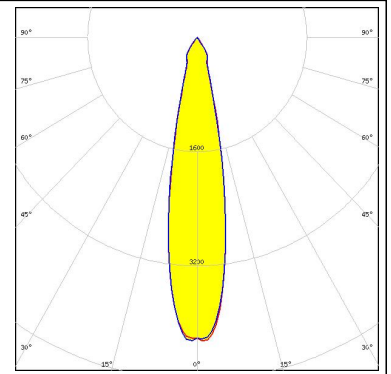
LED SLE G6 LES19 H
 FWHM 18.0°
 Efficiency 88 %
 Peak intensity 5.390 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:



PHOTOMETRIC DATA (SIMULATED):

TRIDONIC

LED SLE G6 LES23 H
FWHM 21.0°
Efficiency 88 %
Peak intensity 4.270 cd/lm
LEDs/each optic 1
Light colour White
Required components:



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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