

ANGELA-M-B

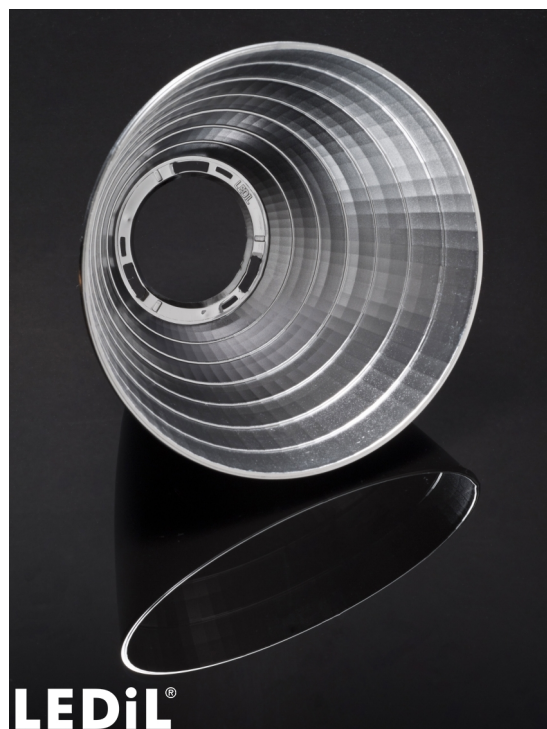
~30° medium beam compatible with BJB connectors

TECHNICAL SPECIFICATIONS:

Dimensions	Ø 119.5 mm
Height	74.5 mm
Fastening	socket
ROHS compliant	yes ⓘ

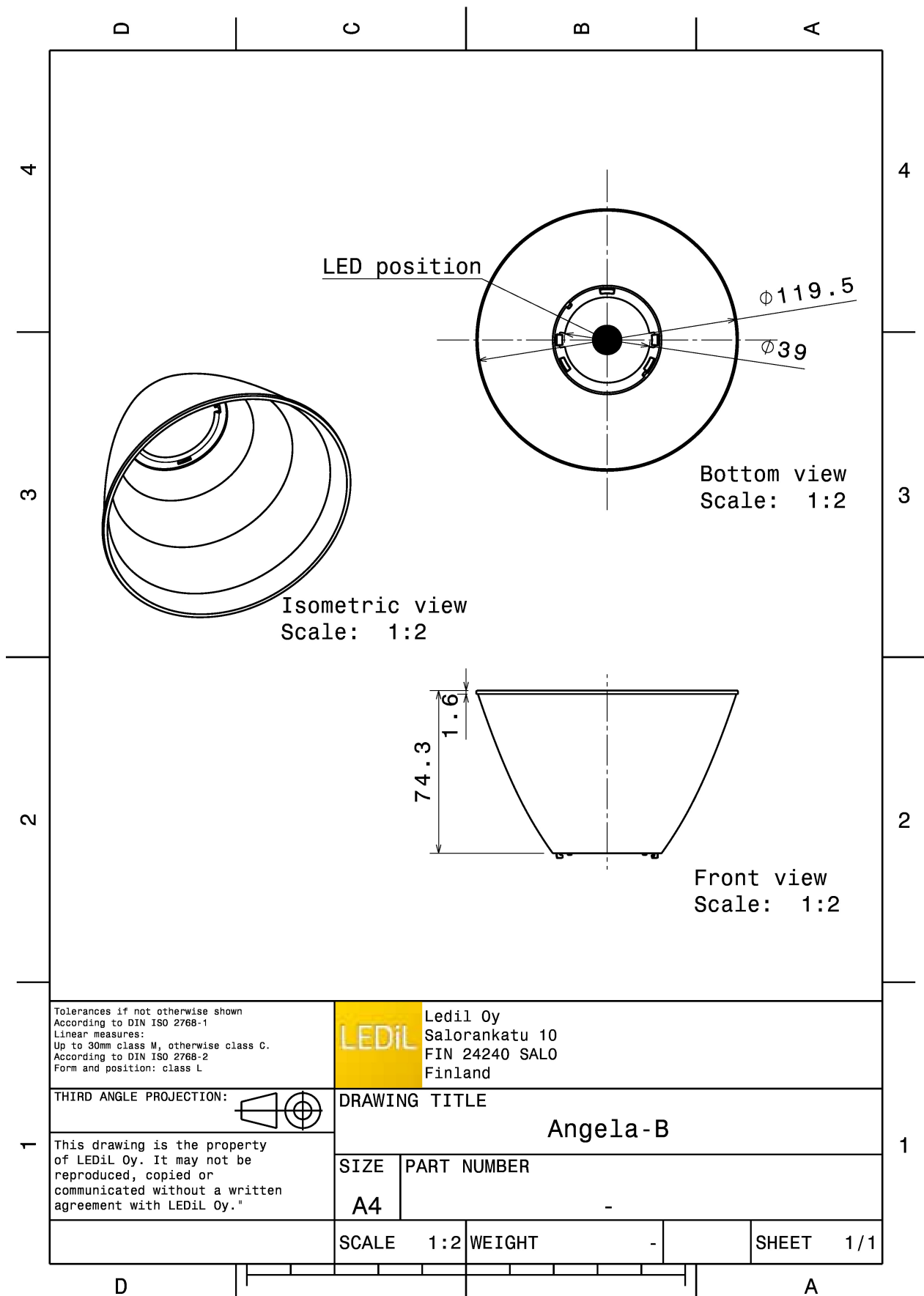
MATERIAL SPECIFICATIONS:

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



ORDERING INFORMATION:

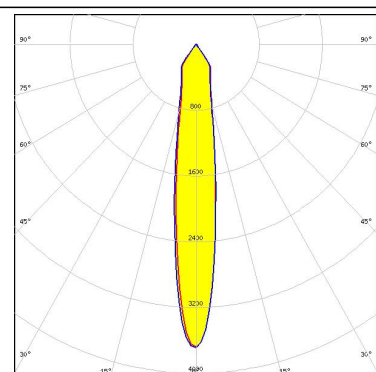
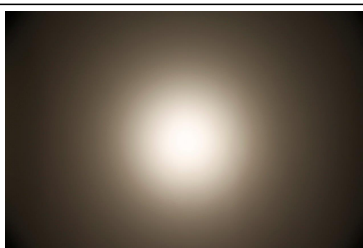
Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13663_ANGELA-M-B » Box size: 398 x 298 x 265 mm	180	90	45	9.1



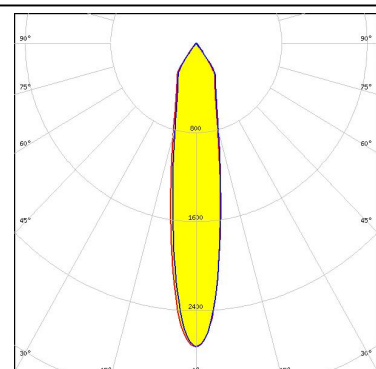
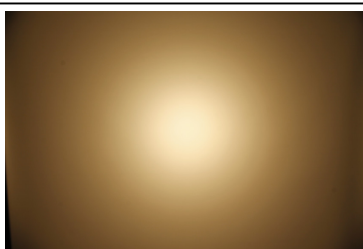
PHOTOMETRIC DATA (MEASURED):



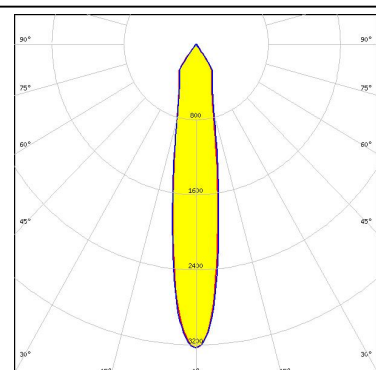
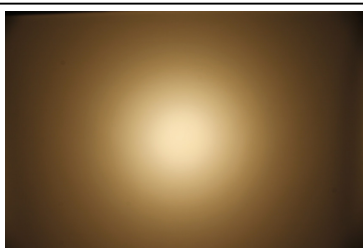
LED BXRA ES Rectangle
FWHM 16.0°
Efficiency 82 %
Peak intensity 3.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2040



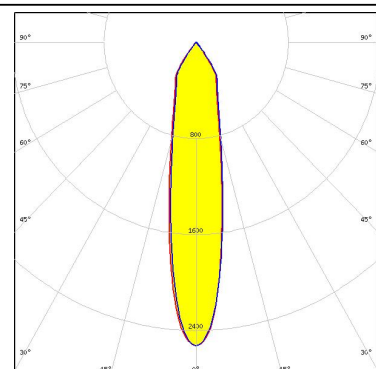
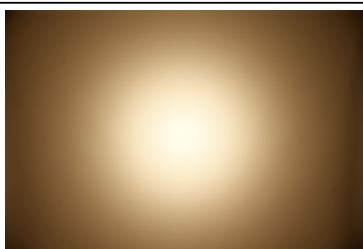
LED V15 Gen6
FWHM 19.0°
Efficiency 77 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
BJB: 47.319.2224




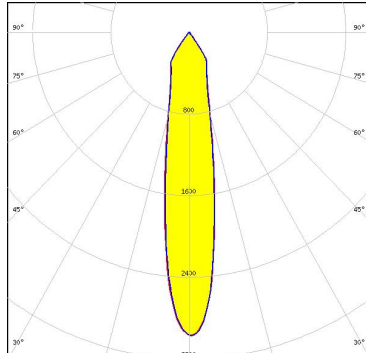
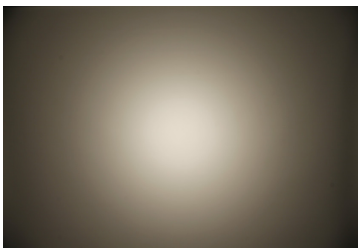
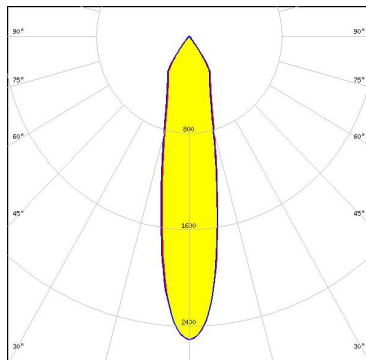

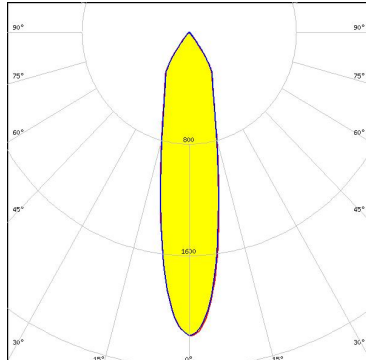

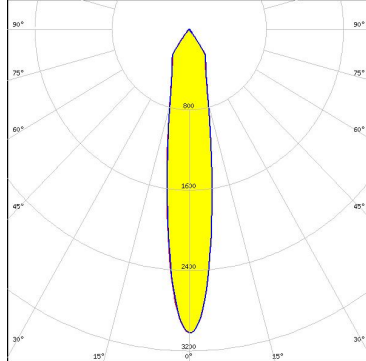
LED V15 Gen6
FWHM 18.0°
Efficiency 80 %
Peak intensity 3.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2224



LED V18 Gen6
FWHM 21.0°
Efficiency 77 %
Peak intensity 2.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
BJB: 47.319.2274



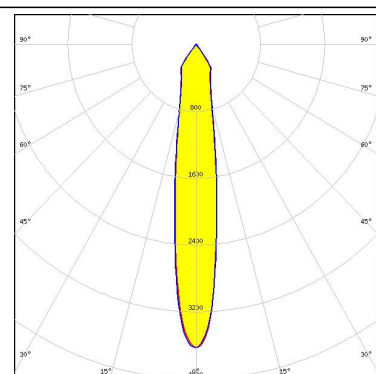
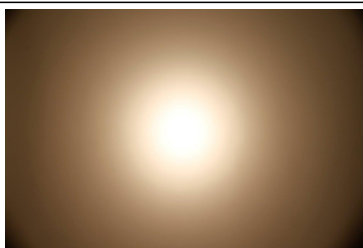
PHOTOMETRIC DATA (MEASURED):

<p>bridgelux.</p> <p>LED V18 Gen7</p> <p>FWHM 19.0°</p> <p>Efficiency 81 %</p> <p>Peak intensity 3 cd/Im</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>BJB: 47.319.2350</p>		
<p>bridgelux.</p> <p>LED V22 Gen6</p> <p>FWHM 22.0°</p> <p>Efficiency 78 %</p> <p>Peak intensity 2.5 cd/Im</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>A.A.G. STUCCHI: 8102/G2</p>		
<p>bridgelux.</p> <p>LED V22 Gen6</p> <p>FWHM 23.0°</p> <p>Efficiency 74 %</p> <p>Peak intensity 2.2 cd/Im</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>F13671_ANGE-RZ-LENS</p> <p>A.A.G. STUCCHI: 8102/G2</p>		
<p>CITIZEN</p> <p>LED CLL03x/CLU03x</p> <p>FWHM 18.0°</p> <p>Efficiency 77 %</p> <p>Peak intensity 3 cd/Im</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components:</p> <p>F13671_ANGE-RZ-LENS</p> <p>A.A.G. STUCCHI: 8101/G2</p>		

PHOTOMETRIC DATA (MEASURED):

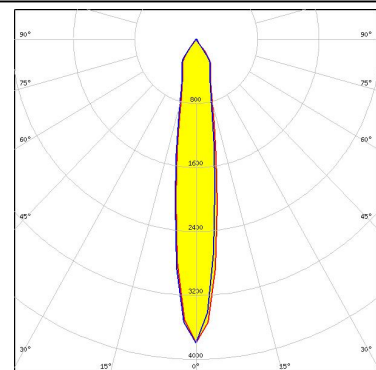
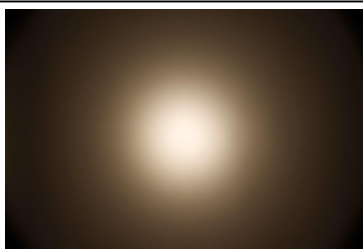
CITIZEN

LED CLL03x/CLU03x
FWHM 16.0°
Efficiency 83 %
Peak intensity 3.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8101/G2



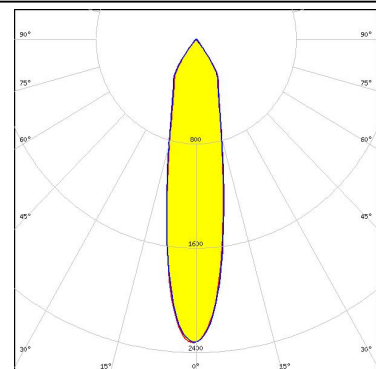
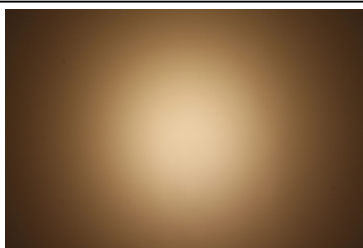
CITIZEN

LED CLL03x/CLU03x
FWHM 16.0°
Efficiency 83 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



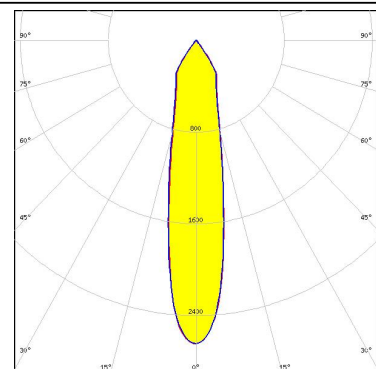
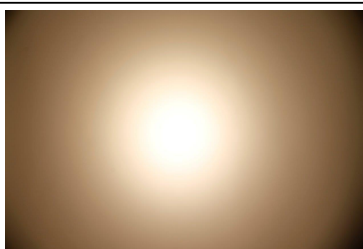
CITIZEN

LED CLL04x/CLU04x
FWHM 22.0°
Efficiency 76 %
Peak intensity 2.3 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGLE-RZ-LENS
A.A.G. STUCCHI: 8102/G2



CITIZEN

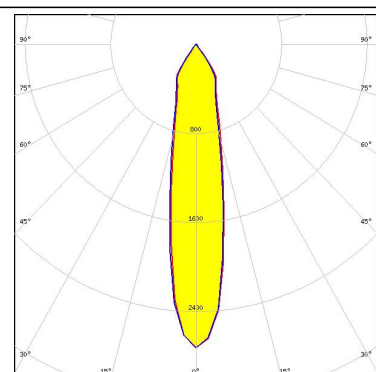
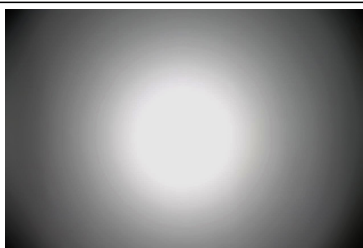
LED CLL04x/CLU04x
FWHM 21.0°
Efficiency 81 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8102/G2



PHOTOMETRIC DATA (MEASURED):

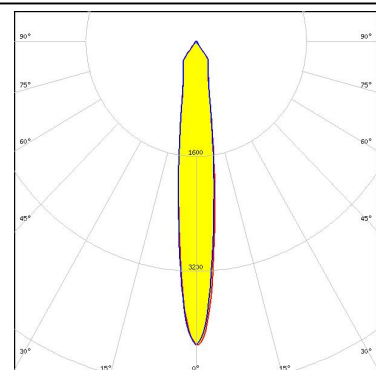
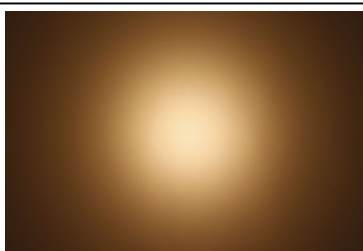
CITIZEN

LED CLL04x/CLU04x
FWHM 21.0°
Efficiency 81 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2030



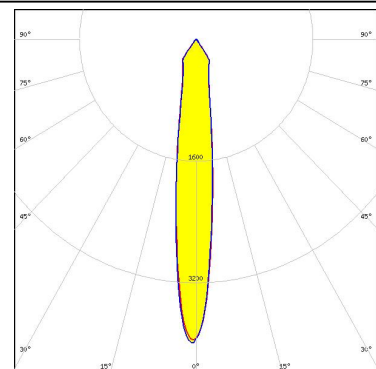
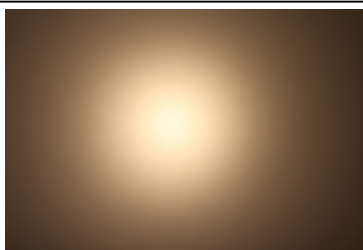
CITIZEN

LED CLU720/721
FWHM 14.0°
Efficiency 82 %
Peak intensity 4.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



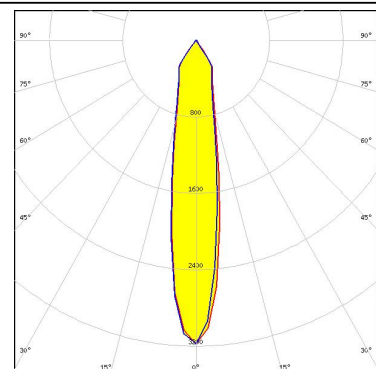
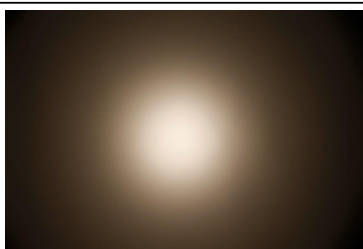
CITIZEN

LED CLU720/721
FWHM 14.0°
Efficiency 83 %
Peak intensity 4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8101/G2



CREE

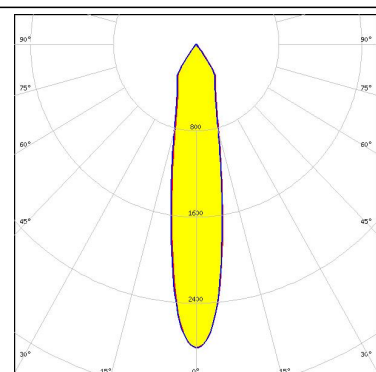
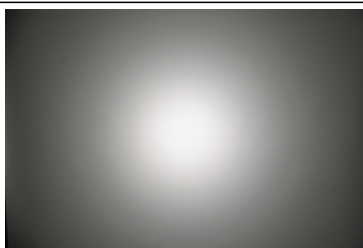
LED CXA/B 25xx
FWHM 18.0°
Efficiency 82 %
Peak intensity 3.2 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8401/G2



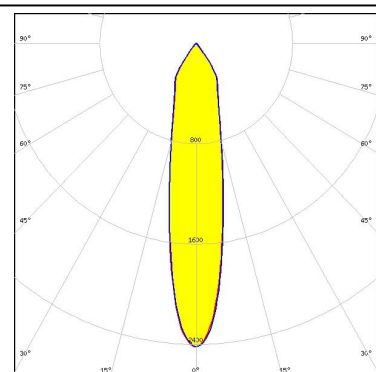
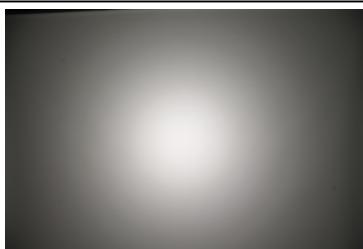
PHOTOMETRIC DATA (MEASURED):



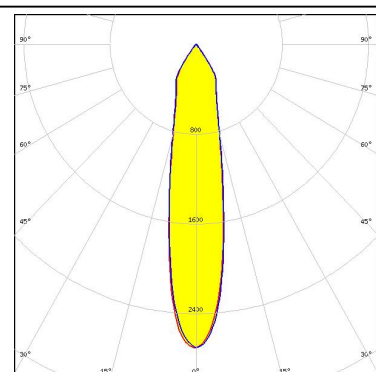
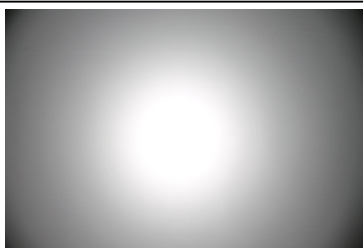
LED CXA/B 25xx
FWHM 20.0°
Efficiency 79 %
Peak intensity 2.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2141



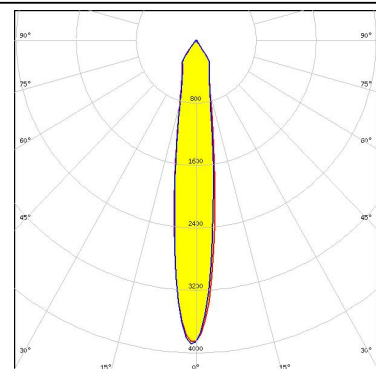
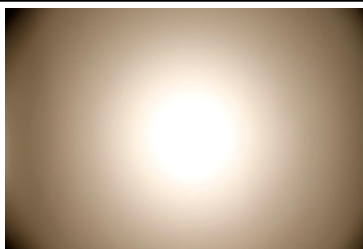
LED CXA/B 25xx
FWHM 21.0°
Efficiency 76 %
Peak intensity 2.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
BJB: 47.319.2141



LED CXA/B 30xx
FWHM 21.0°
Efficiency 80 %
Peak intensity 2.7 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8404/G2



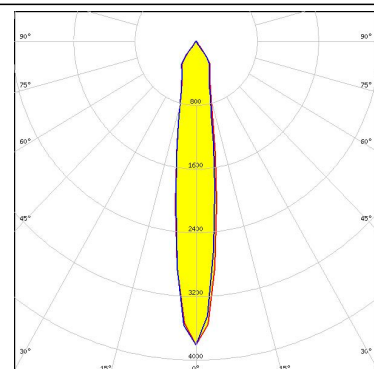
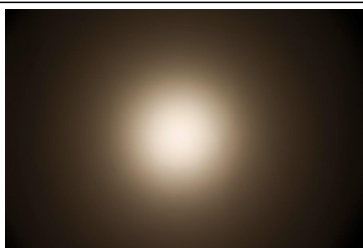
LED COB 10W/13W/17W/24W
FWHM 16.0°
Efficiency 83 %
Peak intensity 3.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2080



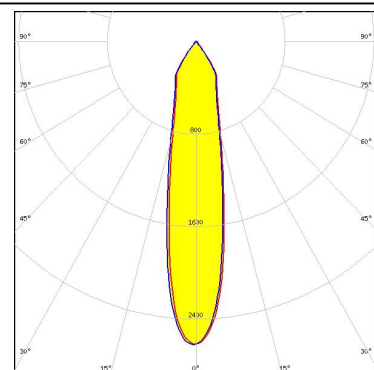
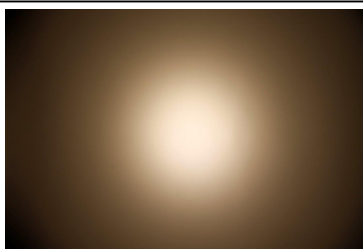
PHOTOMETRIC DATA (MEASURED):



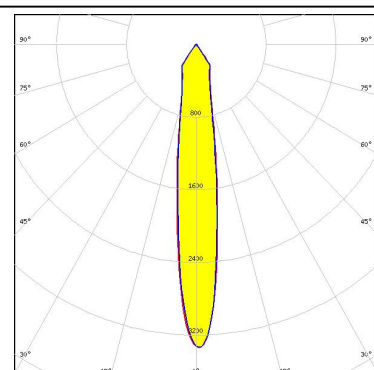
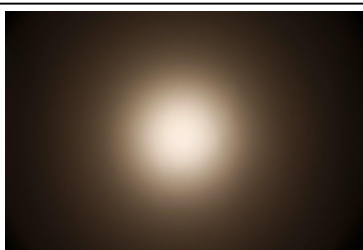
LED COB 10W/13W/17W/24W
FWHM 16.0°
Efficiency 82 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8600/G2



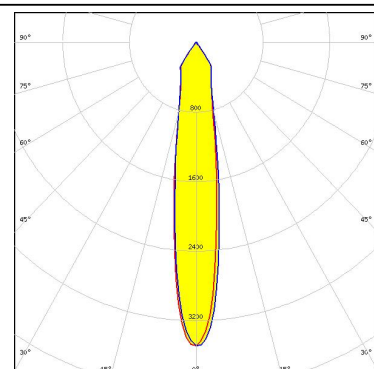
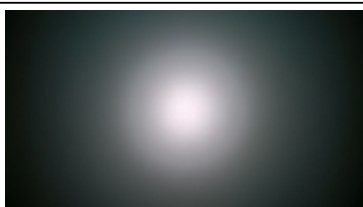
LED COB 40W/60W
FWHM 22.0°
Efficiency 81 %
Peak intensity 2.6 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8102/G2



LED LUXEON CoB 1204/1205
FWHM 16.0°
Efficiency 82 %
Peak intensity 3.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8301/G2



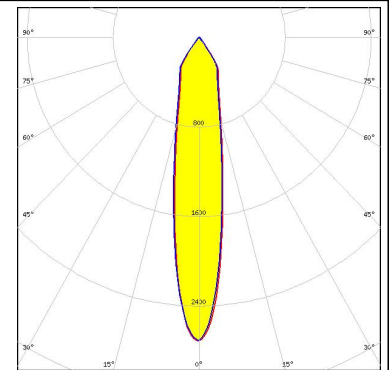
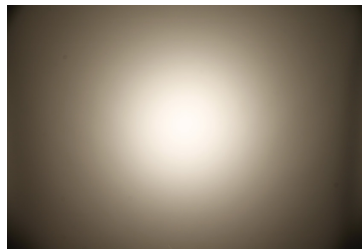
LED LUXEON CoB 1208
FWHM 17.0°
Efficiency 83 %
Peak intensity 3.5 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8301/G2



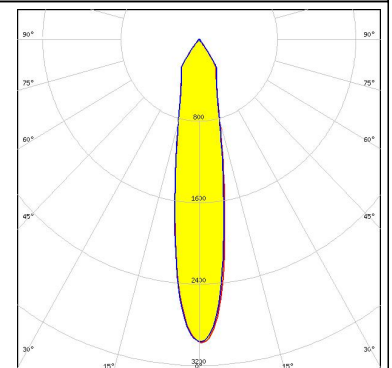
PHOTOMETRIC DATA (MEASURED):



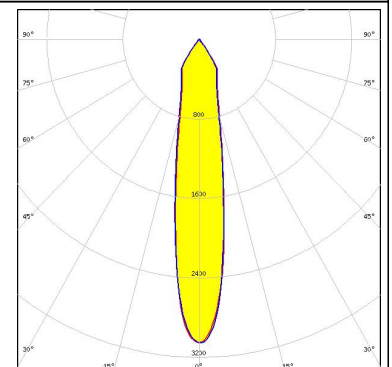
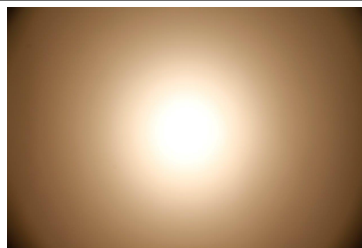
LED LUXEON CoB 1208
FWHM 19.0°
Efficiency 77 %
Peak intensity 2.7 cd/Im
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGE-RZ-LENS
A.A.G. STUCCHI: 8301/G2



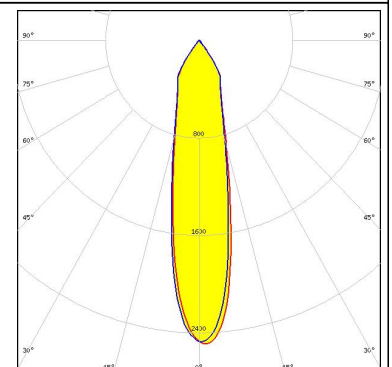
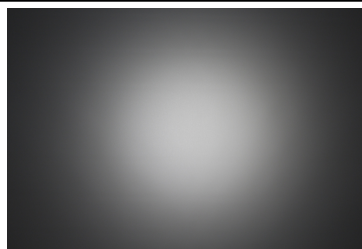
LED LUXEON CoB 1211
FWHM 19.0°
Efficiency 80 %
Peak intensity 3 cd/Im
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2030



LED LUXEON CoB 1211
FWHM 19.0°
Efficiency 81 %
Peak intensity 3.1 cd/Im
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8102/G2



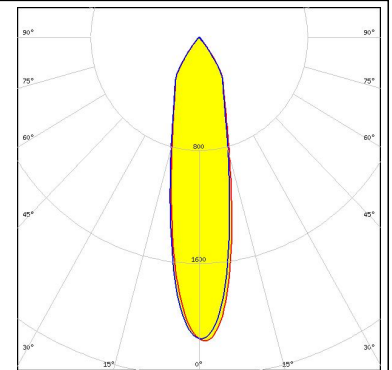
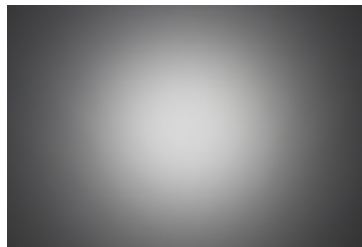
LED LUXEON CoB 1216/1812
FWHM 22.0°
Efficiency 79 %
Peak intensity 2.5 cd/Im
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2030



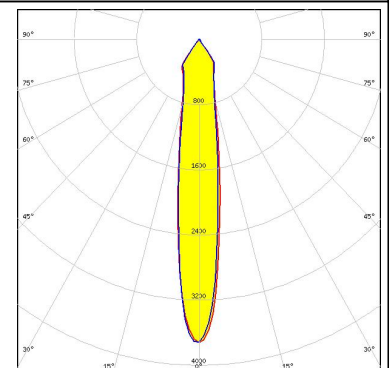
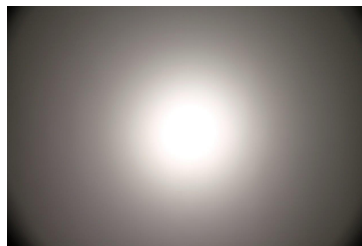
PHOTOMETRIC DATA (MEASURED):



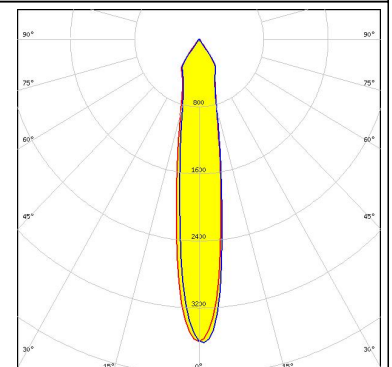
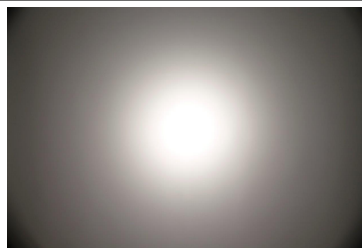
LED LUXEON CoB 1216/1812
 FWHM 24.0°
 Efficiency 75 %
 Peak intensity 2.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 BJB: 47.319.2030



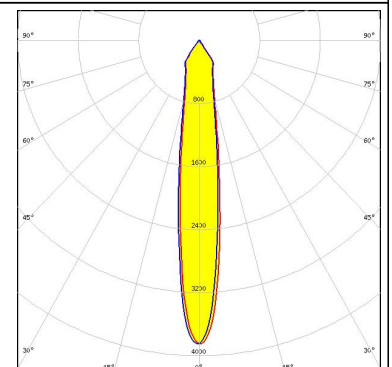
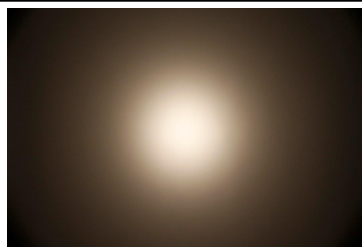
LED LUXEON K12
 FWHM 17.0°
 Efficiency 87 %
 Peak intensity 3.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2070



LED LUXEON K16
 FWHM 17.0°
 Efficiency 87 %
 Peak intensity 3.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2070



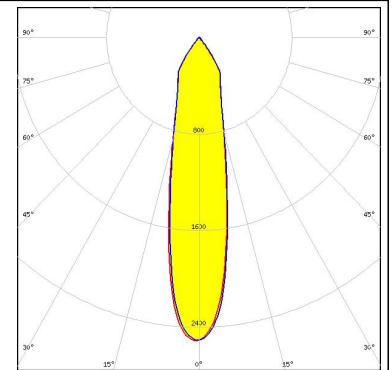
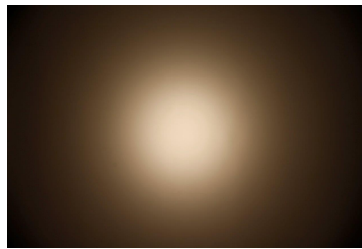
LED CxM-14 (19x19)
 FWHM 16.0°
 Efficiency 82 %
 Peak intensity 3.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



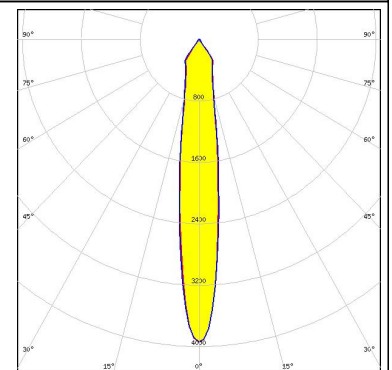
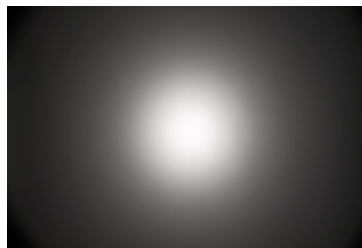
PHOTOMETRIC DATA (MEASURED):



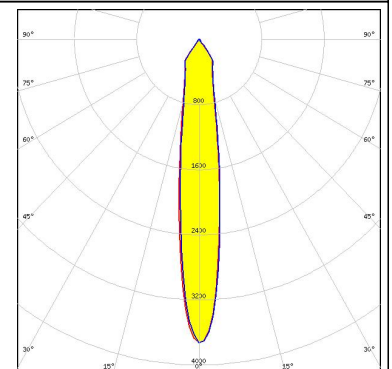
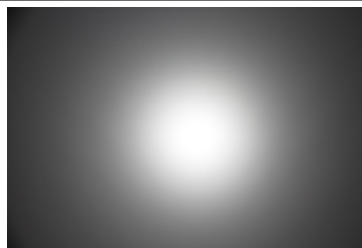
LED CxM-22 (28x28)
 FWHM 22.0°
 Efficiency 81 %
 Peak intensity 2.5 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



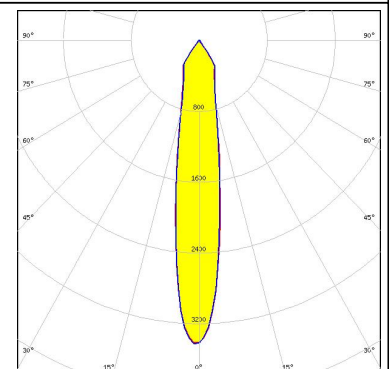
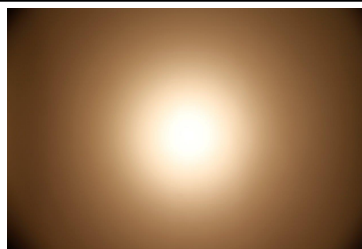
LED Soleriq S13
 FWHM 15.0°
 Efficiency 83 %
 Peak intensity 4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8502/G2



LED Soleriq S13 19x19
 FWHM 16.0°
 Efficiency 80 %
 Peak intensity 3.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



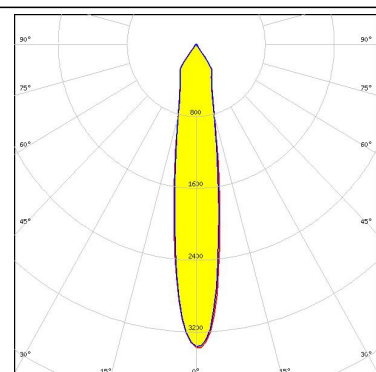
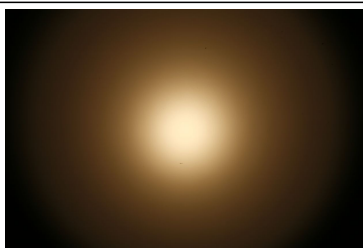
LED Soleriq S19
 FWHM 17.0°
 Efficiency 83 %
 Peak intensity 3.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8503/G2



PHOTOMETRIC DATA (MEASURED):

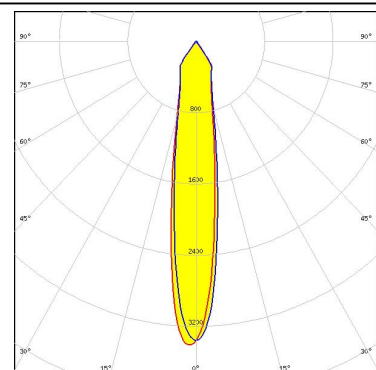
OSRAM
Opto Semiconductors

LED Soleriq S19
FWHM 18.0°
Efficiency 83 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2170



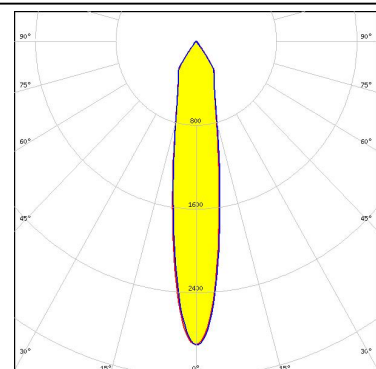
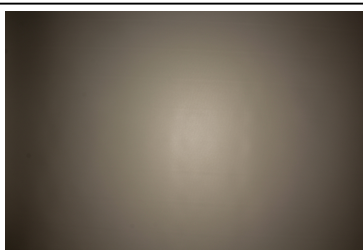
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
FWHM 17.0°
Efficiency 81 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



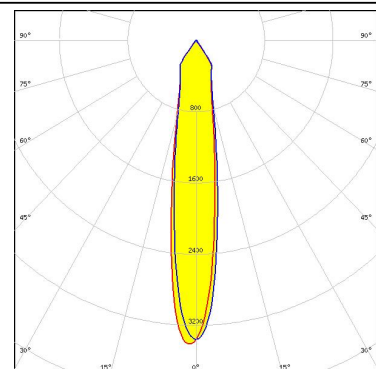
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
FWHM 18.0°
Efficiency 78 %
Peak intensity 2.9 cd/lm
LEDs/each optic 1
Light colour White
Required components:
F13671_ANGLE-RZ-LENS
BJB: 47.319.2021



SAMSUNG

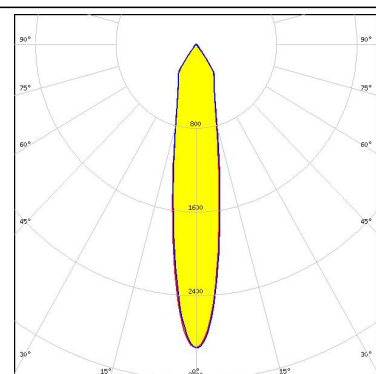
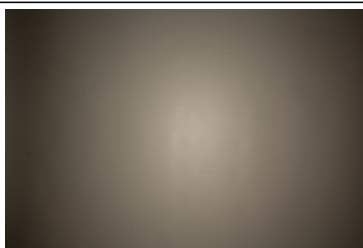
LED LC016D / LC019D / LC026D / LC033D
FWHM 17.0°
Efficiency 81 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
A.A.G. STUCCHI: 8101/G2



PHOTOMETRIC DATA (MEASURED):

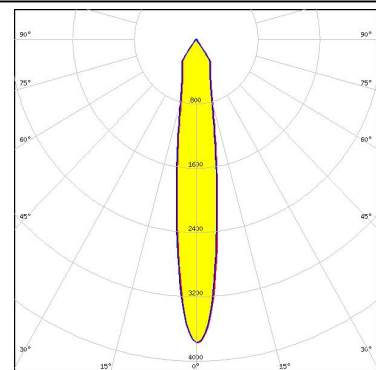
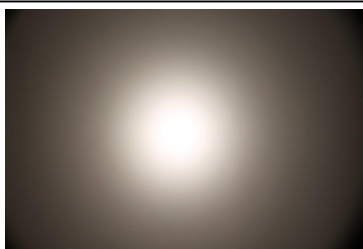
SAMSUNG

LED LC016D / LC019D / LC026D / LC033D
 FWHM 18.0°
 Efficiency 78 %
 Peak intensity 2.9 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 A.A.G. STUCCHI: 8101/G2



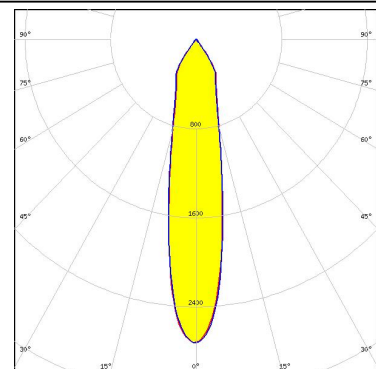
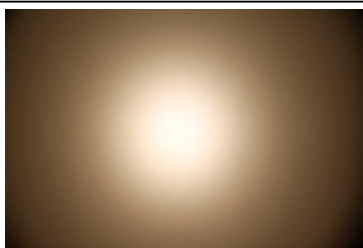
SEOUL SEMICONDUCTOR

LED ZC12/18
 FWHM 16.0°
 Efficiency 82 %
 Peak intensity 3.8 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8101/G2



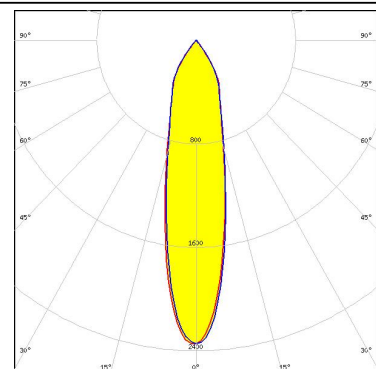
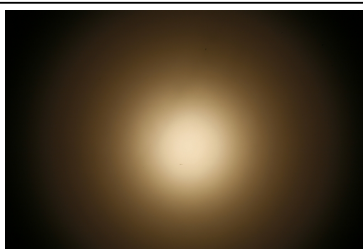
SEOUL SEMICONDUCTOR

LED ZC25/40/60
 FWHM 21.0°
 Efficiency 81 %
 Peak intensity 2.7 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 A.A.G. STUCCHI: 8102/G2

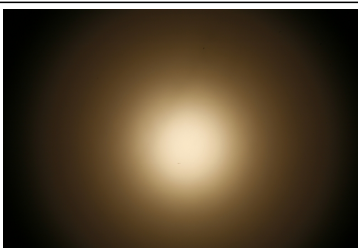
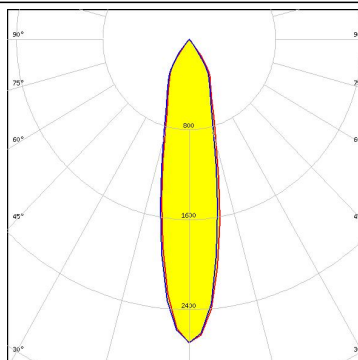
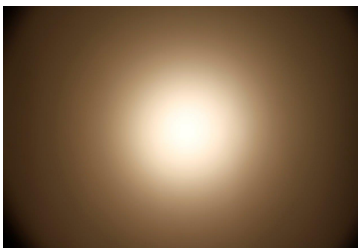
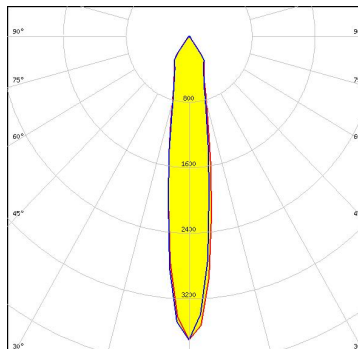
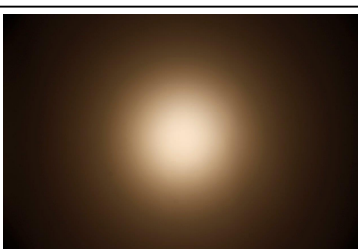
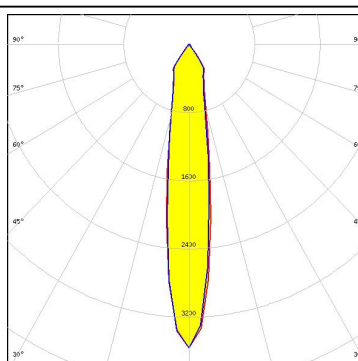

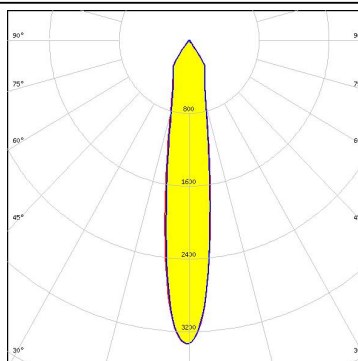


SEOUL SEMICONDUCTOR

LED ZC25/40/60
 FWHM 24.0°
 Efficiency 77 %
 Peak intensity 2.4 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 F13671_ANGE-RZ-LENS
 BJB: 47.319.2030



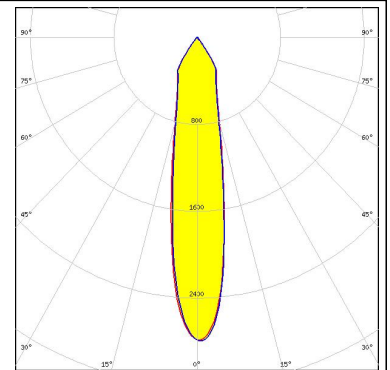
PHOTOMETRIC DATA (MEASURED):

<p>SEOL SEOUL SEMICONDUCTOR</p> <p>LED ZC25/40/60 FWHM 23.0° Efficiency 81 % Peak intensity 2.7 cd/lm LEDs/each optic 1 Light colour White Required components: BJB: 47.319.2030</p>		
<p>SHARP</p> <p>LED Mega Zenigata (GW6DME) FWHM 17.0° Efficiency 84 % Peak intensity 3.7 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 3.6 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 3.3 cd/lm LEDs/each optic 1 Light colour White Required components:</p>		

PHOTOMETRIC DATA (MEASURED):

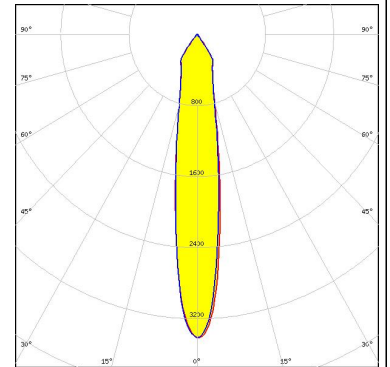
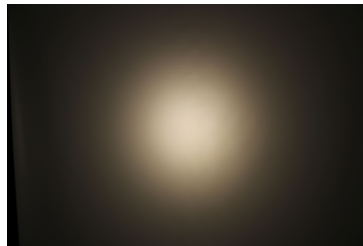
TRIDONIC

LED SLE G7 LES21 H
FWHM 20.0°
Efficiency 80 %
Peak intensity 2.8 cd/lm
LEDs/each optic 1
Light colour White
Required components:



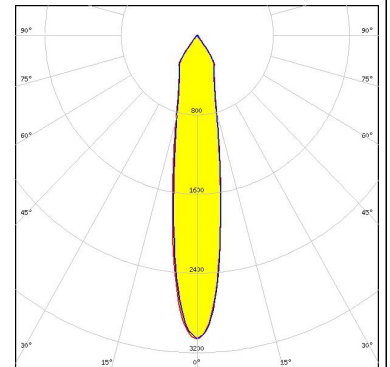
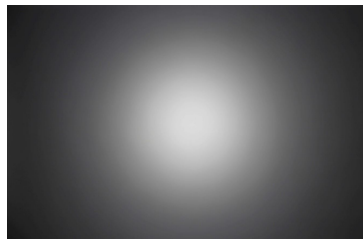
XICATO

LED XOB 14.5 mm
FWHM 17.0°
Efficiency 82 %
Peak intensity 3.4 cd/lm
LEDs/each optic 1
Light colour White
Required components:
BJB: 47.319.2021



XICATO

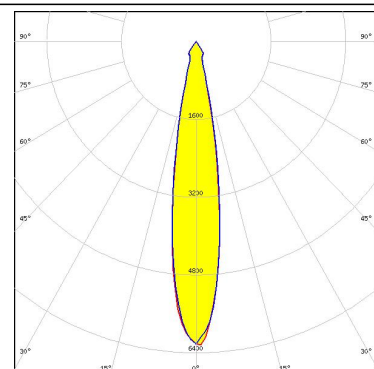
LED XTM - 19mm LES
FWHM 19.0°
Efficiency 81 %
Peak intensity 3.1 cd/lm
LEDs/each optic 1
Light colour White
Required components:
C15743_XTM-ADAPTER-50-B



PHOTOMETRIC DATA (SIMULATED):

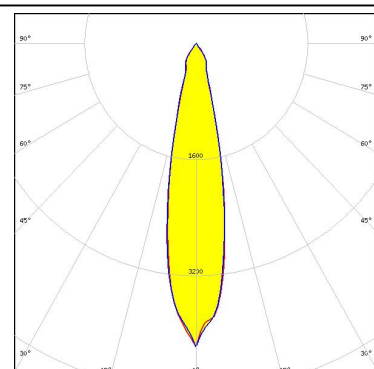
CITIZEN

LED CLL03x/CLU03x
 FWHM 18.0°
 Efficiency 94 %
 Peak intensity 6.3 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



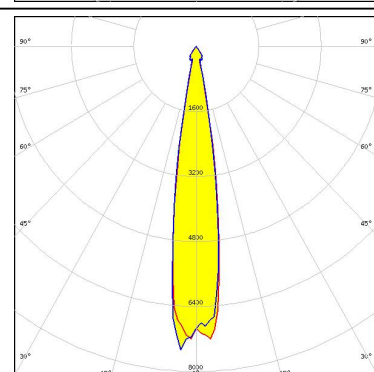
CITIZEN

LED CLL04x/CLU04x
 FWHM 22.0°
 Efficiency 88 %
 Peak intensity 4.2 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2030



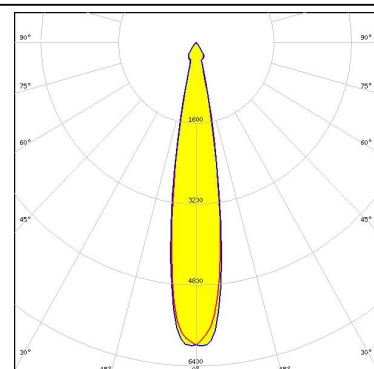
CITIZEN

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



OSRAM

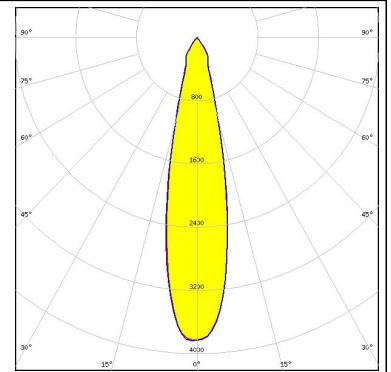
Opto Semiconductors
 LED Soleriq S15
 FWHM 18.0°
 Efficiency 90 %
 Peak intensity 6 cd/lm
 LEDs/each optic 1
 Light colour White
 Required components:
 BJB: 47.319.2021



PHOTOMETRIC DATA (SIMULATED):

SAMSUNG

LED	LC040D / LC060D / LC080D
FWHM	23.0°
Efficiency	87 %
Peak intensity	3.8 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
BJB: 47.319.2030	



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.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

LEDiL Oy

Joensuunkatu 13
FI-24240 SALO
Finland

LEDiL Inc.

228 West Page Street
Suite D
Sycamore IL 60178
USA

Local sales and technical support

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)

Shipping locations

Salo, Finland
Hong Kong, China

Distribution Partners

[www.ledil.com/
where_to_buy](http://www.ledil.com/where_to_buy)