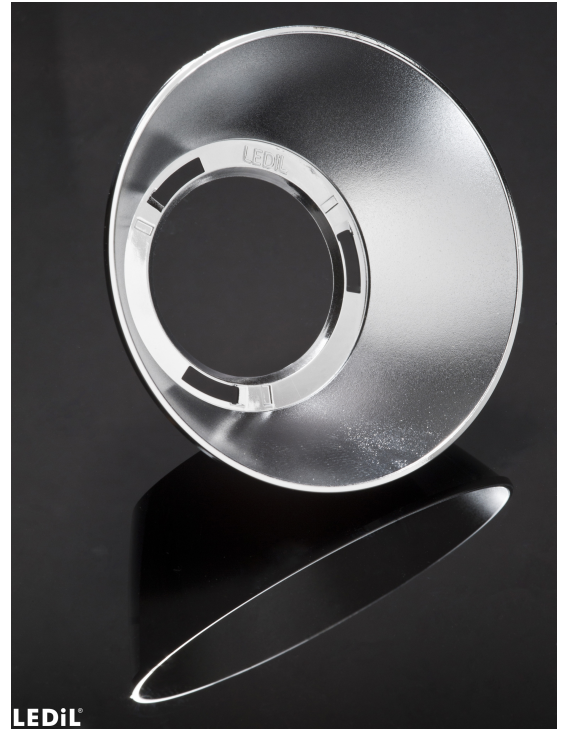


## ANGELINA-S-B

~20° spot beam compatible with BJB and B+W connectors

### SPECIFICATION:

Dimensions	Ø 82.0 mm
Height	31 mm
Fastening	socket
ROHS compliant	yes ⓘ

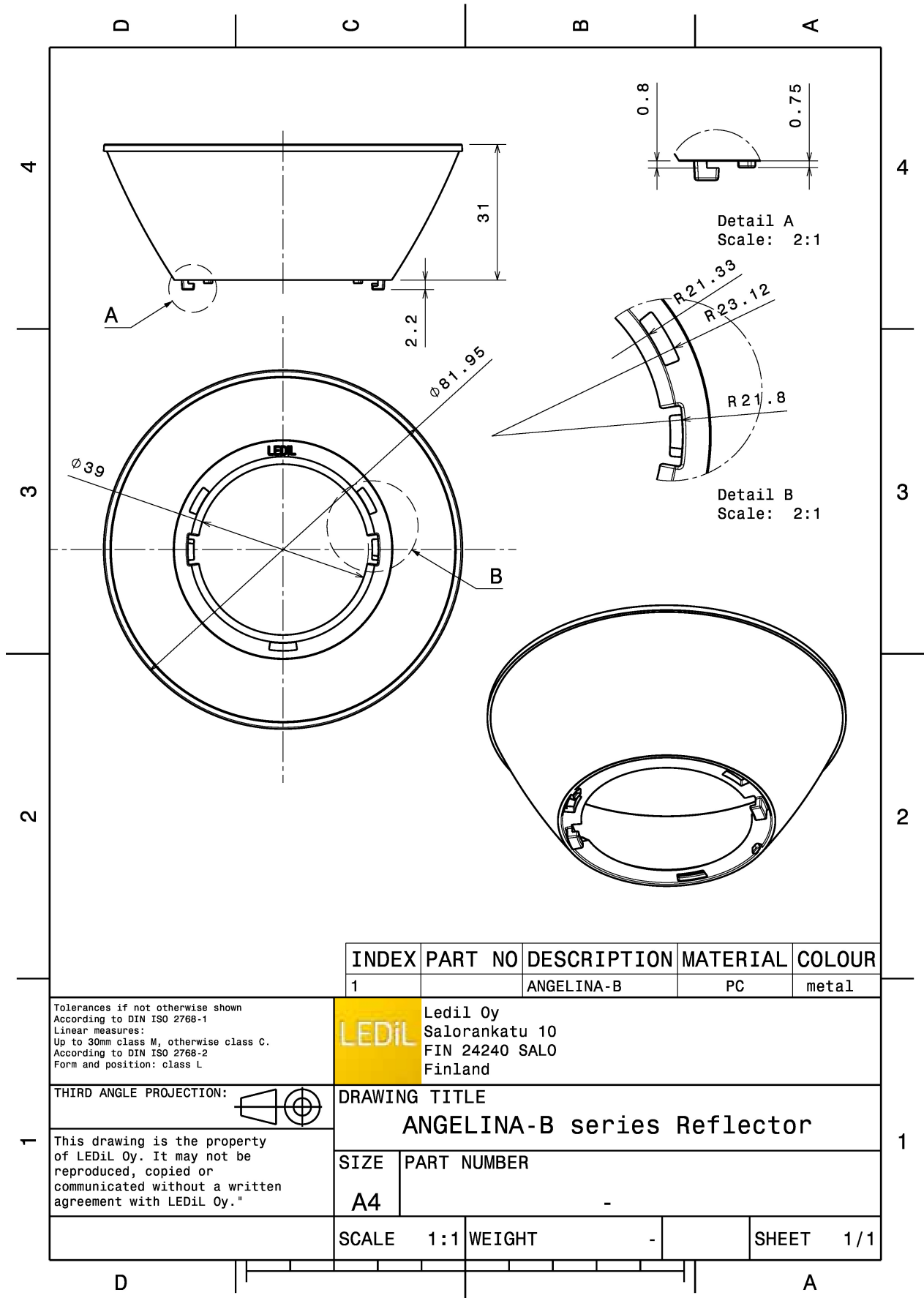


### MATERIALS:

Component	Type	Material	Colour	Finish	Coating
ANGELINA-S-B	Reflector	PC	metal		HMDS

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F13659_ANGELINA-S-B » Box size: 480 x 280 x 300 mm	825	110	55	11.3



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1		ANGELINA-B	PC	metal

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  
**ANGELINA-B series Reflector**

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	-

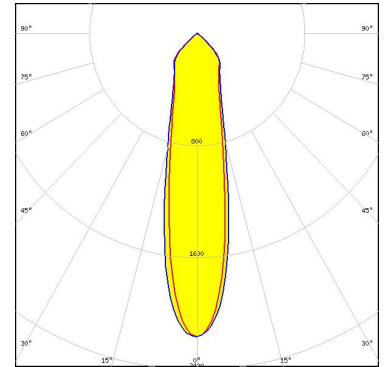
SCALE	1:1	WEIGHT	-	SHEET	1/1
-------	-----	--------	---	-------	-----

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

#### OPTICAL RESULTS (MEASURED):



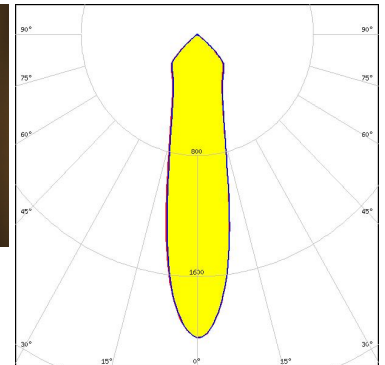
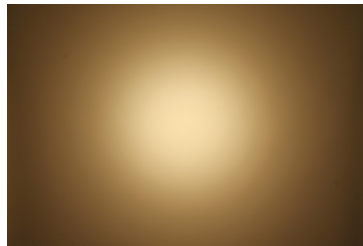
**LED** BXRA ES Rectangle  
**FWHM / FWTM** 23.0° / 90.0°  
**Efficiency** 92 %  
**Peak intensity** 2.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2040



Light distribution files



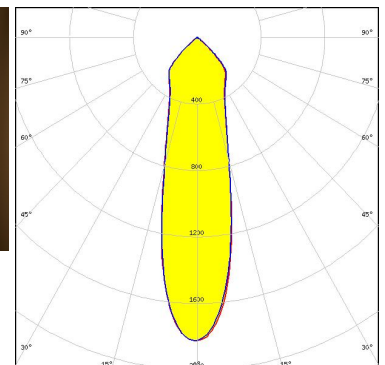
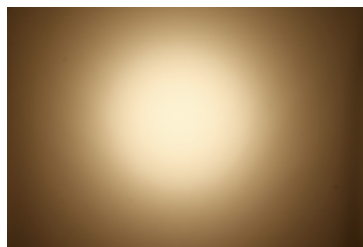
**LED** V15 Gen6  
**FWHM / FWTM** 24.0° / 92.0°  
**Efficiency** 92 %  
**Peak intensity** 2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2224



Light distribution files



**LED** V18 Gen6  
**FWHM / FWTM** 27.0° / 92.0°  
**Efficiency** 92 %  
**Peak intensity** 1.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2274

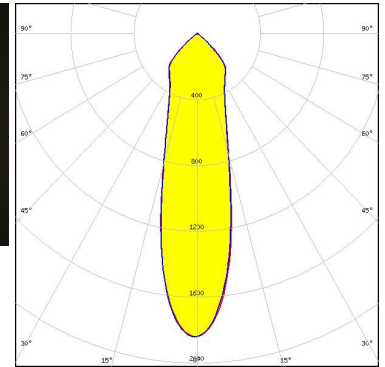
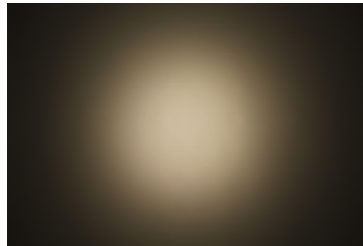


Light distribution files

#### OPTICAL RESULTS (MEASURED):



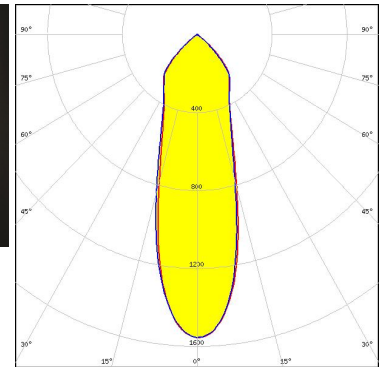
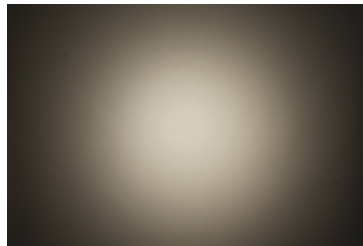
**LED** V18 Gen7  
**FWHM / FWTM** 27.0° / 92.0°  
**Efficiency** 93 %  
**Peak intensity** 1.8 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2350



Light distribution files



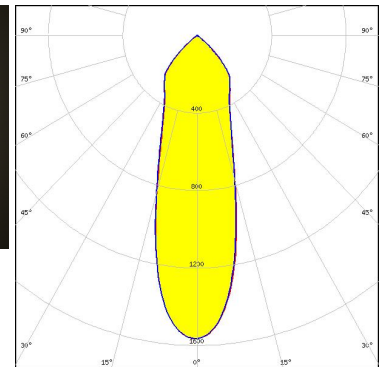
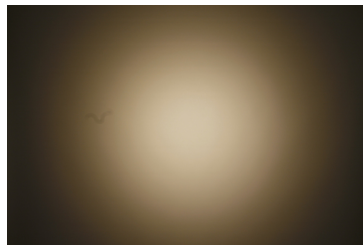
**LED** V22 Gen6  
**FWHM / FWTM** 31.0° / 93.0°  
**Efficiency** 91 %  
**Peak intensity** 1.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 A.A.G. STUCCHI: 8102-G2



Light distribution files



**LED** V22 Gen7  
**FWHM / FWTM** 31.0° / 92.0°  
**Efficiency** 91 %  
**Peak intensity** 1.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2030

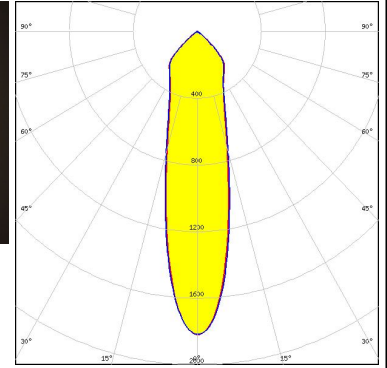
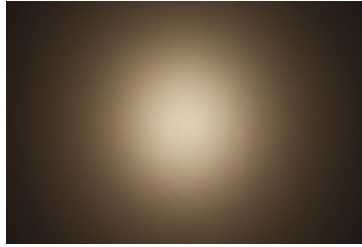


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### CITIZEN

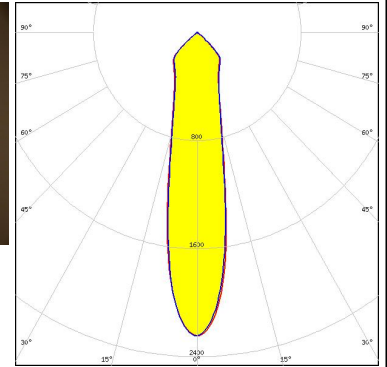
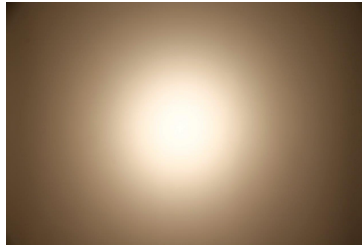
LED CLL03x/CLU03x  
 FWHM / FWTM 25.0° / 92.0°  
 Efficiency 89 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 A.A.G. STUCCHI: 8101-G2



Light distribution files

### CITIZEN

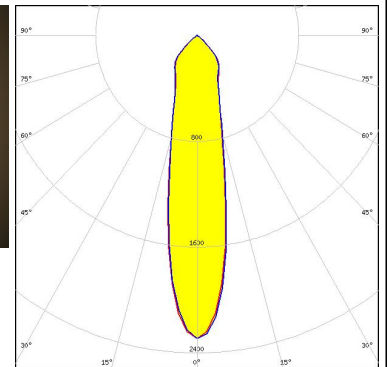
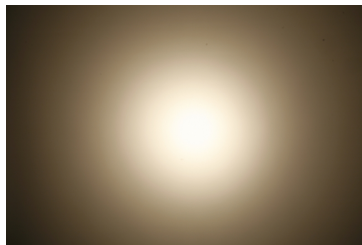
LED CLL03x/CLU03x  
 FWHM / FWTM 22.0° / 91.0°  
 Efficiency 94 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8101-G2



Light distribution files

### CITIZEN

LED CLL03x/CLU03x  
 FWHM / FWTM 23.0° / 86.0°  
 Efficiency 92 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2021

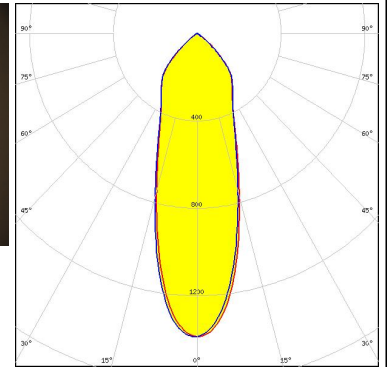
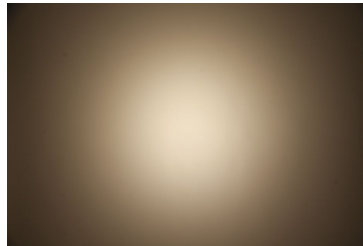


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### CITIZEN

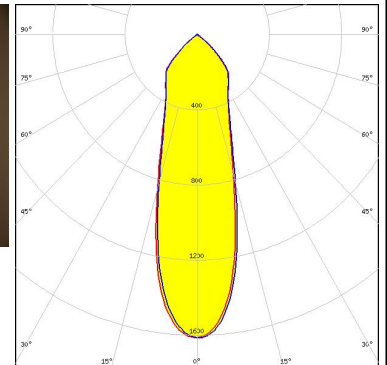
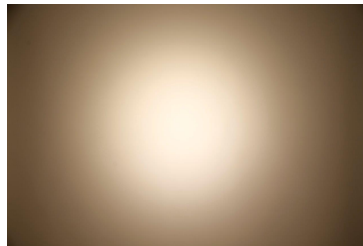
LED CLL04x/CLU04x  
 FWHM / FWTM 33.0° / 94.0°  
 Efficiency 88 %  
 Peak intensity 1.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 A.A.G. STUCCHI: 8102-G2



Light distribution files

### CITIZEN

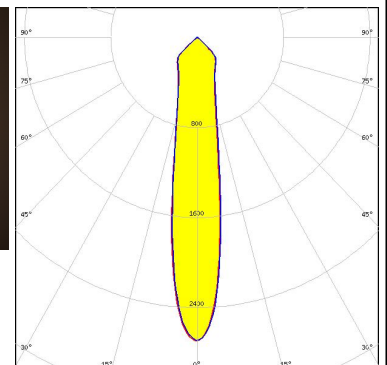
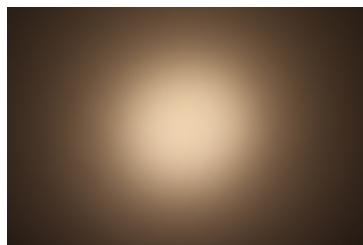
LED CLL04x/CLU04x  
 FWHM / FWTM 30.0° / 93.0°  
 Efficiency 92 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8102-G2



Light distribution files

### CITIZEN

LED CLU720/721/723  
 FWHM / FWTM 19.0° / 88.0°  
 Efficiency 94 %  
 Peak intensity 2.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8101-G2

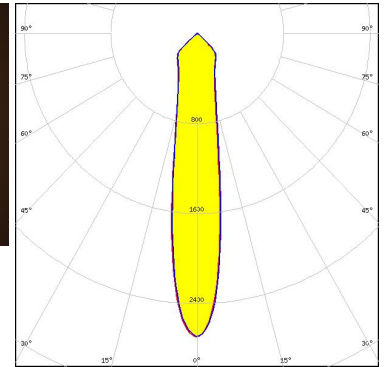
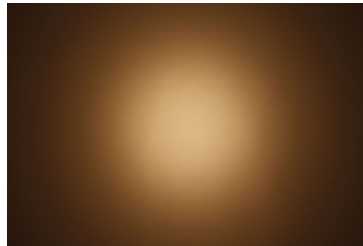


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### CITIZEN

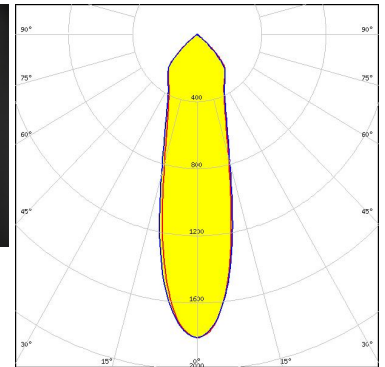
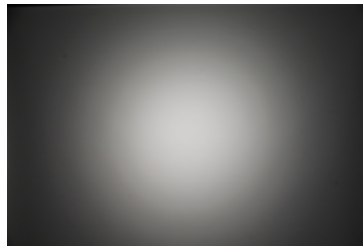
LED CLU720/721/723  
 FWHM / FWTM 19.0° / 81.0°  
 Efficiency 94 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2021



Light distribution files



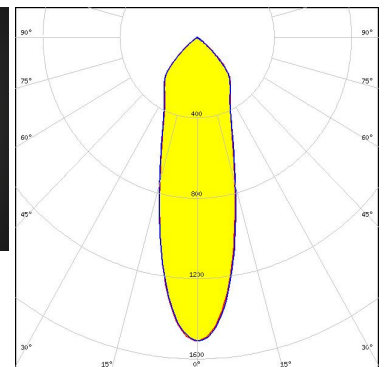
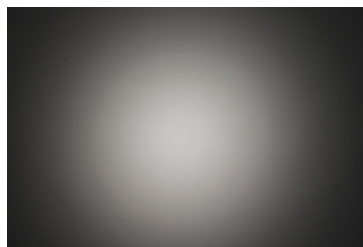
LED CXA/B 25xx  
 FWHM / FWTM 27.0° / 91.0°  
 Efficiency 92 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2141



Light distribution files



LED CXA/B 25xx  
 FWHM / FWTM 30.0° / 93.0°  
 Efficiency 88 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2141

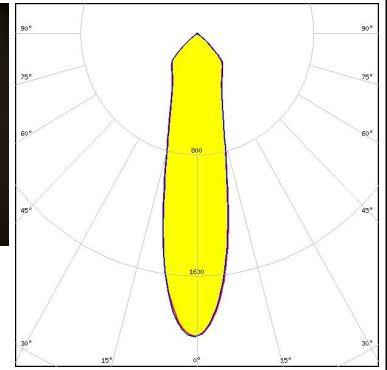


Light distribution files

#### OPTICAL RESULTS (MEASURED):



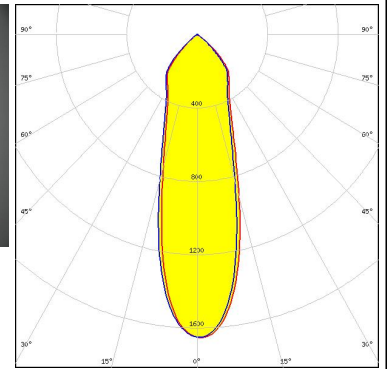
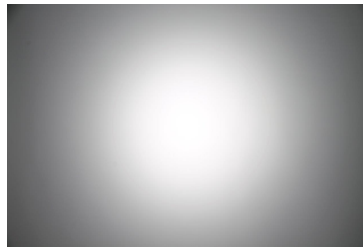
LED CXA/B 25xx  
 FWHM / FWTM 25.0° / 91.0°  
 Efficiency 93 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8401-G2



Light distribution files



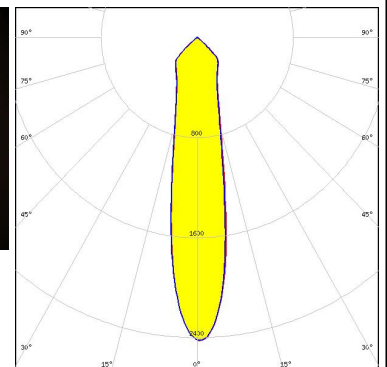
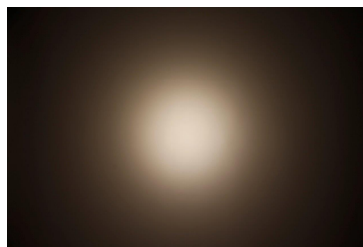
LED CXA/B 30xx  
 FWHM / FWTM 30.0° / 92.0°  
 Efficiency 92 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8404-G2



Light distribution files



LED LUXEON CoB 1204/1205  
 FWHM / FWTM 21.0° / 89.0°  
 Efficiency 94 %  
 Peak intensity 2.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8301-G2



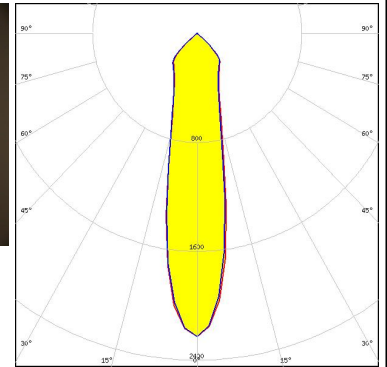
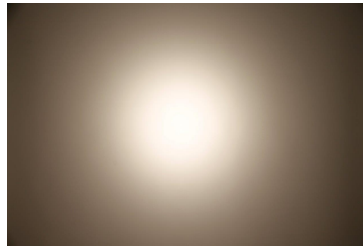
Light distribution files



#### OPTICAL RESULTS (MEASURED):



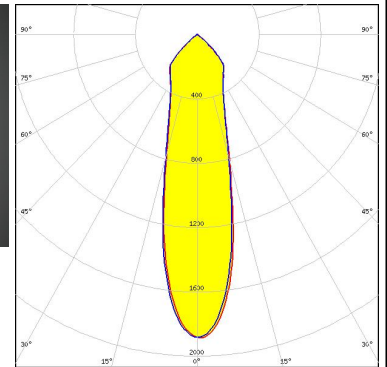
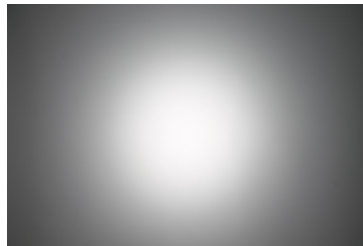
**LED** LUXEON CoB 1208  
**FWHM / FWTM** 23.0° / 90.0°  
**Efficiency** 94 %  
**Peak intensity** 2.2 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 A.A.G. STUCCHI: 8301-G2



Light distribution files



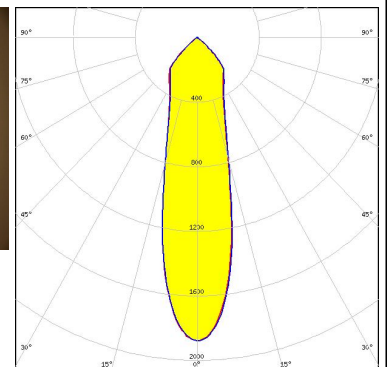
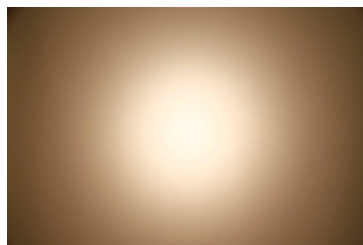
**LED** LUXEON CoB 1211  
**FWHM / FWTM** 26.0° / 91.0°  
**Efficiency** 92 %  
**Peak intensity** 1.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2030



Light distribution files



**LED** LUXEON CoB 1211  
**FWHM / FWTM** 26.0° / 91.0°  
**Efficiency** 92 %  
**Peak intensity** 1.9 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 A.A.G. STUCCHI: 8102-G2

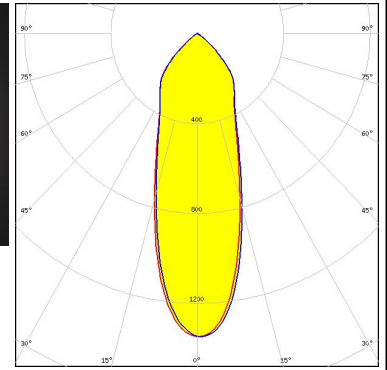


Light distribution files

#### OPTICAL RESULTS (MEASURED):



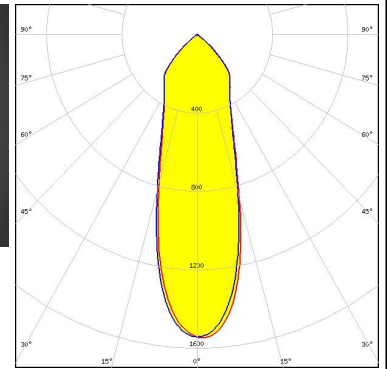
**LED** LUXEON CoB 1213/1216/1812  
**FWHM / FWTM** 34.0° / 95.0°  
**Efficiency** 88 %  
**Peak intensity** 1.4 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2030



Light distribution files



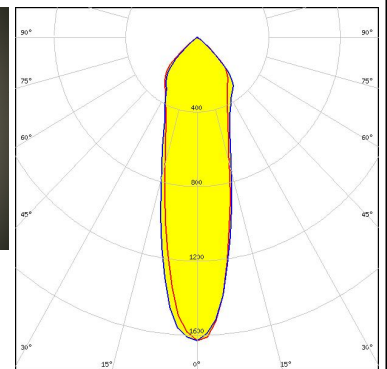
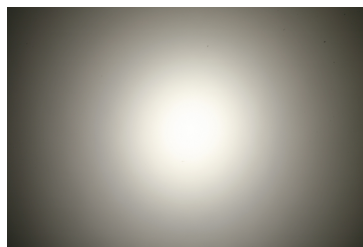
**LED** LUXEON CoB 1213/1216/1812  
**FWHM / FWTM** 32.0° / 93.0°  
**Efficiency** 91 %  
**Peak intensity** 1.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 BJB: 47.319.2030



Light distribution files



**LED** LUXEON K12  
**FWHM / FWTM** 27.0° / 95.0°  
**Efficiency** 89 %  
**Peak intensity** 1.6 cd/lm  
**LEDs/each optic** 1  
**Light colour/type** White  
**Required components:**  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2070

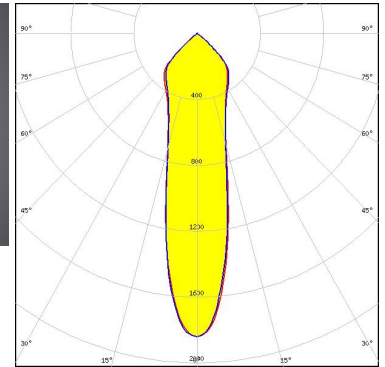
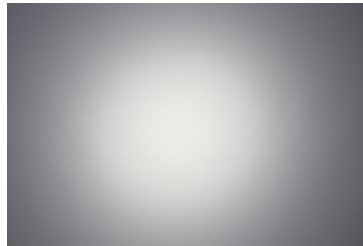


Light distribution files

#### OPTICAL RESULTS (MEASURED):



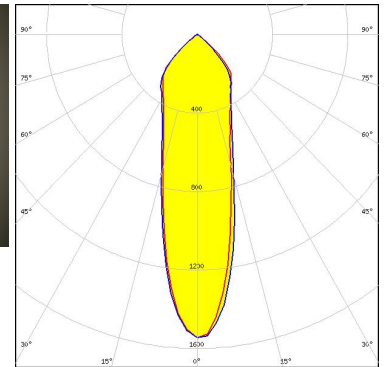
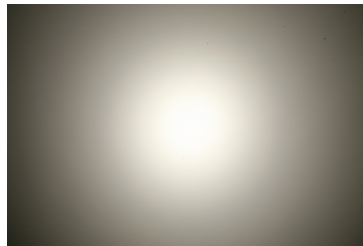
LED LUXEON K16  
 FWHM / FWTM 24.0° / 94.0°  
 Efficiency 94 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2070



Light distribution files



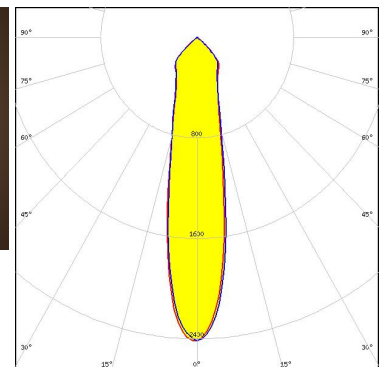
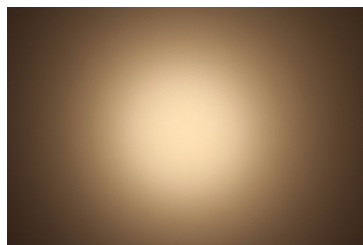
LED LUXEON K16  
 FWHM / FWTM 29.0° / 95.0°  
 Efficiency 89 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2070



Light distribution files



LED CxM-14 (19x19)  
 FWHM / FWTM 23.0° / 87.0°  
 Efficiency 94 %  
 Peak intensity 2.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2021

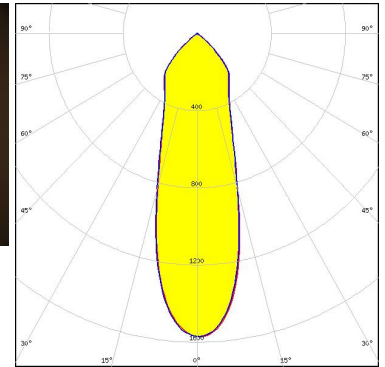
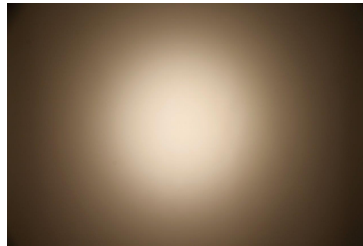


Light distribution files

#### OPTICAL RESULTS (MEASURED):



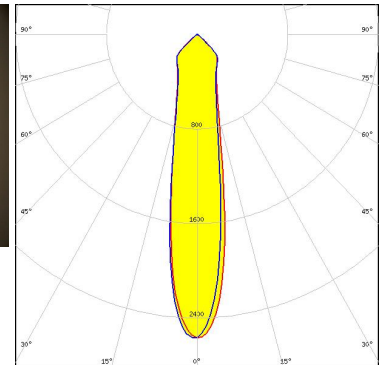
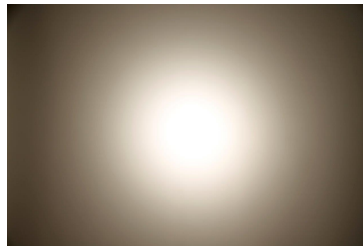
LED CxM-22 (28x28)  
FWHM / FWTM 32.0° / 93.0°  
Efficiency 92 %  
Peak intensity 1.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
BJB: 47.319.2030



Light distribution files



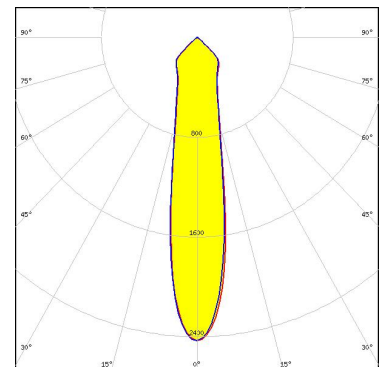
LED Soleriq S13  
FWHM / FWTM 20.0° / 87.0°  
Efficiency 94 %  
Peak intensity 2.6 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
A.A.G. STUCCHI: 8502-G2



Light distribution files



LED Soleriq S13 19x19  
FWHM / FWTM 20.0° / 89.0°  
Efficiency 92 %  
Peak intensity 2.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
BJB: 47.319.2021

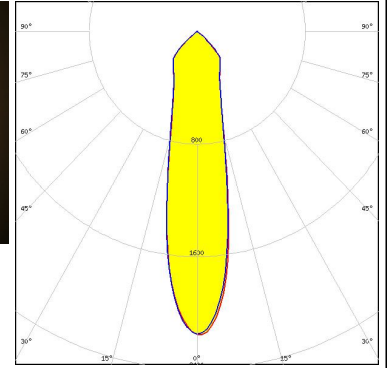
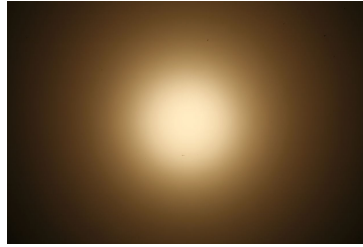


Light distribution files

#### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

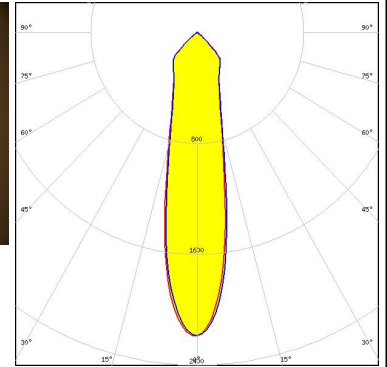
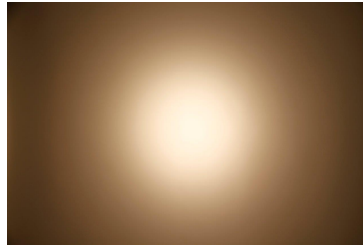
LED Soleriq S19  
 FWHM / FWTM 23.0° / 90.0°  
 Efficiency 94 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2170



Light distribution files

**OSRAM**  
Opto Semiconductors

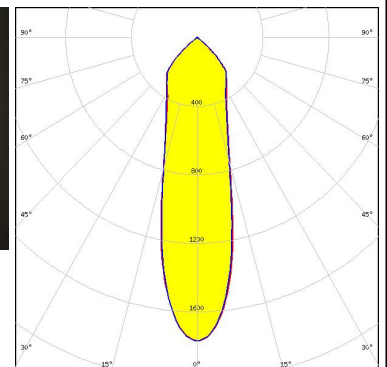
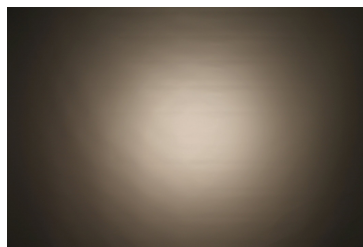
LED Soleriq S19  
 FWHM / FWTM 23.0° / 89.0°  
 Efficiency 94 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8503-G2



Light distribution files

**PHILIPS**

LED Fortimo SLM L19 CoB  
 FWHM / FWTM 27.0° / 92.0°  
 Efficiency 93 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2030

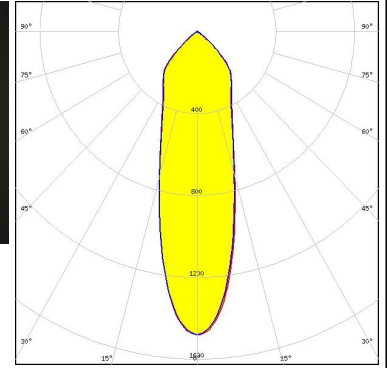
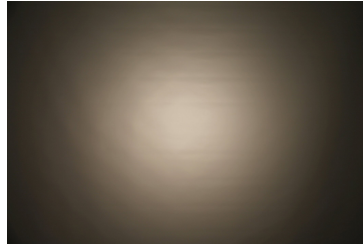


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### PHILIPS

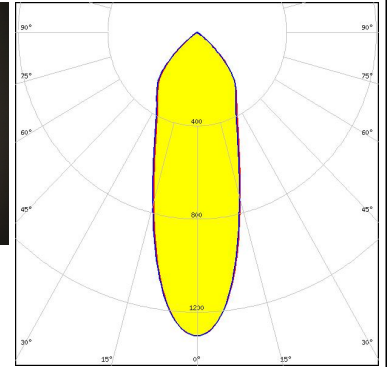
LED Fortimo SLM L19 CoB  
 FWHM / FWTM 30.0° / 94.0°  
 Efficiency 88 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2030



Light distribution files

### PHILIPS

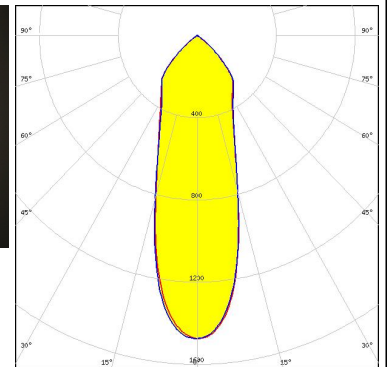
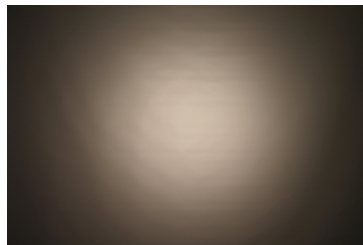
LED Fortimo SLM L23 CoB  
 FWHM / FWTM 34.0° / 95.0°  
 Efficiency 88 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2030



Light distribution files

### PHILIPS

LED Fortimo SLM L23 CoB  
 FWHM / FWTM 32.0° / 95.0°  
 Efficiency 93 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2030

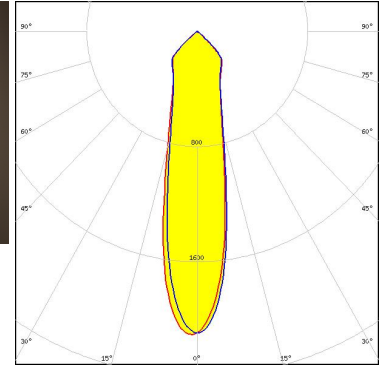


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

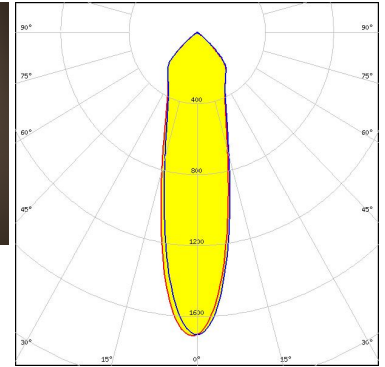
LED LC016D / LC019D / LC026D / LC033D  
FWHM / FWTM 24.0° / 91.0°  
Efficiency 93 %  
Peak intensity 2.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
BJB: 47.319.2021



Light distribution files

### SAMSUNG

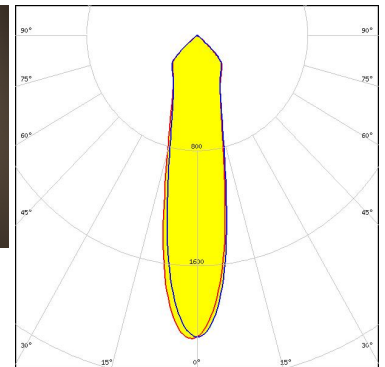
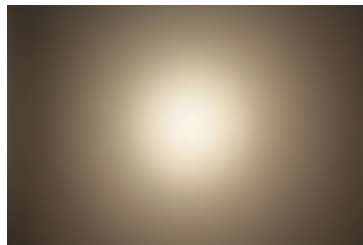
LED LC016D / LC019D / LC026D / LC033D  
FWHM / FWTM 27.0° / 93.0°  
Efficiency 89 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
F13671\_ANGE-RZ-LENS  
A.A.G. STUCCHI: 8101-G2



Light distribution files

### SAMSUNG

LED LC016D / LC019D / LC026D / LC033D  
FWHM / FWTM 24.0° / 91.0°  
Efficiency 93 %  
Peak intensity 2.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:  
A.A.G. STUCCHI: 8101-G2

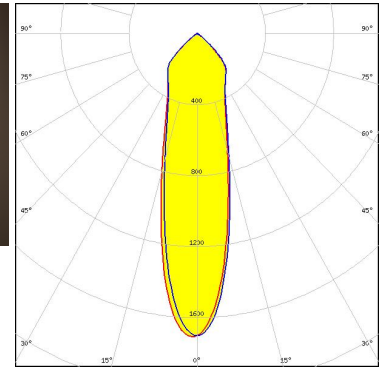
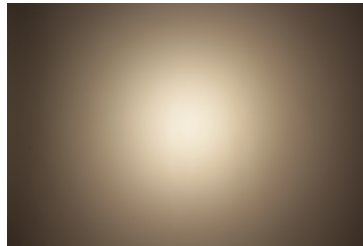


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### SAMSUNG

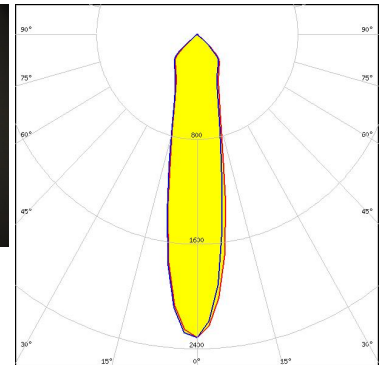
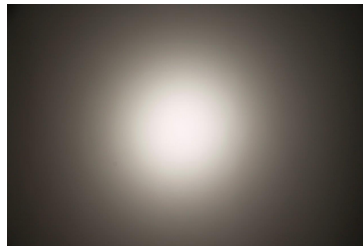
LED LC016D / LC019D / LC026D / LC033D  
 FWHM / FWTM 27.0° / 93.0°  
 Efficiency 89 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2021



Light distribution files



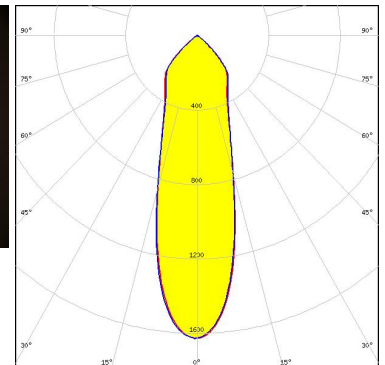
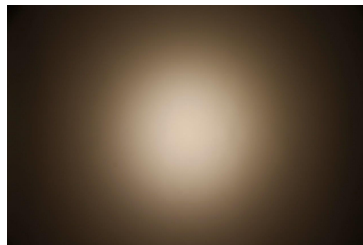
LED ZC12/18  
 FWHM / FWTM 22.0° / 89.0°  
 Efficiency 93 %  
 Peak intensity 2.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8101-G2



Light distribution files



LED ZC25/40/60  
 FWHM / FWTM 30.0° / 93.0°  
 Efficiency 92 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8102-G2



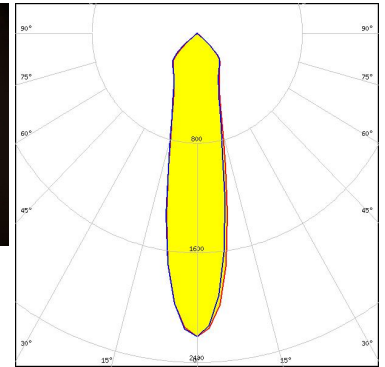
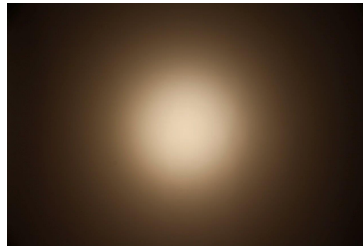
Light distribution files



#### OPTICAL RESULTS (MEASURED):

### SHARP

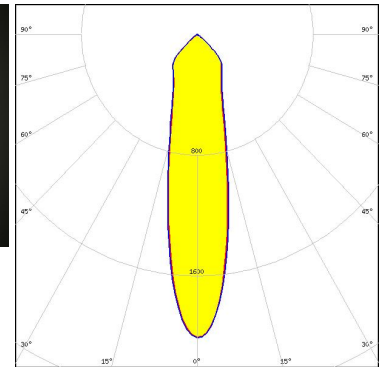
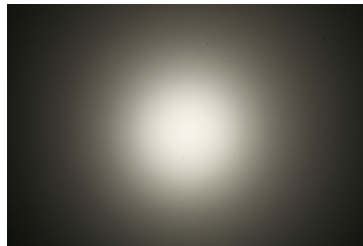
LED Mega Zenigata (GW6DME)  
 FWHM / FWTM 23.0° / 90.0°  
 Efficiency 94 %  
 Peak intensity 2.2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 A.A.G. STUCCHI: 8301-G2



Light distribution files

### SHARP

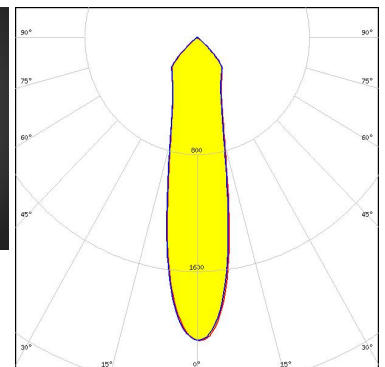
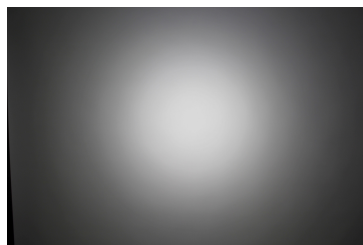
LED Tiger Zenigata (GWTGCBG4FD)  
 FWHM / FWTM 23.0° / 90.0°  
 Efficiency 91 %  
 Peak intensity 2 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 F13671\_ANGE-RZ-LENS  
 BJB: 47.319.2051



Light distribution files

### TRIDONIC

LED SLE G7 LES17 H  
 FWHM / FWTM 24.0° / 89.0°  
 Efficiency 91 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

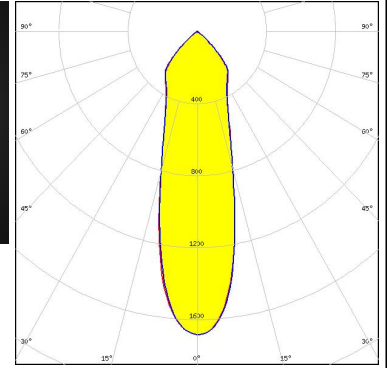


Light distribution files

#### OPTICAL RESULTS (MEASURED):

### TRIDONIC

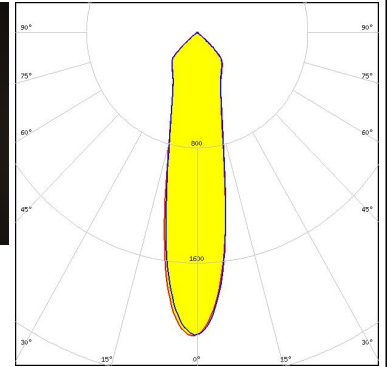
LED SLE G7 LES21 H  
 FWHM / FWTM 29.0° / 91.0°  
 Efficiency 91 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

### XICATO

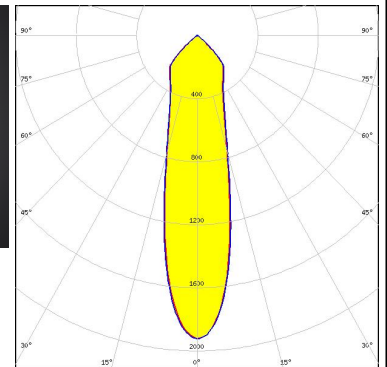
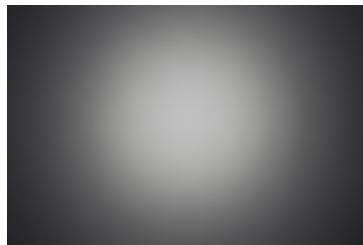
LED XOB 14.5 mm  
 FWHM / FWTM 23.0° / 92.0°  
 Efficiency 94 %  
 Peak intensity 2.1 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 BJB: 47.319.2021



Light distribution files

### XICATO

LED XTM - 19mm LES  
 FWHM / FWTM 25.0° / 91.0°  
 Efficiency 93 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 C15743\_XTM-ADAPTER-50-B



Light distribution files

#### OPTICAL RESULTS (SIMULATED):

### CITIZEN

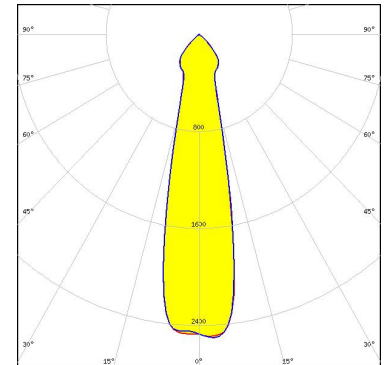
LED CLL04x/CLU04x  
FWHM / FWTM 22.0° / 68.0°  
Efficiency 95 %  
Peak intensity 3.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

BJB: 47.319.2030

### CITIZEN

LED CLL04x/CLU04x  
FWHM / FWTM 24.0° / 79.0°  
Efficiency 89 %  
Peak intensity 2.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

BJB: 47.319.2315



Light distribution files

### LUMILEDS

LED LUXEON K12  
FWHM / FWTM 15.0° / 26.0°  
Efficiency %  
LEDs/each optic 1  
Light colour/type White  
Required components:

BJB: 47.319.2070

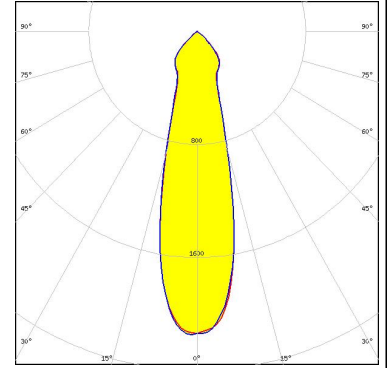
Light distribution files

#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

LED	LC040D / LC060D / LC080D
FWHM / FWTM	27.0° / 85.0°
Efficiency	90 %
Peak intensity	2.2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

BJB: 47.319.2030



Light distribution files

#### 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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