

### WINNIE-M

~35° medium beam. Holder with 35 mm screw hole distance according to Zhaga standard. Compatible with Bender+Wirth 4xx Typ L5 connector.

#### SPECIFICATION:

Dimensions	Ø 49.8 mm
Height	19.3 mm
Fastening	screw
ROHS compliant	yes ⓘ



#### MATERIALS:

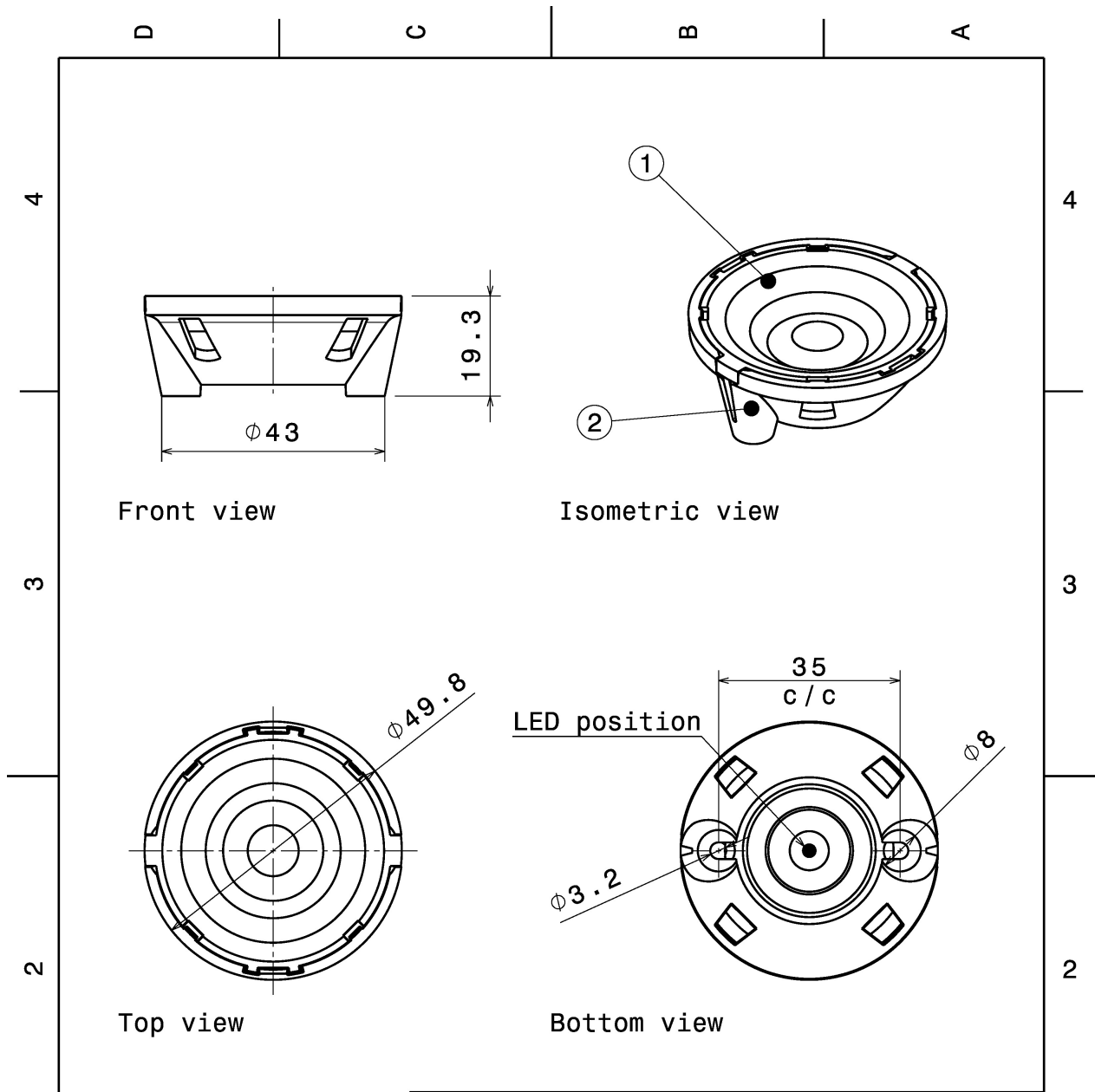
Component	Type	Material	Colour	Finish	Length
C14233_WINNIE-M	Single lens	PMMA	clear		49.6
C14235_WINNIE-HOLDER	Holder	PC	white		49.8

#### ORDERING INFORMATION:

##### Quantities for one set:

Single lens	1
Holder	1

Component		Qty in box	MOQ	MPQ	Box weight (kg)
C14233_WINNIE-M	Single lens	364	84	28	6.5
» Box size: 480 x 280 x 300 mm					
C14235_WINNIE-HOLDER	Holder	1820	84	28	7.2
» Box size: 480 x 280 x 300 mm					



INDEX	PART NO	DESCRIPTION	MATERIAL	COLOUR
1	C14233	WINNIE-M	PMMA	clear
2	C14235	WINNIE-HOLDER	PC	white

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  
**CN14237\_WINNIE-M**

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SIZE	PART NUMBER
A4	CN14237

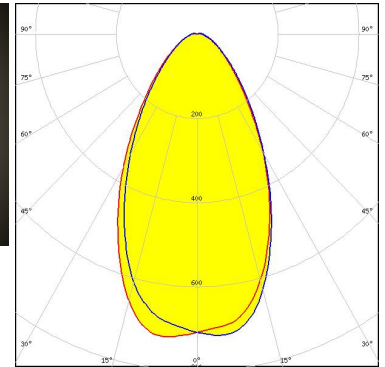
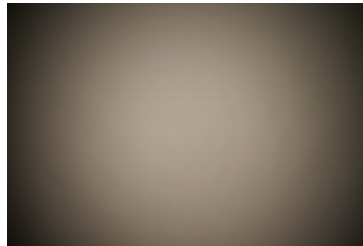
SCALE	1:1	WEIGHT	17,74 g	SHEET	1/1
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See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

### OPTICAL RESULTS (MEASURED):



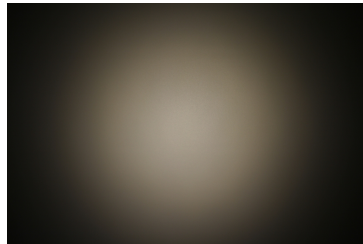
LED V18 Gen6  
FWHM / FWTM 58.0° / 113.0°  
Efficiency 88 %  
Peak intensity 0.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



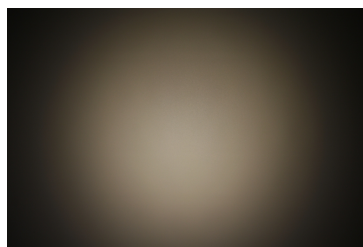
LED V6 Gen6  
FWHM / FWTM 27.0° / 58.0°  
Efficiency 86 %  
Peak intensity 2.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



Light distribution files



LED V8 Gen6  
FWHM / FWTM 31.0° / 70.0°  
Efficiency 85 %  
Peak intensity 1.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:




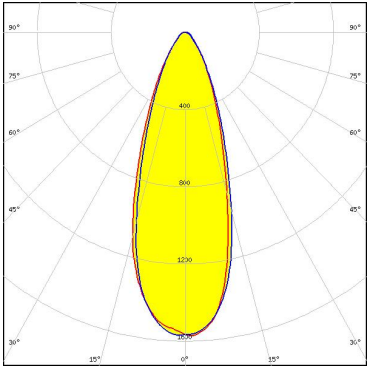
Light distribution files



### OPTICAL RESULTS (MEASURED):

bridgelux

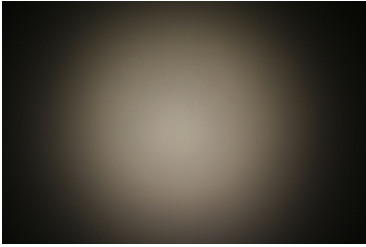
LED	VERO10
FWHM / FWTM	36.0° / 74.0°
Efficiency	89 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Light distribution files

## CITIZEN

LED	CLL01x
FWHM / FWTM	27.0° / 60.0°
Efficiency	85 %
Peak intensity	2.4 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

## CITIZEN

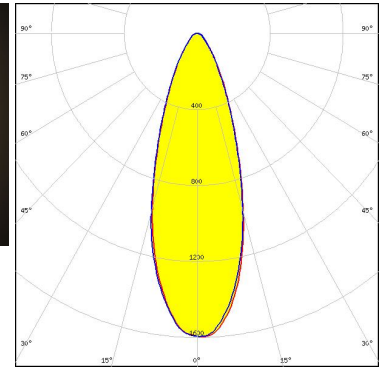
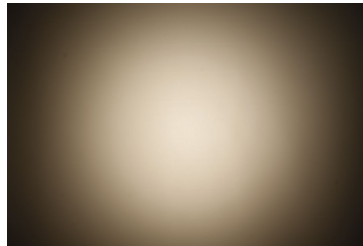
LED	CLL02x/CLU02x (LES10)
FWHM / FWTM	35.0° / 72.0°
Efficiency	87 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



### OPTICAL RESULTS (MEASURED):

#### CITIZEN

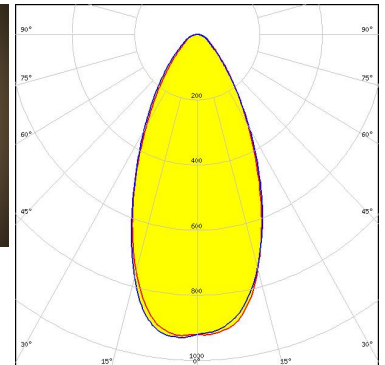
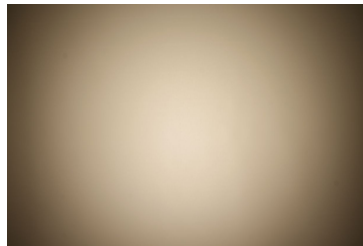
LED CLL02x/CLU02x (LES10)  
 FWHM / FWTM 35.0° / 72.0°  
 Efficiency 86 %  
 Peak intensity 1.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 434 Typ L5



Light distribution files

#### CITIZEN

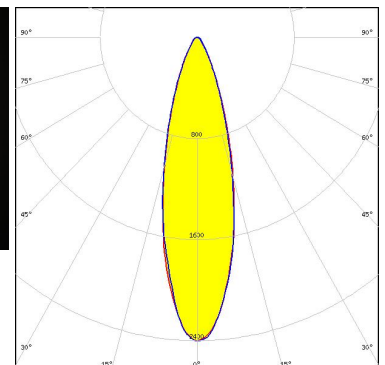
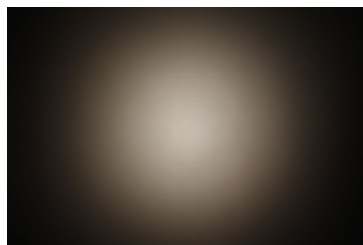
LED CLL03x/CLU03x  
 FWHM / FWTM 49.0° / 95.0°  
 Efficiency 86 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 433 Typ L5



Light distribution files

#### CITIZEN

LED CLU700/701/702/703  
 FWHM / FWTM 28.0° / 58.0°  
 Efficiency 87 %  
 Peak intensity 2.4 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 434 Typ L5

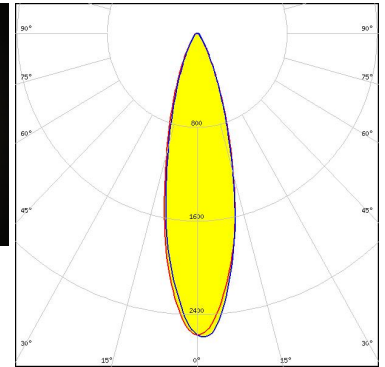
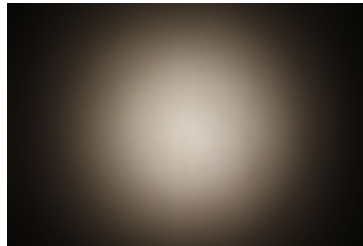


Light distribution files

### OPTICAL RESULTS (MEASURED):

#### CITIZEN

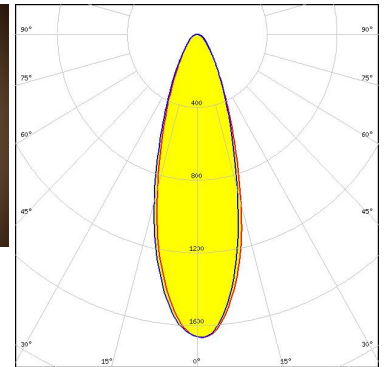
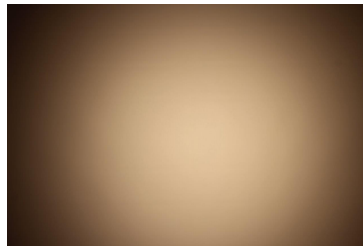
LED CLU700/701/702/703  
 FWHM / FWTM 27.0° / 56.0°  
 Efficiency 89 %  
 Peak intensity 2.6 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

#### CITIZEN

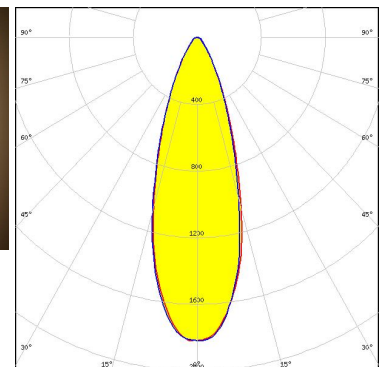
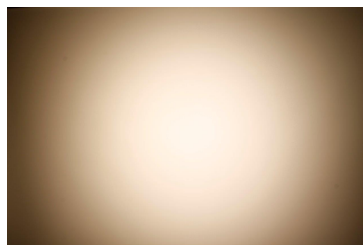
LED CLU710/711  
 FWHM / FWTM 32.0° / 70.0°  
 Efficiency 86 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files

#### CITIZEN

LED CLU710/711  
 FWHM / FWTM 33.0° / 67.0°  
 Efficiency 87 %  
 Peak intensity 1.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 470 Typ L5

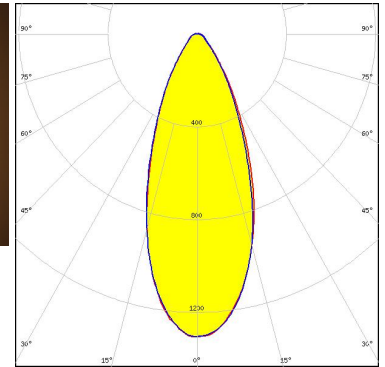
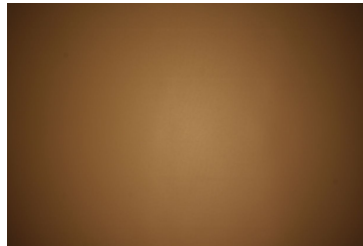


Light distribution files

### OPTICAL RESULTS (MEASURED):

#### CITIZEN

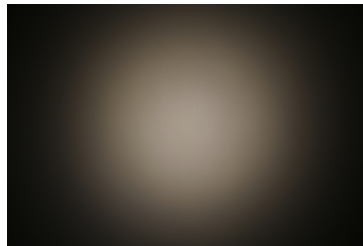
LED CLU720/721/723  
 FWHM / FWTM 41.0° / 80.0°  
 Efficiency 90 %  
 Peak intensity 1.3 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 433 Typ L5



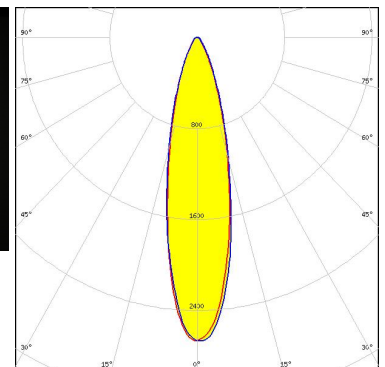
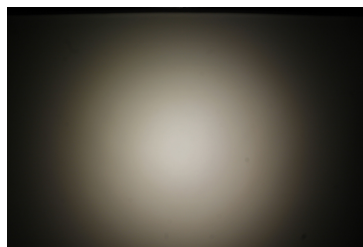
Light distribution files



LED CXA/B 13xx  
 FWHM / FWTM 26.0° / 58.0°  
 Efficiency 87 %  
 Peak intensity 2.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



LED CXA/B 13xx  
 FWHM / FWTM 25.0° / 55.0°  
 Efficiency 88 %  
 Peak intensity 2.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:

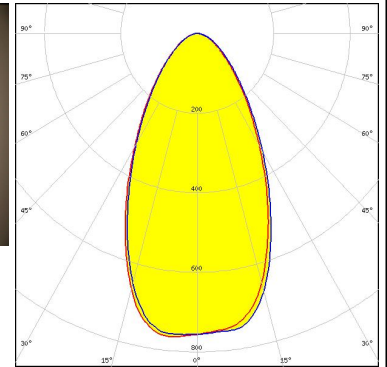


Light distribution files

### OPTICAL RESULTS (MEASURED):



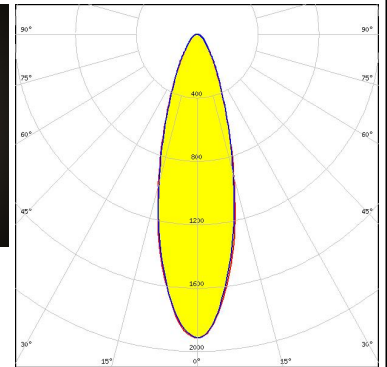
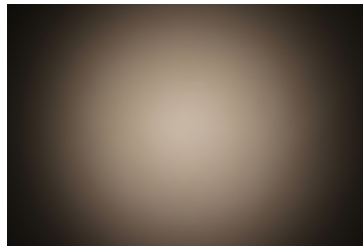
LED CXA/B 25xx  
 FWHM / FWTM 55.0° / 109.0°  
 Efficiency 85 %  
 Peak intensity 0.8 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



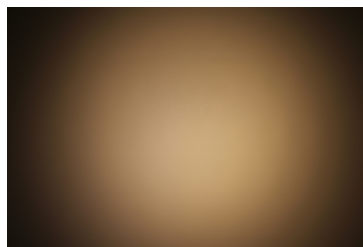
LED MHD-E/G  
 FWHM / FWTM 30.0° / 67.0°  
 Efficiency 87 %  
 Peak intensity 1.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



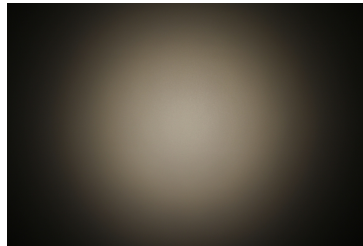
LED LUXEON CoB 1202/1203  
 FWHM / FWTM 34.0° / 74.0°  
 Efficiency 86 %  
 Peak intensity 1.7 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



### OPTICAL RESULTS (MEASURED):



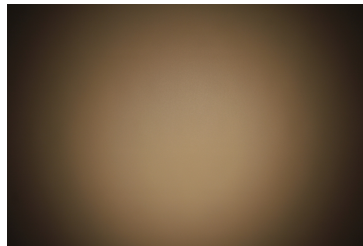
LED LUXEON CoB 1202s  
FWHM / FWTM 27.0° / 60.0°  
Efficiency 86 %  
Peak intensity 2.5 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



[Light distribution files](#)



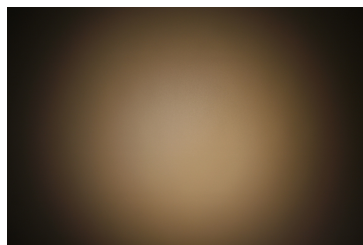
LED CxM-14 (19x19)  
FWHM / FWTM 45.0° / 94.0°  
Efficiency 85 %  
Peak intensity 1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



[Light distribution files](#)



LED CxM-9 (13.5x13.5)  
FWHM / FWTM 36.0° / 76.0°  
Efficiency 87 %  
Peak intensity 1.7 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

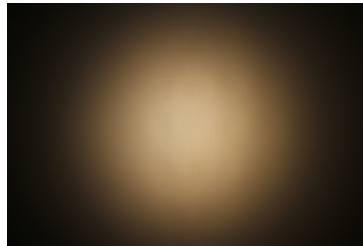


[Light distribution files](#)

### OPTICAL RESULTS (MEASURED):

**OSRAM**  
Opto Semiconductors

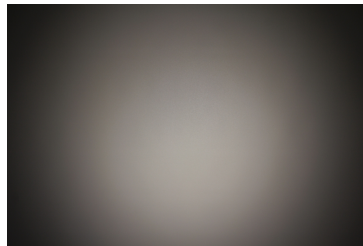
LED Duris S10  
FWHM / FWTM 24.0° / 58.0°  
Efficiency 88 %  
Peak intensity 3.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



[Light distribution files](#)

**OSRAM**  
Opto Semiconductors

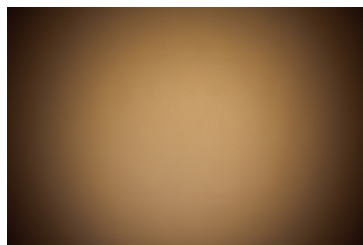
LED Soleriq S13  
FWHM / FWTM 41.0° / 88.0°  
Efficiency 85 %  
Peak intensity 1.2 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



[Light distribution files](#)

**OSRAM**  
Opto Semiconductors

LED Soleriq S19  
FWHM / FWTM 55.0° / 104.0°  
Efficiency 83 %  
Peak intensity 0.8 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:



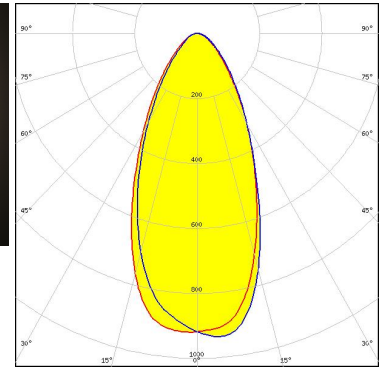
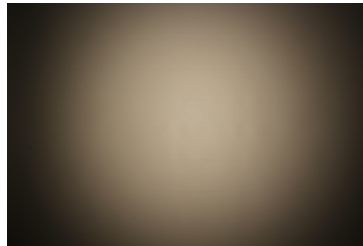
[Light distribution files](#)



### OPTICAL RESULTS (MEASURED):

#### SAMSUNG

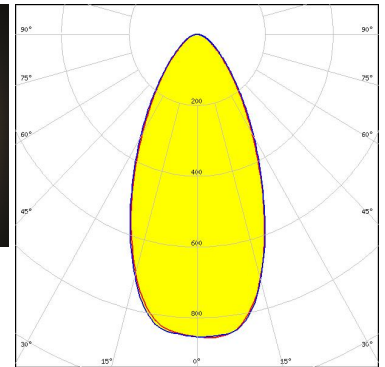
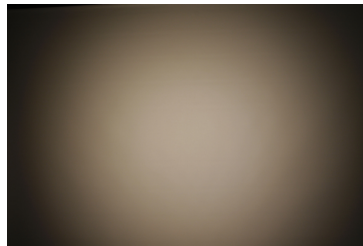
LED LC016D / LC019D / LC026D / LC033D  
 FWHM / FWTM 48.0° / 98.0°  
 Efficiency 85 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:



Light distribution files



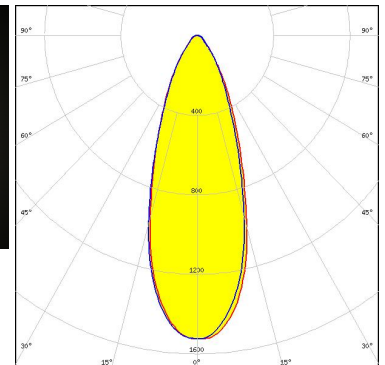
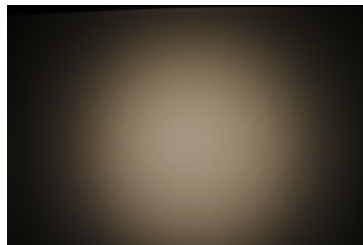
LED MJT COB LES 14.5  
 FWHM / FWTM 51.0° / 101.0°  
 Efficiency 84 %  
 Peak intensity 0.9 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 433 Typ L5



Light distribution files



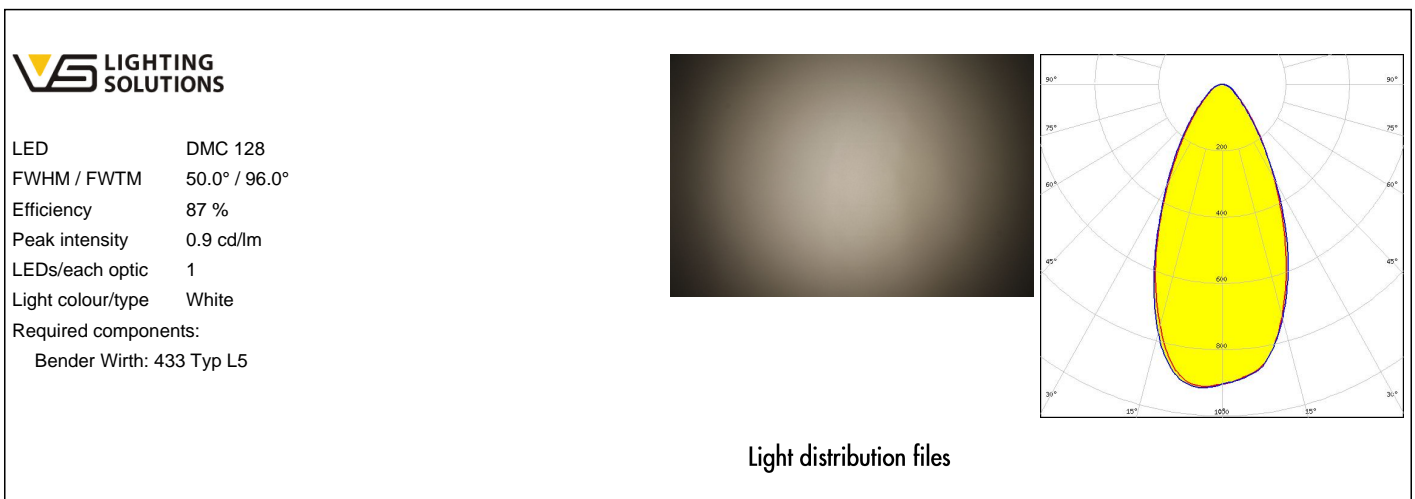
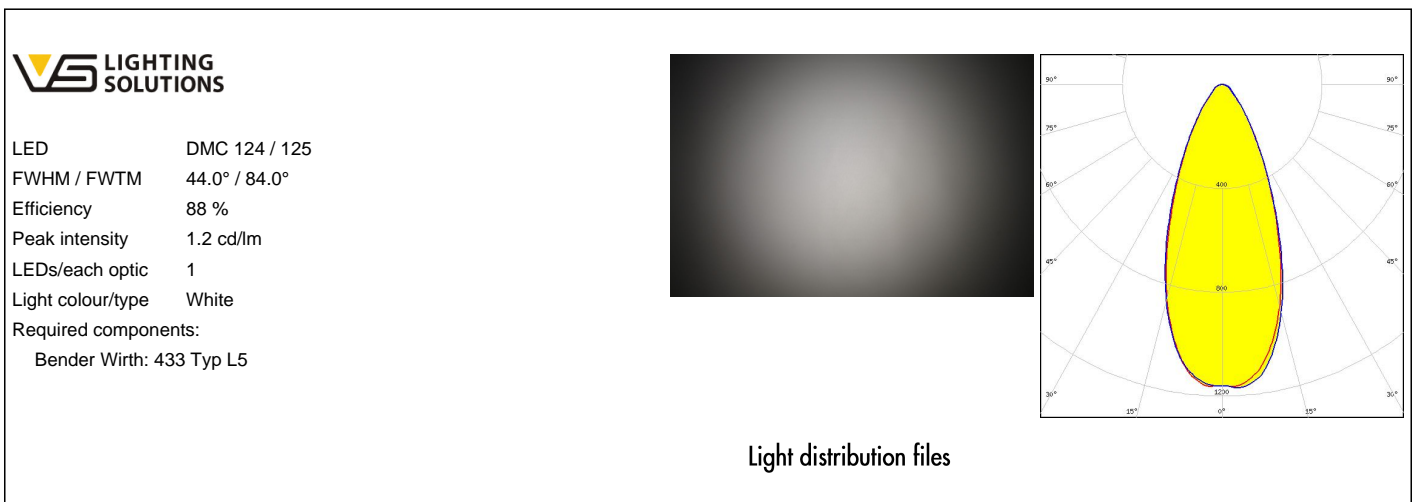
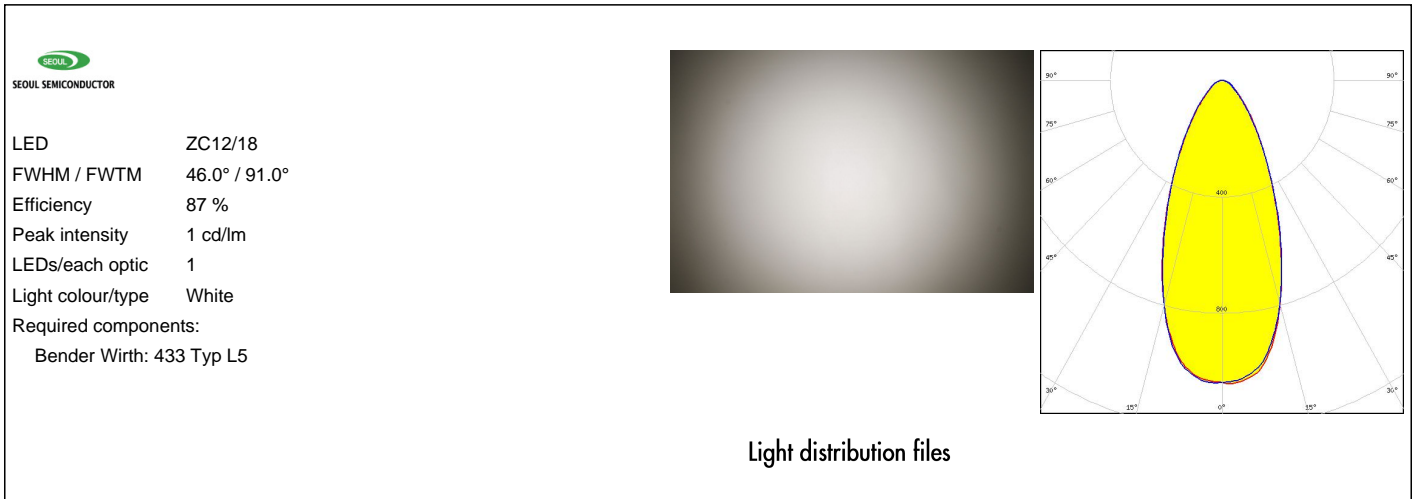
LED MJT COB LES 9.8  
 FWHM / FWTM 36.0° / 75.0°  
 Efficiency 89 %  
 Peak intensity 1.5 cd/lm  
 LEDs/each optic 1  
 Light colour/type White  
 Required components:  
 Bender Wirth: 434 Typ L5



Light distribution files



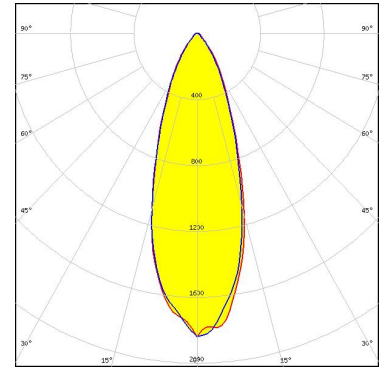
### OPTICAL RESULTS (MEASURED):



### OPTICAL RESULTS (SIMULATED):

#### CITIZEN

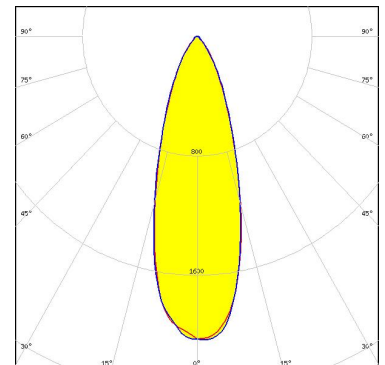
LED	CLL02x/CLU02x (LES10)
FWHM / FWTM	35.0° / 72.0°
Efficiency	92 %
Peak intensity	1.8 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files



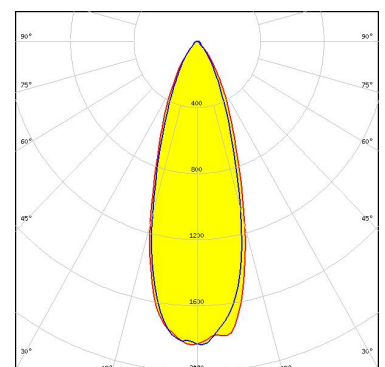
LED	CXA/B 15xx
FWHM / FWTM	33.0° / 68.0°
Efficiency	93 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files



LED	LUXEON CoB 1202/1203
FWHM / FWTM	34.0° / 69.0°
Efficiency	89 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	



Light distribution files

Bender Wirth: 441 Typ L5

### OPTICAL RESULTS (SIMULATED):

#### LUMILEDS

LED	LUXEON CoB Compact
FWHM / FWTM	27.0° / 60.0°
Efficiency	86 %
Peak intensity	2.5 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

[Light distribution files](#)

#### LUMINUS

LED	CxM-14 (19x19)
FWHM / FWTM	49.0° / 95.0°
Efficiency	86 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Bender Wirth: 433 Typ L5

[Light distribution files](#)

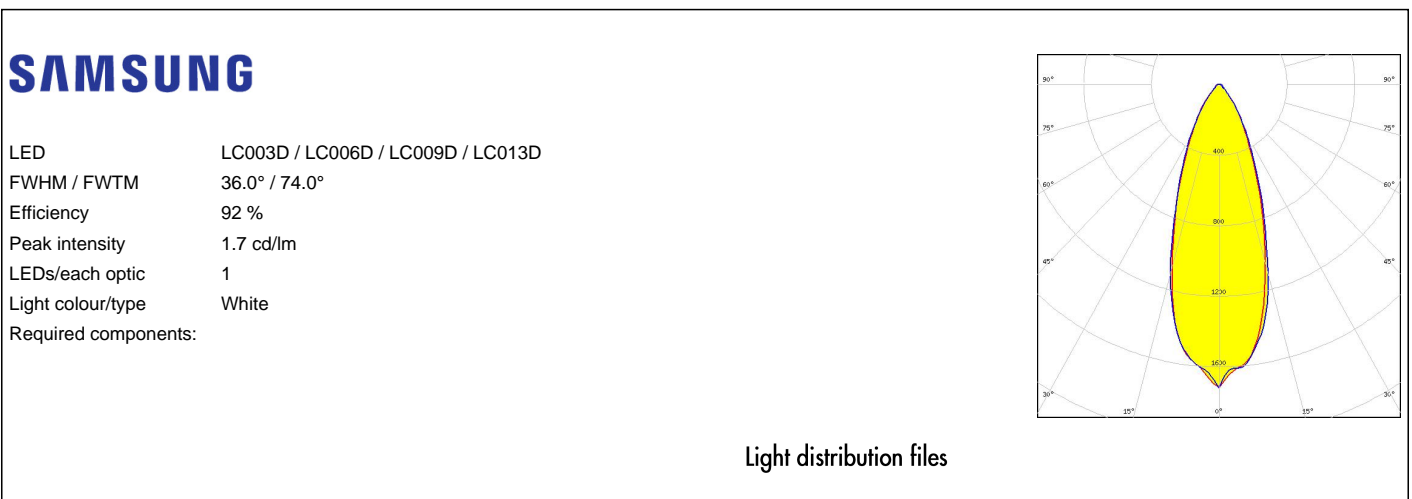
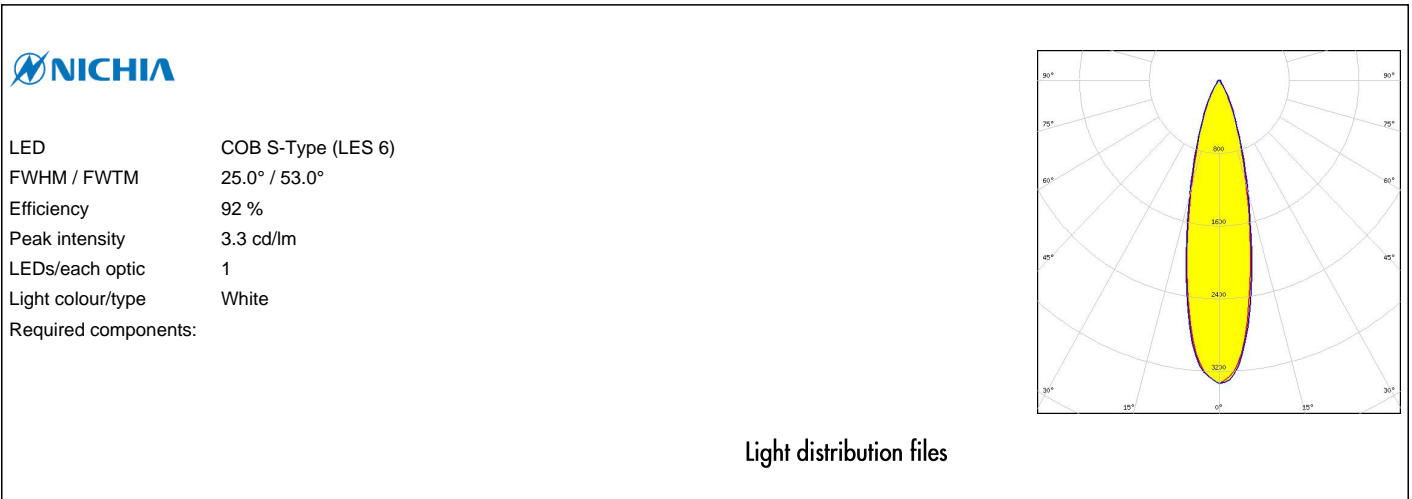
#### LUMINUS

LED	CxM-9 (13.5x13.5)
FWHM / FWTM	35.0° / 72.0°
Efficiency	86 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	

Bender Wirth: 434 Typ L5

[Light distribution files](#)

### OPTICAL RESULTS (SIMULATED):



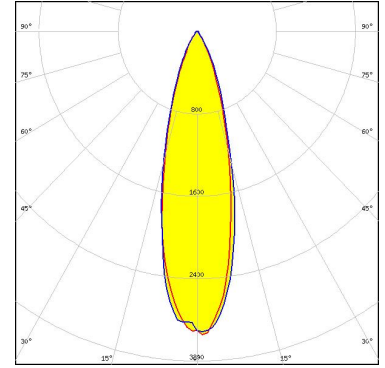
### OPTICAL RESULTS (SIMULATED):

#### SAMSUNG

LED LC010C  
FWHM / FWTM 27.0° / 56.0°  
Efficiency 92 %  
Peak intensity 3 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

Bender Wirth: 479 Typ L5

Light distribution files

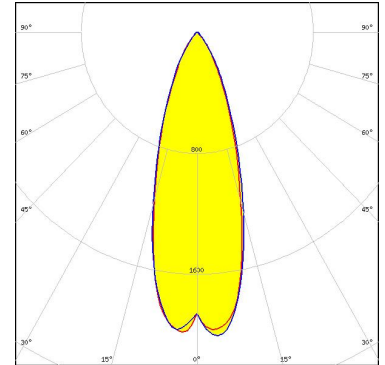


#### SAMSUNG

LED LC020C  
FWHM / FWTM 32.0° / 66.0°  
Efficiency 90 %  
Peak intensity 2.1 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

Bender Wirth: 479 Typ L5

Light distribution files

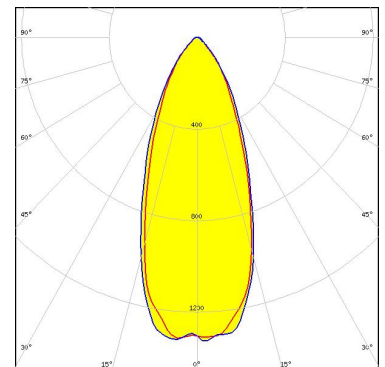


#### SAMSUNG


LED LC040C  
FWHM / FWTM 40.0° / 82.0°  
Efficiency 89 %  
Peak intensity 1.4 cd/lm  
LEDs/each optic 1  
Light colour/type White  
Required components:

Bender Wirth: 479 Typ L5

Light distribution files



### OPTICAL RESULTS (SIMULATED):

 SEOUL SEMICONDUCTOR	
LED	ZC4/6
FWHM / FWTM	35.0° / 72.0°
Efficiency	86 %
Peak intensity	1.6 cd/lm
LEDs/each optic	1
Light colour/type	White
Required components:	
Bender Wirth: 434 Typ L5	

### 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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