

## CARMEN-S-C

~14° spot beam. Assembly with holder C compatible with LEDiL HEKLA.

### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 69.5 mm
Height	41.5 mm
Fastening	socket
ROHS compliant	yes 

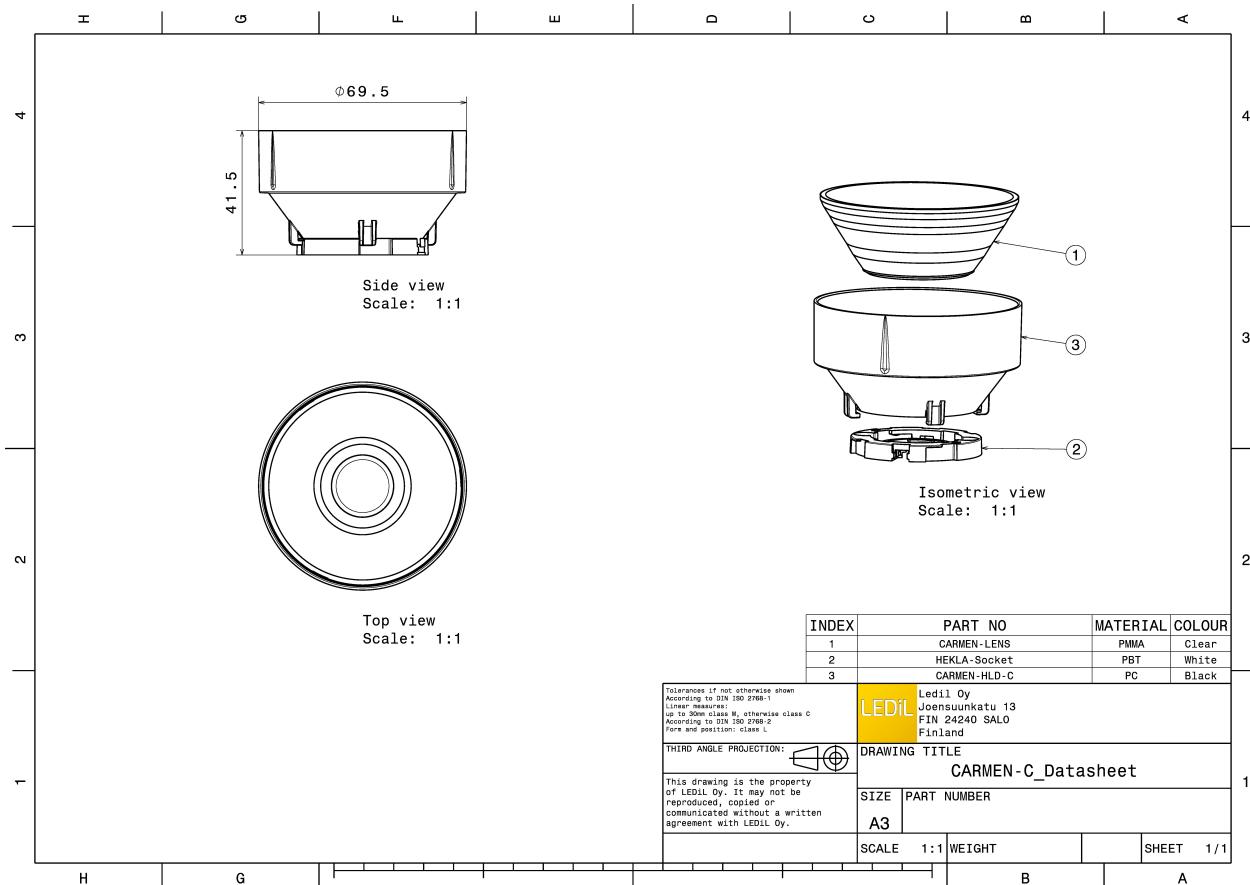


### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour	Finish
CARMEN-S	Single lens	PMMA	clear	
CARMEN-HLD-C	Holder	PC	black	

### ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CP15774_CARMEN-S-C » Box size: 476 x 273 x 292 mm	Single lens	150	150	15



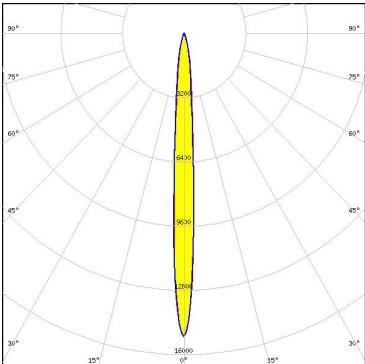
See also our general installation guide: [www.ledil.com/installation\\_guide](http://www.ledil.com/installation_guide)

## PHOTOMETRIC DATA (MEASURED):



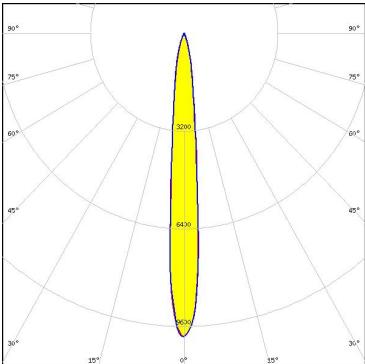
LED	V4 HD
FWHM / FWTM	8.0° / 23.0°
Efficiency	78 %
Peak intensity	15 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
F15253\_HEKLA-SOCKET-A



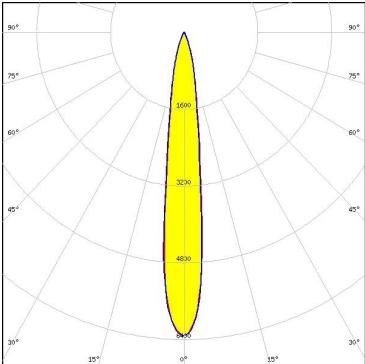
LED	V6 HD
FWHM / FWTM	10.0° / 28.0°
Efficiency	75 %
Peak intensity	9.9 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
F15255\_HEKLA-SOCKET-C



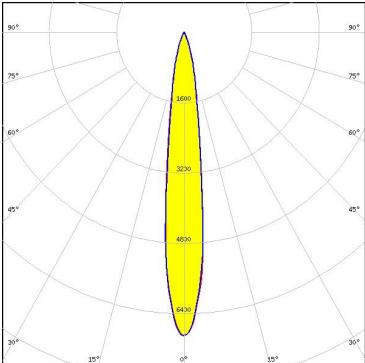
LED	V9 HD
FWHM / FWTM	14.0° / 34.0°
Efficiency	72 %
Peak intensity	6.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:  
F15859\_HEKLA-SOCKET-I



LED	VERO10
FWHM / FWTM	14.0° / 34.0°
Efficiency	75 %
Peak intensity	6.9 cd/lm
LEDs/each optic	1
Light colour	White

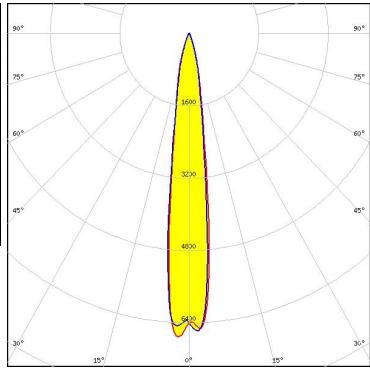
Required components:  
F15616\_HEKLA-SOCKET-F



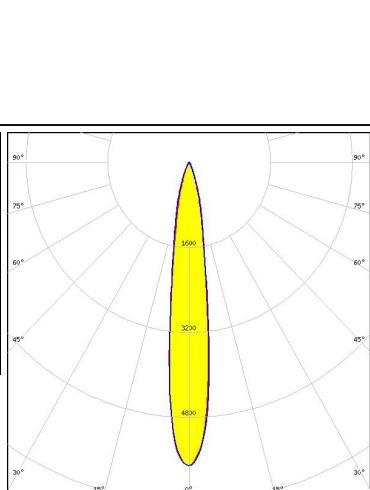
## PHOTOMETRIC DATA (MEASURED):



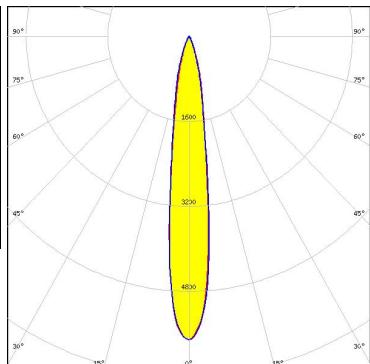
**LED** Vesta DTW 9mm (4W/6W/12W)  
**FWHM / FWTM** 14.0° / 33.0°  
**Efficiency** 71 %  
**Peak intensity** 6.8 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C16142\_HEKLA-SOCKET-K  
 Bender Wirth: 490 Typ L8



**LED** Vesta TW 6mm DP  
**FWHM / FWTM** 11.0° / 27.0°  
**Efficiency** 75 %  
**Peak intensity** 10.5 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C16142\_HEKLA-SOCKET-K  
 Bender Wirth: 504 Typ L8

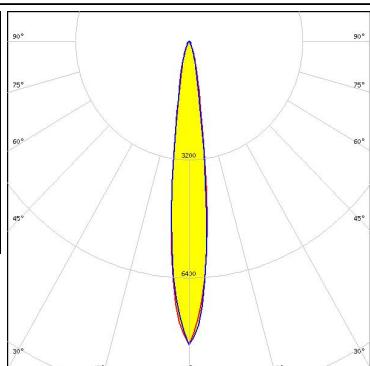
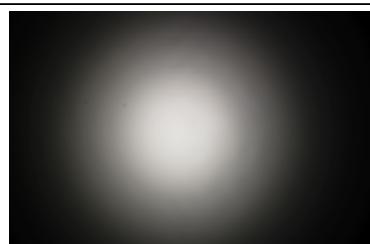


**LED** Vesta TW 9mm (9W) DP  
**FWHM / FWTM** 15.0° / 36.0°  
**Efficiency** 71 %  
**Peak intensity** 5.7 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 C16142\_HEKLA-SOCKET-K  
 Bender Wirth: 489 Typ L8



## CITIZEN

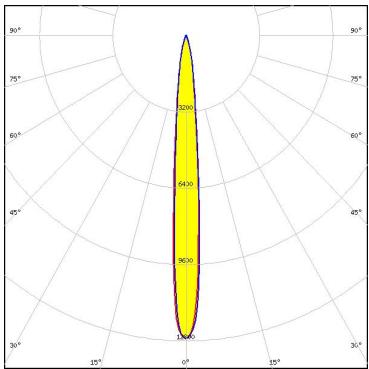
**LED** CLL02x/CLU02x (LES10)  
**FWHM / FWTM** 15.0° / 36.0°  
**Efficiency** 74 %  
**Peak intensity** 6 cd/lm  
**LEDs/each optic** 1  
**Light colour** White  
**Required components:**  
 F15255\_HEKLA-SOCKET-C



## PHOTOMETRIC DATA (MEASURED):

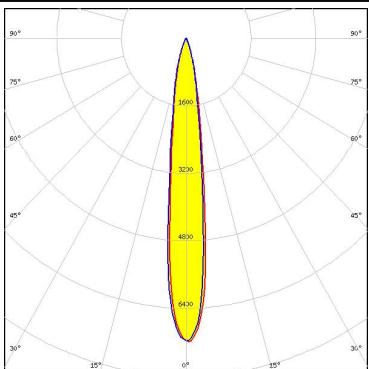
### CITIZEN

LED CLU700/701/702  
FWHM / FWTM 10.0° / 25.0°  
Efficiency 78 %  
Peak intensity 12.7 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



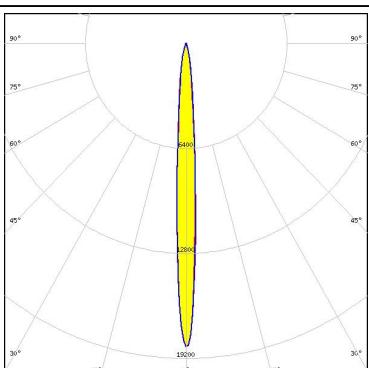
### CITIZEN

LED CLU710/711  
FWHM / FWTM 13.0° / 33.0°  
Efficiency 73 %  
Peak intensity 7.2 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15859\_HEKLA-SOCKET-I



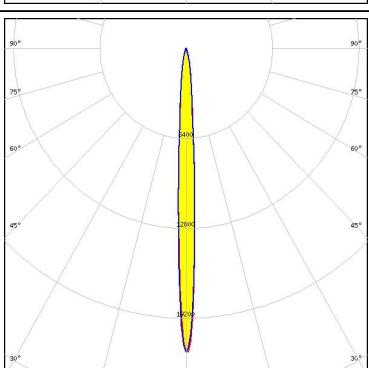
### CITIZEN

LED CLU7A2 (LES 4.2mm)  
FWHM / FWTM 7.0° / 20.0°  
Efficiency 80 %  
Peak intensity 18.5 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C

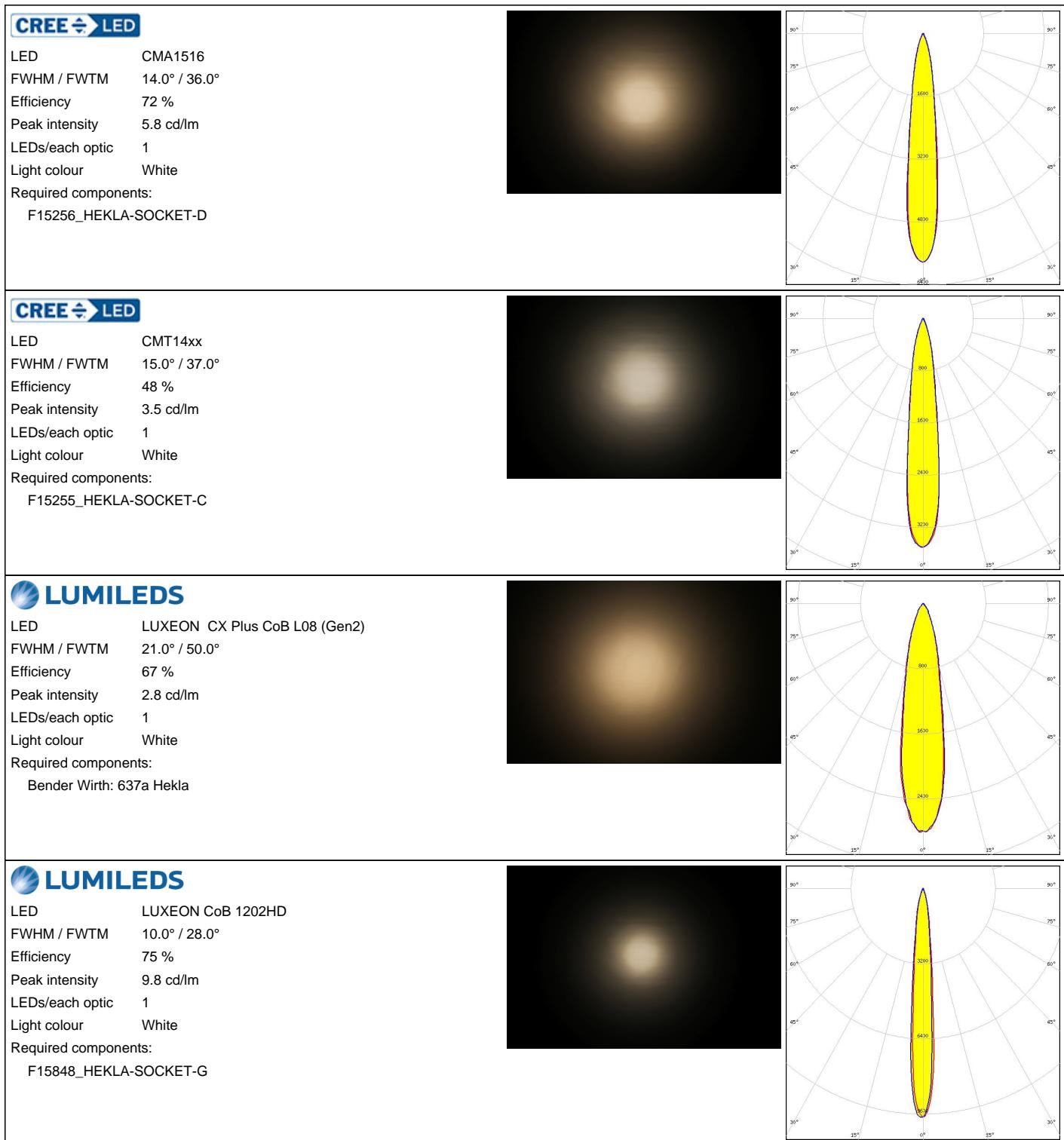


### CITIZEN

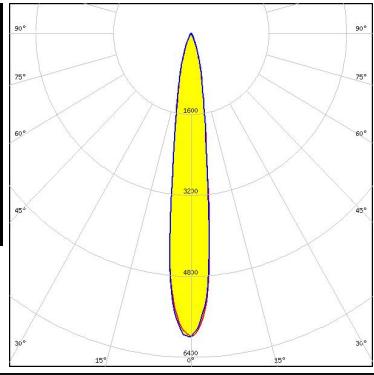
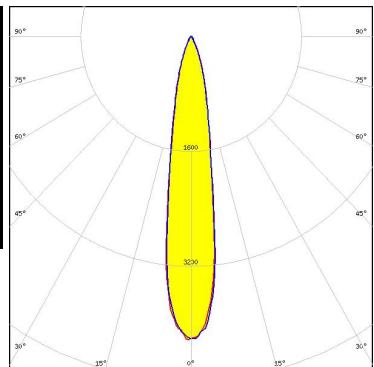
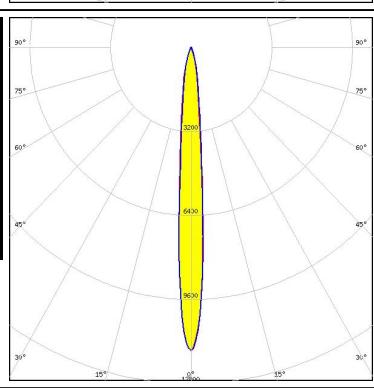
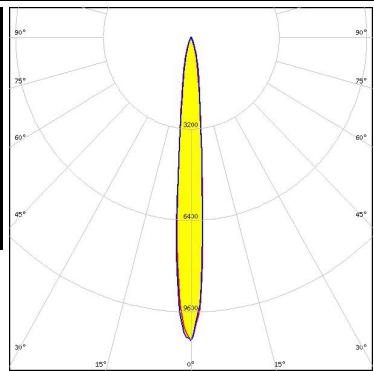
LED CLU7B2  
FWHM / FWTM 6.0° / 19.0°  
Efficiency 80 %  
Peak intensity 21.7 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



## PHOTOMETRIC DATA (MEASURED):



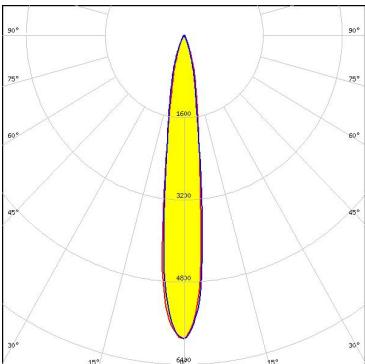
## PHOTOMETRIC DATA (MEASURED):

	<b>LUMILEDS</b>		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON CoB 1204HD 14.0° / 35.0° 73 % 6 cd/lm 1 White F15858_HEKLA-SOCKET-H		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON CoB 1205HD 17.0° / 41.0° 69 % 4.2 cd/lm 1 White F15858_HEKLA-SOCKET-H		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White Bender Wirth: 634c Hekla		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON CX Plus CoB - HD S01H6 / HD S02H6 10.0° / 26.0° 75 % 10.6 cd/lm 1 White Bender Wirth: 634c Hekla		

## PHOTOMETRIC DATA (MEASURED):

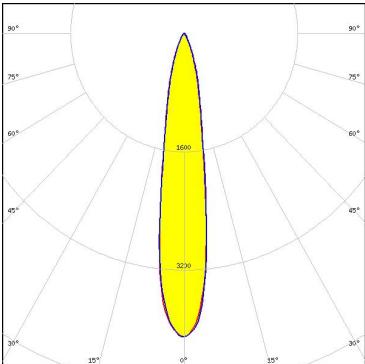
### LUMILEDS

LED LUXEON CX Plus CoB - HD S04H9  
 FWHM / FWTM 14.0° / 36.0°  
 Efficiency 72 %  
 Peak intensity 5.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 634c Hekla



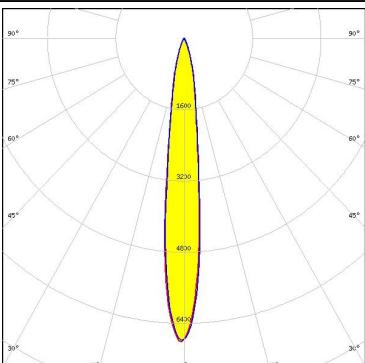
### LUMILEDS

LED LUXEON CX Plus CoB L04 / L05 (Gen2)  
 FWHM / FWTM 18.0° / 42.0°  
 Efficiency 69 %  
 Peak intensity 4.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 637a Hekla



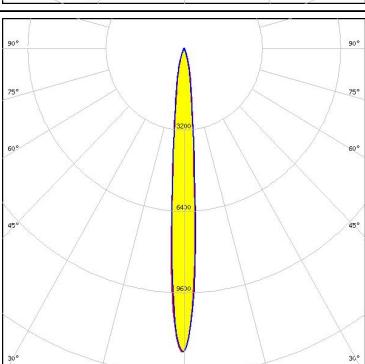
### LUMILEDS

LED LUXEON CX Plus CoB M02 / M03 (Gen2)  
 FWHM / FWTM 13.0° / 33.0°  
 Efficiency 72 %  
 Peak intensity 6.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 641a Hekla

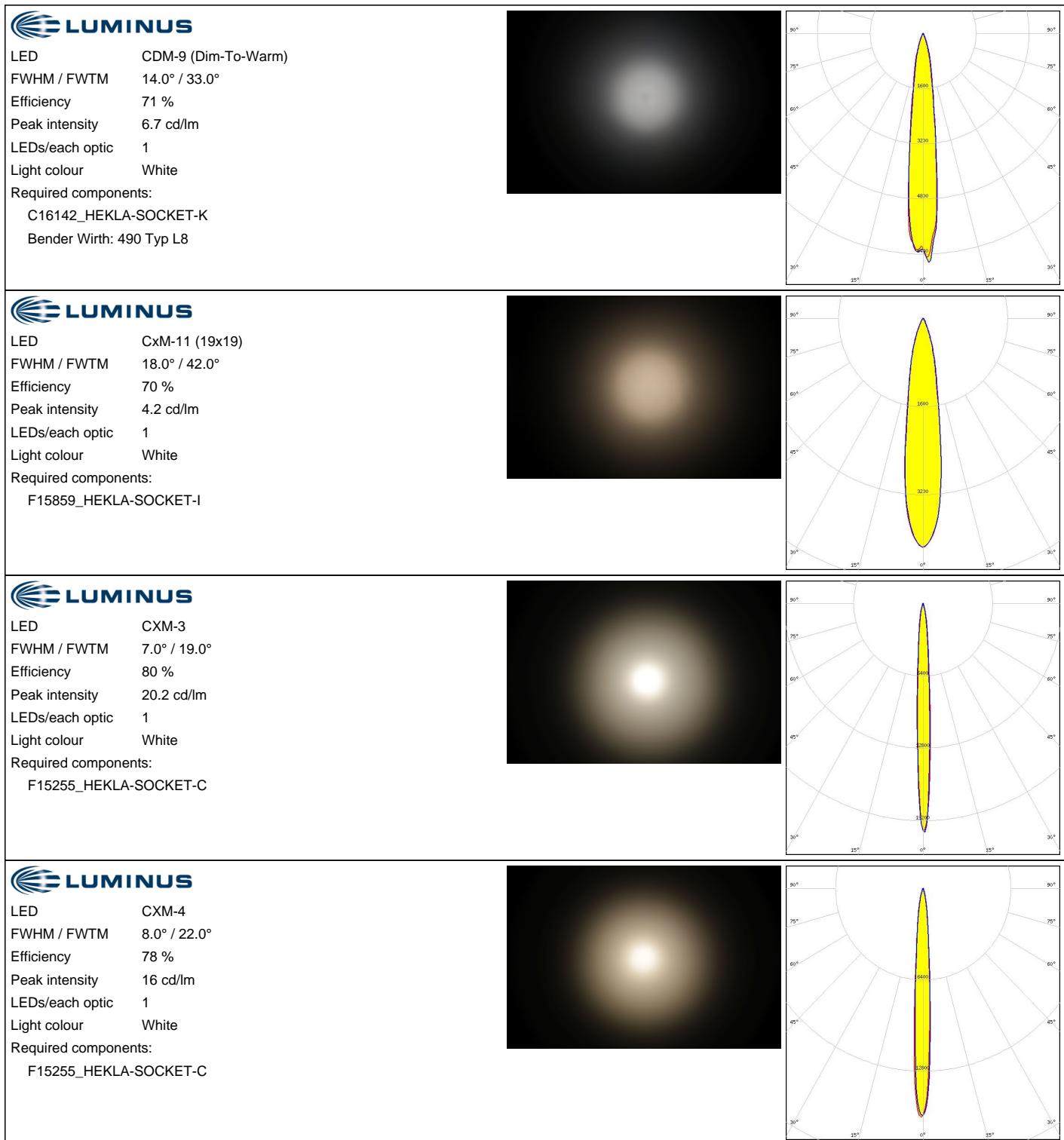


### LUMILEDS

LED LUXEON CX Plus CoB S01 (Gen2)  
 FWHM / FWTM 9.0° / 25.0°  
 Efficiency 76 %  
 Peak intensity 11.9 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 634c Hekla



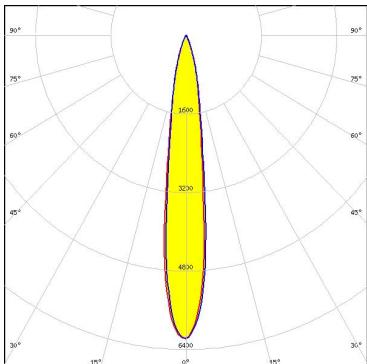
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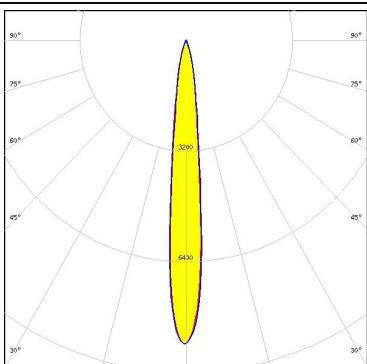
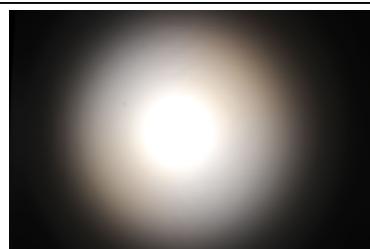
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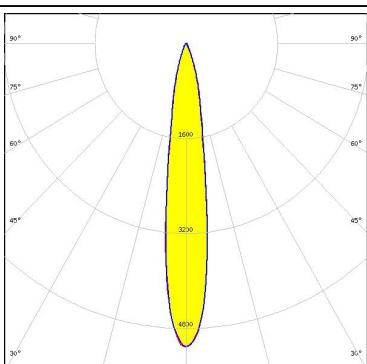
LED CxM-9 (13.5x13.5)  
 FWHM / FWTM 15.0° / 35.0°  
 Efficiency 74 %  
 Peak intensity 6.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



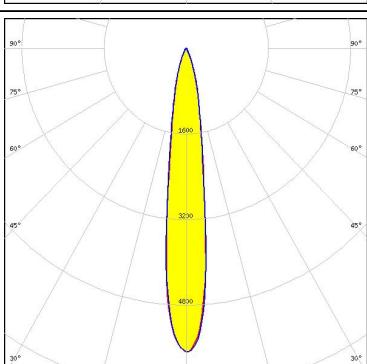
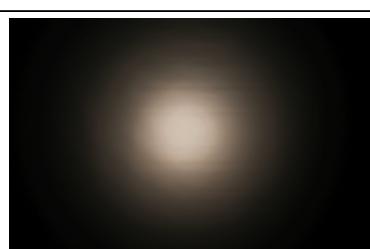
LED NJCWL024Z-V1MT: COB L-Type Tunable White  
 FWHM / FWTM 12.0° / 29.0°  
 Efficiency 71 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16142\_HEKLA-SOCKET-K  
 Bender Wirth: 497 Typ L8



LED NVCWJ024Z-V1MT: COB J-Type Tunable White  
 FWHM / FWTM 16.0° / 37.0°  
 Efficiency 69 %  
 Peak intensity 5.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 C16142\_HEKLA-SOCKET-K  
 Bender Wirth: 498 Typ L8



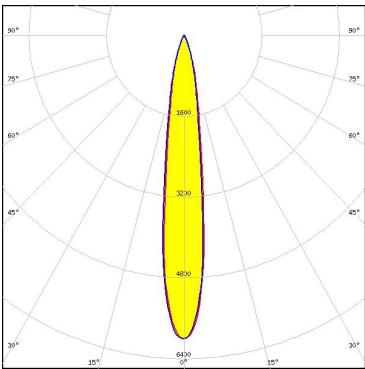
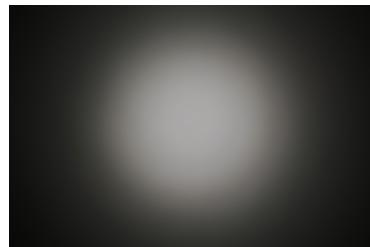
LED Fortimo SLM L09 CoB  
 FWHM / FWTM 15.0° / 36.0°  
 Efficiency 72 %  
 Peak intensity 5.7 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15858\_HEKLA-SOCKET-H



## PHOTOMETRIC DATA (MEASURED):

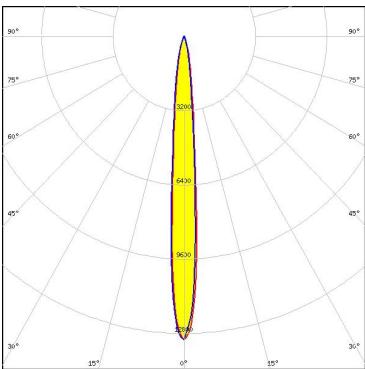
### SAMSUNG

LED LC003D / LC006D / LC009D / LC013D  
 FWHM / FWTM 15.0° / 36.0°  
 Efficiency 74 %  
 Peak intensity 6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



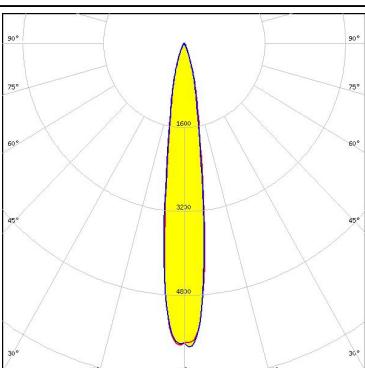
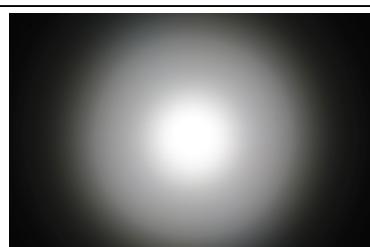
### SAMSUNG

LED LC010C G2  
 FWHM / FWTM 9.0° / 24.0°  
 Efficiency 77 %  
 Peak intensity 13.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



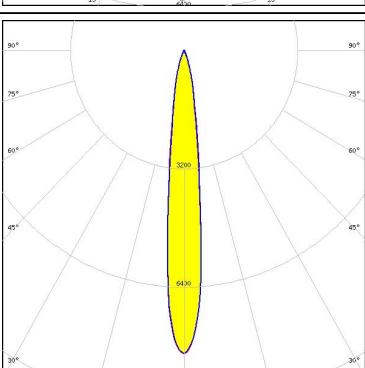
### SAMSUNG

LED LC010T (Tunable White)  
 FWHM / FWTM 15.0° / 35.0°  
 Efficiency 71 %  
 Peak intensity 5.8 cd/lm  
 LEDs/each optic 1  
 Light colour Tunable White  
 Required components:  
 C16142\_HEKLA-SOCKET-K  
 Bender Wirth: 501 Typ L8



### SAMSUNG

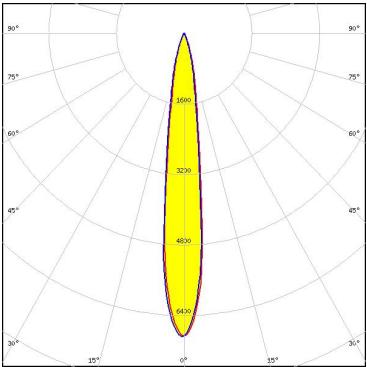
LED LC020C  
 FWHM / FWTM 12.0° / 31.0°  
 Efficiency 76 %  
 Peak intensity 8.2 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15848\_HEKLA-SOCKET-G



## PHOTOMETRIC DATA (MEASURED):

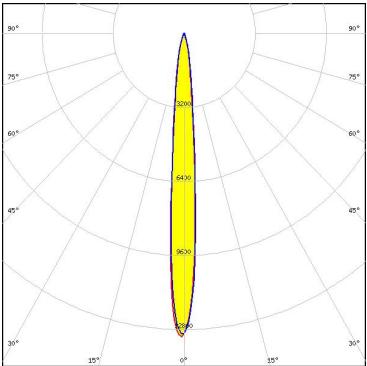
### SAMSUNG

LED LC020C G2  
FWHM / FWTM 14.0° / 33.0°  
Efficiency 74 %  
Peak intensity 6.9 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15859\_HEKLA-SOCKET-I



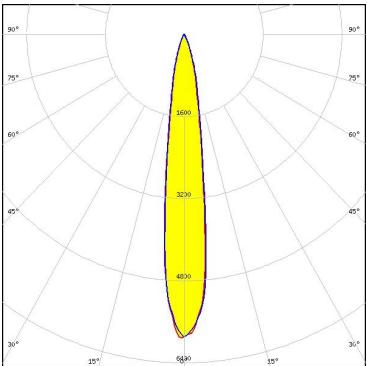
### SEOUL SEMICONDUCTOR

LED MJT COB LES 6  
FWHM / FWTM 9.0° / 23.0°  
Efficiency 76 %  
Peak intensity 13.1 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



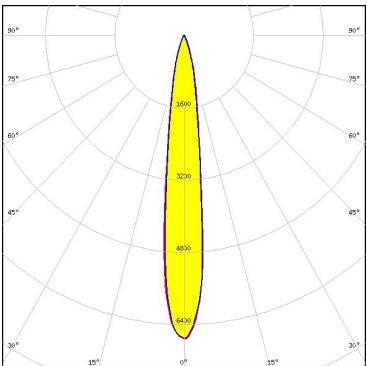
### SEOUL SEMICONDUCTOR

LED MJT COB LES 9.8  
FWHM / FWTM 15.0° / 35.0°  
Efficiency 72 %  
Peak intensity 5.9 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



### TRIDONIC

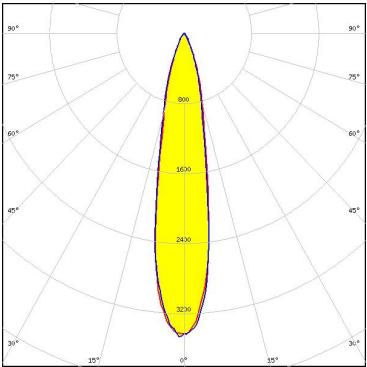
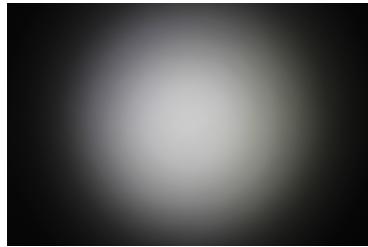
LED SLE G7 LES09  
FWHM / FWTM 14.0° / 34.0°  
Efficiency 74 %  
Peak intensity 6.7 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



## PHOTOMETRIC DATA (MEASURED):

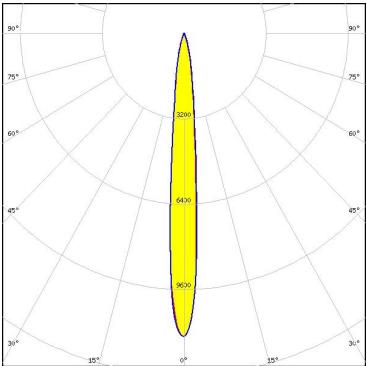
### TRIDONIC

LED SLE G7 LES13  
FWHM / FWTM 20.0° / 45.0°  
Efficiency 69 %  
Peak intensity 3.5 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15859\_HEKLA-SOCKET-I



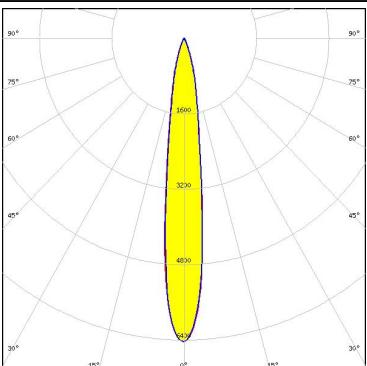
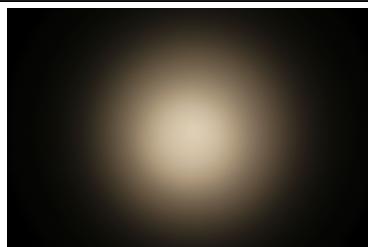
### XICATO

LED XOB 6 mm  
FWHM / FWTM 10.0° / 26.0°  
Efficiency 76 %  
Peak intensity 11.4 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



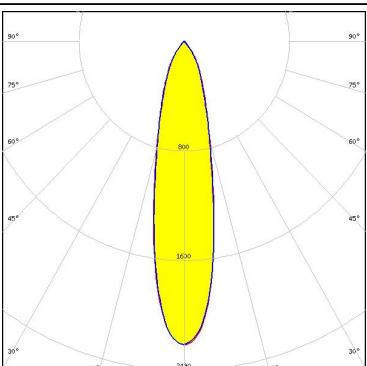
### XICATO

LED XOB 9.8 mm  
FWHM / FWTM 14.0° / 34.5 + 34.0°  
Efficiency 74 %  
Peak intensity 6.4 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15255\_HEKLA-SOCKET-C



### XICATO

LED XTM - 19mm LES  
FWHM / FWTM 23.0° / 60.0°  
Efficiency 66 %  
Peak intensity 2.2 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
C16058\_XTM-ADAPTER-50-C

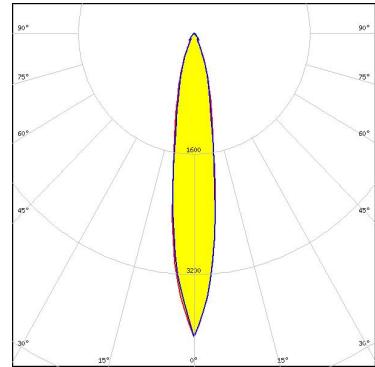


## PHOTOMETRIC DATA (SIMULATED):



LED	VERO13
FWHM / FWTM	16.0° / 42.0°
Efficiency	70 %
Peak intensity	4 cd/lm
LEDs/each optic	1
Light colour	White

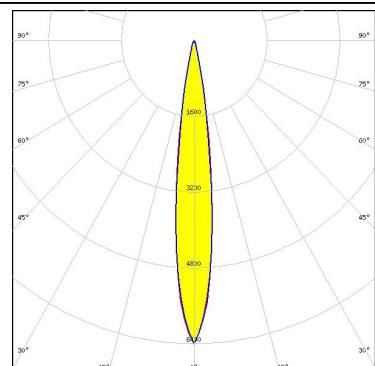
Required components:  
C16142\_HEKLA-SOCKET-K



## CITIZEN

LED	CLL02x/CLU02x (LES10)
FWHM / FWTM	14.0° / 26.0°
Efficiency	50 %
Peak intensity	6.4 cd/lm
LEDs/each optic	1
Light colour	White

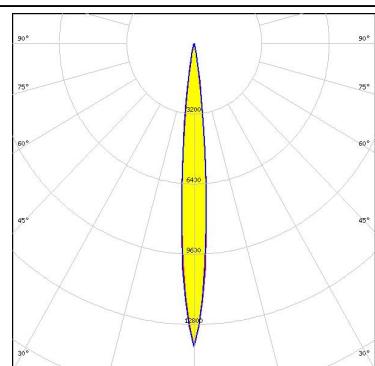
Required components:  
F15859\_HEKLA-SOCKET-I  
C16752\_CARMEN-70-SHD



## CITIZEN

LED	CLU700/701/702
FWHM / FWTM	10.0° / 19.0°
Efficiency	54 %
Peak intensity	13.8 cd/lm
LEDs/each optic	1
Light colour	White

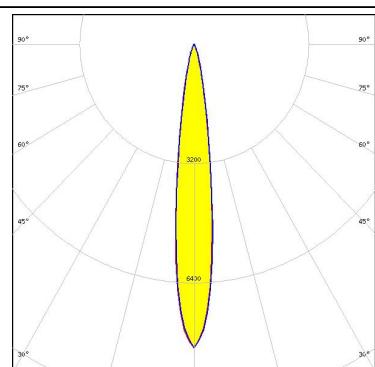
Required components:  
F15255\_HEKLA-SOCKET-C  
C16752\_CARMEN-70-SHD



## CITIZEN

LED	CLU712
FWHM / FWTM	14.0° / 30.0°
Efficiency	75 %
Peak intensity	8.1 cd/lm
LEDs/each optic	1
Light colour	White

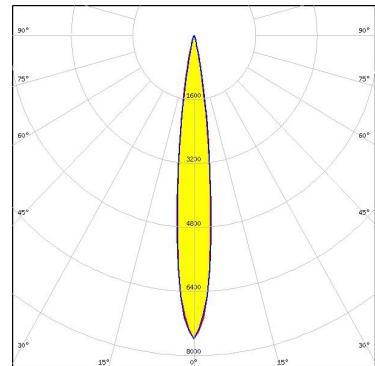
Required components:  
F15859\_HEKLA-SOCKET-I



## PHOTOMETRIC DATA (SIMULATED):

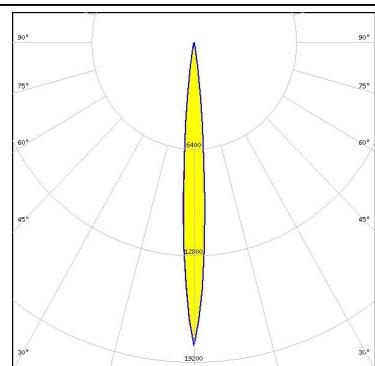
### CITIZEN

LED	CLU712
FWHM / FWTM	12.0° / 24.0°
Efficiency	51 %
Peak intensity	7.6 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F15859_HEKLA-SOCKET-I
	C16752_CARMEN-70-SHD



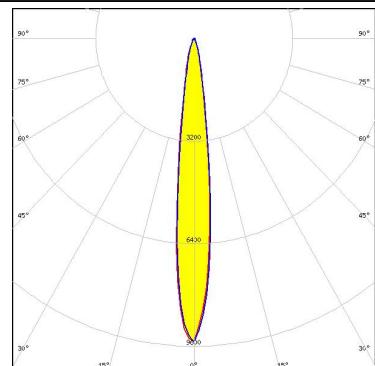
### CITIZEN

LED	CLU7A2 (LES 4.2mm)
FWHM / FWTM	8.0° / 16.0°
Efficiency	55 %
Peak intensity	18.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F15255_HEKLA-SOCKET-C
	C16752_CARMEN-70-SHD



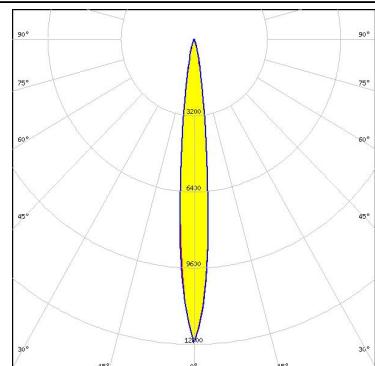
### CREE LED

LED	CXA/B 15xx
FWHM / FWTM	12.9° / 28.4°
Efficiency	0 %
Peak intensity	9.5 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F15256_HEKLA-SOCKET-D



### NICHIA

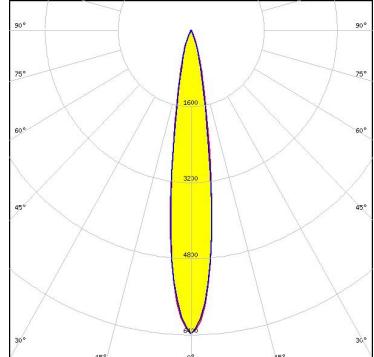
LED	COB T-Type
FWHM / FWTM	11.0° / 24.0°
Efficiency	78 %
Peak intensity	12.7 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F15848_HEKLA-SOCKET-G



## PHOTOMETRIC DATA (SIMULATED):

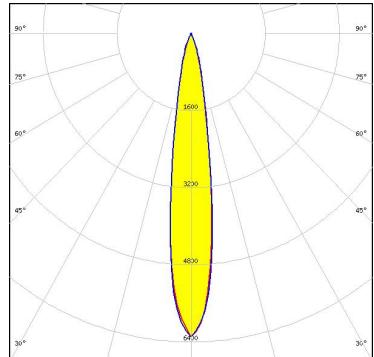
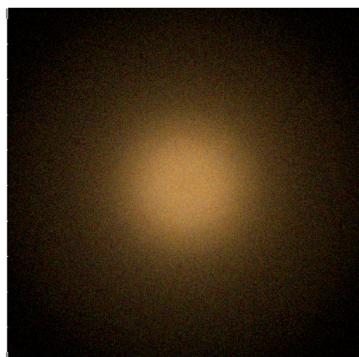
### SAMSUNG

LED	LC003D / LC006D / LC009D / LC013D
FWHM / FWTM	16.0° / 34.0°
Efficiency	73 %
Peak intensity	6.4 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F17435_HEKLA-G2-C



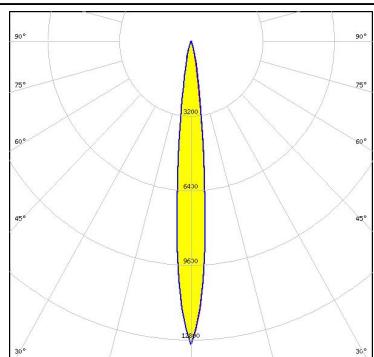
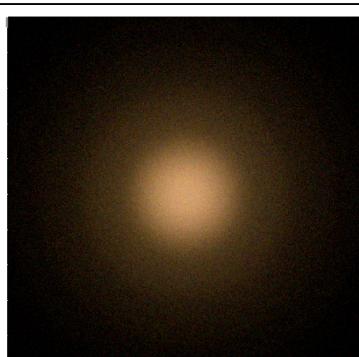
### SAMSUNG

LED	LC003D / LC006D / LC009D / LC013D
FWHM / FWTM	16.0° / 34.0°
Efficiency	73 %
Peak intensity	6.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F17435_HEKLA-G2-C



### SAMSUNG

LED	LC010C
FWHM / FWTM	11.0° / 24.0°
Efficiency	78 %
Peak intensity	13 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F17435_HEKLA-G2-C



## 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.

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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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