

## CARMEN-SS-C

~12° smooth spot beam. Assembly with holder C compatible with LEDiL HEKLA. Updated version with good colour mixing capability.

### SPECIFICATION:

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

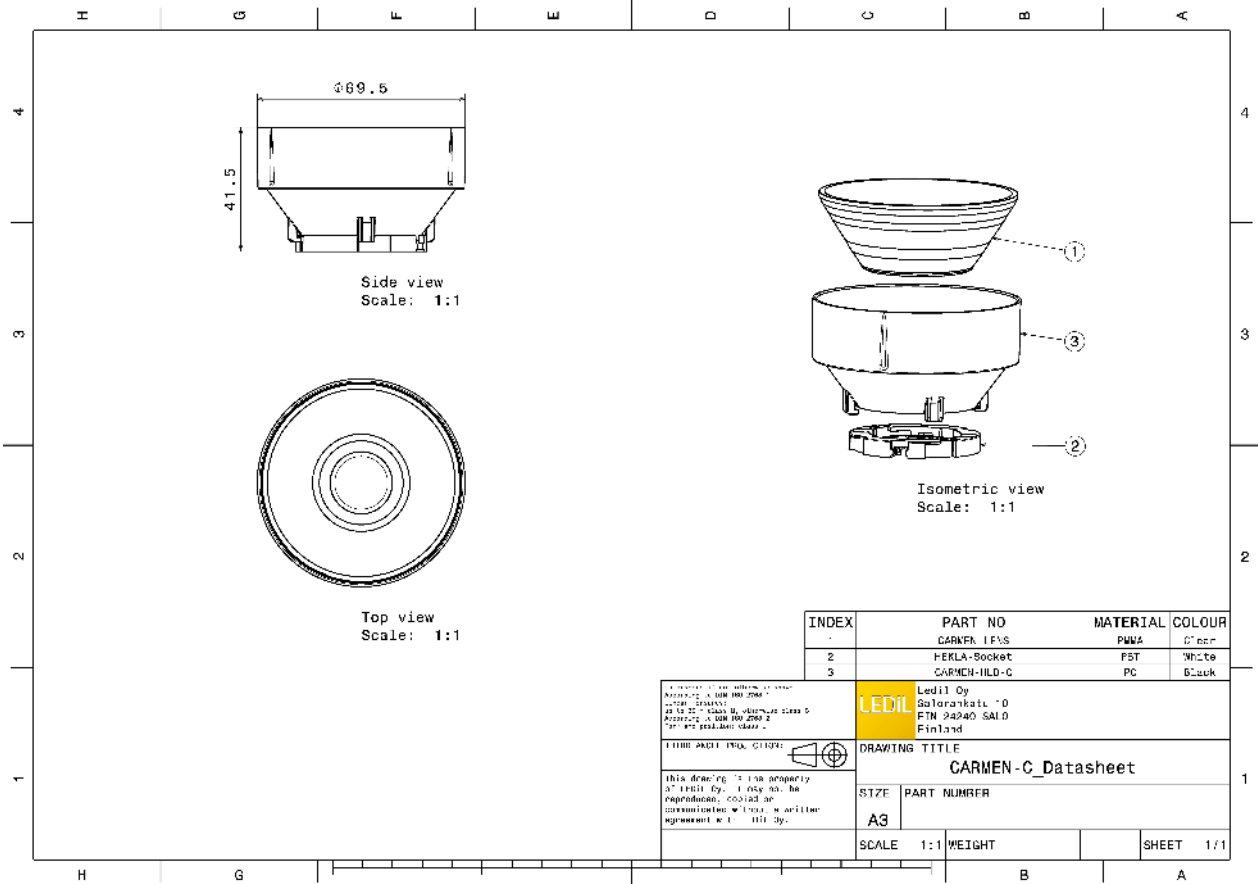


### MATERIALS:

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



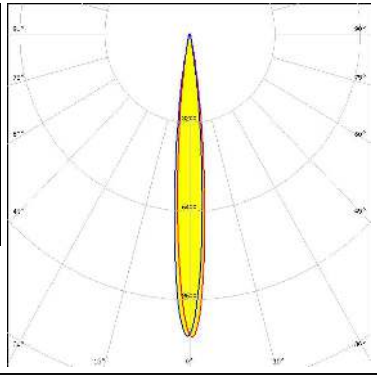


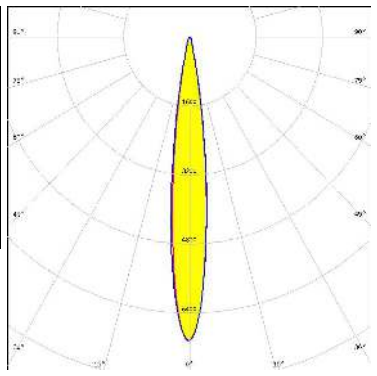

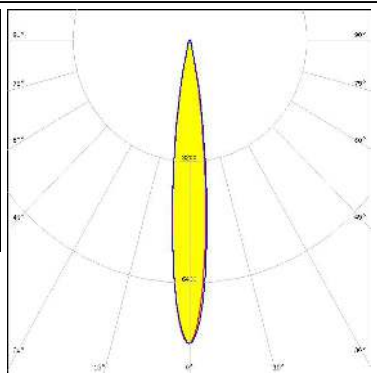

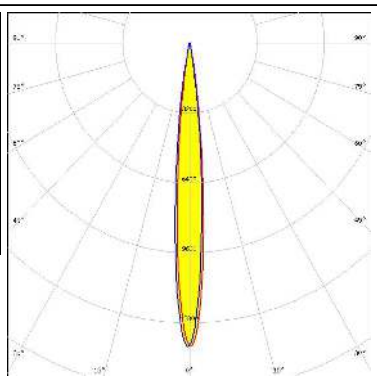
### ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CP16601_CARMEN-SS-C	Single lens	150	150	15	8.4
» Box size: 480 x 280 x 300 mm					



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

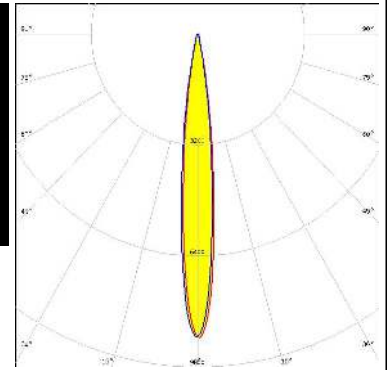
#### OPTICAL RESULTS (MEASURED):

<p></p> <p>LED Vesta TW 6mm DP            FWHM / FWTM 11.0° / 21.0°            Efficiency 60 %            Peak intensity 11 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16142_HEKLA-SOCKET-K            Bender Wirth: 504 Typ L8</p>		
<p></p> <p>LED Vesta TW 9mm (9W) DP            FWHM / FWTM 13.0° / 25.0°            Efficiency 58 %            Peak intensity 7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16142_HEKLA-SOCKET-K            Bender Wirth: 489 Typ L8</p>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM / FWTM 13.0° / 25.0°            Efficiency 61 %            Peak intensity 8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		
<p><b>CITIZEN</b></p> <p>LED CLU700/701/702/703            FWHM / FWTM 10.0° / 20.0°            Efficiency 64 %            Peak intensity 13.9 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		

#### OPTICAL RESULTS (MEASURED):

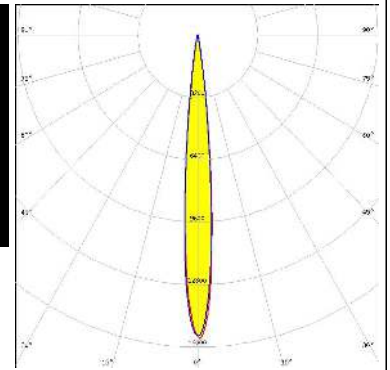
#### CITIZEN

LED CLU710/711  
 FWHM / FWTM 12.0° / 24.0°  
 Efficiency 60 %  
 Peak intensity 8.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15859\_HEKLA-SOCKET-I



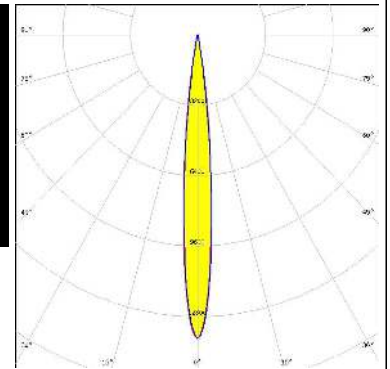
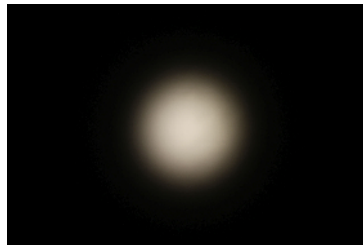
#### CITIZEN

LED CLU7B2  
 FWHM / FWTM 10.0° / 18.0°  
 Efficiency 66 %  
 Peak intensity 15.6 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



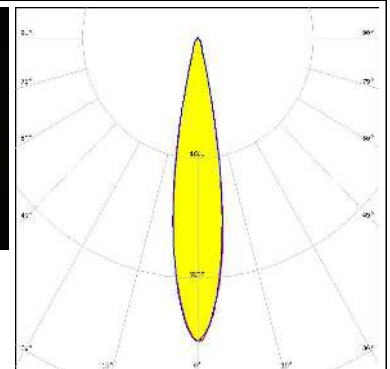
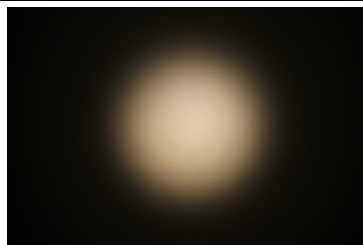
#### CREE LED

LED CXA/B 13xx  
 FWHM / FWTM 11.0° / 20.0°  
 Efficiency 66 %  
 Peak intensity 13.8 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15956\_HEKLA-SOCKET-J


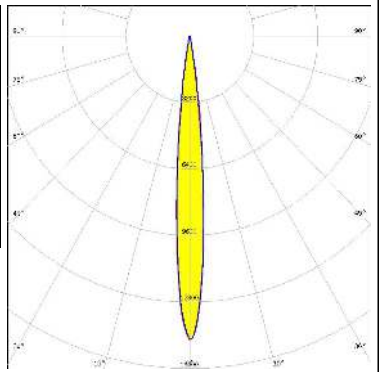
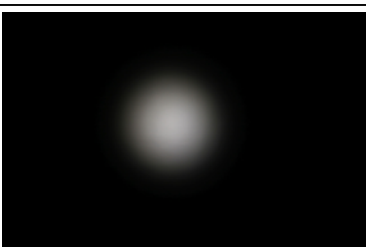
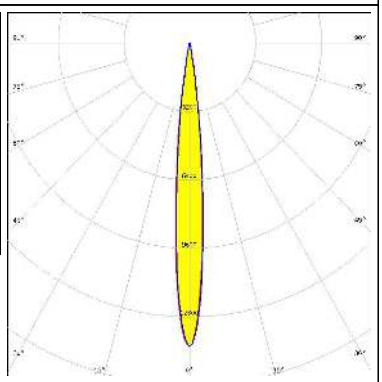

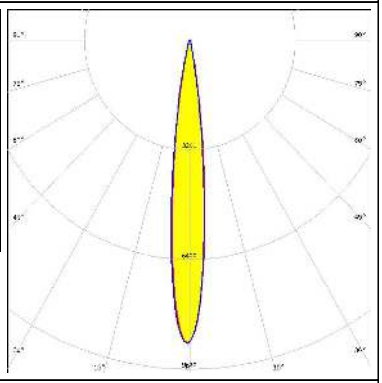

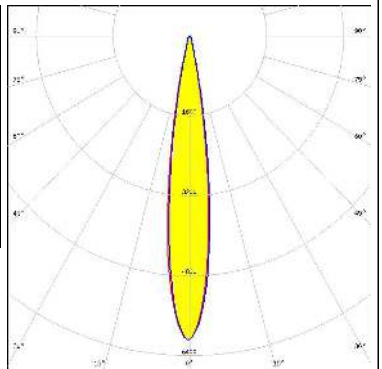


#### LUMILEDS


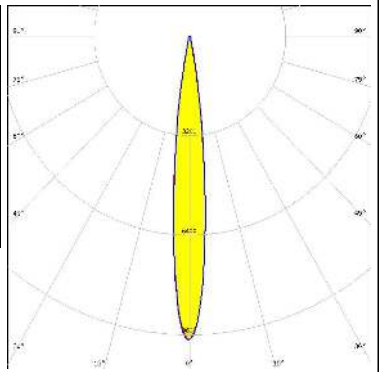
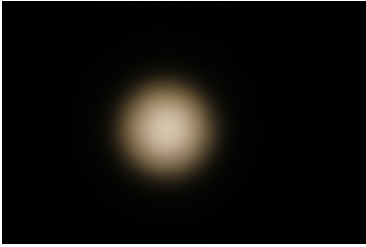
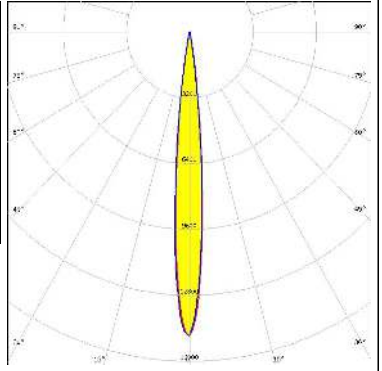

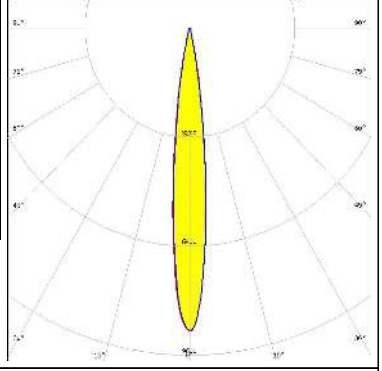

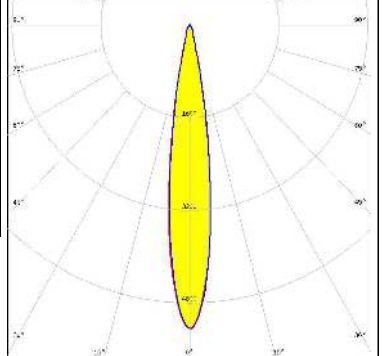
LED LUXEON CX Plus CoB L08 (Gen2)  
 FWHM / FWTM 19.0° / 32.0°  
 Efficiency 57 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 Bender Wirth: 637a Hekla




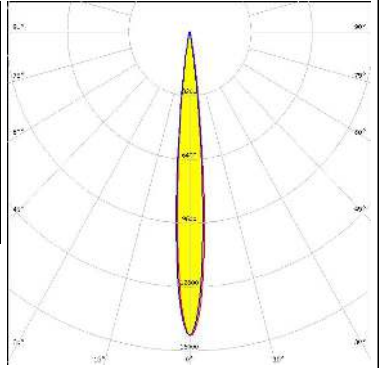

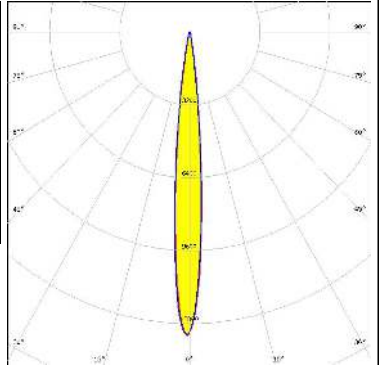

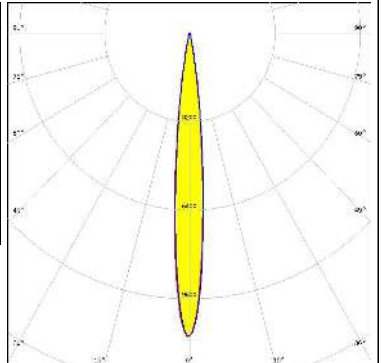
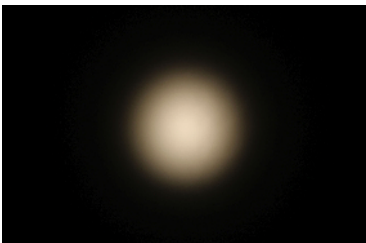
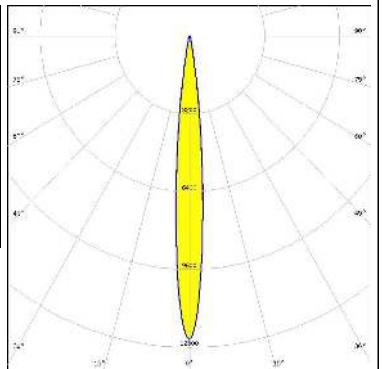
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CX Plus CoB - HD S01H4</p> <p>FWHM / FWTM 11.0° / 19.0°</p> <p>Efficiency 65 %</p> <p>Peak intensity 14.6 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 634c Hekla</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CX Plus CoB - HD S01H6 / HD S02H6</p> <p>FWHM / FWTM 11.0° / 19.0°</p> <p>Efficiency 64 %</p> <p>Peak intensity 14.2 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 634c Hekla</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CX Plus CoB - HD S04H9</p> <p>FWHM / FWTM 13.0° / 24.0°</p> <p>Efficiency 61 %</p> <p>Peak intensity 8.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 634c Hekla</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CX Plus CoB L04 / L05 (Gen2)</p> <p>FWHM / FWTM 16.0° / 27.0°</p> <p>Efficiency 60 %</p> <p>Peak intensity 6.1 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 637a Hekla</p>		

#### OPTICAL RESULTS (MEASURED):

<p><b>LUMILEDS</b></p> <p>LED LUXEON CX Plus CoB M02 / M03 (Gen2)</p> <p>FWHM / FWTM 12.0° / 23.0°</p> <p>Efficiency 62 %</p> <p>Peak intensity 9.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 641a Hekla</p>		
<p><b>LUMILEDS</b></p> <p>LED LUXEON CX Plus CoB S01 (Gen2)</p> <p>FWHM / FWTM 10.0° / 19.0°</p> <p>Efficiency 65 %</p> <p>Peak intensity 14.8 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: Bender Wirth: 634c Hekla</p>		
<p><b>LUMINUS</b></p> <p>LED CDM-9 (Dim-To-Warm)</p> <p>FWHM / FWTM 13.0° / 23.0°</p> <p>Efficiency 60 %</p> <p>Peak intensity 8.9 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 490 Typ L8</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-11 (19x19)</p> <p>FWHM / FWTM 16.0° / 29.0°</p> <p>Efficiency 58 %</p> <p>Peak intensity 5.3 cd/lm</p> <p>LEDs/each optic 1</p> <p>Light colour White</p> <p>Required components: F15859_HEKLA-SOCKET-I</p>		

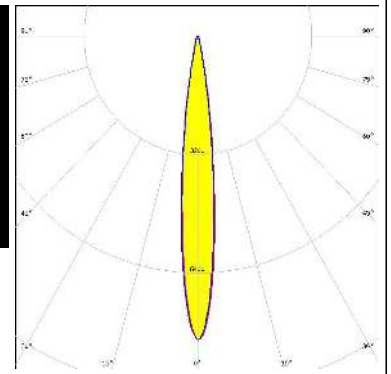
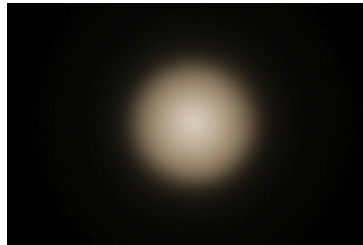
#### OPTICAL RESULTS (MEASURED):

<p><b>LUMINUS</b></p> <p>LED CXM-3            FWHM / FWTM 10.0° / 18.0°            Efficiency 66 %            Peak intensity 15.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		
<p><b>LUMINUS</b></p> <p>LED CXM-4            FWHM / FWTM 10.0° / 19.0°            Efficiency 63 %            Peak intensity 13.4 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		
<p><b>NICHIA</b></p> <p>LED NJCWL024Z-V1MT: COB L-Type Tunable White            FWHM / FWTM 11.0° / 21.0°            Efficiency 58 %            Peak intensity 11 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16142_HEKLA-SOCKET-K            Bender Wirth: 497 Typ L8</p>		
<p><b>XICATO</b></p> <p>LED XOB 6 mm            FWHM / FWTM 10.0° / 20.0°            Efficiency 62 %            Peak intensity 12.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		

#### OPTICAL RESULTS (MEASURED):


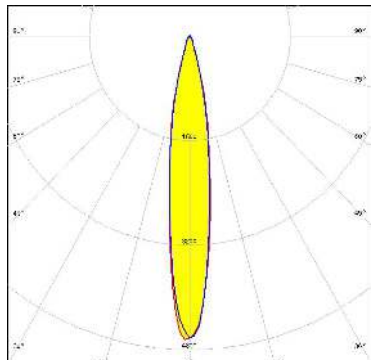
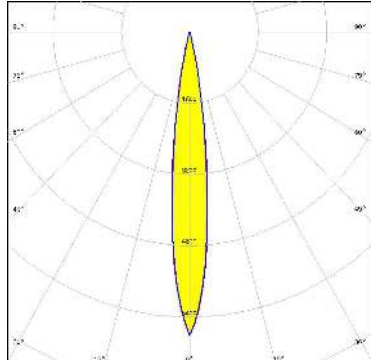
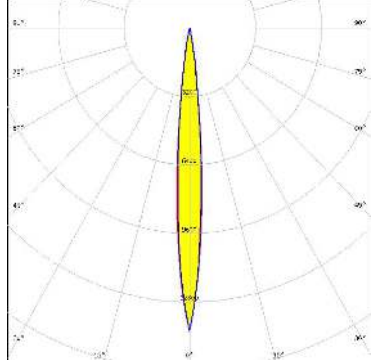
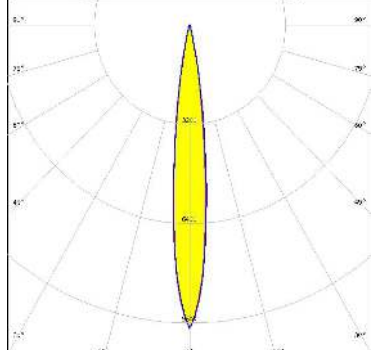
#### XICATO

LED	XOB 9.8 mm
FWHM / FWTM	13.0° / 24.0°
Efficiency	60 %
Peak intensity	8.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
	F15255_HEKLA-SOCKET-C





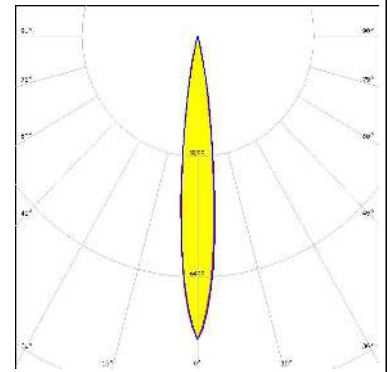
### OPTICAL RESULTS (SIMULATED):

<p></p> <p>LED VERO13            FWHM / FWTM 16.0° / 34.0°            Efficiency 65 %            Peak intensity 4.6 cd/lm            LEDs/each optic 1            Light colour White            Required components:            C16142_HEKLA-SOCKET-K</p>	
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM / FWTM 14.0° / 26.0°            Efficiency 45 %            Peak intensity 6.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15859_HEKLA-SOCKET-I            C16752_CARMEN-70-SHD</p>	
<p><b>CITIZEN</b></p> <p>LED CLU700/701/702/703            FWHM / FWTM 10.0° / 19.0°            Efficiency 51 %            Peak intensity 14.2 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C            C16752_CARMEN-70-SHD</p>	
<p><b>CITIZEN</b></p> <p>LED CLU712/713            FWHM / FWTM 12.0° / 24.0°            Efficiency 65 %            Peak intensity 9.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15859_HEKLA-SOCKET-I</p>	

#### OPTICAL RESULTS (SIMULATED):

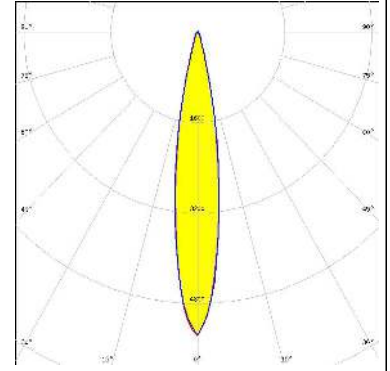
#### CITIZEN

LED CLU712/713  
 FWHM / FWTM 12.0° / 24.0°  
 Efficiency 47 %  
 Peak intensity 8.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15859\_HEKLA-SOCKET-I  
 C16752\_CARMEN-70-SHD



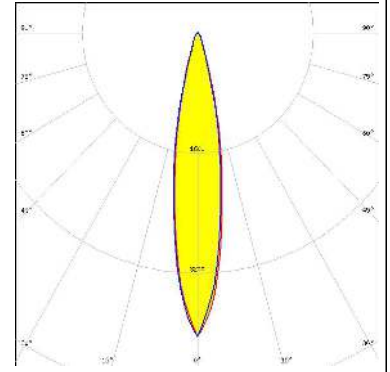
#### CREE LED

LED CMA1825  
 FWHM / FWTM 17.0° / 32.0°  
 Efficiency 69 %  
 Peak intensity 5.4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:



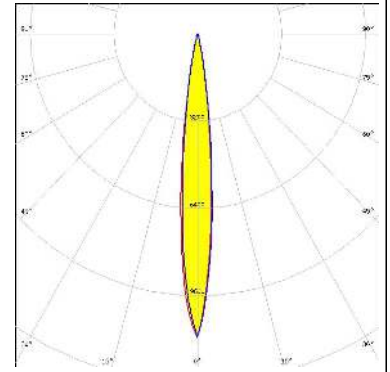
#### CREE LED

LED CMA1840  
 FWHM / FWTM 19.0° / 37.0°  
 Efficiency 66 %  
 Peak intensity 4 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:

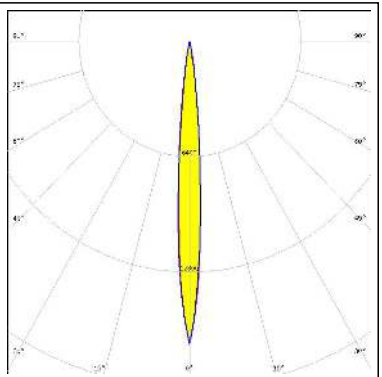
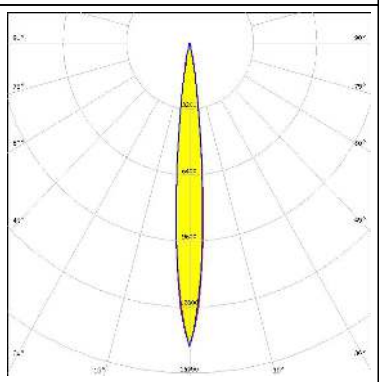
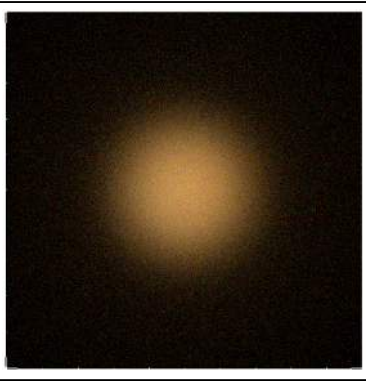
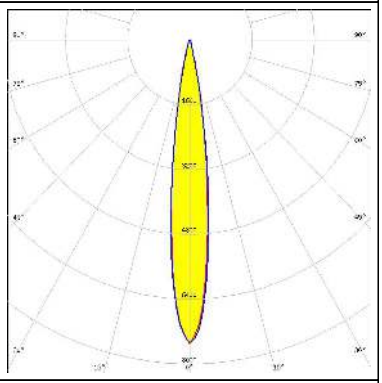

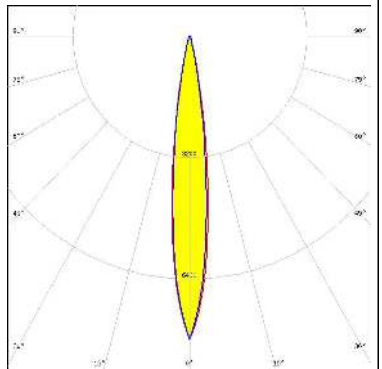


#### CREE LED

LED CXA/B 15xx  
 FWHM / FWTM 12.0° / 23.0°  
 Efficiency 68 %  
 Peak intensity 11.1 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15256\_HEKLA-SOCKET-D



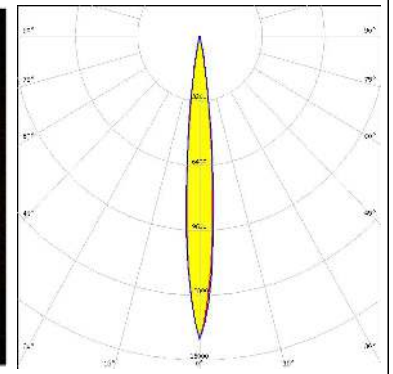
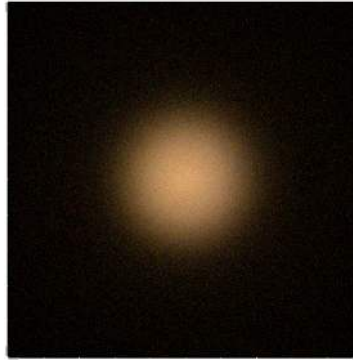
#### OPTICAL RESULTS (SIMULATED):

<p><b>LUMINUS</b></p> <p>LED CXM-4            FWHM / FWTM 8.0° / 18.0°            Efficiency 52 %            Peak intensity 16.8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F17435_HEKLA-G2-C            C16752_CARMEN-70-SHD</p>		
<p><b>LUMINUS</b></p> <p>LED CxM-6 (13.5x13.5)            FWHM / FWTM 10.0° / 20.0°            Efficiency 68 %            Peak intensity 14.7 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F17435_HEKLA-G2-C</p>		
<p><b>SAMSUNG</b></p> <p>LED LC003D / LC006D / LC009D / LC013D            FWHM / FWTM 14.0° / 26.0°            Efficiency 62 %            Peak intensity 7.5 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F17435_HEKLA-G2-C</p>		
<p><b>SAMSUNG</b></p> <p>LED LC003D / LC006D / LC009D / LC013D            FWHM / FWTM 14.0° / 26.0°            Efficiency 63 %            Peak intensity 8 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F17435_HEKLA-G2-C</p>		

#### OPTICAL RESULTS (SIMULATED):

### SAMSUNG

LED	LC010C
FWHM / FWTM	10.0° / 20.0°
Efficiency	68 %
Peak intensity	15 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.

### 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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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.

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#### LEDiL Oy

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#### Local sales and technical support

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