

## CARMEN-90-RS

~10° beam

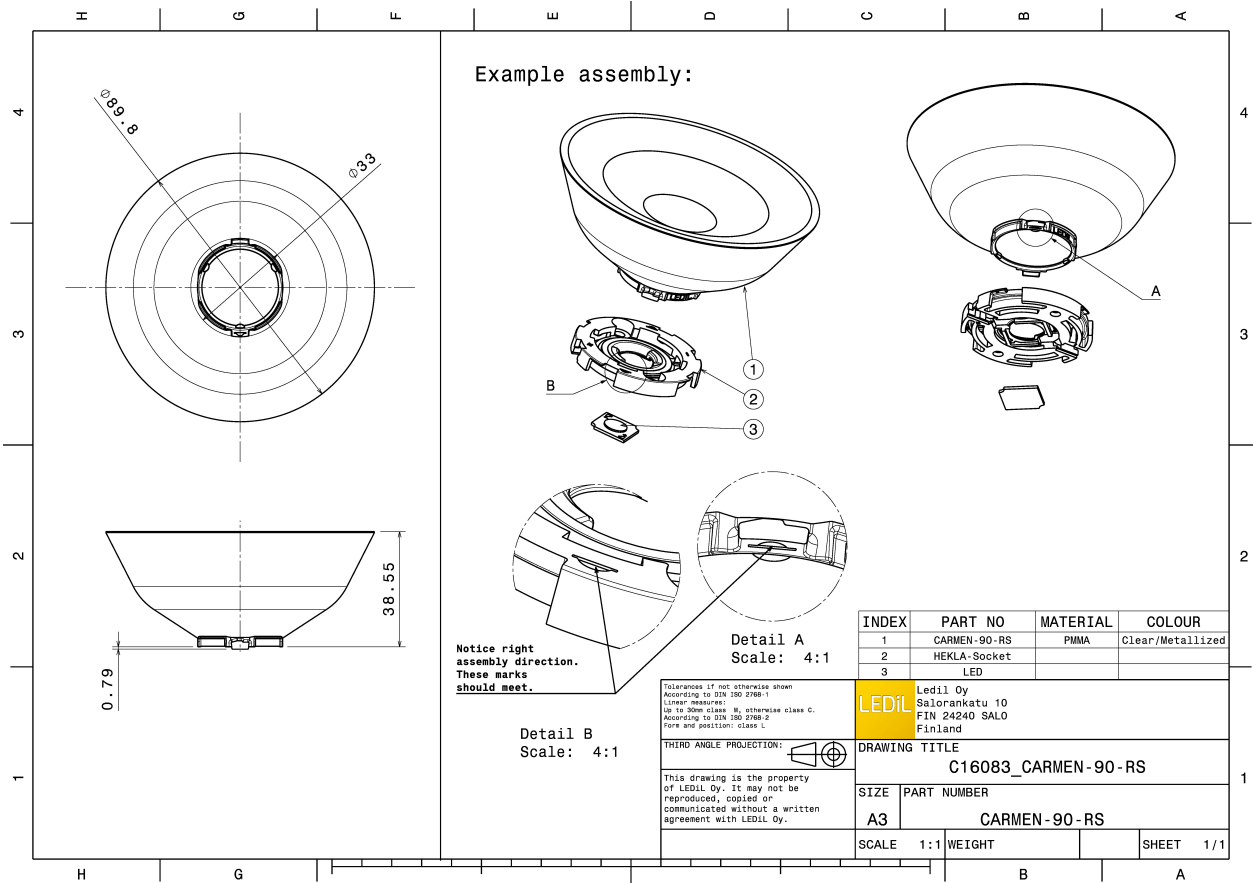
### TECHNICAL SPECIFICATIONS:

Dimensions	Ø 89.8 mm
Height	39.3 mm
Fastening	socket
Colour	clear
Box size	480 x 280 x 300 mm
Box weight	7 kg
Quantity in Box	70 pcs
ROHS compliant	yes ⓘ


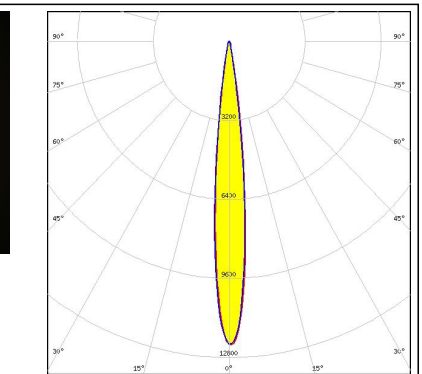

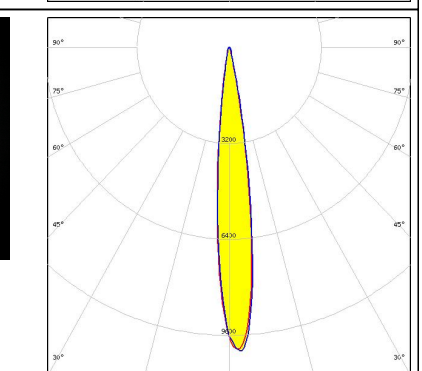

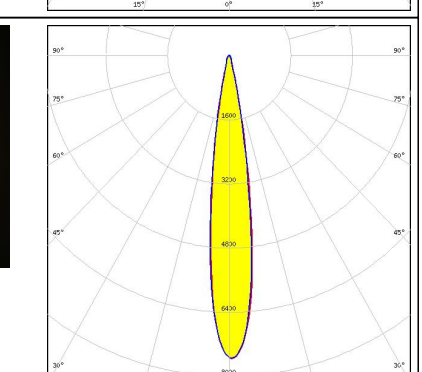
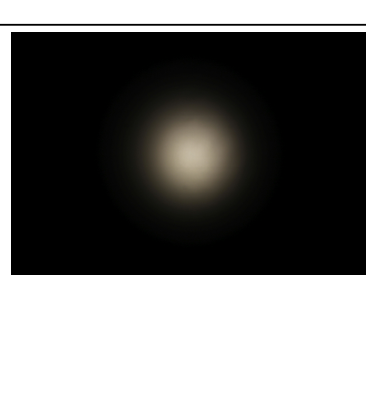
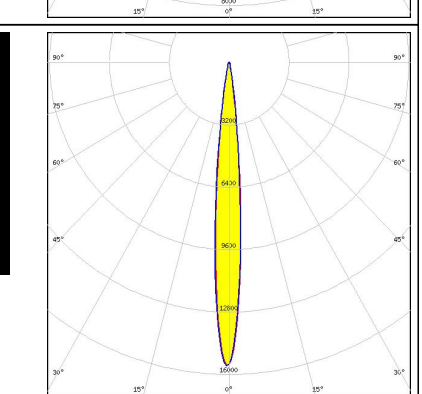


### MATERIAL SPECIFICATIONS:

Component	Type	Material	Colour
CARMEN-90-RS	Single lens	PMMA	clear



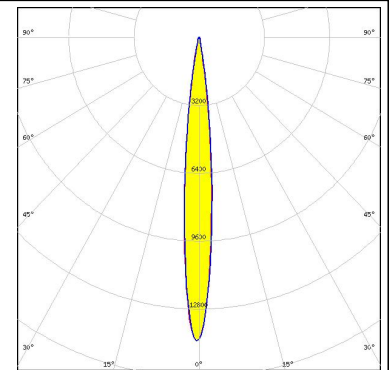
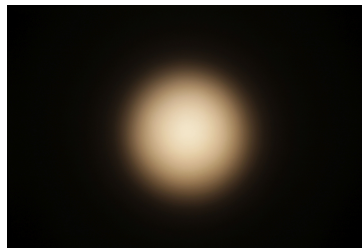
#### PHOTOMETRIC DATA (MEASURED):

<p>bridgelux</p> <p>LED V9 HD            FWHM 12.0°            Efficiency 81 %            Peak intensity 12.300 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15859_HEKLA-SOCKET-I</p>		
<p><b>CITIZEN</b></p> <p>LED CLL02x/CLU02x (LES10)            FWHM 13.0°            Efficiency 82 %            Peak intensity 10.700 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		
<p><b>CITIZEN</b></p> <p>LED CLL03x/CLU03x            FWHM 15.0°            Efficiency 82 %            Peak intensity 7.600 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15859_HEKLA-SOCKET-I</p>		
<p><b>CITIZEN</b></p> <p>LED CLU700/701            FWHM 10.0°            Efficiency 81 %            Peak intensity 15.600 cd/lm            LEDs/each optic 1            Light colour White            Required components:            F15255_HEKLA-SOCKET-C</p>		

#### PHOTOMETRIC DATA (MEASURED):

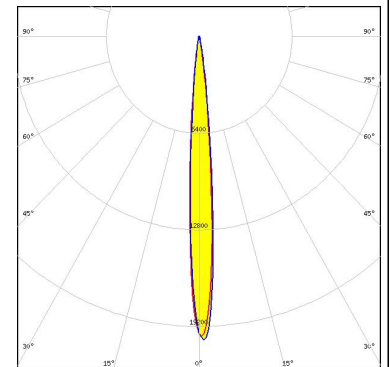
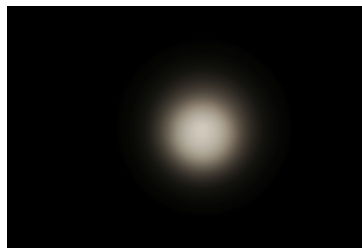
#### CITIZEN

LED CLU710/711  
 FWHM 11.0°  
 Efficiency 82 %  
 Peak intensity 14.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15859\_HEKLA-SOCKET-I



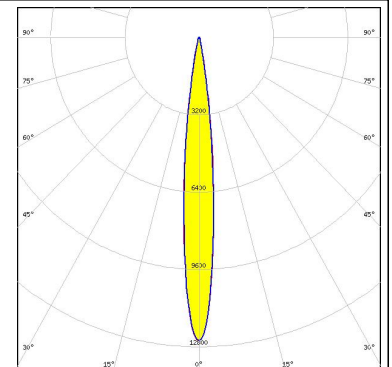
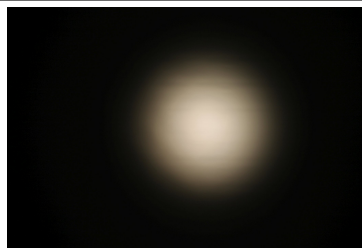
#### CITIZEN

LED CLU7A2 (LES 4.2mm)  
 FWHM 9.0°  
 Efficiency 82 %  
 Peak intensity 20.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



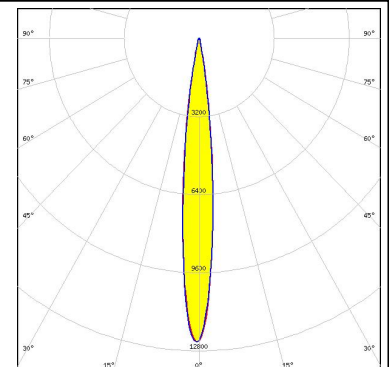
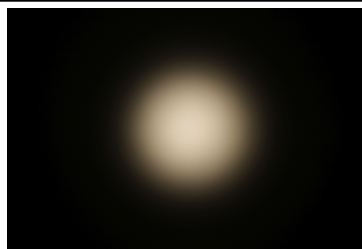
#### CREE

LED CMT14xx  
 FWHM 12.0°  
 Efficiency 83 %  
 Peak intensity 12.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



#### CREE

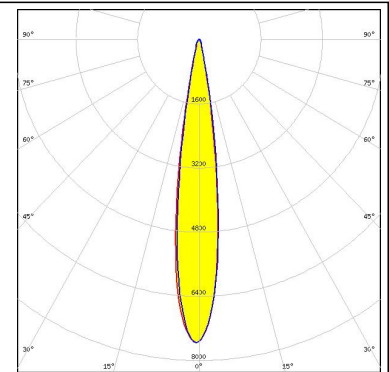
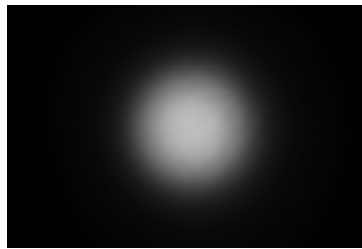
LED CXA/B 15xx  
 FWHM 12.0°  
 Efficiency 83 %  
 Peak intensity 12.500 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15256\_HEKLA-SOCKET-D



#### PHOTOMETRIC DATA (MEASURED):

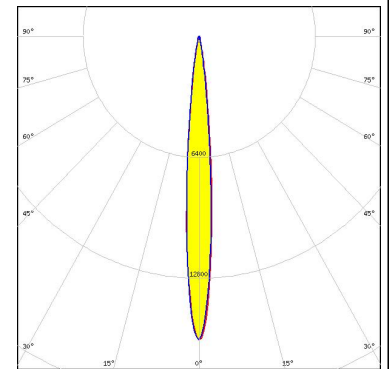
#### CREE

LED CXA/B 1816 & CXA/B 1820 & CXA 1850  
 FWHM 16.0°  
 Efficiency 82 %  
 Peak intensity 7.600 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15254\_HEKLA-SOCKET-B



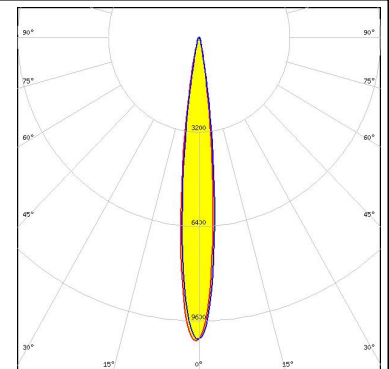
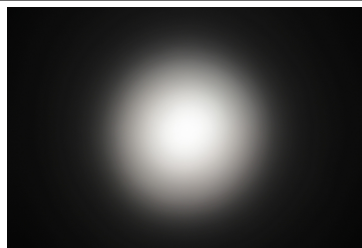
#### SAMSUNG

LED LC010C G2  
 FWHM 10.0°  
 Efficiency 81 %  
 Peak intensity 16.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



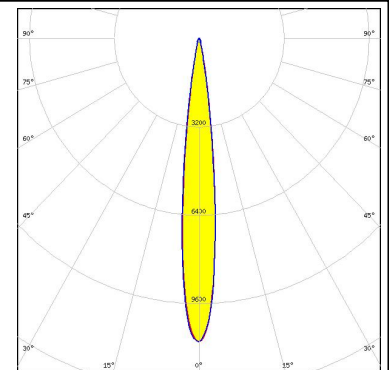
#### SAMSUNG

LED LC020C G2  
 FWHM 13.0°  
 Efficiency 80 %  
 Peak intensity 10.300 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15859\_HEKLA-SOCKET-I



#### TRIDONIC

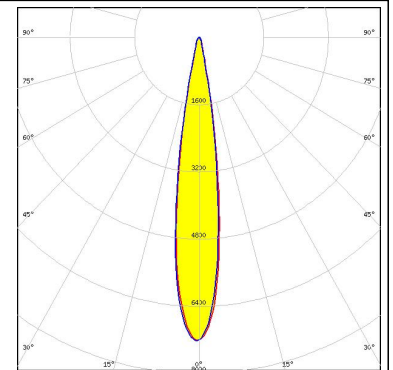
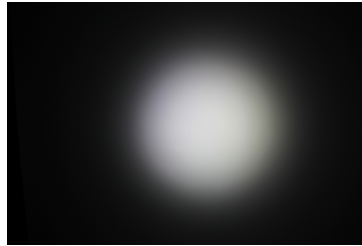
LED SLE G7 LES09  
 FWHM 13.0°  
 Efficiency 81 %  
 Peak intensity 11.000 cd/lm  
 LEDs/each optic 1  
 Light colour White  
 Required components:  
 F15255\_HEKLA-SOCKET-C



#### PHOTOMETRIC DATA (MEASURED):

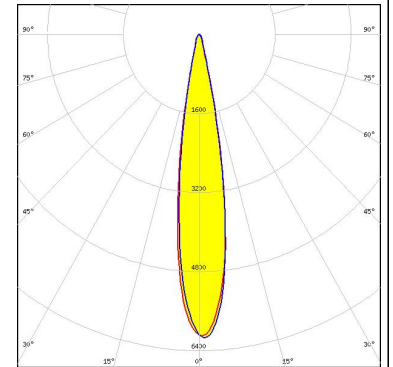
#### TRIDONIC

LED SLE G7 LES13  
FWHM 16.0°  
Efficiency 81 %  
Peak intensity 7.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15859\_HEKLA-SOCKET-I



#### TRIDONIC

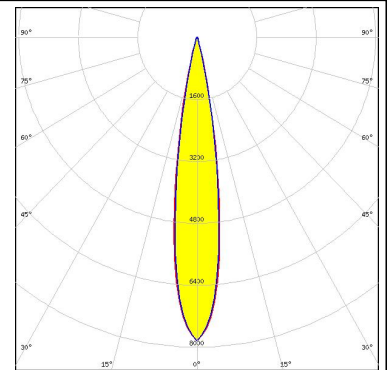
LED SLE G7 LES15  
FWHM 18.0°  
Efficiency 82 %  
Peak intensity 6.200 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15859\_HEKLA-SOCKET-I



#### PHOTOMETRIC DATA (SIMULATED):

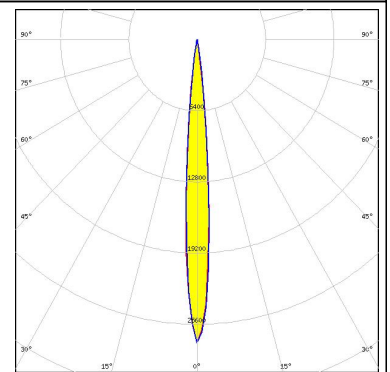
#### CITIZEN

LED CLL03x/CLU03x  
FWHM 17.0°  
Efficiency 83 %  
Peak intensity 7.600 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15859\_HEKLA-SOCKET-I



#### CREE

LED CXA/B 13xx  
FWHM 9.0°  
Efficiency 86 %  
Peak intensity 27.300 cd/lm  
LEDs/each optic 1  
Light colour White  
Required components:  
F15956\_HEKLA-SOCKET-J



#### 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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