CARMEN-M-C

~35° medium 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

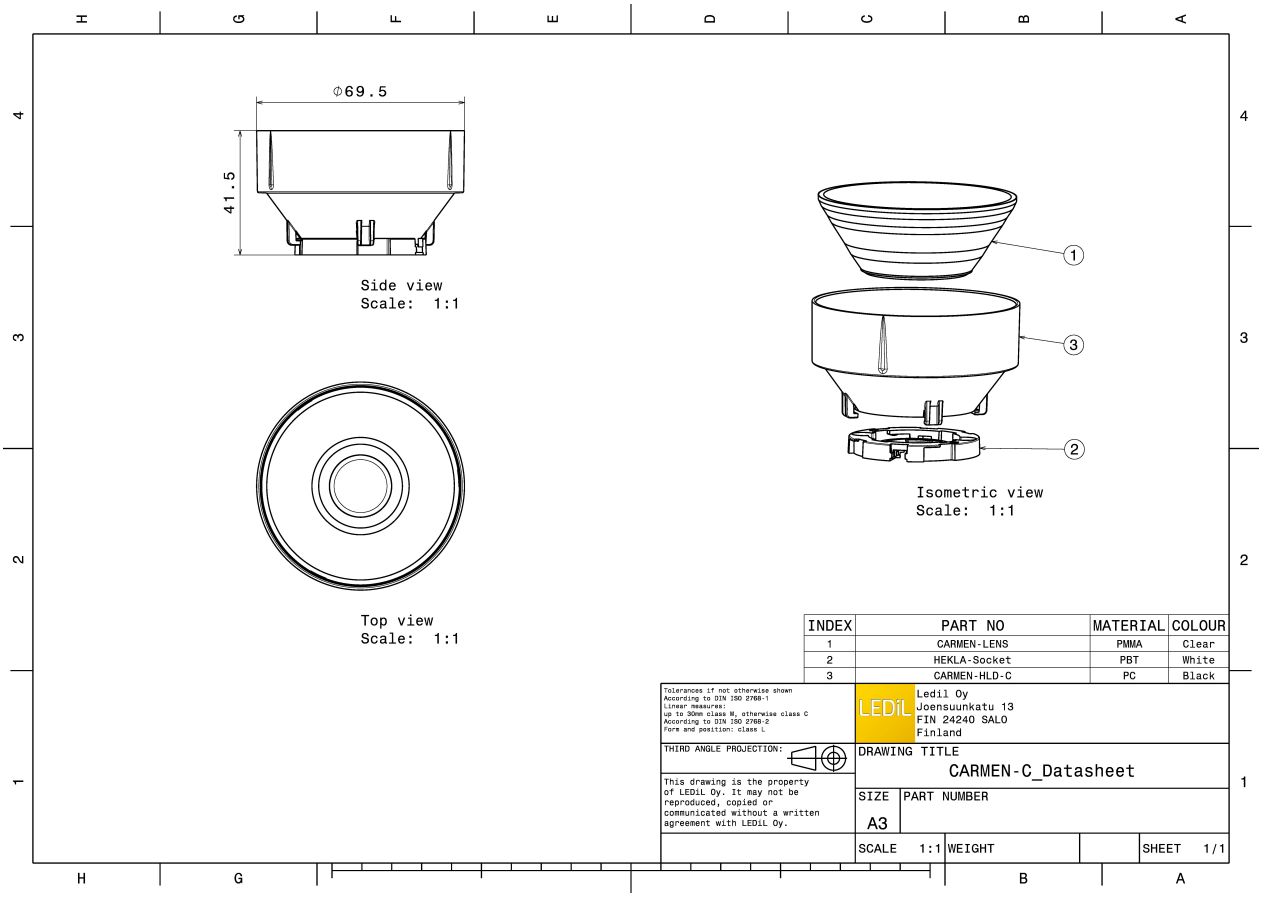
MATERIAL SPECIFICATIONS:

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

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CP15775_CARMEN-M-C	Single lens	150	150	15	4.6
» Box size: 476 x 273 x 292 mm					

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INDEX	PART NO	MATERIAL	COLOUR
1	CARMEN-LENS	PMMA	Clear
2	HEKLA-Socket	PBT	White
3	CARMEN-HLD-C	PC	Black

Tolerances if not otherwise shown
According to DIN ISO 2768-1
Linear measures:
up to 30mm class H, otherwise class C
According to DIN ISO 2768-2
Form and position: class L

Ledil Oy
Joensuunkatu 13
FIN 24240 SALO
Finland

THIRD ANGLE PROJECTION:

DRAWING TITLE
CARMEN-C_Datasheet

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SIZE A3 | PART NUMBER

SCALE 1:1 | WEIGHT | SHEET 1/1

See also our general installation guide: www.ledil.com/installation_guide

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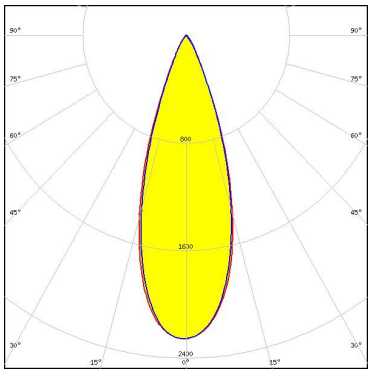
PHOTOMETRIC DATA (MEASURED):

bridgelux

LED	V4 HD Gen 7
FWHM / FWTM	34.0° / 55.0°
Efficiency	82 %
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15253_HEKLA-SOCKET-A



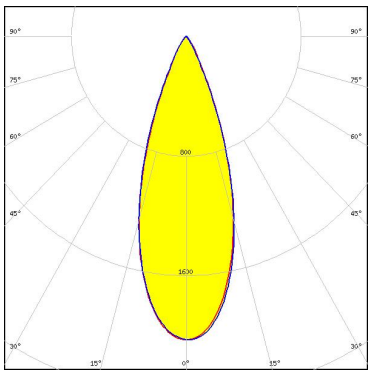


bridgelux

LED	V6 HD Gen 7
FWHM / FWTM	36.0° / 58.0°
Efficiency	79 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



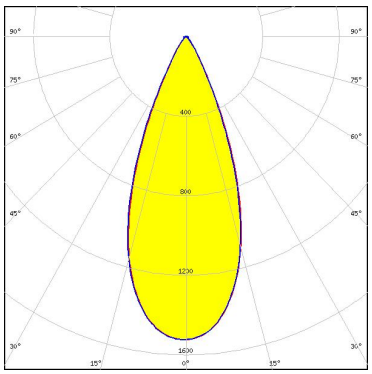


bridgelux

LED	V9 HD Gen7
FWHM / FWTM	41.0° / 63.0°
Efficiency	74 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15859_HEKLA-SOCKET-I

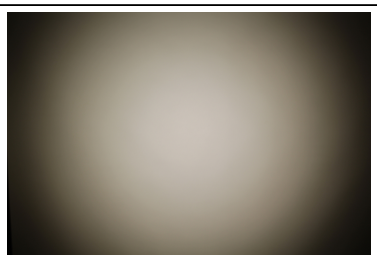


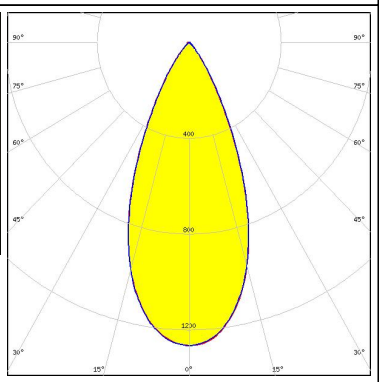


bridgelux

LED	VERO10
FWHM / FWTM	45.0° / 72.0°
Efficiency	74 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15616_HEKLA-SOCKET-F





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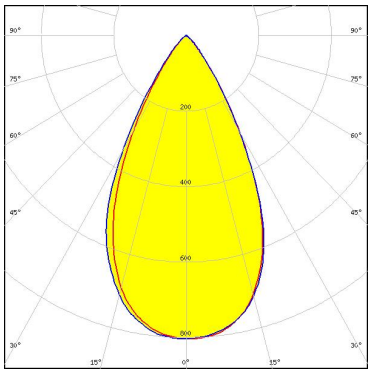
PHOTOMETRIC DATA (MEASURED):

bridgelux

LED	Vesta DTW 13mm (21W)
FWHM / FWTM	55.0° / 80.0°
Efficiency	64 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	Tunable White

Required components:
- C16142_HEKLA-SOCKET-K
- Bender Wirth: 491 Typ L8

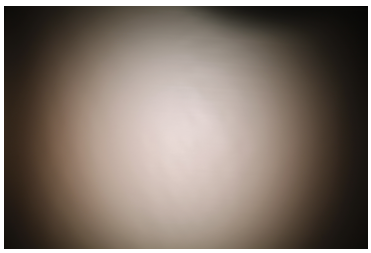


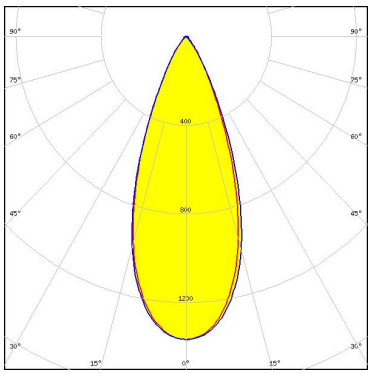


bridgelux

LED	Vesta DTW 9mm (4W/6W/12W)
FWHM / FWTM	40.0° / 67.0°
Efficiency	67 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
- C16142_HEKLA-SOCKET-K
- Bender Wirth: 490 Typ L8



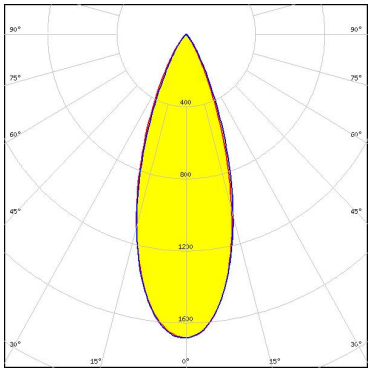


bridgelux

LED	Vesta TW 6mm DP
FWHM / FWTM	37.0° / 63.0°
Efficiency	72 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
- C16142_HEKLA-SOCKET-K
- Bender Wirth: 504 Typ L8



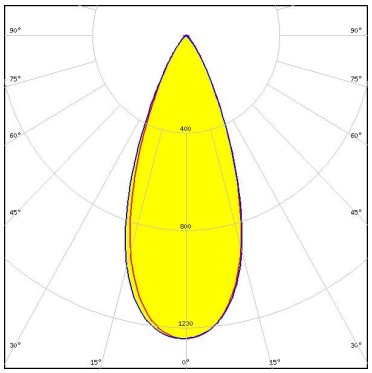


bridgelux

LED	Vesta TW 9mm (12W) CSP
FWHM / FWTM	42.0° / 69.0°
Efficiency	66 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
- C16142_HEKLA-SOCKET-K





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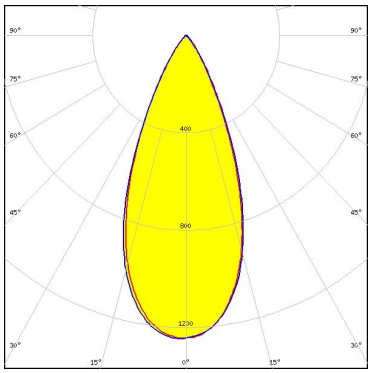
PHOTOMETRIC DATA (MEASURED):

bridgelux

LED	Vesta TW 9mm (9W) DP
FWHM / FWTM	43.0° / 69.0°
Efficiency	69 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K
Bender Wirth: 489 Typ L8



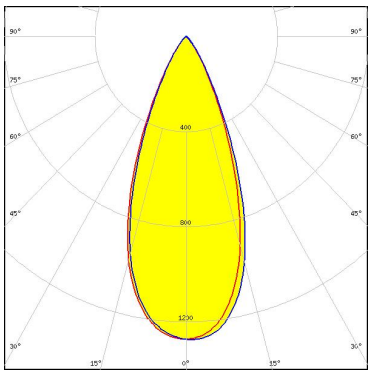


CITIZEN

LED	CLC020 Series (Dim-To-Warm)
FWHM / FWTM	42.0° / 68.0°
Efficiency	66 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K



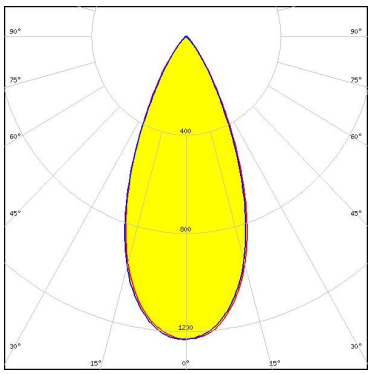


CITIZEN

LED	CLL02x/CLU02x (LES10)
FWHM / FWTM	45.0° / 73.0°
Efficiency	73 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



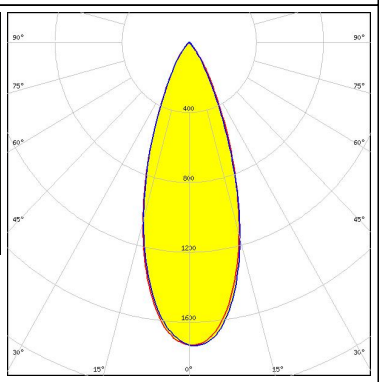


CITIZEN

LED	CLU700/701/702/703
FWHM / FWTM	37.0° / 66.0°
Efficiency	76 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C





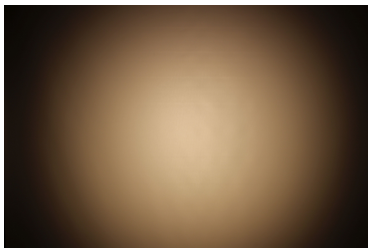
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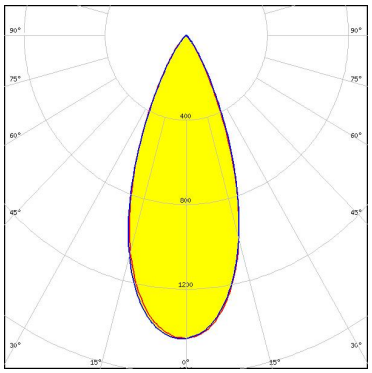
PHOTOMETRIC DATA (MEASURED):

CITIZEN

LED	CLU710/711
FWHM / FWTM	41.0° / 68.0°
Efficiency	73 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15859_HEKLA-SOCKET-I



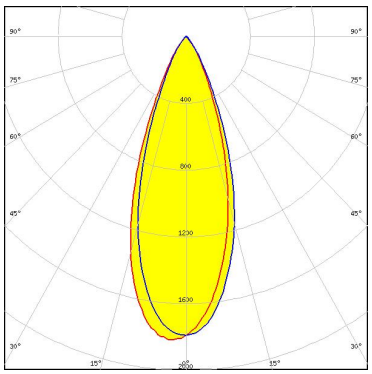


CITIZEN

LED	CLU7A2/7A3
FWHM / FWTM	37.0° / 64.0°
Efficiency	78 %
Peak intensity	1.8 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



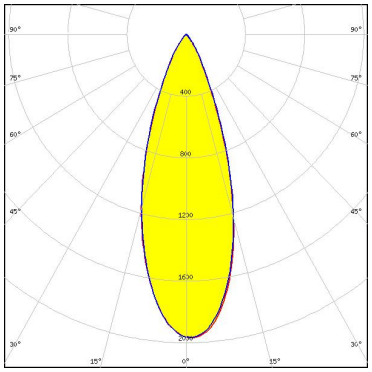


CITIZEN

LED	CLU7B2
FWHM / FWTM	35.0° / 62.0°
Efficiency	80 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



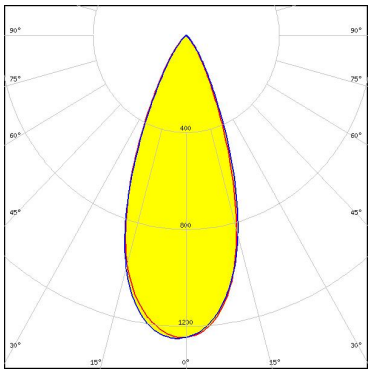


CITIZEN

LED	LCN-C01B (Tunable White)
FWHM / FWTM	41.0° / 69.0°
Efficiency	66 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K





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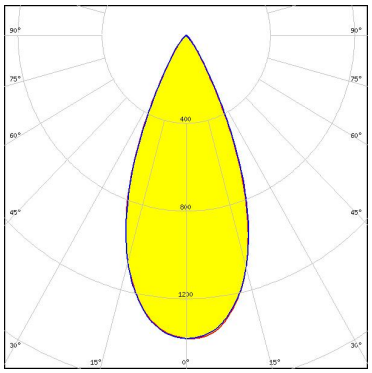
PHOTOMETRIC DATA (MEASURED):

CREE LED

LED	CMA1516
FWHM / FWTM	45.0° / 68.0°
Efficiency	77 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15256_HEKLA-SOCKET-D



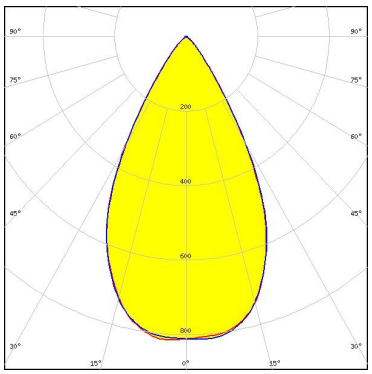


LUMILEDS

LED	LUXEON CX Plus CoB L08 (Gen2)
FWHM / FWTM	56.0° / 80.0°
Efficiency	67 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
Bender Wirth: 637a Hekla



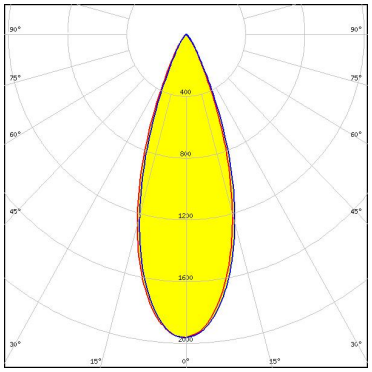


LUMILEDS

LED	LUXEON CoB 1202HD
FWHM / FWTM	36.0° / 59.0°
Efficiency	78 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15848_HEKLA-SOCKET-G



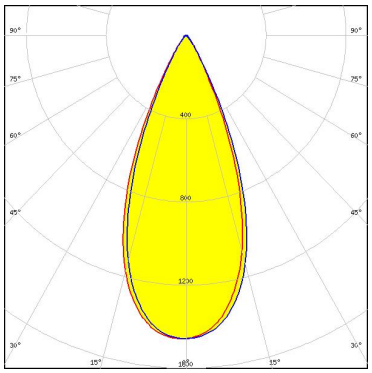


LUMILEDS

LED	LUXEON CoB 1204HD
FWHM / FWTM	43.0° / 64.0°
Efficiency	76 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15858_HEKLA-SOCKET-H





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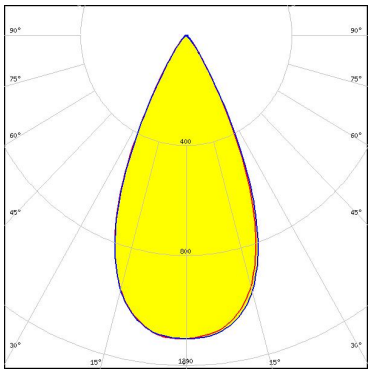
PHOTOMETRIC DATA (MEASURED):

LUMILEDS

LED	LUXEON CoB 1205HD
FWHM / FWTM	49.0° / 70.0°
Efficiency	71 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15858_HEKLA-SOCKET-H



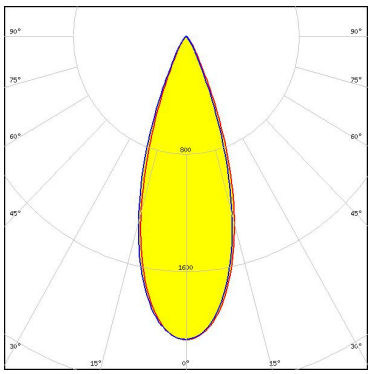


LUMILEDS

LED	LUXEON CX Plus CoB - HD S01H4
FWHM / FWTM	36.0° / 57.0°
Efficiency	78 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
Bender Wirth: 634c Hekla



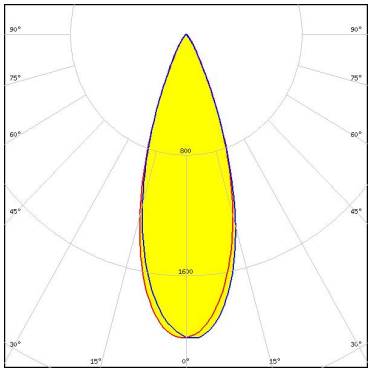


LUMILEDS

LED	LUXEON CX Plus CoB - HD S01H6 / HD S02H6
FWHM / FWTM	35.0° / 57.0°
Efficiency	77 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
Bender Wirth: 634c Hekla



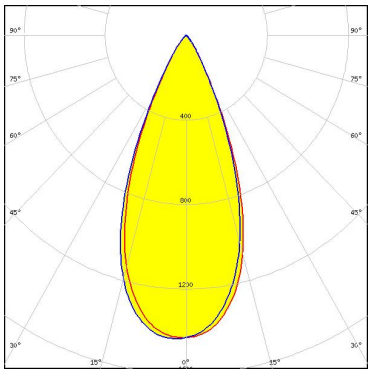


LUMILEDS

LED	LUXEON CX Plus CoB - HD S04H9
FWHM / FWTM	43.0° / 66.0°
Efficiency	75 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
Bender Wirth: 634c Hekla





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PHOTOMETRIC DATA (MEASURED):

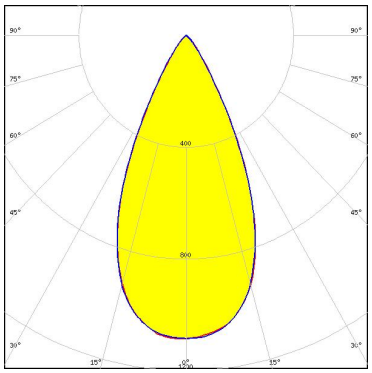
LUMILEDS

LED	LUXEON CX Plus CoB L04 / L05 (Gen2)
FWHM / FWTM	49.0° / 72.0°
Efficiency	71 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

Bender Wirth: 637a Hekla





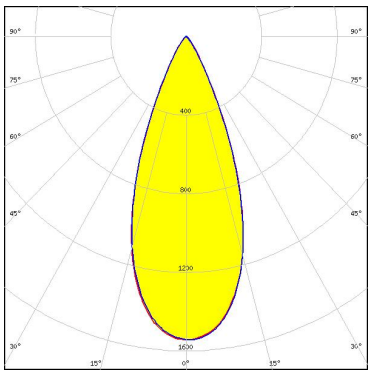
LUMILEDS

LED	LUXEON CX Plus CoB M02 / M03 (Gen2)
FWHM / FWTM	41.0° / 63.0°
Efficiency	74 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

Bender Wirth: 641a Hekla





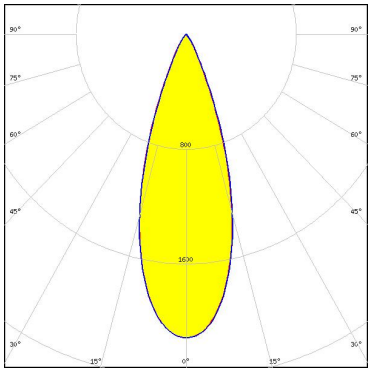
LUMILEDS

LED	LUXEON CX Plus CoB S01 (Gen2)
FWHM / FWTM	35.0° / 56.0°
Efficiency	78 %
Peak intensity	2.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

Bender Wirth: 634c Hekla





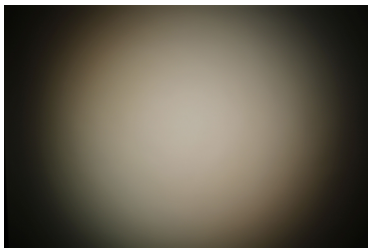
LUMINUS

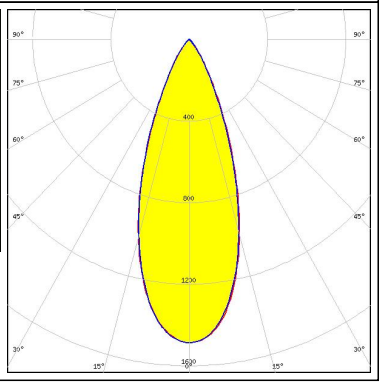
LED	CDM-6 (Dim-To-Warm)
FWHM / FWTM	38.0° / 66.0°
Efficiency	70 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

C16142_HEKLA-SOCKET-K

Bender Wirth: 490 Typ L8





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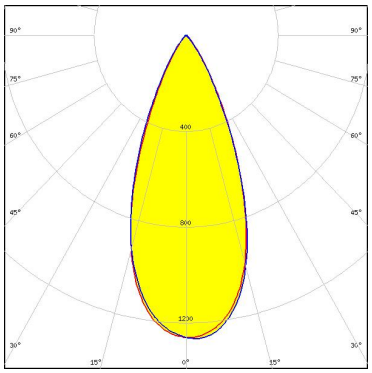
PHOTOMETRIC DATA (MEASURED):

LUMINUS

LED	CDM-9 (Dim-To-Warm)
FWHM / FWTM	43.0° / 69.0°
Efficiency	68 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K
Bender Wirth: 490 Typ L8

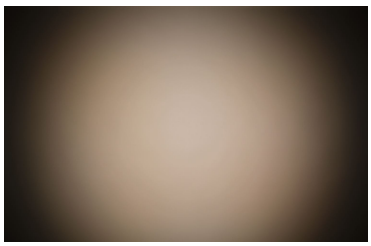


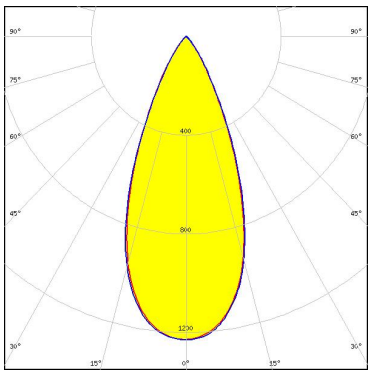


LUMINUS

LED	CTM-9 (Tunable White)
FWHM / FWTM	43.0° / 69.0°
Efficiency	67 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K
Bender Wirth: 495 Typ L8

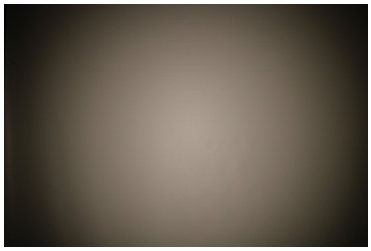


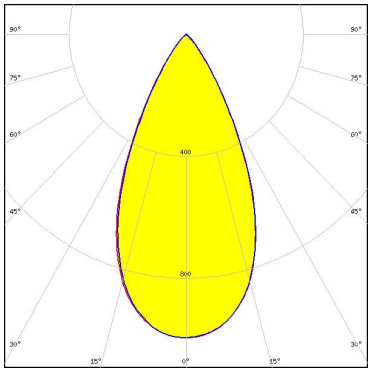


LUMINUS

LED	CxM-11 (19x19)
FWHM / FWTM	51.0° / 77.0°
Efficiency	69 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15859_HEKLA-SOCKET-I



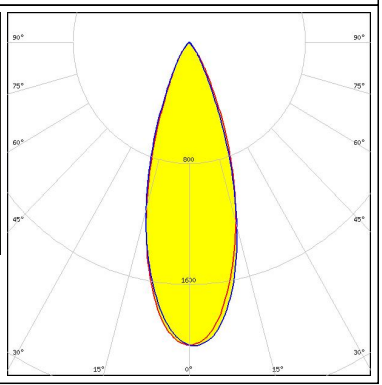


LUMINUS

LED	CXM-3
FWHM / FWTM	35.0° / 61.0°
Efficiency	80 %
Peak intensity	2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C





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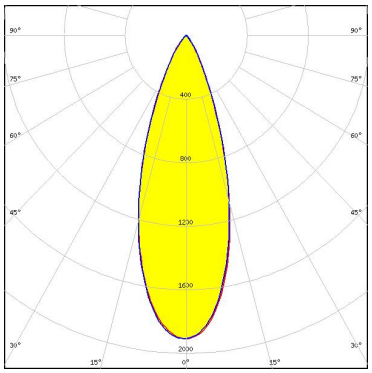
PHOTOMETRIC DATA (MEASURED):

LUMINUS

LED	CXM-4
FWHM / FWTM	35.0° / 62.0°
Efficiency	78 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



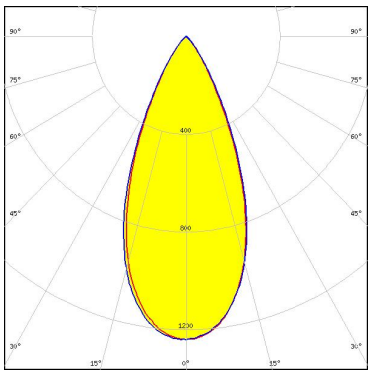


LUMINUS

LED	CxM-9 (13.5x13.5)
FWHM / FWTM	44.0° / 72.0°
Efficiency	73 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



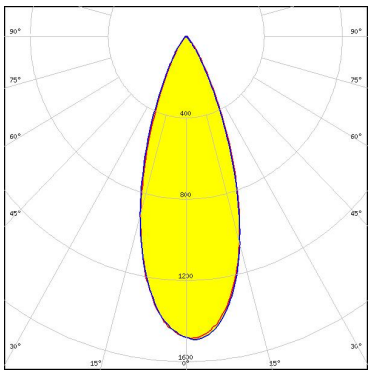


NICHIA

LED	NJCWL024Z-V1MT: COB L-Type Tunable White
FWHM / FWTM	37.0° / 64.0°
Efficiency	67 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K
Bender Wirth: 497 Typ L8

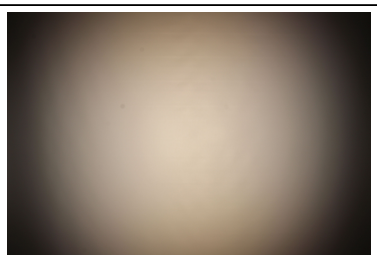


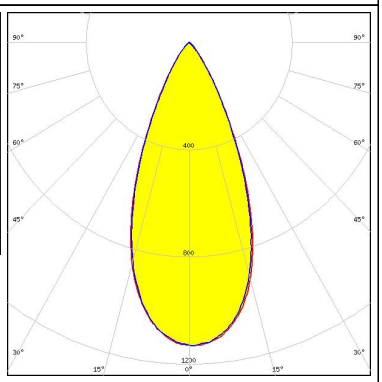


NICHIA

LED	NVCWJ024Z-V1MT: COB J-Type Tunable White
FWHM / FWTM	44.0° / 71.0°
Efficiency	66 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16142_HEKLA-SOCKET-K
Bender Wirth: 498 Typ L8





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PHOTOMETRIC DATA (MEASURED):

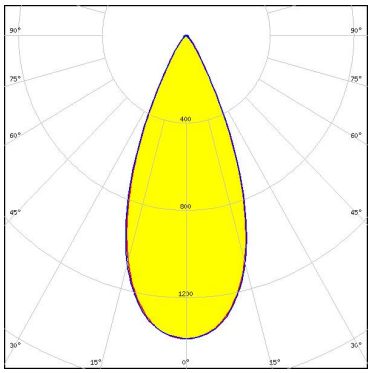
PHILIPS

LED	Fortimo SLM L09 CoB
FWHM / FWTM	44.0° / 66.0°
Efficiency	75 %
Peak intensity	1.4 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

F15858_HEKLA-SOCKET-H





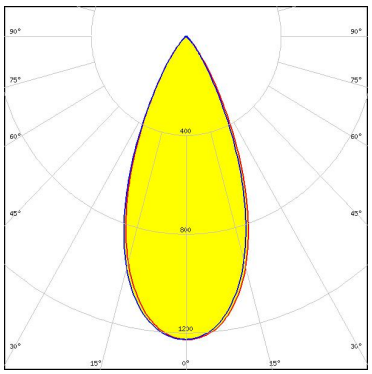
SAMSUNG

LED	LC003D / LC006D / LC009D / LC013D
FWHM / FWTM	45.0° / 73.0°
Efficiency	74 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

F15255_HEKLA-SOCKET-C





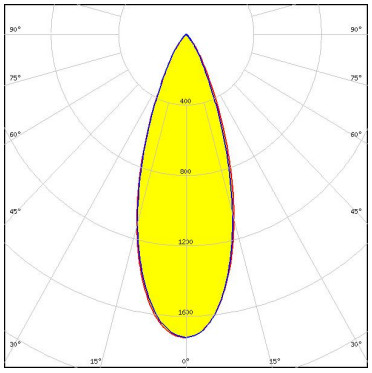
SAMSUNG

LED	LC010C G2
FWHM / FWTM	37.0° / 65.0°
Efficiency	76 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

F15255_HEKLA-SOCKET-C





SAMSUNG

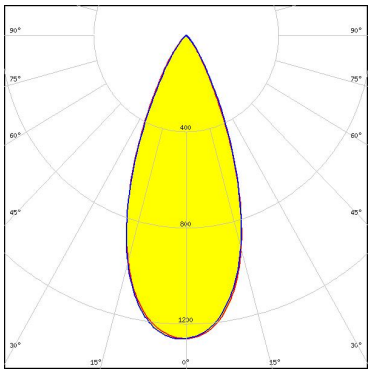
LED	LC010T (Tunable White)
FWHM / FWTM	42.0° / 70.0°
Efficiency	68 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	Tunable White

Required components:

C16142_HEKLA-SOCKET-K

Bender Wirth: 501 Typ L8





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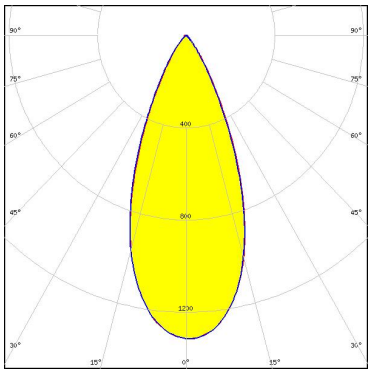
PHOTOMETRIC DATA (MEASURED):

SAMSUNG

LED	LC020C G2
FWHM / FWTM	43.0° / 70.0°
Efficiency	72 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15859_HEKLA-SOCKET-I

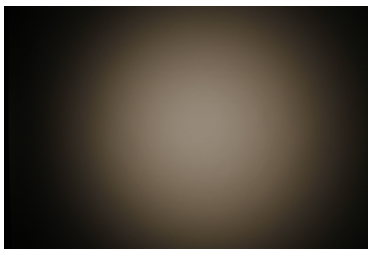


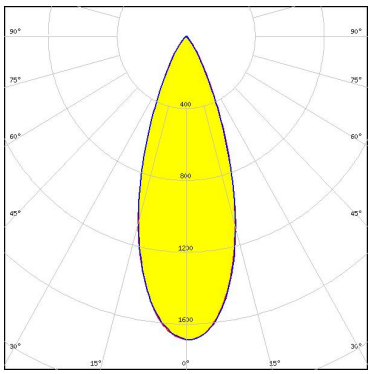


SEOUL SEMICONDUCTOR

LED	MJT COB LES 6
FWHM / FWTM	37.0° / 64.0°
Efficiency	74 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



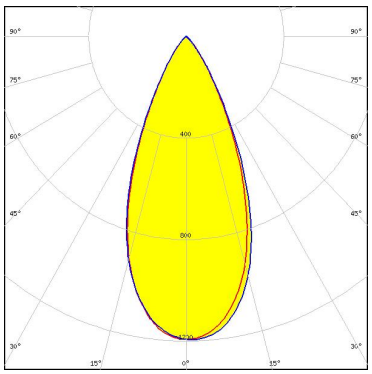


SEOUL SEMICONDUCTOR

LED	MJT COB LES 9.8
FWHM / FWTM	45.0° / 72.0°
Efficiency	71 %
Peak intensity	1.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C

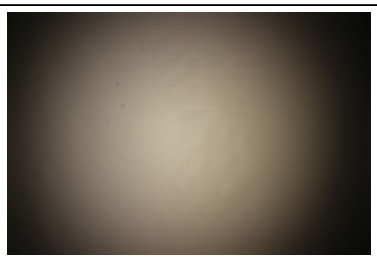


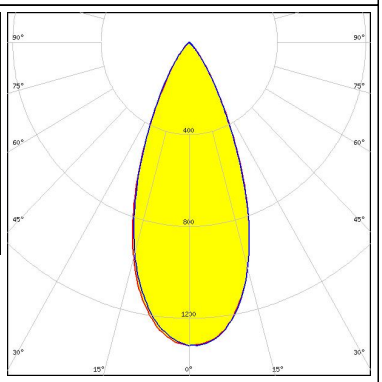


TRIDONIC

LED	SLE G7 LES09
FWHM / FWTM	43.0° / 71.0°
Efficiency	74 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C





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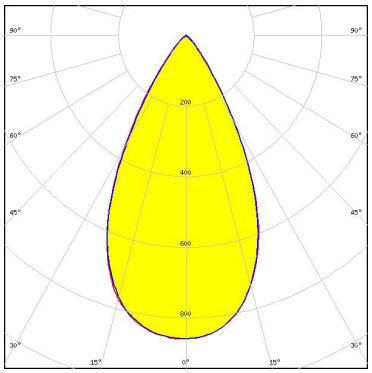
PHOTOMETRIC DATA (MEASURED):

TRIDONIC

LED	SLE G7 LES13
FWHM / FWTM	54.0° / 79.0°
Efficiency	66 %
Peak intensity	0.9 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15859_HEKLA-SOCKET-I



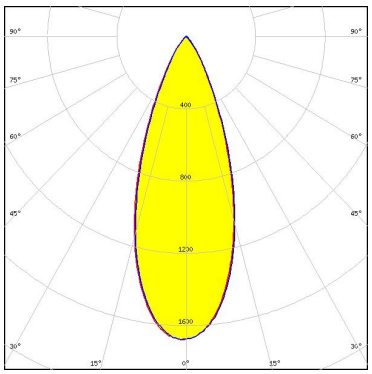


XICATO

LED	XOB 6 mm
FWHM / FWTM	38.0° / 66.0°
Efficiency	76 %
Peak intensity	1.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C



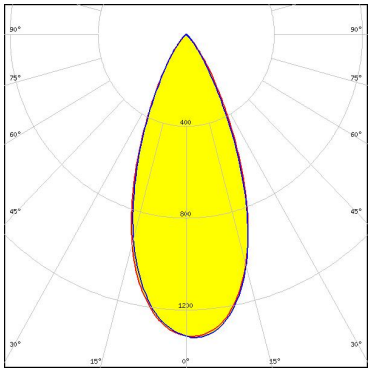


XICATO

LED	XOB 9.8 mm
FWHM / FWTM	43.0° / 72.0°
Efficiency	74 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15255_HEKLA-SOCKET-C

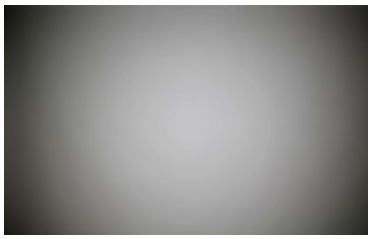


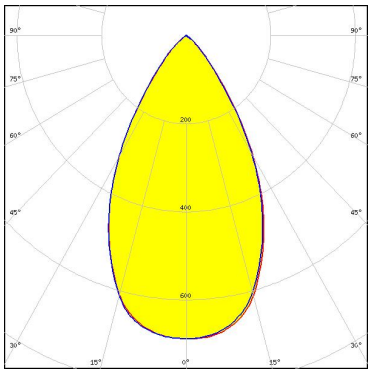


XICATO

LED	XTM - 19mm LES
FWHM / FWTM	58.0° / 88.0°
Efficiency	61 %
Peak intensity	0.7 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
C16058_XTM-ADAPTER-50-C





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PHOTOMETRIC DATA (SIMULATED):

bridgelux

LED	VERO13
FWHM / FWTM	45.0° / 73.0°
Efficiency	63 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White

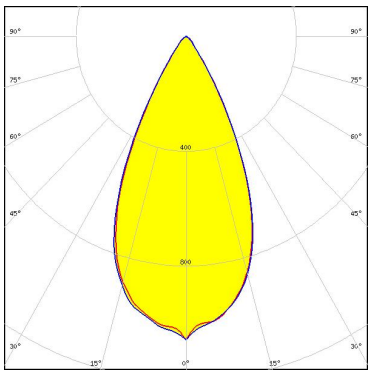
Required components:

C16142_HEKLA-SOCKET-K

CREE LED

LED	CMA1825
FWHM / FWTM	49.0° / 72.0°
Efficiency	70 %
Peak intensity	1.1 cd/lm
LEDs/each optic	1
Light colour	White

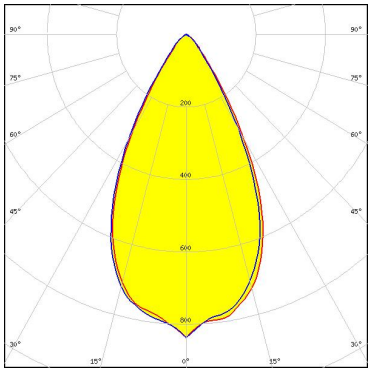
Required components:



CREE LED

LED	CMA1840
FWHM / FWTM	55.0° / 79.0°
Efficiency	66 %
Peak intensity	0.8 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

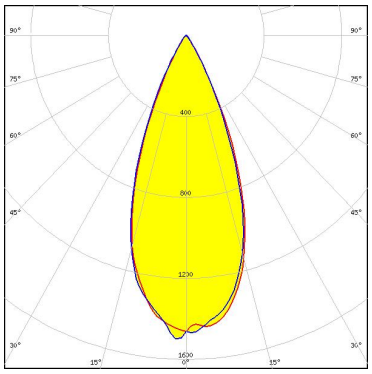


CREE LED

LED	CMT14xx
FWHM / FWTM	41.0° / 63.0°
Efficiency	71 %
Peak intensity	1.5 cd/lm
LEDs/each optic	1
Light colour	White

Required components:

F17435_HEKLA-G2-C



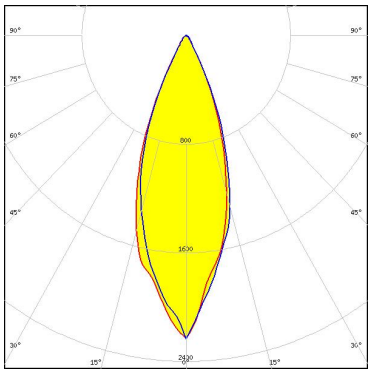
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PHOTOMETRIC DATA (SIMULATED):

CREE LED

LED	CXA/B 15xx
FWHM / FWTM	35.8° / 60.0°
Efficiency	%
Peak intensity	2.3 cd/lm
LEDs/each optic	1
Light colour	White

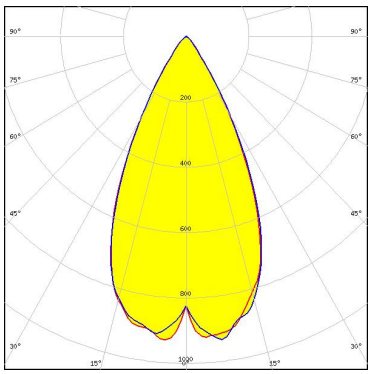
Required components:
F15256_HEKLA-SOCKET-D



CREE LED

LED	CXA/B 1816 & CXA/B 1820 & CXA 1850
FWHM / FWTM	52.0° / 74.0°
Efficiency	66 %
Peak intensity	1 cd/lm
LEDs/each optic	1
Light colour	White

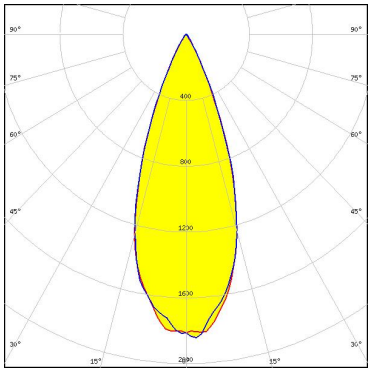
Required components:
F15254_HEKLA-SOCKET-B



NICHIA

LED	COB S-Type (LES 7)
FWHM / FWTM	38.0° / 58.0°
Efficiency	75 %
Peak intensity	1.9 cd/lm
LEDs/each optic	1
Light colour	White

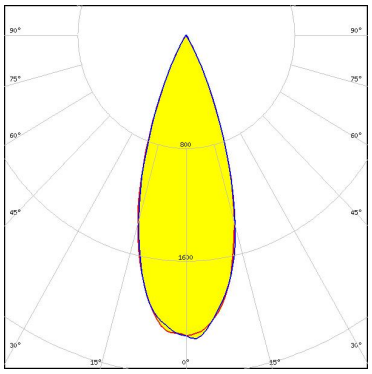
Required components:
F15848_HEKLA-SOCKET-G



NICHIA

LED	COB T-Type
FWHM / FWTM	36.0° / 55.0°
Efficiency	78 %
Peak intensity	2.2 cd/lm
LEDs/each optic	1
Light colour	White

Required components:
F15848_HEKLA-SOCKET-G



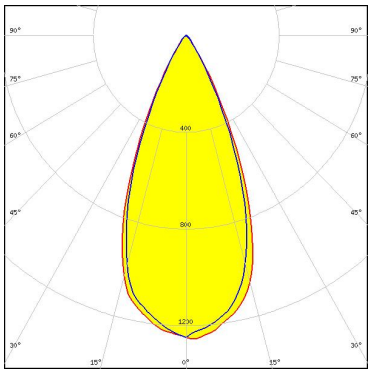
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PHOTOMETRIC DATA (SIMULATED):

SAMSUNG

LED	LC003D / LC006D / LC009D / LC013D
FWHM / FWTM	45.0° / 67.0°
Efficiency	69 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
F17435_HEKLA-G2-C	

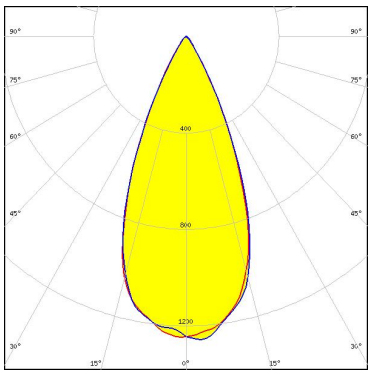




SAMSUNG

LED	LC003D / LC006D / LC009D / LC013D
FWHM / FWTM	44.0° / 66.0°
Efficiency	69 %
Peak intensity	1.3 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
F17435_HEKLA-G2-C	

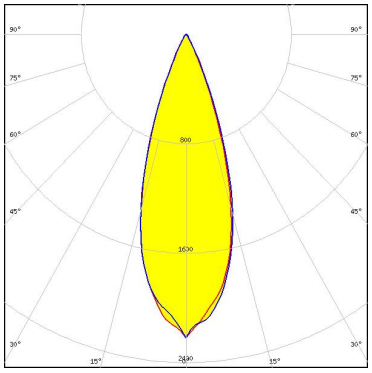




SAMSUNG

LED	LC010C
FWHM / FWTM	34.0° / 54.0°
Efficiency	76 %
Peak intensity	2.2 cd/lm
LEDs/each optic	1
Light colour	White
Required components:	
F17435_HEKLA-G2-C	





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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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