

# **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:

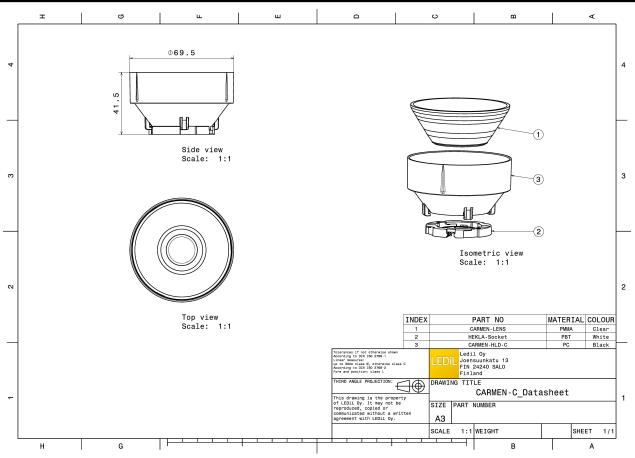
Component	Туре	Material	Colour	Finish
CARMEN-M	Single lens	PMMA	clear	
CARMEN-HLD-C	Holder	PC	black	

#### **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					



# PRODUCT DATASHEET CP15775\_CARMEN-M-C



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



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bridgelux.			90*
LED	V4 HD	and the second se	75°
FWHM / FWTM	34.0° / 55.0°		
Efficiency	82 %		60° 800 60°
Peak intensity	2.3 cd/lm		$\land \land \land \land \land \land \land \land \land \land$
LEDs/each optic	1	the second s	
Light colour	White		93°
Required compone	its:		1500
F15253_HEKLA	SOCKET-A		
			30° 30° 30° 30°
bridgelux.			90* 90*
LED	V6 HD		
FWHM / FWTM	36.0° / 58.0°		75*
Efficiency	79 %	and the second se	
Peak intensity	2 cd/lm	and the second se	60° 60°
LEDs/each optic	1		
Light colour	White		45*
Required compone			
F15255_HEKLA			1600
T TJZJJ_TIEREA	SOCKET-C		
			90° 30° 30°
bridgelux.			50° 50°
LED	V9 HD		75'
FWHM / FWTM	41.0° / 63.0°		
Efficiency	74 %		60°
Peak intensity	1.5 cd/lm		
LEDs/each optic	1	Concerning of the local distribution of the	90
LEDs/each optic Light colour			97
Light colour Required compone	1 White nts:		er
Light colour	1 White nts:		g
Light colour Required compone	1 White nts:		97 200
Light colour Required compone	1 White nts:		97 990 200 30 <sup>4</sup> 200 27 400 27 400
Light colour Required compone F15859_HEKLA	1 White nts:		30" 200 30"
Light colour Required compone F15859_HEKLA	1 White hts: SOCKET-I		20 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>
Light colour Required compone F15859_HEKLA bridgelux. LED	1 White hts: SOCKET-I VERO10		20 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>
Light colour Required compone F15859_HEKLA bridgetux. LED FWHM / FWTM	1 White hts: SOCKET-I VERO10 45.0° / 72.0°		20 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>
Light colour Required compone F15859_HEKLA bridgeLuX. LED FWHM / FWTM Efficiency	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 %		20 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>
Light colour Required compone F15859_HEKLA bridgeLux. LED FWHM / FWTM Efficiency Peak intensity	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/m		20 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>
Light colour Required compone F15859_HEKLA bridgeLUX. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/lm 1		20 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>
Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/m 1 White		20 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup>
Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/lm 1 White hts:		20 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup>
Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/lm 1 White hts:		20 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup>
Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/lm 1 White hts:		20 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup>
Light colour Required compone F15859_HEKLA bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	1 White hts: SOCKET-I VERO10 45.0° / 72.0° 74 % 1.2 cd/lm 1 White hts:		20 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup> 10 <sup>4</sup>



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 compone	nts:	
C16142_HEKLA		
Bender Wirth: 49		
bridgelux.		5)*
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	g* g*
Required compone	nts:	
C16142_HEKLA		
Bender Wirth: 49		120
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 compone	nts:	
C16142_HEKLA		
Bender Wirth: 50	04 Typ L8	
bridgelux.		2 <sup>3</sup>
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 compone		
C16142_HEKLA		
_		
		22/
		125 0 125



bridgelux.		55*	90°
LED	Vesta TW 9mm (9W) DP		
FWHM / FWTM	43.0° / 69.0°		75*
Efficiency	69 %		60*
Peak intensity	1.2 cd/lm		
LEDs/each optic	1		
Light colour	White	er- 800	45°
Required compone	ents:		
C16142_HEKLA	A-SOCKET-K		
Bender Wirth: 4	89 Typ L8		
		30-	36.
CITIZE	N	20*	90°
LED	CLC020 Series (Dim-To-Warm)		
FWHM / FWTM	42.0° / 68.0°		75*
Efficiency	66 %		
Peak intensity	1.3 cd/lm		60.
LEDs/each optic	1		
Light colour	White		45°
Required compone			
C16142_HEKLA			
_			
		30°	96°
		15° 0° 15°	
CITIZE	'NT		
CITIZE		90 <sup>4</sup>	90°
LED	CLL02x/CLU02x (LES10)	90*	90° 75°
LED FWHM / FWTM	CLL02x/CLU02x (LES10) 45.0° / 73.0°	34	90°
LED FWHM / FWTM Efficiency	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 %	94 <sup>4</sup> 73 64 <sup>4</sup> 00	90* 25* 60°
LED FWHM / FWTM Efficiency Peak intensity	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm		90* 25* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1		90° 25° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White	50°	80° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents:	5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5% 5	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents:	95° 75 65° 65° 60° 60° 60° 60° 60° 60° 60° 60° 60° 60	92° 25°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents:	9 <sup>54</sup> 97 97	82, 22, 26,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents:		30°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: -SOCKET-C		80°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: A-SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: 		90° 72° 00°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: A-SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM Efficiency	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: SOCKET-C N CLU700/701/702 37.0° / 66.0° 76 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM Efficiency Peak intensity	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA <b>CITTIZE</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: -SOCKET-C * N CLU700/701/702 37.0° / 66.0° 76 % 1.7 cd/lm	75	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: N-SOCKET-C * N CLU700/701/702 37.0° / 66.0° 76 % 1.7 cd/lm 1 White	75	- 35°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702 37.0° / 66.0° 76 % 1.7 cd/lm 1 White ents:	75	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702 37.0° / 66.0° 76 % 1.7 cd/lm 1 White ents:	75	- 35°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CLL02x/CLU02x (LES10) 45.0° / 73.0° 73 % 1.2 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702 37.0° / 66.0° 76 % 1.7 cd/lm 1 White ents:	75	60°



CITIZE	NT	
CITIZE	CLU710/711 41.0° / 68.0°	90* 90 <sup>*</sup>
Efficiency Peak intensity	73 % 1.4 cd/lm	60°
LEDs/each optic	1	
Light colour	White	
Required compone		
F15859_HEKLA		
		34 32 44 35 36
CITIZE	N	<b>1</b> 2*
LED	CLU7A2 (LES 4.2mm)	
FWHM / FWTM	37.0° / 64.0°	
Efficiency	78 %	60 <sup>4</sup> 60 <sup>4</sup>
Peak intensity	1.8 cd/lm	
LEDs/each optic	1	
Light colour	White	at at
Required compone		
F15255_HEKLA	-SOCKET-C	
CITIZE	N	20 <sup>1</sup> 20 <sup>1</sup> 20 <sup>2</sup> 20 <sup>2</sup> 20 <sup>2</sup>
LED	CLU7B2	
FWHM / FWTM	35.0° / 62.0°	
Efficiency	80 %	60°
Peak intensity	2 cd/lm	
LEDs/each optic	1	
Light colour	White	¢* 220 4*
Required compone F15255_HEKLA		34° 127 0° 127 10
CITIZE	N	90* 30*
LED	LCN-C01B (Tunable White)	77
FWHM / FWTM	41.0° / 69.0°	
Efficiency	66 %	60 <sup>4</sup>
Peak intensity	1.3 cd/lm	
LEDs/each optic	1	
Light colour	White	\$** \\ \$\$
Required compone C16142_HEKLA		
		20 <sup>1</sup> 10 <sup>1</sup> 0 <sup>1</sup> 10 <sup>1</sup>



		94
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CMA1516 45.0° / 68.0° 77 % 1.4 cd/lm 1	272 107 107
Light colour Required compone F15256_HEKLA		
		90 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CMT14xx 45.0° / 68.0° 50 % 0.9 cd/lm 1 White nts:	
	EDS	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 6	LUXEON CX Plus CoB L08 (Gen2) 56.0° / 80.0° 67 % 0.8 cd/lm 1 White nts: 37a Hekla	
UMIL	EDS	30,4



M LUMIL	EDS	854
LED	LUXEON CoB 1204HD	
FWHM / FWTM	43.0° / 64.0°	
Efficiency	76 %	
Peak intensity	1.5 cd/lm	50 <sup>2</sup>
LEDs/each optic	1	
Light colour	White	
Required compone		
F15858_HEKLA		1200
		34*
<i>(</i> <b>)</b>		12)
M LUMIL	EDS	50°
LED	LUXEON CoB 1205HD	
FWHM / FWTM	49.0° / 70.0°	
Efficiency	71 %	50 <sup>4</sup>
Peak intensity	1.1 cd/lm	
LEDs/each optic	1	
Light colour	White	97 · · · · · · · · · · · · · · · · · · ·
Required compone	nts:	
F15858_HEKLA	SOCKET-H	
		30* 380 0*
M LUMIL	EDS	50*
		93 <sup>4</sup>
LED	LUXEON CX Plus CoB - HD S01H4	<u>35.</u>
LED FWHM / FWTM		35°
LED FWHM / FWTM Efficiency	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0°	51 <sup>4</sup> 72 61 00
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 %	53* 28 60* 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm	5°
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White	81 191 191
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White nts:	51 <sup>4</sup> 37 51 51 51 50 50 50 50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White nts:	51 37 54 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White nts:	9 <sup>3</sup> 97 97 97 97 98 98 98 99 99 99 99 99 99 99 99 99 99
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White nts: 4c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 % 2 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 WHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 % 2 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 % 2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 63 <b>CLUMIL</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 % 2 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 63 WITH: 63 UNILLED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 % 2 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen Bender Wirth: 63 COMPLET Bender Wirth: 63 COMPLET Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON CX Plus CoB - HD S01H4 36.0° / 57.0° 78 % 2.1 cd/lm 1 White hts: 4c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 35.0° / 57.0° 77 % 2 cd/lm 1 White hts:	



MUMIL 🍼	EDS	90 <sup>4</sup>
LED	LUXEON CX Plus CoB - HD S04H9	
FWHM / FWTM	43.0° / 66.0°	
Efficiency	75 %	60 <sup>4</sup>
Peak intensity	1.4 cd/lm	
LEDs/each optic	1	
Light colour	White	at at at
Required compone	nts:	
Bender Wirth: 63	34c Hekla	1200
		30.
	EDS	20 <u>3</u> <u>20</u> <u>30</u>
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	ar ar
Required compone		
Bender Wirth: 63		
		15 <sup>4</sup>
	EDS	50° 30°
	EDS LUXEON CX Plus CoB M02 / M03 (Gen2)	59° 50°
		59°
LED	LUXEON CX Plus CoB M02 / M03 (Gen2)	
LED FWHM / FWTM	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0°	
LED FWHM / FWTM Efficiency	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 %	
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts:	39* 400 92*   73* 400 82*   60* 60* 62*   60* 60* 62*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 41a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 41a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 41a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 41a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0° 78 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Model Compone Bender Wirth: 64 Compone Bender Wirth: 64 Compone Be	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0° 78 % 2.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 WIM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0° 78 % 2.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Minute Compone Bender Wirth: 64 Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0° 78 % 2.1 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Composition Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0° 78 % 2.1 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 41.0° / 63.0° 74 % 1.5 cd/lm 1 White nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 35.0° / 56.0° 78 % 2.1 cd/lm 1 White nts:	



Ge			1
ELUM	INUS	<u>90</u> *	5
LED	CDM-6 (Dim-To-Warm)	77	
FWHM / FWTM	38.0° / 66.0°		
Efficiency	70 %		
Peak intensity	1.5 cd/lm		
LEDs/each optic	1		
Light colour	White		
Required compone	ents:		
C16142_HEKLA			
Bender Wirth: 4	90 Typ L8		
		394	
(C LUM	INUS	9°	ş
LED	CDM-9 (Dim-To-Warm)		
FWHM / FWTM	43.0° / 69.0°		
Efficiency	68 %		N
Peak intensity	1.3 cd/lm		) .
LEDs/each optic	1		
Light colour	White	51 80	
Required compone	ents:		
C16142_HEKLA	A-SOCKET-K		
Bender Wirth: 4	90 Typ L8		
			3
ELUM	INUS	30*	9
LED	CTM-9 (Tunable White)		
			7
	43.0° / 69.0°		
FWHM / FWTM			
	43.0° / 69.0°		>
FWHM / FWTM Efficiency Peak intensity	43.0° / 69.0° 67 %		$\geq$
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	43.0° / 69.0° 67 % 1.2 cd/lm		$\searrow$
FWHM / FWTM Efficiency	43.0° / 69.0° 67 % 1.2 cd/lm 1 White	9°* 00	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents:		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compose	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K		$\left< \right>$
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 INUS CxM-11 (19x19)		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 INUS CxM-11 (19x19) 51.0° / 77.0°		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4 WEED FWHM / FWTM Efficiency Peak intensity	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 <b>INUS</b> CxM-11 (19x19) 51.0° / 77.0° 69 %		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4:	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 INUS CxM-11 (19x19) 51.0° / 77.0° 69 % 1 cd/lm		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4:	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 <b>INUS</b> CxM-11 (19x19) 51.0° / 77.0° 69 % 1 cd/lm 1 White		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4 WIME LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 <b>INUS</b> CxM-11 (19x19) 51.0° / 77.0° 69 % 1 cd/lm 1 White ents:		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4:	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 <b>INUS</b> CxM-11 (19x19) 51.0° / 77.0° 69 % 1 cd/lm 1 White ents:		
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4 WIM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 69.0° 67 % 1.2 cd/lm 1 White ents: A-SOCKET-K 95 Typ L8 <b>INUS</b> CxM-11 (19x19) 51.0° / 77.0° 69 % 1 cd/lm 1 White ents:		



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	NUS	and the second se	50° 50°
LED	CXM-3		
FWHM / FWTM	35.0° / 61.0°		7
Efficiency	80 %		
Peak intensity	2 cd/lm		60 <sup>1</sup> 60 <sup>4</sup>
LEDs/each optic	1		
Light colour	White		47* 47*
Required compone			
F15255_HEKLA			1600
			30°
			13 <sup>5</sup> 0 <sup>2</sup> 15 <sup>5</sup>
	NUS	and the second se	90* 90*
LED	CXM-4		
FWHM / FWTM	35.0° / 62.0°		400
Efficiency	78 %		60°
Peak intensity	1.9 cd/lm		
LEDs/each optic	1		
Light colour	White		45" 45"
Required compone	nts:		
F15255_HEKLA	-SOCKET-C		1630
			30 <sup>5</sup> 2000 30 <sup>5</sup>
	NUS		50°
-			50°
LED FWHM / FWTM	NUS CxM-9 (13.5x13.5) 44.0° / 72.0°		25. 26. 26.
LED	CxM-9 (13.5x13.5)		90°
LED FWHM / FWTM	CxM-9 (13.5x13.5) 44.0° / 72.0°		90°
LED FWHM / FWTM Efficiency	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 %		90° 90°
LED FWHM / FWTM Efficiency Peak intensity	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm		99° 99° 775 75° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White		9° - 0° - 0°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts:		6. 6. 6. 6. 6. 6. 6. 6. 6. 6.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts:		9° 9° 9° 9° 9°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C		30+ 30+
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 % 1.5 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 % 1.5 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 % 1.5 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 % 1.5 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 % 1.5 cd/lm 1 White nts: -SOCKET-K		gr (0) (0) (0) (0) (0) (0) (0) (0) (0) (0)
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15255_HEKLA:	CxM-9 (13.5x13.5) 44.0° / 72.0° 73 % 1.2 cd/lm 1 White nts: -SOCKET-C NJCWL024Z-V1MT: COB L-Type Tunable White 37.0° / 64.0° 67 % 1.5 cd/lm 1 White nts: -SOCKET-K		gr



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<b>ØNICHI</b>	L		90* 9
LED	NVCWJ024Z-V1MT: COB J-Type Tunable White		
FWHM / FWTM	44.0° / 71.0°		75'
Efficiency	66 %		
Peak intensity	1.1 cd/lm		601
LEDs/each optic	1		
Light colour	White		93-
Required compone			800
C16142_HEKLA			
Bender Wirth: 4			
			30° 1200 15°
PHILIP	<b>DS</b>		90 <sup>+</sup>
LED	Fortimo SLM L09 CoB		
FWHM / FWTM	44.0° / 66.0°		
Efficiency	75 %		400
Peak intensity	1.4 cd/lm		
LEDs/each optic	1	the second se	
Light colour	White		45* 200
Required compone	ents:		
F15858_HEKLA	-SOCKET-H		
			1220
			300
			15° 0° 15°
0			
SAMS	JNG		90° 5
	<b>UNG</b> LC003D / LC006D / LC009D / LC013D		
LED			35
LED FWHM / FWTM	LC003D / LC006D / LC009D / LC013D		59°
LED FWHM / FWTM	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0°		69
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 %		59 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White		994 99 193 193 193 193 193 193 193 193 193 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents:		59° 5 75 2 94 400 6 95 6 96 7 96 7 96 7 96 7 96 7 96 7 97 7 96 7 97 7 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents:		51 <sup>4</sup> - 40 51 <sup>4</sup> - 40 51 <sup>4</sup> - 40
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents:		594 5 75 694 60 69 69 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents:		59° 75 69° 69° 69° 69° 69° 69° 69° 69° 69° 69°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM Efficiency	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM Efficiency Peak intensity	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C UNG LC010C G2 37.0° / 65.0° 76 %		55° 55° 55° 55° 55° 66° 60° 60° 60° 60° 60° 55° 60° 60° 60° 60° 60° 60° 60° 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C UNC LC010C G2 37.0° / 65.0° 76 % 1.7 cd/lm		27 40 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C UNC LC010C G2 37.0° / 65.0° 76 % 1.7 cd/lm 1 White		27 60 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C UNC LC010C G2 37.0° / 65.0° 76 % 1.7 cd/lm 1 White ents:		5. 6. 5.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C UNC LC010C G2 37.0° / 65.0° 76 % 1.7 cd/lm 1 White ents:		55 40 59 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC003D / LC006D / LC009D / LC013D 45.0° / 73.0° 74 % 1.2 cd/lm 1 White ents: -SOCKET-C UNC LC010C G2 37.0° / 65.0° 76 % 1.7 cd/lm 1 White ents:		25 40 51 52 50

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SЛМSI		8°
LED FWHM / FWTM Efficiency	LC010T (Tunable White) 42.0° / 70.0° 68 %	
Peak intensity	1.3 cd/lm	
LEDs/each optic	1	
Light colour	Tunable White	· · · · · · · · · · · · · · · · · · ·
Required compone C16142_HEKLA		
Bender Wirth: 5		
		30 <sup>-</sup> 10 <sup>-</sup> 0 <sup>+</sup> 10 <sup>-</sup>
SAMS	UNG	50°
LED	LC020C G2	
FWHM / FWTM	43.0° / 70.0°	
Efficiency	72 %	60
Peak intensity	1.3 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone F15859_HEKLA		
1 13033_HEREA		220
SEOUL		
JEGGE JEMICONDUCTOR		
LED	MJT COB LES 6	
	MJT COB LES 6 37.0° / 64.0°	37
LED FWHM / FWTM		75 <sup>7</sup> 60 <sup>1</sup>
LED FWHM / FWTM Efficiency Peak intensity	37.0° / 64.0° 74 % 1.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	37.0° / 64.0° 74 % 1.7 cd/lm 1	27 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	37.0° / 64.0° 74 % 1.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents:	<b>7</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b> <b>1</b>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents: A-SOCKET-C MJT COB LES 9.8 45.0° / 72.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents: A-SOCKET-C MJT COB LES 9.8 45.0° / 72.0° 71 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents: A-SOCKET-C MJT COB LES 9.8 45.0° / 72.0° 71 % 1.2 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SECON SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents: A-SOCKET-C MJT COB LES 9.8 45.0° / 72.0° 71 % 1.2 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents: A-SOCKET-C MJT COB LES 9.8 45.0° / 72.0° 71 % 1.2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SECON SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	37.0° / 64.0° 74 % 1.7 cd/lm 1 White ents: A-SOCKET-C MJT COB LES 9.8 45.0° / 72.0° 71 % 1.2 cd/lm 1 White ents:	



TRIDO	VIC	90 <sup>4</sup> 99 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	SLE G7 LES09 43.0° / 71.0° 74 % 1.3 cd/lm 1 White ents:	
TRIDON		30 <sup>4</sup> 30 30 <sup>3</sup> 90 30 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	SLE G7 LES13 54.0° / 79.0° 66 % 0.9 cd/lm 1 White ents:	
XICATO	<u>ר</u>	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	XOB 6 mm 38.0° / 66.0° 76 % 1.7 cd/lm 1 White ents:	
	XOB 9.8 mm 43.0° / 72.0°	
Efficiency Peak intensity LEDs/each optic Light colour Required compone	74 % 1.3 cd/lm 1 White ents:	
F15255_HEKLA		30° 30° 30

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XICATO	)	9°
LED	XTM - 19mm LES	
FWHM / FWTM	58.0° / 88.0°	
Efficiency	61 %	60 <sup>+</sup> 60 <sup>+</sup>
Peak intensity	0.7 cd/lm	
LEDs/each optic	1	
Light colour	White	ar
Required compone	ents:	
C16058_XTM-A	DAPTER-50-C	
1		by



# PHOTOMETRIC DATA (SIMULATED):

bridgelux.		
LED	VER013	
FWHM / FWTM	45.0° / 73.0°	
Efficiency	63 %	
Peak intensity	1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
C16142_HEKLA-SO	CKE1-K	
		90°
LED	CMA1825	25
FWHM / FWTM	49.0° / 72.0°	
Efficiency	70 %	605
Peak intensity	1.1 cd/lm	
LEDs/each optic	1	
Light colour	White	9*
Required components:		
		30° 50° 50° 50°
		50° 50°
LED	CMA1840	
FWHM / FWTM	55.0° / 79.0°	75*
Efficiency	66 %	
Peak intensity	0.8 cd/lm	eeee.
LEDs/each optic	1	
Light colour	u White	45° 45°
	Wille	
Required components:		
		200
		30° 32° 32°
		90° 90°
LED	CXA/B 15xx	
FWHM / FWTM	35.8° / 60.0°	75*
Efficiency	%	
Peak intensity	2.3 cd/lm	60°
LEDs/each optic	1	
Light colour	ı White	45*
	wine .	
Required components:		162
F15256_HEKLA-SOC		
		30° 2980 11° 30°



# PHOTOMETRIC DATA (SIMULATED):

<b>ΜΝΙCΗΙΛ</b>			90* 90
LED	СОВ Т-Туре		
FWHM / FWTM	36.0° / 55.0°		
Efficiency	78 %		60° 60
Peak intensity	2.2 cd/lm		
LEDs/each optic	1		
Light colour	White		gr
Required components:			1500
F15848_HEKLA-SO	CKET-G		
			30- 20- 00 20- 30
SAMSUN	IG		80*
LED	LC003D / LC006D / LC009D / LC013D	and the second	
FWHM / FWTM	45.0° / 67.0°		
Efficiency	69 %		
Peak intensity	1.3 cd/lm		eqt.
LEDs/each optic	1		
Light colour	White		47*
Required components:			
F17435_HEKLA-G2-	С		
_		and the second states in the	
			1220
		the second s	15° 0° 35°
SAMSUN	IG		50°
	LC003D / LC006D / LC009D / LC013D		94 <sup>3</sup>
LED	LC003D / LC006D / LC009D / LC013D		
LED FWHM / FWTM	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0°		95 <sup>4</sup> 97 97 00 00
LED FWHM / FWTM Efficiency	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 %		95°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm		90 <sup>4</sup> 92 92 92 92 92 92 92 92 92 92 92 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		5 <sup>3</sup> 5 <sup>3</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		94 <sup>3</sup> 95 75 75 75 75 75 75 75 75 75 75 75 75 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		5° 50 c
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- SANSUN LED FWHM / FWTM Efficiency	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- SAMSUN LED FWHM / FWTM Efficiency Peak intensity	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C LC010C 34.0° / 54.0° 76 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- SANSUN LED FWHM / FWTM Efficiency	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C C LC010C 34.0° / 54.0° 76 % 2.2 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C LC010C 34.0° / 54.0° 76 % 2.2 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- SANSSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C LC010C 34.0° / 54.0° 76 % 2.2 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- <b>SAMSSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C LC010C 34.0° / 54.0° 76 % 2.2 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2- <b>SAMSSUN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 69 % 1.3 cd/lm 1 White C LC010C 34.0° / 54.0° 76 % 2.2 cd/lm 1 White		



#### **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.

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