

# PRODUCT DATASHEET CP16108\_CARMEN-50-M-C

# CARMEN-50-M-C

 ${\sim}35^\circ$  medium beam. Assembly with holder C compatible with LEDiL HEKLA.

## **TECHNICAL SPECIFICATIONS:**

Dimensions	Ø 50.0 mm
Height	25.5 mm
Fastening	socket
ROHS compliant	yes 🛈



# MATERIAL SPECIFICATIONS:

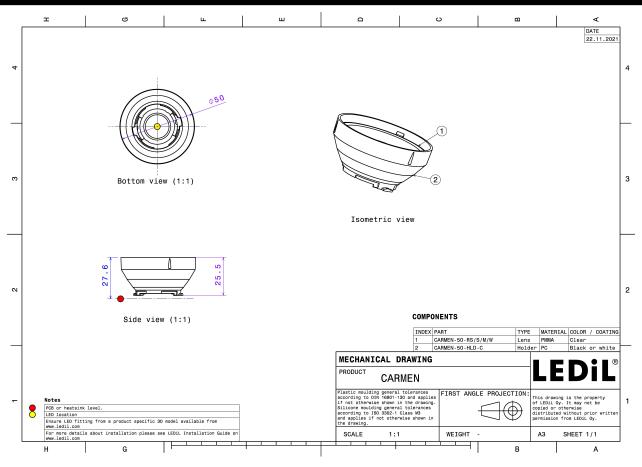
Component	Туре	Material	Colour	Finish
CARMEN-50-M	Single lens	PMMA	clear	
CARMEN-50-HLD-C	Holder	PC	black	

### **ORDERING INFORMATION:**

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CP16108_CARMEN-50-M-C	Single lens	308	112	28	5.9
» Box size: 476 x 273 x 292 mm					



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



bridgelux.			90*
LED	V4 HD	And in case of the local division of the loc	75°
FWHM / FWTM	35.0° / 57.0°		
Efficiency	84 %		60 <sup>5</sup> 60
Peak intensity	2.2 cd/lm		
LEDs/each optic	1	the second s	
Light colour	White		45*
Required compone	ents:		1600
F15253_HEKLA	A-SOCKET-A		
			30 <sup>4</sup> 33 - 5 <sup>4</sup> <sub>10</sub> 35 <sup>5</sup>
bridgelux.			99 <sup>5</sup>
LED	V6 HD		
FWHM / FWTM	38.0° / 60.0°		75 70 70
Efficiency	81 %		
Peak intensity	1.9 cd/lm		
LEDs/each optic	1		
Light colour	White		45 <sup>+</sup>
Required compone	ents:		
F15255_HEKLA			
			-159
			345
			15% 28%0 15%
bridgelux			90*
bridgelux.			50 <sup>4</sup>
LED	V9 HD 43.0° / 65.0°		<u>994</u> 20
LED FWHM / FWTM	43.0° / 65.0°		90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency	43.0° / 65.0° 75 %		90 <sup>4</sup> 90 72 60 <sup>4</sup> 600
LED FWHM / FWTM Efficiency Peak intensity	43.0° / 65.0° 75 % 1.4 cd/lm		90° 90 73 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	43.0° / 65.0° 75 % 1.4 cd/lm 1		94 77 65 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	43.0° / 65.0° 75 % 1.4 cd/lm 1 White		9° 9° 9° 9°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents:		9° 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents:		9° 9° 72 72 6° 60 6° 6 72 6° 6° 6° 6° 6° 6° 6° 6° 6°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents:		9°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents:		er
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgeLux. LED FWHM / FWTM Efficiency	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgeLuX. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 % 0.9 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 % 0.9 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 % 0.9 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 % 0.9 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 % 0.9 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	43.0° / 65.0° 75 % 1.4 cd/lm 1 White ents: A-SOCKET-I VERO13 49.0° / 75.0° 62 % 0.9 cd/lm 1 White ents:		



bridgelux.		95 <sup>3</sup>
	Vesta DTW 13mm (21W)	
FWHM / FWTM	55.0° / 79.0°	
Efficiency	59 %	64
Peak intensity	0.7 cd/lm	
LEDs/each optic	1	
Light colour	Tunable White	
Required compone		
C16142_HEKLA		
Bender Wirth: 49	итур ∟8	310 00 00 30
bridgelux.		
LED	Vesta TW 6mm DP	
FWHM / FWTM	32.0° / 55.0°	
Efficiency	67 %	
Peak intensity	2 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone		
C16142_HEKLA		
Bender Wirth: 50		
bridgelux.		90*
LED	Vesta TW 9mm (9W) DP	
FWHM / FWTM	41.0° / 65.0°	
Efficiency	62 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	a
Required compone	nts:	
C16142_HEKLA	-SOCKET-K	
Bender Wirth: 48	39 Typ L8	
		246 257 47 257 264
CITIZE	N	90 <sup>*</sup> 99 <sup>*</sup>
LED	CLL02x/CLU02x (LES10)	7
FWHM / FWTM	46.0° / 72.0°	
Efficiency	76 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	de de la companya de
Required compone	nts:	
F15255_HEKLA	-SOCKET-C	
		30" 300 31



CITIZE	N	50° 50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLU700/701/702 36.0° / 59.0° 80 % 1.9 cd/lm 1 White ents:	
CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	CLU710/711 41.0° / 65.0° 73 % 1.4 cd/lm 1 White ents:	
CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLU7A2 (LES 4.2mm) 35.0° / 56.0° 84 % 2.2 cd/lm 1 White ents:	
CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLU7B2 32.0° / 53.0° 82 % 2.4 cd/lm 1 White ents:	



			90° 99°
LED	 CMA1516		
FWHM / FWTM	46.0° / 71.0°		81. 31.
Efficiency	79 %		400
Peak intensity	1.3 cd/lm		60°
LEDs/each optic	1		
Light colour	White		97° 800 63°
Required compone	nts:		
F15256_HEKLA			
			1270
			30°
			30 <sup>1</sup> 0 33
LED	CMT14xx		
FWHM / FWTM	47.0° / 72.0°		73.
Efficiency	51 %		
Peak intensity	0.8 cd/lm		60° FO
LEDs/each optic	1		
Light colour	White		47*
Required compone			
F15255_HEKLA			
_			
			800
			20' 0' 20'
			90° 90° 12°
			25) W 35'
LED	CXA/B 13xx		25 W 25
LED FWHM / FWTM			
LED FWHM / FWTM Efficiency	CXA/B 13xx 37.0° / 61.0°		257 W 257
LED FWHM / FWTM	CXA/B 13xx 37.0° / 61.0° 83 %		107 W 107
LED FWHM / FWTM Efficiency Peak intensity	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm		27 127 W 127 127 127 127 127 127 127 127 127 127
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White	$\bigcirc$	27 27 27 27 27 27 27 27 27 27 27 27 27 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts:		277 497 497 497 497 497 497 497 497 497 4
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts:		100 34 000 X
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J		1620 30 <sup>4</sup> 25 <sup>5</sup> 0 <sup>20</sup> 35 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J CXA/B 13xx		1620 30 <sup>4</sup> 25 <sup>5</sup> 0 <sup>20</sup> 35 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J CXA/B 13xx 38.0° / 62.0°		1620 30 <sup>4</sup> 25 <sup>5</sup> 0 <sup>20</sup> 35 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 %		1620 30 <sup>4</sup> 25 <sup>5</sup> 0 <sup>20</sup> 35 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 % 1.8 cd/lm		1620 30 <sup>4</sup> 25 <sup>5</sup> 0 <sup>20</sup> 35 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 % 1.8 cd/lm 1		100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: -SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 % 1.8 cd/lm 1 White		1620 30 <sup>4</sup> 25 <sup>5</sup> 0 <sup>20</sup> 35 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 % 1.8 cd/lm 1 White nts:		100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 % 1.8 cd/lm 1 White nts:		100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15956_HEKLA CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXA/B 13xx 37.0° / 61.0° 83 % 1.9 cd/lm 1 White nts: SOCKET-J CXA/B 13xx 38.0° / 62.0° 83 % 1.8 cd/lm 1 White nts:		



-		
		20* 27*
LED	CXA/B 15xx	
FWHM / FWTM	45.0° / 69.0°	
Efficiency	79 %	
Peak intensity	1.4 cd/lm	
LEDs/each optic	1	
Light colour	White	er
Required compone		
F15256_HEKLA		
		120
-		22 07 227
🥙 LUMIL	.EDS	50° 50°
LED	LUXEON CoB 1202HD	
FWHM / FWTM	38.0° / 61.0°	
Efficiency	82 %	
Peak intensity	1.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er et
Required compone	ents:	
F15848_HEKLA	-SOCKET-G	
		20* 200 20*
UMIL	EDS	50 <sup>4</sup> 50 <sup>4</sup>
		90°
	EDS LUXEON CoB 1202s 37.0° / 60.0°	90 <sup>3</sup> 90 <sup>3</sup> 97 <sup>3</sup>
LED	LUXEON CoB 1202s	
LED FWHM / FWTM Efficiency	LUXEON CoB 1202s 37.0° / 60.0°	92* 92* 94* 00 95* 00*
LED FWHM / FWTM	LUXEON CoB 1202s 37.0° / 60.0° 81 %	92* 92* 92*
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm	84 <sup>3</sup> 77 64 65 77 66 77 77 66 70 77 77 66 70 77 77 77 77 77 77 77 77 77 77 77 77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents:	21 22 25 25 25 25 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents:	34 200 24
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White white SOCKET-G	31 <sup>4</sup> 2000 32 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G LUXEON CX Plus CoB - HD S01H4	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 % 2.2 cd/lm	94 <sup>*</sup> 35 <sup>*</sup> 35 <sup>*</sup> 37 <sup>*</sup> 94 <sup>*</sup> 37 <sup>*</sup> 37 <sup>*</sup> 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 % 2.2 cd/lm 1	94 <sup>*</sup> 35 <sup>*</sup> 35 <sup>*</sup> 37 <sup>*</sup> 94 <sup>*</sup> 37 <sup>*</sup> 37 <sup>*</sup> 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White ents: -SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 % 2.2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White white SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 % 2.2 cd/lm 1 White white mts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White white SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 % 2.2 cd/lm 1 White white mts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA	LUXEON CoB 1202s 37.0° / 60.0° 81 % 1.9 cd/lm 1 White white SOCKET-G LUXEON CX Plus CoB - HD S01H4 32.0° / 54.0° 73 % 2.2 cd/lm 1 White white mts:	



	EDS		90* 91
LED	LUXEON CX Plus CoB - HD S01H6 / HD S02H6		
FWHM / FWTM	32.0° / 54.0°		28
Efficiency	72 %		
Peak intensity	2.1 cd/lm		B019 B00
LEDs/each optic	1		
Light colour	White		97* a
Required compone	nts:		
Bender Wirth: 63	34c Hekla		1600
			30. 3
	EDS		90 <sup>+</sup>
LED	LUXEON CX Plus CoB - HD S04H9		
EED FWHM / FWTM	41.0° / 65.0°		
Efficiency	70 %		400
Peak intensity	1.4 cd/lm		60 <sup>1</sup>
LEDs/each optic	1		
Light colour	White		954 880 a
Required compone			
Bender Wirth: 63			
			1200
	EDS		90°
LED	LUXEON CX Plus CoB M02 / M03 (Gen2)		
FWHM / FWTM	39.0° / 62.0°		73
Efficiency	69 %		
Peak intensity	1.5 cd/lm	the second s	60°
LEDs/each optic	1		
Light colour	White		95
Light colour Required compone			97
Light colour Required compone Bender Wirth: 64	nts:		e
Required compone	nts:		
Required compone	nts:		
Required compone Bender Wirth: 64	nts: 11a Hekla		15% 6% 35%
Required compone Bender Wirth: 64	nts: 41a Hekla EDS		51° 20° 20° 20° 20° 20° 20° 20° 20° 20° 20
Required compone Bender Wirth: 64	nts: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2)		15% 6% 35%
Required compone Bender Wirth: 64	nts: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0°		15% 6% 35%
Required compone Bender Wirth: 64	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 %		15% 6% 35%
Required compone Bender Wirth: 64	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 % 2.2 cd/lm		15% 6% 35%
Required compone Bender Wirth: 64 <b>LED</b> FWHM / FWTM Efficiency Peak intensity LEDs/each optic	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 % 2.2 cd/lm 1		20 10 10 10 10 10 10 10 10 10 10 10 10 10
Required compone Bender Wirth: 64 <b>Composed Sector</b> <b>Composed Secto</b>	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 % 2.2 cd/lm 1 White		20 10 10 10 10 10 10 10 10 10 10 10 10 10
Required compone Bender Wirth: 64 <b>Composition</b> <b>LUMIL</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 % 2.2 cd/lm 1 White nts:		20 10 10 10 10 10 10 10 10 10 10 10 10 10
Required compone Bender Wirth: 64 <b>CONTINUATION</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 % 2.2 cd/lm 1 White nts:		15% 6% 35%
Required compone Bender Wirth: 64 <b>CONTINUATION</b> <b>LED</b> FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	nts: 11a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 31.0° / 53.0° 73 % 2.2 cd/lm 1 White nts:		20 10 10 10 10 10 10 10 10 10 10 10 10 10



(ca				
	NUS		90°	90
LED	CDM-6 (Dim-To-Warm)			
FWHM / FWTM	34.0° / 56.0°		75*	75
Efficiency	63 %			$\nearrow$
Peak intensity	1.7 cd/lm			
LEDs/each optic	1			
Light colour	White			45
Required compone	nts:		1200	
C16142_HEKLA				
Bender Wirth: 49	90 Typ L8			
			30° 15° 0° 15°	36
	NUS		30*	90
LED	CDM-9 (Dim-To-Warm)			
FWHM / FWTM	40.0° / 63.0°			75
Efficiency	61 %		60° 400	
Peak intensity	1.3 cd/lm			\/ <sup>•</sup>
LEDs/each optic	1			
Light colour	White		95* 800	45
Required compone	nts:			
C16142_HEKLA	-SOCKET-K			
Bender Wirth: 49	90 Typ L8		12200	
			30° 15° 0° 15°	36
	NUS	and the second s	90°	90
	CXM-3		95*	90
LED		-	32 36,	я г
LED FWHM / FWTM	CXM-3	0	60 00 20 20	90
LED FWHM / FWTM	CXM-3 32.0° / 53.0°		99 <sup>1</sup> 71 60	90 
LED FWHM / FWTM Efficiency	CXM-3 32.0° / 53.0° 83 %		80°	90 75 00
LED FWHM / FWTM Efficiency Peak intensity	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm		90° 90° 90° 90° 90°	99
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White		91 <sup>4</sup> 23 60 61 61 61 61 61 61 61 61 61 61 61 61 61	90 75 60 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts:		g. 23 29 20 20 20 20 20 20 20 20 20 20 20 20 20	50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts:		60 10 10 10 10 10 10 10 10 10 1	99 75 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts:		RA Control RA <t< th=""><th>99 73 00 00 00 00 00 00 00 00 00 00 00 00 00</th></t<>	99 73 00 00 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			3
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			5 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 32.0° / 53.0° 83 % 2.5 cd/lm 1 White nts: -SOCKET-C			90 73 60 73 73 73 73 73 75 75 75 75 75 75 75 75 75 75 75 75 75



(ca		
ELUM	INUS	90* 90*
LED	CxM-9 (13.5x13.5)	
FWHM / FWTM	46.0° / 71.0°	
Efficiency	77 %	605 600 600
Peak intensity	1.3 cd/lm	
LEDs/each optic	1	
Light colour	White	97°
Required compone	ents:	
F15255_HEKLA	-SOCKET-C	
		1200
		30° 30° 30
ØNICHI/		90 <sup>4</sup> 90 <sup>4</sup>
LED	COB S-Type (LES 7)	
FWHM / FWTM	39.0° / 64.0°	75
Efficiency	80 %	
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	
Light colour	White	97
Required compone		1230
F15848_HEKLA		
_		
		300
		15° 0° 15°
$\sim$		
ØNICHI/		80*
	NJCWL024Z-V1MT: COB L-Type Tunable White	90 <sup>4</sup> 99
		35
LED	NJCWL024Z-V1MT: COB L-Type Tunable White	59° 59 73° 50° 72°
LED FWHM / FWTM	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0°	59° 50 59° 50 60° 60°
LED FWHM / FWTM Efficiency	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White	5°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents:	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 white ents: N-SOCKET-K	57 64 64 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 white ents: N-SOCKET-K	27 64 64 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 white ents: N-SOCKET-K	57 64 64 77 77 77 77 77 77 77 77 77 77 77 77 77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents: -SOCKET-K 97 Typ L8	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents: -SOCKET-K 97 Typ L8	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents: A-SOCKET-K 97 Typ L8	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White Ints: N-SOCKET-K 97 Typ L8	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents: -SOCKET-K 97 Typ L8 NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4'	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents: NSOCKET-K 97 Typ L8 NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0° 61 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4: MICHIA LED FWHM / FWTM Efficiency Peak intensity	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White ents: SOCKET-K 97 Typ L8 NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0° 61 % 1.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL4 Bender Wirth: 4 <b>WICHIA</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White white v-SOCKET-K 97 Typ L8 NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0° 61 % 1.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4: <b>WICHI/</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White white white A-SOCKET-K 97 Typ L8 NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0° 61 % 1.1 cd/lm 1 White white white statesting the statesting t	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4: <b>WICHIA</b> Efficiency Peak intensity LEDs/each optic Light colour Required compone	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White white white NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0° 61 % 1.1 cd/lm 1 White sints: -SOCKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 4: <b>WICHIA</b> Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/	NJCWL024Z-V1MT: COB L-Type Tunable White 34.0° / 56.0° 62 % 1.7 cd/lm 1 White white white NVCWJ024Z-V1MT: COB J-Type Tunable White 42.0° / 67.0° 61 % 1.1 cd/lm 1 White sints: -SOCKET-K	



PHILIF	<b>S</b>	90 <sup>4</sup>
LED	Fortimo SLM L09 CoB	
FWHM / FWTM	45.0° / 68.0°	
Efficiency	76 %	60
Peak intensity	1.3 cd/lm	
LEDs/each optic	1	
Light colour	White	₽ <sup>4</sup>
Required compone	ents:	
F15858_HEKLA	A-SOCKET-H	
		2200
		30 <sup>-</sup> 10 <sup>-</sup> 10 <sup>-</sup>
SAMSI	JNG	90°
LED	LC003D / LC006D / LC009D / LC013D	
FWHM / FWTM	47.0° / 73.0°	
Efficiency	77 %	
Peak intensity	1.2 cd/lm	
LEDs/each optic	1	
Light colour	White	e.
Required compone		
		120
		7 <sup></sup> 157 0 <sup>-</sup> 55 <sup>-</sup>
SVWSI	JNG	90 <sup>1</sup>
	LC010C G2	50 <sup>4</sup>
LED		39* 73*
LED FWHM / FWTM	LC010C G2	
LED FWHM / FWTM Efficiency	LC010C G2 36.0° / 58.0°	99* 75 64 00
LED FWHM / FWTM Efficiency Peak intensity	LC010C G2 36.0° / 58.0° 80 %	59° (51) (51) (51) (51) (51) (51) (51) (51)
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm	5° 57 57 50 50
SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White	39°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: -SOCKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: -SOCKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: -SOCKET-C UNG LC010T (Tunable White)	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: -SOCKET-C UNG LC010T (Tunable White) 39.0° / 64.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM Efficiency	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: -SOCKET-C UNG LC010T (Tunable White) 39.0° / 64.0° 61 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM Efficiency Peak intensity	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: -SOCKET-C <b>UNG</b> LC010T (Tunable White) 39.0° / 64.0° 61 % 1.3 cd/lm	
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	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: A-SOCKET-C <b>UNG</b> LC010T (Tunable White) 39.0° / 64.0° 61 % 1.3 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: A-SOCKET-C <b>UNG</b> LC010T (Tunable White) 39.0° / 64.0° 61 % 1.3 cd/lm 1 Tunable White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: ASOCKET-C UNC LC010T (Tunable White) 39.0° / 64.0° 61 % 1.3 cd/lm 1 Tunable White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA SAMSU ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: A-SOCKET-C WING LC010T (Tunable White) 39.0° / 64.0° 61 % 1.3 cd/lm 1 Tunable White ents: A-SOCKET-K	
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	LC010C G2 36.0° / 58.0° 80 % 2 cd/lm 1 White ents: A-SOCKET-C WING LC010T (Tunable White) 39.0° / 64.0° 61 % 1.3 cd/lm 1 Tunable White ents: A-SOCKET-K	



SAMSI	JNG	20-
LED	LC020C G2	
FWHM / FWTM	43.0° / 67.0°	
Efficiency	73 %	
Peak intensity	1.4 cd/lm	
LEDs/each optic	1	
Light colour	White	g* at
Required compone	ents:	
F15859_HEKLA	-SOCKET-I	
		1200
		20 <sup>4</sup> 20 <sup>4</sup> 20 <sup>4</sup> 20 <sup>5</sup>
TRIDON	<b>NIC</b>	
LED	SLE G7 LES09	
FWHM / FWTM	44.0° / 69.0°	
Efficiency	77 %	and 10
Peak intensity	1.4 cd/lm	
LEDs/each optic	1	
Light colour	White	er
Required compone	ents:	
F15255_HEKLA	-SOCKET-C	
		304
TRIDON		
		30° 30°
LED	SLE G7 LES13	75
FWHM / FWTM	57.0° / 82.0°	
Efficiency	67 %	
Peak intensity LEDs/each optic	0.8 cd/lm 1	
Light colour	White	
Required compone		
F15859_HEKLA		
		24 00 24
	<b>`</b>	
XICATO		90 <sup>4</sup> 90 <sup>0</sup>
LED	XOB 6 mm	
FWHM / FWTM	36.0° / 59.0°	
Efficiency	78 %	
	1.9 cd/lm	
Peak intensity		
LEDs/each optic	1	
LEDs/each optic Light colour	White	
LEDs/each optic Light colour Required compone	White ents:	
LEDs/each optic Light colour	White ents:	97 - 129 - 6 150
LEDs/each optic Light colour Required compone	White ents:	



XICATO	)		94 <sup>4</sup>
LED	XOB 9.8 mm		
FWHM / FWTM	44.0° / 70.0°		$\uparrow \land \land \uparrow$
Efficiency	76 %		60 <sup>0</sup>
Peak intensity	1.3 cd/lm		
LEDs/each optic	1		
Light colour	White		97° 000 07°
Required compone	ents:		
F15255_HEKLA	A-SOCKET-C		
			1230
			36.
			15° 0° 15°



# **PHOTOMETRIC DATA (SIMULATED):**

bridgelux.		50°
LED	V10 Gen7	
FWHM / FWTM	44.0° / 66.0°	75
Efficiency	75 %	400
	1.4 cd/lm	60°
Peak intensity		
LEDs/each optic	1	
Light colour	White	
Required components:		
F15255_HEKLA-SOC	JKET-C	1200
		30° 35° 35°
bridgelux.		90°
LED	V6 Gen6	
FWHM / FWTM	29.0° / 48.0°	25*
Efficiency	29.0 7 48.0 77 %	- 200
Peak intensity	3 cd/lm	60* 60°
LEDs/each optic	1	
Light colour	' White	45*
Required components:	Winte	
F15253_HEKLA-SOC	NET A	2400
1 13235_HEREA-300		
		30° 30° 30° 30° 30°
bridgelux.		90° 90°
bridgelux.	V8 Gen7	90°
LED	V8 Gen7 40.0° / 62.0°	20 20 20 20 20 20 20 20 20 20 20 20 20 2
LED FWHM / FWTM	40.0° / 62.0°	40 20 20 20
LED FWHM / FWTM Efficiency	40.0° / 62.0° 83 %	100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity	40.0° / 62.0° 83 % 1.8 cd/lm	00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	40.0° / 62.0° 83 % 1.8 cd/lm 1	20 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	40.0° / 62.0° 83 % 1.8 cd/lm	59° 75° 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 components:	40.0° / 62.0° 83 % 1.8 cd/lm 1 White	5 - 100 - 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	40.0° / 62.0° 83 % 1.8 cd/lm 1 White	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	40.0° / 62.0° 83 % 1.8 cd/lm 1 White	67 97 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	40.0° / 62.0° 83 % 1.8 cd/lm 1 White	292 293 294 295 295 296 296 296 297 297 297 297 297 297 297 297
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC	40.0° / 62.0° 83 % 1.8 cd/lm 1 White	67 97 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A	90 97 97 1200 100 90 97 1200 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A	67 57 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0°	90 97 97 1200 100 90 97 1200 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 %	90 97 97 1200 100 90 97 1200 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 % 1.6 cd/lm	90 97 97 1200 100 90 97 1200 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 % 1.6 cd/lm 1	90 97 97 1200 100 90 97 1200 100 100 100 100 100 100 100 100 10
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC bridgeLux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 % 1.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 % 1.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC bridgeLux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 % 1.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOC bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	40.0° / 62.0° 83 % 1.8 cd/lm 1 White CKET-A VERO10 40.0° / 63.0° 74 % 1.6 cd/lm 1 White	



# PHOTOMETRIC DATA (SIMULATED):

<b>Μ</b> ΝΙCΗΙΛ		50* 50*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15848_HEKLA-SOC	COB S-Type (LES 6) 32.0° / 52.0° 69 % 2.3 cd/lm 1 White ::KET-G	20 20 20 20 20 20 20 20 20 20
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-0	LC003D / LC006D / LC009D / LC013D 46.0° / 67.0° 71 % 1.3 cd/lm 1 White	2, 12, 0, 12, 2, 2, 0, 0, 12, 2, 6, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0,
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-0	LC003D / LC006D / LC009D / LC013D 44.0° / 66.0° 71 % 1.3 cd/lm 1 White	
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17435_HEKLA-G2-0	LC010C 34.0° / 54.0° 77 % 2.3 cd/lm 1 White	

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# PHOTOMETRIC DATA (SIMULATED):

SAMSU	NG	
LED	LH231B	
FWHM / FWTM	41.0° / 65.0°	
Efficiency	73 %	
Peak intensity	1.5 cd/lm	
LEDs/each optic	7	
Light colour	White	
Required component	S:	
F15255_HEKLA-S		
XICATO		90* 90
	XTM - 9mm LES	90*
<b>XICATO</b> LED FWHM / FWTM	XTM - 9mm LES 42.0° / 63.0°	37 - 27
<b>XICATO</b> LED FWHM / FWTM Efficiency	XTM - 9mm LES 42.0° / 63.0° 79 %	
<b>XICATO</b> LED FWHM / FWTM Efficiency Peak intensity	XTM - 9mm LES 42.0° / 63.0°	37 - 27
<b>XICATO</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XTM - 9mm LES 42.0° / 63.0° 79 % 1.6 cd/lm	37 - 27
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	XTM - 9mm LES 42.0° / 63.0° 79 % 1.6 cd/lm 1 White	737 691 591



# PRODUCT DATASHEET CP16108\_CARMEN-50-M-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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