

# PRODUCT DATASHEET CP16601\_CARMEN-SS-C

# **CARMEN-SS-C**

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

#### **SPECIFICATION:**

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



Finish

#### **MATERIALS:**

Component	
CARMEN-SS	
CARMEN-HLD-C	

Туре	Material	Colour
Single lens	PMMA	clear
Holder	PC	black

#### **ORDERING INFORMATION:**

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

# 

# PRODUCT DATASHEET CP16601\_CARMEN-SS-C



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



bridgelux.		50° A 308
LED	Vesta TW 6mm DP	
FWHM / FWTM	11.0° / 21.0°	
Efficiency	60 %	
Peak intensity	11 cd/lm	
LEDs/each optic	1	
Light colour	White	gy 600
Required compone	ents:	
C16142_HEKL/		
Bender Wirth: 5	04 Typ L8	pas
		30 <sup>4</sup> 10 <sup>7</sup> 10 <sup>7</sup> 10 <sup>7</sup>
bridgelux.		99° A 99
LED	Vesta TW 9mm (9W) DP	
FWHM / FWTM	13.0° / 25.0°	77
Efficiency	58 %	
Peak intensity	7 cd/lm	
LEDs/each optic	1	
Light colour	White	er er
Required compone		430
C16142_HEKL		
Bender Wirth: 4		(40)
CITIZE	<sup>N</sup>	99° 0 99°
		90*
	CLL02x/CLU02x (LES10)	
LED FWHM / FWTM		
LED	CLL02x/CLU02x (LES10) 13.0° / 25.0°	
LED FWHM / FWTM Efficiency Peak intensity	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 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) 13.0° / 25.0° 61 % 8 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) 13.0° / 25.0° 61 % 8 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) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA ED FWHM / FWTM Efficiency	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702/703 10.0° / 20.0° 64 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA Efficiency Peak intensity	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C <b>CLU700/701/702/703</b> 10.0° / 20.0° 64 % 13.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA Efficiency Peak intensity LEDs/each optic	CLL02x/CLU02x (LES10) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C <b>CLU700/701/702/703</b> 10.0° / 20.0° 64 % 13.9 cd/lm 1	
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) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C <b>CLU700/701/702/703</b> 10.0° / 20.0° 64 % 13.9 cd/lm 1 White	
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) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702/703 10.0° / 20.0° 64 % 13.9 cd/lm 1 White ents:	
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) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702/703 10.0° / 20.0° 64 % 13.9 cd/lm 1 White ents:	
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) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702/703 10.0° / 20.0° 64 % 13.9 cd/lm 1 White ents:	
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) 13.0° / 25.0° 61 % 8 cd/lm 1 White ents: A-SOCKET-C CLU700/701/702/703 10.0° / 20.0° 64 % 13.9 cd/lm 1 White ents:	



CITIZE	N	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	CLU710/711 12.0° / 24.0° 60 % 8.8 cd/lm 1 White nts:	
CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CLU7B2 10.0° / 18.0° 66 % 15.6 cd/lm 1 White nts:	
CREE CLE	CXA/B 13xx 11.0° / 20.0° 66 % 13.8 cd/lm 1 White nts:	
W LUMIL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB L08 (Gen2) 19.0° / 32.0° 57 % 4 cd/lm 1 White nts:	



COMIL	EDS		30* 50*
LED	LUXEON CX Plus CoB - HD S01H4		
FWHM / FWTM	11.0° / 19.0°		250 250
Efficiency	65 %		60
Peak intensity	14.6 cd/lm		6400
LEDs/each optic	1		
Light colour	White		gr gr
Required compone	nts:		
Bender Wirth: 63	34c Hekla		
			30* 157 1000 100
	EDS		10) <u>30000</u> 10 90° 99°
LED	LUXEON CX Plus CoB - HD S01H6 / HD S02H6		
FWHM / FWTM	11.0° / 19.0°		75 75
Efficiency	64 %		
Peak intensity	14.2 cd/lm		
LEDs/each optic	1		6430
Light colour	White		gr gr
Required compone			
Bender Wirth: 63			
			$\times$ / $\vee$ $\setminus$ $\times$
			39°
UMIL	EDS		90* 90*
	LUXEON CX Plus CoB - HD S04H9	_	<u>80</u> <sup>4</sup>
			50 <sup>+</sup> 50 <sup>+</sup>
LED	LUXEON CX Plus CoB - HD S04H9		02 00 00 00 00 00 00 00 00 00 00 00 00 0
LED FWHM / FWTM	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0°		60 <sup>4</sup> 300 60 <sup>4</sup>
LED FWHM / FWTM Efficiency	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 %		60 <sup>4</sup> 200 20 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm		0°. 0°. 0°. 0°. 30° 0°.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White		50 <sup>4</sup> 50 <sup>5</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts:		50 <sup>4</sup> 50 <sup>5</sup> 50 <sup>4</sup> 200 60 <sup>4</sup> 50 <sup>4</sup> 60 <sup>5</sup> 60 <sup>5</sup> 60 <sup>5</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts:		60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts:		20°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White I 34c Hekla		15 <sup>5</sup> 960 15 <sup>5</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White ints: 34c Hekla		*ee (21
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White Ints: 34c Hekla LUXEON CX Plus CoB L04 / L05 (Gen2)		90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White ints: 34c Hekla		*ee (21
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White Ints: 34c Hekla LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0°		*ee (21
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White Ints: 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0° 60 %		*ee (21
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts: 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0° 60 % 6.1 cd/lm		60, 1000 20, 20, 20, 20, 20, 20, 20,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts: 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0° 60 % 6.1 cd/lm 1 White		60 <sup>4</sup> 60 <sup>4</sup> 60 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 WIM / WITH: 63 Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts: 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0° 60 % 6.1 cd/lm 1 White mts:		60 <sup>4</sup> 60 <sup>4</sup> 60 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 <b>CUMIL</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts: 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0° 60 % 6.1 cd/lm 1 White mts:		60, 20, 20, 20, 20, 20, 20, 20, 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 <b>CUMIL</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 13.0° / 24.0° 61 % 8.9 cd/lm 1 White mts: 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 16.0° / 27.0° 60 % 6.1 cd/lm 1 White mts:		60, 20, 20, 20, 20, 20, 20, 20, 2



M LUMIL	EDS	90* 0 90*
LED	LUXEON CX Plus CoB M02 / M03 (Gen2)	
FWHM / FWTM	12.0° / 23.0°	75*
Efficiency	62 %	2000
Peak intensity	9.8 cd/lm	
LEDs/each optic	1	
Light colour	White	a, a.
Required compone	ents:	6400
Bender Wirth: 64	41a Hekla	
		36° 36°
	EDE	155 <sup>3</sup> 0 <sup>6</sup> 15 <sup>3</sup>
		90*
LED	LUXEON CX Plus CoB S01 (Gen2)	75
FWHM / FWTM	10.0° / 19.0°	
Efficiency	65 %	604 60.
Peak intensity	14.8 cd/lm	6430
LEDs/each optic	1	
Light colour	White	ere
Required compone		
Bender Wirth: 63	34c Hekla	1200
		$\times$ / $\vee$ $\times$
		30° 35° 35°
(Calum)	INUS	90° A
	CDM-9 (Dim-To-Warm)	94° 99°
		94°
LED	CDM-9 (Dim-To-Warm)	94 <sup>5</sup> 75 80 <sup>6</sup> 80 <sup></sup>
LED FWHM / FWTM	CDM-9 (Dim-To-Warm) 13.0° / 23.0°	64 3300 94 95
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 %	54 520 64 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White	a <sup>*</sup> 300 60 <sup>*</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents:	94 <sup>*</sup> 99 <sup>*</sup> 75 <sup>*</sup> 72 <sup>*</sup> 61 <sup>*</sup> 72 <sup>*</sup> 61 <sup>*</sup> 72 <sup>*</sup> 61 <sup>*</sup> 72 <sup>*</sup> 61 <sup>*</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White white N-SOCKET-K	94 99 72 99 94 99 95 95 95 95 95 95 95 95 95 95 95 95 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White white N-SOCKET-K	94 94 72 72 64 730 64 62 60 62
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White white N-SOCKET-K	2 <sup>1</sup> 2 <sup>1</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: A-SOCKET-K 90 Typ L8	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 49	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White white white M-SOCKET-K 90 Typ L8	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 49	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: A-SOCKET-K 90 Typ L8	21 22 22 22 22 22 22 22 22 22 22 22 22 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 49	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: A-SOCKET-K 90 Typ L8 INUS CxM-11 (19x19)	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 43	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: -SOCKET-K 90 Typ L8 INUS CxM-11 (19x19) 16.0° / 29.0°	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 43 WITH: 43 LED FWHM / FWTM Efficiency	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: K-SOCKET-K 90 Typ L8 <b>INUS</b> CxM-11 (19x19) 16.0° / 29.0° 58 %	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 43 WIM / FWTM Efficiency Peak intensity	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: X-SOCKET-K 90 Typ L8 <b>INUS</b> CxM-11 (19x19) 16.0° / 29.0° 58 % 5.3 cd/lm	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 49 WHM / FWTM Efficiency Peak intensity LEDs/each optic	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White ents: -SOCKET-K 90 Typ L8 <b>INUS</b> CxM-11 (19x19) 16.0° / 29.0° 58 % 5.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4: Mender Wirth: 4: Ender W	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White Ports: A-SOCKET-K 90 Typ L8 <b>INUS</b> CxM-11 (19x19) 16.0° / 29.0° 58 % 5.3 cd/lm 1 White Ports: Socket and the second s	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4: Ender Wirth: 4: EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White Ports: A-SOCKET-K 90 Typ L8 <b>INUS</b> CxM-11 (19x19) 16.0° / 29.0° 58 % 5.3 cd/lm 1 White Ports: Socket and the second s	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 4: Ender Wirth: 4: EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CDM-9 (Dim-To-Warm) 13.0° / 23.0° 60 % 8.9 cd/lm 1 White Ports: A-SOCKET-K 90 Typ L8 <b>INUS</b> CxM-11 (19x19) 16.0° / 29.0° 58 % 5.3 cd/lm 1 White Ports: Socket and the second s	



ELUM	INUS	90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA		227 247 257 260 260 260 260 260 260 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-4 10.0° / 19.0° 63 % 13.4 cd/lm 1 White ints:	20 20 20 20 20 20 20 20 20 20
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 45	NJCWL024Z-V1MT: COB L-Type Tunable White 11.0° / 21.0° 58 % 11 cd/lm 1 White white -SOCKET-K	34 55 55 55 55 55 55 55 55 55 5
XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	XOB 6 mm 10.0° / 20.0° 62 % 12.5 cd/lm 1 White ints:	20° 12° 0° 12° 20° 12° 0° 12° 20° 12° 0° 12°



XICATO	)		50°	90°
LED	XOB 9.8 mm		75*	
FWHM / FWTM	13.0° / 24.0°			A
Efficiency	60 %		501	e.
Peak intensity	8.2 cd/lm		3200	
LEDs/each optic	1			
Light colour	White		95*	45*
Required compone	ents:			
F15255_HEKLA	A-SOCKET-C		000	
			364	30'
			15% 0%	15*



bridgelux.		90° 90°
LED	VERO13	
FWHM / FWTM	16.0° / 34.0°	73.
Efficiency	65 %	
Peak intensity	4.6 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	' White	42*
Required components:	Wille	3230
C16142_HEKLA-SO	CKET-K	
		30° 4850 30° 30°
CITIZEN		
		90* 90*
LED	CLL02x/CLU02x (LES10)	750 1 100
FWHM / FWTM	14.0° / 26.0°	
Efficiency	45 %	80°
Peak intensity	6.8 cd/lm	
LEDs/each optic	1	
Light colour	White	43× 42°
Required components:		4530
F15859_HEKLA-SO	CKET-I	
C16752_CARMEN-7	0-SHD	
		364
		15° 0° 15°
CITIZEN		90° A 90°
	CLU700/701/702/703	50°
	CLU700/701/702/703 10.0° / 19.0°	25° 20° 20°
LED		
LED FWHM / FWTM	10.0° / 19.0°	
LED FWHM / FWTM Efficiency	10.0° / 19.0° 51 %	90° 33° 610 610 610
LED FWHM / FWTM Efficiency Peak intensity	10.0° / 19.0° 51 % 14.2 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 19.0° 51 % 14.2 cd/lm 1	57 - 600 60 - 07 60 - 07 60 - 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 19.0° 51 % 14.2 cd/lm 1 White	50 50 50 50 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C	5° 500 500 500 500 500 500 500 500 500 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C	34
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC C16752_CARMEN-7	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 CITTIZEN LED FWHM / FWTM	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 CI6752_CARMEN-7 ED FWHM / FWTM Efficiency	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0° 65 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 CI6752_CARMEN-7 CITTIZEN LED FWHM / FWTM Efficiency Peak intensity	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0° 65 % 9.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 <b>CITTIZEN</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0° 65 % 9.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 CI6752_CARMEN-7 CI6752_CARMEN-7 EFWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0° 65 % 9.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 C16752_CARMEN-7 ELED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0° 65 % 9.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 C16752_CARMEN-7 ELED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 19.0° 51 % 14.2 cd/lm 1 White CKET-C 0-SHD CLU712/713 12.0° / 24.0° 65 % 9.8 cd/lm 1 White	



CITIZEN       ***         LED       CLU712/713         FWHM / FWTM       12.0° / 24.0°         Efficiency       47 %         Peak intensity       8.1 cd/lm         LEDs/each optic       1	
LED     CLU712/713       FWHM / FWTM     12.0° / 24.0°       Efficiency     47 %       Peak intensity     8.1 cd/lm	90*
FWHM / FWTM     12.0° / 24.0°       Efficiency     47 %       Peak intensity     8.1 cd/lm	$\land$
Efficiency 47 % Peak intensity 8.1 cd/lm	2
Peak intensity 8.1 cd/lm	
	3200
LEDs/each optic 1	
Light colour White	42*
Required components:	
F15859_HEKLA-SOCKET-I	6430
C16752_CARMEN-70-SHD	
	V
	0° 12°
CREE ÷ LED	50*
LED CMA1825	
FWHM / FWTM 17.0° / 32.0°	
Efficiency 69 %	1600
Peak intensity 5.4 cd/lm	
LEDs/each optic 1	
Light colour White	3230
Required components:	
	4830
*	30°
	0° 15°
CREE 1 LED	90*
LED CMA1840	
FWHM / FWTM 19.0° / 37.0°	20
Efficiency 66 %	
Peak intensity 4 cd/lm	1000
LEDs/each optic 1	
Light colour White	43.
Required components:	
	3200
	36*
	0 <sup>8</sup> 35 <sup>3</sup>
	A
LED CXA/B 15xx	75
LED CXA/B 15xx FWHM / FWTM 12.0° / 23.0°	300
LED         CXA/B 15xx         31           FWHM / FWTM         12.0° / 23.0°         31           Efficiency         68 %         91	200
LED     CXA/B 15xx       FWHM / FWTM     12.0° / 23.0°       Efficiency     68 %       Peak intensity     11.1 cd/lm	200
LED     CXA/B 15xx       FWHM / FWTM     12.0° / 23.0°       Efficiency     68 %       Peak intensity     11.1 cd/m       LEDs/each optic     1	200 
LED     CXA/B 15xx       FWHM / FWTM     12.0° / 23.0°       Efficiency     68 %       Peak intensity     11.1 cd/m       LEDs/each optic     1       Light colour     White	500
LED     CXA/B 15xx       FWHM / FWTM     12.0° / 23.0°       Efficiency     68 %       Peak intensity     11.1 cd/m       LEDs/each optic     1       Light colour     White       Required components:     ************************************	(0) <b>G</b>
LED     CXA/B 15xx       FWHM / FWTM     12.0° / 23.0°       Efficiency     68 %       Peak intensity     11.1 cd/m       LEDs/each optic     1       Light colour     White	200
LED     CXA/B 15xx       FWHM / FWTM     12.0° / 23.0°       Efficiency     68 %       Peak intensity     11.1 cd/m       LEDs/each optic     1       Light colour     White       Required components:     ************************************	500 500 500 600 600 600 600 600



LED CXM-4 FWHM / FWTM 80'/18.0' Efficiency 52% Peak intensity 16.8 cd/m LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C C18752_CARMEN-70_SHD	
Efficiency 52% Peak intensity 16.8 cd/im LEDb/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C C16752_CARMEN-70-SHD	
Peak intensity 16.8 cd/m LED2/each optic 1 LED2/each optic 1 LED2/each optic 1 C16752_CARMEN-70-SHD	
LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2.C C16752_CARMEN-70-SHD	
Light colour White Required components: F17435_HEKLA-G2-C C16752_CARMEN-70-SHD	
Required components: F17435_HERLA-G2-C C16752_CARMEN-70-SHD LED CMH6 (13.5x13.5) FWHM / FWTM 10.0° / 20.0° Efficiency 68 % Peak intensity 14.7 cd/m LEDs/each optic 1 Light colour White Required components: F17435_HERLA-G2-C	
F17435_HEKLA-G2-C C16752_CARMEN-70-SHD           Image: CMM-6 (13.5x13.5)         FWHM / FWTM         10.0° / 20.0°         Efficiency         68 %         Peak intensity         14.7 cd/m         LEDs/each optic         1         Light colour         White         Required components:         F17435_HEKLA-G2-C         SAMSUNG         LED         LCOSD / LCO06D / LCO09D / LC013D         FWHM / FWTM         14.0° / 28.0°         Efficiency         62 %         Peak intensity         75 cd/m         LEDs/each optic         1         Light colour         White         Required components:         F17435_HEKLA-G2-C	
C16752_CARMEN-70-SHD	
Image: Control of the second secon	
LED CxM-6 (13.5x13.5) FWHM / FWTM 10.° / 20.0° Efficiency 68% Peak intensity 14.7 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62% Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63% Peak intensity 63% Peak intensity 8 cd/lm	
LED CxM-6 (13.5x13.5) FWHM / FWTM 10.° / 20.0° Efficiency 68% Peak intensity 14.7 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62% Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63% Peak intensity 63% Peak intensity 8 cd/lm	15*
FWHM / FWTM 10.0° / 20.0° Efficiency 68 % Peak intensity 14.7 cd/m LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C	-
FWHM / FWTM 10.0° / 20.0° Efficiency 68 % Peak intensity 14.7 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
Peak intensity 14.7 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C	
LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 28.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 28.0° Efficiency 63 % Peak intensity 8 cd/lm	
Light colour White Required components: F17435_HEKLA-G2-C	
Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/m LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/m	
F17435_HEKLA-G2-C  SAMSUNC LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C  SAMSUNC LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDs/ach optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/m	
LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDS/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/lm LEDS/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/m LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/m	
LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 62 % Peak intensity 7.5 cd/m LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/m	15*
FWHM / FWTM       14.0° / 26.0°         Efficiency       62 %         Peak intensity       7.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       F17435_HEKLA-G2-V         F17435_HEKLA-G2-V       SAMSUNG         LED       LC003D / LC006D / LC009D / LC013D         FWHM / FWTM       14.0° / 26.0°         Efficiency       63 %         Peak intensity       8 cd/lm	· · · · · · · · · · · · · · · · · · ·
Efficiency 62 % Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2- SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
Peak intensity 7.5 cd/lm LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
LEDs/each optic 1 Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
Light colour White Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
Required components: F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	$\bigvee$
F17435_HEKLA-G2-C SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
SAMSUNG LED LC003D / LC006D / LC009D / LC013D FWHM / FWTM 14.0° / 26.0° Efficiency 63 % Peak intensity 8 cd/lm	
LED         LC003D / LC006D / LC009D / LC013D           FWHM / FWTM         14.0° / 26.0°           Efficiency         63 %           Peak intensity         8 cd/lm	
LED         LC003D / LC006D / LC009D / LC013D           FWHM / FWTM         14.0° / 26.0°           Efficiency         63 %           Peak intensity         8 cd/lm	
LED         LC003D / LC006D / LC009D / LC013D           FWHM / FWTM         14.0° / 26.0°           Efficiency         63 %           Peak intensity         8 cd/lm	15°
LED         LC003D / LC006D / LC009D / LC013D           FWHM / FWTM         14.0° / 26.0°           Efficiency         63 %           Peak intensity         8 cd/lm	
FWHM / FWTM     14.0° / 26.0°       Efficiency     63 %       Peak intensity     8 cd/lm	
Efficiency 63 % Peak intensity 8 cd/lm	
Peak intensity 8 cd/lm	
LEDs/each optic 1	
Light colour White	
Required components:	
F17435_HEKLA-G2-C	



SAMSU	NG	50° A 50°
LED	LC010C	
FWHM / FWTM	10.0° / 20.0°	
Efficiency	68 %	60*
Peak intensity	15 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
F17435_HEKLA-G2-C		
		15° 10000 15°



# PRODUCT DATASHEET CP16601\_CARMEN-SS-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.

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

#### LEDiL Oy

Joensuunkatu 13 FI-24240 SALO Finland

#### LEDiL Inc.

228 West Page Street Suite D Sycamore IL 60178 USA

Ledil Optics Technology (Shenzhen) Co., Ltd. # 405 , Block B Casic Motor Building Shenzhen 518057 P.R.CHINA

#### Local sales and technical support www.ledil.com/ where\_to\_buy

Shipping locations

Salo, Finland Hong Kong, China

#### Distribution Partners www.ledil.com/

where\_to\_buy