

PRODUCT DATASHEET CP15774_CARMEN-S-C

CARMEN-S-C

~14° spot beam. Assembly with holder C compatible with LEDiL HEKLA.

SPECIFICATION:

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



MATERIALS:

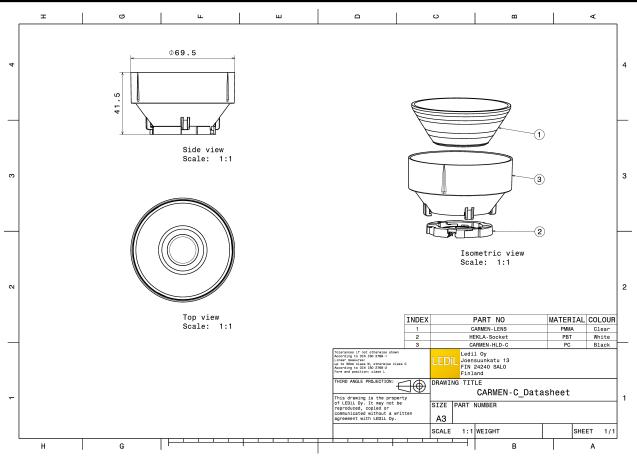
Component	Туре	Material	Colour	Finish
CARMEN-S	Single lens	PMMA	clear	
CARMEN-HLD-C	Holder	PC	black	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CP15774_CARMEN-S-C	Single lens	150	150	15	4.5
» Box size: 476 x 273 x 292 mm					



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



LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15253_HEKLA	
bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	
brdgelux 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 F15616_HEKLA	



bridgelux.			90° A 90°
LED	Vesta DTW 9mm (4W/6W/12W)		
FWHM / FWTM	14.0° / 33.0°		73*
Efficiency	71 %		
Peak intensity	6.8 cd/lm		
LEDs/each optic	1		
Light colour	White		47° 45°
Required componer			4233
C16142_HEKLA			
Bender Wirth: 49	0 Typ L8		
			30* 30*
			135 ⁴ 0 ⁴ 15 ⁵
bridgelux.			90°
LED	Vesta TW 6mm DP		
FWHM / FWTM	11.0° / 27.0°		
Efficiency	75 %		50° 50°
Peak intensity	10.5 cd/lm		[
LEDs/each optic	1		
Light colour	White		6100 est
Required componer	nts:		
C16142_HEKLA	-SOCKET-K		
Bender Wirth: 50	4 Typ L8		leon leon
			300 300
bridgelux.		and the second	90*
LED	Vesta TW 9mm (9W) DP		25- 26- 26-
LED FWHM / FWTM	15.0° / 36.0°		50 ⁻ 50 ⁻ 50 ⁻ 50 ⁻ 50 ⁻ 50 ⁻ 50 ⁻ 50 ⁻
LED FWHM / FWTM Efficiency	15.0° / 36.0° 71 %		64* 73* 64* 500 60* 60*
LED FWHM / FWTM Efficiency Peak intensity	15.0° / 36.0° 71 % 5.7 cd/lm		93* 95* 95* 95* 95* 95* 95*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 36.0° 71 % 5.7 cd/lm 1		97 97 97 97 97 987 987 987 987 987 987 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 36.0° 71 % 5.7 cd/lm 1 White		50 61 72 72 72 72 72
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	15.0° / 36.0° 71 % 5.7 cd/lm 1 White nts:		50 61 72 72 72 72 72
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen C16142_HEKLA	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K		50 61 72 72 72 72 72
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K		75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen C16142_HEKLA	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K		77 64 77 70 70 70 70 70 70 70 70 70 70 70 70
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen C16142_HEKLA	15.0° / 36.0° 71 % 5.7 cd/lm 1 White nts: -SOCKET-K 9 Typ L8		75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA: Bender Wirth: 48	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 9 Typ L8		99 ⁴ 99 ⁴ 99 ⁴ 99 ⁴ 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 componer C16142_HEKLA: Bender Wirth: 48	15.0° / 36.0° 71 % 5.7 cd/lm 1 White nts: -SOCKET-K 9 Typ L8		200 200 400 400 400 400 400 400
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA Bender Wirth: 48	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 19 Typ L8 N CLL02x/CLU02x (LES10)		99 ⁴ 99 ⁴ 99 ⁴ 99 ⁴ 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 componer C16142_HEKLA: Bender Wirth: 48 CITTIZE LED FWHM / FWTM	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0°		99 ⁴ 99 ⁴ 99 ⁴ 99 ⁴ 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 componer C16142_HEKLA Bender Wirth: 48 CITTIZE LED FWHM / FWTM Efficiency	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0° 74 %		99 ⁴ 99 ⁴ 99 ⁴ 99 ⁴ 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 componer C16142_HEKLA: Bender Wirth: 48 CITTIZE LED FWHM / FWTM Efficiency Peak intensity	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0° 74 % 6 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA: Bender Wirth: 48 CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0° 74 % 6 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen C16142_HEKLA: Bender Wirth: 48 CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0° 74 % 6 cd/lm 1 White hts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen C16142_HEKLA Bender Wirth: 48 CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0° 74 % 6 cd/lm 1 White hts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen C16142_HEKLA Bender Wirth: 48 CITTIZE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	15.0° / 36.0° 71 % 5.7 cd/lm 1 White hts: -SOCKET-K 9 Typ L8 N CLL02x/CLU02x (LES10) 15.0° / 36.0° 74 % 6 cd/lm 1 White hts:		



CITIZEN			
CITIZEN			50° 50°
	LU700/701/702/703		
FWHM/FWTM 10	0.0° / 25.0°	and the second	33.
Efficiency 78	8 %		
Peak intensity 12	2.7 cd/lm		
LEDs/each optic 1			6130
	/hite		95° (
Required components:			
F15255_HEKLA-SC	OCKET-C		
			304 30
CITIZEN			155° 0° 35°
			×0.
	LU710/711		75
	3.0° / 33.0°		
,	3%		
-	.2 cd/lm		
LEDs/each optic 1			
0	/hite		4830
Required components:			
F15859_HEKLA-SC	JCKET-I		6130
			30" 15" 34"
1			
CITIZEN			90 ⁴ A 90 ⁴
			90 ¹
LED C	LU7A2/7A3	-	94 ⁴
LED C FWHM / FWTM 7.	LU7A2/7A3 .0° / 20.0°		24 [*]
LED C FWHM / FWTM 7. Efficiency 80	LU7A2/7A3 .0° / 20.0° 0 %		80°
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm		61 100 60 21 22 94 90
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm		g
LEDCFWHM / FWTM7.Efficiency80Peak intensity18LEDs/each optic1Light colourW	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite		31 ⁴ 320 71 72 61 61 61 61 61 61 61 61 61 61 61 61 61
LEDCFWHM / FWTM7.Efficiency80Peak intensity18LEDs/each optic1	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite		51 ⁴ 527
LEDCFWHM / FWTM7.Efficiency80Peak intensity18LEDs/each optic1Light colourWRequired components:	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite		51 ⁴ 52 ⁷ 73 61 ⁶ 60 61 61 73 73 75 75 75 75 75 75 75 75 75 75 75 75 75
LEDCFWHM / FWTM7.Efficiency80Peak intensity18LEDs/each optic1Light colourWRequired components:	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite		24° 250 25° 25° 25° 25° 26°
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC	LU7A2/7A3 .0° / 20.0° 0% 8.5 cd/lm /hite DCKET-C		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC	LU7A2/7A3 0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC CITTIZEN LED C FWHM / FWTM 6.	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0°		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC ETTIZEEN LED C FWHM / FWTM 6. Efficiency 80	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 %		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC ETTIZEEN LED C FWHM / FWTM 6. Efficiency 80 Peak intensity 2	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 % 1.7 cd/lm		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC ETTIZEEN LED C FWHM / FWTM 6. Efficiency 80 Peak intensity 27 LEDs/each optic 1	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 % 1.7 cd/lm		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC Efficiency 6. Efficiency 80 Peak intensity 2' LEDs/each optic 1 Light colour W	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 % 1.7 cd/lm /hite		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC Efficiency 6. Efficiency 6. Efficiency 80 Peak intensity 2. LEDs/each optic 1 Light colour W Required components:	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 % 1.7 cd/lm /hite		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC Efficiency 6. Efficiency 80 Peak intensity 2' LEDs/each optic 1 Light colour W	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 % 1.7 cd/lm /hite		
LED C FWHM / FWTM 7. Efficiency 80 Peak intensity 18 LEDs/each optic 1 Light colour W Required components: F15255_HEKLA-SC Efficiency 6. Efficiency 6. Efficiency 80 Peak intensity 2. LEDs/each optic 1 Light colour W Required components:	LU7A2/7A3 .0° / 20.0° 0 % 8.5 cd/lm /hite DCKET-C LU7B2 .0° / 19.0° 0 % 1.7 cd/lm /hite		



		507
LED	CMA1516	
FWHM / FWTM	14.0° / 36.0°	77
Efficiency	72 %	an 1800
Peak intensity	5.8 cd/lm	
LEDs/each optic	1	
Light colour	White	æ.
Required compone		
F15256_HEKLA	-SOCKET-D	400
		30' 35' 560 35'
		90°
LED	CMT14xx	
FWHM / FWTM	15.0° / 37.0°	10 10 10 10 10 10 10 10 10 10 10 10 10 1
Efficiency	48 %	
Peak intensity	3.5 cd/lm	
LEDs/each optic	1	
Light colour	White	g
Required compone	ents:	
F15255_HEKLA	-SOCKET-C	
		220
		30° 0° 15° × × ×
UMIL	EDS	504
		90°
	EDS LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0°	90 ⁴ 72 ⁻
LED	LUXEON CX Plus CoB L08 (Gen2)	
LED FWHM / FWTM	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0°	60° 000 00°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White	gy
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents:	994 925 647 657 657 657 657 657 657 657 657 657 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents:	994 994 995 996 996 996 996 997 997 997 997 997 997
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents:	99 ⁴ 92 61 ⁴ 62 62 63 64 64 65 65 65 65 65 65 65 65 65 65 65 65 65
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents: 37a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents: 37a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white share: 37a Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white mts: 37a Hekla LUXEON CoB 1202HD	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents: 37a Hekla LUXEON CoB 1202HD 10.0° / 28.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White ents: 37a Hekla EDS LUXEON CoB 1202HD 10.0° / 28.0° 75 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 Model Compone Bender Wirth: 63 Compone Bender Wirth: 63 Compone Be	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white ants: 37a Hekla LUXEON CoB 1202HD 10.0° / 28.0° 75 % 9.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 CLUMIL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white mts: 37a Hekla LUXEON CoB 1202HD 10.0° / 28.0° 75 % 9.8 cd/lm 1 White mts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 Model Compone Bender Wirth: 63 Compone Bender Wirth: 63 Compone Be	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white mts: 37a Hekla LUXEON CoB 1202HD 10.0° / 28.0° 75 % 9.8 cd/lm 1 White mts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 CLUMIL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white mts: 37a Hekla LUXEON CoB 1202HD 10.0° / 28.0° 75 % 9.8 cd/lm 1 White mts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 CLUMIL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB L08 (Gen2) 21.0° / 50.0° 67 % 2.8 cd/lm 1 White white mts: 37a Hekla LUXEON CoB 1202HD 10.0° / 28.0° 75 % 9.8 cd/lm 1 White mts:	



	.EDS	597
LED	LUXEON CoB 1204HD	
FWHM / FWTM	14.0° / 35.0°	75
Efficiency	73 %	60
Peak intensity	6 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
F15858_HEKLA	-SOCKET-H	450
		30 ¹⁰ 500 10 ¹
	.EDS	90* A 9*
LED	LUXEON CoB 1205HD	
FWHM / FWTM	17.0° / 41.0°	72
Efficiency	69 %	
Peak intensity	4.2 cd/lm	100 · · · · · · · · · · · · · · · · · ·
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
F15858_HEKLA	-SOCKET-H	
		30" 25 24 25
	EDC	
MUMIL 🥙	.EDS	90*
	LUXEON CX Plus CoB - HD S01H4	90* 90*
		90 ⁴ 92 ⁷
LED	LUXEON CX Plus CoB - HD S01H4	97 97 97 97
LED FWHM / FWTM	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0°	94 ⁴ 95 72 64 500 60
LED FWHM / FWTM Efficiency	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla LUXEON CX Plus CoB - HD S02H6	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla .EDS LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla EDS LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0° 75 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 Weak LUMIL LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0° 75 % 10.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 Model Component Bender Wirth: 63 Component Bender W	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0° 75 % 10.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 CUMIL EB FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0° 75 % 10.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 COMMINENTIAL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0° 75 % 10.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 COMPARENTION LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 9.0° / 26.0° 75 % 11.6 cd/lm 1 White ents: 34c Hekla LUXEON CX Plus CoB - HD S02H6 10.0° / 26.0° 75 % 10.6 cd/lm 1 White ents:	



LUMIL	EDS	50 ⁴
LED	LUXEON CX Plus CoB - HD S04H9	
FWHM / FWTM	14.0° / 36.0°	77
Efficiency	72 %	
Peak intensity	5.9 cd/lm	
LEDs/each optic	1	
Light colour	White	5
Required compone	nts:	
Bender Wirth: 63	34c Hekla	400
		396
		15) 660 15'
M LUMIL	EDS	90*
LED	LUXEON CX Plus CoB L04 / L05 (Gen2)	25
FWHM / FWTM	18.0° / 42.0°	
Efficiency	69 %	
Peak intensity	4.1 cd/lm	380
LEDs/each optic	1	
Light colour	White	₽ [,] / / / / / / / / / / / / / / / / / / /
Required compone	nts:	
Bender Wirth: 63	37a Hekla	320
		34
		15° 0° 15°
	FDS	
		B ²
LED	LUXEON CX Plus CoB M02 / M03 (Gen2)	<u>81</u>
LED FWHM / FWTM	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0°	90°
LED FWHM / FWTM Efficiency	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 %	6r 37 84
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm	6 v 1 2 2 0 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1	67 67 20 20 20 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White	9 ¹ 27 6 ¹ 20 7 7 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	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints:	91 61 72 85 85 85 85 85 85 85 85 85 85 85 85 85
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints:	91 91 91 92 92 92 92 92 92 92 92 92 92 92 92 92
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints:	g, 6, 6, 720 6, 720 720 720 720 720 720 720 720 720 720
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints: 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) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints: 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) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White I Hakla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2)	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White Ints: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0° 76 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Model of the second Bender Wirth: 64 Bender Wirth: 64 Model of the second Bender Wirth: 64	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White I White I LUXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0° 76 % 11.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Model Component Bender Wirth: 64 Component Bender W	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White mts: 41a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0° 76 % 11.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 Model of the second second Bender Wirth: 64 Model of the second s	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White I White UXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0° 76 % 11.9 cd/lm 1 White I I White I I White I I I I I I I I I I I I I	
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) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White I White UXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0° 76 % 11.9 cd/lm 1 White I I White I I White I I I I I I I I I I I I I	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 64 WIM / WITH Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB M02 / M03 (Gen2) 13.0° / 33.0° 72 % 6.8 cd/lm 1 White I White UXEON CX Plus CoB S01 (Gen2) 9.0° / 25.0° 76 % 11.9 cd/lm 1 White I I White I I White I I I I I I I I I I I I I	



	INUS	90 ⁴	90°
LED	CDM-9 (Dim-To-Warm)		
FWHM / FWTM	14.0° / 33.0°	72	75*
Efficiency	71 %		60*
Peak intensity	6.7 cd/lm		
LEDs/each optic	1		
Light colour	White	e.	45*
Required compone	ents:	459	
C16142_HEKLA	A-SOCKET-K		
Bender Wirth: 49	90 Typ L8		
		30°	30°
	INUS	90 ⁴	90°
LED	CxM-11 (19x19)		
FWHM / FWTM	18.0° / 42.0°	37	75*
Efficiency	70 %		
Peak intensity	4.2 cd/lm	69 ⁴⁷	60,
LEDs/each optic	1		
Light colour	White	er la	45*
Required compone			
F15859_HEKLA			
_			
		15 ⁹ 0 ⁹ 15 ⁹	
	INUS	90*	90°
	CXM-3		90°
-		25	90*
LED	CXM-3	27°	90 ⁴ 75' 60 ⁴
LED FWHM / FWTM	CXM-3 7.0° / 19.0°	93°	90*
LED FWHM / FWTM Efficiency	CXM-3 7.0° / 19.0° 80 %	50°	90*
LED FWHM / FWTM Efficiency Peak intensity	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm	55 55 55 55	90* 25* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White	55°	82, 96, 32,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents:	51 51 51 51 51 50 50 50 50 50 50 50 50 50 50 50 50 50	90* 25*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents:	93 ×	9. 9.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents:		90 [*]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		99 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		39°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		99 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		99°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		909 757 909 909 900 900
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		907 199 199 199 199 199 199 199
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		900 190 190 190 190 190 190 190
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		99"
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	CXM-3 7.0° / 19.0° 80 % 20.2 cd/lm 1 White ents: -SOCKET-C		90"



-		
	NUS	90*
LED	CxM-9 (13.5x13.5)	
FWHM / FWTM	15.0° / 35.0°	
Efficiency	74 %	1000
Peak intensity	6.2 cd/lm	
LEDs/each optic	1	
Light colour	White	g* / / / / /
Required componer	nts:	
F15255_HEKLA-	SOCKET-C	4000
		X / V / X
		30° 6400 3
		<u>135⁴0⁶35⁵</u>
		90*
LED	NJCWL024Z-V1MT: COB L-Type Tunable White	25*
FWHM / FWTM	12.0° / 29.0°	
Efficiency	71 %	50 ³ 500
Peak intensity	8.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required componer		6430
C16142_HEKLA		
Bender Wirth: 49	7 Typ L8	$\mathbb{K} / \mathbb{V} \setminus \mathcal{X}$
		30* 10° 5880 15° 3
ØNICHIA	i.	50° A
	NVCWJ024Z-V1MT: COB J-Type Tunable White	90° 9
LED		99 ⁴ 9
	NVCWJ024Z-V1MT: COB J-Type Tunable White	94 ⁴ 72 66 ⁴ 500
LED FWHM / FWTM	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0°	95° 9 95° 7 96° 7 1000 6
LED FWHM / FWTM Efficiency	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 %	95° 9 95° 7 96° 7500 6
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm	99 ⁴ 27 90 ⁴ 28 90 90 ⁴ 20 90 ⁴ 20 10 10 10 10 10 10 10 10 10 10 10 10 10
LED FWHM / FWTM Efficiency Peak intensity	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White	99 ⁴ 97 96 ⁴ 96
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White nts:	99 795 605 500 800 800 800 800 800 800 800 800 8
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White tts: SOCKET-K	99 ³⁴ 99 72 ⁵ 7 69 ³⁴ 6 72 ⁷⁰ 6 72 ⁷⁰ 6 72 ⁷⁰ 6 72 ⁷⁰ 6 72 ⁷⁰ 7 72 ⁷⁰ 7 72 ⁷⁰ 7 72 ⁷⁰ 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA-	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White tts: SOCKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA: Bender Wirth: 49	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White nts: SOCKET-K 8 Typ L8	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA: Bender Wirth: 49	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8 Socket SLM L09 CoB	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA: Bender Wirth: 49	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0°	25 ⁻ 0 ⁻ 25 ⁻ 3
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLOP LED FWHM / FWTM Efficiency	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 %	25 ⁻ 0 ⁻ 25 ⁻ 3
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLOP LED FWHM / FWTM Efficiency Peak intensity	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White ts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 % 5.7 cd/lm	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLOP LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White tts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 % 5.7 cd/lm 1	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLIP LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White tts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 % 5.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLIP LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 % 5.7 cd/lm 1 White hts: SOCKET SLM L09 CoB	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLIP LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 % 5.7 cd/lm 1 White hts: SOCKET SLM L09 CoB	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 PHILLIP LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	NVCWJ024Z-V1MT: COB J-Type Tunable White 16.0° / 37.0° 69 % 5.1 cd/lm 1 White hts: SOCKET-K 8 Typ L8 S Fortimo SLM L09 CoB 15.0° / 36.0° 72 % 5.7 cd/lm 1 White hts: SOCKET SLM L09 CoB	



LED LC0307 / LC030D /	SAMSI	UNG	50 ⁴
Efficiency 74% Peak Intensity 6 od/m Lubit colour While Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010C 62 PWHM / FWTM 907/24.0° Efficiency 77% Peak Intensity 13.1 od/m LED/seach optic 1 Lubit colour While Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010C funable While Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010C funable While Required components: F15255_HEKLA-SOCKET-K Bender With: 50 T/9 LB SAMSUNG Light colour While Required components: SC1142_HEKLA-SOCKET-K Bender With: 50 T/9 LB	LED		
Peak Intensity & colfm EEGV/aach optic 1 EEGV/aach optic 1 EEGV/aach optic 1 EFISZSS_HEKLA-SOCKET-C SAMSUNC EEO LCC10C G2 WMM / FWTM 80' / 24.0° Efficiency 77 % Peak Intensity 0.1 1 du/m LEDs/each optic 1 Lgdn colour White Required components: FISZSS_HEKLA-SOCKET-C SAMSUNC EEO LCC10T (Turable White) Required components: FISZSS_HEKLA-SOCKET-C SAMSUNC EEO LCC10T (Turable White) Required components: FISZSS_HEKLA-SOCKET-K Bender Wint: SOT Yp L8 SAMSUNC EEO LCC20C SAMSUNC EEO LCC20C EEO	FWHM / FWTM	15.0° / 36.0°	
LEDeleach optic 1 Light clour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010C G2 EMMM/FVTM 9.07 /24.07 Efficiency 77 % Peak intensity 13.1 cd/m LEDelech optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Turable White) Peak intensity 5.8 cd/m LEDelech optic 1 Light colour Turable White Required components: Efficiency 71% Peak intensity 5.8 cd/m LEDelech optic 1 Light colour Turable White Required components: Efficiency 71% Peak intensity 5.8 cd/m LED LC010T (Turable White) Required components: Efficiency 71% Peak intensity 5.8 cd/m LED LC020C Efficiency 75% Peak intensity 8.2 cd/m LED LC020C EWMM/FWTM 12.07 /31.0° Efficiency 75% Peak intensity 8.2 cd/m LED Score 1 Light colour White Required components:	Efficiency	74 %	84
Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010C G2 FWMI/ FWTM 90/ 24.0° Efficiency 77 % Preak intensity 13.1 cd/m LEDbreach optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (funable White) FWMI/ FVTM 15.0° / 35.0° Efficiency 71 % Preak intensity 5.5 cd/m LED2 LC010T (funable White) FWMI/ FVTM 5.5 cd/m LED2 SAMSUNG LED LC010T (funable White) Required components: C16142_HEKLA-SOCKET-K Bender Writh: 501 Typ L8 ED LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 78 % Preak intensity 8.2 cd/m LED2 LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 78 % Preak intensity 8.2 cd/m LED2 LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 78 % Preak intensity 8.2 cd/m LED2 LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 78 % Preak intensity 8.2 cd/m	Peak intensity	6 cd/lm	
Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LOUIO G2 FWHM /FVTM 9.0° / 24.0° Efficiency 77 % Peak Intensity 13.1 od/m LED/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LOUIO (Tunable White) FVHM /FVTM 15.0° / 35.0° Efficiency 71 % Peak Intensity 5.8 od/m LED/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender With: 501 Typ LB SAMSUNG LED LOUIO LED LOUIO SAMSUNG LED LOUIO LED LOUIO SAMSUNG LED LOUIO SAMSUNG LED LOUIO SAMSUNG LED LOUIO LED LOUIO SAMSUNG LED L	LEDs/each optic	1	
F19255_HEKLA-SOCKET-C	Light colour	White	
SAMSUNG LED LC010G G2 FWHM / FWTM 9.0° / 24.0° Efficiency 77 % Peak intensity 13.1 cd/m LEDS/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Tunable White) FWHM / FWTM 15.0° / 25.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDS/each optic 1 LEDS/each optic	Required compone	ents:	
LED LC010C G2 EVMH / FVTM 9.0° /24.0° Efficiency 77 % Peak Intensity 13.1 colfm LEDSeach optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Tunable White) FWHM / FVTM 15.0° / 35.0° Efficiency 71 % Peak Intensity 5.8 colfm LEDS/each optic 1 LEDS/each optic 1 LEDS/	F15255_HEKLA	A-SOCKET-C	409
LED LC010C G2 EVMH / FVTM 9.0° /24.0° Efficiency 77 % Peak Intensity 13.1 collm LEDS/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNC LED LC010T (Tunable White) FWHM / FVTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 collm LEDS/each optic 1 LEDS/each optic 1 LEDS			\times / \vee \times
LED LC010C 62 FWHM / FWTM 9.0° / 24.0° Efficiency 77 % Peak intensity 13.1 cd/m LEDs/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMS SUNG LED LC010T (Tunable White) FWHM / FVTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDs/each optic 1 Light colour Tunable White Required components: SAMS SUNG LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LED Meak			20 ⁴ 500 25 ⁴ 60 ⁰ 25 ⁴
LED LC010C 62 FWHM / FWTM 9.0° / 24.0° Efficiency 77% Peak intensity 13.1 cd/m LEDsteach optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMS UNG LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71% Peak intensity 5.8 cd/m LEDsteach optic 1 Light colour Tunable White Required components: C1142_HEALA-SOCKET-K Bender Wirth: 501 Typ L8 SAMS UNG LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76% Peak intensity 8.2 cd/m LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76% Peak intensity 8.2 cd/m LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76% Peak intensity 8.2 cd/m LED C020C FWHM / FVTM 12.0° / 31.0° Efficiency 76% Peak intensity 8.2 cd/m LED C020C FWHM / FVTM 12.0° / 31.0° Efficiency 76% Peak intensity 8.2 cd/m LED C020C FWHM / FVTM 12.0° / 31.0° Efficiency 76% Peak intensity 8.2 cd/m	SAMSI	UNG	P * A
FWHM / FWTM 9.0° / 24.0° Efficiency 77 % Peak intensity 13.1 od/m LEDS/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LED Seach optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ LB SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LEDS 2.2 cd/m	LED		
Efficiency 77 % Peak intensity 13.1 cd/m LEDs/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LEDS/each optic 1 Light colour White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	FWHM / FWTM		
Peak intensity 13.1 cd/lm LEDs/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Tunable White) EWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C EWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	Efficiency		
Light colour White Required components: P15255_HEKLA-SOCKET-C SAMSUNG LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FVTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LEDS/each optic 1 Light colour White Required components:	Peak intensity	13.1 cd/lm	
LeD LC010 White Required components: F15255_HEKLA-SOCKET-C SAMSUNG EHD LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 dol/m LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 col/m LEDs/each optic 1 Light colour Thite Required components:	LEDs/each optic	1	660
F15255_HEKLA-SOCKET-C	Light colour	White	5°
SAMSUNG LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/m LEDs/each optic 1 LEDs/each optic 1 LED	Required compone	ents:	1000
LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	F15255_HEKLA	A-SOCKET-C	
LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:			
LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:			20 ⁴ 25 ⁴ 45
LED LC010T (Tunable White) FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/m LEDs/each optic 1 Light colour Tunable White Required components: Efficiency 76 % Peak intensity 8.2 cd/m LEDs/each optic 1 Light colour White Required components:	A		
FWHM / FWTM 15.0° / 35.0° Efficiency 71 % Peak intensity 5.8 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	SAMS	JNG	50* A
Efficiency 71 % Peak intensity 5.8 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:			
Peak intensity 5.8 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED	LC010T (Tunable White)	22
Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM	LC010T (Tunable White) 15.0° / 35.0°	20 20 20
Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM	LC010T (Tunable White) 15.0° / 35.0° 71 %	90 ⁴
C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	LED FWHM / FWTM Efficiency Peak intensity	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm	61 27 29
Bender Wirth: 501 Typ L8	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/Im 1	94 94 94
SAMSUNG LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White	97 97 97 97 97 97 97 97 97 97 97 97 97 9
Image: Samsung LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components: Image: Colour of the second of the se	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents:	
LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K	
LED LC020C FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K	
FWHM / FWTM 12.0° / 31.0° Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components: ***	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8	
Efficiency 76 % Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8	
Peak intensity 8.2 cd/lm LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNG LC020C	
LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNG LC020C 12.0° / 31.0°	
Light colour White Required components:	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNG LC020C 12.0° / 31.0° 76 %	
	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5 SAMSS LED FWHM / FWTM Efficiency Peak intensity	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNC LC020C 12.0° / 31.0° 76 % 8.2 cd/lm	
F15848_HEKLA-SOCKET-G	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5 SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNC LC020C 12.0° / 31.0° 76 % 8.2 cd/lm 1	
	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5 SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNC LC020C 12.0° / 31.0° 76 % 8.2 cd/lm 1 White	
	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5 SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNC LC020C 12.0° / 31.0° 76 % 8.2 cd/lm 1 White ents:	
	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKL/ Bender Wirth: 5 SAMSS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC010T (Tunable White) 15.0° / 35.0° 71 % 5.8 cd/lm 1 Tunable White ents: A-SOCKET-K 01 Typ L8 UNC LC020C 12.0° / 31.0° 76 % 8.2 cd/lm 1 White ents:	



SAMSL	JNG		90*
LED FWHM / FWTM Efficiency Peak intensity	LC020C G2 14.0° / 33.0° 74 % 6.9 cd/lm		25
LEDs/each optic	1		
Light colour	White		97*
Required compone			4830
F15859_HEKLA			30 ⁴ 20 ⁷ 0 ⁴ 30 ⁷
SEOUL			90°
LED	MJT COB LES 6		
FWHM / FWTM	9.0° / 23.0°		75
Efficiency	76 %		
Peak intensity	13.1 cd/lm		
LEDs/each optic	1		
Light colour	White		97
Required compone			
F15255_HEKLA			
			20
			15° 0° 15°
			90* A
SEOUL SEMICONDUCTOR	MJT COB LES 9.8		
	MJT COB LES 9.8 15.0° / 35.0°		20° 0° 135°
seoul semiconductor LED FWHM / FWTM			
SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency	15.0° / 35.0°		
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity	15.0° / 35.0° 72 %		25 1500
SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency	15.0° / 35.0° 72 % 5.9 cd/lm		
stoul structorourtor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 35.0° 72 % 5.9 cd/lm 1 White		27 60 ¹ 200
seoul seniconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 35.0° 72 % 5.9 cd/lm 1 White ints:		27 60 ¹ 200
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	15.0° / 35.0° 72 % 5.9 cd/lm 1 White ints:		27 60* 500
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	15.0° / 35.0° 72 % 5.9 cd/lm 1 White Ints: -SOCKET-C		27 61 67 67 67 67 67 67 67 67 67 67 67 67 67
seoul semiconouctor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	15.0° / 35.0° 72 % 5.9 cd/lm 1 White Ints: -SOCKET-C		
seoul semiconbuctor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	15.0° / 35.0° 72 % 5.9 cd/lm 1 White Ints: -SOCKET-C		20° (60°) 20° (60°) 20° (60°) 20° (60°) 20° (60°) 20° (70°)
SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA TRIDON LED FWHM / FWTM	15.0° / 35.0° 72 % 5.9 cd/lm 1 White Ints: -SOCKET-C		
seou semiconouctor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA TRIDON LED FWHM / FWTM Efficiency	15.0° / 35.0° 72 % 5.9 cd/lm 1 White Ints: -SOCKET-C SLE G7 LES09 14.0° / 34.0° 74 %		
stour staticonductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA TRIDON LED FWHM / FWTM Efficiency Peak intensity	15.0° / 35.0° 72 % 5.9 cd/lm 1 White Ints: -SOCKET-C		
stour staticonductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 35.0° 72 % 5.9 cd/lm 1 White I SOCKET-C SLE G7 LES09 14.0° / 34.0° 74 % 6.7 cd/lm 1		
stoul structure LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 35.0° 72 % 5.9 cd/lm 1 White ints: -SOCKET-C SLE G7 LES09 14.0° / 34.0° 74 % 6.7 cd/lm 1 White		
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 35.0° 72 % 5.9 cd/lm 1 White I SOCKET-C SLE G7 LES09 14.0° / 34.0° 74 % 6.7 cd/lm 1 White I White I		



TRIDON		90 ⁴ 90 ⁴
LED	SLE G7 LES13	75
FWHM / FWTM	20.0° / 45.0°	
Efficiency	69 %	ar A and a and a second s
Peak intensity	3.5 cd/lm	
LEDs/each optic	1	
Light colour	White	\$°.
Required compone		
F15859_HEKLA	-SOCKET-I	
		220
		30 23 23 25
XICATO		90 ⁴
LED	XOB 6 mm	
FWHM / FWTM	10.0° / 26.0°	72
Efficiency	76 %	
Peak intensity	11.4 cd/lm	
LEDs/each optic	1	
Light colour	White	4 ⁷ 400
Required compone		
F15255_HEKLA		
_		***
		102 V0 202
XICATO		59 ¹⁶ 39 ¹⁶
LED	XOB 9.8 mm	
FWHM / FWTM	14.0° / 34.5 + 34.0°	
Efficiency	74 %	
	11.70	
Peak intensity	6.4 cd/lm	
Peak intensity LEDs/each optic		9°
-	6.4 cd/lm	
LEDs/each optic	6.4 cd/lm 1 White	
LEDs/each optic Light colour	6.4 cd/lm 1 White nts:	
LEDs/each optic Light colour Required compone	6.4 cd/lm 1 White nts:	
LEDs/each optic Light colour Required compone	6.4 cd/lm 1 White nts:	
LEDs/each optic Light colour Required compone F15255_HEKLA	6.4 cd/lm 1 White nts: -SOCKET-C	
LEDs/each optic Light colour Required compone F15255_HEKLA	6.4 cd/lm 1 White nts: -SOCKET-C	
LEDs/each optic Light colour Required compone F15255_HEKLA	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0°	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 %	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency Peak intensity	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 % 2.2 cd/lm	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 % 2.2 cd/lm 1	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 % 2.2 cd/lm 1 White	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 % 2.2 cd/lm 1 White nts:	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 % 2.2 cd/lm 1 White nts:	
LEDs/each optic Light colour Required compone F15255_HEKLA XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	6.4 cd/lm 1 White nts: -SOCKET-C XTM - 19mm LES 23.0° / 60.0° 66 % 2.2 cd/lm 1 White nts:	



bridgelux.		90* 90*
LED	VERO13	
FWHM / FWTM	16.0° / 42.0°	75* 75*
Efficiency	70 %	
Peak intensity	4 cd/lm	60° 50°
	1	
LEDs/each optic	ı White	gr*
Light colour	white	
Required components:		
C16142_HEKLA-SO	UNE I-N	
		\mathbf{V}
		30° 35° 36°
CITIZEN		
		90* 90*
LED	CLL02x/CLU02x (LES10)	13.
FWHM / FWTM	14.0° / 26.0°	
Efficiency	50 %	60e 60e
Peak intensity	6.4 cd/lm	
LEDs/each optic	1	
Light colour	White	43°
Required components:		4830
F15859_HEKLA-SO	CKET-I	
C16752_CARMEN-7	0-SHD	
		30° 30°
		15° oh 15°
CITIZEN		
		90°
	CLU700/701/702/703	90*
		12. 13. 14. 15. 15. 15. 15. 15. 15. 15. 15. 15. 15
LED	CLU700/701/702/703	50
LED FWHM / FWTM Efficiency	CLU700/701/702/703 10.0° / 19.0°	60 ⁴ 50 ⁴
LED FWHM / FWTM Efficiency Peak intensity	CLU700/701/702/703 10.0° / 19.0° 54 %	6 ¹ 27 28 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm	a. b. b. b. b. b. b. b. b. b. b
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1	81 91 91 91 91 91 91 91 91 91 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White	a. b. b. b. b. b. b. b. b. b. b
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C	9° 9° 75 9° 6° 6° 6° 6° 6° 6° 6° 6° 6° 6° 6° 6° 6°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C	34 95 95 95 95 95 95 95 95 95 95
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD	200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD	Na Na Na Na Na Na
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713	32 32 32 33 32 32 34 32 32 35 32 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0°	32 32 32 32 62 63 64 52 51 50 52 52 52 50 52 52
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 CI6752_CARMEN-7	CLU710/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 %	61 10 10 10 10 10 10 10 10 10 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 CI6752_CARMEN-7	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0°	32 32 32 32 62 63 64 52 51 50 52 52 52 50 52 52
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLU710/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 %	61 10 10 10 10 10 10 10 10 10 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 CITTIZEN LED FWHM / FWTM Efficiency Peak intensity	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 % 8.1 cd/lm	61 10 10 10 10 10 10 10 10 10 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 % 8.1 cd/lm 1	61 10 10 10 10 10 10 10 10 10 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOU C16752_CARMEN-7 CITTIZEN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 % 8.1 cd/lm 1 White	64 25 26 26 27 26 27 26 27 26 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 C16752_CARMEN-7 Efficiency Peak intensity LEDs/each optic Light colour Required components:	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 % 8.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SO C16752_CARMEN-7 C16752_CARMEN-7 Efficiency Peak intensity LEDs/each optic Light colour Required components:	CLU700/701/702/703 10.0° / 19.0° 54 % 13.8 cd/lm 1 White CKET-C 0-SHD CLU712/713 14.0° / 30.0° 75 % 8.1 cd/lm 1 White	



CITIZEN	Γ	90*
	CLU712/713	75
FWHM / FWTM	12.0° / 24.0°	
Efficiency	51 % 7.6 cd/lm	60° / / 60
Peak intensity		
LEDs/each optic	1	
Light colour	White	
Required components		\times
F15859_HEKLA-SC		612
C16752_CARMEN		3 ⁵⁰ 8550 30
CITIZEN	I	15 ⁵ 0 ⁴ 15 ⁵
LED FWHM / FWTM	CLU7A2/7A3 8.0° / 16.0°	75
Efficiency	55 %	
Peak intensity	18.2 cd/lm	60° 6400 6
LEDs/each optic	1	
Light colour	White	
Required components		F2000
F15255_HEKLA-SC		
C16752_CARMEN		
		30 ⁶ 1500 36
		90° 90
LED	CMA1840	
FWHM / FWTM	22.0° / 47.0°	75
Efficiency	66 %	60 ⁵
Peak intensity	3 cd/lm	
LEDs/each optic	1	
Light colour	White	93*
Required components	:	\times
Bender Wirth: 637a	Hekla	2000
1		
		36° 300 30 15° 0° 15°
		20 ¹⁰ 20 ¹⁰ 20 ¹⁰ 20 ¹⁰
	CMU15xx	10 ⁷ 10 ⁷ 10 ⁴
	CMU15xx 21.0° / 46.0°	137 350 12* 35 ⁴ 35
LED		10 ⁷ 10 ⁷ 10 ⁴
LED FWHM / FWTM	21.0° / 46.0°	10 ⁷ 10 ⁷ 10 ⁴
LED FWHM / FWTM Efficiency	21.0° / 46.0° 65 %	25 ⁰ 25 ⁰ 25 ⁰
LED FWHM / FWTM Efficiency Peak intensity	21.0° / 46.0° 65 % 3.2 cd/lm	127 300 127
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	21.0° / 46.0° 65 % 3.2 cd/lm 1 White	23 ⁷ 23 ⁷ 24 ⁷ 24 25 25 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	21.0° / 46.0° 65 % 3.2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	21.0° / 46.0° 65 % 3.2 cd/lm 1 White	23 ⁷ 23 ⁷ 24 ⁷ 24 25 25 25 25 25 25 25 25 25 25



		7
CREE ÷		90° 90°
	CXA/B 15xx	73.
FWHM / FWTM	12.9° / 28.4°	
Efficiency	0 %	ége
Peak intensity	9.5 cd/lm	
LEDs/each optic	1	
Light colour	White	6430
Required components		
F15256_HEKLA-S	JCKET-D	
		36 ⁴ 3000 30 ⁶ 30 ⁶
Μ ΝΙCΗΙΛ		50° A 50°
LED	СОВ Т-Туре	
FWHM / FWTM	11.0° / 24.0°	75*
Efficiency	78 %	60 ⁴ 60 ⁴
Peak intensity	12.7 cd/lm	
LEDs/each optic	1	6439
Light colour	White	
Required components	:	
F15848_HEKLA-S	DCKET-G	
		36* 12800 30*
S /MSU		90° 90°
LED	LC003D / LC006D / LC009D / LC013D	
EED FWHM / FWTM	16.0° / 34.0°	75* 75*
Efficiency	73 %	1600
Peak intensity	6.3 cd/lm	60°
LEDs/each optic	1	
Light colour	White	99* ar
Required components		
F17435_HEKLA-G		4830
_		
		300 000 300
		15° 0° 35°
SAMSU		30 ⁴ 30 ² 30 ²
SAMSU	NG LC003D / LC006D / LC009D / LC013D	
		32 32 30 30 4 30 4 30 4 30 50 50 50 50 50 50 50 50 50 5
LED	LC003D / LC006D / LC009D / LC013D	
LED FWHM / FWTM	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0°	37
LED FWHM / FWTM Efficiency	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0° 73 %	37
LED FWHM / FWTM Efficiency Peak intensity	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0° 73 % 6.4 cd/lm	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0° 73 % 6.4 cd/lm 1 White	5 ⁷ 6 ¹ 7 ⁷ 8 ¹ 8 ¹ 8 ¹ 8 ¹ 8 ¹ 8 ¹ 8 ¹ 8 ¹
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0° 73 % 6.4 cd/lm 1 White	25% 6%, 25% 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0° 73 % 6.4 cd/lm 1 White	g. <u>5</u> , <u>5</u> ,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LC003D / LC006D / LC009D / LC013D 16.0° / 34.0° 73 % 6.4 cd/lm 1 White	g. <u>5</u> , <u>5</u> ,



SAMSU	NG	53* A 57*
LED	LC010C	
FWHM / FWTM	11.0° / 24.0°	72 72 72
Efficiency	78 %	
Peak intensity	13 cd/lm	
LEDs/each optic	1	
Light colour	White	gri de la companya de
Required component	ts:	
F17435_HEKLA-0	32-C	
		340 340
		257 - 07 - 257



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:

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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

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