

## **BARBARA-G2-M**

~25° wide beam compatible with LEDiL HEKLA

#### **SPECIFICATION:**

Dimensions	Ø 70.0 mm
Height	41.9 mm
Fastening	socket
ROHS compliant	yes 🛈



#### **MATERIALS**:

**Component** BARBARA-G2-M

**Type** Reflector

**Material** PC

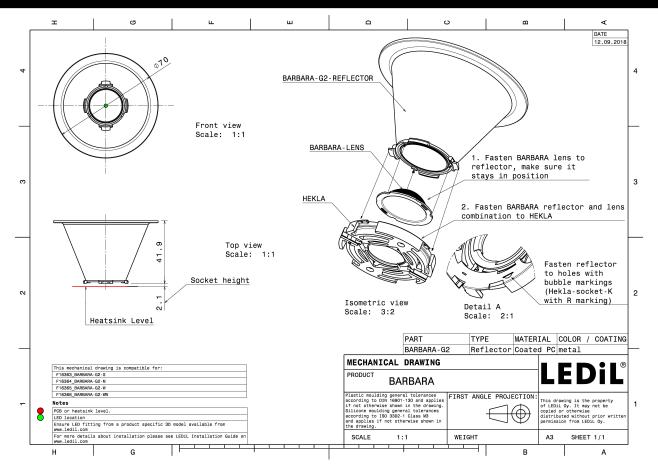
Colour	Finish	Coating
metal		

#### **ORDERING INFORMATION:**

Component	Qty in box	MOQ	MPQ	Box weight (kg)
F16364_BARBARA-G2-M	252	90	18	4.5
» Box size: 480 x 280 x 300 mm				

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# PRODUCT DATASHEET F16364\_BARBARA-G2-M



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



bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15253_HEKLA			200 00 120 200 200 00 120 00 200 00 200 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15253_HEKLA C14658_BARB/	-SOCKET-A		94 <sup>4</sup> 75 64 67 70 70 70 70 70 70 70 70 70 70 70 70 70
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA			94" 95" 74" 75" 64" 253 65" 253 75" 75" 75" 75" 75" 75" 75" 75" 75" 75"
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARB/	-SOCKET-C		20 20 20 20 20 20 20 20 20 20



bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA		
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 F15859_HEKLA C14658_BARBA	-SOCKET-I	
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 45	-SOCKET-K	



bridgelux.		90* 90*
LED	Vesta DTW 13mm (21W)	
FWHM / FWTM	34.0° / 68.0°	75°
Efficiency	82 %	
Peak intensity	2 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	Tunable White	47°
Required compone	nts:	
C16142_HEKLA		1600
C14658_BARBA	RA-RZ-LENS	
Bender Wirth: 49	)1 Тур L8	30° 30°
bridgelux.		90* 90*
LED	Vesta TW 6mm DP	
FWHM / FWTM	21.0° / 41.0°	75
Efficiency	88 %	
Peak intensity	4.5 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	White	gr ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) (
Required compone		
C16142_HEKLA		
Bender Wirth: 50		
Dender Wirth Oc		
		36 <sup>5</sup> 15 <sup>5</sup> 6 <sup>6</sup> 25 <sup>*</sup>
bridgelux.		90* 90*
LED	Vesta TW 6mm DP	
FWHM / FWTM	24.0° / 57.0°	
Efficiency	82 %	60. 60.
Peak intensity	3.2 cd/lm	
LEDs/each optic	1	
Light colour	White	49° 43°
Required compone		2430
C16142_HEKLA	-SOCKET-K	
C14658_BARBA		
Bender Wirth: 50	14 Typ L8	30° 33° 33°
bridgelux.		50° 50°
LED	Vesta TW 9mm (12W) CSP	
FWHM / FWTM	29.0° / 64.0°	
Efficiency	83 %	60° 000 60°
Peak intensity	2.6 cd/lm	
LEDs/each optic	1	
Light colour	White	97* <u>1530</u> 62*
Required compone	nts:	
C16142_HEKLA		
C14658_BARBA		2000
1		
		30° 30°



OTTAT	37	
CITIZE	.N	50°
LED	CLC030 Series (Dim-To-Warm)	
FWHM / FWTM	34.0° / 68.0°	
Efficiency	80 %	60 <sup>4</sup>
Peak intensity	1.9 cd/lm	
LEDs/each optic	1	
Light colour	White	er 120 er
Required compone	ents:	
C16142_HEKLA	A-SOCKET-K	200
C14658_BARBA	ARA-RZ-LENS	
Bender Wirth: 4	36 Typ L8	30° 200 10° 30°
CITIZE	N	90 <sup>4</sup> 91 <sup>5</sup>
LED	CLC030 Series (Dim-To-Warm)	
FWHM / FWTM	33.0° / 66.0°	37
Efficiency	87 %	
Peak intensity	2.3 cd/lm	
LEDs/each optic	1	
Light colour	White	a. a.
Required compone	ents:	
C16142_HEKLA	A-SOCKET-K	
Bender Wirth: 4	36 Typ L8	
		30" 300 32"
018185		137 00 127
CITIZE	.N	90 <sup>4</sup> 99 <sup>4</sup>
LED	CLL02x/CLU02x (LES10)	
FWHM / FWTM	24.0° / 49.0°	
Efficiency	92 %	60°
Peak intensity	3.8 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
F15255_HEKLA	A-SOCKET-C	
		30* 600 30* 30*
CITIZE	N	90°
LED	CLL03x/CLU03x	
FWHM / FWTM	31.0° / 65.0°	37
Efficiency	91 %	
Peak intensity	2.6 cd/lm	60°
LEDs/each optic	2.6 co/im 1	
LEDS/each oplic	White	c. c.
Required compone		
F15859_HEKLA		
I 13039_HEKLA		
		200
		20 <sup>6</sup> 30 <sup>4</sup> 25 <sup>7</sup> 0 <sup>4</sup> 15 <sup>4</sup>



CITIZE	N	90°
LED FWHM / FWTM	CLU700/701/702/703 19.0° / 39.0°	7.
Efficiency	92 %	
Peak intensity	5.2 cd/lm	
LEDs/each optic	1	
Light colour	White	g- 200 e
Required compone	ents:	
F15255_HEKLA	A-SOCKET-C	
		34
CITIZE	N	99 <sup>4</sup> 99
LED	LCN-C02B (Tunable White)	
FWHM / FWTM	33.0° / 67.0°	
Efficiency	82 %	
Peak intensity	2.1 cd/lm	
LEDs/each optic	1	
Light colour	Tunable White	
Required compone	ents:	
C16142_HEKLA	A-SOCKET-K	
C14658_BARB	ARA-RZ-LENS	
Bender Wirth: 4	81 Typ L8	30° - 22° - 4° - 32° - 38
	D	50° 50'
LED	CMT14xx	
FWHM / FWTM	26.0° / 57.0°	
Efficiency	92 %	69 <sup>6</sup>
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone		
F15255_HEKLA	A-SOCKET-C	
		20
		20 00 100 X
		90°
LED	CMT19xx	77:
FWHM / FWTM	32.0° / 66.0°	
Efficiency	92 %	60
Peak intensity	2.5 cd/lm	
LEDs/each optic	1	
Light colour	White	5 <sup>2</sup>
Required compone		
F15859_HEKLA	A-SOCKET-I	
		30 <sup>th</sup>
		1 <u>15</u> 7 <u>0</u> 7 <u>35</u> 7



		30 <sup>1</sup>
LED	CXA/B 13xx	
FWHM / FWTM	18.0° / 37.0°	72
Efficiency	92 %	
Peak intensity	5.5 cd/lm	
LEDs/each optic	1	
Light colour	White	a. 300 a.
Required compone		
F15956_HEKLA		
		30
		30,
LED	CXA/B 15xx	
FWHM / FWTM	23.0° / 49.0°	
Efficiency	92 %	
Peak intensity	3.9 cd/lm	
LEDs/each optic	1	
Light colour	White	₫ <sup>*</sup> <u>- 300</u> <sup>₫</sup> *
Required compone		
F15256_HEKLA	-SOCKET-D	
		20 <sup>4</sup> 40/0 20 <sup>4</sup> 20 <sup>4</sup>
		80*
	CXA/B 1816 & CXA/B 1820 & CXA 1850	99 <sup>0</sup>
		90 <sup>1</sup>
LED FWHM / FWTM	CXA/B 1816 & CXA/B 1820 & CXA 1850	
LED	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0°	97 97 99 99 90 90 90 90 90
LED FWHM / FWTM Efficiency	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 %	
LED FWHM / FWTM Efficiency Peak intensity	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts:	gy
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts:	ge
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 % 1.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 % 1.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 % 1.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 % 1.9 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA COMPLED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 % 1.9 cd/lm 1 White nts: .RA-RZ-LENS	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15254_HEKLA	CXA/B 1816 & CXA/B 1820 & CXA 1850 29.0° / 63.0° 91 % 2.9 cd/lm 1 White nts: -SOCKET-B EDS LUXEON CX Plus CoB L08 (Gen2) 35.0° / 68.0° 82 % 1.9 cd/lm 1 White nts: .RA-RZ-LENS	



	.EDS	90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 6	LUXEON CX Plus CoB L08 (Gen2) 33.0° / 66.0° 90 % 2.4 cd/lm 1 White ents:	9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
		30° (200 ) 15° (0° 25° )
🖉 LUMIL	.EDS	55° 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15848_HEKLA		
	EDS	30*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15858_HEKLA	LUXEON CoB 1204HD 25.0° / 53.0° 92 % 3.6 cd/lm 1 White ents: -SOCKET-H	
🤭 LUMIL	.EDS	90 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1205HD 28.0° / 63.0° 91 % 3 cd/lm 1 White	797 601 727 727
Required compone F15858_HEKLA		30 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup> 10 <sup>1</sup>



COMIL	EDS	90 <sup>4</sup>	90*
LED	LUXEON CoB 1208		
FWHM / FWTM	33.0° / 66.0°	23	
Efficiency	90 %	ere-	
Peak intensity	2.4 cd/lm		
LEDs/each optic	1		$\times$ / $\square$ $\land$ $\times$ $\square$
Light colour	White	g.	
Required compone	nts:		1000
Bender Wirth: 63	32a Hekla XL		
		360	300
	EDS		157 0° 157
LED FWHM / FWTM	LUXEON CX Plus CoB - HD S01H4 24.0° / 57.0°	73-	
Efficiency	84 %		
Peak intensity	3.3 cd/lm	60*	
LEDs/each optic	1		<b>1600</b>
Light colour	White		
Required compone			
C14658_BARBA			
Bender Wirth: 63			
			320
		7	15% 0% 15%
	EDS	55*	90*
	EDS LUXEON CX Plus CoB - HD S01H4	50°	
		90 <sup>4</sup> 175	
LED	LUXEON CX Plus CoB - HD S01H4	50 <sup>4</sup> 73 <sup>4</sup> 60 <sup>4</sup>	99 <sup>4</sup>
LED FWHM / FWTM	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0°	90 <sup>4</sup> 73 <sup>4</sup> 90 <sup>4</sup>	90° 1000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1	90* 75* 60*	90 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White	90 <sup>4</sup> 79 60 <sup>4</sup> 97	100 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts:	90 90 90	100 Jan 200 ar
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts:	91 <sup>4</sup> 77 07	300 300 300 500 8. 6.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts:	90 <sup>4</sup> 73 69 <sup>4</sup> 69	1000 (Pr 1000) (
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts:	90 19 01 01 01 01 01 01 01 01 01 01 01 01 01	100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla	90' 75 60' 91' 91' 91'	25 20 20 20 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 S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla	91 17 91 91 91 91 91 91	200 000 000 000 000 000 000 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0° 84 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0° 84 % 3.2 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0° 84 % 3.2 cd/lm 1 White		200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 <b>COMPARENT</b> Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0° 84 % 3.2 cd/lm 1 White nts:		600 1600
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 S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0° 84 % 3.2 cd/lm 1 White nts: \kar{A}-RZ-LENS		00 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63 LUMIL LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA	LUXEON CX Plus CoB - HD S01H4 20.0° / 39.0° 91 % 5 cd/lm 1 White nts: 34c Hekla EDS LUXEON CX Plus CoB - HD S01H6 / HD S02H6 25.0° / 60.0° 84 % 3.2 cd/lm 1 White nts: \kar{A}-RZ-LENS		00 200 200



	EDS	
		90° 90°
LED	LUXEON CX Plus CoB - HD S01H6 / HD S02H6	73.
FWHM / FWTM	21.0° / 40.0°	
Efficiency	91 %	60° 60°
Peak intensity	4.8 cd/lm	
LEDs/each optic	1	
Light colour	White	2 1 300
Required compone Bender Wirth: 63		
Bender Wirth: 63	эчс пекіа	
		30° 600
	EDC	15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>5</sup>
		90 <sup>+</sup> 90 <sup>+</sup>
LED	LUXEON CX Plus CoB - HD S04H9	73.
FWHM / FWTM	26.0° / 58.0°	
Efficiency	91 %	601 X / 60
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	43°
Required compone		
Bender Wirth: 63	34c Hekla	
		3200
		30° 30° 30°
🤭 LUMIL	.EDS	90* 90*
	LUXEON CX Plus CoB - HD S04H9	
		90 <sup>4</sup> 90 <sup>7</sup>
LED	LUXEON CX Plus CoB - HD S04H9	90 <sup>4</sup> 75 <sup>1</sup> 00 00
LED FWHM / FWTM	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0°	90°
LED FWHM / FWTM Efficiency	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 %	60 60 60 60 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm	9° 99'
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White	90* 90 97* 90 97* 90 90 90 90 90 90 90 90 90 90 90 90 90 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White ints:	50° 50 75° 00 75° 00 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White white ARA-RZ-LENS	90 <sup>+</sup> 90 90 <sup>+</sup> 75 90 <sup>+</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White white ARA-RZ-LENS	20°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White Ints: ARA-RZ-LENS 34c Hekla	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White Ints: ARA-RZ-LENS 34c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White Ints: ARA-RZ-LENS 34c Hekla	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White Ints: ARA-RZ-LENS 34c Hekla LUXEON CX Plus CoB L04 / L05 (Gen2)	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White Ints: ARA-RZ-LENS 34c Hekla LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0°	32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63 <b>CIUMIL</b> LED FWHM / FWTM Efficiency Peak intensity	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White Ints: ARA-RZ-LENS 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0° 90 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63 <b>COMPARENT</b> Efficiency Peak intensity LEDs/each optic	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White mts: ARA-RZ-LENS 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0° 90 % 2.9 cd/lm	75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63 COMPLED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White mts: ARA-RZ-LENS 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0° 90 % 2.9 cd/lm 1 White	737 647 667 667
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White mts: ARA-RZ-LENS 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0° 90 % 2.9 cd/lm 1 White mts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63 COMPUTE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White mts: ARA-RZ-LENS 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0° 90 % 2.9 cd/lm 1 White mts:	23 60 e
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARBA Bender Wirth: 63	LUXEON CX Plus CoB - HD S04H9 28.0° / 64.0° 85 % 2.6 cd/lm 1 White mts: ARA-RZ-LENS 34c Hekla EDS LUXEON CX Plus CoB L04 / L05 (Gen2) 29.0° / 63.0° 90 % 2.9 cd/lm 1 White mts:	73 60 60 60 60 60 60 60 60 60 60 60 60 60



🥙 LUMIL	EDS	50 <sup>3</sup>
LED	LUXEON CX Plus CoB L04 / L05 (Gen2)	
FWHM / FWTM	32.0° / 66.0°	27
Efficiency	83 %	
Peak intensity	2.2 cd/lm	
LEDs/each optic	1	
Light colour	White	gr da
Required compone	nts:	100
C14658_BARBA		
Bender Wirth: 63	87a Hekla	
		34 34
	EDS	
LED	LUXEON CX Plus CoB M02 / M03 (Gen2)	
FWHM / FWTM	27.0° / 64.0°	78
Efficiency	84 %	
Peak intensity	2.7 cd/lm	Bu. de
LEDs/each optic	1	
Light colour	White	gr
Required compone		
C14658_BARBA		
Bender Wirth: 64		200
		257 67 125
UMIL	EDS	99 <sup>4</sup> 99 <sup>4</sup>
LED	LUXEON CX Plus CoB M02 / M03 (Gen2)	
FWHM / FWTM	24.0° / 51.0°	
Efficiency	91 %	
Peak intensity	3.7 cd/lm	
	5.7 Cu/III	
LEDs/each optic	1	
		e <sup>-</sup> 200
LEDs/each optic	1 White	ar ar
LEDs/each optic Light colour	1 White nts:	45° (300)
LEDs/each optic Light colour Required compone	1 White nts:	97 - 209 - 67 - 309
LEDs/each optic Light colour Required compone	1 White nts:	e <sup>+</sup> 200 e <sup>+</sup>
LEDs/each optic Light colour Required compone	1 White nts: I1a Hekla	er 200 220
LEDs/each optic Light colour Required compone Bender Wirth: 64	1 White nts: I1a Hekla	er 2011, 2014, 20,
LEDs/each optic Light colour Required compone Bender Wirth: 64	1 White nts: I1a Hekla	
LEDs/each optic Light colour Required compone Bender Wirth: 64	1 White nts: I1a Hekla EDS LUXEON CX Plus CoB S01 (Gen2)	
LEDs/each optic Light colour Required compone Bender Wirth: 64	1 White Ints: I1a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0°	
LEDs/each optic Light colour Required compone Bender Wirth: 64 WILLED FWHM / FWTM Efficiency	1 White Ints: Ita Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0° 84 %	
LEDs/each optic Light colour Required compone Bender Wirth: 64 WIM / WITH Efficiency Peak intensity	1 White Ints: I1a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0° 84 % 3.3 cd/lm	
LEDs/each optic Light colour Required compone Bender Wirth: 64 WIM / WITH Efficiency Peak intensity LEDs/each optic	1 White nts: I1a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0° 84 % 3.3 cd/lm 1 White	
LEDs/each optic Light colour Required compone Bender Wirth: 64 WIM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	1 White nts: I1a Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0° 84 % 3.3 cd/lm 1 White nts:	
LEDs/each optic Light colour Required compone Bender Wirth: 64 LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	1 White Ints: Ita Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0° 84 % 3.3 cd/lm 1 White Its: RA-RZ-LENS	
LEDs/each optic Light colour Required compone Bender Wirth: 64 LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14658_BARB/	1 White Ints: Ita Hekla EDS LUXEON CX Plus CoB S01 (Gen2) 24.0° / 58.0° 84 % 3.3 cd/lm 1 White Its: RA-RZ-LENS	



LUMIL	EDS	50°
LED	LUXEON CX Plus CoB S01 (Gen2)	
FWHM / FWTM	20.0° / 39.0°	73
Efficiency	91 %	
Peak intensity	5.1 cd/lm	
LEDs/each optic	1	
Light colour	White	a. <u>200</u> a.
Required compone		
Bender Wirth: 6		
		30* 347
	EDS	307 <sup>4</sup> 0 <sup>4</sup> 307
		90° 95°
LED	LUXEON Fusion 21-up (20x24)	75
FWHM / FWTM	27.0° / 63.0°	
Efficiency	84 %	(m. ) (m. )
Peak intensity	2.9 cd/lm	
LEDs/each optic	1	er 200 -
Light colour	White	
Required compone		$\times$
C16142_HEKLA		200
C14658_BARBA		
Bender Wirth: 4-	42 Typ L8	305 257 304
PHILIF	<b>DS</b>	5)*
LED	Fortimo SLM L09 CoB	
FWHM / FWTM	25.0° / 53.0°	73
Efficiency	92 %	
Peak intensity	3.6 cd/lm	
LEDs/each optic	1	
Light colour	White	g. G.
Required compone	ents:	
F15858_HEKLA	-SOCKET-H	
		200
		20
PHILIF	<b>PS</b>	157 07 157 1801 1915
LED	Fortimo SLM L09 CoB	
FWHM / FWTM	27.0° / 64.0°	75
Efficiency	88 %	
Peak intensity	2.9 cd/lm	
LEDs/each optic	2.9 cd/im 1	
Light colour	ı White	ey
Required compone		
F15858_HEKLA		
C14658_BARBA		
		$\times$ / $\bigvee$ $\times$
		30° - 53° - 53°



<b>B</b>			
PHILIP	5	90*	90°
LED	Fortimo SLM L13 CoB		
FWHM / FWTM	33.0° / 65.0°	73	
Efficiency	89 %		
Peak intensity	2.3 cd/lm		
LEDs/each optic	1		
Light colour	White	gr.	45°
Required componer			1690
C16142_HEKLA-			
Bender Wirth: 43			
		30-	2430 36*
PHILIP	S	20 <sup>-</sup>	90°
LED	Fortimo SLM L13 CoB		$\wedge$
FWHM / FWTM	34.0° / 67.0°	75	
Efficiency	83 %		
Peak intensity	2 cd/lm	60	800 6Q*
LEDs/each optic	1		
Light colour	White	63	45°
Required componer			
C16142_HEKLA-			1630
C14658_BARBAI			
Bender Wirth: 43			
Dender Wirth. 43.	2 199 20	<sup>36*</sup> 157	06 12. 39.
PHILIP	S	50*	90*
LED	Fortimo SLM L15 CoB		
FWHM / FWTM	36.0° / 69.0°		400
Efficiency	83 %		
Peak intensity	1.8 cd/lm		
LEDs/each optic			
	1		
Light colour	1 White	a.	
	White		1220
Light colour	White ts:	<b>9</b> .	·0
Light colour Required componer	White its: SOCKET-K		. 129 er
Light colour Required componer C16142_HEKLA-	White tts: SOCKET-K RA-RZ-LENS	57- 30- 30-	- 109
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433	White tts: SOCKET-K RA-RZ-LENS	30- 30- 30- 30- 30- 30- 30- 30- 30- 30-	2020
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8	97 	25%2 25"
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB	50°	25%2 25"
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 43: <b>PHILLP</b> LED FWHM / FWTM	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0°	30 <sup>4</sup> 20 <sup>4</sup>	25%2 25"
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 43: <b>PHILLP</b> LED FWHM / FWTM Efficiency	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0° 88 %		2850 153
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 43: <b>PHILLP</b> LED FWHM / FWTM Efficiency Peak intensity	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0°		2850 153
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 43: <b>PHILLP</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0° 88 % 2.1 cd/lm 1		2850 153
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433 <b>PHILLP</b> FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0° 88 % 2.1 cd/lm 1 White		2850 153
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433 <b>DHILLD</b> FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0° 88 % 2.1 cd/lm 1 White tts:		2850 153
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433 <b>DHILLO</b> FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA-	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0° 88 % 2.1 cd/lm 1 White tts: SOCKET-K		25%2 25"
Light colour Required componer C16142_HEKLA- C14658_BARBAI Bender Wirth: 433 <b>DHILLD</b> FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	White tts: SOCKET-K RA-RZ-LENS 2 Typ L8 S Fortimo SLM L15 CoB 35.0° / 67.0° 88 % 2.1 cd/lm 1 White tts: SOCKET-K		252



LED LC0207 / LC020B / LC020B / LC013D FWHM / FWTM 25.0° / 52.0° Electioncy 25.% Peak Intensity 3.6 cd/m LEDAeach optic 1 Light colour White Required components: Fr5255_HEKLA-SOCKET-C SAMSUNC LED LC0207 (Tunable white) Required components: Fr5255_HEKLA-SOCKET-C SAMSUNC LED LC0207 (Tunable white) Required components: Fr5255_HEKLA-SOCKET-C SAMSUNC LED LC0207 (Tunable white) Required components: Fr5255_HEKLA-SOCKET-K Bender With: 501 Typ L8	SAMSL	JNG	90*	9
Efficiency 92% Preak intensity 3.6 od/m Light color While Regulated components: F15255 HEKLA-SOCKET-C SAMS UNC LED LC010C 62 EWMA / FVTM 120738.0° Efficiency 22% Peak intensity 5.4 cd/m Light color While Regulated components: F1525. HEKLA-SOCKET-C SAMS UNC Light color While Regulated components: F1525. HEKLA-SOCKET-C SAMS UNC Light color 1 Light color 0 F16142_HEKLA-SOCKET-K Breader Units: 501 Typ L3 SAMS UNC LED LC020T (Tunable White Regulated components: C16142_HEKLA-SOCKET-K Breader Units: 501 Typ L3 SAMS UNC LED LC020T (Tunable White Regulated components: C16142_HEKLA-SOCKET-K Breader Units: 501 Typ L3 SAMS UNC LED LC020T (Tunable White Regulated components: C16142_HEKLA-SOCKET-K Breader Units: 501 Typ L3 SAMS UNC LED LC020T (Tunable White Regulated components: C16142_HEKLA-SOCKET-K Breader Units: 501 Typ L3 SAMS UNC LED LC020T (Tunable White Regulated components: C16142_HEKLA-SOCKET-K Breader Units: 501 Typ L3 SAMS UNC LED LC020T (Tunable White Regulated components: C16142_HEKLA-SOCKET-K Efficiency 83% Pask Intensity 2.1 cd/m LEDWach optic 1 LEDWach optic	LED			$\downarrow$
Peak Intensity 3.6 colim LEDA/each optic 1 LEDA/each optic 1 LEDA/each optic 2 P15255_HEKLA-SOCKET-C SAMSUNC LED LC000C 62 FWHA/FWTM 18.07/38.0° Efficiency 25.4 colim LEDA/each optic 1 Light colour White Required components: F15256_HEKLA-SOCKET-C SAMSUNC LEDA/each optic 1 Light colour White Required components: F15256_HEKLA-SOCKET-C SAMSUNC LEDA/each optic 1 Light colour Turable White Required components: C15142_HEKLA-SOCKET-K Ender Winth: S01 Typ L8 SAMSUNC LEDA/each optic 1 Light colour Turable White Required components: C15142_HEKLA-SOCKET-K Ender Winth: S01 Typ L8	FWHM / FWTM	25.0° / 52.0°	75	
LEDviewh optic 1 Light color White Required components: F15255, HEKLA-SOCKET-C SAMSUNC LED LCOIOC G2 FWHM /FWTM 18.07 /38.07 Efficiency 25 & Peak intensity 5.4 cd/m LEDviewch optic 1 Light color White Required components: F15256, HEKLA-SOCKET-C SAMSUNC LEDviewch optic 1 Light color Tunable White Required components: C16142, HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNC LEDviewch optic 1 Light color Tunable White Required components: C16142, HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	Efficiency	92 %	604	$\langle X \rangle \langle A \rangle X \rangle$
Light colour Mine Required components: Fr225_HERLASOCKET-C SAMSUNG LED LC0100 62 FWHM/FWTM 18.07/38.0° Endernoy 92.% Peak intensity 2.5 ddm LEDWack optice 1 LUpht colour White Required components: F1525_HERLASOCKET-C Ender With: 501 Typ L8 SAMSUNG LEDWack optice 1 Lupht colour Turable White Required components: F15142_HERLASOCKET-K Ender With: 501 Typ L8	Peak intensity	3.6 cd/lm		1500
Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC01CG C2 FWHM/FVTM 18.0°/38.0° Eliciancy 92% Peak Intensity 5.4 cd1m LEDbreach optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-K Bender Wirth: 501 Typ L3 EDSizeach optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L3 EDSizeach optic 1 LED C020T (Tunable white) FWHM/FVTM 33.0°/67.0° Eliciency 83% Peak Intensity 2.1 cd/m LEDSizeach optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L3 EDSizeach optic 1 LEDSizeach optic 1 LEDSizeach optic 1 LEDSizeach optic 1 LEDSizeach optic 1 LEDSizeach optic 1 LEDSizeach optic 2 C16142_HEKLA-SOCKET-K Required components: C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K Required components: C16142_HEKLA-SOCKET-K C16142_HEK	LEDs/each optic	1		$\times$ / / $\wedge$ $\times$
F12255_HEKLA-SOCKET-C	Light colour	White	97	
SAMSUNG LED COTO G2 FWHM /FVT M 18.0°/38.0° Enciency 22.% Pack Intensity 5.4 cdm LEDbreach optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED CO20T (FUnable white) Required components: C16142_HEKLA-SOCKET-K Bender Writh: 501 Typ LB ENCOUNT SUNG LED CO20T (FUnable white) Required components: C16142_HEKLA-SOCKET-K Bender Writh: 501 Typ LB Enciency 38.% Pack Intensity 2.1 cd/m LED Co20T (FUnable white) Required components: C16142_HEKLA-SOCKET-K Bender Writh: 501 Typ LB	Required compone	nts:		
SAMUSUNG LD LCNOC G2 FWHM / FWTM 18.0° / 38.0° Efficiency 92% Pack intensity 2.5.4 cd/m LED2/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMUSUNG LED2 Efficiency 88% Peak intensity 2.5 cd/m LED2/each optic 1 LED2/each optic 1 LED2/	F15255_HEKLA	-SOCKET-C		$\times$
LED LC010C G2 FWHM /FVTM 18.0*/38.0* Efficiency 92 % Peak intensity 5.4 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 Efficiency 88 % Peak intensity 2.5 cd/m LED LC020T (funable white) FWHM /FVTM 31.0*/64.0* Efficiency 88 % Peak intensity 2.5 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 SAMUSUNG Efficiency 88 % Peak intensity 2.5 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 SAMUSUNG EEDVEEACUT Tunable White Required components: C16142_HERLA-SOCKET-K Bender Wirth: 501 Typ L8				
LED LC010C G2 FWHM /FVTM 18.0*/38.0* Efficiency 92 % Peak intensity 5.4 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 Efficiency 88 % Peak intensity 2.5 cd/m LED LC020T (funable white) FWHM /FVTM 31.0*/64.0* Efficiency 88 % Peak intensity 2.5 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 SAMUSUNG Efficiency 88 % Peak intensity 2.5 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 SAMUSUNG EEDVEEACUT Tunable White Required components: C16142_HERLA-SOCKET-K Bender Wirth: 501 Typ L8			yb.	15 <sup>5</sup> 8 <sup>2</sup>
LED LC010C G2 FWHM /FVTM 18.0*/38.0* Efficiency 92 % Peak intensity 5.4 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 Efficiency 88 % Peak intensity 2.5 cd/m LED LC020T (funable white) FWHM /FVTM 31.0*/64.0* Efficiency 88 % Peak intensity 2.5 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 SAMUSUNG Efficiency 88 % Peak intensity 2.5 cd/m LEDveeach optic 1 LEDveeach optic 1 LEDveeach optic 1 SAMUSUNG EEDVEEACUT Tunable White Required components: C16142_HERLA-SOCKET-K Bender Wirth: 501 Typ L8	SAMSI	JNG	96*	
FWHM / FWTM 18.0° / 38.0° Efficiency 92% Peak intensity 5.4 cd/m LEpVeak optic 1 Light colour White Required components: F15255_HEKLA_SOCKET-C SAMAS UNG LED LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88% Peak intensity 2.5 cd/m LEDS-each optic 1 Light colour Tunable White Required components: C16142_HEKLA_SOCKET-K Bender Wirth: 501 Typ L8 SAMAS UNG LEDS-each optic 1 Light colour Tunable White Required components: C16142_HEKLA_SOCKET-K Efficiency 83% Peak intensity 2.1 cd/m LEDS-each optic 1 Light colour Tunable White Required components: C16142_HEKLA_SOCKET-K Efficiency 83% Peak intensity 2.1 cd/m LEDS-each optic 1 Light colour Tunable White Required components: C16142_HEKLA_SOCKET-K Efficiency 83% Peak intensity 2.1 cd/m LEDS-each optic 1 Light colour Tunable White Required components: C16142_HEKLA_SOCKET-K C16142_HEKLA_SOCKET-K C16458_BARBARA-R2:LENS	LED			
Efficiency 92 % Peak intensity 5.4 collm LEDVeach optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 collm LEDSeach optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020T (Tunable white) FWHM / FUTM 33.0° / 7.0° Efficiency 83 % Peak intensity 2.1 collm LEDSeach optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Efficiency 83 % Peak intensity 2.1 collm LEDSeach optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K	FWHM / FWTM		75	
Peak intensity 5.4 cd/m LEDS/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNC LED & LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Efficiency 83 % Peak intensity 2.1 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Efficiency 83 % Peak intensity 2.1 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Efficiency 83 % Peak intensity 2.1 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	Efficiency			
LEDs/each optic 1 Light colour White Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LO20T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 col/m LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG Efficiency 83 % Peak intensity 2.1 col/m LEDs/each optic 1 Light colour Tunable white) FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 col/m LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16145_HEKLA-SOCKET-K	-		605	
Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/m LED2/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED2/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Efficiency 83 % Peak intensity 2.1 cd/m LED2/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LEDs/each optic	1		
Required components: F15255_HEKLA-SOCKET-C SAMSUNG LED LC020T (Tunable white) FWHM / FVTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/m LED2/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSUNG LED LC020T (Tunable white) FWHM / FVTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/m LED2/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C16142_HEKLA-SOCKET-K C16452_BARBARA-RZ-LENS	•	White	934	
F15255_HEKLA-SOCKET-C		nts:		
SAMSUNG LED LC020T (Tunable white) EVHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/m LEDs/each optic 1 Light colour Tunable White Required components: Efficiency SAMSUNG LED LC020T (Tunable white) EMMENDED EMMENDED Efficiency 83 % Peak intensity 2.1 cd/m LEDs/each optic 1 Light colour Tunable White Required components: Efficiency 83 % Peak intensity 2.1 cd/m LEDs/each optic 1 Light colour Tunable White Required components: Efficiency 10 Efficiency 10 Efficiency 10 Efficiency 21 Efficiency 21 Effici				$\times / \times \times$
LED LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMS UNC EFD LC020T (Tunable white) FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	_			400
LED LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMS UNC EFD LC020T (Tunable white) FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS			- Ale	
LED LC020T (Tunable white) FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMS UNC EFD LC020T (Tunable white) FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS				
FWHM / FWTM 31.0° / 64.0° Efficiency 88 % Peak intensity 2.5 cd/m LEDS/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	SAMSL	JNG	90*	
Efficiency 88 % Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8 SAMSSUNG LED LC020T (Tunable white) FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS			<u>195</u> *	
Peak intensity 2.5 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	LED	LC020T (Tunable white)	94 72	
LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	LED FWHM / FWTM	LC020T (Tunable white) 31.0° / 64.0°	92 	
Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	LED FWHM / FWTM Efficiency	LC020T (Tunable white) 31.0° / 64.0° 88 %	80. 197	
Required components: C16142_HEKLA-SOCKET-K Bender Wirth: 501 Typ L8	LED FWHM / FWTM Efficiency Peak intensity	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm	95 95 96	
Bender Wirth: 501 Typ L8	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1	94 95 97	
SAMSSUNG LED LC020T (Tunable white) FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White	94* 75- 98*	
LED   LC020T (Tunable white)     FWHM / FWTM   33.0° / 67.0°     Efficiency   83 %     Peak intensity   2.1 cd/lm     LEDs/each optic   1     Light colour   Tunable White     Required components:   1     C16142_HEKLA-SOCKET-K   160     C14658_BARBARA-RZ-LENS   160	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts:	974 1975 1974	- 00
LED   LC020T (Tunable white)     FWHM / FWTM   33.0° / 67.0°     Efficiency   83 %     Peak intensity   2.1 cd/lm     LEDs/each optic   1     Light colour   Tunable White     Required components:   1     C16142_HEKLA-SOCKET-K   160     C14658_BARBARA-RZ-LENS   160	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K	97 97 97 97	
LED   LC020T (Tunable white)     FWHM / FWTM   33.0° / 67.0°     Efficiency   83 %     Peak intensity   2.1 cd/lm     LEDs/each optic   1     Light colour   Tunable White     Required components:   1     C16142_HEKLA-SOCKET-K   160     C14658_BARBARA-RZ-LENS   160	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K	94 97 97 97 98 98	
FWHM / FWTM 33.0° / 67.0° Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 01 Typ L8	94 195 196 196 196 196 196 196 196 196	
Efficiency 83 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8	94 194 194 194 194 194 194 194 194 194 1	500 500 500 500 500
Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8 JNG LC020T (Tunable white)		
LEDs/each optic 1 Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 SANSU LED FWHM / FWTM	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8 JNG LC020T (Tunable white) 33.0° / 67.0°		
Light colour Tunable White Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 <b>SANNSU</b> LED FWHM / FWTM Efficiency	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8 JNG LC020T (Tunable white) 33.0° / 67.0° 83 %		
Required components: C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 SANSU LED FWHM / FWTM Efficiency Peak intensity	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8 JNG LC020T (Tunable white) 33.0° / 67.0° 83 % 2.1 cd/lm		
C16142_HEKLA-SOCKET-K C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 SANSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K D1 Typ L8 JNG LC020T (Tunable white) 33.0° / 67.0° 83 % 2.1 cd/lm 1		
C14658_BARBARA-RZ-LENS	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 SAMSL ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K D1 Typ L8 <b>JNG</b> LC020T (Tunable white) 33.0° / 67.0° 83 % 2.1 cd/lm 1 Tunable White		
	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8 <b>JNGG</b> LC020T (Tunable white) 33.0° / 67.0° 83 % 2.1 cd/lm 1 Tunable White nts:		
	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA Bender Wirth: 50 SAMSL ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LC020T (Tunable white) 31.0° / 64.0° 88 % 2.5 cd/lm 1 Tunable White nts: -SOCKET-K 11 Typ L8 <b>JNGC</b> LC020T (Tunable white) 33.0° / 67.0° 83 % 2.1 cd/lm 1 Tunable White nts: -SOCKET-K		



TRIDON	lic		90° 90°
LED	SLE G7 LES09		
FWHM / FWTM	24.0° / 50.0°		25
Efficiency	94 %		
Peak intensity	3.9 cd/lm		
LEDs/each optic	1		
Light colour	White		ar <u>2000</u> ar
Required compone	nts:		
F15255_HEKLA	-SOCKET-C		000
			30° 4000 30°
TRIDON			90* 90* 90*
	SLE G7 LES09	and the second	73.
FWHM / FWTM	26.0° / 63.0°		
Efficiency	90 %		60- 60*
Peak intensity	3.1 cd/lm		
LEDs/each optic	1		
Light colour	White		
Required compone			300
F15255_HEKLA			
C14658_BARBA	IRA-RZ-LENS		
			30° 3200 32°
TRIDON			90° 90°
			90 <sup>2</sup>
LED	SLE G7 LES13		75- 75- 75- 75- 75- 75- 75- 75- 75- 75-
LED FWHM / FWTM	SLE G7 LES13 32.0° / 67.0°		32 33
LED FWHM / FWTM Efficiency	SLE G7 LES13 32.0° / 67.0° 84 %		60 <sup>2</sup> 00 60 <sup>2</sup>
LED FWHM / FWTM Efficiency Peak intensity	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm		602 602 52 50 75 75 75 75 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1		00 00 22 23 24 24 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White		6. 6. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts:		gr 60 97 98 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I		97 97 98 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I		100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I IRA-RZ-LENS		200 200 000 000 000 000 000 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I IRA-RZ-LENS		100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I .RA-RZ-LENS		100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I .RA-RZ-LENS SLE G7 LES13 30.0° / 64.0°		100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/ TRIDON LED FWHM / FWTM Efficiency	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I .RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 %		100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARBA C14658_BARBA EFRIDON LED FWHM / FWTM Efficiency Peak intensity	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I .RA-RZ-LENS SLE G7 LES13 30.0° / 64.0°		100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARBA C14658_BARBA EFFICIENCY FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I .RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 % 2.7 cd/lm 1		200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/ C14658_BARB/ Efficiency FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 % 2.7 cd/lm 1 White		500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/ TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: SOCKET-I RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 % 2.7 cd/lm 1 White nts:		200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/ C14658_BARB/ Efficiency FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: SOCKET-I RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 % 2.7 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/ TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 % 2.7 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15859_HEKLA C14658_BARB/ TRIDON LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	SLE G7 LES13 32.0° / 67.0° 84 % 2.2 cd/lm 1 White nts: -SOCKET-I RA-RZ-LENS SLE G7 LES13 30.0° / 64.0° 91 % 2.7 cd/lm 1 White nts:		



TRIDOM		50*
		5°*
LED	SLE G7 LES15	29
FWHM / FWTM	32.0° / 66.0°	
Efficiency	91 %	pp*
Peak intensity	2.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone F15859_HEKLA		
T 13039_HEREA		
		200
		30 <sup>6</sup> 25 <sup>5</sup> 0 <sup>3</sup> 15 <sup>5</sup>
XICATO	)	5x*
LED	XOB 14.5 mm	
FWHM / FWTM	30.0° / 65.0°	
Efficiency	92 %	
Peak intensity	2.6 cd/lm	
LEDs/each optic	1	
Light colour	White	9 <sup>4</sup> 180
Required compone		
F15859_HEKLA		
		300
VICATO	<b>`</b>	
XICATO		30'
LED	XOB 6 mm	
FWHM / FWTM	23.0° / 55.0°	
Efficiency	86 %	605
Peak intensity	3.6 cd/lm	
Peak intensity LEDs/each optic	3.6 cd/lm 1	
Peak intensity LEDs/each optic Light colour	3.6 cd/lm 1 White	9* 5* 5*
Peak intensity LEDs/each optic Light colour Required compone	3.6 cd/lm 1 White ents:	9 <sup>4</sup> 9 <sup>7</sup> 309
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	3.6 cd/lm 1 White ents: A-SOCKET-C	<b>5</b> 7 <b>2</b> 00
Peak intensity LEDs/each optic Light colour Required compone	3.6 cd/lm 1 White ents: A-SOCKET-C	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	3.6 cd/lm 1 White ents: N-SOCKET-C	<b>5</b> 7 <b>2</b> 00
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	3.6 cd/lm 1 White ents: A-SOCKET-C ARA-RZ-LENS	<b>5</b> 7 <b>2</b> 00
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARBA	3.6 cd/lm 1 White ents: A-SOCKET-C ARA-RZ-LENS	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARB/	3.6 cd/lm 1 White ents: A-SOCKET-C ARA-RZ-LENS	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARBA	3.6 cd/lm 1 White ents: A-SOCKET-C ARA-RZ-LENS XOB 6 mm	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARBA ELED FWHM / FWTM Efficiency	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0°	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARB/ ELED FWHM / FWTM Efficiency Peak intensity	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0° 90 %	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARB/ XICATC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0° 90 % 5.1 cd/lm	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARBA C14658_BARBA	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0° 90 % 5.1 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARBA <b>XICATC</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0° 90 % 5.1 cd/lm 1 White ents:	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARB/	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0° 90 % 5.1 cd/lm 1 White ents:	
Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA C14658_BARB/ <b>XICATC</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	3.6 cd/lm 1 White ents: -SOCKET-C ARA-RZ-LENS XOB 6 mm 18.0° / 39.0° 90 % 5.1 cd/lm 1 White ents:	



XICATO	)	9x* 95*
LED	XOB 9.8 mm	79
FWHM / FWTM	24.0° / 50.5 + 51.0°	
Efficiency	92 %	60*
Peak intensity	3.8 cd/lm	
LEDs/each optic	1	
Light colour	White	er 2400
Required compone	ents:	
F15255_HEKLA	A-SOCKET-C	200
		15 <sup>4</sup> 000 25 <sup>4</sup>



## **OPTICAL RESULTS (SIMULATED):**

bridgelux.		90* 90*
LED	V13 Gen 8	75'
FWHM / FWTM	32.0° / 66.0°	
Efficiency	89 %	50° 600 64°
Peak intensity	2.5 cd/lm	
LEDs/each optic	1	
Light colour	White	45°
Required components:		
F17438_HEKLA-G2-		
		30°
bridgelux.		90 <sup>4</sup> 90 <sup>5</sup>
LED	VERO10	
FWHM / FWTM	24.0° / 53.0°	500 × 100
Efficiency	89 %	60°
Peak intensity	3.6 cd/lm	100
LEDs/each optic	1	
Light colour	White	93 <sup>2</sup> 03 <sup>4</sup>
Required components:		
F15616_HEKLA-SO	CKET-F	
		200
		30* 31*
bridgelux.		90 <sup>4</sup> 90 <sup>4</sup> 90 <sup>4</sup>
bridgelux. LED	VER013	
	VERO13 31.0° / 63.0°	25 <u>7</u> 55 <sup>4</sup> 37 30 50 50 50 50 50 50 50 50 50 50 50 50 50
LED		
LED FWHM / FWTM	31.0° / 63.0°	77 000 000 000
LED FWHM / FWTM Efficiency	31.0° / 63.0° 83 %	
LED FWHM / FWTM Efficiency Peak intensity	31.0° / 63.0° 83 % 2.4 cd/lm	75 00 60 100 57 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	31.0° / 63.0° 83 % 2.4 cd/lm 1 White	77 000 000 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	31.0° / 63.0° 83 % 2.4 cd/lm 1 White	75 00 60 100 57 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	31.0° / 63.0° 83 % 2.4 cd/lm 1 White	75 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	31.0° / 63.0° 83 % 2.4 cd/lm 1 White	77 00 04 100 04 100 04 100 04 100 04 100 04 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO	31.0° / 63.0° 83 % 2.4 cd/lm 1 White	77 00 04 100 04 100 04 100 04 100 04 100 04 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K	77 00 00 00 00 00 00 00 00 00 00 00 00 0
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO bridgeLux. LED	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W)	77 00 00 00 00 00 00 00 00 00 00 00 00 0
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO bridgelux. LED FWHM / FWTM	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K	77 00 00 00 00 00 00 00 00 00 00 00 00 0
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SOU bridgeLux. LED FWHM / FWTM Efficiency	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0°	31 32   32 32   33 32   34 32   35 32   36 32   37 32   38 32   39 32   30 32   37 32   38 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO bridgelux. LED FWHM / FWTM	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0° 87 %	34 36 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SOU bridgeLUX. LED FWHM / FWTM Efficiency Peak intensity	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0° 87 % 2.7 cd/lm	34 36 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SOU Dridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0° 87 % 2.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SOU DICCENTION LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0° 87 % 2.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SOU Dridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0° 87 % 2.7 cd/lm 1 White CKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO DridgeLuX. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: C16142_HEKLA-SO	31.0° / 63.0° 83 % 2.4 cd/lm 1 White CKET-K Vesta DTW 15mm (33W) 30.0° / 64.0° 87 % 2.7 cd/lm 1 White CKET-K	



## **OPTICAL RESULTS (SIMULATED):**

<b>Μ</b> ΝΙCΗΙΛ	5°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component F15858_HEKLA-S	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component F15858_HEKLA-S	



#### **GENERAL INFORMATION:**

NOTE: The typical beam angle will be changed by different color, chip size and chip position tolerance. The typical total beam angle is the full angle measured where the luminous intensity is half of the peak value.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

#### **MATERIALS:**

As part of our continuous research and improvement processes, and to ensure the best possible quality and availability of our products, LEDiL reserves the right to change material grades without notice.

#### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

The measured data in the provided downloadable LEDiL Product Datasheets and Mechanical 2D-Drawings is rounded and provided as reference for planning. LEDiL Oy's optical specifications have been verified by conducting performance testing of the products in accordance with the company's quality system. The reported data are averaged results of multiple measurements with typical variation. LEDiL Oy reserves the right to without prior notification make changes and improvements to its products.

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