

PRODUCT DATASHEET CP17690\_AMY-50-M-C

# AMY-50-M-C

~24° medium beam. Assembly with holder C compatible with LEDiL HEKLA. Black version.

#### **SPECIFICATION:**

Dimensions	Ø 49.9 mm
Height	13.1 mm
Fastening	socket
ROHS compliant	yes 🛈



#### MATERIALS:

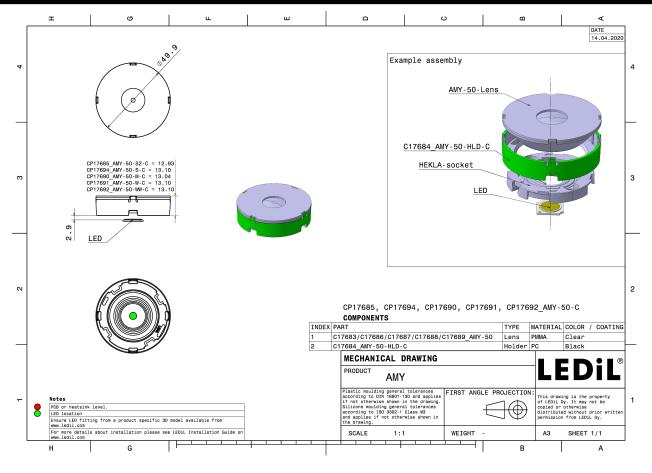
Component	Туре	Material	Colour	Finish
AMY-50-M	Single lens	PMMA	clear	
AMY-50-HLD-C	Holder	PC	black	

#### **ORDERING INFORMATION:**

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CP17690_AMY-50-M-C	510	120	30	9.1
» Box size: 480 x 280 x 300 mm				



# PRODUCT DATASHEET CP17690\_AMY-50-M-C



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



LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F15255_HEKLA	
bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Bender Wirth: 63	
bridgelux. 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 F15253_HEKLA	



bridgelux.		90*
LED	V6 HD Gen 7	
FWHM / FWTM	24.0° / 43.0°	73.
Efficiency	91 %	
Peak intensity	4.2 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	White	97°
Required componer		
F15255_HEKLA-		330
		dv 15° 0° 15° 30
bridgelux.		30°* 30°
LED	V8 Gen 8	
FWHM / FWTM	25.0° / 46.0°	73
Efficiency	92 %	
Peak intensity	3.8 cd/lm	50°
LEDs/each optic	1	
Light colour	White	45 <sup>-</sup> 2430, 47 <sup>-</sup>
Required componer		
F15253_HEKLA-		
		30° 4000 30° 15° 0° 15°
bridgelux.		50° 50°
bridgelux. LED	V9 HD Gen7	90°
bridgelux. LED FWHM / FWTM	V9 HD Gen7 25.0° / 46.0°	22. 26. 26.
LED FWHM / FWTM		20 21 24 26 26 26 26 26 26 26 26 26 26 26 26 26
LED FWHM / FWTM Efficiency	25.0° / 46.0°	64 500 540 540 540 540 540 540 540 540 54
LED FWHM / FWTM	25.0° / 46.0° 90 %	60° 60°
LED FWHM / FWTM Efficiency Peak intensity	25.0° / 46.0° 90 % 3.8 cd/lm	gr 600 75°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	25.0° / 46.0° 90 % 3.8 cd/lm 1 White	60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	25.0° / 46.0° 90 % 3.8 cd/lm 1 White nts:	e. 200 20 20 20 20 20 20 20 20 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	25.0° / 46.0° 90 % 3.8 cd/lm 1 White nts:	27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	25.0° / 46.0° 90 % 3.8 cd/lm 1 White nts:	77° 00 77° 60° 60° 60° 60° 500 60° 500 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	25.0° / 46.0° 90 % 3.8 cd/lm 1 White nts:	90 97 97 97 90 90 97 90 97 90 97 97 97 97 97 97 97 97 97 97 97 97 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	25.0° / 46.0° 90 % 3.8 cd/lm 1 White nts:	77° 00 77° 60° 60° 60° 60° 500 60° 500 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA-	25.0° / 46.0° 90 % 3.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA-	25.0° / 46.0° 90 % 3.8 cd/m 1 White nts: SOCKET-I	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA-	25.0° / 46.0° 90 % 3.8 cd/m 1 White nts: SOCKET-I	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- bridgelux. LED FWHM / FWTM	25.0° / 46.0° 90 % 3.8 cd/m 1 White nts: SOCKET-I VERO10 25.0° / 47.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- bridgeLUX. LED FWHM / FWTM Efficiency	25.0° / 46.0° 90 % 3.8 cd/lm 1 White hts: SOCKET-I VERO10 25.0° / 47.0° 90 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- DFUTGGELUX. LED FWHM / FWTM Efficiency Peak intensity	25.0° / 46.0° 90 % 3.8 cd/lm 1 White hts: SOCKET-I VERO10 25.0° / 47.0° 90 % 3.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- DFUTGGELUX. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	25.0° / 46.0° 90 % 3.8 cd/m 1 White hts: SOCKET-I VERO10 25.0° / 47.0° 90 % 3.6 cd/m 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	25.0° / 46.0° 90 % 3.8 cd/lm 1 White hts: SOCKET-I VERO10 25.0° / 47.0° 90 % 3.6 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- bridgetux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	25.0° / 46.0° 90 % 3.8 cd/lm 1 White hts: SOCKET-I VERO10 25.0° / 47.0° 90 % 3.6 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen F15859_HEKLA- bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	25.0° / 46.0° 90 % 3.8 cd/lm 1 White hts: SOCKET-I VERO10 25.0° / 47.0° 90 % 3.6 cd/lm 1 White hts:	



bridgelux.		90 <sup>4</sup>
LED	Vesta DTW 13mm (21W)	
FWHM / FWTM	30.0° / 57.0°	
Efficiency	86 %	
Peak intensity	2.4 cd/lm	
LEDs/each optic	1	
Light colour	White	pr.
Required componer	nts:	
C16142_HEKLA-		
Bender Wirth: 49		
		20
bridgelux.		
	Vesta DTW 15mm (33W)	
FWHM / FWTM	29.0° / 58.0°	
Efficiency	86 %	
Peak intensity	2.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required componer		
C16142_HEKLA		
Bender Wirth: 49	1 Typ L8	
		30 <sup>4</sup> 20 <sup>5</sup> 0 <sup>4</sup> 15°
bridgelux.		90°
bridgelux. LED	Vesta TW 13mm (18W) DP	
	Vesta TW 13mm (18W) DP 29.0° / 58.0°	75°
LED		
LED FWHM / FWTM	29.0° / 58.0°	99* 275 69.h
LED FWHM / FWTM Efficiency	29.0° / 58.0° 87 %	55° (50) (50)
LED FWHM / FWTM Efficiency Peak intensity	29.0° / 58.0° 87 % 2.4 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts:	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA-	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0°	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 %	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 bridgelux. LED FWHM / FWTM Efficiency Peak intensity	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 % 2 cd/lm	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA Bender Wirth: 49 bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 % 2 cd/lm 1	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA Bender Wirth: 49 bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 % 2 cd/lm 1 Tunable White	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA Bender Wirth: 49 bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: -SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 % 2 cd/lm 1 Tunable White hts:	200 - 10 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA- Bender Wirth: 49 Dridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA-	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: -SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 % 2 cd/lm 1 Tunable White hts: -SOCKET-K	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer C16142_HEKLA Bender Wirth: 49 bridgelux LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	29.0° / 58.0° 87 % 2.4 cd/lm 1 Tunable White hts: -SOCKET-K 2 Typ L8 Vesta TW 15mm DP 32.0° / 63.0° 86 % 2 cd/lm 1 Tunable White hts: -SOCKET-K	



bridgelux.		90° 997
LED	Vesta TW 6mm DP	
FWHM / FWTM	24.0° / 43.0°	
Efficiency	90 %	
Peak intensity	4.1 cd/lm	
LEDs/each optic	1	
Light colour	Tunable White	at at a second sec
Required compone	ents:	
C16142_HEKLA		2200
Bender Wirth: 5		
bridgelux.		90 <sup>4</sup>
LED	Vesta TW 9mm (9W) DP	75
FWHM / FWTM	25.0° / 47.0°	
Efficiency	89 %	
Peak intensity	3.6 cd/lm	
LEDs/each optic	1	
Light colour	Tunable White	
Required compone		
C16142_HEKLA	A-SOCKET-K	
Bender Wirth: 4	89 Typ L8	200
		30.
CITIZE	'N	
LED	CLL02x/CLU02x (LES10)	73
FWHM / FWTM	25.0° / 48.0°	
Efficiency	89 %	
Peak intensity	3.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone		
F17435_HEKLA	4-62-6	
		30 <sup>4</sup> 25 <sup>4</sup> 0 <sup>4</sup> 15 <sup>4</sup>
CITIZE	<sup>N</sup>	90' 90'
LED	CLL03x/CLU03x	
FWHM / FWTM	29.0° / 58.0°	8 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 ×
Efficiency	87 %	
Peak intensity	2.4 cd/lm	
LEDs/each optic	1	
Light colour	White	gr A a
Required compone		
F17438_HEKLA		
	. == .	
		30° 30 125' 0 <sup>8</sup> 15°



CITIZE	N	
		90° 90°
LED	CLU700/701/702/703	75'
FWHM / FWTM	24.0° / 43.0°	
Efficiency	90 %	60 <sup>4</sup> 60 <sup>4</sup>
Peak intensity	4.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required componer		320
F17435_HEKLA-	-62-6	
		30 <sup>6</sup> 15 <sup>9</sup> 0 <sup>9</sup> 35 <sup>9</sup> 36 <sup>6</sup>
CITIZE	N	90° <b>4</b>
LED	CLU7A2/7A3	
FWHM / FWTM	24.0° / 40.0°	23*
Efficiency	90 %	
Peak intensity	4.4 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	White	a. a.
Required componer	nts:	220
F17435_HEKLA-		
		30° 30°
		15° 4800 15°
CITIZE	N	90° 90°
	N CLU7B2	30° 90°
		25°
LED	CLU7B2	5°
LED FWHM / FWTM Efficiency Peak intensity	CLU7B2 24.0° / 39.0°	65. 100 65. 25. 25.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White	g.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts:	g.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts:	g.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts:	g.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White nts: -G2-C	20 30 30 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White nts: -G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White nts: -G2-C	20 30 30 30 30 30 30 30 30 30 3
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White nts: -G2-C CMA1516 25.0° / 47.0°	20 30 30 30 30 30 30 30 30 30 3
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: -G2-C C MA1516 25.0° / 47.0° 90 %	50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: G2-C CMA1516 25.0° / 47.0° 90 % 3.6 cd/lm	20 30 30 30 30 30 30 30 30 30 3
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: G2-C C MA1516 25.0° / 47.0° 90 % 3.6 cd/lm 1	800 900 900 900 900 900 900 900
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: G2-C CMA1516 25.0° / 47.0° 90 % 3.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: G2-C C CMA1516 25.0° / 47.0° 90 % 3.6 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: G2-C C CMA1516 25.0° / 47.0° 90 % 3.6 cd/lm 1 White hts:	5- 
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F17435_HEKLA-	CLU7B2 24.0° / 39.0° 91 % 4.6 cd/lm 1 White hts: G2-C C CMA1516 25.0° / 47.0° 90 % 3.6 cd/lm 1 White hts:	0     000     000       000     000     000 </td



			00
LED	 CMA1825		
FWHM / FWTM	27.0° / 54.0°		75*
Efficiency	89 %		800
Peak intensity	2.8 cd/lm		60 <sup></sup>
LEDs/each optic	1		
Light colour	White		1630 65
Required compone			
F15254_HEKLA			2430
			30° 330
			453 0 <sup>4</sup> 153
			90* 90
LED	CMT14xx		75*
FWHM / FWTM	25.0° / 48.0°		
Efficiency	89 %		60° × / / 60
Peak intensity	3.5 cd/lm		1500
LEDs/each optic	1		
Light colour	White		er is
Required compone			2400
F17435_HEKLA	-G2-C		
			3200
			36 <sup>4</sup> 15 <sup>5</sup> 0 <sup>6</sup> 15 <sup>5</sup> 36
			90° 99
			90 <sup>+</sup> 90
LED	CMT19xx 29.0° / 58.0°		35°
LED FWHM / FWTM	CMT19xx		95 <sup>+</sup> 90
LED FWHM / FWTM Efficiency	CMT19xx 29.0° / 58.0°		35*     39       35     50       60     60
LED FWHM / FWTM Efficiency Peak intensity	CMT19xx 29.0° / 58.0° 87 %		90 <sup>+</sup> 75 <sup>-</sup> 60 <sup>+</sup> 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm		er a
LED FWHM / FWTM Efficiency Peak intensity	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts:		er a
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts:		er a
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts:		er a
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I		er a
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 % 4.3 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 % 4.3 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 % 4.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 % 4.3 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 % 4.3 cd/lm 1 White nts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	CMT19xx 29.0° / 58.0° 87 % 2.4 cd/lm 1 White nts: -G2-I CXA/B 13xx 24.0° / 42.0° 91 % 4.3 cd/lm 1 White nts:		



	D	90°
LED	CXA/B 15xx	
FWHM / FWTM	25.0° / 46.0°	78'
Efficiency	90 %	
Peak intensity	3.7 cd/lm	69* (61)
LEDs/each optic	1	
Light colour	White	at a
Required compone		
F17436_HEKLA		
		30"
		15° 4000 15°
LEDIM		30" 30"
LED	LEDIM/C6	
FWHM / FWTM	26.0° / 46.0°	
Efficiency	90 %	
Peak intensity	3.8 cd/lm	
LEDs/each optic	9	
Light colour	White	er- 2000
Required compone	ents:	
F17438_HEKLA	-G2-I	20
		30"
<i>M</i>	EDC	23 <sup>7</sup> 0 <sup>4</sup> 13 <sup>9</sup>
LUMIL	EDS	50° 50°
LED	LUXEON CoB 1202/1203	75
FWHM / FWTM	25.0° / 46.0°	
Efficiency	89 %	
Peak intensity	3.6 cd/lm	
LEDs/each optic	1	
Light colour	White	47* 40
Required compone		
F17437_HEKLA	л-G2-Н	200
		$\times$ / $\vee$ $\times$
		30° 30 137 - 60° - 137
	EDS	50°
LED	LUXEON CoB 1204HD	
LED FWHM / FWTM		73
Efficiency	25.0° / 47.0° 89 %	
Peak intensity LEDs/each optic	3.6 cd/lm 1	
LEDs/each optic	White	
Required compone		- 202
F17437_HEKLA		
FII431_HEKLA	-02-11	300
		$\times$ / $\vee$ $\setminus$ $\lambda$
		20 <sup>4</sup> 20 <sup>7</sup> 40 <sub>00</sub> 20 <sup>7</sup>



UMIL	EDS	»*	90*
LED	LUXEON CoB M02/M03		
FWHM / FWTM	25.0° / 47.0°	73	75*
Efficiency	90 %		
Peak intensity	3.7 cd/lm	50 <sup>4</sup>	60°
LEDs/each optic	1		
Light colour	White	e-	45*
Required compone	nts:		
F17436_HEKLA			
		200	
		2*	30*
	EDC	137	1
			90*
LED	LUXEON CoB S01	77	75'
FWHM / FWTM	24.0° / 42.0°		
Efficiency	91 %	60°	60*
Peak intensity	4.3 cd/lm		
LEDs/each optic	1		45"
Light colour	White		$\langle \rangle$
Required compone		- 200	
F17439_HEKLA	-62-J		
		30 <sup>6</sup> 0 <sup>1</sup> 13 <sup>5</sup>	36.
			-
UMIL	EDS	99 <sup>4</sup>	90°
<b>LUMIL</b>	EDS LUXEON Fusion 12-up (20x24)		90*
		32	90°
LED	LUXEON Fusion 12-up (20x24)	8 <sup>1</sup>	90* 
LED FWHM / FWTM	LUXEON Fusion 12-up (20x24) 25.0° / 47.0°	50 <sup>3</sup> 00 01	90* 
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 %	95 <sup>4</sup> 95 <sup>4</sup> 96 <sup>4</sup>	96, 22, 30,
LED FWHM / FWTM Efficiency Peak intensity	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm	ev.	64 66, 26, 30,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts:	ev.	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K	gy. gy	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS	gy. gy	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS	gy. gy	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8	gy. gy	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8		- 72 - 62 - 62 - 62 - 62 - 62 - 62 - 62 - 6
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 CONTINUE LED FWHM / FWTM	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 <b>COMPARENTION</b> LED FWHM / FWTM Efficiency	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0° 82 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 CONTINUE LED FWHM / FWTM Efficiency Peak intensity	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 <b>COMPARENTION</b> LED FWHM / FWTM Efficiency	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0° 82 % 3 cd/lm		25 61 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 CONTINUE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0° 82 % 3 cd/lm 21 White		25 61 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 CONTINUE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0° 82 % 3 cd/lm 21 White nts:		25 61 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 CONTINUE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS 42 Typ L8 EDS LUXEON Fusion 21-up (20x24) 26.0° / 48.0° 82 % 3 cd/lm 21 White nts: -SOCKET-K		25 61 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA F18158_HEKLA Bender Wirth: 44 CONTINUE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C16142_HEKLA	LUXEON Fusion 12-up (20x24) 25.0° / 47.0° 83 % 3.2 cd/lm 12 White nts: -SOCKET-K -RZ-LENS LUXEON Fusion 21-up (20x24) 26.0° / 48.0° 82 % 3 cd/lm 21 White nts: -SOCKET-K -RZ-LENS		



r		
LUMIL	.EDS	50°
LED	LUXEON Fusion 27-up (20x24)	
FWHM / FWTM	29.0° / 55.0°	37
Efficiency	80 %	
Peak intensity	2.3 cd/lm	
LEDs/each optic	27	
Light colour	White	g. a.
Required compone	ents:	
C16142_HEKLA	A-SOCKET-K	
F18158_HEKLA	-RZ-LENS	
Bender Wirth: 4	42 Typ L8	20 <sup>4</sup> 2009 20 <sup>4</sup>
(C) LUM	INUS	30 <sup>+</sup> 90 <sup>+</sup>
LED	CTM-14 (Tunable White) Gen2	
FWHM / FWTM	29.5° / 57.0°	
Efficiency	86 %	60 60 60 60 60 F
Peak intensity	2.4 cd/lm	
LEDs/each optic	1	
Light colour	Tunable White	et et
Required compone	ents:	
C16142_HEKLA	A-SOCKET-K	
Bender Wirth: 4	42 Тур L8	
		20 <sup>4</sup> 20 <sup>4</sup> 20 <sup>4</sup>
-		
ELUM	INUS	50* 50*
	CXM-3	90 <sup>4</sup> 90 <sup>4</sup>
-		90 <sup>+</sup> 90 <sup>+</sup> 72 <sup>-</sup> 72 <sup>-</sup>
LED	CXM-3	90 <sup>4</sup> 90 <sup>5</sup> 90 <sup>5</sup>
LED FWHM / FWTM Efficiency Peak intensity	CXM-3 24.0° / 40.0°	80 <sup>4</sup> 80 <sup>4</sup> 90 <sup>4</sup> 90 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	CXM-3 24.0° / 40.0° 91 %	95* 96* 95* 96* 96* 960 96*
LED FWHM / FWTM Efficiency Peak intensity	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm	95* 90* 72 95* 500 60* 95* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents:	99 <sup>4</sup> 99 <sup>4</sup> 99 <sup>4</sup> 220 80 <sup>4</sup> 80 <sup>4</sup> 80 <sup>4</sup> 80 <sup></sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: c-G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: -G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: A-G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: A-G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: A-G2-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17435_HEKLA	CXM-3 24.0° / 40.0° 91 % 4.6 cd/lm 1 White ents: A-G2-C	



<b>ΜΝΙCΗΙΛ</b>	<b>k</b>		90*
LED	COB L-Type (LES 11)		
FWHM / FWTM	27.0° / 52.0°		75'
Efficiency	88 %		
Peak intensity	3 cd/lm		601-
LEDs/each optic	1		1600
Light colour	White		457
Required componer			
F17437_HEKLA-			2430
			300
<b>Μ</b> ΝΙCΗΙΛ			15 00 15"
			90°
LED	COB L-Type (LES 9)		25
FWHM / FWTM	25.0° / 46.0°		
Efficiency	89 %		
Peak intensity	3.7 cd/lm		
LEDs/each optic	1		
Light colour	White		45° 2430
Required componer			
F17437_HEKLA-	·G2-H		3200
			30° 15° 4000 55°
<i><b>(</b>)</i>			
<b>MNICHIA</b>	<b>L</b>		90*
			89°
	COB S-Type (LES 7) 24.0° / 44.0°		39*
LED	COB S-Type (LES 7)		90 <sup>4</sup>
LED FWHM / FWTM	COB S-Type (LES 7) 24.0° / 44.0°		90°
LED FWHM / FWTM Efficiency	COB S-Type (LES 7) 24.0° / 44.0° 91 %		25
LED FWHM / FWTM Efficiency Peak intensity	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm		25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White		25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts:		25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts:		9. Jao
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts:		9. Jao
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts:		9. Jao
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G		30 30 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G		30 30 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0°		30 30 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 % 3.6 cd/lm		30 30 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA- <b>PHILLP</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 % 3.6 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA- <b>PHILLP</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 % 3.6 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA- <b>PHILLOP</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 % 3.6 cd/lm 1 White hts:		6. 60 25 26 26 25 26 25 25 25 25 25 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA- <b>PHILLP</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 % 3.6 cd/lm 1 White hts:		6. 60 25 26 26 25 26 25 25 25 25 25 25 25 25 25 25 25 25 25
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer F15848_HEKLA-	COB S-Type (LES 7) 24.0° / 44.0° 91 % 4 cd/lm 1 White hts: SOCKET-G S Fortimo SLM L09 CoB 25.0° / 47.0° 89 % 3.6 cd/lm 1 White hts:		



J/11/1 J	JNG	50°
LED	LC003D / LC006D / LC009D / LC013D	
FWHM / FWTM	25.0° / 48.0°	75
Efficiency	89 %	
Peak intensity	3.5 cd/lm	
LEDs/each optic	1	
Light colour	White	54
Required compone	ents:	
F17435_HEKLA	-G2-C	$\times$ $\wedge$ $\times$
		220
SAMSI	JNG	
LED	LC016D / LC019D / LC026D / LC033D	
FWHM / FWTM	31.0° / 62.0°	7
Efficiency	87 %	
Peak intensity	2.1 cd/lm	
LEDs/each optic	1	
Light colour	White	gr / /
Required compone		
F17438_HEKLA		
		450 00 150
SAMSI	JNG	90°
LED	LC030C/040C G2	
	20000000000	
	26.0° / 52.0°	
FWHM / FWTM		71
FWHM / FWTM Efficiency	26.0° / 52.0°	20
FWHM / FWTM Efficiency Peak intensity	26.0° / 52.0° 88 %	20 gr
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	26.0° / 52.0° 88 % 3 cd/lm	62
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	26.0° / 52.0° 88 % 3 cd/lm 1 White	62
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0° / 52.0° 88 % 3 cd/lm 1 White ents:	62
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	26.0° / 52.0° 88 % 3 cd/lm 1 White ents:	60 97
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	26.0° / 52.0° 88 % 3 cd/lm 1 White ents:	60 97
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents:	60 97
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5 30.0° / 60.0°	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5 30.0° / 60.0° 87 %	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5 30.0° / 60.0° 87 % 2.2 cd/lm	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA scoul scence/field FWHM / FWTM Efficiency Peak intensity LEDs/each optic	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5 30.0° / 60.0° 87 % 2.2 cd/lm 1	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5 30.0° / 60.0° 87 % 2.2 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA seous semiconoucror LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	26.0° / 52.0° 88 % 3 cd/lm 1 White I Solution MJT COB LES 14.5 30.0° / 60.0° 87 % 2.2 cd/lm 1 White I I White I I White I I I I I I I I I I I I I	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0° / 52.0° 88 % 3 cd/lm 1 White I Solution MJT COB LES 14.5 30.0° / 60.0° 87 % 2.2 cd/lm 1 White I I White I I White I I I I I I I I I I I I I	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone F17438_HEKLA Stout SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	26.0° / 52.0° 88 % 3 cd/lm 1 White ents: -G2-I MJT COB LES 14.5 30.0° / 60.0° 87 % 2.2 cd/lm 1 White ents:	



SEOUL		50° 50°
LED	MJT COB LES 6	75'
FWHM / FWTM	24.0° / 42.0°	
Efficiency	91 %	60° 60°
Peak intensity	4.2 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone		300
F17435_HEKLA	·G2-C	
		36° , 100 , 100 , 36°
SEOUL		90 <sup>4</sup> 90 <sup>4</sup>
	MJT COB LES 9.8	75'
FWHM / FWTM	25.0° / 48.0°	
Efficiency	90 %	60° K 60°
Peak intensity	3.5 cd/lm	
LEDs/each optic	1	
Light colour	White	da. da.
Required compone		
F17435_HEKLA	·G2-C	
		300
		30*
TRIDO		90* 90*
LED	SLE G7 LES09	75"
FWHM / FWTM	25.0° / 47.0°	
Efficiency	90 %	60 <sup>3</sup> 60 <sup>4</sup>
Peak intensity	3.7 cd/lm	
LEDs/each optic	1	
Light colour	White	er 2000
Required compone		
F17435_HEKLA	-G2-C	
		2230
		200
		 20 <sup>-</sup> 00 <sup>-</sup>
TRIDO		$\times$ / $\vee$ / $\times$
LED	SLE G7 LES13	20 <sup>-</sup> 00 <sup>-</sup>
LED FWHM / FWTM	SLE G7 LES13 28.0° / 55.0°	27 27 27 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency	SLE G7 LES13 28.0° / 55.0° 87 %	20 <sup>-</sup> 00 <sup>-</sup>
LED FWHM / FWTM Efficiency Peak intensity	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm	27 27 27 27 27 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm 1	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm 1 White	27 28 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 Light colour Required component	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm 1 White nts:	80° 90° 90° 90° 90° 90° 90° 90° 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm 1 White nts:	80° 90° 90° 90° 90° 90° 90° 90° 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm 1 White nts:	80° 90° 90° 90° 90° 90° 90° 90° 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	SLE G7 LES13 28.0° / 55.0° 87 % 2.6 cd/lm 1 White nts:	80° 90° 90° 90° 90° 90° 90° 90° 9



TRIDON	VIC		90*	90*
LED	SLE G7 LES15		75*	-
FWHM / FWTM	30.0° / 60.0°			
Efficiency	87 %		60.0 800	
Peak intensity	2.2 cd/lm			$\wedge \wedge \gamma$
LEDs/each optic	1			$\setminus$ $\times$
Light colour	White		93×	45*
Required compone	ents:			+
F17438_HEKLA	\-G2-I			
			304	30°
			15° 2430	15*



bridgelux.		90°
LED	V3 HD Gen 8	
FWHM / FWTM	26.0° / 40.0°	
Efficiency	94 %	1600
Peak intensity	4.8 cd/lm	
LEDs/each optic	1	
Light colour	White	45° 45°
Required components:		- 3230
F15253_HEKLA-SOC	CKET-A	
		30° 30° 30° 30°
bridgelux.		90*
LED	V3 HD Gen 8 FC	
FWHM / FWTM	26.0° / 40.0°	23.
Efficiency	94 %	
Peak intensity	4.6 cd/lm	60* 60*
LEDs/each optic	1	
Light colour	White	43°
Required components:		
F15255_HEKLA-SOC	CKET-C	
_		
		do 4800 30 15° 0° 15°
bridgelux.		50*
bridgelux. LED	V4 HD Gen 7	50°
	V4 HD Gen 7 26.1° / 42.2°	25 27 27
LED		
LED FWHM / FWTM	26.1° / 42.2°	64 200 65 25 10 10 10 10 10 10 10 10 10 10 10 10 10
LED FWHM / FWTM Efficiency	26.1° / 42.2° 92 %	9° 9° 37 90 500 6°
LED FWHM / FWTM Efficiency Peak intensity	26.1° / 42.2° 92 % 4.4 cd/lm	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	26.1° / 42.2° 92 % 4.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.1° / 42.2° 92 % 4.4 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.1° / 42.2° 92 % 4.4 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.1° / 42.2° 92 % 4.4 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.1° / 42.2° 92 % 4.4 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.1° / 42.2° 92 % 4.4 cd/lm 1 White	200 - 200 - 20 200 - 200 - 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC	26.1° / 42.2° 92 % 4.4 cd/lm 1 White	200 - 200 - 20 200 - 200 - 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC	26.1° / 42.2° 92 % 4.4 cd/lm 1 White CKET-C	200 - 200 - 20 200 - 200 - 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC	26.1° / 42.2° 92 % 4.4 cd/lm 1 White CKET-C	200 - 200 - 20 200 - 200 - 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC	26.1° / 42.2° 92 % 4.4 cd/lm 1 White CKET-C	20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC	26.1° / 42.2° 92 % 4.4 cd/lm 1 White CKET-C V4 HD Gen 8 26.0 + 25.0° / 40.0° 94 %	20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity	26.1° / 42.2° 92 % 4.4 cd/lm 1 White CKET-C V4 HD Gen 8 26.0 + 25.0° / 40.0° 94 % 4.8 cd/lm	20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	26.1° / 42.2° 92 % 4.4 cd/lm 1 White CKET-C V4 HD Gen 8 26.0 + 25.0° / 40.0° 94 % 4.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.1° / 42.2° 92 % 4.4 cd/lm 1 White XET-C V4 HD Gen 8 26.0 + 25.0° / 40.0° 94 % 4.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.1° / 42.2° 92 % 4.4 cd/lm 1 White XET-C V4 HD Gen 8 26.0 + 25.0° / 40.0° 94 % 4.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15255_HEKLA-SOC bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.1° / 42.2° 92 % 4.4 cd/lm 1 White XET-C V4 HD Gen 8 26.0 + 25.0° / 40.0° 94 % 4.8 cd/lm 1 White	



bridgelux.		90*
LED	V6 Gen 8	75°
FWHM / FWTM	25.0° / 42.0°	
Efficiency	93 %	60° 1600 60°
Peak intensity	4.6 cd/lm	
LEDs/each optic	1	
Light colour	White	43*
Required components:		2200
F15253_HEKLA-SO	CKET-A	
		30° 30°
		15° 0° 15°
bridgelux.		90* 90*
LED	V6 HD Gen 8	73.
FWHM / FWTM	24.0° / 42.0°	$\square \land \square \land \square$
Efficiency	93 %	60° 50°
Peak intensity	4.6 cd/lm	
LEDs/each optic	1	
Light colour	White	42.
Required components:		3300
F15255_HEKLA-SO	CKET-C	
		30* 4800 36*
		15° 0° 15°
$\frown$		· · · · · · · · · · · · · · · · · · ·
bridgelux.		90*
bridgelux. LED	V8 Gen7	9°
	V8 Gen7 24.0° / 46.0°	3. 3.
LED		50° 50°
LED FWHM / FWTM	24.0° / 46.0°	9°
LED FWHM / FWTM Efficiency	24.0° / 46.0° 90 %	99* 99* 99* 99* 73* 99* 73* 99*
LED FWHM / FWTM Efficiency Peak intensity	24.0° / 46.0° 90 % 4 cd/lm	9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	24.0° / 46.0° 90 % 4 cd/lm 1	9° 9° 9° 9° 9° 9°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	24.0° / 46.0° 90 % 4 cd/lm 1 White	gr gr gr 220
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4 cd/lm 1 White	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4 cd/lm 1 White	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU	24.0° / 46.0° 90 % 4 cd/lm 1 White	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A	g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOG	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A	54. 50. 50. 50. 50. 50. 50. 50. 50. 50. 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgeLux. LED FWHM / FWTM Efficiency	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 %	27 27 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOG	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0°	54. 50. 50. 50. 50. 50. 50. 50. 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 %	27 27 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 % 4.3 cd/lm	27 27 29 29 29 20 20 20 20 20 20 20 20 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 % 4.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 % 4.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 % 4.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F15253_HEKLA-SOU bridgelux. LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4 cd/lm 1 White CKET-A V9 HD Gen 8 24.0° / 45.0 + 44.0° 92 % 4.3 cd/lm 1 White	



WHM / FWTM 29.0 + 28.0° / 56.0° ifficiency 91 % eack intensity 2.9 col/m EDS/each optic 1 ight colour White tequied components: C16142_HEKLA-SOCKET-K	bridgelux.		
WHM / FWTM 29.0 + 28.0° / 56.0° ifficiency 91 % eack intensity 2.9 col/m EDS/each optic 1 ight colour White tequied components: C16142_HEKLA-SOCKET-K			90*
ifficiency 91% reak intensity 2.9 cd/m EbS/each optic ED Vesta DTW 6mm WMM / FVTM 24.0° /42.0 + 43.0° fifficiency 93% reak intensity 4.5 cd/m ED Vesta DTW 6mm WMM / FVTM 24.0° /42.0 + 43.0° fifficiency 85% reak intensity 552 Hekla WGOUX. ED Vesta DTW 9mm (4W/6W/12W) WMM / FWTM 26.0° / 47.0° fifficiency 85% reak intensity 3.5 cd/m EDS/each optic 1 ight colour White EDS/each optic 1 ight colour White EDS/each optic 1 ight colour White EDS/each optic 1 ight colour White EDS/each optic 1 ight colour ST F18158_HEKLA-R22.LENS Ender Wirth: 652b Hekla	LED	VERO13	74
Ifficiency 91% eak intensity 2.9 cd/m EDs/each optic 1 ight colour White Required components: C16142_HEKLA-SOCKET-K ED Vesta DTW 6mm WHM / FWTM 24.0* /42.0 + 43.0° ifficiency 93% reak intensity 4.5 cd/m EDs/each optic 1 ight colour White Required components: Bender Wirth: 652b Hekla ED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0* /47.0° ifficiency 85% reak intensity 3.6 cd/m EDS/each optic 1 ight colour White Required components: Bender Wirth: 652b Hekla ED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0* /47.0° ifficiency 85% reak intensity 3.6 cd/m EDS/each optic 1 ight colour White Required components: F19158_HEKLA-R2.EENS Bender Wirth: 652b Hekla	FWHM / FWTM	29.0 + 28.0° / 56.0°	$\wedge$
EDs/each optic 1 ight colour White Required components: C16142_HEKLA-SOCKET-K ED Vesta DTW 6mm WHM / FVTM 24.0° / 42.0 + 43.0° :fficiency 93 % Peak intensity 4.5 cd/m EDs/each optic 1 ight colour White Required components: Bender Wirth: 652b Hekla ED Vesta DTW 9mm (4W/6W/12W) WHM / FVTM 26.0° / 47.0° :fficiency 85 % Peak intensity 3.6 cd/m ED Vesta DTW 9mm (4W/6W/12W) WHM / FVTM 26.0° / 47.0° :fficiency 85 % Peak intensity 3.6 cd/m ED Vesta DTW 9mm (4W/6W/12W) WHM / FVTM 26.0° / 47.0° :fficiency 85 % Peak intensity 3.6 cd/m ED Vesta DTW 9mm (4W/6W/12W) WHM / FVTM 26.0° / 47.0° :fficiency 85 % Peak intensity 3.6 cd/m ED Vesta DTW 9mm (4W/6W/12W) WHM / FVTM 26.0° / 47.0° :fficiency White Required components: F19158_HEKLA-R22.ENS Bender Wirth: 652b Hekla	Efficiency	91 %	60° 60°
ight colour White tequired components: C16142_HEKLA-SOCKET-K ED Vesta DTW 6mm WHM /FWTM 24.0° / 42.0 + 43.0° Efficiency 93% eak intensity 4.5 col/m EDS/each optic 1 ight colour White tequired components: Bender Wirth: 652b Hekla Medical EDS Vesta DTW 9mm (4W/6W/12W) WHM /FWTM 26.0° / 47.0° Medical EDS/each optic 1 ight colour White tequired components: F15158_HEKLA-R2LENS Bender Wirth: 652b Hekla	Peak intensity	2.9 cd/lm	$\Gamma \times / \square \setminus \times \square$
ight colour White Required components: C16142_HEKLA-SOCKET-K ED Vesta DTW 6mm WHM /FWTM 24.0° /42.0 + 43.0° ifficiency 93 % eask intensity 4.5 col/m EDS/each optic 1 i.ght colour White Required components: Bender Wirth: 652b Hekla ED Vesta DTW 9mm (4W/6W/12W) WHM /FWTM 26.0° /47.0° Kifficiency 85 % Peask intensity 3.6 col/m EDS/each optic 1 i.ght colour White Required components: F15158_HEKLA-R27_LENS Bender Wirth: 652b Hekla	LEDs/each optic	1	
Required components: C16142_HEKLA-SOCKET-K LED Vesta DTW 6mm WHM / FWTM 24.0° / 42.0 + 43.0° Sificiency 93 % Peak Intensity 4.5 cd/m EDS/each optic 1 jult colour White Required components: Bender Wirth: 652b Hekla MCGEUR ED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0° / 47.0° Sificiency 85 % Peak Intensity 3.6 cd/m EDS/each optic 1 jult colour White Required components: F19158_HEKLA-R27_LENS Bender Wirth: 652b Hekla		White	er
C16142_HEKLA-SOCKET-K	Required components:		
LED   Vesta DTW 6mm     WHM / FWTM   24.0° / 42.0 + 43.0°     Stringer   93 %     Peak intensity   4.5 cd/lm     LEDvieach optic   1     ight colour   White     Required components:   98     Bender Wirth:   652b Hekla     WMH / FWTM   26.0° / 47.0°     Efficiency   85 %     Peak intensity   3.6 cd/lm     LED   Vesta DTW 9mm (4W/6W/12W)     WMH / FWTM   26.0° / 47.0°     Efficiency   85 %     Peak intensity   3.6 cd/lm     LED   Vesta DTW 9mm (4W/6W/12W)     WHM / FWTM   26.0° / 47.0°     Efficiency   85 %     Peak intensity   3.6 cd/lm     LED/each optic   1     Light colour   White     Required components:   1     Englise other   1     Englise othelkla   1 <tr< th=""><th></th><th>KET-K</th><th></th></tr<>		KET-K	
widgetuk.     LED   Vesta DTW 6mm     WHM / FWTM   24.0° / 42.0 + 43.0°     fifciency   93 %     Peak intensity   4.5 cd/m     LEDs/each optic   1     Light colour   White     Required components:			
widgetuk.     LED   Vesta DTW 6mm     WHM / FWTM   24.0° / 42.0 + 43.0°     fifciency   93 %     Peak intensity   4.5 cd/m     LEDs/each optic   1     Light colour   White     Required components:			
ED   Vesta DTW 6mm     WHM / FWTM   24.0° / 42.0 + 43.0°     ifficiency   93 %     Peak intensity   4.5 cd/m     EbS/each optic   1     ight colour   White     Required components:   Bender Wirth: 652b Hekla     modeleux.			15° 0° 15°
ED Vesta DTW 6mm WHM / FWTM 24.0° / 42.0 + 43.0° ifficiency 93 % Peak intensity 4.5 cd/m EDS/each optic 1 ight colour White Required components: Bender Wirth: 652b Hekla MiceLux ED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0° / 47.0° ifficiency 85 % Peak intensity 3.6 cd/lm EDS/each optic 1 ight colour White Required components: F18158_HEKLA-R2-LENS Bender Wirth: 652b Hekla	bridgelux.		90* 90*
WHM / FWTM 24.0° / 42.0 + 43.0° :fficiency 93 % Peak intensity 4.5 cd/m EDS/each optic 1 .ght colour White Required components: Bender Wirth: 652b Hekla		Vesta DTW 6mm	
ifficiency 93 % Peak intensity 4.5 cd/lm LEDs/each optic 1 ight colour White Required components: Bender Winth: 652b Hekla ED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0° / 47.0° filiciency 85 % Peak intensity 3.6 cd/lm LEDs/each optic 1 ight colour White Required components: F18158_HEKLA-RZ-LENS Bender Winth: 652b Hekla			25*
Peak intensity 4.5 cd/lm EDs/each optic 1 light colour White Required components: Bender Wirth: 652b Hekla			
EDs/each optic 1 ight colour White Required components: Bender Wirth: 652b Hekla			60° 00°
ight colour White Required components: Bender Wirth: 652b Hekla			
Required components: Bender Wirth: 652b Hekla			g*
Bender Wirth: 652b Hekla		THE STATES	
Ardgelix ED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0° / 47.0° Efficiency 85 % Peak intensity 3.6 cd/lm EDs/each optic 1 ight colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla		skla	
LED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0° / 47.0° Efficiency 85 % Peak intensity 3.6 cd/lm LEDs/each optic 1 Light colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla			
LED Vesta DTW 9mm (4W/6W/12W) WHM / FWTM 26.0° / 47.0° Efficiency 85 % Peak intensity 3.6 cd/lm LEDs/each optic 1 Light colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla			
ED Vesta DTW 9mm (4W/6W/12W)   WHM / FWTM 26.0° / 47.0°   Efficiency 85 %   Peak intensity 3.6 cd/lm   EDs/each optic 1   .ight colour White   Required components: F18158_HEKLA-RZ-LENS   Bender Wirth: 652b Hekla			
ED Vesta DTW 9mm (4W/6W/12W)   WHM / FWTM 26.0° / 47.0°   Efficiency 85 %   Peak intensity 3.6 cd/lm   EDs/each optic 1   .ight colour White   Required components: F18158_HEKLA-RZ-LENS   Bender Wirth: 652b Hekla	bridgelux.		90° 90°
WHM / FWTM 26.0° / 47.0° Efficiency 85 % Peak intensity 3.6 cd/lm EDs/each optic 1 Light colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla	LED	Vesta DTW 9mm (4W/6W/12W)	
Efficiency 85 % Peak intensity 3.6 cd/lm EDs/each optic 1 Light colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla			25*
Peak intensity 3.6 cd/m EDs/each optic 1 ight colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla		85 %	
LEDs/each optic 1 Light colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla		3.6 cd/lm	
Light colour White Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla			
Required components: F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla		White	e
F18158_HEKLA-RZ-LENS Bender Wirth: 652b Hekla			
Bender Wirth: 652b Hekla		ENS	$\times$ / $\times$
			3200
			420 01 100
	bridgelux.		90° A 90°
ED Vesta DTW 9mm (4W/6W/12W)		Vesta DTW 9mm (4W/6W/12W)	
			73.
			60* 60*
		1	
Peak intensity 4.3 cd/lm			gr
Peak intensity 4.3 cd/lm EDs/each optic 1			
Peak intensity 4.3 cd/lm EDs/each optic 1 ight colour White Required components:		kla	220
Peak intensity 4.3 cd/m   .EDs/each optic 1   .ight colour White   Required components: ************************************			
Peak intensity 4.3 cd/lm EDs/each optic 1 i.ight colour White Required components:			$\times$ / $\vee$ / $\lambda$
Peak intensity 4.3 cd/m   .EDs/each optic 1   .ight colour White   Required components: ************************************			30° 30° 30°



bridgelux.		90* 90*
LED	Vesta TW 9mm (12W) CSP	
FWHM / FWTM	24.1° / 46.3°	75 - 75 -
Efficiency	82 %	
Peak intensity	3.6 cd/lm	9°*
LEDs/each optic	1	
Light colour	White	57
Required components:		200
C16142_HEKLA-SO	CKET-K	
_		
		30 30 30 15° 48%0 35°
<b>CITIZEN</b>		90* 90*
LED	CLU700/701/702/703	
FWHM / FWTM	26.1 + 25.1° / 42.2°	73'
Efficiency	91 %	
Peak intensity	4.3 cd/lm	60°
LEDs/each optic	1	
Light colour	White	gr
Required components:		
F15255_HEKLA-SO	CKET-C	
		300 300
		30'
		12° 0° 15°
CITIZEN		50° 0 <sup>1</sup> 10° 0°
	CI U712/713	90° 90° 90°
LED	CLU712/713 24.0° / 46.0°	25. 10. 10. 10. 10. 10. 10. 10. 10
LED FWHM / FWTM	24.0° / 46.0°	33.     04     30.       80.     90.     90.
LED FWHM / FWTM Efficiency	24.0° / 46.0° 90 %	00     700     65.       32     35.     35.       86.     75.     75.
LED FWHM / FWTM Efficiency Peak intensity	24.0° / 46.0° 90 % 4.2 cd/lm	2001 2001 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	24.0° / 46.0° 90 % 4.2 cd/lm 1	500 57 60 57 57 57 57 57 57 57 57 57 57
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	24.0° / 46.0° 90 % 4.2 cd/lm	gr 000 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	gr or
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	gr or
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	gr or
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	94 94 95 95 95 95 95 95 95 95 95 95
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	gr or
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White	50 50 50 50 50 50 50 50 50 50 50 50 50 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0° 91 %	94 94 95 95 95 95 95 95 95 95 95 95
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0°	200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0° 91 % 4.5 cd/lm 1	200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0° 91 % 4.5 cd/lm	gr gr gr gr gr gr gr gr gr gr gr gr gr g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0° 91 % 4.5 cd/lm 1 White	500 500 500 500 500 500 500 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0° 91 % 4.5 cd/lm 1 White	9 <sup>9</sup> 9 <sup>9</sup> 9 <sup>9</sup> 9 <sup>9</sup> 100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: F17438_HEKLA-G2-	24.0° / 46.0° 90 % 4.2 cd/lm 1 White CMA1306 24.0° / 43.0° 91 % 4.5 cd/lm 1 White	gr gr gr gr gr gr gr gr gr gr gr gr gr g



UMILE	DS	30*
LED	LUXEON CX Plus CoB L08 (Gen2)	
FWHM / FWTM	30.0 + 31.0° / 58.0°	
Efficiency	89 %	y,,
Peak intensity	2.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components Bender Wirth: 637a		
Bender Witth: 037a	пекіа	
		220
		30 <sup>16</sup> 25 <sup>17</sup> 0 <sup>16</sup> 15 <sup>17</sup>
UMILE	DS	××*
LED	LUXEON CoB 1202/1203	
FWHM / FWTM	24.1° / 46.3°	
Efficiency	89 %	
Peak intensity	3.9 cd/lm	2 100 - 100
LEDs/each optic	1	
Light colour	White	97 - 209 -
Required components		
F15858_HEKLA-SC	OCKET-H	
		30* 200
		10 <sup>5</sup> 0 <sup>6</sup> 13 <sup>5</sup>
UMILE	DS	90*
LED	LUXEON CoB 1202/1203	77
FWHM / FWTM	LUXEON CoB 1202/1203	75
FWHM / FWTM Efficiency	LUXEON CoB 1202/1203 24.0° / 46.0°	25°
FWHM / FWTM Efficiency Peak intensity	LUXEON CoB 1202/1203 24.0° / 46.0° 92 %	35- 0*
FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm	75- 1000 55-
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White	75
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White	500 57 57 500 500
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White	75
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White	75
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H	75
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H UXEON CoB 1202HD 24.0° / 42.0° 93 %	75
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC <b>CONTINUE</b> LED FWHM / FWTM Efficiency Peak intensity	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H LUXEON CoB 1202HD 24.0° / 42.0° 93 % 4.5 cd/lm 1	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White DCKET-H DS LUXEON CoB 1202HD 24.0° / 42.0° 93 % 4.5 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC <b>CONTINUE</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H DS LUXEON CoB 1202HD 24.0° / 42.0° 93 % 4.5 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC CONTINUE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H DS LUXEON CoB 1202HD 24.0° / 42.0° 93 % 4.5 cd/lm 1 White	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components F15858_HEKLA-SC <b>CONTINUE</b> LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components	LUXEON CoB 1202/1203 24.0° / 46.0° 92 % 4.1 cd/lm 1 White OCKET-H DS LUXEON CoB 1202HD 24.0° / 42.0° 93 % 4.5 cd/lm 1 White	



UMILE	DS	99*
LED	LUXEON CoB 1204/1205	7
FWHM / FWTM	27.0 + 26.0° / 53.0 + 54.0°	
Efficiency	90 %	
Peak intensity	3 cd/lm	
LEDs/each optic	1	
Light colour	White	97*
Required components:		
Bender Wirth: 632a	Hekla XL	200
		30° 222
	DS	<u>8</u> *
LED	LUXEON CoB 1205HD	
FWHM / FWTM	26.0° / 50.0°	25
Efficiency	91 %	eor contraction of the second s
Peak intensity	3.4 cd/lm	
LEDs/each optic	1	
Light colour	White	97× (
Required components:		200
F15858_HEKLA-SC	OCKET-H	
		220
		*
	DE .	35% 6% 35%
		90*
LED	LUXEON CoB 1208	78"
FWHM / FWTM	30.0 + 31.0° / 58.0°	
Efficiency		
Efficiency	89 %	en
Peak intensity	2.5 cd/lm	9
Peak intensity LEDs/each optic	2.5 cd/lm 1	
Peak intensity LEDs/each optic Light colour	2.5 cd/lm 1 White	50 - 500 - C
Peak intensity LEDs/each optic Light colour Required components:	2.5 cd/lm 1 White	90 - 00 - 00 - 00 - 00 - 00 - 00 - 00 -
Peak intensity LEDs/each optic Light colour	2.5 cd/lm 1 White	55 - 00 - 0 55 - 000 - 0 1000 - 0
Peak intensity LEDs/each optic Light colour Required components:	2.5 cd/lm 1 White	5°. 500
Peak intensity LEDs/each optic Light colour Required components:	2.5 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL	
Peak intensity LEDs/each optic Light colour Required components:	2.5 cd/lm 1 White Hekla XL	
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL	
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2)	
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2) 27.0 + 28.0° / 52.0 + 53.0°	
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2) 27.0 + 28.0° / 52.0 + 53.0° 90 %	
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2) 27.0 + 28.0° / 52.0 + 53.0° 90 % 3.1 cd/lm	92
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2) 27.0 + 28.0° / 52.0 + 53.0° 90 % 3.1 cd/lm 1 White	90 <sup>4</sup> 97 75
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2) 27.0 + 28.0° / 52.0 + 53.0° 90 % 3.1 cd/lm 1 White	95
Peak intensity LEDs/each optic Light colour Required components: Bender Wirth: 632a	2.5 cd/lm 1 White Hekla XL DS LUXEON CX Plus CoB L04 / L05 (Gen2) 27.0 + 28.0° / 52.0 + 53.0° 90 % 3.1 cd/lm 1 White	90 <sup>4</sup> 97 75



	DS	90 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component: F15256_HEKLA-S		
<b>Ø</b> NICHIΛ		90* 90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Bender Wirth: 652		9°
0.0.0.0.0.0		
SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component F15255_HEKLA-S	LC003D / LC006D / LC009D / LC013D 25.1° / 48.3° 87 % 3.6 cd/lm 1 White s: OCKET-C	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component F17435_HEKLA-G	SLE SNC8 LES06 24.0° / 42.0 + 41.0° 93 % 4.7 cd/lm 1 White S:	24 10 10 10 10 10 10 10 10 10 10 10 10 10



#### **GENERAL INFORMATION:**

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

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

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#### 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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