

PRODUCT DATASHEET CA13546_EMILY-RS

EMILY-RS

~8° spot beam. 14.74 mm high lens.

SPECIFICATION:

Dimensions	Ø 26.0 mm
Height	14.7 mm
Fastening	tape
ROHS compliant	yes 🛈



Component EMILY-RS SPUTNIK-TAPE

Type Single lens Tape

LEDiĽ)
Material	Colour	Finish
PMMA	clear	

black

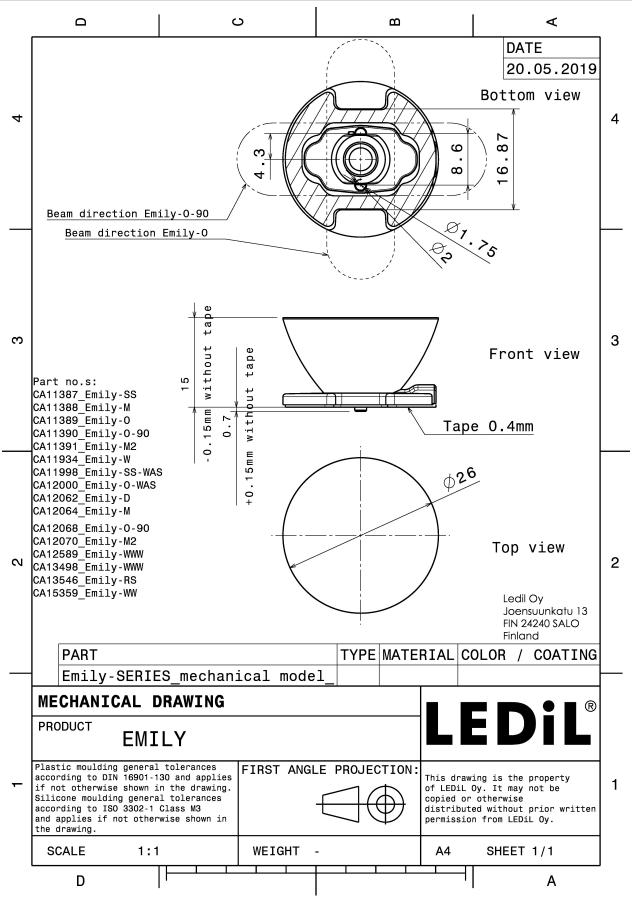
Acrylic foam

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA13546_EMILY-RS	Single lens	1690	260	130	10.3
» Box size: 480 x 280 x 300 mm					



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



		91 ⁴ 95 ⁴
LEDS FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XB-H 9.0° / 17.0° 88 % 24.7 cd/lm 1 White ents:	
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-E2 6.0° / 11.0° 96 % 57.6 cd/lm 1 White ents:	24. 26. 26. 26. 26. 26. 26. 26. 26
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 10.0° / 18.0° 94 % 18 cd/lm 1 White	
Required compone		
LEDS FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HD 13.0° / 23.0° 89 % 13.1 cd/lm 1 White ents:	775 - 755 640 - 640 677 - 640 640 -



		94 99
LEDS FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 8.0° / 15.0° 88 % 28 cd/lm 1 White ents:	
		30 ⁴ 30 ²
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L2 13.0° / 25.0° 93 % 10 cd/lm 1 White ents:	
CREE ÷		25° 0° 25'
LEDS EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HI 4.0° / 9.0° 94 % 71.1 cd/lm 1 White ents:	
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	XT-E 8.0° / 16.0° 91 % 23.9 cd/lm 1 White ents:	



	EDS	97 J
LED	LUXEON Z ES	
EED FWHM / FWTM	5.0° / 11.0°	71
Efficiency	91 %	
Peak intensity	52 cd/lm	60× 64
LEDs/each optic	1	
Light colour	White	er er
Required compone		
		200
		2 ^{40°} 135° 0 ⁴ 15°
ØNICHI∕		90* A
LED	NVSW219D	25*
FWHM / FWTM	10.0° / 18.0°	
Efficiency	94 %	600
Peak intensity	20.1 cd/lm	
LEDs/each optic	1	
Light colour	White	Gr. 12000
Required compone	nts:	
		314 314
		32 ³ 6 ⁴ 32 ³
LED	NVSW719AC	
EED FWHM / FWTM	9.0° / 15.0°	79
Efficiency	95 %	
Peak intensity	28.4 cd/lm	
LEDs/each optic	1	
Light colour	White	g. at
Required compone		1200
rtequired compone		
		\times / \vee \setminus λ
		20° 00° 133° 00° 133°
OSRAM Opto Semiconductors		
LED	OSLON Square EC	
FWHM / FWTM	8.0° / 15.0°	
Efficiency	90 %	
Peak intensity	29.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	



OSRAM Opto Semiconductors		
LED	PLPVEC2 850A	
FWHM / FWTM	4.0° / 11.0°	
Efficiency	%	
LEDs/each optic	1	
Light colour	IR	
Required compone	ints:	
SEOU		
SEOUL SEMICONDUCTOR		90* 90
LED	nPola	
FWHM / FWTM	5.0°	
Efficiency	94 %	60° 2000 60
Peak intensity	81.2 cd/lm	
LEDs/each optic	1	
Light colour	White	43 ⁴ 9220 43
Required compone	nts:	20 ⁵ 22 ⁵ 0 ⁵ 22 ³ 30
SEOUL		90° 90
SEOUL SEMICONDUCTOR	Z5M1/Z5M2	
FWHM / FWTM	9.0° / 15.0°	75'
Efficiency	91 %	
Peak intensity	23.7 cd/lm	60.5 60
LEDs/each optic	1	
Light colour	White	9 ¹
Required compone		



		90* 90*
	XHP35 HI	
LED FWHM / FWTM	10.0° / 18.0°	75
Efficiency	96 %	eeee
Peak intensity	22 cd/lm	60°
LEDs/each optic	1	
Light colour	' White	475 455
Required components:	Wine	
		X X
		Locard Locard
		30° 15° 0° 35° 36°
		90* A 90*
LED	XP-G2	
FWHM / FWTM	8.0° / 16.0°	23- 25- 73-
Efficiency	94 %	60°
Peak intensity	30.4 cd/lm	
LEDs/each optic	1	
Light colour	White	45° 45°
Required components:		
		\times / \vee \times
		30* 3000 30*
		15° 0° 15°
		50° A
	XP-G2 HE	
	XP-G2 HE 10.0° / 20.0°	39 ⁴ 39 ⁴
LED		
LED FWHM / FWTM	10.0° / 20.0°	
LED FWHM / FWTM Efficiency	10.0° / 20.0° 95 %	
LED FWHM / FWTM Efficiency Peak intensity	10.0° / 20.0° 95 % 19.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 20.0° 95 % 19.1 cd/lm 1	73°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1	73°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1	73°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1	37
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 95 % 19.1 cd/lm 1	23. 24. 25. 25. 26. 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 95 % 19.1 cd/lm 1 White	37
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 95 % 19.1 cd/lm 1 White	23. 24. 25. 25. 26. 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LEDs LED FWHM / FWTM	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0°	23. 24. 25. 25. 26. 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 %	23. 24. 25. 25. 26. 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm	23. 24. 25. 25. 26. 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm	23. 24. 25. 25. 26. 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 1000 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 95 % 19.1 cd/lm 1 White XP-P 6.0° / 12.0° 96 % 63.8 cd/lm 1	



	DS	90* 90
LED	LUXEON C	75.
FWHM / FWTM	7.0° / 16.0°	
Efficiency	94 % 37.3 cd/lm	60* 2200
Peak intensity LEDs/each optic	1	
Light colour	Royal Blue	52
Required components:	Noyai bide	
roquirou componenter		
		\times / / \times
		30° 38000 15°
	S	30 ⁴
LED	LUXEON HL2Z	
FWHM / FWTM	8.0° / 18.0°	73
Efficiency	96 %	
Peak intensity	27.7 cd/lm	
LEDs/each optic	1	
Light colour	White	93* X
Required components:		
		X / X
		30
	IS	90* 99
LED	LUXEON MZ	
FWHM / FWTM	14.0° / 26.0°	
Efficiency	95 %	200
Peak intensity	10.7 cd/lm	
LEDs/each optic	1	
Light colour	White	92° 6430
Required components:		
		800
		30'' 15" 0° 15"
)S	20 ⁴ 20 ⁵ et 12 ⁵
	S LUXEON Rebel	20 ⁺ 20 ⁻ 10 ⁺ 10 ⁺
		30. 20. 20. 20. 20. 20. 20. 20. 20. 20.
LED FWHM / FWTM	LUXEON Rebel	20 ⁺ 20 ⁻ 10 ⁺ 10 ⁺
LED FWHM / FWTM Efficiency Peak intensity	LUXEON Rebel 6.0° / 14.0°	20 ⁺ 20 ⁻ 10 ⁺ 10 ⁺
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON Rebel 6.0° / 14.0° 94 % 41.5 cd/lm 1	20 ⁺ 20 ⁻ 10 ⁺ 10 ⁺
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Rebel 6.0° / 14.0° 94 % 41.5 cd/lm	20 ⁴ 20 ⁷ 0 ⁴ 10 ⁷
LED	LUXEON Rebel 6.0° / 14.0° 94 % 41.5 cd/lm 1	60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Rebel 6.0° / 14.0° 94 % 41.5 cd/lm 1	60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON Rebel 6.0° / 14.0° 94 % 41.5 cd/lm 1	00



	os	90° 590
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rebel Plus 6.0° / 14.0° 94 % 42.1 cd/lm 1 White	
)S	80*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 6.0° / 12.0° 96 % 63.9 cd/lm 1 Blue	
	-	/ 15 ⁴ 0 ⁶ 15 ⁸
	DS	90° A
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 6.0° / 12.0° 96 % 64.5 cd/lm 1 Green	
UMILEC)S	90* 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 6.0° / 12.0° 96 % 62.6 cd/lm 1 White	



	DS S	90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 6.0° / 12.0° 96 % 67.4 cd/lm 1 Red	75 69 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7
)S	90 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON SunPlus 20 Line (120 deg) 6.0° / 13.0° 96 % 50.8 cd/lm 1 White	
		15 ⁵ 0 ⁶ 155 ³
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Z 5.9° / 12.0° 94 % 65.3 cd/lm 1 White	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
WICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NCSxE17A 6.0° / 16.0° 93 % 35.5 cd/lm 1 White	5 ⁴ 5 ⁴ 5 ⁴ 5 ⁴ 5 ⁵ 5 ⁵ 5 ⁵ 5 ⁵



ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NCSxE17A 8.0° / 16.0° 92 % 32.5 cd/lm 1 White	90° 90° 75° 72° 60° 80° 50° 50° 50° 50° 50° 50° 50° 50° 50° 5
	NVSW3x9A	90° 90°
EED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	12.0° / 22.0° 95 % 16.3 cd/lm 1 White	75 - 77 69 - 60 9 - 60 1000 - 60 - 60 - 60 - 60 - 60 - 60 - 60 -
\sim		200 100 100 200 200 100 100 100 100 100
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NVSxE21A 8.0° / 18.0° 94 % 27.8 cd/lm 1 White	5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NVSxE21A 8.0° / 18.0° 93 % 26.2 cd/lm 1 White	20, 12, 0, 12, 0, 24, 12, 12, 12, 12, 12, 12, 12, 12, 12, 12



ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NVSxx19B/NVSxx19C 10.0° / 18.0° 95 % 22.4 cd/lm 1 White	20- 20- 20- 20- 20- 20- 20- 20-
OSRAM		50° 50°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Duris S5 (Single chip) 8.0° / 18.0° 96 % 25.4 cd/lm 1 White	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
OSRAM		
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Duris S5 (Single chip) 9.0° / 18.0° 89 % 23.2 cd/lm 1 Purple	20° 20° 20° 20° 20° 20° 20° 20° 20° 20°
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSCONIQ C 2424 8.0° / 16.0° 96 % 36.2 cd/lm 1 White	5 ¹ 5 ¹ 5 ¹ 5 ¹ 5 ¹ 5 ¹ 5 ¹ 5 ¹



OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSCONIQ P 3030 10.0° / 20.0° 96 % 20.8 cd/lm 1 White	25- 26- 26- 27- 25- 25- 25- 25- 25- 25- 25- 25- 25- 25
OSRAM Opto Semiconductors		90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON Black 11.0° / 20.0° 94 % 19.7 cd/lm 1 White	gr
OSRAM Opto Semiconductors		20 ⁻ 13 ⁰ 0 20 ⁻ 15 ⁻ 0 ⁺ 15 ⁻ 3 ⁺
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON Black Flat (LUW HWQP) 6.3° / 14.0° 94 % 50.4 cd/lm 1 White	24 320 25 25 25 25 25 25 25 25 25 25 25 25 25 2
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON PURE 1010 8.0° / 16.0° 93 % 29.8 cd/lm 1 White	



Balantaniana LED OSLON Square CSSRM2/CSSRM3 EWHA / P2 TA / 2 Finding 0 44, Peak intensity 19.4 cd/m LED A colum Whe Required components:			
LED OSLON Spure CSRM2CSSRM3 PMM / FWTM 110 / 210' PArk iteration PA 5. Park iteration Park iteration PA 5. Park iteration PA 5. Park iteration PA 5. PA	OSRAM		90* 90*
PWHM / PVTM 110 * /210 ° Efficiency 94 % Peak intensity 19.4 colim LEDviewd optic 1 LEDviewd optic		OSLON Square CSSRM2/CSSRM3	
Efficiency 94 % Peak intensity 19.4 colm Light colour White Required components:			75"
Pask Intensity 19.4 cd/m LEDwiewch optic 1 LEDwiewch optic 1 LEDwiewch optic 2 CORREME LED OSLON SSI 120 FWHM / FWTM 7,0° / 14.0° Efficiency 96% Peak Intensity 45.5 cd/m LEDwiewch optic 1 LEDwiewch optic 1 LED			
LEDviend polic 1 Light colour White Required components:			60°
Light colour White Required components: COSRAM Mathematike LED OSLON SSL 120 EWHA / FWTM 70/ 14.0° Efficiency 96% Peak intensity 45.5 col/m LEDwised optic 1 Light colour Anber Required components: COSRAM LED OSLON SSL 150 EWHA / FWTM 70/ 14.0° Efficiency 96% Peak intensity 44.5 col/m LEDwised optic 1 Light colour Anber Required components: COSRAM LED OSLON SSL 150 Efficiency 96% Peak intensity 44.5 col/m LEDwised optic 1 Light colour Anber Required components: COSRAM LED OSLON SSL 150 Efficiency 96% Peak intensity 44.7 col/m LEDwised optic 1 Light colour Anber Required components: COSRAM LED OSLON SSL 150 FWHA / FVTM 607 / 14.0° Efficiency 96% Peak intensity 47.7 col/m LEDwised optic 1 Light colour White Required components: COSRAM LED OSLON SSL 150 FWHA / FVTM 607 / 14.0° Efficiency 96% Peak intensity 47.7 col/m LEDwised optic 1 Light colour White Required components:			$ \times / / \wedge \times $
Required components:			gy* 67*
OSERM LED OSLON SSL 120 FWHA // FWTM 7.0*/14.0* Efficiency 96 % PAR Intensity 45.5 odim LED & OSLON SSL 150 FWHA // FWTM 7.0*/14.0* Efficiency 96 % PAR Intensity 44.5 od/m LED OSLON SSL 150 FWHA // FWTM 7.0*/ 14.0* Efficiency 96 % Park Intensity 44.5 od/m LED/COLSPANE LED OSLON SSL 150 FWHA // FWTM 7.0*/ 14.0* EED OSLON SSL 150 FWHA // FWTM EMME EED/COLSPANE LED OSLON SSL 150 FWHA // FWTM 6.0*/ 14.0* Efficiency 96 % PAR Intensity 47.7 od/m LED OSLON SSL 150 FWHA // FWTA // FWTA //			12000
CSRAM LED OSLON SSL 120 FWHM /FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 4.5.5 cd/m LEDs/each optic 1 Light colour Amber Required componentis: ************************************			
CSRAM LED OSLON SSL 120 FWHM /FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 4.5.5 cd/m LEDs/each optic 1 Light colour Amber Required componentis: ************************************			
CSRAM LED OSLON SSL 120 FWHM /FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 4.5.5 cd/m LEDs/each optic 1 Light colour Amber Required componentis: ************************************			30° 100 20°
LED OSLON SSL 120 FWHM / FWTM 7,0/ 14,0' Filidiancy 98% Peak intensity 45.5 cd/m LEDa/seach optic 1 LEDa/seach optic 1 LEDa/seach optic 2 COSRAM Required components: COSLON SSL 150 FWHM / FWTM 7,07 / 14,0' Filidiancy 96% Peak intensity 44.5 cd/m LEDa/seach optic 1 LEDa/seach optic 1 LEDa/se			15° 0° 15°
LED OSLON SSL 120 FWHM / FWTM 7,0/ 14,0' Filidiancy 98% Peak intensity 45.5 cd/m LEDa/seach optic 1 LEDa/seach optic 1 LEDa/seach optic 2 COSRAM Required components: COSLON SSL 150 FWHM / FWTM 7,07 / 14,0' Filidiancy 96% Peak intensity 44.5 cd/m LEDa/seach optic 1 LEDa/seach optic 1 LEDa/se	OSRAM Opto Semiconductors		90° 90°
FWHM / FVTM 7.0° / 14.0° Efficiency 96 % Peak intensity 45.5 cd/m LEDs/each optic 1 Light colour Amber Required components: 0 OSRAM	LED	OSLON SSL 120	
Peak intensity 45.5 cd/im LED seach optic 1 LED and the results of	FWHM / FWTM	7.0° / 14.0°	23.
Peak intensity 45.5 cd/im LED seach optic 1 LED and the results of	Efficiency	96 %	2200
Light colour Amber Required components: SERVEM Second Second Se	Peak intensity	45.5 cd/lm	$\uparrow \times / / \uparrow \wedge \times \uparrow$
Required components: UED OSLON SSL 150 EVHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/m LED / Amber Required components: OSRAM Required components:	LEDs/each optic	1	
CSRAM Networking LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96% Peak intensity 44.5 cd/m LEDs/each optic 1 Light colour Amber Required components: CORRAM LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96% Peak intensity 47.7 cd/m LEDs/each optic 1 Light colour White Required components:	Light colour	Amber	4 ²
Determination LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/lm LEDs/each optic 1 Light colour Amber Required components:	Required components:		
Determination LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/lm LEDs/each optic 1 Light colour Amber Required components:			
June Sementation LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/lm LEDs/each optic 1 Light colour Amber Required components: COSRAM We becommented LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components:			
June Server LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/lm LEDs/each optic 1 Light colour Amber Required components: COSCAM Type Server Serv			30° 30°
June Server LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/lm LEDs/each optic 1 Light colour Amber Required components: COSCAM Type Server Serv			15° 0° 15°
LED OSLON SSL 150 FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/m LEDs/each optic 1 Light colour Amber Required components: FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/m LEDs/each optic 1 Light colour White Required components:			
FWHM / FWTM 7.0° / 14.0° Efficiency 96 % Peak intensity 44.5 cd/m LEDs/each optic 1 Light colour Amber Required components:	Opto Semiconductors		90*
Efficiency 96 % Peak intensity 44.5 cd/lm LEDs/each optic 1 Light colour Amber Required components: COSEAM Descention LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 LEDs/each optic 1 LEDs/e	Opto Semiconductors	OSLON SSL 150	90 ¹
LEDs/each optic 1 Light colour Amber Required components:	Opto Semiconductors LED FWHM / FWTM		90° - 92° 33°
Light colour Amber Required components:	Opto Semiconductors LED	7.0° / 14.0°	
Required components:	Opto Semiconductors LED FWHM / FWTM	7.0° / 14.0° 96 %	90 ⁴ 90 ⁴
OSERAM Dete Semiconductors LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/m LEDs/each optic 1 Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency	7.0° / 14.0° 96 % 44.5 cd/lm	90 ⁺ 72 ⁻ 90 ⁺ 90
Optio Semiconductors Image: Constraint of the semiconductors LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components: Image: Constraint of the semiconductors	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	7.0° / 14.0° 96 % 44.5 cd/lm 1	50 50 50 50 50 50 50 50 50 50 50 50 50 5
Optio Semiconductors Image: Constraint of the semiconductors LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components: Image: Constraint of the semiconductors	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	7.0° / 14.0° 96 % 44.5 cd/lm 1	2, 20, 6, 6, 6, 6, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7, 7,
Optio Semiconductors Image: Constraint of the semiconductors LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components: Image: Constraint of the semiconductors	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 14.0° 96 % 44.5 cd/lm 1	91- 92- 93- 94- 95- 95- 95- 95- 95- 95- 95- 95- 95- 95
OptioStemiconductors LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 14.0° 96 % 44.5 cd/lm 1	99 ⁴ 97 97 97 97 97 97 97 97 97 97 97 97 97
Optio Semiconductors Image: Constraint of the semiconductors LED OSLON SSL 150 FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components: Image: Constraint of the semiconductors	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 14.0° 96 % 44.5 cd/lm 1	90 ⁻ 72 60 ⁺ 75 70 70 70 70 70 70 70 70 70 70 70 70 70
FWHM / FWTM 6.0° / 14.0° Efficiency 96 % Peak intensity 47.7 cd/lm LEDs/each optic 1 Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	7.0° / 14.0° 96 % 44.5 cd/lm 1	
Efficiency 96 % Peak intensity 47.7 cd/m LEDs/each optic 1 Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber	30. 30. 30. 30. 30. 30.
Peak intensity 47.7 cd/m LEDs/each optic 1 Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150	
LEDs/each optic 1 Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0°	
Light colour White Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 %	
Required components:	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 % 47.7 cd/lm	
	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 % 47.7 cd/lm 1	
Print	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 % 47.7 cd/lm 1	
Print I	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 % 47.7 cd/lm 1	
	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 % 47.7 cd/lm 1	
	opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	7.0° / 14.0° 96 % 44.5 cd/lm 1 Amber OSLON SSL 150 6.0° / 14.0° 96 % 47.7 cd/lm 1	500 - 67 500 - 67 500 - 67



OSRAM Opto Semiconductors			90* 90*
Opto Semiconductors	OSLON SSL 80		
FWHM / FWTM	7.0° / 14.0°		75* 75*
Efficiency	94 %		
Peak intensity	38 cd/lm		
LEDs/each optic	1		
Light colour	White		gg*
Required components:			
			X / V X
			300
			15° 0° 15°
OSRAM Opto Semiconductors			90° 90°
Opto Semiconductors			
LED	SFH 4170S		100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100 - 100
FWHM / FWTM	6.0° / 11.0°		
Efficiency	87 %		60 ° 80°
LEDs/each optic	1		
Light colour	IR		43 ¹ 8200 63 ⁴
Required components:			
			30° 64000 30°
			15° 0° 15°
OSRAM Opto Semiconductors		Polar intensity graph	90* 90*
LED	SFH 4715AS	20.2	25°
FWHM / FWTM	6.0° / 16.0°		
FWHM / FWTM Efficiency	6.0° / 16.0°		
Efficiency			
	6.0° / 16.0° 96 %		er er er
Efficiency LEDs/each optic	6.0° / 16.0° 96 % 1		er o.
Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1		
Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1		
Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1		34 340 34
Efficiency LEDs/each optic Light colour Required components:	6.0° / 16.0° 96 % 1		
Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1		34 340 34
Efficiency LEDs/each optic Light colour Required components:	6.0° / 16.0° 96 % 1		34 340 34
Efficiency LEDS/each optic Light colour Required components: Opto Semiconductors	6.0° / 16.0° 96 % 1 IR SFH 4716AS		34 340 34
Efficiency LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM	6.0° / 16.0° 96 % 1 IR		34 340 34
Efficiency LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	6.0° / 16.0° 96 % 1 IR SFH 4716AS		34 340 34
Efficiency LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic	6.0° / 16.0° 96 % 1 IR SFH 4716AS 8.0° / 14.0°		34 340 34
Efficiency LEDs/each optic Light colour Required components: OBSRAM Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1 IR SFH 4716AS 8.0° / 14.0° 96 %		34 340 34
Efficiency LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic	6.0° / 16.0° 96 % 1 IR SFH 4716AS 8.0° / 14.0° 96 % 1		34 340 34
Efficiency LEDs/each optic Light colour Required components: OBSRAM Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1 IR SFH 4716AS 8.0° / 14.0° 96 % 1		34 340 34
Efficiency LEDs/each optic Light colour Required components: OBSRAM Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1 IR SFH 4716AS 8.0° / 14.0° 96 % 1		34 340 34
Efficiency LEDs/each optic Light colour Required components: OBSRAM Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic Light colour	6.0° / 16.0° 96 % 1 IR SFH 4716AS 8.0° / 14.0° 96 % 1		34 340 34



Opto Semiconductors LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	SFH 4725AS 8.0° / 18.0° 95 % 1 IR	Let us us us	
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LM301B 9.0° / 18.0° 94 % 28.5 cd/lm 1 White		