

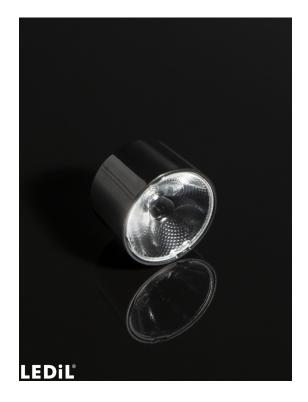
PRODUCT DATASHEET CA18089_LEILA-Y-RS

LEILA-Y-RS

~10° spot beam. 14.8 mm high assembly with holder, installation tape and pins.

SPECIFICATION:

Dimensions	Ø 21.6 mm
Height	14.8 mm
Fastening	tape, pin
ROHS compliant	yes 🛈



MATERIALS:

Component LEILA-Y-RS LEILA-Y-HLD LEILA-Y-TAPE

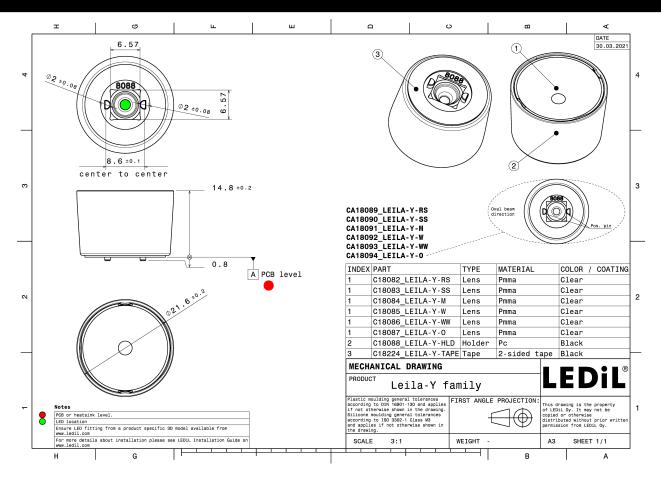
Туре	
Single lens	
Holder	
Таре	

Material	Colour	Finish
PMMA	clear	gloss
PC	black	gloss
Acrylic foam		

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
CA18089_LEILA-Y-RS	1800	180	180	7.6
» Box size: 476 x 273 x 197 mm				

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



OPTICAL RESULTS (MEASURED):

CREECS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G4 13.0° / 21.0° 87 % 14.7 cd/lm 1 White ents:	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW719AC 12.0° / 21.0° 87 % 15.3 cd/lm 1 White	
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	OSLON Square CSSRM2/CSSRM3 11.0° / 20.0° 87 % 17.4 cd/lm 1 White ents:	



		50° 50°
LED	J Series 5050B 6V K Class	
FWHM / FWTM	20.0° / 41.0°	75*
Efficiency	79%	
Peak intensity	4.6 cd/lm	60° 60°
LEDs/each optic	1	
	' White	45*
Light colour Required components:	white	2200
Required components:		
		30° 25° 30° 35°
		90°
LED	XHP35 HD	
		75
FWHM / FWTM	18.0° / 35.0°	1000
Efficiency Book intensity	79 % 6 cd/lm	50° - 60°
Peak intensity		
LEDs/each optic	1	329
Light colour	White	
Required components:		200
		30° 600 35° 36°
CREE 🚖		
LED	XHP35 HI	
LED FWHM / FWTM	14.0° / 26.0°	99 ⁺ 99 ⁺
LED FWHM / FWTM Efficiency	14.0° / 26.0° 87 %	99 ⁺ 97 ⁺
LED FWHM / FWTM Efficiency Peak intensity	14.0° / 26.0° 87 % 11.4 cd/lm	30°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 26.0° 87 % 11.4 cd/lm 1	30°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 26.0° 87 % 11.4 cd/lm	64 720 720 720 720 720 720 720 720
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 26.0° 87 % 11.4 cd/lm 1	64 720 720 720 720 720 720 720 720
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 26.0° 87 % 11.4 cd/lm 1	64 720 720 720 720 720 720 720 720
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 26.0° 87 % 11.4 cd/lm 1	64 720 720 720 720 720 720 720 720
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 26.0° 87 % 11.4 cd/lm 1	60 500 75 75 75 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 26.0° 87 % 11.4 cd/lm 1	y-
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 26.0° 87 % 11.4 cd/lm 1 White	30° 50° 60° 50° 60° 60° 60° 60° 60° 60° 60° 60° 60° 6
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 26.0° 87 % 11.4 cd/lm 1 White	30° 50° 60° 50° 60° 60° 60° 60° 60° 60° 60° 60° 60° 6
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0°	30. 30.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 %	30. 30.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE ED FWHM / FWTM Efficiency Peak intensity	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 cd/lm	30. 30.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 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	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 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	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 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	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 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	14.0° / 26.0° 87 % 11.4 cd/lm 1 White XHP35.2 HI 18.0° / 32.0° 83 % 7.3 cd/lm 1	



		90° 90°
LED	XM-L RGBW (XMLDCL HD)	
FWHM / FWTM	22.0° / 36.0°	73.
Efficiency	80 %	
Peak intensity	4.7 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	RGBW	gr at
Required components:		339
		200 ACC
		30 30 159 0° 15°
		90° 90°
LED	XM-L2	
FWHM / FWTM	16.0° / 30.0°	25. 25.
Efficiency	85 %	
Peak intensity	8 cd/lm	
LEDs/each optic	1	
Light colour	White	9° et
Required components:		6400
		30* 30*
		15° 9680 15°
		50° 50°
CREE ÷	XM-L3	
	XM-L3 15.0° / 29.0°	35 ⁻ 25 ⁻ 27
LED		75
LED FWHM / FWTM	15.0° / 29.0°	
LED FWHM / FWTM Efficiency	15.0° / 29.0° 80 %	
LED FWHM / FWTM Efficiency Peak intensity	15.0° / 29.0° 80 % 8.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 29.0° 80 % 8.7 cd/lm 1	737
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 29.0° 80 % 8.7 cd/lm 1	5°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 29.0° 80 % 8.7 cd/lm 1	5°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	15.0° / 29.0° 80 % 8.7 cd/lm 1	5°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	15.0° / 29.0° 80 % 8.7 cd/lm 1	25 57 615 615 615 615 615 615 615 615
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	15.0° / 29.0° 80 % 8.7 cd/lm 1 White	75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2	25 57 615 615 615 615 615 615 615 615
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	15.0° / 29.0° 80 % 8.7 cd/m 1 White XP-E2 9.0° / 18.0°	50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency	15.0° / 29.0° 80 % 8.7 cd/m 1 White XP-E2 9.0° / 18.0° 91 %	50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 cd/lm	50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 cd/lm 1	30 30 30 31 300 60 32 32 32
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	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 cd/lm	30 30 30 31 300 60 32 32 32
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 cd/lm 1	30 30 30 31 300 60 32 32 32
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	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 cd/lm 1	50 50 50 50 50 50 50 50 50 50
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	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 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	15.0° / 29.0° 80 % 8.7 cd/lm 1 White XP-E2 9.0° / 18.0° 91 % 30 cd/lm 1	30 30 30 31 300 60 32 32 32



		90 ⁴ 90 ⁴
LED	XP-G2	
FWHM / FWTM	11.0° / 21.0°	25*
Efficiency	90 %	
Peak intensity	19 cd/lm	60° 6400 60°
LEDs/each optic	1	
Light colour	' White	
Required components:	white	1200
Required components.		
		30° 30° 30° 30° 15°
		50° A 50°
LED	XP-G3	
FWHM / FWTM	13.9° / 25.4°	75° 73°
Efficiency	85 %	50° 500 50°
Peak intensity	11.5 cd/lm	$f \times / / \rightarrow \times \uparrow$
LEDs/each optic	1	600
Light colour	White	97
Required components:		
		9600
		30* 30*
		15°
		50* 50*
CREE ÷ LEDs	XP-L2	
	XP-L2 18.0° / 32.0°	5 ¹ 5 ¹ 2 ²
LED		
LED FWHM / FWTM	18.0° / 32.0°	
LED FWHM / FWTM Efficiency	18.0° / 32.0° 81 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	18.0° / 32.0° 81 % 7 cd/lm	731 500 500 500 500 500 500 500 500 500 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	18.0° / 32.0° 81 % 7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	18.0° / 32.0° 81 % 7 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	18.0° / 32.0° 81 % 7 cd/lm 1	20 20 20 20 20 20 20 20 20 20 20 20 20 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	18.0° / 32.0° 81 % 7 cd/lm 1	731 500 500 500 500 500 500 500 500 500 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White	731 1000 1000 1000 1000 1000 1000 1000 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White	731 500 500 500 500 500 500 500 500 500 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White S LUXEON 5050 Round LES	731 500 500 500 500 500 500 500 500 500 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White S LUXEON 5050 Round LES 22.0° / 40.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White S LUXEON 5050 Round LES 22.0° / 40.0° 81 % 4.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CONTINUES LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	18.0° / 32.0° 81 % 7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White S LUXEON 5050 Round LES 22.0° / 40.0° 81 % 4.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CONTINUES LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	18.0° / 32.0° 81 % 7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 32.0° 81 % 7 cd/lm 1 White	



🤭 LUMILEI	DS		90 ⁴
LED FWHM / FWTM Efficiency	LUXEON 5050 Square LES 20.0° / 40.0° 81 %		77
Peak intensity	4.7 cd/lm		6q* 1500 (
LEDs/each optic	1		
Light colour	White		97 · · · · · · · · · · · · · · · · · · ·
Required components:			30 ² 12 ⁵ 0 ⁴ 12 ⁵ 2
	DS		90* A
LED	LUXEON TX		
FWHM / FWTM	12.0° / 23.0°		
Efficiency	88 %		
Peak intensity	16 cd/lm		6400
LEDs/each optic	1		
Light colour	White		93*
Required components:			
	DS		90°
LED	LUXEON Z ES		25
FWHM / FWTM	10.0° / 18.0°		Record
Efficiency	90 %		
Peak intensity	26 cd/lm		
LEDs/each optic	1		
Light colour Required components:	White		97*
			90° 100 0° 100
MICHIΛ		500.0	50 ⁴
LED	NCSxE17A	value va	77
FWHM / FWTM	24.0° / 42.0°	coordinate value	000
Efficiency	76 %		
Peak intensity	3.6 cd/lm	×	1600
LEDs/each optic	4	-500.0 0 500.0 -500.0 X coordinate value	
Light colour	RGBW	Detector Image: Illuminance	2430
Required components:		13.2001 Terrar III and School an	



[
	NVSW219F	90* 90*
FWHM / FWTM	14.0° / 25.0°	25
Efficiency	88 %	
Peak intensity	12 cd/lm	60° X 10 X 10
LEDs/each optic	1	6430
Light colour	White	9°
Required components:		900
		30* 36*
Μ ΝΙCΗΙΛ		135 ⁴ 0 ⁴ 155 ⁴
LED	NVSxE21A	
EED FWHM / FWTM	12.0° / 24.0°	25* 2300
Efficiency	86 %	
Peak intensity	15.7 cd/lm	60*
LEDs/each optic	1	
Light colour	White	er
Required components:		
		13000
		\times $($ \vee \times
		30* 30* 30*
		15° 0° 15°
OSRAM		
OSRAM Opto Semiconductors		90*
Opto Semiconductors	OSCONIQ P 3737 (3W version)	39. 39.
opto Semiconductors LED FWHM / FWTM	16.0° / 28.0°	
opto Semiconductors LED FWHM / FWTM Efficiency	16.0° / 28.0° 87 %	
^{opto Semiconductors} LED FWHM / FWTM Efficiency Peak intensity	16.0° / 28.0° 87 % 9.2 cd/lm	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	16.0° / 28.0° 87 % 9.2 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	16.0° / 28.0° 87 % 9.2 cd/lm	500 60 ⁴
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	16.0° / 28.0° 87 % 9.2 cd/lm 1	5°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	16.0° / 28.0° 87 % 9.2 cd/lm 1	5° 5°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	16.0° / 28.0° 87 % 9.2 cd/lm 1	5°. 60° 5°. 60° 5°. 5°. 6°. 6°. 6°. 6°. 6°. 6°. 6°.
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	16.0° / 28.0° 87 % 9.2 cd/lm 1	500 F
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	16.0° / 28.0° 87 % 9.2 cd/lm 1 White	5°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Peak intensity LEDS/each optic Light colour Required components:	16.0° / 28.0° 87 % 9.2 cd/lm 1 White	5°. 60° 5°. 60° 5°. 5°. 6°. 6°. 6°. 6°. 6°. 6°. 6°.
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0°	bit bit bit 100, 00, 10, 00, 00, 00, 00, 00, 00, 00,
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Peak intensity LEDs/each optic Light colour Required components: LED FWHM / FWTM Efficiency	16.0° / 28.0° 87 % 9.2 cd/lm 1 White	20. 20. 20. 20. 20. 20. 20. 20. 20.
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0° 80 %	30 30 30 31 300 60 32 300 60 32 300 60
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0° 80 % 4.3 cd/lm	30 30 30 31 300 30 32 300 60 32 300 60 32 300 60 32 300 60
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0° 80 % 4.3 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0° 80 % 4.3 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0° 80 % 4.3 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	16.0° / 28.0° 87 % 9.2 cd/lm 1 White OSCONIQ S 5050 22.0° / 42.0° 80 % 4.3 cd/lm 1	



Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON Black Flat (LUW HWQP) 6.0° / 14.0° 90 % 53.1 cd/lm 1 White	
OSRAM		90°
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON Square CSSRM2/CSSRM3 10.0° / 18.0° 89 % 24.9 cd/lm 1 Far Red	75 - 72 09 - 00 09 - 00 00 - 00 00 - 00 00 - 00 00 00 00 00 00 00 00 00 00
OSRAM Opto Semiconductors		
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON Square Flat 10.0° / 20.0° 90 % 22.6 cd/lm 1 White	20°
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSLON SSL 150 9.0° / 18.0° 91 % 27 cd/lm 1 White	30 ³ 12 ³ 0 ⁴ 12 ³ 20 ³



OSRAM Opto Semiconductors LED	SYNIOS S2222	33 35 35
FWHM / FWTM	10.0° / 16.0°	
Efficiency	91 %	60°
Peak intensity	27 cd/lm	
LEDs/each optic	1	
Light colour	Yellow	gr. dr
Required components:		
		30° 30° 30°
OSRAM Opto Semiconductors		90*
LED	SYNIOS S2222	75
FWHM / FWTM	10.0° / 18.0°	
Efficiency	90 %	60°
Peak intensity	22.9 cd/lm	$\Gamma \times / / \setminus \times \uparrow$
LEDs/each optic	1	
Light colour	Blue	42. 42.
Required components:		
		15000
		30* 31*
OCDAM		
OSRAM Opto Semiconductors		50° 50°
OSRAM Opto Semiconductors LED	SYNIOS S2222	
Opto Semiconductors	SYNIOS S2222 10.0° / 16.0°	37 37 37 37
Opto Semiconductors		
Opto Semiconductors LED FWHM / FWTM	10.0° / 16.0°	
opto Semiconductors LED FWHM / FWTM Efficiency	10.0° / 16.0° 91 %	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	10.0° / 16.0° 91 % 26.6 cd/lm	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 16.0° 91 % 26.6 cd/lm 1	37 64 1300
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 16.0° 91 % 26.6 cd/lm 1	37 64 1300
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 16.0° 91 % 26.6 cd/lm 1	37 64 1300
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 16.0° 91 % 26.6 cd/lm 1	37 64 1300
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 16.0° 91 % 26.6 cd/lm 1	27 64 67 1000 67 1000 1000 1000 67 67 67 67
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red	27 64 67 1000 67 1000 1000 1000 67 67 67 67
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red	37 64 67 1000 67 1000 1000 1000 67 67 1000 1000
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0°	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 %	30. 30. 30. 1000 60. 1000 60. 60.
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 % 22.8 cd/lm	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 % 22.8 cd/lm 1	
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 Light colour	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 % 22.8 cd/lm	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 % 22.8 cd/lm 1	
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 Light colour	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 % 22.8 cd/lm 1	
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 Light colour	10.0° / 16.0° 91 % 26.6 cd/lm 1 Red SYNIOS S2222 10.0° / 18.0° 90 % 22.8 cd/lm 1	



OSRAM Opto Semiconductors		50° 90°
LED	SYNIOS S2222	75
FWHM / FWTM	10.0° / 18.0°	
Efficiency	90 %	60°
Peak intensity	23.4 cd/lm	
LEDs/each optic	1	
Light colour	Blue	43
Required components:		
		1900
		30* 30*
		15° 2360 15°
SAMSUN	IG	90* A 90*
LED	LH351B	
FWHM / FWTM	13.0° / 24.0°	22.
Efficiency	86 %	
Peak intensity	13 cd/lm	60 ¹⁰
LEDs/each optic	1	632
Light colour	White	g5 ⁴
Required components:		800
		300 300 300
		15° 0° 15°
SEOUL SEMICONDUCTOR		50° 90°
LED	Z5M4	
FWHM / FWTM	15.0° / 28.0°	75'
Efficiency	87 %	
Peak intensity	10.1 cd/lm	60°
LEDs/each optic	1	X / X
Light colour	White	gr 6339 67*
Required components:		
		300 300
		12, 0, 12,