

PRODUCT DATASHEET CA16128_OLGA-M

OLGA-M

 ${\sim}30^\circ$ wide beam. Assembly with holder and installation tape.

SPECIFICATION:

Dimensions	Ø 32.0 mm
Height	19.1 mm
Fastening	tape, pin
ROHS compliant	yes 🛈



MATERIALS:

Component OLGA-M OLGA-HLD SPUTNIK-TAPE3

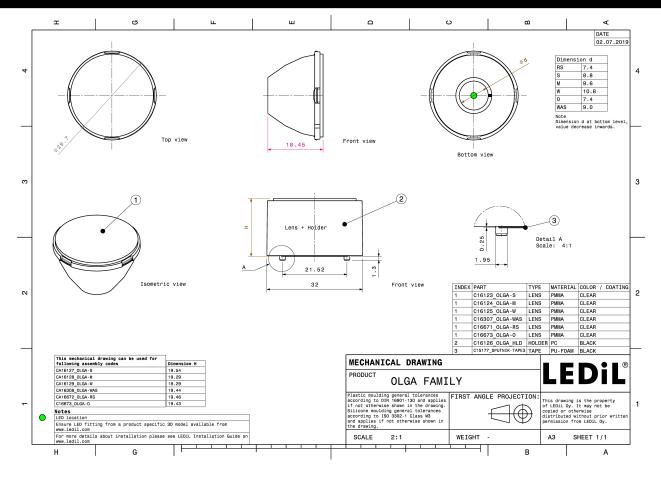
Туре
Single lens
Holder
Таре

Material	Colour	Finish
PMMA	clear	
PC	black	
Acrylic foam	black	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA16128_OLGA-M	Single lens	792	132	66	9.8
» Box size: 476 x 273 x 292 mm					

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



			K La
LED LEDS	XD16	<u>39'</u>	90*
FWHM / FWTM	26.0° / 48.0°	73	1
Efficiency	80 %	\times	
Peak intensity	3.2 cd/lm	60°	60.
LEDs/each optic	1		1630
Light colour	White	g.,	
Required compone			ΛX
Required compone			2130
		⁵⁹⁷ 155	0, 12, 30.
		99*	90*
LED	XHP35 HD	74*	
FWHM / FWTM	32.0° / 58.0°		
Efficiency	80 %	695	60.
Peak intensity	2.1 cd/lm		
LEDs/each optic	1		
Light colour	White	437 [*]	45*
Required compone	nts:		1630
		305	34.
CREE 荣		90*	90*
		304	50*
LED	XHP35 HI	<u>391</u> 73	
LED FWHM / FWTM	28.0° / 51.0°	30 ⁻ 32-	000
LED FWHM / FWTM Efficiency	28.0° / 51.0° 84 %	30 ⁻ 72- 81-	00 K ²
LED FWHM / FWTM Efficiency Peak intensity	28.0° / 51.0° 84 % 2.8 cd/lm	30 ⁴ 73 64	00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 51.0° 84 % 2.8 cd/lm 1	50 ⁻	000 00°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 84 % 2.8 cd/lm 1 White	95 73 60 70	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 51.0° 84 % 2.8 cd/lm 1 White	5°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 84 % 2.8 cd/lm 1 White	91 91 91	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 84 % 2.8 cd/lm 1 White	90 90 00	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White	30 ⁴ 73 60 ⁴ 73 75 75 75 75 75 75 75 75 75 75 75 75 75	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts:		200 B*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts:		200 B*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0°		200 B*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0° 81 %		200 et
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0° 81 % 2.1 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0° 81 % 2.1 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREECS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0° 81 % 2.1 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE EDS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0° 81 % 2.1 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 84 % 2.8 cd/lm 1 White nts: XHP50 32.0° / 60.0° 81 % 2.1 cd/lm 1 White		



		7
	XHP50.2	
FWHM / FWTM	31.0° / 58.0°	
Efficiency	81 %	9 ⁴
Peak intensity	2.3 cd/lm	
LEDs/each optic	1	
Light colour	White	100 V
Required compone	nts:	
		30 ¹ 200 25 ¹ 0 ¹ 35 ¹
		90 ⁴
LED	XHP70	
FWHM / FWTM	33.0° / 63.0°	77
Efficiency	82 %	
Peak intensity	2 cd/lm	
LEDs/each optic	1	
Light colour	White	¢ 120
Required compone	nts:	
		- 100
		39*
		200 do 100
		50 ³
LED	XHP70.2	
FWHM / FWTM	34.0° / 64.0°	
Efficiency	81 %	
Peak intensity	81 % 1.9 cd/lm	60 ⁻ 500
Peak intensity LEDs/each optic	1.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White	5° 120
Peak intensity LEDs/each optic	1.9 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required componed	1.9 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required componer	1.9 cd/lm 1 White nts:	
Peak intensity LEDs/each optic Light colour Required component	1.9 cd/lm 1 White nts: XM-L	
Peak intensity LEDs/each optic Light colour Required component CREE LED FWHM / FWTM	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0°	
Peak intensity LEDs/each optic Light colour Required component CREECS LED FWHM / FWTM Efficiency	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 %	
Peak intensity LEDs/each optic Light colour Required component CREECS LED FWHM / FWTM Efficiency Peak intensity	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 % 2.4 cd/lm	
Peak intensity LEDs/each optic Light colour Required component CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 % 2.4 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required component CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 % 2.4 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required component CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 % 2.4 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required component CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 % 2.4 cd/lm 1 White	
Peak intensity LEDs/each optic Light colour Required component CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	1.9 cd/lm 1 White nts: XM-L 31.0° / 55.0° 83 % 2.4 cd/lm 1 White	



		90 ⁴
LEDS FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L3 33.0° / 57.0° 81 % 2.2 cd/lm 1 White ents:	25' 25' 25' 25' 25' 25' 25' 25' 25' 25'
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G2 30.0° / 53.0° 83 % 2.7 cd/lm 1 White ents:	
CREE S LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 31.0° / 54.0° 82 % 2.5 cd/lm 1 White ents:	
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HI 28.0° / 50.0° 85 % 3 cd/lm 1 White ents:	



		30* 345
LEDs FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L2 30.0° / 54.0° 81 % 2.5 cd/lm 1 White hts:	
CREE Constructions LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HD 28.0° / 51.0° 76 % 2.8 cd/lm 1 White hts:	
CREE LEDs FWHM / FWTM Efficiency	XQ-E HI 27.0° / 49.0° 83 %	
Peak intensity LEDs/each optic Light colour Required compone	3.1 cd/lm 1 White hts:	
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XT-E 29.0° / 53.0° 79 % 2.6 cd/lm 1 White hts:	



	EDC	
LUMIL	EDS	90° 90°
LED	LUXEON 5050 Round LES	75
FWHM / FWTM	27.0° / 52.0°	
Efficiency	86 %	664
Peak intensity	3 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	209
• •••••		34 ⁴ 330 350 24 ³ 350
🖉 LUMIL	EDS	50*
LED	LUXEON C	
FWHM / FWTM	29.0° / 52.0°	
Efficiency	76 %	600
Peak intensity	2.6 cd/lm	
LEDs/each optic	1	
Light colour	White	9 ⁴ 400
Required compone	nts:	
		2 ⁴
	EDS	20° (20°)
LED	LUXEON CZ	
FWHM / FWTM	26.0° / 47.0°	75
Efficiency	85 %	
Peak intensity	3.5 cd/lm	60 ⁴
LEDs/each optic	1	
Light colour	White	er et
Required compone		200
riequirea compone		
		34
		200 Jay 100 Ja
	EDS	30 ² 55 ⁷ 6 ⁴ 59 ⁴
LED	EDS LUXEON M/MX	200 30 ⁴ 30
LED FWHM / FWTM	EDS LUXEON M/MX 31.0° / 59.0°	34 ⁴ 35 ⁴ 35 ⁴ 35 ⁴ 35 ⁴
LED FWHM / FWTM Efficiency	EDS LUXEON M/MX 31.0° / 59.0° 84 %	
LED FWHM / FWTM Efficiency Peak intensity	EDS LUXEON M/MX 31.0° / 59.0° 84 % 2.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	EDS LUXEON M/MX 31.0° / 59.0° 84 % 2.3 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	EDS LUXEON M/MX 31.0° / 59.0° 84 % 2.3 cd/lm 1 White	53°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	EDS LUXEON M/MX 31.0° / 59.0° 84 % 2.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	EDS LUXEON M/MX 31.0° / 59.0° 84 % 2.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	EDS LUXEON M/MX 31.0° / 59.0° 84 % 2.3 cd/lm 1 White	



CUMIL	.EDS	9) ⁴ 90 ⁴
LED	LUXEON MZ	
FWHM / FWTM	26.0° / 50.0°	
Efficiency	85 %	
Peak intensity	3.1 cd/lm	64×
LEDs/each optic	1	
Light colour	White	e ^r for the second sec
Required compone		
Required compone	5110.	200
		20 ¹⁰ 20 ¹⁰ 20 ¹⁰ 20 ¹⁰
	.EDS	804
LED	LUXEON Rebel ES	
FWHM / FWTM	28.0° / 51.0°	77
Efficiency	83 %	
Peak intensity	3 cd/lm	64×64
LEDs/each optic	1	
Light colour	White	er 60
Required compone		
Required compone	5113.	200
		30 ⁶ 30 ⁹ 30 ⁹ 30 ⁹
MA 1 1 15 411	FDC	
🤭 LUMIL	.EDS	90°
LUMIL	LUXEON TX	
		20 ⁴
LED	LUXEON TX	
LED FWHM / FWTM Efficiency	LUXEON TX 29.0° / 51.0°	
LED FWHM / FWTM Efficiency Peak intensity	LUXEON TX 29.0° / 51.0° 83 %	
LED FWHM / FWTM Efficiency	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MUMIL LED FWHM / FWTM Efficiency Peak intensity	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Model of the second second Required compone Efficiency Peak intensity LEDs/each optic	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 % 2.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composed Required compone Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 % 2.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Model of the second second Required compone Efficiency Peak intensity LEDs/each optic	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 % 2.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composed Required compone Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 % 2.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composed Required compone Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 % 2.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Composition Required compone Composition LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON TX 29.0° / 51.0° 83 % 2.9 cd/lm 1 White ents: LUXEON V 28.0° / 53.0° 82 % 2.7 cd/lm 1 White	



🤭 LUMIL	EDS	90° 90°
LED	LUXEON V	
FWHM / FWTM	29.0° / 54.0°	
Efficiency	82 %	
Peak intensity	2.6 cd/lm	
LEDs/each optic	1	
Light colour	White	9 ⁴ - 100
Required compone		
		200
		34*
<i>(</i>)		
	EDS	90 ⁴ 90 ⁴
LED	LUXEON V2	73
FWHM / FWTM	29.0° / 51.0°	
Efficiency	83 %	60 60
Peak intensity	2.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	
		200
		30' 32' 32
	EDS	
LED	LUXEON Z	
FWHM / FWTM	25.0° / 46.0°	75 75
Efficiency	85 %	
Peak intensity	3.7 cd/lm	604
LEDs/each optic	1	
Light colour	White	gr
Required compone		
		30"
A		10 ⁻¹
	EDS	50°* 50°*
LED	LUXEON Z ES	75
FWHM / FWTM	27.0° / 49.0°	
Efficiency	85 %	
Peak intensity	3.3 cd/lm	
LEDa/aaah antia		
LEDs/each optic	1	
Light colour	White	g. / / · · · · ·
	White	gr 300
Light colour	White	
Light colour	White	
Light colour	White	



ØNICHI		20 ⁴ 29 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 23.0° / 44.0° 85 % 4.1 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219D 31.0° / 54.0° 83 % 2.4 cd/lm 1 White	
ØNICHI/		90 ⁴ 91 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW319B 34.0° / 56.0° 84 % 2.3 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxE21A 23.0° / 44.0° 85 % 4.2 cd/lm 1 White	



ØNICHI		30*
LED FWHM / FWTM	NVSxx19B/NVSxx19C 30.0° / 52.0°	73
Efficiency	84 %	6 ¹
Peak intensity	2.7 cd/lm	
LEDs/each optic	1	
Light colour	White	ere
Required compone	nts:	300 J37 OF J37 J37
OSRAM Opto Semiconductors		55*
LED	Duris S8	
FWHM / FWTM	27.0° / 53.0°	79
Efficiency	85 %	60 ⁴ 60 ⁴
Peak intensity	3 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	30° 300 30° 30°
OSRAM Opto Semiconductors		50° 50°
LED	OSCONIQ P 3737 (2W version)	75
FWHM / FWTM	26.0° / 49.0°	
Efficiency	83 %	101 W
Peak intensity	3.2 cd/lm	
LEDs/each optic	1	a, 500
Light colour Required compone	White	
Required compone		20- 200
OSRAM Opto Semiconductors		50°
LED	OSCONIQ P 3737 (3W version)	
FWHM / FWTM	28.0° / 51.0°	79
Efficiency	84 %	60 ¹ 60 ¹
Peak intensity	3 cd/lm	
LEDs/each optic	1	
Light colour	White	ø de state s
Required compone	nts:	300



-		
OSRAM Opto Semiconductors		90° 90°
LED	OSCONIQ P 7070	
FWHM / FWTM	29.0° / 55.0°	25'
Efficiency	83 %	
Peak intensity	2.6 cd/lm	60°
LEDs/each optic	1	$ \times / \times $
Light colour	White	ar
Required compone		
		30° 30° 30°
OSRAM Opto Semiconductors		90* 90*
LED	OSLON Black Flat (LUW HWQP)	
FWHM / FWTM	24.0° / 45.0°	25* 25*
Efficiency	85 %	
Peak intensity	3.9 cd/lm	60 ⁵
LEDs/each optic	1	
Light colour	White	9 ⁴ 200 9 ⁴
Required compone		
Required compone		
		3239
		30° 4000 30° 30°
OSRAM Opto Semiconductors		90* 90*
OSRAM Opto Semiconductors	OSLON Square CSSRM2/CSSRM3	90*
	OSLON Square CSSRM2/CSSRM3 30.0° / 52.0°	
LED FWHM / FWTM		99 73 75 75 75 75 75
LED FWHM / FWTM Efficiency	30.0° / 52.0° 84 %	994 735 694 600 600 604
LED FWHM / FWTM Efficiency Peak intensity	30.0° / 52.0°	97 73 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 52.0° 84 % 2.7 cd/lm	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White	97 97 97 97 97 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 52.0° 84 % 2.7 cd/lm 1 White	99 99 99 99 90 90 90 90 90 90 90 90 90 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White	94 75 64 67 77 109 60 67 67 67 67 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White	99 77 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	30.0° / 52.0° 84 % 2.7 cd/lm 1 White	er er 109 200 200 200 200 200 200 200 200 200 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts:	94 94 95 96 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts:	91 91 91 91 91 91 91 91 91 91
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opto Semiconductors LED FWHM / FWTM	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0°	500 500 500 500 500 500 500 500 500 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optis Semiconductors LED FWHM / FWTM Efficiency	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 %	91 91 91 91 91 91 91 91 91 91
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm	94 97 97 97 97 97 97 97 97 97 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm 1	94 97 97 97 97 97 97 97 97 97 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm 1 White	64 64 64 65 66 66 66 66 67 66 67 67 67 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm 1 White	64 64 64 65 66 66 66 66 67 66 67 67 67 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm 1 White	64 64 64 65 66 66 66 66 67 66 67 67 67 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Optic Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	30.0° / 52.0° 84 % 2.7 cd/lm 1 White nts: OSLON Square EC 28.0° / 51.0° 81 % 2.9 cd/lm 1 White	



000444			V V I
OSRAM Opto Semiconductors		90 ⁴	90*
LED	OSLON Square PC		
FWHM / FWTM	29.0° / 52.0°		$\wedge \land \land \land$
Efficiency	82 %	90,0	800
Peak intensity	2.8 cd/lm		
LEDs/each optic	1		\times
Light colour	White	6 7*	1600 - 43*
Required compone	nts:		
			2400
		30'	31"
OSRAM Opto Semiconductors			15 0° 15°
Opto Semiconductors			
LED FWHM / FWTM	OSLON SSL 150 30.0° / 51.0°	78	
Efficiency	30.0° / 51.0° 82 %		
Peak intensity	2.7 cd/lm	60.0	60°
LEDs/each optic	1		
Light colour	White	9 ⁵	1630
Required compone			
Required compone	11.5.		
			2430
		30*	15° 0° 15°
OSRAM Onto Samiconductors		83 ⁴	
Opto Semiconductors	OSLON SSL 80	50 ⁴	
Opto Semiconductors	OSLON SSL 80 28.0° / 51.0°		
opto Semiconductors LED FWHM / FWTM	OSLON SSL 80 28.0° / 51.0° 82 %	90 ⁴	
opto Semiconductors LED FWHM / FWTM Efficiency	28.0° / 51.0° 82 %	50 ⁴	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	28.0° / 51.0°	6x 33	- 00 - 77
^{opto Semiconductors} LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 51.0° 82 % 2.9 cd/lm	94 94	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	28.0° / 51.0° 82 % 2.9 cd/lm 1 White	834 23 24	- 00 - 77
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White	87 87 87	- 00 - 77
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White	94 95 95	500
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White	93 93 97 97	00 00 500 200 00 00 00 00 00 00 00 00 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White	27 27 27 20 20 20 20 20 20 20 20 20 20 20 20 20	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts:		00 00 500 200 00 00 00 00 00 00 00 00 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN)	27 27 27 20 20 20 20 20 20 20 20 20 20 20 20 20	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0°		100 100 100 100 100 100 100 100
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 %		100 100 100 100 100 100 100 100
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 % 3.2 cd/lm		100 100 100 100 100 100 100 100
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 % 3.2 cd/lm 1		00 00 00 00 00 00 00 00 00 00
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 % 3.2 cd/lm 1 RGBW		
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 % 3.2 cd/lm 1 RGBW		
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 % 3.2 cd/lm 1 RGBW		
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSCRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 51.0° 82 % 2.9 cd/lm 1 White nts: OSTAR Stage (S2WN) 26.0° / 50.0° 84 % 3.2 cd/lm 1 RGBW		



SAMSI	UNG		90* 90*
LED	LH181A		
FWHM / FWTM	22.0° / 44.0°		73*
Efficiency	81 %		
Peak intensity	4 cd/lm		60 ° 60 °
LEDs/each optic	1		
Light colour	White		9° 2830
Required compone			
			3230
			\times / \times
			15° 0° 15°
SAMSI	UNG		90°
LED	LH181B		
FWHM / FWTM	23.0° / 45.0°		73,
Efficiency	85 %		
Peak intensity	3.4 cd/lm		50* 50*
LEDs/each optic	1		
Light colour	White		93 · · · · · · · · · · · · · · · · · · ·
Required compone			
			3230
			15 ⁹ 0 ⁶ 25 ⁹
SAMSI	UNG		90* 90*
LED	LH231B		
FWHM / FWTM	24.0° / 47.0°		75* 200
Efficiency	86 %		
Peak intensity	3.7 cd/lm		
LEDs/each optic	1		
Light colour	White		ey*
Required compone	ents:		
			2200
			30* 30*
CANCI			12, 0, 12,
SAMSI			90* 90*
LED	LH351B		75
FWHM / FWTM	30.0° / 53.0°		$\land \land \land \land \land \land \land \land \land$
Efficiency	84 %		50°
Peak intensity	2.7 cd/lm		
LEDs/each optic	1		
Light colour	White		97* e2*
Required compone	ents:	•	
			2120
			107 09" 15"



SAMSU	ING		90° 90°
LED	LH351C		
FWHM / FWTM	31.0° / 53.0°		73.
Efficiency	85 %		
Peak intensity	2.7 cd/lm		60°
LEDs/each optic	1		
Light colour	White		1500 43°
Required componer			
			200
			30°
			159 00 159
SAMSU	ING		50° 50°
LED	LH351D		
FWHM / FWTM	33.0° / 57.0°		73, 73,
Efficiency	83 %		
Peak intensity	2.2 cd/lm		80 ¹² 800 60°
LEDs/each optic	1		
Light colour	White		45. 42.
Required componer	nts:		1600
			30. 34.
			15° 280 15°
SAMSU	JNG		90* 90*
	LH508A		
			77
LED	LH508A		
LED FWHM / FWTM Efficiency Peak intensity	LH508A 28.0° / 53.0°		77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1		77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White		8 ⁴ 8 ⁶
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White		8 ⁴ 8 ⁶
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White		8 ⁴ 8 ⁶
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White		47 47 60 77 60 60 77 77 77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White		47 47 60 77 60 60 77 77 77
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts: UNG LM302A 25.0° / 48.0°		94 900 94 900 95 900
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		94 900 94 900 95 900
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency Peak intensity	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts: DNG LM302A 25.0° / 48.0° 85 % 3.4 cd/lm		51 50 61 50 62 50 63 50 73 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts: DNG LM302A 25.0° / 48.0° 85 % 3.4 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH508A 28.0° / 53.0° 85 % 2.9 cd/lm 1 White hts:		



SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LM561B 27.0° / 51.0° 85 % 3.2 cd/lm 1 White		No. No. No. No. 20.0 20.0 20.0 20.0 00. 20.0 20.0 20.0 00. 000 20.0 20.0 00. 000 20.0 20.0 00. 000 20.0 20.0 00. 000 20.0 20.0 00. 000 20.0 20.0 00. 000 20.0 20.0
seous senceneous construction LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	WICOP 5050 33.0° / 60.0° 80 % 2.1 cd/lm 1 White ents:		295 - 125 - 06 - 125 - 05
SEQUE SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	Z5M3 28.0° / 52.0° 82 % 2.8 cd/lm 1 White ents:		



CREE ≑		90° 90°
LEDS		
LED FWHM / FWTM	J Series 5050 Round LES 25.0° / 46.0°	75* 25*
Efficiency	92 %	
Peak intensity	92 % 4.3 cd/lm	60° 60°
LEDs/each optic	4.5 co/im 1	
Light colour	u White	5° (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
Required components:	White	X
Required components.		
		$ \times / \vee $
		36°
		90° 90°
LED	XHP50.3 HD	
FWHM / FWTM	31.0 + 30.0° / 52.0°	70
Efficiency	83 %	200
Peak intensity	2.7 cd/lm	69* 60*
LEDs/each optic	1	
Light colour	White	45* 65*
Required components:	White	
		X A A X
		2400
		30° 30° 30° 30°
CREE ≑		90° 90°
		9 ¹
LED	XHP50.3 HI 28.0° / 48.0°	7
LED FWHM / FWTM	28.0° / 48.0°	
LED FWHM / FWTM Efficiency	28.0° / 48.0° 95 %	7
LED FWHM / FWTM Efficiency Peak intensity	28.0° / 48.0° 95 % 3.4 cd/lm	7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 48.0° 95 % 3.4 cd/lm 1	55 50 55 57 57 57 57 57 57 57 57 57 57 57 57
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 48.0° 95 % 3.4 cd/lm	737 - 759 664 - 667 - 500.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 48.0° 95 % 3.4 cd/lm 1	61 200 20 20 20 20 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 48.0° 95 % 3.4 cd/lm 1	61 200 20 20 20 20 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	28.0° / 48.0° 95 % 3.4 cd/lm 1	çr 64 200) 77 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1	61. 200) 23. 90 90 23.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1	çr 64 200) 77 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1 White	200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1 White	200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 %	30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30. 30.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency Peak intensity	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 % 2.3 cd/lm	39 ⁴ 39 ⁴ 300 300 300 300 300 300 300 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 % 2.3 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 % 2.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Required components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 % 2.3 cd/lm 1	200 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 % 2.3 cd/lm 1	22. 00 00 33. 33. 64 30. 30. 34. 36. 30. 35. 60. 64. 65. 36. 30. 35. 36. 30. 35. 36. 30. 35. 36. 30. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 37. 35. 35. 36. 35. 35.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	28.0° / 48.0° 95 % 3.4 cd/lm 1 White XHP70.3 HD 33.0 + 32.0° / 58.0° 82 % 2.3 cd/lm 1	22. 00 00 33. 33. 64 30. 30. 34. 36. 30. 35. 60. 64. 65. 36. 30. 35. 36. 30. 35. 36. 30. 35. 36. 30. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 36. 35. 35. 37. 35. 35. 36. 35. 35.



		90° 90°
LED	XP-G2 HE	
FWHM / FWTM	33.0° / 50.0°	75.
Efficiency	89 %	
Peak intensity	2.9 cd/lm	60° 60°
LEDs/each optic	1	
Light colour	u White	45* 459
Required components:	White	
		2430
		36° 36° 36°
	JS	90° 90°
LED	SST-20	
FWHM / FWTM	26.0° / 42.0°	73
Efficiency	91 %	
Peak intensity	4.5 cd/lm	60 ¹
LEDs/each optic	1	
Light colour	White	42. 42.
Required components:		3200
		30* 30*
		15° 4800 15°
	US	90° 90° 90° 15°
		99 ⁴ 99 ⁴
LED	SST-70X-WCS	
LED FWHM / FWTM		
LED FWHM / FWTM Efficiency	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 %	
LED FWHM / FWTM Efficiency Peak intensity	SST-70X-WCS 30.0° / 50.0 + 48.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7)	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0° 91 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: EXAMPLANCE LED FWHM / FWTM Efficiency Peak intensity	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0° 91 % 2.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: EXAMPLANCE EXAMPLANCE FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0° 91 % 2.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0° 91 % 2.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0° 91 % 2.5 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: WICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-70X-WCS 30.0° / 50.0 + 48.0° 85 % 3.1 cd/lm 1 White COB S-Type (LES 7) 32.0° / 58.0° 91 % 2.5 cd/lm 1	



ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	COB T-Type 30.0° / 56.0° 91 % 2.9 cd/lm 1 White	90° 90°
Μ ΝΙCΗΙΛ		30 ² 125 ² 0 ⁴ 25 ³ 30 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NCSxE17A 24.0° / 44.0° 88 % 4.5 cd/m 4 White	2, 15, 15, 15, 15, 15, 15, 15, 15, 15, 15
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NFMW48xA 25.0° / 47.0° 92 % 4.3 cd/lm 1 White	20 20 20 20 20 20 20 20 20 20
WICHIN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NV4WB35AM 25.0° / 44.0° 91 % 4.4 cd/lm 1 White	



Ø ΝΙCΗΙΛ		30°
LED	NV4x144A	
FWHM / FWTM	31.0° / 54.0°	
Efficiency	86 %	60 ¹ 60 ²
Peak intensity	2.7 cd/lm	
LEDs/each optic	1	
Light colour	White	45° 5°
Required components:		300 300 300



GENERAL INFORMATION:

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

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

MATERIALS:

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

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

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