

PRODUCT DATASHEET CA16127_OLGA-S

OLGA-S

~11° spot beam 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-S OLGA-HLD SPUTNIK-TAPE3

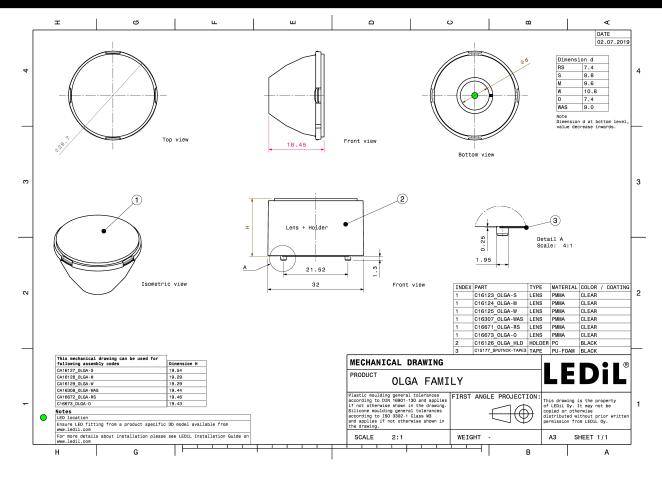
Туре	
Single lens	
Holder	
Таре	

Material	Colour	Finish
PMMA	clear	
PC	black	
Acrylic foam	black	

ORDERING INFORMATION:

Component		Qty in box	MOQ	MPQ	Box weight (kg)
CA16127_OLGA-S	Single lens	792	132	66	9.8
» Box size: 476 x 273 x 292 mm					

PRODUCT DATASHEET CA16127_OLGA-S



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





· · · · · · · · · · · · · · · · · · ·		
		90°
LED	XD16	
FWHM / FWTM	13.0° / 28.0°	25 25
Efficiency	82 %	
Peak intensity	10.4 cd/lm	
LEDs/each optic	1	
Light colour	White	e ^y 600
Required componer		
		500
		244
	•	· · · · · · · · · · · · · · · · · · ·
LED	XHP35 HD	75
FWHM / FWTM	19.0° / 37.0°	
Efficiency	83 %	60° () () () () () () () () () (
Peak intensity	5.5 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required componer	nts.	
		30 ⁴ 55 ⁵ 6 ⁴ 55 ⁵
	-	
		90 ⁴ 90
	ХНР35 НІ	90 ⁺
LED FWHM / FWTM		90 ⁴ 90 75
LED	XHP35 HI	
LED FWHM / FWTM	XHP35 HI 15.0° / 31.0°	9°* 99 75 0°* 200 00
LED FWHM / FWTM Efficiency	XHP35 HI 15.0° / 31.0° 87 %	
LED FWHM / FWTM Efficiency Peak intensity	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm	60 ¹ 200 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White	60 ¹ 200 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White	27 91 91 91 92 90 90 90 90 90 90 90 90 90 90 90 90 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 % 3.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer Required componer LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 % 3.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer Required componer ELED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 % 3.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer Required componer LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 % 3.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 % 3.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP35 HI 15.0° / 31.0° 87 % 8.5 cd/lm 1 White hts: XHP50 24.0° / 44.0° 83 % 3.7 cd/lm 1 White	





		90 ⁴ 99
LED	XHP50.2	
FWHM / FWTM	23.0° / 43.0°	73- 75
Efficiency	82 %	
Peak intensity	4 cd/lm	60* · · · · · · · · · · · · · · · · · · ·
LEDs/each optic	1	
Light colour	White	e- 300
Required component		
riedanea compone		
		30° 15° 0 ^h 15°
		50° A 500
LED	XM-L	
FWHM / FWTM	17.0° / 34.0°	77
Efficiency	86 %	
Peak intensity	6.8 cd/lm	
LEDs/each optic	1	
Light colour	White	ar a
Required compone	nts:	400
		400
		157 04 157
ODEE +		
		90°
	XM-L3	
		90° 90 75° 100 72°
LED	XM-L3	
LED FWHM / FWTM	XM-L3 17.0° / 35.0°	
LED FWHM / FWTM Efficiency	XM-L3 17.0° / 35.0° 85 %	
LED FWHM / FWTM Efficiency Peak intensity	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White	725
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White	725
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componen	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component CREEE>LED LED FWHM / FWTM	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component LED FWHM / FWTM Efficiency	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component LED FWHM / FWTM Efficiency Peak intensity	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity LEDs/each optic	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Efficiency Peak intensity LEDs/each optic	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component Required component Equired component CREE (Component Equired component Efficiency Peak intensity LEDs/each optic Light colour	XM-L3 17.0° / 35.0° 85 % 6.5 cd/lm 1 White hts: XP-E 11.0° / 27.0° 87 % 12.1 cd/lm 1 White	





		90* A 997
LED	XP-E2	
FWHM / FWTM	11.0° / 26.0°	72
Efficiency	89 %	
Peak intensity	13.6 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required componer		
		<u> </u>
		90*90
LED	XP-G2	
FWHM / FWTM	13.0° / 29.0°	
Efficiency	87 %	691 2000
Peak intensity	10 cd/lm	
LEDs/each optic	1	
Light colour	White	<i>₹</i> ⁴ (600)
Required componer	its:	
		800
		30° 157 0° 15°
		90 ⁴
		90* 90
CREE LED	XP-G3 14.0° / 31.0°	27 26 29
LED	XP-G3	23 23 24 20
LED FWHM / FWTM	XP-G3 14.0° / 31.0°	50 ⁴ 72 60 60 60 60 60 60
LED FWHM / FWTM Efficiency	XP-G3 14.0° / 31.0° 86 %	
LED FWHM / FWTM Efficiency Peak intensity	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 % 10.2 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 % 10.2 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 % 10.2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 % 10.2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 % 10.2 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 14.0° / 31.0° 86 % 8.4 cd/lm 1 White tts: XP-L HI 14.0° / 29.0° 88 % 10.2 cd/lm 1 White	



		50*
LED	XP-L2	
FWHM / FWTM	18.0° / 36.0°	78-
Efficiency	82 %	
Peak intensity	5.8 cd/lm	
LEDs/each optic	1	
Light colour	White	ar <u>300</u>
Required compone		
		633
		30" 31,"
		15°
		10°*
LED	XQ-E HD	75.
FWHM / FWTM	11.0° / 28.0°	$\mathbf{\Lambda} = \mathbf{\Lambda} \mathbf{\Lambda}$
Efficiency	81 %	50° × × × × × × × × × × × × × × × × × × ×
Peak intensity	11 cd/lm	$\Gamma \times / (\square) \times (\square)$
LEDs/each optic	1	
Light colour	White	612) 67°
Required compone	nts:	
		300 300
		15° 0° 15°
		90°
LED	XQ-E HI	<u>39</u> 2 <u>39</u> 2 <u>39</u> 2
LED FWHM / FWTM	XQ-E HI 11.0° / 26.0°	95°
LED FWHM / FWTM Efficiency	XQ-E HI 11.0° / 26.0° 86 %	95 ⁴ 27 00 00 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1	57 61 61 61 61 61 61 61 61 61 61 61 61 61
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White	57 61 61 61 61 61 61 61 61 61 61 61 61 61
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White	g- g- g-
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White	g- g- g-
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White	gr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0° 84 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE Component LED FWHM / FWTM Efficiency Peak intensity	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0° 84 % 8.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE Component LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0° 84 % 8.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0° 84 % 8.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0° 84 % 8.8 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XQ-E HI 11.0° / 26.0° 86 % 13.6 cd/lm 1 White nts: XT-E 14.0° / 30.0° 84 % 8.8 cd/lm 1 White	





🤭 LUMIL	EDS	50°
LED	LUXEON C	
FWHM / FWTM	11.0° / 27.0°	75
Efficiency	84 %	
Peak intensity	11.6 cd/lm	
LEDs/each optic	1	
Light colour	White	94
Required compone		
rioquirou compone		
		30 ¹⁶ 15 ¹⁷ 15 ¹⁰
	EDS	90°
LED	LUXEON CZ	
FWHM / FWTM	11.0° / 25.0°	77
Efficiency	89 %	
Peak intensity	14.8 cd/lm	
LEDs/each optic	1	
Light colour	White	g.
Required compone		
		1200
		34
		³⁰ 15 ³ 1600 15 ³
	EDS	50°
		90°
LED	EDS LUXEON M/MX 24.0° / 44.0°	23 ⁻
LED FWHM / FWTM	LUXEON M/MX	75
LED FWHM / FWTM Efficiency	LUXEON M/MX 24.0° / 44.0° 84 %	60- 52- 500
LED FWHM / FWTM Efficiency Peak intensity	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm	75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON M/MX 24.0° / 44.0° 84 %	97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White	60- 52- 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White	77 00 07 109 77 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White	97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White	77 00 07 109 77 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts:	77 00 07 109 77 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0° 86 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Multiple Equired compone Efficiency Peak intensity	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0° 86 % 6.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Mediate Compone Efficiency Peak intensity LEDs/each optic	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0° 86 % 6.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Model of the second Required compone Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0° 86 % 6.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Model of the second Required compone Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0° 86 % 6.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Component Required component Efficiency Peak intensity LEDs/each optic Light colour	LUXEON M/MX 24.0° / 44.0° 84 % 3.8 cd/lm 1 White nts: EDS LUXEON MZ 19.0° / 35.0° 86 % 6.3 cd/lm 1 White	



	.EDS	90 ⁴ 30 ⁵
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON Rebel ES 14.0° / 30.0° 86 % 9.5 cd/lm 1 White	
	.EDS	50 ⁴ 50 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON TX 14.0° / 29.0° 86 % 9.8 cd/lm 1 White	
	FDS	89 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON V 18.0° / 35.0° 84 % 6.5 cd/lm 1 White ents:	
UMIL	.EDS	90* 30*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON V2 15.0° / 31.0° 86 % 9 cd/lm 1 White ents:	





COMIL	.EDS		50* A 50'
LED	LUXEON Z		
FWHM / FWTM	11.0° / 25.0°		75
Efficiency	88 %	_	
Peak intensity	15.1 cd/lm	_	· · · · · · · · · · · · · · · · · · ·
LEDs/each optic	1		
Light colour	White		5° (s
Required compone	ents:		
			30° 30
	EDS		15° 1800 15°
			90,4
LED	LUXEON Z ES		75
FWHM / FWTM	12.0° / 27.0°		3200
Efficiency	89 % 12.1 cd/lm		60° 60'
Peak intensity			
LEDs/each optic Light colour	1 White		er* 630
Required compone			
Required compone			9500
			30 ⁶ 12000 30 ⁶
			90* A 90*
	NCSxE17A		50° 50
		_	5°
LED	NCSxE17A		50°
LED FWHM / FWTM	NCSxE17A 12.0° / 26.0°		99 ¹ 92
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NCSxE17A 12.0° / 26.0° 87 %		50° 500 500 500 500 500 500 500 500 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White		75°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White		200 Star
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White		73 64 607 607 607 607 607 607 607 607
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White		73 64 607 607 607 607 607 607 607 607
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White		73 64 607 607 607 607 607 607 607 607
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents:		yv
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents:		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0° 84 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0° 84 % 4.1 cd/lm		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MICHIM LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0° 84 % 4.1 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MICHIM LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0° 84 % 4.1 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MICHIM LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0° 84 % 4.1 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone WICHIA LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NCSxE17A 12.0° / 26.0° 87 % 12.7 cd/lm 1 White ents: NV4x144A 23.0° / 43.0° 84 % 4.1 cd/lm 1 White		





Nour		
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW219D 14.0° / 30.0° 85 % 9.3 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW319B 16.0° / 33.0° 86 % 7.4 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxE21A 14.0° / 28.0° 87 % 10.3 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxx19B/NVSxx19C 15.0° / 31.0° 85 % 8.8 cd/lm 1 White	



OSRAM Opto Semiconductors LED Duris S8 FWHM / FWTM 24.0° / 43.0°	
	90*
FWHM / FWTM 24.0° / 43.0°	
Efficiency 86 %	60*
Peak intensity 4.3 cd/lm	1600
LEDs/each optic 1	
Light colour White	45*
Required components:	3230
200	3(*
	0° 15'
Opto Semiconductors	90*
LED OSCONIQ P 3737 (2W version)	75
FWHM / FWTM 14.0° / 30.0°	
Efficiency 87 %	3200 60*
Peak intensity 9.2 cd/lm	$H \to X$
LEDs/each optic 1	45*
Light colour white	
Required components:	6430
30° 127	9600 30°
OSRAM	90°
Onto Semisondustere	
Opto Semiconductors	
Opto Semiconductors Copio Semiconductors LED OSCONIQ P 3737 (3W version)	1000
Opto Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° 25	500
Opto Semiconductors 70 LED OSCONIQ P 3737 (3W version) 70 FWHM / FWTM 17.0° / 33.0° 70 Efficiency 86 % 60	500
Opto Semiconductors Peak intensity 7.2 cd/lm	300
Opto Semiconductors 24 LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm	
Opto Semiconductors Peak intensity 7.2 cd/lm LEDs/each optic 1	100 200 000
Opto Stemiconductors Peak intensity 7.2 cd/lm LED Seach optic 1 Light colour White	- 67
Opto Stemiconductors Peak intensity 7.2 cd/lm LED Seach optic 1 Light colour White	
Opto Semiconductors Peak intensity 7.2 cd/lm LED OSCONIQ P 3737 (3W version) Peak intensity FWHM / FWTM 17.0° / 33.0° Peak intensity LEDs/each optic 1 Peak intensity Light colour White Peak	- 67
Opto Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	600 600 600 600 600 600 600 600 600 600
Opto Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	ero 600
Opto Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	600 600 600
Opto Stemiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	600 600 600
Optio Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	600 600 600
Optio Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	
Oute Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	
Oute Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	
Oute Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	
Determineductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	
Object Semiconductors LED OSCONIQ P 3737 (3W version) FWHM / FWTM 17.0° / 33.0° Efficiency 86 % Peak intensity 7.2 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	



OSRAM Opto Semiconductors		90 ⁺ A 90 ⁺
LED	OSLON Black Flat	
FWHM / FWTM	11.0° / 24.0°	71 2001 77
Efficiency	88 %	
Peak intensity	16 cd/lm	600 K
LEDs/each optic	1	
Light colour	White	er <u>960</u>
Required compone	nts:	
		1000
		x* X*
OSRAM		
Opto Semiconductors		90*
LED	OSLON Square CSSRM2/CSSRM3	75'
FWHM / FWTM	14.0° / 30.0°	
Efficiency	87 %	691
Peak intensity	10.2 cd/lm	
LEDs/each optic	1	
Light colour	White	ex. (93)
Required compone	nts:	
		\times \times
OSRAM		
OSRAM Opto Semiconductors	001 011 0 50	90° 90°
Opto Semiconductors	OSLON Square EC	92°
Opto Semiconductors LED FWHM / FWTM	13.0° / 29.0°	97 97 97
Opto Semiconductors LED FWHM / FWTM Efficiency	13.0° / 29.0° 85 %	84 200 134 134 134 134 134 134 134 134 134
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	13.0° / 29.0° 85 % 10 cd/lm	94 [*] 95 [*] 96 [*] 200 96 [*] 200 96 [*] 200 96 [*]
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	13.0° / 29.0° 85 % 10 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White	57 67* 700 700 77*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	13.0° / 29.0° 85 % 10 cd/lm 1 White	57 67* 700 700 77*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White	57 67* 700 700 77*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White	57 67* 700 700 77*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White	57 67* 700 700 77*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White	57 67* 700 700 77*
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	13.0° / 29.0° 85 % 10 cd/lm 1 White nts:	
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC	
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	13.0° / 29.0° 85 % 10 cd/lm 1 White nts:	
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0° 85 %	
Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0°	
opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0° 85 % 10.1 cd/lm	
opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0° 85 % 10.1 cd/lm 1 White	
opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0° 85 % 10.1 cd/lm 1 White	
opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0° 85 % 10.1 cd/lm 1 White	
opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Opts Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	13.0° / 29.0° 85 % 10 cd/lm 1 White nts: OSLON Square PC 13.0° / 30.0° 85 % 10.1 cd/lm 1 White	



OSRAM		
Opto Semiconductors		90° 9
LED	OSLON SSL 150	75
FWHM / FWTM	11.0° / 26.0°	
Efficiency	87 %	895 V
Peak intensity	13 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	nts:	888
		30
OSRAM Opto Semiconductors		
LED FWHM / FWTM	OSLON SSL 80 13.0° / 28.0°	78
Efficiency	86 %	
Peak intensity	11.1 cd/lm	au
LEDs/each optic	1	
Light colour	White	e
Required compone		
Required compone		
		30°. 25° 0° 15° 2
OSRAM		
		90*
Opto Semiconductors	OSTAR Stage (S2WN)	90 ⁴
Opto Semiconductors	OSTAR Stage (S2WN) 14.0° / 30.0°	30 ⁴
Opto Semiconductors LED FWHM / FWTM	14.0° / 30.0°	30 ⁴
opto Semiconductors LED FWHM / FWTM Efficiency	14.0° / 30.0° 86 %	50°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	14.0° / 30.0° 86 % 9.3 cd/lm	99* 95 96* 300 0
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 30.0° 86 %	5°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW	9° 9 77 200 5 77 200 5 79 200 5 70 4 70 4 70 4 70 5 70 5 70 5 70 5 70 5 70 5 70 5 70 5
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW	30
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	30 ⁻ 500
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSU LED	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSU LED FWHM / FWTM	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts: JNG LH181A 15.0° / 30.0°	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency Peak intensity	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANNSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 30.0° 86 % 9.3 cd/lm 1 RGBW nts:	



SЛМSI		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH181B 15.0° / 29.0° 87 % 9.7 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH231B 16.0° / 31.0° 88 % 8.6 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351B 14.0° / 30.0° 87 % 9.3 cd/lm 1 White	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351C 15.0° / 31.0° 86 % 8.5 cd/lm 1 White	





SAMSL	JNG	50°	90
LED	LH351D		
FWHM / FWTM	18.0° / 36.0°		
Efficiency	85 %	er 100	\sim
Peak intensity	6.2 cd/lm		
LEDs/each optic	1		
Light colour	White	94°	45
Required compone	ents:		
		30" 6400	36
รлмรเ		197 of 197	
			90
LED	LH508A	75	75'
FWHM / FWTM	21.0° / 40.0°		
Efficiency	86 %	5 th	60'
Peak intensity	4.9 cd/lm 1		
LEDs/each optic Light colour	ı White		45'
Required compone		300	
Required compone	ants.		
		en	
		30 ⁴ 25 ⁵ 0 ⁴ 15 ⁵	
			-
SAMSU	JNG	9/ ⁴	90'
		30°	90'
SAMSU LED FWHM / FWTM	LM302A 14.0° / 30.0°	90 ⁺	90'
LED	LM302A	90 ⁴	90 75
LED FWHM / FWTM	LM302A 14.0° / 30.0°	99 ¹ 79 60 200	90 75 00
LED FWHM / FWTM Efficiency	LM302A 14.0° / 30.0° 89 %	90* 75 90* 90*	
LED FWHM / FWTM Efficiency Peak intensity	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm	9°*	50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White	73. 60 - 200 0.	99 ⁷
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White	73. 60 - 200 0.	59
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White	73. 60 - 200 0.	99 75 00 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White	73. 60 - 200 0.	27 27 00 00 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White	73. 60 - 200 0.	97 75 70 70 70 70 70 70 70 70 70 70 70 70 70
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents:		29 29 00 00 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents:		29 25 00 00 00 00 00 00 00 00 00 00 00 00 00
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: UNG LM561B 14.0° / 31.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: UNG LM561B 14.0° / 31.0° 88 %		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SANSU LED FWHM / FWTM Efficiency Peak intensity	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: UNG LM561B 14.0° / 31.0°		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: JNG LM561B 14.0° / 31.0° 88 % 9.3 cd/lm 1		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSE EMHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: JNG LM561B 14.0° / 31.0° 88 % 9.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: JNG LM561B 14.0° / 31.0° 88 % 9.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: JNG LM561B 14.0° / 31.0° 88 % 9.3 cd/lm 1 White		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone SAMSU LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LM302A 14.0° / 30.0° 89 % 9.9 cd/lm 1 White ents: JNG LM561B 14.0° / 31.0° 88 % 9.3 cd/lm 1 White		





SEOUL SEMICONDUCTOR		354 254
LED	WICOP 5050	75
FWHM / FWTM	24.0° / 45.0°	
Efficiency	81 %	
Peak intensity	3.6 cd/lm	
LEDs/each optic	1	
Light colour	White	g ⁷
Required compone	ents:	250 250 250 250 250 250 250 250 250 250
SEOUL		
		90° 90°
SEOUL SEMICONDUCTOR	75M3	90 ² 90 ²
seoul semiconductor	Z5M3 16.0° / 32.0°	25- July 25- 25-
SEOUL SEMICONDUCTOR LED FWHM / FWTM	16.0° / 32.0°	300
seoul semiconductor LED FWHM / FWTM Efficiency		
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity	16.0° / 32.0° 84 %	50°
seoul semiconductor LED FWHM / FWTM Efficiency	16.0° / 32.0° 84 % 7.7 cd/lm	50°
stoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	16.0° / 32.0° 84 % 7.7 cd/lm 1 White	27
stoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	16.0° / 32.0° 84 % 7.7 cd/lm 1 White	27
stoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	16.0° / 32.0° 84 % 7.7 cd/lm 1 White	
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	16.0° / 32.0° 84 % 7.7 cd/lm 1 White	



OPTICAL RESULTS (SIMULATED):

		90° 90°
LED	XHP50.3 HD	
FWHM / FWTM	22.0° / 40.0°	25*
Efficiency	84 %	200 2000 ere
Peak intensity	4.8 cd/lm	
LEDs/each optic	1	$ \times / / \wedge \times $
Light colour	White	97 ⁴ 67*
Required components:		320
		X / X
		30° 30° 30°
		90*
LED	XHP50.3 HI	
FWHM / FWTM	18.0° / 36.0°	23.
Efficiency	95 %	
Peak intensity	6.4 cd/lm	
LEDs/each optic	1	
Light colour	White	¢, €2,
Required components:		400
		300 300
		15° 0° 15°
		50* 50*
	XHP70.3 HD	
	XHP70.3 HD 26.0 + 28.0° / 50.0°	37
LED		
LED FWHM / FWTM	26.0 + 28.0° / 50.0°	37
LED FWHM / FWTM Efficiency	26.0 + 28.0° / 50.0° 82 %	37
LED FWHM / FWTM Efficiency Peak intensity	26.0 + 28.0° / 50.0° 82 % 3 cd/lm	737 996 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	737 996 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	737 996 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	gr 527
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	25 - 25 90 - 20 91 - 20 92 - 20 92 - 20 93 - 20 93 - 20 94 - 20 95 - 20 95 - 20 95 - 20 95 - 20 96 - 20 97 - 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	25 - 25 - 27 - 27 - 27 - 27 - 27 - 27 -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	25 - 25 90 - 20 91 - 20 92 - 20 92 - 20 93 - 20 93 - 20 94 - 20 95 - 20 95 - 20 95 - 20 95 - 20 96 - 20 97 - 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1	30, 30,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White	25 - 25 99 97 - 200 - 200 - 200 - 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 %	30, 30,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0°	30, 30,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 %	30, 30,
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 % 12.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 % 12.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 % 12.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 % 12.7 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	26.0 + 28.0° / 50.0° 82 % 3 cd/lm 1 White XP-E2 11.0° / 28.0° 91 % 12.7 cd/lm 1	



OPTICAL RESULTS (SIMULATED):

		90°
LED	XP-G2 HE	75*
FWHM / FWTM	15.0° / 32.0°	
Efficiency	88 %	50° 50°
Peak intensity	8.7 cd/lm	$\wedge \neq \neq$
LEDs/each optic	1	
Light colour	White	gr et
Required components:		6430
		304 359 .00, 359 364
)S	50 ⁴ 50 ⁴
LED	LUXEON 7070	
FWHM / FWTM	26.0° / 51.0°	73.
Efficiency	94 %	
Peak intensity	3.2 cd/lm	60*
LEDs/each optic	1	
Light colour	White	97°
Required components:		
		200
		30 15° 0° 15°
	US	50 ⁴ 50 ⁴
	US SST-20	
		90* 75 75
LED	SST-20	
LED FWHM / FWTM	SST-20 14.0° / 28.0°	
LED FWHM / FWTM Efficiency	SST-20 14.0° / 28.0° 91 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm	94
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1	94
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1	94
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1	200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1	200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White	30 4 4 4 5 6 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White	30 4 4 4 4 4 5 6 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS	30 4 4 4 4 4 5 6 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0° 89 %	32. 32. 90. 90. 90.
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0° 89 % 6.3 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0° 89 % 6.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0° 89 % 6.3 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0° 89 % 6.3 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SST-20 14.0° / 28.0° 91 % 11.7 cd/lm 1 White US SST-70X-WCS 20.0° / 37.0 + 36.0° 89 % 6.3 cd/lm 1	



OPTICAL RESULTS (SIMULATED):

Ø ΝΙCΗΙΛ		
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NFMW48xA 21.0° / 40.0° 89 % 5.5 cd/lm 1 White	20. 20. 20. 20. 20. 20. 20. 20.
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	NV4WB35AM 18.0° / 34.0° 89 % 7.2 cd/lm 1 White	30° 30° 30°
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH151B 22.0° / 38.0° 88 % 5.1 cd/lm 4 White	20° (° 15° 20° (° 15° 20° (° 15° 20° (° 15° 20° (° 15° 20° (° 15°)



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.

MATERIALS:

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

PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

LEDiL Oy assumes neither warranty, nor guarantee nor any other liability of any kind for the contents and correctness of the provided data. The provided data has been generated with highest diligence but the provided data may in reality not represent the complete possible variation range of all intrinsic parameters. Therefore, in certain cases a deviation from the provided data could occur.

LEDiL Oy reserves the right to undertake technical changes of its products without further notification which could lead to changes in the provided data. LEDiL Oy assumes no liability of any kind for the possible deviation from any provided data or any other damage resulting from the usage of the provided data.

The user agrees to this disclaimer and user agreement with the download or usage of the provided files.

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

Local sales and technical support www.ledil.com/ where_to_buy

Shipping locations Salo, Finland Hong Kong, China

Distribution Partners www.ledil.com/ where_to_buy

Last update: 13/02/2023Subject to change without prior noticePublished: 11/01/2019LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.20/20