

PRODUCT DATASHEET C16504_STRADA-2X2-T2-M

STRADA-2X2-T2-M

IESNA Type II (medium) beam with excellent backlight control, illuminance uniformity and cutoff

SPECIFICATION:

Dimensions Height Fastening ROHS compliant 50.0 x 50.0 mm 11.9 mm glue, pin, screw yes (i)



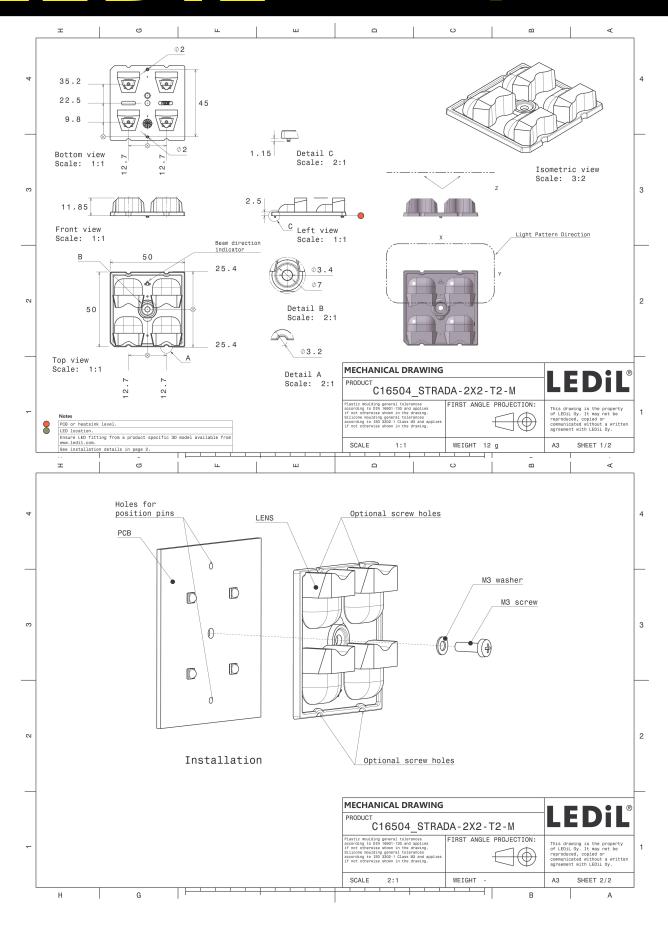
MATERIALS:

Component	Туре	Material	Colour	Finish
STRADA-2X2-T2-M	Multi-lens	PMMA	clear	

ORDERING INFORMATION:

Component	Qty in box	MOQ	MPQ	Box weight (kg)
C16504_STRADA-2X2-T2-M	800	160	160	10.2
» Box size: 476 x 273 x 292 mm				

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



CREE - AGE		q0° q0°
LED	- XM-L3	
FWHM / FWTM	Asymmetric	
Efficiency	95 %	
Peak intensity	1.3 cd/lm	604 604
LEDs/each optic	1	
Light colour	White	X
Required compone		45.
		00
		\times
		1000
		30° 15° 30°
	2	50° 30°
LED	XP-G2	
FWHM / FWTM	Asymmetric	20 20 20 80
Efficiency	94 %	
Peak intensity	1.9 cd/lm	50° 400 50°.
LEDs/each optic	1	
Light colour	White	45* 000 45*
Required compone		\times / \times
		800
		\times
		1000
		30° 15° 30°
		X Y Y Y
		90° 90°
		50° 50°
	XP-G3	91 ⁴ 91 ⁴
LED		50° 50°
LED FWHM / FWTM	XP-G3 Asymmetric	99° 90° 200 90° 60°
LED FWHM / FWTM Efficiency	XP-G3 Asymmetric 94 %	99° 99° 75° 90° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity	XP-G3 Asymmetric 94 % 1.5 cd/lm	99° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White	5° 50 6°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White	9° - 9° - 9° - 9° - 9° - 9° - 9° - 9° -
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White	97 97 73 97 10 ⁴ 100 10 ⁴ 00 10 ⁴ 07 10 ⁴ 07 10 ⁴ 07
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts:	200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX Asymmetric	200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX Asymmetric %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX Asymmetric % 1 White	50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX Asymmetric % 1 White	50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX Asymmetric % 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-G3 Asymmetric 94 % 1.5 cd/lm 1 White nts: EDS LUXEON TX Asymmetric % 1 White	50 50 50 50



UMIL	EDS	904 / / / / / / / / / / / / / / / / / / /
LED	LUXEON V2	A A A A A A A A A A A A A A A A A A A
FWHM / FWTM	Asymmetric	750 200 750
Efficiency	94 %	
Peak intensity	1.7 cd/lm	50° 400 50*
LEDs/each optic	1	
Light colour	White	55° 500
Required compone		
		1000
		X / T / X
		30* <u>15</u> * 30*
MST Your solut	ons	90* 90*
LED	RecLED 122x50mm 1900lm 730 2x4 Opt G1	30-
FWHM / FWTM	Asymmetric	75*
Efficiency	97 %	
Peak intensity	1.7 cd/lm	\$0°
LEDs/each optic	1	400
Light colour	White	5° 0°
Required compone		000
		\times / \times
		200
		\times / \setminus λ
		30° 135° 30°
		50*
LED	NVSW219F	
FWHM / FWTM	Asymmetric	75. 20 75.
Efficiency	94 %	
Peak intensity	1.5 cd/lm	60* 60*
LEDs/each optic	1	
Light colour	White	65* 640 65*
Required compone	nts:	
		500
		\times
		30° 30°
		13 ⁵ 0 ⁸ 15 ⁵
ØNICHI		90°
LED	NVSW319B	
FWHM / FWTM	Asymmetric	
Efficiency	94 %	80%
Peak intensity	1.5 cd/lm	\times / $+$
LEDs/each optic	1	\vee \times \mid \vee \vee
Light colour	White	65° 640 63°
Required compone	nts:	
		1000
		10°-



Heinemann ED Duris S8 WMM KPYTM Asymmetric fifteinery 0.8 cufm Explured components:			
ED Dris SA WHM / FVTM Asymmetric filterancy 0.5 v text intenty 0.6 colm EDBreach optic up to colour White Required components: ED OSLON Square PC WHM / FVTM Asymmetric filterency 4% Yeak intenty 1.0 colm EDBreach optic EDBreach optic EDBreac	OSRAM		014 A
WHM / FWTM A symmetric Sflidering 95 % Sflidering 95 % Sflidering 95 % Sflidering 95 % Sflidering 95 % Sflidering 95 % Statistical and the statistical and the	LED	Duris S8	~ ~
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Park Intensity 0.8 cdfm EDS/skach optie 1 EDS/skach optie 1 PORTATION White Required components: PORTATION Square PC WHM /FWTM Asymmetric EDG 05LON Square PC PHILIPS ED Fortimo FastFiex LED 2x8 DA G4+ WHM /FWTM Start EDG 10 05 STATURE UNC ED HILOM ROIZ Z (LH181B) WHM /FWTM Asymmetric EDG HILOM ROIZ Z (LH181B) WHM /FWTM Asymmetric EDG HILOM ROIZ Z (LH181B) WHM /FWTM Asymmetric EDG HILOM ROIZ Z (LH181B) WHM /FWTM Asymmetric Hitciency 06% Yeak Intensity 2.1 cdfm EDS/stach optie 1 			
EDefaced points 1 ight colour White Required components: ED OSLON Square PC WHM / FWTM Asymmetric filterery 94% Pask Intensity 1.9 cdfm LES/seach optic 1 ight colour White Required components: ED Fortimo FastFlax LED 2x8 DA C4+ WHM / FWTM Asymmetric fiftierery 94% PAsk Intensity 1.4 cdfm LES/seach optic 1 ight colour White Required components: ED Fortimo FastFlax LED 2x8 DA C4+ WHM / FWTM Asymmetric fiftierery 94% PASK Intensity 1.4 cdfm LES/seach optic 1 ight colour White Required components: ED HLCDM RC12 (LH181B) WHM / FWTM Asymmetric fiftierery 95% Required components: ED HLCDM RC12 (LH181B) WHM / FWTM Asymmetric fiftierery 95% Teak Intensity 2.1 cdfm LES/seach optic 1 ight colour White Required components:			.60° 60°.
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WHM / FWTM Asymmetric ifficiency 94 % EdS/each optic 1 ight colour White Required components: PHILIPS ED Fortime FastFlex LED 2x8 DA G4+ WMM / FWTM Asymmetric ifficiency 94 % Peak intensity 1.4 cd/m EdS/each optic 1 ight colour White Required components: SAMS UNG ED HLOM RC12 Z (LH181B) WMM / FWTM Asymmetric ifficiency 96 % Peak intensity 2.1 cd/m EdS/each optic 1 ight colour White Required components: WMM / FWTM Asymmetric ifficiency 96 % Peak intensity 2.1 cd/m EdS/each optic 1 ight colour White Required components: WMM / FWTM Asymmetric ifficiency 96 % Peak intensity 2.1 cd/m EdS/each optic 1 ight colour White Required components: WMM / FWTM Asymmetric ifficiency 96 %		OSI ON Source PC	90°
ifficiency 94% Peak Intensity 1.9 col/m LED // Components: PHILIPS LED Fortimo FastFlex LED 2x8 DA G4+ WMM // FVTM Asymmetric fificiency 94% Peak Intensity 1.4 col/m LED/each optic 1 LED/each optic 1			750 730
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Required components: PHILEDS ED Fortimo FastFlex LED 2x8 DA G4+ WHM / FVTTM Asymmetric Efficiency 94% Peak intensity 1.4 cd/m EDS/each optic 1 ight colour White Required components: SAMS UNG ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96% Peak intensity 2.1 cd/m EDS/each optic 1 Efficiency 96% Peak intensity 2.1 cd/m Efficiency 96%			
PHILIPS ED Fortimo FastFlex LED 2x8 DA G4+ WMH / FVTTM Asymmetric Efficiency 94% Peak intensity 1.4 cd/lm EDS/each optic 1 Light colour White Required components: ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96% Peak intensity 2.1 cd/lm EDS/each optic 1 Light colour White Required components:			
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PHILIPS ED Fortimo FastFlex LED 2x8 DA G4+ WHM / FWTM Asymmetric #ficiency 94 % reak intensity 1.4 cd/m EDS/each optic 1 .ight colour White Required components: SAMS UNG .ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric #ficiency 96 % reak intensity 2.1 cd/m .EDS/each optic 1 .ight colour White Required components:			800
PHILIPS ED Fortimo FastFlex LED 2x8 DA G4+ WHM / FWTM Asymmetric #ficiency 94 % reak intensity 1.4 cd/m EDS/each optic 1 .ght colour White Required components: SAMS UNG .ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric #ficiency 96 % reak intensity 2.1 cd/m .EDS/each optic 1 .ght colour White Required components:			
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ED Fortimo FastFlex LED 2x8 DA G4+ WHM / FWTM Asymmetric Efficiency 94 % Peak intensity 1.4 cd/lm LEDs/each optic 1 ight colour White Required components: Image: Colour Colo	DHIID	S	
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Efficiency 94 % Peak intensity 1.4 cd/lm EDS/each optic 1 Ight colour White Required components: SAMSSUNG ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm EDS/each optic 1 Ight colour White Required components:			751 751
Peak intensity 1.4 cd/lm EDs/each optic 1 light colour White Required components: SAMSUNG ED HiLOM RC12 Z (LH181B) EVHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm EDS/each optic 1 light colour White Required components:			
LEDs/each optic 1 ight colour White Required components: SAMSUNG LED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm LEDs/each optic 1 ight colour White Required components:			.00*
ight colour White Required components: SAMSUNG ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm EDS/each optic 1 ight colour White Required components:			400
Required components:			
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ED HILOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm EDs/each optic 1 .ight colour White Required components:			\times
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SAMSUNG ED HiLOM RC12 Z (LH181B) WHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm EDs/each optic 1 .ight colour White Required components:			\times / \setminus \times
ED HiLOM RC12 Z (LH181B) FWHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************			30° 15° 30°
ED HiLOM RC12 Z (LH181B) FWHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm LEDs/each optic 1 Light colour White Required components: ************************************	SAMSI	ING	
FWHM / FWTM Asymmetric Efficiency 96 % Peak intensity 2.1 cd/lm .EDs/each optic 1 .ight colour White Required components:			90* 90*
Efficiency 96 % Peak intensity 2.1 cd/lm .EDs/each optic 1 .ight colour White Required components:			720 250
Peak intensity 2.1 cd/lm EDs/each optic 1 .ight colour White Required components:			200 070
LEDs/each optic 1 Light colour White Required components:			.50°
Light colour White Required components:			X / tot X
Required components:			
			er 000 er
		lio.	\times
			800
2.9 0, 12,			30* <u>1000</u> 30* 30*



SVWSI	ING	
		90*
	HiLOM RH12 Z (LH351C)	751
FWHM / FWTM	Asymmetric 97 %	
Efficiency		60%
Peak intensity	1.5 cd/lm	
LEDs/each optic	1 White	
Light colour Required compone		
Required compone	ans.	
		00
		30* 15 [*] 0* 15 [*]
SAMSI	ING	
		90*
LED	HiLOM RH16 (LH351C)	75
FWHM / FWTM	Asymmetric	
Efficiency	94 %	
Peak intensity	1.5 cd/lm	40
LEDs/each optic	1	
Light colour	White	45* 600
Required compone	ents:	
		30° is or is
SAMSI	ING	
		90* S
	HiLOM RM12 Z (LH502C)	74
FWHM / FWTM	Asymmetric 97 %	
Efficiency		60 ^x
Peak intensity	0.9 cd/lm 1	
LEDs/each optic Light colour	ı White	
Required compone		45*
Required compone	911S.	200
		\times / T \setminus \times
		1000
		100 - 100 -
SAMSI	ING	
LED	HiLOM RM16 Z (LH502C)	
FWHM / FWTM	Asymmetric	
Efficiency	98 %	
Peak intensity	0.9 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
Required compone		
Required compone		



SVWSI	JNG	90* 99
LED	HiLOM RM8 Z (LH502C)	
FWHM / FWTM	Asymmetric	28 201
Efficiency	97 %	
Peak intensity	0.9 cd/lm	50 ¹⁵ 400 50
LEDs/each optic	1	
Light colour	White	51 80 80
Required compone	nts:	
		**
		1000 1001 101 101 101 101 101 101 101 10
		99°
LED	Z5M3	
FWHM / FWTM	Asymmetric	78
Efficiency	94 %	
Peak intensity	1.5 cd/lm	60 ⁴ 60
LEDs/each optic	1	
Light colour	White	4° 00 97
Required compone	nts:	
		80
		\times / \times
		200 200
_		
SEOUL SEMICONDUCTOR		90* 90*
LED	Z5M4	
FWHM / FWTM	Asymmetric	
Efficiency	96 %	
Peak intensity	1.5 cd/lm	50 ⁴
LEDs/each optic	1	X / X
Light colour	White	67
Required compone	nts:	
		800



bridgelux.		
LED	Bridgelux SMD 5050	*
FWHM / FWTM	Asymmetric	75° 00 75°
Efficiency	79 %	
Peak intensity	0.5 cd/lm	66* 200 66*
LEDs/each optic	1	
Light colour	' White	
Required components:	White	45. 400 45.
Required components.		
Protective plate	e, glass	500
		20° 15° 30°
		90° 90°
LED	XHP35 HD	
FWHM / FWTM	Asymmetric	
Efficiency	94 %	
Peak intensity	1.4 cd/lm	60* 60*
LEDs/each optic	1	
Light colour	White	45* 500 45*
Required components:		
		\times
		30* 1000
		12 ⁵ 0 ⁶ 12 ⁶
		20 ² 0 ³ 13 ³
	XM-L2	20 ¹ 23 ² 0 ⁴ 23 ⁴
	XM-L2 Asymmetric	10 ⁻
LED		
LED FWHM / FWTM Efficiency Peak intensity	Asymmetric	25 ⁴ 0 ⁵ 15 ⁴ 75 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 1.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm	40° 600 40°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 1.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/m 1 White XP-G2 Asymmetric 81 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED FWHM / FWTM Efficiency Peak intensity	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric 81 % 1.1 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	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric 81 % 1.1 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	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric 81 % 1.1 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	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric 81 % 1.1 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	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric 81 % 1.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE CLED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White XP-G2 Asymmetric 81 % 1.1 cd/lm 1 White	



LED	XP-G2 HE	10-
FWHM / FWTM	Asymmetric	73° 7°
Efficiency	90 %	
Peak intensity	1.2 cd/lm	60 ⁴ 60 ⁴ .
LEDs/each optic	1	
Light colour	White	
Required components:		
		1000
		(30* 30* 30* 30*
		90* 90*
LED	XP-G3	
FWHM / FWTM	Asymmetric	
Efficiency	77 %	
Peak intensity	0.8 cd/lm	-60°
LEDs/each optic	1	40
Light colour	White	45° 500 45 [°]
Required components:		60
Drotostivo ploto		
Protective plate	e, glass	700
		30* 15 ³ 0 ⁶ 15 ⁴ 30 ⁴
	XP-1 2	10°
LED	XP-L2 Asymmetric	90° 90° 78° 77.
LED FWHM / FWTM	Asymmetric	92 ⁴ 28 28
LED FWHM / FWTM Efficiency		92 ⁴ 92 ⁴ 0 ⁴ 0 ⁴ 0 ⁴ 0 ⁴ 0 ⁴ 0 ⁴ 0 ⁴
LED FWHM / FWTM Efficiency Peak intensity	Asymmetric 78 %	90 ⁻ 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 78 % 0.7 cd/lm	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°
LED FWHM / FWTM Efficiency Peak intensity	Asymmetric 78 % 0.7 cd/lm 1	5° 50 Cr
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 78 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.7 cd/lm 1 White	97 97 97 97 97 97 97 97 97 97 97 97 97 9
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 78 % 0.7 cd/lm 1 White	92 93 94 95 96 97 97 97 97 97 97 97 97 97 97
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Asymmetric 78 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Asymmetric 78 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Asymmetric 78 % 0.7 cd/lm 1 White P, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Asymmetric 78 % 0.7 cd/lm 1 White P, glass XP-L2 Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED LED FWHM / FWTM Efficiency	Asymmetric 78 % 0.7 cd/m 1 White P, glass XP-L2 Asymmetric 92 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate	Asymmetric 78 % 0.7 cd/lm 1 White P, glass XP-L2 Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 78 % 0.7 cd/lm 1 White Asymmetric 92 % 0.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.7 cd/lm 1 White Asymmetric 92 % 0.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 78 % 0.7 cd/lm 1 White Asymmetric 92 % 0.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.7 cd/lm 1 White Asymmetric 92 % 0.9 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 78 % 0.7 cd/lm 1 White Asymmetric 92 % 0.9 cd/lm 1	



		90* 90*
LED	XP-L2	195*
FWHM / FWTM	Asymmetric	736 700 756
Efficiency	78 %	20
Peak intensity	0.7 cd/lm	60* 60*
LEDs/each optic	1	
Light colour	White	400
Required components:		50
		600
Protective plate	e, glass	710
		30* 15 ⁵ 0 ⁶ 15 ⁵ 36 ⁴
		90* 90*
LED	XT-E	
FWHM / FWTM	Asymmetric	73°
Efficiency	93 %	
Peak intensity	1.5 cd/lm	
LEDs/each optic	1	60
Light colour	White	65° 67
Required components:		00
		1000
		\times
		30* 1200 30*
		15° 0° 15°
	5	13 ⁵ 0 ⁶ 13 ⁵
		90°
LED	LUXEON 3030 2D (Round LES)	35 ⁴ 50 ⁴ 10 ⁵ 90 ⁴ 10 ⁵
LED FWHM / FWTM	LUXEON 3030 2D (Round LES) Asymmetric	12' 0" 12' 92' 20' 52'
LED FWHM / FWTM Efficiency	LUXEON 3030 2D (Round LES) Asymmetric 94 %	12 ² 0 ⁴ 12 ² 12 ⁴ 0 ⁴ 12 ⁴ 12 ⁴ 0 ⁴ 12 ⁴ 12 ⁴ 0 ⁴ 0 ⁴
LED FWHM / FWTM Efficiency Peak intensity	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm	12 ³ 0 ⁴ 13 ³ 0 ⁴ 0 ⁴
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 %	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Volume LUMILEC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 1.6 cd/lm	60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 1.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 3030 2D (Round LES) Asymmetric 94 % 1.6 cd/lm 1 White S LUXEON 3030 2D (Square LES) Asymmetric 94 % 1.6 cd/lm 1	



[
MUMILED	DS	
LED	LUXEON 5050 HE	
FWHM / FWTM	Asymmetric	12 c Alan 25 c
Efficiency	81 %	200
Peak intensity	0.7 cd/lm	50° 50°.
LEDs/each optic	1	X X AND X X
Light colour	White	45°
Required components:		
		60
Protective plate	e, glass	700
		30* 80 30*
		13 ⁵ 0 ⁶ 13 ⁵
	15	90*
LED	LUXEON 5050 Round LES	
FWHM / FWTM	Asymmetric	78 200 78
Efficiency	94 %	60° 60°.
Peak intensity	0.9 cd/lm	40
LEDs/each optic	1	
Light colour	White	43° 600 63°
Required components:		
		1000
		30° 15° 30°
)S	
		90°
LED	LUXEON 5050 Round LES	123 154 154
LED FWHM / FWTM	LUXEON 5050 Round LES Asymmetric	90° 13° 200
LED FWHM / FWTM Efficiency	LUXEON 5050 Round LES Asymmetric 84 %	10 ¹ 10 ¹ 1
LED FWHM / FWTM Efficiency Peak intensity	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm	90° 10° 10° 10° 10° 10° 10° 10° 1
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White	6° 60 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White a, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White a, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White a, glass LUXEON 5050 Square LES Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Vertice plate ED FWHM / FWTM Efficiency	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White a, glass LUXEON 5050 Square LES Asymmetric 94 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White e, glass LUXEON 5050 Square LES Asymmetric 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Who Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White e, glass LUXEON 5050 Square LES Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Who Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White e, glass LUXEON 5050 Square LES Asymmetric 94 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Who Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White e, glass LUXEON 5050 Square LES Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Who Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White e, glass LUXEON 5050 Square LES Asymmetric 94 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Who Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES Asymmetric 84 % 0.7 cd/lm 1 White e, glass LUXEON 5050 Square LES Asymmetric 94 % 0.8 cd/lm 1	



UMILEC	DS	90* 90
LED	LUXEON 5050 Square LES	
FWHM / FWTM	Asymmetric	75%
Efficiency	81 %	
Peak intensity	0.7 cd/lm	50° 66
LEDs/each optic	1	400
Light colour	White	45*
Required components:		000
Protective plate	e, glass	00
		30° 13° 30°
	95	90*
LED	LUXEON HL2X	
FWHM / FWTM	Asymmetric	756 75
Efficiency	80 %	
Peak intensity	0.9 cd/lm	50 300 60'
LEDs/each optic	1	400
Light colour	White	45* 700 45
Required components:		
Protective plate	, glass	700
		30* <u>30*</u> 30* 30*
UMILEC	DS	90* 90'
LED	LUXEON TX	
FWHM / FWTM	Asymmetric	75° 200 75'
Efficiency	79 %	
Peak intensity	1.1 cd/lm	50° 60'
LEDs/each optic	1	
Light colour	White	45* 45
Required components:		
Required components: Protective plate		000
		20 ⁴ 20 ⁵ 20 ⁵ 20 ⁴ 20 ⁴
	e, glass	
Protective plate	e, glass	20°
Protective plate	e, glass	200 201 201 201 201 201 201 201 201 201
Protective plate	e, glass	200 201 201 201 201 201 201 201 201 201
Protective plate Protective plate LED FWHM / FWTM Efficiency	e, glass DS LUXEON V Asymmetric	200 201 201 201 201 201 201 201 201 201
Protective plate Protective plate LED FWHM / FWTM Efficiency	e, glass S LUXEON V Asymmetric 91 %	20°
Protective plate Protective plate Constraints LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	e, glass S LUXEON V Asymmetric 91 % 0.9 cd/lm	200 201 201 201 201 201 201 201 201 201
Protective plate Protective p	e, glass S LUXEON V Asymmetric 91 % 0.9 cd/lm 1	200 200 200 200 200 200 200 200
Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	e, glass S LUXEON V Asymmetric 91 % 0.9 cd/lm 1	20 ⁴ 20
Protective plate Protective plate ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	e, glass S LUXEON V Asymmetric 91 % 0.9 cd/lm 1	200 200 200 200 200 200 200 200
Protective plate	e, glass S LUXEON V Asymmetric 91 % 0.9 cd/lm 1	200 200 200 200 200 200 200 200



COMPLET	S S	20*
LED	LUXEON XR-HL2X (L2H2-xxxxxxMLU010)	
FWHM / FWTM	Asymmetric	73" 214
Efficiency	95 %	
Peak intensity	1.1 cd/lm	50* 440
LEDs/each optic	1	
Light colour	White	451 600
Required components:		
		800
		\times / \land \times
		1000
		12, 12,
		90*
LED	LUXEON XR-HL2X (L2H2-xxxxxxMLU010)	750
FWHM / FWTM	Asymmetric	
Efficiency	80 %	sur contraction of the second s
Peak intensity	0.7 cd/lm	30
LEDs/each optic	1	400
Light colour	White	45* 540
Required components:		600
Protective plate	, dass	
i iotootiro piak	, 9.00	740
		30 ⁺ 13 ⁵ 0 ⁺ 15 ⁺ 2
Μ ΝΙCΗΙΛ		90*
LED	NV4WB35AM	
FWHM / FWTM	Asymmetric	736 200
Efficiency	95 %	
Peak intensity	1.1 cd/lm	50 ⁴ 460 2
LEDs/each optic	1	
Light colour	White	45* 640
Required components:		
		000
		1000
		30*
MICHIΛ		
LED	NVSW219F	80*
FWHM / FWTM	Asymmetric	750
Efficiency	80 %	
Peak intensity	1 cd/lm	50 ⁴ 30
LEDs/each optic	1	
Light colour	White	45*
Required components:		KXT* TX.
Protective plate	e, glass	700
		800
		20° <u>15</u> ² 0° 15 ²



ΜΝΙCΗΙΛ		90* 90*
LED	NVSW519A	
FWHM / FWTM	Asymmetric	750 40 750
Efficiency	82 %	20
Peak intensity	0.7 cd/lm	50* 300 60*
LEDs/each optic	1	400
Light colour	White	45*
Required components:		50 X
		000
Protective plate	e, glass	740
		30° - 30°
~		
Μ ΝΙCΗΙΛ		90°
LED	NVSW519A	
FWHM / FWTM	Asymmetric	200
Efficiency	93 %	
Peak intensity	1 cd/lm	400
LEDs/each optic	1	
Light colour	White	45° 600 65°
Required components:		\times
		00
		30* 30*
MICHIΛ		90°
	NIVSvv10B/NIV/Svv10C	bi
LED	NVSxx19B/NVSxx19C	
LED FWHM / FWTM	Asymmetric	
LED FWHM / FWTM Efficiency	Asymmetric %	
LED FWHM / FWTM Efficiency LEDs/each optic	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour	Asymmetric %	
LED FWHM / FWTM Efficiency LEDs/each optic	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1 White	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components: WICHIN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric 82 % 1 cd/lm 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric 82 % 1 cd/m	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric 82 % 1 cd/lm 1	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components: WICHIA Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric 82 % 1 cd/lm 1 White	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric 82 % 1 cd/lm 1 White	
LED FWHM / FWTM Efficiency LEDs/each optic Light colour Required components: WICHIA Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric % 1 White NVSxx19B/NVSxx19C Asymmetric 82 % 1 cd/lm 1 White	



OSRAM Opto Semiconductors		
LED	Duris S8	y
FWHM / FWTM	Asymmetric	73%
Efficiency	79 %	200
Peak intensity	0.6 cd/lm	.60 ⁴ 60 ⁴
LEDs/each optic	1	
Light colour	White	40°
Required components:		200
		200
Protective plate	e, glass	710
		130* 15 ² 0 ⁶ 15* 30*
OSRAM Opto Semiconductors		90° 90°
LED	OSCONIQ C 2424	
FWHM / FWTM	Asymmetric	77° 200 77°
Efficiency	94 %	
Peak intensity	0.7 cd/lm	50 <u>400</u> 00
LEDs/each optic	4	
Light colour	White	45° 600 65°
Required components:		
		800
		\times / \setminus \times
		30* 1000 30* 30*
OSRAM		
OSRAM Opto Semiconductors		90° 90°
Opto Semiconductors LED	OSCONIQ P 3737 (2W version)	90°
Opto Semiconductors LED FWHM / FWTM	Asymmetric	8 ¹ 7 7 7 7 7 7 7 7 7 7 7
opto Semiconductors LED FWHM / FWTM Efficiency	Asymmetric 94 %	50°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	Asymmetric 94 % 1.4 cd/lm	99* 99* 13*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 1.4 cd/lm 1	90° 90° 73° 70° 60° 60°.
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm	99° 99° 99° 60° 60° 60° 60°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Asymmetric 94 % 1.4 cd/lm 1	99° 97 97 97 97 97 97 97 97 97 97 97 97 97
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm 1	51 ⁴ 51
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm 1	90° 90° 60° 60° 60° 60° 60° 60°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Asymmetric 94 % 1.4 cd/lm 1	99° 99° 99° 60° 60° 60° 60° 60° 60° 60° 60
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1	91 92 92 92 93 93
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3	99° 97° 97° 97° 97° 97° 97° 97° 97° 97°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	Asymmetric 94 % 1.4 cd/lm 1 White	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric 82 %	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric 82 % 0.8 cd/lm	
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	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric 82 % 0.8 cd/lm 1	92° 92° 73° 92° 60° 60°
opte Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: POSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric 82 % 0.8 cd/lm 1 White	92° 92° 73° 92° 60° 60°
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	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric 82 % 0.8 cd/lm 1 White	20 20 20 20 20 20 20 20 20 20 20 20 20 2
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: COSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Asymmetric 94 % 1.4 cd/lm 1 White OSLON Square CSSRM2/CSSRM3 Asymmetric 82 % 0.8 cd/lm 1 White	20 20 20 20 20 20 20 20 20 20 20 20 20 2



OSRAM Opto Semiconductors		
LED	OSLON Square CSSRM2/CSSRM3	90°
FWHM / FWTM	Asymmetric	73" 200 73"
Efficiency	94 %	
Peak intensity	1.4 cd/lm	50 ⁴ 400 50*
LEDs/each optic	1	
Light colour	White	
Required components:		
		X X
		1000
		1700
		15° 15° 30°
PHILIPS		90° 90°
LED	Fortimo FastFlex LED 2x8 DA G4	
FWHM / FWTM	Asymmetric	13.6 26.
Efficiency	80 %	
Peak intensity	1.2 cd/lm	50* 50*
LEDs/each optic	1	400
Light colour	White	45° 65°
Required components:		500
Protective plate	e, glass	
		800
		(30° 30°
DUUUDO	ц	30 ⁴ 15 ⁵ 0 ⁶ 15 ⁴ 30 ⁴
PHILIPS		20° 20 [°] 20 [°] 20 [°]
LED	Fortimo FastFlex LED 2x8 DAX G4	10° 10° 10° 10° 10°
LED FWHM / FWTM	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric	20° 12° 0° 12° 0° 10° 10° 0° 20° 0° 10° 0° 10° 0°
LED FWHM / FWTM Efficiency	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 %	
LED FWHM / FWTM Efficiency Peak intensity	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass IG HiLOM RM8 Z (LH502C) Asymmetric	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass HiLOM RM8 Z (LH502C) Asymmetric 85 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency Peak intensity	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass HILOM RM8 Z (LH502C) Asymmetric 85 % 0.8 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass HILOM RM8 Z (LH502C) Asymmetric 85 % 0.8 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass HILOM RM8 Z (LH502C) Asymmetric 85 % 0.8 cd/lm	
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LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate SAMSSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Fortimo FastFlex LED 2x8 DAX G4 Asymmetric 83 % 1.1 cd/lm 1 White e, glass HILOM RM8 Z (LH502C) Asymmetric 85 % 0.8 cd/lm 1 White	



SAMSU	NG	90*
_ED	LH351B	
FWHM / FWTM	Asymmetric	734
Efficiency	80 %	
Peak intensity	0.8 cd/lm	. 60* 300
EDs/each optic	1	× /
_ight colour	White	45°
Required components	:	
Protective pla		00
Fiblective pla	ite, yiass	100
		30 [•] 13 [•] 0 ⁰ 19 [•]
SAMSU	NG	
_ED	LH351C	10° h
-ED FWHM / FWTM	Asymmetric	750 - Alin
Efficiency	88 %	
Peak intensity	1 cd/lm	80°
_EDs/each optic	1	
_ight colour	White	40
Required components		500
Protective pla	ate, glass	
		700
		20 <u>10 10 10 10 10 10 10 10 10 10 10 10 10 1</u>
		50'
		m
ED	Z5M1/Z5M2	73
FWHM / FWTM	Asymmetric	
Efficiency	%	.55°* 400
_EDs/each optic	1	$\langle \times \rangle$
_ight colour	White	45* 600
Required components	:	
		000
		30° (10) (1) (1)
SEOUL		
		80.
	Z5M3	720 30
FWHM / FWTM	Asymmetric	
Efficiency	80 %	eet 3xe
Peak intensity	1 cd/lm	40
_EDs/each optic	1	
_ight colour Required components	White	107 500
		00
	ate, glass	No t
Protective pla		
Protective pla		300



r		
SEOUL SEMICONDUCTOR		90*
LED	Z5M4	
FWHM / FWTM	Asymmetric	730 730
Efficiency	82 %	
Peak intensity	0.9 cd/lm	50* 50*
LEDs/each optic	1	400
Light colour	White	45* 45*
Required components:		540
Protective plate	a, glass	
		30* 15° 30*
TRIDONIC		
		90* 90*
LED	RLE G1 49x223mm 4000lm xxx EXC OTD	750 752
FWHM / FWTM	Asymmetric	
Efficiency	94 % 1.6 cd/lm	.50°
Peak intensity LEDs/each optic	1	
Light colour	' White	
Required components:	Winte	- 6° - 6° -
Required components.		00
		1000
		30° 30° 30°



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:

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