

PRODUCT DATASHEET C17991_SPORT-2X2-S1

SPORT-2X2-S1

~10° spot beam.

TECHNICAL SPECIFICATIONS:

Dimensions	50.0 x 50.0 mm
Height	16 mm
Fastening	screw
ROHS compliant	yes 🛈



MATERIAL SPECIFICATIONS:

Component SPORT-2X2-S1 **Type** Multi-lens

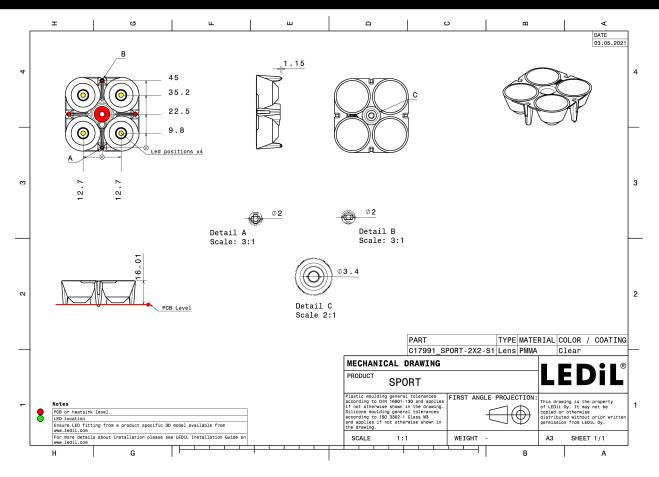
Material	Colour	Finish
PMMA	clear	

ORDERING INFORMATION:

Component
C17991_SPORT-2X2-S1
» Box size: 480 x 280 x 300 mm

Qty in box	MOQ	MPQ	Box weight (kg)
512	128	32	10.8

PRODUCT DATASHEET C17991_SPORT-2X2-S1



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



PHOTOMETRIC DATA (MEASURED):

EDS	50*	
LUXEON HL2X 10.0° / 21.0° 97 % 21.1 cd/lm 1 White ints:	97 60 97	
EDS		95
LUXEON HL2X 10.0° / 21.0° 94 % 20.9 cd/lm 1 White mts:	97. 197. 197.	
plate, glass		
EDS		
LUXEON HL2X 10.0° / 21.0° 97 % 21.1 cd/lm 1 White ints:	90" 31. 64.	5 600 5000 6
		25% 0° 15° X
OSLON Square CSSRM2/CSSRM3 9.0° / 18.0° 97 % 27.5 cd/lm 1 White mts:	97 75 69	
	LUXEON HL2X 10.0° / 21.0° 97 % 21.1 cd/lm 1 White nts: EDS LUXEON HL2X 10.0° / 21.0° 94 % 20.9 cd/lm 1 White nts: plate, glass EDS LUXEON HL2X 10.0° / 21.0° 97 % 21.1 cd/lm 1 White nts: OSLON Square CSSRM2/CSSRM3 9.0° / 18.0° 97 % 27.5 cd/lm 1 White	LUXEON HL2X 10.0° / 21.0° 97 % 21.1 cd/m 1 White nts: EDS LUXEON HL2X 10.0° / 21.0° 94 % 20.9 cd/m 1 White nts: Plate, glass EDS LUXEON HL2X 10.0° / 21.0° 97 % 21.1 cd/m 1 White nts: SCON Square CSSRM2/CSSRM3 9.0° / 18.0° 97 % 27.5 cd/m 1 White 1 White



PHOTOMETRIC DATA (MEASURED):

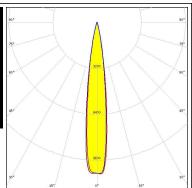
|--|

LED

FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour

PassivePAQ-R-274x51-NI0-21K-857-5 15.0° / 27.0° 96 % 10.6 cd/lm 1 White Required components:







		90*
LED	J Series 5050 Round LES	75.
FWHM / FWTM	16.0° / 32.0°	
Efficiency	87 %	600 5
Peak intensity	7.8 cd/lm	3200
LEDs/each optic	1	$X \times (\square X \times$
Light colour	White	· · · · · · · · · · · · · · · · · · ·
Required components:		6130
Protective plate	e, glass	30" 000 3
		90° 15° 0° 15°
LED	J Series 5050 Round LES	
FWHM / FWTM	16.0° / 32.0°	75.
Efficiency	95 %	
Peak intensity	8.6 cd/lm	60 s 61
LEDs/each optic	1	
Light colour	White	45 ¹
Required components:		600
		6130
		15" 0" 15"
		50° 50
	J Series 5050 Square LES 6V	
	J Series 5050 Square LES 6V 18.0° / 34.0°	90* X
LED		
LED FWHM / FWTM	18.0° / 34.0°	737
LED FWHM / FWTM Efficiency	18.0° / 34.0° 87 %	
LED FWHM / FWTM Efficiency Peak intensity	18.0° / 34.0° 87 % 6.9 cd/lm	79 500 500 500
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	18.0° / 34.0° 87 % 6.9 cd/lm 1	73°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 34.0° 87 % 6.9 cd/lm 1 White	77 60 70 70 70 70 70 70 70 70 70 70 70 70 70
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	18.0° / 34.0° 87 % 6.9 cd/lm 1 White	77 01 01 01 01 01 01 01 01 01 01 01 01 01
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	18.0° / 34.0° 87 % 6.9 cd/lm 1 White	77 60 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 components:	18.0° / 34.0° 87 % 6.9 cd/lm 1 White	77 01 01 01 01 01 01 01 01 01 01 01 01 01
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	18.0° / 34.0° 87 % 6.9 cd/lm 1 White	bit 2 30 32, 60, 30,0 23, 70,0 30,0 5,0 30,0 5,0 30,0 5,0 30,0 5,0 30,0 5,0 30,0 5,0 30,0 5,0 30,0 5,0
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	18.0° / 34.0° 87 % 6.9 cd/lm 1 White	27 27 20 20 20 20 20
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate CREE LED LED FWHM / FWTM	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0° 95 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0° 95 % 7.6 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	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0° 95 % 7.6 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	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0° 95 % 7.6 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	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0° 95 % 7.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plat CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	18.0° / 34.0° 87 % 6.9 cd/lm 1 White e, glass J Series 5050 Square LES 6V 16.0° / 34.0° 95 % 7.6 cd/lm 1	



		50°
LED	XD16	
FWHM / FWTM	8.0° / 16.0°	75'
Efficiency	87 %	
Peak intensity	28.4 cd/lm	60*
LEDs/each optic	1	
Light colour	White	93*
Required components:		
Protective plate	a, glass	
		30° 129 0° 129
		90° A
LED	XHP50.3 HI	
FWHM / FWTM	14.0° / 28.0°	
Efficiency	87 %	
Peak intensity	9.2 cd/lm	$\langle / / \rangle$
LEDs/each optic	1	$ \times / / \rightarrow \times$
Light colour	White	gs
Required components:		6430
Protective plate	e, glass	
		300 900 3
		10° 0° 15°
		90° 9
LED		
	XHP50.3 HI	
FWHM / FWTM	14.0° / 28.0°	
		75
Efficiency	14.0° / 28.0°	55 64 300
Efficiency Peak intensity	14.0° / 28.0° 95 %	61 JUN 1
Efficiency Peak intensity	14.0° / 28.0° 95 % 10.2 cd/lm	37 69 57 60
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1	20 99 55 660
Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 28.0° 95 % 10.2 cd/lm 1	97 97 97 600
Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 28.0° 95 % 10.2 cd/lm 1	97 - 200 97 - 600 90 - 600
Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 28.0° 95 % 10.2 cd/lm 1	20- 22- 22- 23- 23-
Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 28.0° 95 % 10.2 cd/lm 1	
Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1	
Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1 White	30 30 30 30 30 30 30 30 30 30
Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3	
Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3 12.0° / 28.0°	
Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3 12.0° / 28.0° 87 %	200 200 200 200
Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3 12.0° / 28.0° 87 % 11 cd/lm	23 23 23 25 25 25 25 25 25 25 25 25 25 25 25 25
Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE LED EWHM / FWTM Efficiency Peak intensity	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3 12.0° / 28.0° 87 % 11 cd/lm 1	
Efficiency Peak intensity LEDs/each optic Light colour Required components: CREE Components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3 12.0° / 28.0° 87 % 11 cd/lm 1 White	
Efficiency Peak intensity LEDs/each optic Light colour Required components: CCEEE © LED EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 28.0° 95 % 10.2 cd/lm 1 White XM-L3 12.0° / 28.0° 87 % 11 cd/lm 1 White	69 ⁴ 99 ⁴ 30 ⁴ 3



		90* 90*
LED	XM-L3	75"
FWHM / FWTM	12.0° / 26.0°	
Efficiency	95 %	60 ⁵ 60 ⁹
Peak intensity	12.5 cd/lm	
LEDs/each optic	1	600
Light colour	White	434
Required components:		
		36° 12800 36° 36°
		50° 50°
LED	XP-E	
FWHM / FWTM	6.0° / 14.0°	73
Efficiency	95 %	
Peak intensity	52.2 cd/lm	
LEDs/each optic	1	
Light colour	White	g7° 45*
Required components:		
		30° 5100 30°
		15° 0° 15°
		90* 90*
LED	XP-G2	97 97 75 77
LED FWHM / FWTM	10.0° / 20.0°	90 ⁴ 90 ⁴
LED FWHM / FWTM Efficiency	10.0° / 20.0° 90 %	61
LED FWHM / FWTM Efficiency Peak intensity	10.0° / 20.0° 90 % 21.3 cd/lm	604 600 25 25 26 27 26 20 27 27 27 27 27 27 27 27
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 20.0° 90 % 21.3 cd/lm 1	802
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 90 % 21.3 cd/lm	61
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	10.0° / 20.0° 90 % 21.3 cd/lm 1	57 - 1000 - 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 90 % 21.3 cd/lm 1 White	57 - 1000 - 60* 73*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	10.0° / 20.0° 90 % 21.3 cd/lm 1 White	90* 90* 75* 6000 60* 60* 75* 11300 60* 60*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 90 % 21.3 cd/lm 1 White	57 57 67 12 ⁵ 67
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 90 % 21.3 cd/lm 1 White	90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	10.0° / 20.0° 90 % 21.3 cd/lm 1 White	<u>84</u> <u>222</u> <u>64</u> <u>72</u> <u>72</u> <u>75</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	10.0° / 20.0° 90 % 21.3 cd/lm 1 White	32 32 35 36 36 36 36 36 36 36 36 36 36
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	10.0° / 20.0° 90 % 21.3 cd/lm 1 White a, glass	<u>84</u> <u>222</u> <u>64</u> <u>72</u> <u>72</u> <u>75</u>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate LED FWHM / FWTM Efficiency Peak intensity	10.0° / 20.0° 90 % 21.3 cd/lm 1 White s, glass XP-G3 10.0° / 22.0°	20° - 20° -
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	10.0° / 20.0° 90 % 21.3 cd/lm 1 White e, glass XP-G3 10.0° / 22.0° 86 % 16.4 cd/lm 1	<u>84</u> <u>222</u> <u>64</u> <u>72</u> <u>72</u> <u>75</u>
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 Light colour	10.0° / 20.0° 90 % 21.3 cd/lm 1 White e, glass XP-G3 10.0° / 22.0° 86 % 16.4 cd/lm	<u>84</u> <u>222</u> <u>64</u> <u>72</u> <u>72</u> <u>75</u>
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	10.0° / 20.0° 90 % 21.3 cd/lm 1 White e, glass XP-G3 10.0° / 22.0° 86 % 16.4 cd/lm 1	60° 0° 0° 0°
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 Light colour Required components:	10.0° / 20.0° 90 % 21.3 cd/lm 1 White xP-G3 10.0° / 22.0° 86 % 16.4 cd/lm 1 White	600 99* 99* 99* 99* 99* 99* 99* 9
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 Light colour	10.0° / 20.0° 90 % 21.3 cd/lm 1 White xP-G3 10.0° / 22.0° 86 % 16.4 cd/lm 1 White	600 99* 99* 15* 0* 15* 9* 9*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate Protective plate CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	10.0° / 20.0° 90 % 21.3 cd/lm 1 White xP-G3 10.0° / 22.0° 86 % 16.4 cd/lm 1 White	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°



LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G3 10.0° / 22.0° 95 % 18.6 cd/lm 1 White	50° 50° 50° 50° 50° 50° 50° 50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-L HD 12.0° / 26.0° 90 % 12.8 cd/lm 1 White	50° 50° 61° 51° 50° 61° 61° 61° 61° 61° 61° 61° 61° 61° 61
Protective plate	e, glass	20 ⁴ 12 ⁴ 22 ⁴
CREE LED	XP-L HD 12.0° / 26.0° 95 % 13.7 cd/lm 1 White	22, 0, 12, 0, 22, 0, 22, 0, 22, 0, 22, 0, 22, 0, 22, 0, 22, 0, 22, 0, 23, 0, 24, 0, 25, 0, 24, 0, 25
CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	XP-L HI 10.0° / 20.0° 87 % 22.7 cd/lm 1 White	90 ⁻ 90 ⁻



CREE LED	XP-L HI 8.0° / 18.0° 96 % 26.2 cd/lm 1 White	50° 0° 12° 0°
CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-L2 14.0° / 28.0° 86 % 9.7 cd/lm 1 White	9° 97 9° 97 9° 77 600 600
Protective plate	e, glass	
CREE LED	XP-L2 14.0° / 28.0° 95 % 10.8 cd/lm 1 White	20° 20° 20° 20° 20° 20° 20° 20° 20° 20°
CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-P 6.0° / 14.0° 95 % 52.2 cd/lm 1 White	90 ⁴ 90



		90° 80°
LED	XP-P	
FWHM / FWTM	8.0° / 14.0°	
Efficiency	86 %	60 ⁴
Peak intensity	39.6 cd/lm	
LEDs/each optic	1	
Light colour	White	92 ⁴ 82 ⁴
Required components:		
Protective plate	e, glass	
		36° 30° 15°
	DS	90° 0 90°
LED	LUXEON 5050 HE	
FWHM / FWTM	16.0° / 32.0°	73.
Efficiency	95 %	
Peak intensity	8.3 cd/lm	200
LEDs/each optic	1	
Light colour	White	gr dr.
Required components:		\times
		6400
		30*
		15° 0° 15°
)S	90° 0° 12° 90°
	LUXEON 5050 Round LES	90° 90° 12°
		30° 30° 30° 30° 30° 30°
LED	LUXEON 5050 Round LES	601 25. 200 25. 200 25. 200 25. 200 25. 25. 25. 25. 25. 25. 25. 25. 25. 25.
LED FWHM / FWTM	LUXEON 5050 Round LES 18.0° / 34.0°	200 200 200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Round LES 18.0° / 34.0° 95 %	100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm	g, 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1	100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1	g g g g g g g g g g g g g g g g g g g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1	g, 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1	g. g. g. g. g. g. g. g. g. g. g. g. g. g
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White	50 57 600 610 610 610
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White	223 405 30 ⁴ 30 ⁴ 30 ⁴ 30 ⁴ 30 ⁴ 405 30 ⁴ 405 30 ⁴ 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White S LUXEON 5050 Round LES	200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White	223 405 30 ⁴ 30 ⁴ 30 ⁴ 30 ⁴ 30 ⁴ 405 30 ⁴ 405 30 ⁴ 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White S LUXEON 5050 Round LES	100 100 100 100 100 100 100 100
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White S LUXEON 5050 Round LES 18.0° / 34.0° 87 %	200 200 200 200 200 200 200 200
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White V LUXEON 5050 Round LES 18.0° / 34.0° 87 % 6.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White V LUXEON 5050 Round LES 18.0° / 34.0° 87 % 6.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: WIM / EUMILEE FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White UXEON 5050 Round LES 18.0° / 34.0° 87 % 6.6 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON 5050 Round LES 18.0° / 34.0° 95 % 7.3 cd/lm 1 White UXEON 5050 Round LES 18.0° / 34.0° 87 % 6.6 cd/lm 1 White	



LUMILEC	DS S	50° 50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Square LES 20.0° / 36.0° 90 % 5.8 cd/lm 1 White	
Protective plate	ə, glass	30 ⁻ 30 ⁻ 30 ⁻
	DS	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 5050 Square LES 20.0° / 36.0° 95 % 6.2 cd/lm 1 White	23 α α 34 400 50 60 60 60 60 60 60 60 60 60 6
		112% 0 ⁶ 32°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON 7070 22.0° / 48.0° 93 % 3.8 cd/lm 1 White	
	LUXEON HL2X-P	
FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	12.0° / 26.0° 95 % 15.6 cd/lm 1 White	

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Required components:	UMILE)S	50°
Efficiency 96% Peak intensity 27.9 cd/m Light colour White Required components:	LED	LUXEON HL2Z	73*
Peak intensity 2.79 cd/m LED seach optic 1 LED seach optic 1 LED seach optic 1 LED ST-TXX-WCS FWHM /FVTM 16.0° / 30.0° Efficiency 87% Peak intensity 8.1 cd/m LED seach optic 1 Light colour White Required components: Protective plate, glass Efficiency 96% Peak intensity 8.9 cd/m LED ST-TXX-WCS FWHM /FVTM 16.0° / 30.0° Efficiency 96% Peak intensity 8.9 cd/m LED soft / 30.0° Efficiency 96% Peak intensity 16.0° / 30.0° Efficiency 96% Peak intensity 10.6° cd/m LED soft / 30.0° Efficiency 97% Peak intensity 10.6° cd/m LED soft / 30.0° Efficiency 10.0° Efficiency 97% Peak intensity 10.6° cd/m LED soft / 30.0° Efficiency 10.0° Efficiency 10.0° Effi	FWHM / FWTM	8.0° / 18.0°	Euros
LEDs/aach optic 1 Light colour White Required components:	Efficiency	95 %	
Light colour While Required components: LED SST-70X-WCS FMM / FVTM 16.0° / 30.0° Efficiency 87 % Peak intensity 16.0° / 30.0° Efficiency 87 % Peak intensity 8.9 offm LEDs/each optic 1 Light colour While Required components: LED SST-70X-WCS FWHM / FVTM 16.0° / 30.0° Efficiency 96 % Peak intensity 8.9 offm LEDs/each optic 1 LEDsecon optic 1 LED	Peak intensity	27.9 cd/lm	12000
Required components:		1	
Image: Comparison of the components: Image: Component: Image: Com	Light colour	White	42.4
LED SST-70X-WCS FWHM / FWTM 16.0° / 30.0° Efficiency 87 % Peak intensity 8.1 od/m LEDs/each optic 1 Light colour White Required components: EFOTECHINE LED SST-70X-WCS FWHM / FWTM 16.0° / 30.0° Efficiency 96 % Peak intensity 8.9 cd/m LEDs/each optic 1 Light colour White Required components: ED NY4WB35AM FWHM / FWTM 14.0° / 26.0° Efficiency 87 % Peak intensity 0.6 cd/m LEDs/each optic 1 Light colour White Required components:	Required components:		19500
LED SST-70X-WCS FWHM / FWTM 16.0° / 30.0° Efficiency 87 % Peak intensity 8.1 od/m LEDs/each optic 1 Light colour White Required components: LED SST-70X-WCS FWHM / FWTM 16.0° / 30.0° Efficiency 96 % Peak intensity 8.9 cd/m LEDs/each optic 1 Light colour White Required components: LED NV4WB35AM FWHM / FWTM 14.0° / 26.0° Efficiency 87 % Peak intensity 0.6 cd/m LEDs/each optic 1 Light colour White Required components:			
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LED NV4WB35AM FWHM / FWTM 14.0° / 26.0° Efficiency 87 % Peak intensity 10.6 cd/lm LEDs/each optic 1 Light colour White Required components: **			
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LEDs/each optic 1 Light colour White Required components:	LED FWHM / FWTM	14.0° / 26.0°	5°
Light colour White Provide the	LED FWHM / FWTM Efficiency	14.0° / 26.0° 87 %	9° 77 60°
Required components:	LED FWHM / FWTM Efficiency Peak intensity	14.0° / 26.0° 87 % 10.6 cd/lm	60°
Protective plate, glass	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	14.0° / 26.0° 87 % 10.6 cd/lm 1	5° 60 5° 60
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	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	14.0° / 26.0° 87 % 10.6 cd/lm 1 White	



ED NV4WB35AM WHM / FWTM 14.07 / 26.0° ficiency 96 % eak intensity 11.6 cdf/m EDs/each optic 1 ight colour White equired components: EPC WHM / FWTM 10.0° / 22.0° ficiency 95 % eak intensity 19.9 cdf/m EDs/each optic 1 ight colour White equired components: Protective plate, glass EVENCHIA ED MVSW515A WHM / FWTM 12.0° / 27.0° ficiency 94 % eak intensity 13.2 cdf/m EDs/each optic 1 ight colour White equired components: ED MVSW515A WHM / FWTM 12.0° / 27.0° ficiency 94 % eak intensity 13.2 cdf/m EDs/each optic 1 ight colour White equired components: ED MVSW515A WHM / FWTM 12.0° / 27.0° ficiency 94 % eak intensity 13.2 cdf/m EDs/each optic 1 ight colour White equired components: ED MVSWE15A WHM / FWTM 12.0° / 18.0° MUCHIA ED MVSWE15A WHM / FWTM 22.0° / 18.0° ED MVSWE15A ED MVSW			
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girt colour White equired components: ED NVSW219F WM/FVTM 10.0°/22.0° filiciency 95% eak intensity 19.9 cd/m EDs/each optic 1 girt colour White equired components: Protective plate. glass			
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filieincy 95 % eak intensity 19.9 cd/lm EDs/each optic 1 glt colour White equired components: Protective plate, glass VICHIN ED NVSW519A WHM / FVTM 12.0° / 27.0° filieincy 94 % eak intensity 13.2 cd/lm EDs/each optic 1 ight colour White equired components: ED NVSKE21A WHM / FVTM 8.0° / 18.0° filieincy 88 % eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components:			75
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Protective plate, glass		Wille	12200
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ED NVSW519A WHM / FWTM 12.0° / 27.0° fficiency 94 % eak intensity 13.2 cd/lm EDs/each optic 1 ight colour White equired components:			- the
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ight colour White equired components: WICHIN ED NVSxE21A WHM / FWTM 8.0° / 18.0° fficiency 88 % eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components:			6430
equired components:			5*
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ED NVSxE21A WHM / FWTM 8.0° / 18.0° fficiency 88 % eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components: ************************************	required compensioner		
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ED NVSxE21A WHM / FWTM 8.0° / 18.0° fficiency 88 % eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components: ************************************			
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WHM / FWTM 8.0° / 18.0° fficiency 88 % eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components:	LED	NVSxE21A	
fficiency 88 % eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components: ************************************	FWHM / FWTM		78'
eak intensity 27.7 cd/lm EDs/each optic 1 ight colour White equired components:	Efficiency		
EDs/each optic 1 ight colour White equired components:			
ight colour White equired components:			
equired components:		•	
		White	45° X / X / X
Protective plate, glass	Light colour	White	42°
		White	
30'	Light colour Required components:		e*
20) 0" 55"	Light colour Required components:		6°



OSRAM Opto Semiconductors		90° 90°
	DURIS E 5050 RGBW	
FWHM / FWTM	14.0° / 32.0°	75
Efficiency	95 %	
Peak intensity	9.5 cd/lm	80°
LEDs/each optic	1	$ \times / / \wedge \times $
Light colour	RGBW	gr*
Required components:		6130
		\times / \vee \times
		30° 300 30°
		15° 0° 15°
OSRAM Opto Semiconductors		90° 90°
LED	Duris S8	X* X*
FWHM / FWTM	22.0° / 40.0°	
Efficiency	87 %	60 ⁴ 1600 60 [*]
Peak intensity	4.9 cd/lm	$[\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \$
LEDs/each optic	1	
Light colour	White	43° 43°
Required components:		
Protective plate		
Protective plate	a, glass	
		30° 30° 30°
OSRAM Onto Semiconductors		90° 4 90°
Opto Semiconductors	Duris S8	5)*5/*
Opto Semiconductors	Duris S8 20.0° / 38.0°	99°
Opto Semiconductors LED FWHM / FWTM	Duris S8 20.0° / 38.0° 95 %	97 97 90
opto Semiconductors LED FWHM / FWTM Efficiency	20.0° / 38.0° 95 %	90* 90* 33* 60* 2000
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	20.0° / 38.0°	99* 9* 375 99* 2000 6*
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	20.0° / 38.0° 95 % 5.5 cd/lm	91 ⁴ 77 61 ⁴ 61
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	20.0° / 38.0° 95 % 5.5 cd/lm 1	59° 73 60° 60° 60° 60° 60° 60° 60° 60° 60° 60°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 38.0° 95 % 5.5 cd/lm 1	500 50 50 50 50 50 50 50 50 50 50 50 50
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 38.0° 95 % 5.5 cd/lm 1	99° 9° 90° 90° 80° 500 6° 500 6°
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 38.0° 95 % 5.5 cd/lm 1	97 97 97 97 97 97 97 97 97 97 97 97 97 9
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	20.0° / 38.0° 95 % 5.5 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDS/each optic Light colour Required components:	20.0° / 38.0° 95 % 5.5 cd/lm 1 White	9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9° 9
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version)	39 30 39 10 40 200 60 60 60
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0°	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 %	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 % 14.2 cd/lm	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 % 14.2 cd/lm 1	
opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 % 14.2 cd/lm	9 ³ 9 ³ 9 ³ 9 ³ 9 ³ 9 ³ 9 ³ 9 ³
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	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 % 14.2 cd/lm 1	9 ³ 9 ³ 9 ³ 9 ³ 9 ³ 9 ³ 9 ³ 9 ³
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	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 % 14.2 cd/lm 1 White	
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 Required components:	20.0° / 38.0° 95 % 5.5 cd/lm 1 White OSCONIQ P 3737 (3W version) 12.0° / 24.0° 87 % 14.2 cd/lm 1 White	



OSRAM Opto Semiconductors		90° 90°
LED	OSCONIQ P 3737 (3W version)	
FWHM / FWTM	12.0° / 24.0°	25* 25*
Efficiency	96 %	
Peak intensity	15.7 cd/lm	60° 60°
LEDs/each optic	1	X// X
Light colour	White	97
Required components:		
		1200
		\times / \setminus \times
		15000
		30
SAMSUN	IG	90 ⁴ A 90 ⁴
LED	LH351B	
FWHM / FWTM	10.0° / 20.0°	235
Efficiency	96 %	60°
Peak intensity	22.3 cd/lm	\uparrow \times / / \mid \setminus \times \uparrow
LEDs/each optic	1	
Light colour	White	gy 12800 Gy
Required components:		
		30°
		15° 0° 15°
0.0.0.0.0.0	10	
SAMSUN	IG	50° 50°
SAMSUN LED	LH351B	90 ⁴ 90 ⁴
		99° 90° 75° 72°
LED	LH351B	90° 90° 90° 90° 90° 90° 90° 90° 90° 90°
LED FWHM / FWTM	LH351B 10.0° / 22.0°	99 ⁴ 39 99 600 600 600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm	95° 95° 75° 75° 66° 660° 66° 55° 75° 75°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White	600
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White	gg
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White a, glass	gg
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White a, glass	gg
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0°	by by by by by by by by by by
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0° 88 %	by by by by by by by by by by
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency Peak intensity	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0°	by by by by by by by by by by
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0° 88 % 16.7 cd/lm	by by by by by by by by by by
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency Peak intensity	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0° 88 % 16.7 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0° 88 % 16.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SANNSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0° 88 % 16.7 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: Protective plate SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LH351B 10.0° / 22.0° 87 % 19.7 cd/lm 1 White e, glass LH351C 10.0° / 22.0° 88 % 16.7 cd/lm 1 White	



SAMSU	NG	90*
LED	LH351C	
FWHM / FWTM	10.0° / 22.0°	75*
Efficiency	96 %	
Peak intensity	18.8 cd/lm	
LEDs/each optic	1	- X /
Light colour	White	93.0
Required component	s:	
		30* 155
SAMSU	NG	90*
LED	LH351D	
FWHM / FWTM	14.0° / 28.0°	75*
Efficiency	95 %	605
Peak intensity	11.8 cd/lm	X/
LEDs/each optic	1	
Light colour	White	45
Required component	s:	X
		\times 1
		30°
SEOUL		90*
SEOUL SEMICONDUCTOR	Z8Y22	
FWHM / FWTM	10.0° / 22.0°	75*
Efficiency	86 %	
Peak intensity	16.7 cd/lm	60°
LEDs/each optic	1	
Light colour	White	950
Required component		X
		17
Protective p	late, glass	
		300
		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:

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