

PRODUCT DATASHEET CRYSTAL-RS

Finish

CRYSTAL-RS

~5.1° spot beam. Assembly with holder.

SPECIFICATION:

Dimensions	Ø 49.7 mm
Height	28.7 mm
Fastening	pin, screw
ROHS compliant	yes 🛈

MATERIALS:

Component F12916_CRYSTAL-RS C13478_CRYSTAL-HLD **Type** Single lens Holder

//Jaseet
LEDiĽ

Material	Colour
PMMA	clear
PC	white

ORDERING INFORMATION:

Quantities for one set:

Single lens 1 Holder 1

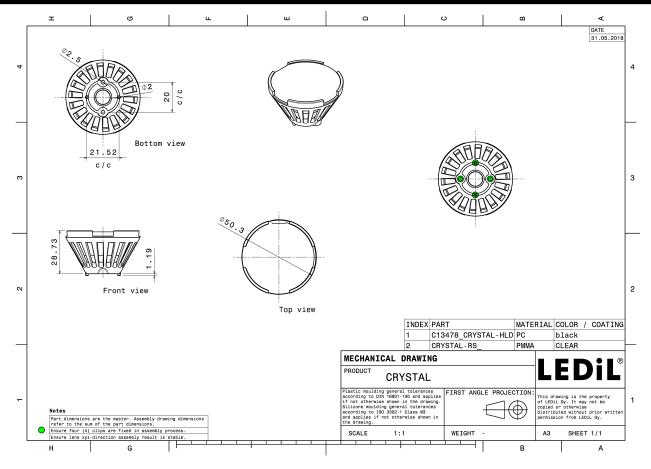


PRODUCT DATASHEET CRYSTAL-RS

Component		Qty in box	MOQ	MPQ	Box weight (kg)
F12916_CRYSTAL-RS » Box size: 480 x 280 x 300 mm	Single lens	288	64	32	8.6
C13478_CRYSTAL-HLD » Box size: 480 x 280 x 300 mm	Holder	1152	64	32	6.1



PRODUCT DATASHEET CRYSTAL-RS



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



		90° 90°
LED	XHP35 HI	
FWHM / FWTM	5.7° / 15.0°	75'
Efficiency	89 %	
		60* 60*
Peak intensity	48.3 cd/lm	
LEDs/each optic	1	19 ⁴
Light colour	White	
Required componer	115:	
		3240
		30° 15° 0° 15°
		90° 90°
LED	XHP50	
FWHM / FWTM	11.0° / 24.0°	75'
Efficiency	93 %	
Peak intensity	14.1 cd/lm	
LEDs/each optic	1	
Light colour	White	97
Required componer		
		A
		 30 <u>155</u> 0° <u>35°</u>
		20 ⁴
LEDS	XM-1	Ma Ma Ma Ma
LED	XM-L 7.0° / 17.0°	27 - 29 ² - 2
LED FWHM / FWTM	7.0° / 17.0°	32 35 84 35
LED FWHM / FWTM Efficiency	7.0° / 17.0° 94 %	gr. 130 67 94 95 95 95 95 95 95 95 95 95
LED FWHM / FWTM Efficiency Peak intensity	7.0° / 17.0° 94 % 34.9 cd/lm	00 00 00 00 00 00 00 00 00 00 00 00 00
LEDs FWHM / FWTM Efficiency Peak intensity LEDs/each optic	7.0° / 17.0° 94 % 34.9 cd/lm 1	
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	21 21 22 23 25 25 25 25 25 25 25 25 25 25 25 25 25
LEDs FWHM / FWTM Efficiency Peak intensity LEDs/each optic	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	9 ⁴ 9 ⁴ 9 ⁵ 9 ⁵ 9 ⁵ 9 ⁵ 9 ⁵ 9 ⁵ 9 ⁵ 9 ⁵
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LEDs EWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts:	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4°	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer Required componer	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4° 89 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer Required componer ELEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required componer Required componer ELEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	
LEDs 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	7.0° / 17.0° 94 % 34.9 cd/lm 1 White hts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	



		90 ⁴
LEDS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XP-L HD 7.0° / 15.0° 88 % 34.7 cd/lm 1 White ints:	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON 3030 2D (Round LES) 4.0° / 15.0° 94 % 52.1 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON 5050 Round LES 9.0° / 24.0° 94 % 17.8 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LUXEON A 5.1° / 14.0° 89 % 58.9 cd/lm 1 White	





	FDS	30*
LED	LUXEON Z ES	<i>*</i>
FWHM / FWTM	3.0° / 9.0°	
Efficiency	93 %	50 ¹
Peak intensity	103.8 cd/lm	
LEDs/each optic	1	
Light colour	White	9.
Required compone	ents:	945
		30° 15° 0° 15°
ØNICHI		50°
LED	NV4x144A	
FWHM / FWTM	12.0° / 25.0°	
Efficiency	92 %	igt /
Peak intensity	14.2 cd/lm	
LEDs/each optic	1	
Light colour	White	g.
Required compone	ents:	
		12000
		30° (127) Q ² (127)
-		
ØNICHI	N	50*
	NVSW3x9A	<u>99*</u>
		35-
LED	NVSW3x9A	50 ⁴
LED FWHM / FWTM Efficiency Peak intensity	NVSW3x9A 6.0° / 16.0°	99* 75 61 - 20m
LED FWHM / FWTM Efficiency Peak intensity	NVSW3x9A 6.0° / 16.0° 89 %	50' 75 60' 20m
LED FWHM / FWTM Efficiency	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm	50' 73' 60' 73' 70'
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	59' 79 50 50 50 50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	50 ⁴ 75 60 70 70 70 70 70 70
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents:	125 [°] 0 [°] 15 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents:	125 [°] 0 [°] 15 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents:	125 [°] 0 [°] 15 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0°	125 [°] 0 [°] 15 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0° 93 %	125 [°] 0 [°] 15 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Required compone Efficiency Peak intensity	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0° 93 % 61 cd/lm	125 [°] 0 [°] 15 [°]
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MICHIA Efficiency Peak intensity LEDs/each optic	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0° 93 % 61 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MICHIN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0° 93 % 61 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone MICHIN Equired compone FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0° 93 % 61 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone Mice Compone Equired compone Mice Compone Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ents: NVSW719AC 5.0° / 12.0° 93 % 61 cd/lm 1 White	



ØNICHI/		30* 30*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm 1 White	
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NWSx229A 8.0° / 18.0° 92 % 27.9 cd/lm 1 White	
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	OSLON SSL 150 3.0° / 9.0° 94 % 108.9 cd/lm 1 White ents:	
SAMS LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	LH351Z 4.4° / 12.0° 90 % 77 cd/lm 1 White	





seour semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	WICOP 5050 12.0° / 25.0° 92 % 13.3 cd/lm 1 White ents:	30+ 120 60+ 1000 1000 1000 1000 1000 1000 1000	35°
SEOUL			
SEOUL SEMICONDUCTOR		90°	90°
	Z5M3	90°	90°
SEOUL SEMICONDUCTOR	Z5M3 6.0° / 16.0°		90*
seoul semiconductor LED FWHM / FWTM Efficiency	6.0° / 16.0° 94 %		80°
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity	6.0° / 16.0° 94 % 3.8 cd/lm		50* 75* 60*
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	6.0° / 16.0° 94 % 3.8 cd/lm 1	737 6g1	90 ⁴
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity	6.0° / 16.0° 94 % 3.8 cd/lm 1 White		90*



		
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XHP50.3 HI 10.0 + 8.0° / 18.0° 97 % 27.4 cd/lm 1 White	94 ⁴ 95 ⁴ 95 ⁴ 95 ⁴ 95 ⁴ 95 ⁴ 1000 1000 1000 1000 1000 1000 1000 10
		90* 90*
LEDs LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XHP70.2 16.0° / 30.0° 95 % 9 cd/lm 1 White	97 97 97 97 97 97 97 97 97 97 97 97 97 9
CREE ÷		90° 90° 10° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-G3 6.0° / 14.0° 95 % 52.3 cd/lm 1 White	51
CREE LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-L HI 5.6° / 12.0° 94 % 70.2 cd/lm 1 White	



		90° 90°
LED	XP-P	
FWHM / FWTM	4.0° / 10.0°	75' 75'
Efficiency	95 %	
Peak intensity	115.4 cd/lm	
LEDs/each optic	1	
Light colour	White	47°
Required components:		
		\times / \times
		107200
		30° 36°
		30° 55° 55°
		50° 50°
LED	XQ-E HI	
FWHM / FWTM	4.5° / 10.0°	73. 75.
Efficiency	95 %	60 ⁵
Peak intensity	106.7 cd/lm	$\langle / / / \rangle > 2$
LEDs/each optic	1	***
Light colour	White	5°
Required components:		7650
		36* 36*
	DS	257 V ⁴ 35 ²
	LUXEON C	
		25° ° 15°
LED	LUXEON C	
LED FWHM / FWTM	LUXEON C 4.0° / 10.0°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1	25 50 50 50 7 50 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1	25 50 50 50 7 50 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1	25 50 50 50 7 50 7 7 7 7 7 7 7 7 7 7 7 7
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1	25 50 50 50 7 50 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:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White	25 50 50 50 7 50 7 50 7 50 7 50 7 50 7 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White	25 50 50 50 7 50 7 50 7 50 7 50 7 50 7 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ	25 50 50 50 7 50 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:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ 4.0° / 8.0°	50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ 4.0° / 8.0° 93 %	30 30 30 30 30 30 60 30 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White Vhite LUXEON CZ 4.0° / 8.0° 93 % 181 cd/lm	25 25 25 25 25 25 25 25 25 25 25 25 25 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ 4.0° / 8.0° 93 % 181 cd/lm 1	25 25 25 25 25 25 25 25 25 25 25 25 25 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White Vhite LUXEON CZ 4.0° / 8.0° 93 % 181 cd/lm	25 25 25 25 25 25 25 25 25 25 25 25 25 2
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: With Components: LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ 4.0° / 8.0° 93 % 181 cd/lm 1	50 50 50 50 50 50 50 50 50 50
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ 4.0° / 8.0° 93 % 181 cd/lm 1	5 5 5 5 5 5 5 5 5 5 5 5 5 5
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components: WIM / COMPARENT LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	LUXEON C 4.0° / 10.0° 91 % 109.6 cd/lm 1 White S LUXEON CZ 4.0° / 8.0° 93 % 181 cd/lm 1	5 5 5 5 5 5 5 5 5 5 5 5 5 5



	S	90* A 90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON HL2X 6.0° / 14.0° 95 % 52.6 cd/lm 1 White	20- 20- 20- 20- 20- 20- 20- 20-
	S	90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rebel Plus 6.0° / 10.0° 95 % 84.3 cd/lm 1 White	30° 50° 50° 50°
	5	90° 90°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 4.0° / 10.0° 95 % 119.4 cd/lm 1 Red	21. 12. 12. 12. 12. 12. 12. 12.
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	S LUXEON Rubix 10.0° / 17.0° 97 % 26.8 cd/lm 4 RGBW	50° 50° 50° 50° 50° 50° 50° 50° 50° 50°



)S	90* 90
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 4.0° / 10.0° 95 % 114 cd/lm 1 Blue	
	5	90 ⁴ 99
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 4.0° / 10.0° 95 % 114.3 cd/lm 1 Green	25 25 20 20 20 20 20 20 20 20 20 20
		155 00 150
C LUMILEC LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix 4.0° / 10.0° 95 % 106.8 cd/lm 1 White	5°
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	S LUXEON V 8.0° / 17.0° 95 % 30.9 cd/lm 1 White	



(e		
		90* 90*
LED	SBT-90	75*
FWHM / FWTM	8.0° / 18.0°	
Efficiency	97 %	60 ¹ 2000 60 ¹
Peak intensity	33.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required components:		
		30 ⁶ 15° 0° 15° 33°
	JS	90*
LED	SFT-40-WCS	
FWHM / FWTM	6.0° / 12.0°	25
Efficiency	96 %	
Peak intensity	74.7 cd/lm	$\tilde{\mathbf{K}} / / / \tilde{\mathbf{M}} $
LEDs/each optic	1	
Light colour	White	g
Required components:		±200
		X / V X
		30* 75600 30*
		15° 0° 15°
Contraction of the second seco		
	JS	90* 90*
	JS SFT-70X-WCS	
~		
LED	SFT-70X-WCS	
LED FWHM / FWTM	SFT-70X-WCS 6.0° / 14.0°	
LED FWHM / FWTM Efficiency	SFT-70X-WCS 6.0° / 14.0° 97 %	
LED FWHM / FWTM Efficiency Peak intensity	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1	30° 1100 30°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0°	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 %	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 % 31.7 cd/lm	757 64 67 77 75 75 75 75 75 75 75 75 75 75 75 75
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 % 31.7 cd/lm 1	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 % 31.7 cd/lm	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 % 31.7 cd/lm 1	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 % 31.7 cd/lm 1	30° 1200 30
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFT-70X-WCS 6.0° / 14.0° 97 % 49.1 cd/lm 1 White SST-40 8.0° / 16.0° 97 % 31.7 cd/lm 1	30° 1200 30



OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Duris S5 (Single chip) 4.0° / 10.0° 95 % 106 cd/lm 1 Red	51 ⁴ 51 ⁴ 51 ⁵ 51 ⁵ 5
OSRAM		30° 30° 32° 32°
Opto Semiconductors		90* 90*
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	Duris S5 (Single chip) 4.0° / 10.0° 95 % 101.9 cd/lm 1	gi
Light colour Required components:	Green	5°
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	OSTAR Projection Compact (KW.CSLNM1.TG) 4.0° / 8.0° 94 % 139.7 cd/lm 1 White	25 26 26 27 27 27 27 27 27 27 27
OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFH 4717AS 6.7° / 14.5° 94 % 46.5 cd/lm 1 White	200 12° 200 61° 200 61° 200 61° 200 61° 200 12° 200 12° 200 12° 200 12° 200 12° 200 12° 200 12° 200 12° 20° 20° 20° 20° 20° 20° 20° 20° 20° 2



OSRAM Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	SFH 4727AS 6.7° / 14.5° 94 % 47 cd/lm 1 White	ms. willing of the second seco	30. 30. 30. 30. 30. 30. 30. 30.
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	C LH351B 6.0° / 14.0° 96 % 54.7 cd/lm 1 White		36 92 0. 12. 6. 36 92 0. 22. 66 90 0. 65. 100 0. 12. 100 0. 12
SAMSUN LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	G LH351C 6.0° / 14.0° 96 % 47.7 cd/lm 1 White		200 25 200 25
seoul semiconductor LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm 1 White		200 200 200 200 200 200 200 200