

# PRODUCT DATASHEET FCN13552\_CRYSTAL-RS

# **CRYSTAL-RS**

~5.1° spot beam. Assembly with holder.

#### **TECHNICAL SPECIFICATIONS:**

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



### **MATERIAL SPECIFICATIONS:**

Component CRYSTAL-RS CRYSTAL-HLD **Type** Single lens Holder

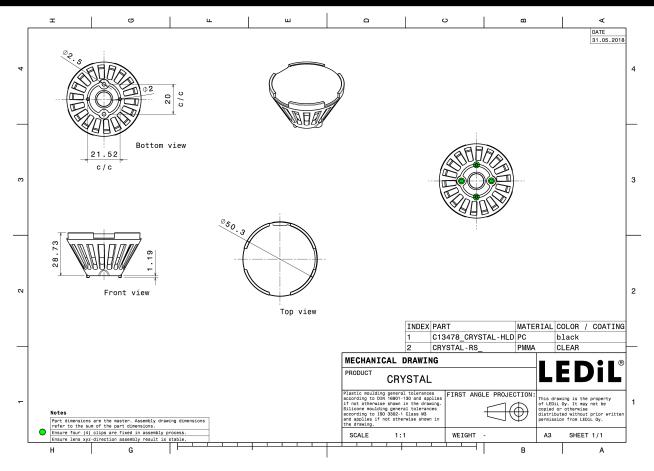
Material	Colour	Finish
PMMA	clear	
PC	white	

#### **ORDERING INFORMATION:**

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FCN13552_CRYSTAL-RS	Single lens	288	64	32	0.0
» Box size:					



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



		30* 30*
LED	XHP35 HI	
FWHM / FWTM	5.7° / 15.0°	75'
Efficiency	89 %	
Peak intensity	48.3 cd/lm	least
LEDs/each optic	1	
Light colour	White	95*
Required compone		
		3170
		30*
	_	 15 00 125'
		90° A 90°
LED	XHP50	
FWHM / FWTM	11.0° / 24.0°	
Efficiency	93 %	lige / / / light
Peak intensity	14.1 cd/lm	
LEDs/each optic	1	
Light colour	White	97 <sup>4</sup> 97
Required compone	nts:	889
		30° 30°
		180 10
		90°
		90 <sup>4</sup> 90 <sup>7</sup>
LED	XM-L	25. 36. 36. 15. 15. 15. 15. 15. 15. 15. 15
LED FWHM / FWTM		
LED FWHM / FWTM Efficiency	XM-L 7.0° / 17.0°	
LED FWHM / FWTM	XM-L 7.0° / 17.0° 94 %	
LED FWHM / FWTM Efficiency Peak intensity	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts:	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4° 89 %	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone CREE (LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XM-L 7.0° / 17.0° 94 % 34.9 cd/lm 1 White nts: XP-G 4.9° / 11.4° 89 % 68.3 cd/lm 1 White	



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	
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	
EUMIL LED 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	



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🤭 LUMIL	EDS	50°	90*
LED	LUXEON Z ES		
FWHM / FWTM	3.0° / 9.0°	72	
Efficiency	93 %	604	
Peak intensity	103.8 cd/lm		
LEDs/each optic	1		
Light colour	White	97	dat.
Required compone	ents:		A ANA
		300	10200 30°
			90° 35°
LED	NV4x144A	20	
FWHM / FWTM	NV4X144A 12.0° / 25.0°	75	
Efficiency	12.0° / 25.0° 92 %		
Peak intensity	92 % 14.2 cd/lm	60.4	
LEDs/each optic	14.2 cd/im		
Light colour	White	<i>σ</i> <sup>*</sup>	
Required compone			
Required compone			
			11000
		$\checkmark$	
		340	-15° 0° 15° 36°
			7
<b>ØNICHI</b>		90°	90°
	NVSW3x9A	<u>90<sup>3</sup></u>	90*
		90 <sup>5</sup> 78	30*
LED	NVSW3x9A	993 733 601	50 <sup>-</sup>
LED FWHM / FWTM	NVSW3x9A 6.0° / 16.0°	94 27 28	99 <sup>5</sup>
LED FWHM / FWTM Efficiency	NVSW3x9A 6.0° / 16.0° 89 %	87. 37.	39 <sup>7</sup> 200 6 <sup>4</sup>
LED FWHM / FWTM Efficiency Peak intensity	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm	81. 191. 191.	397 757 759 759
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	915 915 915	397 700 700 700 700
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	94 97 97	397 2000 000
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	95 95	50°
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White	945 77 77 79 79 79 79 79 79 79 79 79 79 79	200
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 ints:	94 70 70 70 70 70 70 70 70 70 70 70 70 70	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	NVSW3x9A 6.0° / 16.0° 89 % 36.5 cd/lm 1 White ints:	945 97 97 97 97 97 97 97 97	127 2900 37 36 127 0° 37
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 Ints:	94 94 94	127 2900 37 36 127 0° 37
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 ints: NVSxx19B/NVSxx19C 5.3° / 17.0°	31 34 34 34 34 34 34 34 34 34 34	127 2900 37 36 127 0° 37
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 ints: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 %	94 94 94 94	127 2900 37 36 127 0° 37
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 ints: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm	94 97 97 97 97 97 97 97 97 97 97 97	200 200 200 200 200 200 200 200 200 200
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 ints: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm 1	94 97 97 97 97 97 97 97 97 97 97 97 97 97	127 2900 37 36 127 0° 37
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 mts: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm 1 White	94 97 97 97 97 97 97 97 97 97 97 97 97 97	200 27 27 27 27 27 27 27 27 27 27 27 27 27
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 mts: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm 1 White	94 97 97 97 97 97 97 97 97 97 97 97 97 97	200 27 27 27 27 27 27 27 27 27 27 27 27 27
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 mts: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm 1 White		200 27 27 27 27 27 27 27 27 27 27 27 27 27
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 mts: NVSxx19B/NVSxx19C 5.3° / 17.0° 89 % 42.5 cd/lm 1 White	94 95 95 95 95 95 95 95 95 95 95	200 200 10 200 10 10 10 10 10 10 10 10 10



<b>Ø</b> NICHIΛ		90* 90*
LED	NWSx229A	
FWHM / FWTM	8.0° / 18.0°	73* 73*
Efficiency	92 %	
Peak intensity	27.9 cd/lm	
LEDs/each optic	1	$X / T \times X$
Light colour	White	gr et
Required componer		20° - 12° - 12° - 20°
OSRAM Opto Semiconductors		90° 90°
LED	OSLON SSL 150	
FWHM / FWTM	3.0° / 9.0°	781
Efficiency	94 %	
Peak intensity	108.9 cd/lm	$K \longrightarrow (1 ) \times 2$
LEDs/each optic	1	
Light colour	White	93 <sup>1</sup> 93 <sup>1</sup>
Required componer	ts:	
СЛЛСЦ		30. 10 <sup>20</sup> 0, 13, 9,
SAMSU		
LED	LH351B	
FWHM / FWTM	5.3° / 14.0°	
Efficiency	90 %	
Peak intensity	57 cd/lm	
LEDs/each optic Light colour	1 White	
Required componer		
SVWS		
LED	LH351Z	
FWHM / FWTM	4.4° / 12.0°	
Efficiency	90 %	
Peak intensity	77 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required componer	15.	-



SEOUL SEOUL SEMICONDUCTOR		90° 90°
LED	Z5M3	75
FWHM / FWTM	6.0° / 16.0°	
Efficiency	94 %	60 <sup>5</sup> 2200 80 <sup>4</sup>
Peak intensity	3.8 cd/lm	$\square \land / / / \square \land \land \land /$
LEDs/each optic	1	
Light colour	White	gre (32
Required compone	nts:	
		36 <sup>6</sup> 35 <sup>6</sup> 36



CREE LED	XHP50.3 HI 10.0 + 8.0° / 18.0° 97 % 27.4 cd/lm 1 White	91° 92° 92° 92°
CREE LED 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	30° 50° 60° 10° 3°
CREE LED	XP-L HI 5.6° / 12.0° 94 % 70.2 cd/lm 1 White	90° 90° 90° 90° 90° 90° 90° 90° 80° 90° 90° 80° 90° 90° 90°
CREE LED LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	XP-P 4.0° / 10.0° 95 % 115.4 cd/lm 1 White	257 2862 297 297 297 297 297 297 297 297 297 29



CREE LED	XQ-E HI 4.5° / 10.0° 95 % 106.7 cd/lm 1 White	5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5
ED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON Rubix (white) 10.0° / 17.0° 97 % 26.8 cd/lm 4 RGBW	59° 59° 59° 59° 50° 50° 50° 50° 50° 50° 50° 50° 50° 50
ED FWHM / FWTM Efficiency Peak intensity	LUXEON Rubix (white) 4.0° / 10.0° 95 % 106.8 cd/lm	64 64 55 50 50 50 50 50 50 50 50 50
LEDs/each optic Light colour Required components:	1 White	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required components:	LUXEON V 8.0° / 17.0° 95 % 30.9 cd/lm 1 White	200 25 200 25



	JS	90* 90*
LED	SBT-90	
FWHM / FWTM	8.0° / 18.0°	73.
Efficiency	97 %	
Peak intensity	33.1 cd/lm	
LEDs/each optic	1	
Light colour	White	@* @;
Required components:		
		30° 15° 0° 15° 30°
	JS	90°
LED	SST-40	
FWHM / FWTM	8.0° / 16.0°	730
Efficiency	97 %	60°
Peak intensity	31.7 cd/lm	
LEDs/each optic	1	$X \times ( \square \setminus X \setminus )$
Light colour	White	45 <sup>-</sup> 15000 45 <sup>-</sup>
Required components:		
		30° 31° 0° 15° 31°
OSRAM		90* 90*
Opto Semiconductors	Duris S5 (Single chip)	
FWHM / FWTM		75 75
	4 0° / 10 0°	
Efficiency	4.0° / 10.0° 95 %	250
Efficiency Peak intensity	95 %	6)*
Peak intensity		9 <sup>5</sup>
	95 % 101.9 cd/lm	gr
Peak intensity LEDs/each optic	95 % 101.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour	95 % 101.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour	95 % 101.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour	95 % 101.9 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components:	95 % 101.9 cd/lm 1	97
Peak intensity LEDs/each optic Light colour Required components:	95 % 101.9 cd/lm 1 Green	97 97 
Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip)	<u>94</u> 930 94 94 95 96 95 96 95 96 95 96 95 96 95 96 95 96 95 96 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96
Peak intensity LEDs/each optic Light colour Required components: OSRAM Opto Semiconductors LED FWHM / FWTM	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip) 4.0° / 10.0°	<u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>9000</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>9000</u> <u>9000</u> <u>9000</u> <u>9000</u> <u>90000000000</u>
Peak intensity LEDs/each optic Light colour Required components: OPD Semiconductors LED FWHM / FWTM Efficiency	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip)	<u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>9000</u> <u>900</u> <u>900</u> <u>900</u> <u>900</u> <u>9000</u> <u>9000</u> <u>9000</u> <u>9000</u> <u>90000000000</u>
Peak intensity LEDs/each optic Light colour Required components:	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip) 4.0° / 10.0° 95 %	<u>800</u> 20 20 20 20 20 20 20 20 20 20 20 20 20
Peak intensity LEDs/each optic Light colour Required components:	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip) 4.0° / 10.0° 95 % 106 cd/lm	<u>90</u> <u>1000</u> <u>300</u> <u>300</u> <u>1000</u> <u>300</u> <u>300</u> <u>1000</u> <u>300</u> <u>300</u>
Peak intensity LEDs/each optic Light colour Required components:	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip) 4.0° / 10.0° 95 % 106 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components:	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip) 4.0° / 10.0° 95 % 106 cd/lm 1	
Peak intensity LEDs/each optic Light colour Required components: Opto Semiconductors LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	95 % 101.9 cd/lm 1 Green Duris S5 (Single chip) 4.0° / 10.0° 95 % 106 cd/lm 1	90 90 90 90 90 90 90 90 90 90 90 90 90 9



OSRAM Opto Semiconductors				90*	90*
LED	OSTAR Projection Compact (Kx.CSLNM1.xx)				
FWHM / FWTM	4.0° / 8.0°			75°	75"
Efficiency	94 %			$ \land $	
Peak intensity	139.7 cd/lm			60° 51	200 60*
					$  \land \land \land \rangle$
LEDs/each optic	1 White			95*	
Light colour Required components:	white				
Required components.				14	
				$\times$ /	$  \rangle \times$
				30° 15° 153	\$co
OSRAM Opto Semiconductors				90*	90*
LED	SFH 4717AS	8-3 943 943 943 943 943 943 943 943 943 94			
FWHM / FWTM	6.7° / 14.5°			75°	3
Efficiency	94 %	BORDER JOHN LEVEN LUTION / PROVIDENT / PROVIDEN	Per antenne en la companya de la com	XIN	
Peak intensity	46.5 cd/lm	and the state of t	Receiver of Salar and materia	50°	
LEDs/each optic	1				
Light colour	White				600
Required components:	·······				
					1 1 A
				$\times$ /	
1				30° 15° 5f	500 25° 30°
OSRAM Opto Semiconductors		Since J M. St. PP J ( J. K. Suller S. N. 101 101 101 101 101 101 101 10		90*	90*
LED	SFH 4727AS	0.1 0.1 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6 0.6			
FWHM / FWTM	6.7° / 14.5°	10.5 12.2 2.2		75*	75
Efficiency		Detector Propi Refer Manual Manual Annual Street	In C. B. (24-15) (20-10) Intensive Image. Initiant Latency y Intersive Image. Initiant Latency y Intersive Image. Initiant Latency y	XA	
Efficiency Peak intensity	94 %	Antony Jones (Marcol Marcol) Antony		60	50°
Peak intensity	94 % 47 cd/lm	AGUE & we write to	Detector Deage: Radiant Extension	601	50
Peak intensity LEDs/each optic	94 % 47 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	64 B	
Peak intensity LEDs/each optic Light colour	94 % 47 cd/lm	AGUE & we write to	Detector Deage: Radiant Extension	90°	
Peak intensity LEDs/each optic	94 % 47 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	90	
Peak intensity LEDs/each optic Light colour	94 % 47 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	92	
Peak intensity LEDs/each optic Light colour	94 % 47 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension		
Peak intensity LEDs/each optic Light colour Required components:	94 % 47 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	90° 90° 30° 30° 30° 30° 30° 30° 30° 30° 30° 3	
Peak intensity LEDs/each optic Light colour Required components:	94 % 47 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	90° 90° 90° 90° 50° 50° 50° 50° 50° 50°	
Peak intensity LEDs/each optic Light colour Required components: seour semiconductor	94 % 47 cd/lm 1 White	AGUE & we write to	Detector Deage: Radiant Extension		
Peak intensity LEDs/each optic Light colour Required components: scout semiconductor LED	94 % 47 cd/lm 1 White Z8Y50P	AGUE & we write to	Detector Deage: Radiant Extension		
Peak intensity LEDs/each optic Light colour Required components: seoul semiconductor LED FWHM / FWTM	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0°	AGUE & we write to	Detector Deage: Radiant Extension	90*	to 15"
Peak intensity LEDs/each optic Light colour Required components: seous sewconductor LED FWHM / FWTM Efficiency	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 %	AGUE & we write to	Detector Deage: Radiant Extension	90*	to 15"
Peak intensity LEDs/each optic Light colour Required components: seous semiconporter LED FWHM / FWTM Efficiency Peak intensity	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm	AGUE & we write to	Detector Deage: Radiant Extension	90*	
Peak intensity LEDs/each optic Light colour Required components: SEOULSEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	60° 33°	
Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm	AGUE & we write to	Detector Deage: Radiant Extension	90* 92* 92*	
Peak intensity LEDs/each optic Light colour Required components: SEOULSEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	90 <sup>4</sup>	
Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	90* 92* 92*	
Peak intensity LEDs/each optic Light colour Required components: SEOUL SEMICONDUCTOR LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	94 % 47 cd/lm 1 White Z8Y50P 14.0° / 26.0° 97 % 13.3 cd/lm 1	AGUE & we write to	Detector Deage: Radiant Extension	90* 92* 92*	



# PRODUCT DATASHEET FCN13552\_CRYSTAL-RS

#### **GENERAL INFORMATION:**

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

#### MATERIALS:

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

#### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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#### LEDiL Oy

Joensuunkatu 13 FI-24240 SALO Finland

#### LEDiL Inc. 228 West Page Street Suite D Sycamore IL 60178 USA

Ledil Optics Technology (Shenzhen) Co., Ltd. # 405 , Block B Casic Motor Building Shenzhen 518057 P.R.CHINA

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