

# PRODUCT DATASHEET FCP15705\_FLORENTINA-2X2-MRK-M

# FLORENTINA-2X2-MRK-M

 ${\sim}40^\circ$  medium beam. Compatible with ultra high power LEDs.

#### **SPECIFICATION:**

Dimensions	89.7 x 89.7 mm
Height	17.7 mm
Fastening	pin, screw
ROHS compliant	yes 🛈



### **MATERIALS:**

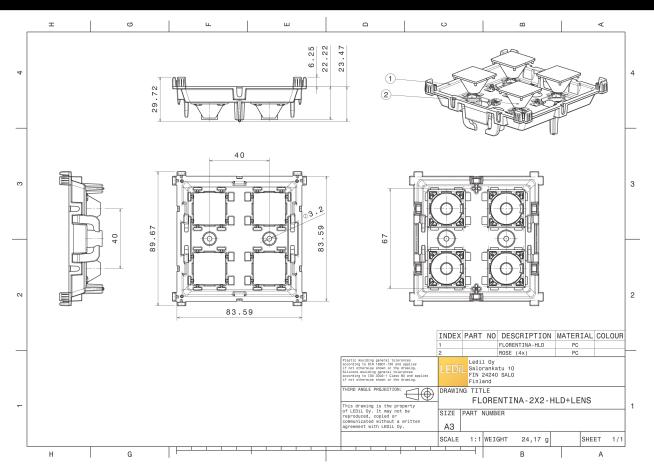
Component	Туре	Material	Colour	Finish
ROSE-MRK-M	Single lens	PC	clear	
FLORENTINA-2X2-HLD	Holder	PC	black	

## **ORDERING INFORMATION:**

Component		Qty in box	MOQ	MPQ	Box weight (kg)
FCP15705_FLORENTINA-2X2-MRK-M	Single lens	88	24	8	4.2
» Box size: 476 x 273 x 292 mm					

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



	D	50 <sup>4</sup>
LED	XHP35 HD	
FWHM / FWTM	39.0° / 64.0°	
Efficiency	79 %	
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	
Light colour	White	gi a
Required compone	ents:	
C14734_FLORI	ENTINA-2X2-SHD	
		20 <sup>4</sup> 20 <sup>4</sup> 0 <sup>5</sup> 10 <sup>4</sup> 20
	D	294
LED	XHP35 HD	
FWHM / FWTM	39.0° / 64.0°	
Efficiency	79 %	
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	
Light colour	White	gr a
Required compone	ents:	
C15196_FLORI	ENTINA-2X2-SHD-OPEN	
		30 <sup>16</sup> 10 <sup>16</sup> 10 <sup>16</sup>
	D	24
LED	XHP35 HD	
FWHM / FWTM	39.0° / 65.0°	
Efficiency	82 %	
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	
Light colour	White	g" a
Required compone	ents:	
C14960_FLORI	ENTINA-2X2-SHD-WHT	
		100
		30 <sup>4</sup> 20 <sup>7</sup> 0 <sup>7</sup> 20 <sup>2</sup>
	D	
LED	XHP50	
FWHM / FWTM	41.0° / 66.0°	37
Efficiency	76 %	
Peak intensity	1.4 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required compone	ents:	
C15196_FLORI	ENTINA-2X2-SHD-OPEN	
		»» / ×
		159 00 159



	ס		90*	90*
LED	XHP50			
FWHM / FWTM	41.0° / 67.0°		75'	1 1 2"
Efficiency	80 %		400	K/X
Peak intensity	1.4 cd/lm		60.5	60
LEDs/each optic	1			
Light colour	White		45*	45
Required compone				
	ENTINA-2X2-SHD-WHT			
			1200	
			 30° 15° 0°	15* 30
	D		90*	90*
LED	XHP50			
FWHM / FWTM	41.0° / 66.0°		$\sim$	1 To
Efficiency	76 %		60° 400	$1 \times 1$
Peak intensity	1.4 cd/lm		$r \times / / /$	$X \land X$
LEDs/each optic	1			KX
Light colour	White		47°	45
Required compone	ents:			
C14734_FLORE	ENTINA-2X2-SHD		1200	A
			30°	36
	0			
			»»*	90'
LED	XHP70		30°	90
LED FWHM / FWTM	XHP70 48.0° / 73.0°		90* 75	99
LED FWHM / FWTM Efficiency	XHP70 48.0° / 73.0° 77 %		50 <sup>+</sup>	99
LED FWHM / FWTM Efficiency Peak intensity	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm		90* 90* 90*	99 73 80
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1		90* 90* 90* 90* 90*	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White		90* 75 90 90 90 90 90 90 90 90 90 90 90 90 90	23
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents:		g* 000	99
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White		64. 00 22. 00 24. 00	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents:		60° 00° 00°	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents:		20° 20° 00° 00° 00° 10° 10° 10° 10° 1	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT		20° 20° 20° 20° 20° 20° 20° 20° 20° 20°	90 52 52 60 60 60 60 60 60 60 60 60 60 60 60 60
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT		50 <sup>+</sup>	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT		25 20 20 20 20 20 20 20 20 20 20 20 20 20	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT		25 26 26 26 26 26 26 26 27 26 26 26 26 26 26 26 26 26 26 26 26 26	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0°		80	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0° 69 %		90 <sup>4</sup> 90 <sup>4</sup> 9	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0° 69 % 1.2 cd/lm		8. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0° 69 % 1.2 cd/lm 1 White		82. 84. 90. 90. 90. 90. 90. 90. 90. 90	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0° 69 % 1.2 cd/lm 1 White ents:		82 80 90 90 90 90 90 90 90 90 90 9	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0° 69 % 1.2 cd/lm 1 White		62 66 63 10 10 10 10 10 10 10 10 10 10	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14960_FLORE	XHP70 48.0° / 73.0° 77 % 1.3 cd/lm 1 White ents: ENTINA-2X2-SHD-WHT XHP70 48.0° / 71.0° 69 % 1.2 cd/lm 1 White ents:		54 55 55 55 55 55 55 55 55 55 55 55 55 5	



IED       XHP70         FWHM / FWTM       48.0° / 71.0°         Efficiency       70 %         Peak intensity       1.2 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       C15196_FLORENTINA-2X2-SHD-OPEN         Image: Close	
FWHM / FWTM       48.0° / 71.0°         Efficiency       70 %         Peak intensity       1.2 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       C15196_FLORENTINA-2X2-SHD-OPEN         C15196_FLORENTINA-2X2-SHD-OPEN       ************************************	2
Efficiency 70 % Peak intensity 1.2 cd/lm LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN	
Peak intensity 1.2 cd/lm LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN	c
LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN	e
Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X	e
Required components: C15196_FLORENTINA-2X2-SHD-OPEN	e
C15196_FLORENTINA-2X2-SHD-OPEN	
Solumileds	AX
	A
	1
	12.
	91
LED LUXEON M/MX	H
FWHM / FWTM 41.0° / 66.0°	~ 7
Efficiency 74 %	$\langle / \rangle^{\epsilon}$
Peak intensity 1.4 cd/lm	
LEDs/each optic 1	$X \setminus$
Light colour White	
Required components:	
C15196_FLORENTINA-2X2-SHD-OPEN	
30'	15°
S LUMILEDS	
LED LUXEON M/MX	1
FWHM / FWTM 42.0° / 66.0°	7
Efficiency 79 %	$\langle / \rangle^{\epsilon}$
Peak intensity 1.4 cd/lm	
LEDs/each optic 1	$X \setminus$
Light colour White	
Required components:	
	H
Required components:	H
Required components:	157 36
Required components:	
Required components: C14960_FLORENTINA-2X2-SHD-WHT	30
Required components: C14960_FLORENTINA-2X2-SHD-WHT	107 X
Required components: C14960_FLORENTINA-2X2-SHD-WHT	
Required components: C14960_FLORENTINA-2X2-SHD-WHT	25° 3
Required components: C14960_FLORENTINA-2X2-SHD-WHT	35 3
Required components: C14960_FLORENTINA-2X2-SHD-WHT	
Required components: C14960_FLORENTINA-2X2-SHD-WHT	9
Required components: C14960_FLORENTINA-2X2-SHD-WHT  C14960_FLORENTINA-2X2-SHD-WHT  C14960_FLORENTINA-2X2-SHD-WHT  C14960_FLORENTINA-2X2-SHD-WHT  LED LUXEON M/MX FWHM / FWTM 43.0° / 72.0° Efficiency 82 % Peak intensity 1.4 cd/lm LEDs/each optic 1 Light colour White Required components:	9
Required components: C14960_FLORENTINA-2X2-SHD-WHT           Image: Classical conduction of the second conduction of the se	



	FDS	30 <sup>+</sup>
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON M/MX 42.0° / 66.0° 74 % 1.4 cd/lm 1 White	
	EDS	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON MZ 33.0° / 56.0° 81 % 2.2 cd/lm 1 White	
	FDS	
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required compone C14734_FLORE	LUXEON MZ 33.0° / 56.0° 78 % 2.2 cd/lm 1 White ents: ENTINA-2X2-SHD	
🕐 LUMIL	.EDS	90° 90'
LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	LUXEON MZ 33.0° / 56.0° 77 % 2.2 cd/lm 1 White	



CSERMAN         LED       OSCONIQ P 7070         FWHM / FWTM       400' / 65.0'         Efficiency       70 %         Peak intensity       1.5 cd/m         LEDs/each optic       1         Light colour       White         Required components:       C14734_FLORENTINA-2X2-SHD         CHARMANEMIN       LEDs/each optic         LED OSCONIQ P 7070         FWHM / FWTM       40.0' / 65.0'         Efficiency       71 %         Peak intensity       1.5 cd/m         LEDs/each optic       1         Light colour       White         Required components:       C15196_FLORENTINA-2X2-SHD-OPEN         C15196_FLORENTINA-2X2-SHD-OPEN       Image: C15196_FLORENTINA-2X2-SHD-OPEN         CSERAM       LED OSCONIQ P 7070         FWHM / FWTM       40.0' / 65.0'         Efficiency       75 %         Peak intensity       1.5 cd/m         LED OSCONIQ P 7070         FWHM / FWTM       40.0' / 65.0'         Efficiency       75 %         Peak intensity       1.5 cd/m         LEDs/each optic       1         Light colour       White         Required components:       1         C149			
OSRAM Optimismutation         LED       OSCONIQ P 7070         FWHM / FWTM       40.0° / 65.0°         Efficiency       71 %         Peak intensity       1.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       C15196_FLORENTINA-2X2-SHD-OPEN         OSCAM Optimismutators       0         LED       OSCONIQ P 7070         FWHM / FWTM       40.0° / 65.0°         Efficiency       75 %         Peak intensity       1.5 cd/lm         LEDs/seach optic       1         Light colour       White         Required components:       0         Clocure       0         LED       OSCONIQ P 7070         FWHM / FWTM       40.0° / 65.0°         Efficiency       75 %         Peak intensity       1.5 cd/lm         LEDs/seach optic       1         Light colour       White         Required components:       0	LED FWHM / FWTM Efficiency Peak intensity LEDs/each optic Light colour Required component	40.0° / 65.0° 70 % 1.5 cd/lm 1 White ents:	
optisemicandators         LED       OSCONIQ P 7070         FWHM / FWTM       40.0° / 65.0°         Efficiency       71 %         Peak intensity       1.5 cd/m         LEDs/each optic       1         Light colour       White         Required components:       C15196_FLORENTINA-2X2-SHD-OPEN         C15196_FLORENTINA-2X2-SHD-OPEN       ####################################	000000		304 <u>155</u> <u>150</u> 157
FWHM / FWTM 40.0° / 65.0° Efficiency 71 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN	OSRAM Opto Semiconductors		80*
Efficiency 71 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN COSCONIQ P 7070 FWHM / FWTM 40.0° / 65.0° Efficiency 75 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components:	LED	OSCONIQ P 7070	37
Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN OSERAM OVE Semiconductors LED OSCONIQ P 7070 FWHM / FWTM 40.0° / 65.0° Efficiency 75 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components:	FWHM / FWTM	40.0° / 65.0°	
LEDs/each optic 1 Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLOREN			
Light colour White Required components: C15196_FLORENTINA-2X2-SHD-OPEN C15196_FLORENTINA-2X2-SHD-OPEN		1.5 cd/lm	
Required components: C15196_FLORENTINA-2X2-SHD-OPEN OSRAM Opto Semiconductors LED OSCONIQ P 7070 FWHM / FWTM 40.0° / 65.0° Efficiency 75 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components:			
C15196_FLORENTINA-2X2-SHD-OPEN			
Opto Stemiconductors         LED       OSCONIQ P 7070         FWHM / FWTM       40.0° / 65.0°         Efficiency       75 %         Peak intensity       1.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       ***			
LED OSCONIQ P 7070 FWHM / FWTM 40.0° / 65.0° Efficiency 75 % Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components:			90°
FWHM / FWTM       40.0° / 65.0°         Efficiency       75 %         Peak intensity       1.5 cd/lm         LEDs/each optic       1         Light colour       White         Required components:       **	-	OSCONIQ P 7070	
Peak intensity 1.5 cd/lm LEDs/each optic 1 Light colour White Required components:			77
LEDs/each optic 1 Light colour White Required components:	Efficiency	75 %	
Light colour White Required components:	Peak intensity	1.5 cd/lm	
Required components:	LEDs/each optic	1	
			gr A
200			



# **OPTICAL RESULTS (SIMULATED):**

	DS	90*
LED	LUXEON 7070	
FWHM / FWTM	42.0° / 71.0°	
Efficiency	64 %	
Peak intensity	1.1 cd/lm	
LEDs/each optic	1	
Light colour	White	
Required component	s:	
C14734_FLOREN	TINA-2X2-SHD	
		34
		339 <u>3300</u> 137
<b>Μ</b> ΝΙCΗΙΛ		94 <sup>*</sup>
LED	NV4x144A	
FWHM / FWTM	42.0° / 72.0°	
Efficiency	76 %	50 <sup>2</sup>
Peak intensity	1.4 cd/lm	$[ \times / ] \rightarrow $
LEDs/each optic	1	
Light colour	White	
Required component		
C14734_FLOREN	TINA-2X2-SHD	
		and the second se
OSRAM		
Opto Semiconductors	Duris S8	
FWHM / FWTM	39.0° / 70.0°	
Efficiency	76 %	
Peak intensity	1.5 cd/lm	90
LEDs/each optic	1	
Light colour	White	¢
Required component		
C14734_FLOREN		
	-	
		30 <sup>9</sup> 25 <sup>5</sup> 2600 25 <sup>5</sup>



#### **GENERAL INFORMATION:**

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

#### **MATERIALS:**

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

#### PRODUCT DATA USER AGREEMENT AND DISCLAIMER:

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

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#### LEDiL Oy

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