

# HB-2X2MXS-M

~30° wide beam

## **TECHNICAL SPECIFICATIONS:**

Dimensions	90.0 x 90.0 mm
Height	18 mm
Fastening	screw
Ingress protection classes	IP67
ROHS compliant	yes 🛈



# MATERIAL SPECIFICATIONS:

Component	Туре	Material	Colour	Finish
HB-2X2MXS-M	Multi-lens	Silicone	clear	
STRADA-2X2MXS-FRAME	Holder	PA66	black	

#### **ORDERING INFORMATION:**

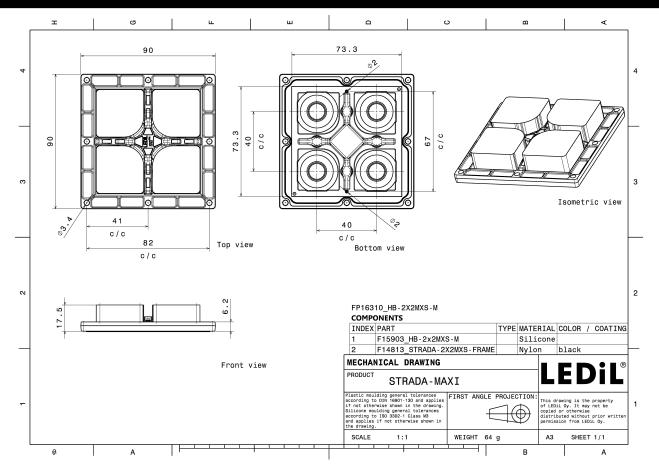
Component		Qty in box	MOQ	MPQ	Box weight (kg)
FP16310_HB-2X2MXS-M	Multi-lens	156	24	12	10.5
» Box size: 398 x 298 x 265 mm					

# Last update: 20/12/2018Subject to change without prior noticePublished: 15/11/2018LEDiL is a registered trademark of LEDiL Oy in the European Union, USA, and certain other countries.1/6

# PRODUCT DATASHEET FP16310\_HB-2X2MXS-M

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



# PHOTOMETRIC DATA (MEASURED):

-		
MUMIL 🥙	EDS	95* 50*
LED	LUXEON M/MX	
FWHM / FWTM	34.0° / 72.0°	27
Efficiency	91 %	50 <sup>1</sup>
Peak intensity	1.7 cd/lm	
LEDs/each optic	1	
Light colour	White	¢, ø.
Required compone	ints:	
		$\times$ $\wedge$ $\times$
		1600
		300 207 00 207
<b>S</b> ΛΜSI	INC	
		50* 50*
LED	HiLOM SC16 (LH181B)	77
FWHM / FWTM	32.0° / 72.0°	
Efficiency	89 %	
Peak intensity	1.7 cd/lm	
LEDs/each optic	1 White	
Light colour Required compone		
	115.	
		30° 0° 15° 0° 36°



# PHOTOMETRIC DATA (SIMULATED):

CITIZEN   LED CLU700/701/702   FWHM / FWTM 29.0° / 61.0°   Efficiency 88 %   Peak intensity 2.2 cd/m   LEDs/each optic 1   Light colour White   Required components: Bender Wirth: 434 Typ 2x2MX HV   ETCREE \$ MHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/m   LED components: 1   Light colour White   Required components: 1   Uight colour White   Required components: 1   LED XHP35 HI   FWHM / FWTM 20.0° / 46.0°   Efficiency 86 %	32° 32° 96° 96°
FWHM / FWTM 29.0° / 61.0°   Efficiency 88 %   Peak intensity 2.2 cd/lm   LEDs/each optic 1   Light colour White   Required components: Bender Wirth: 434 Typ 2x2MX HV   CREEE  HHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: Image: Components:   White Image: Components:   LED XHP35 HI   FWHM / FWTM 20.0° / 46.0°	
Efficiency 88 % Peak intensity 2.2 cd/lm LEDs/each optic 1 Light colour White Required components: Bender Wirth: 434 Typ 2x2MX HV CREE LED MHB-A/B FWHM / FWTM 24.0° / 57.0° Efficiency 90 % Peak intensity 2.7 cd/lm LEDs/each optic 1 Light colour White Required components: EED XHP35 HI FWHM / FWTM 20.0° / 46.0°	
Peak intensity 2.2 cd/lm LEDs/each optic 1 Light colour White Required components: Bender Wirth: 434 Typ 2x2MX HV CREEE LED MHB-A/B FWHM / FWTM 24.0° / 57.0° Efficiency 90 % Peak intensity 2.7 cd/lm LEDs/each optic 1 Light colour White Required components: ERCEE LED KHP35 HI FWHM / FWTM 20.0° / 46.0°	34
LEDs/each optic 1 Light colour White Required components: Bender Wirth: 434 Typ 2x2MX HV CREEE LED MHB-A/B FWHM / FWTM 24.0° / 57.0° Efficiency 90 % Peak intensity 2.7 cd/Im LEDs/each optic 1 Light colour White Required components: CREEE LED XHP35 HI FWHM / FWTM 20.0° / 46.0°	34
Light colour White Required components: Bender Wirth: 434 Typ 2x2MX HV CREEE LED MHB-A/B FWHM / FWTM 24.0° / 57.0° Efficiency 90 % Peak intensity 2.7 cd/lm LEDs/each optic 1 Light colour White Required components: CREEE LED XHP35 HI FWHM / FWTM 20.0° / 46.0°	34
Required components: Bender Wirth: 434 Typ 2x2MX HV   CREEE \$ Image: Component is iteration is a second in the image: Component is a second in	34
Bender Wirth: 434 Typ 2x2MX HV	
CREEE \$   LED MHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: Image: Creee \$   LED XHP35 HI   FWHM / FWTM 20.0° / 46.0°	
CREE \$   LED MHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: Image: CREE \$   CREE \$ XHP35 HI   FWHM / FWTM 20.0° / 46.0°	
CREE \$   LED MHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: 0   CREE \$ XHP35 HI   FWHM / FWTM 20.0° / 46.0°	
CREE \$   LED MHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: 0   CREE \$ XHP35 HI   FWHM / FWTM 20.0° / 46.0°	90 <sup>+</sup>
LED MHB-A/B   FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: Vhite   CREEE \$ XHP35 HI   FWHM / FWTM 20.0° / 46.0°	20+
FWHM / FWTM 24.0° / 57.0°   Efficiency 90 %   Peak intensity 2.7 cd/lm   LEDs/each optic 1   Light colour White   Required components: Image: CREE Image: CRE	*
Efficiency 90 %   Peak intensity 2.7 cd/m   LEDs/each optic 1   Light colour White   Required components: Vertice   CREE  XHP35 HI   FWHM / FWTM 20.0° / 46.0°	
Peak intensity 2.7 cd/m   LEDs/each optic 1   Light colour White   Required components: ************************************	
LEDs/each optic 1 Light colour White Required components: CREE LED XHP35 HI FWHM / FWTM 20.0° / 46.0°	600
Light colour Required components:	
Required components:	
CREE \$   100 mm s = 100 mm s	45°
CREE \$   ************************************	
CREE \$   ************************************	
LED XHP35 HI FWHM / FWTM 20.0° / 46.0°	
LED XHP35 HI FWHM / FWTM 20.0° / 46.0°	30°
LED XHP35 HI FWHM / FWTM 20.0° / 46.0°	B*
FWHM / FWTM 20.0° / 46.0°	90*
FWHM / FWTM 20.0° / 46.0°	75"
Efficiency 86 %	
	60
Peak intensity 3.4 cd/lm	
LEDs/each optic 1	
Light colour White	45*
Required components:	
30 47	15°
CREE 🗧	
	90*
LED XHP50	25'
FWHM / FWTM 26.4° / 61.7°	
Efficiency 92 %	
Peak intensity 2.4 cd/lm	60*
LEDs/each optic 1	
Light colour White	64°
Required components:	69*
	60*
	er.
20 <sup>2</sup> 42 <sup>2</sup>	



# PHOTOMETRIC DATA (SIMULATED):

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LED	NFMW48xA	
FWHM / FWTM	24.0° / 54.0°	
Efficiency	90 %	60°
Peak intensity	2.8 cd/lm	
LEDs/each optic	1	
Light colour	White	45 <sup>2</sup> 65 <sup>4</sup>
Required components:		2007
<b>MNICHIA</b>		90*
LED	NV4WB35AM	
FWHM / FWTM	24.0° / 60.0°	73.
Efficiency	95 %	60° 60°
Peak intensity	2.8 cd/lm	
LEDs/each optic	1	
Light colour	White	45 <sup>2</sup> 65 <sup>4</sup>
Required components:		307 3 <sup>10</sup> 27 0 <sup>1</sup> 17 3 <sup>1</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.

Due to use of high power COB's with this product, special attention to proper thermal design is highly recommended. LEDiL has no liability for direct, indirect or consecutive damages arising from the LEDiL products being used outside of the recommended temperature range.

#### **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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