

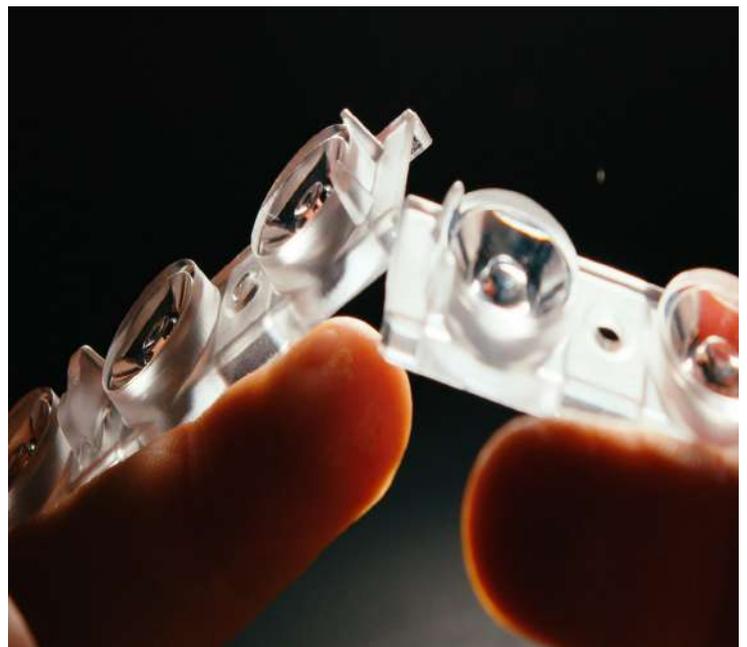
Product Family: **VENUS**

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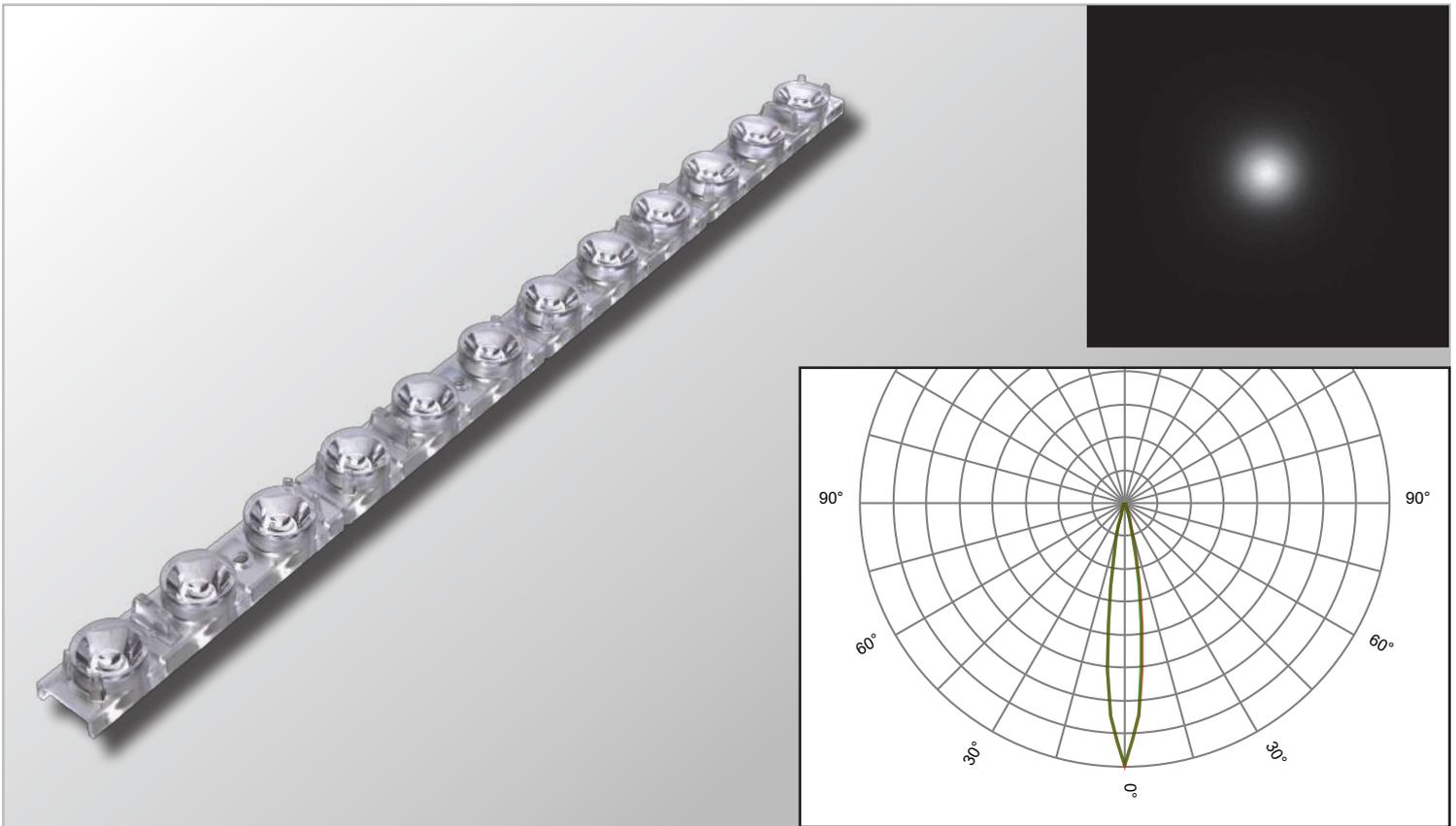
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Linear optical system for Mid-Power LEDs. Pitch: 24.58mm, dimensions: 295.05mm x 16.04mm side. Arranged in modules of 3 optics each, adjustable in size thanks to thinner interruption points each module. Made of optical grade PMMA.

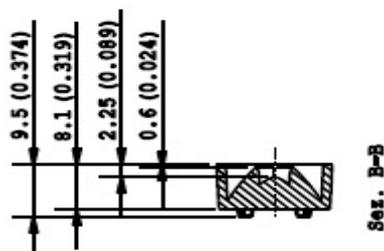
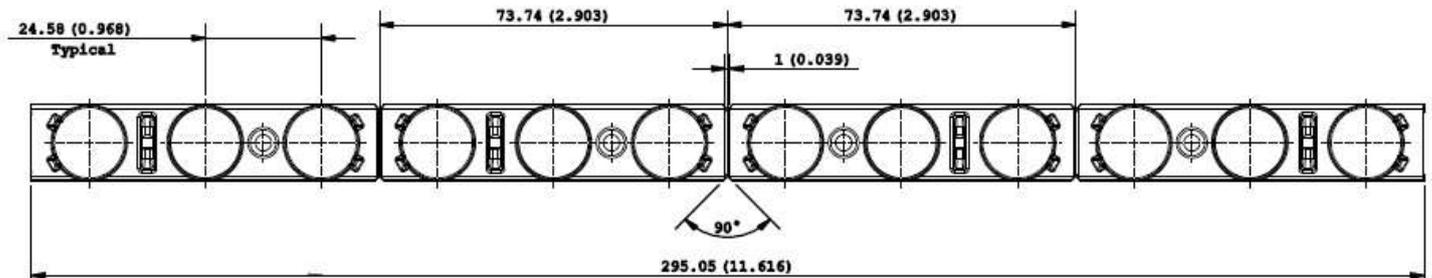
Beam angles: Narrow, Medium, Elliptical.



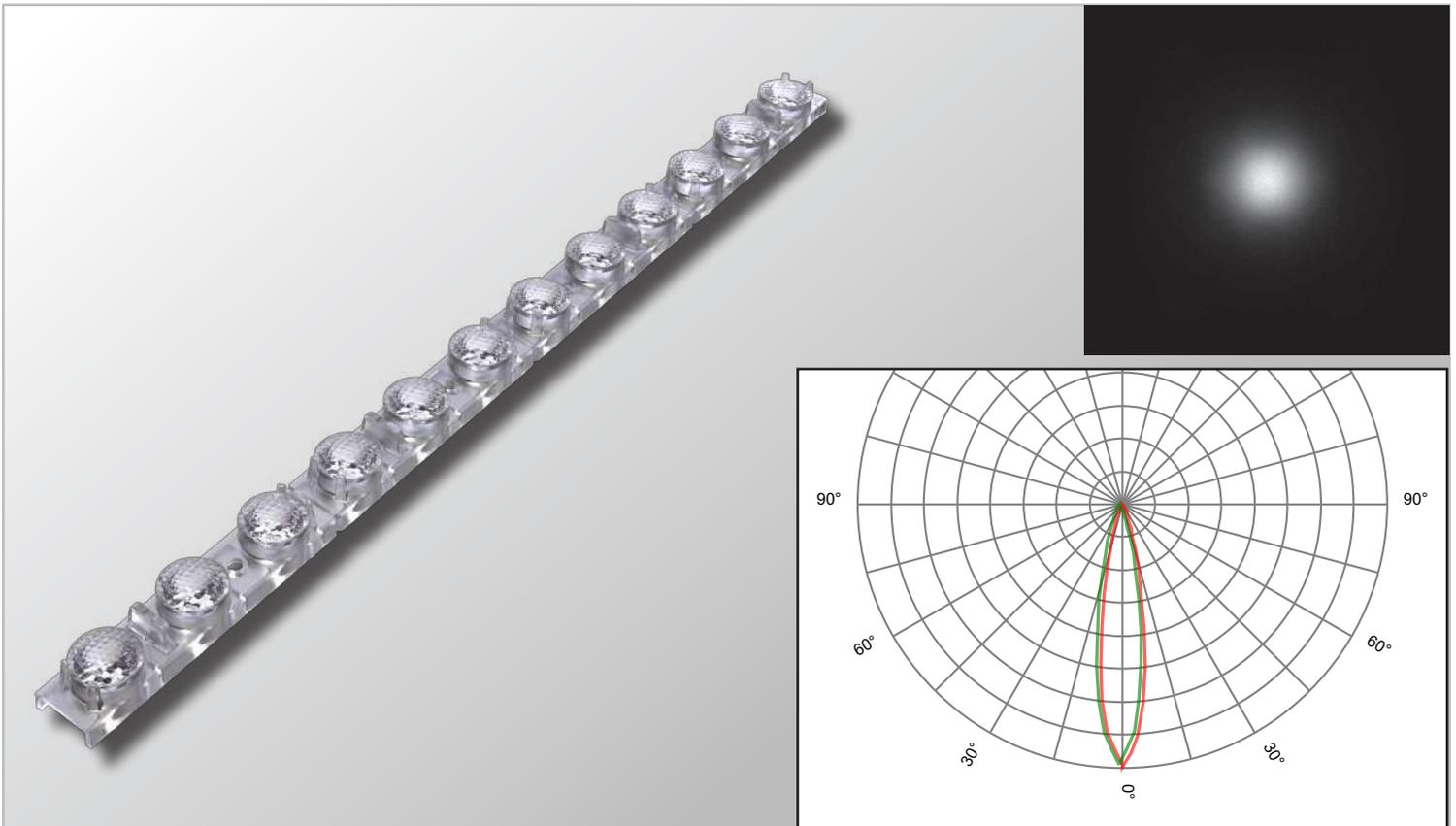
VENUS/NA - Narrow Beam



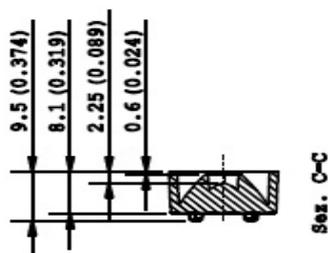
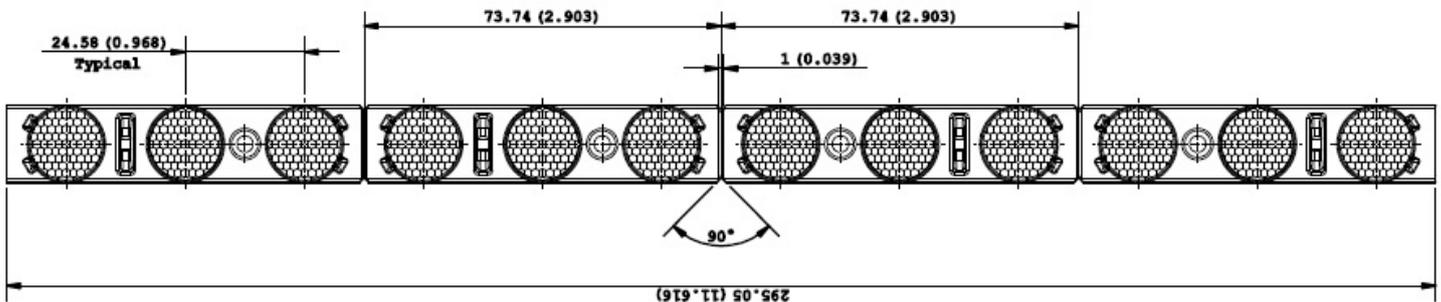
Dimensions	Type of fixing	Material	Beams	LED
295.05mm x 16.04mm side - 9.50mm height	Screw Fixing: Assembly with 4 pcs of M3 screws	PMMA	<ul style="list-style-type: none"> Full angle at 50% from maximum: ~ 15° Full angle at 10% from maximum: ~ 31° 	12 mid-power 3030 LEDs, ~ 135 Lumen each



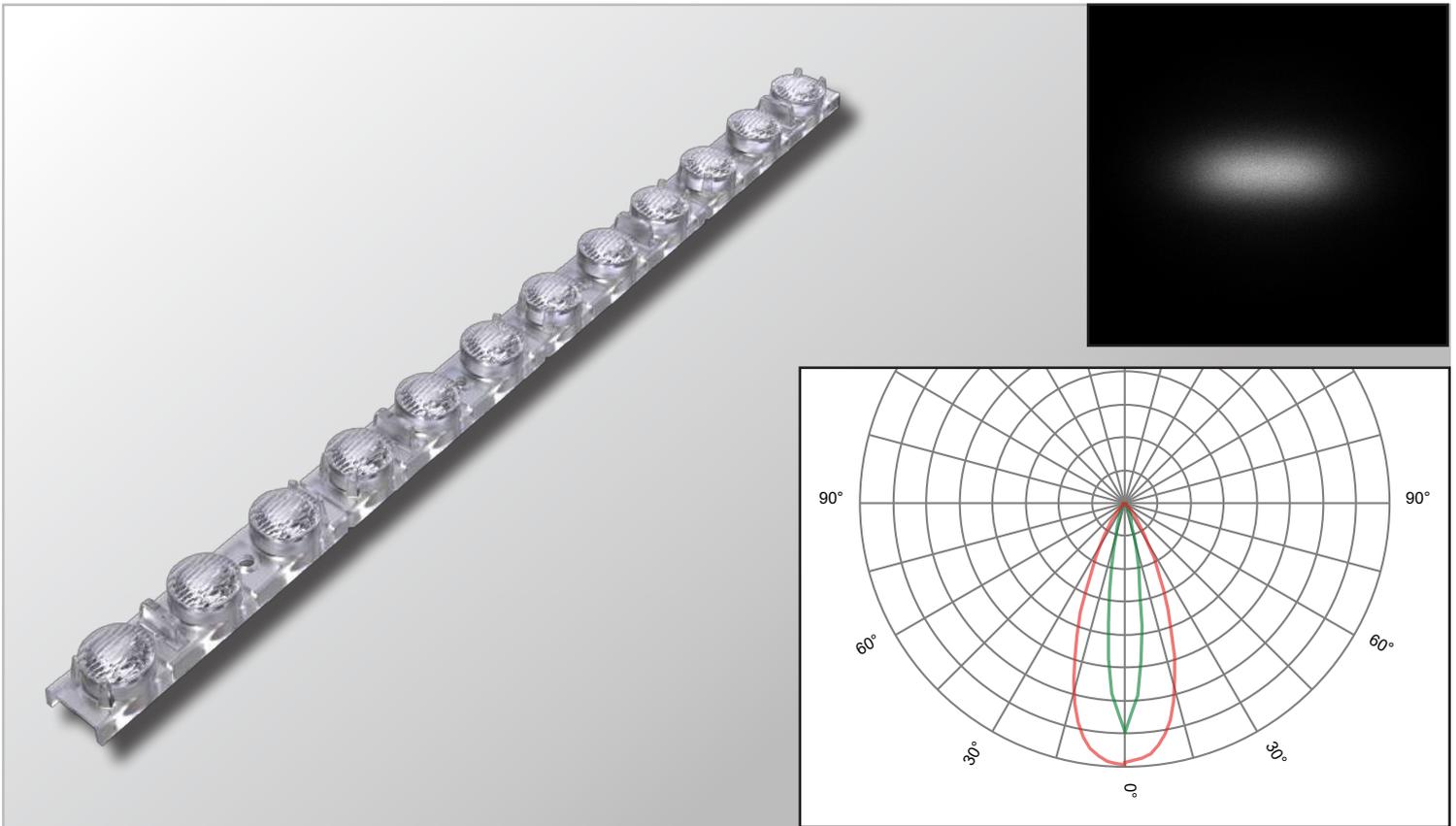
VENUS/ME - Medium Beam



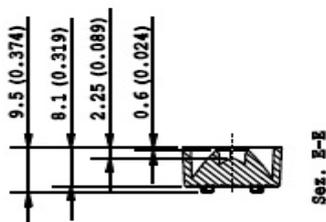
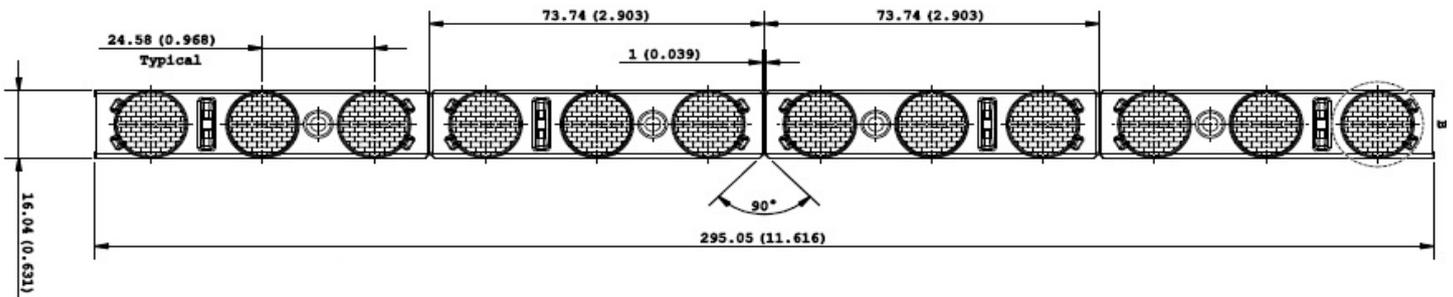
Dimensions	Type of fixing	Material	Beams	LED
295.05mm x 16.04mm side - 9.50mm height	Screw Fixing: Assembly with 4 pcs of M3 screws	PMMA	<ul style="list-style-type: none"> Full angle at 50% from maximum: ~ 20° Full angle at 10% from maximum: ~ 40° 	12 mid-power 3030 LEDs, ~ 135 Lumen each



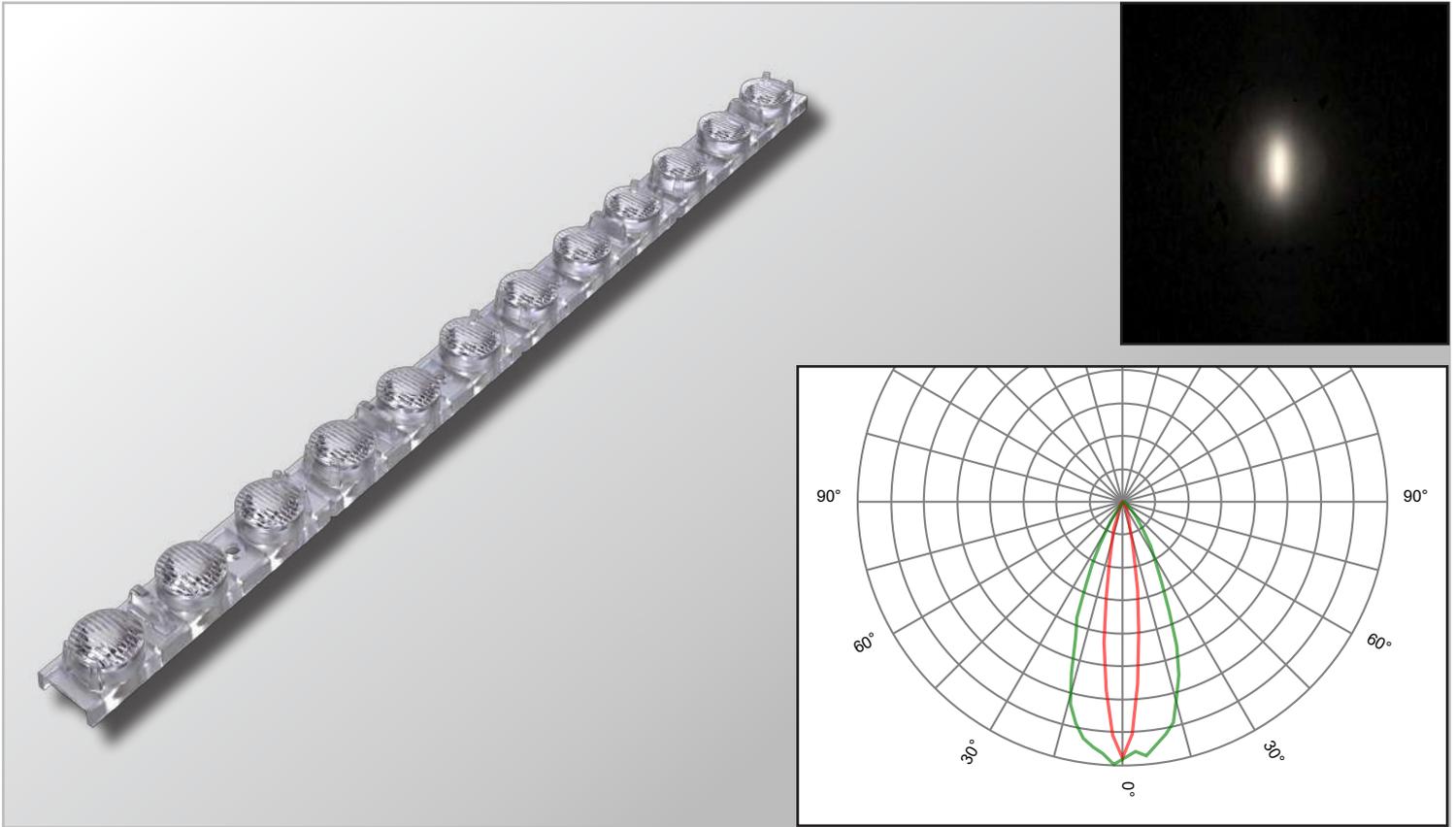
VENUS/EL - Elliptical Beam



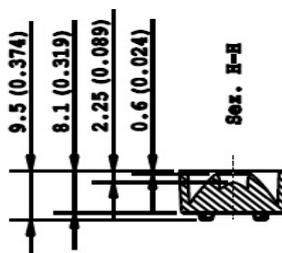
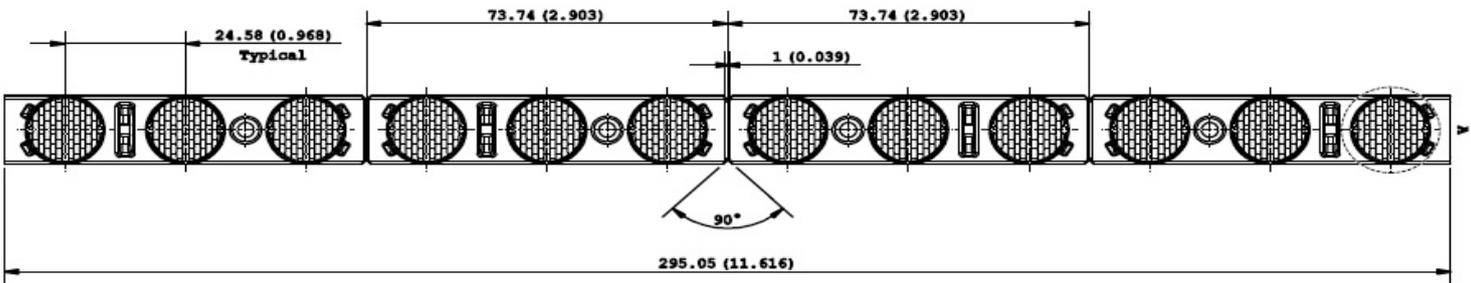
Dimensions	Type of fixing	Material	Beams	LED
295.05mm x 16.04mm side - 9.50mm height	Screw Fixing: Assembly with 4 pcs of M3 screws	PMMA	<ul style="list-style-type: none"> Full angle at 50% from maximum: ~ 30° Full angle at 10% from maximum: ~ 53° 	12 mid-power 3030 LEDs, ~ 135 Lumen each



VENUS/EL90 - Elliptical Beam

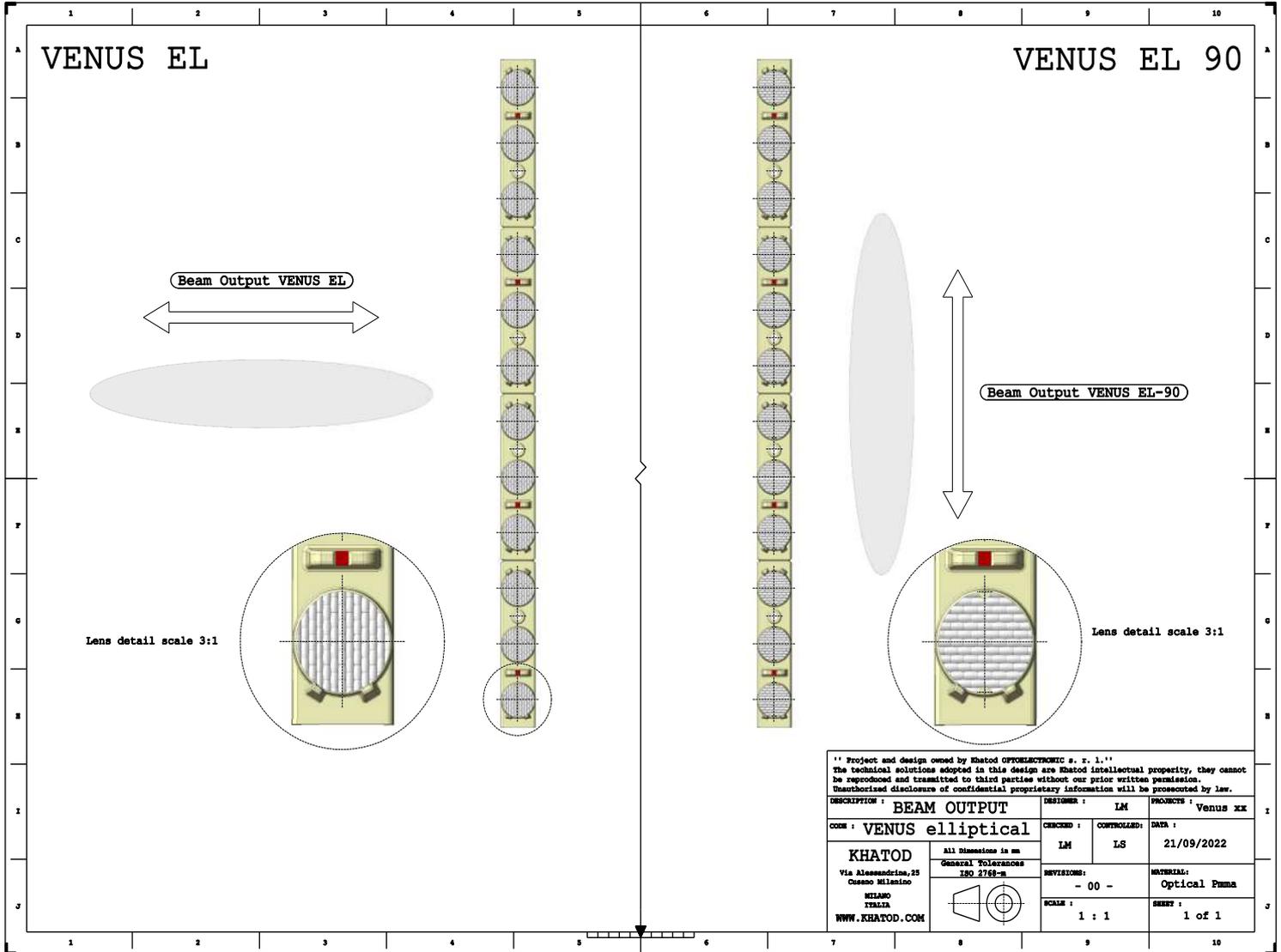


Dimensions	Type of fixing	Material	Beams	LED
295.05mm x 16.04mm side - 9.50mm height	Screw Fixing: Assembly with 4 pcs of M3 screws	PMMA	<ul style="list-style-type: none"> Full angle at 50% from maximum: ~ 30° Full angle at 10% from maximum: ~ 53° 	12 mid-power 3030 LEDs, ~ 135 Lumen each



Technical Datasheet

Venus Elliptical Output



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DESCRIPTION : BEAM OUTPUT		DESIGNER : LM	PROJECT : Venus XX
CODE : VENUS elliptical		CHECKED : LM	CONTROLLED : LS
DATE : 21/09/2022		REVISIONS : - 00 -	
MATERIAL : Optical Fibra		SCALE : 1 : 1	SHEET : 1 of 1

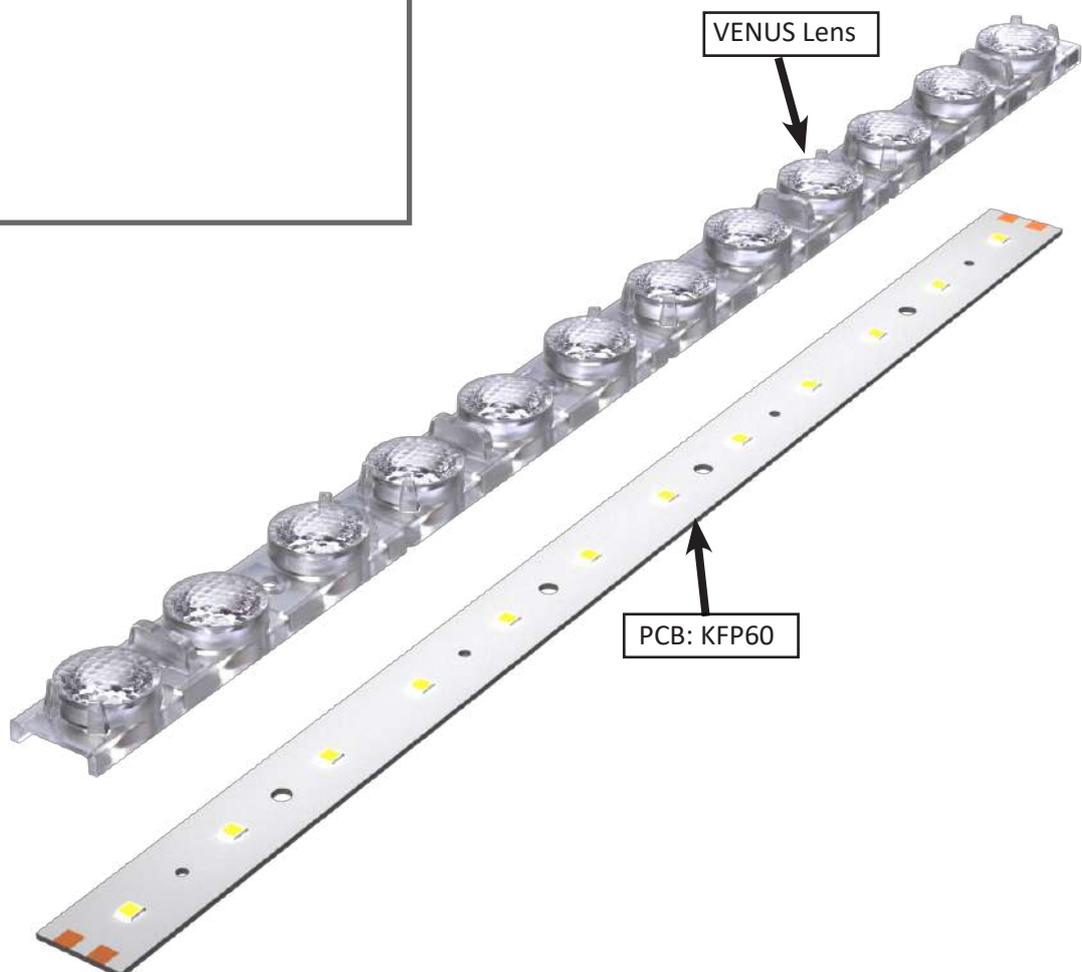
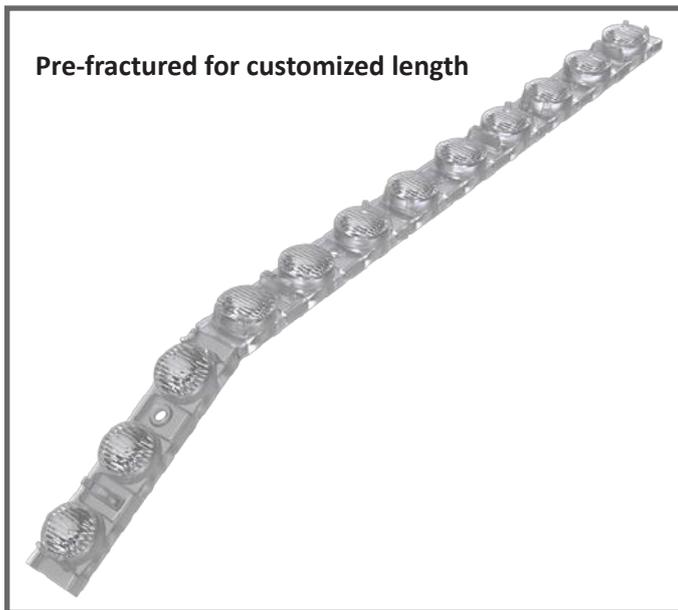
KHATOD
 Via Alessandro, 25
 Cusano Milanese
 MILANO
 ITALIA
 WWW.KHATOD.COM

All dimensions in mm
 General Tolerances
 ISO 2768-M

Sample Kit - KITVENUS

Sample Kit available with:

- VENUS/NA – Narrow Beam. 1 piece
- VENUS/ME – Medium Beam. 1 piece
- VENUS/EL – Elliptical Beam. 1 piece
- VENUS/EL90 – Elliptical Beam. 1 piece
- KFP60 – LED module with 12 SAMSUNG LM302D LEDs (only for testing purposes). 1 piece
- Packaging Cardboard: Size (L*W*H) 30*20*10 cm



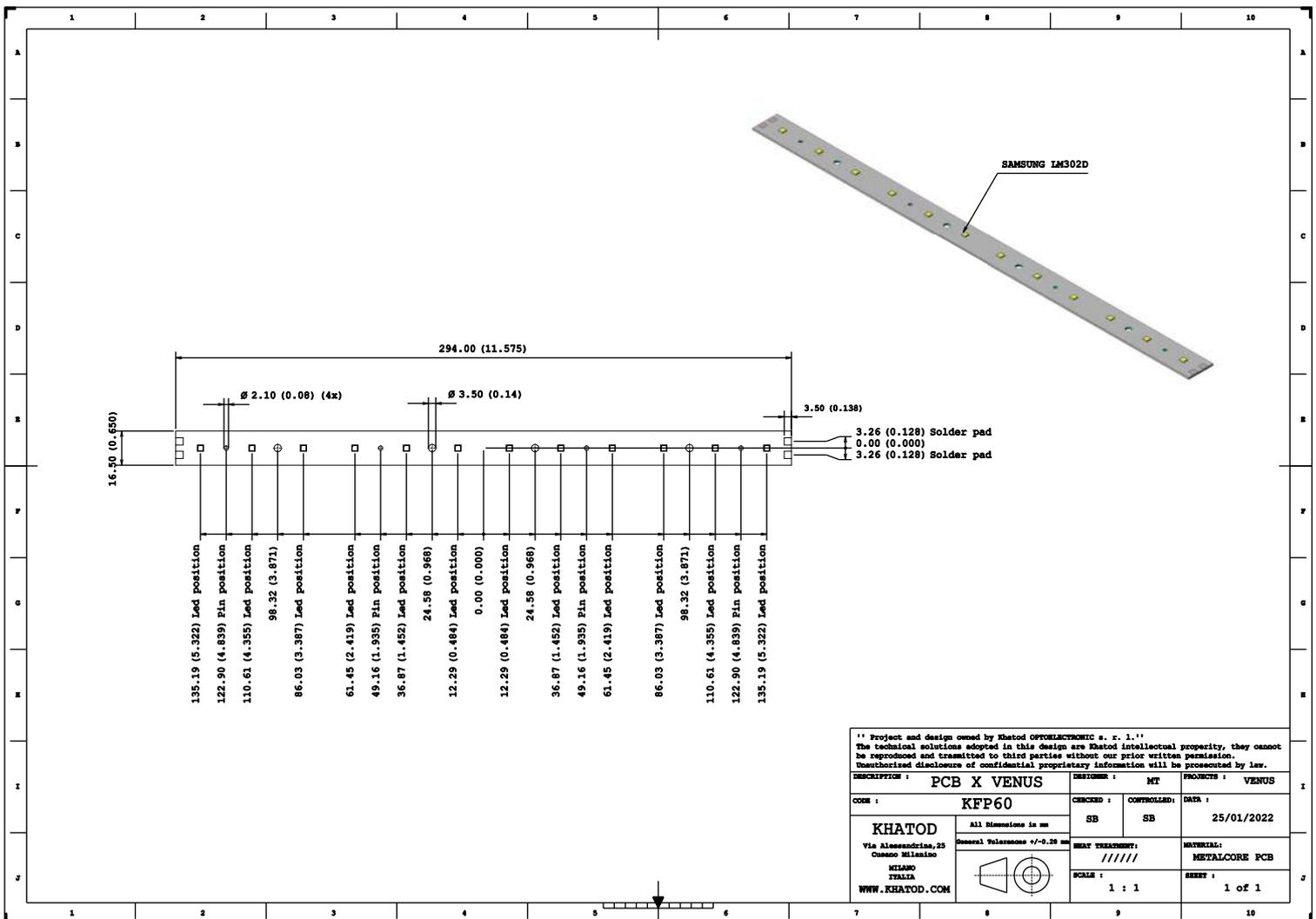
KFP60 - PCB for Testing

To make Venus lenses testing easier for the customers, Khatod has created a ready-to-use PCB: KFP60. PCB diagrams and photos are shown below.

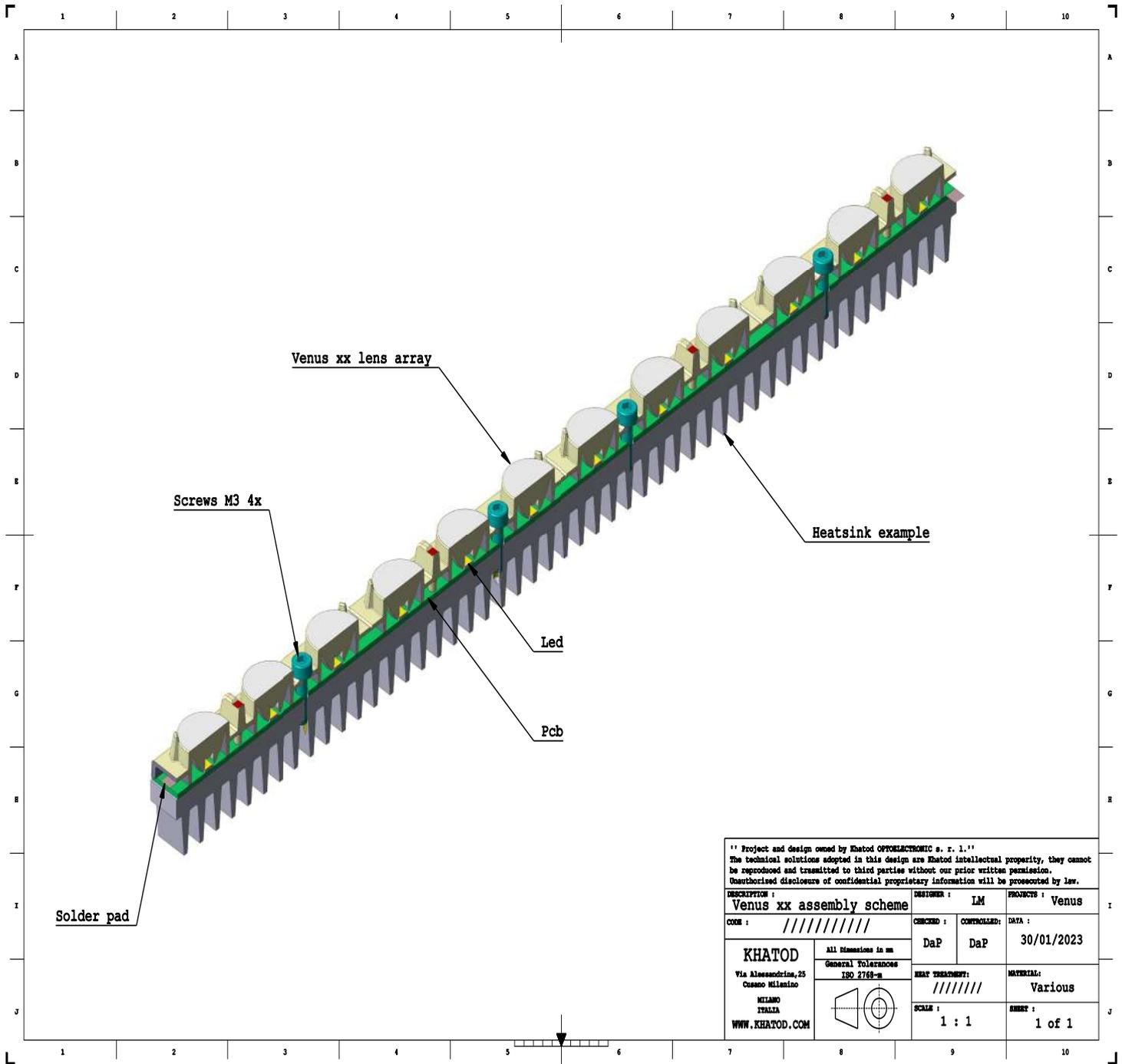


KFP60

Example using 12 Samsung **LM302D** LEDs
~ 135 Lumen each
~ 36 V, 300 mA



Assembly Specifications



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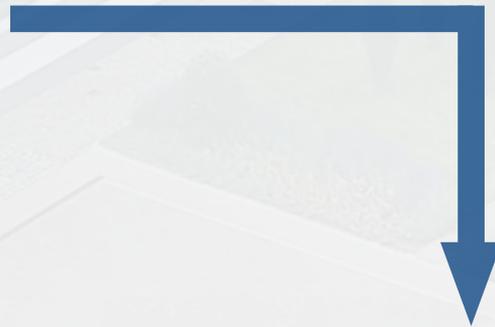
DESCRIPTION : Venus xx assembly scheme		CUSTOMER : LM	PROJECT : Venus
CODE : //////////	CHECKED : DaP	CONTROLLED: DaP	DATA : 30/01/2023
KHATOD Via Alessandrina, 25 Cusano Milanino MILANO ITALIA WWW.KHATOD.COM	All Dimensions in mm General TolerANCES ISO 2768-m		HEAT TREATMENT: //////////
			MATERIAL: Various
SCALE : 1 : 1		SHEET : 1 of 1	

Packaging

Item	Quantity	Total Parts	Size (L*W*H)	G.W.
Skinpacked Cardboard	20 pcs per Skinpacked Cardboard	20 pcs	-	-
Outer Box	8 Skinpacked Cardboard per Outer Box	160 pcs	50*38*15 cm	5.0 Kg



8 Skinpacked Cardboard
20 Modules each



8 Skinpacked Cardboard / Outer Box

Materials

Material	Temperatures
PMMA	-40° / + 90°C
• Temperature resistance: long-term exposure	-40° / + 85°C
• Temperature resistance: short exposure	up to + 90°C

Tests

The present document is an internal document showing the tests carried out by Khatod in its laboratory. The tests, photos and videos presented in this document are made available for demonstration purposes only. Khatod, with its laboratory, is not a certification body. If customers need thermal accredited certifications, they have to apply to the appointed Certification Bodies, under their sole care and responsibility.

Test	Link
Climatic Test 	Click here

Notes:

- The optical values shown are the result of optical simulations carried out with LIGHTTOOLS, ASAP and ZEMAX software systems. The optical simulations are carried out on the basis of the typical values provided in the LED manufacturers' official datasheets. The photometric analysis has been carried out on physical samples. On request, by supplying your PCB, we can provide the measurement photometric file.

Use and Maintenance

- DO NOT HANDLE OR INSTALL LENSES WITHOUT WEARING GLOVES, SKIN OILS MAY DAMAGE LENS OR LIGHT TRANSMISSION;
- CLEAN LENSES WITH MILD SOAP AND WATER AND A SOFT CLOTH;
- DO NOT USE ANY COMMERCIAL CLEANING SOLVENTS ON LENSES.

Disclaimer

Please note that flow lines and weld lines on the external surfaces of the lenses are acceptable if the optical performance of the lens is within the specifications.

Should you require further information, please contact Khatod for advice. All lens testing must be subject to identical conditions as Khatod test condition. Khatod Optoelectronic, Milan, Italy, manufactures lenses for LEDs. Any other use of the lens shall void our liability and warranty. The lenses are an inert component to be used in the manufacture of

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