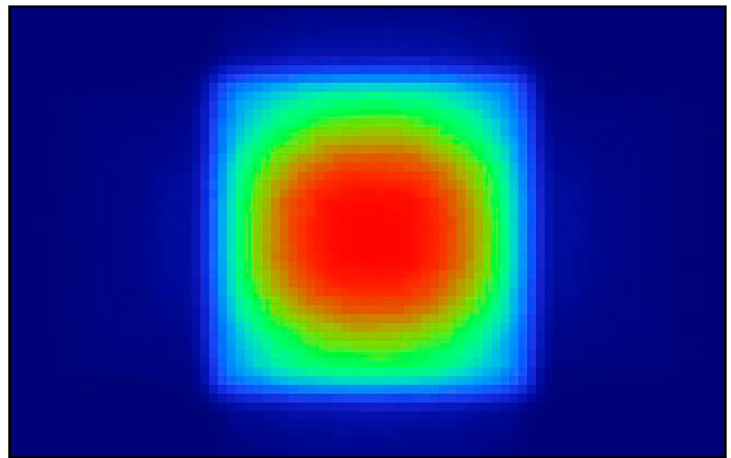
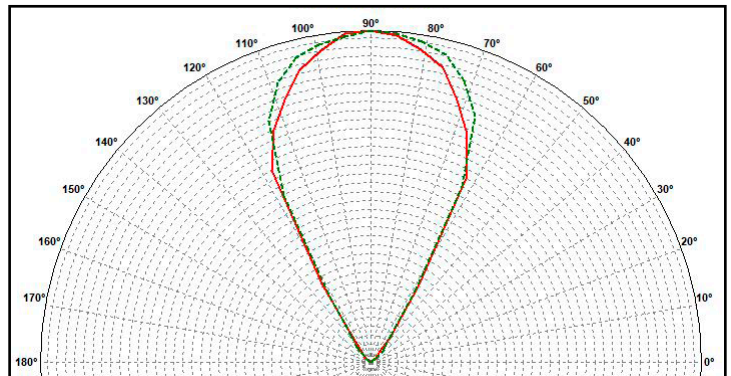


Contents

1	PIXEL06	60° FWHM* SQUARE	Pag. 2
2	PIXEL06WP	60° FWHM* SQUARE	Pag. 3
3	PIXEL12	60° FWHM* SQUARE	Pag. 4
4	PIXEL12WP	60° FWHM* SQUARE	Pag. 5
5	ASSEMBLY SPECIFICATION		Pag. 6
6	Materials / Use and Maintenance / Disclaimer		Pag. 7

Note: * With LEDs having 3mm DOME and 2mm² LES

PIXEL06 - 60° FWHM Square



- Material = PC Black + Aluminium Reflective Coating with Protective Clear Coat
- Full angle at 50% from maximum: ~ 60° Square
- Full angle at 10% from maximum: ~ 75° Square
- The light spots here represented refer to tests carried out with 1/2Watt LEDs, 3.0x3.0mm size, ~131 lm@LED

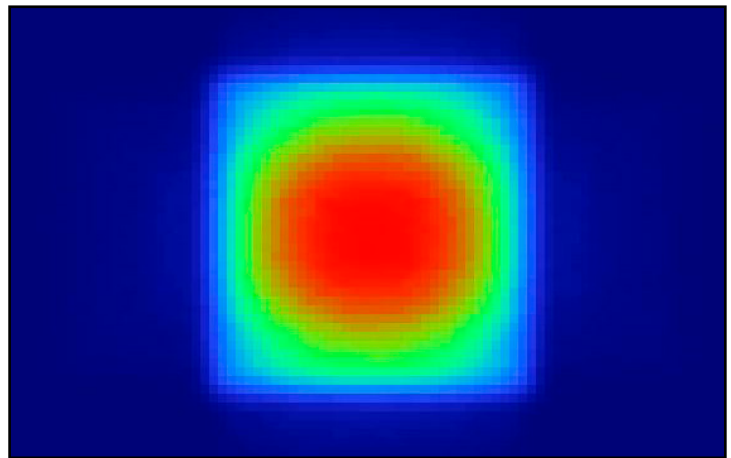
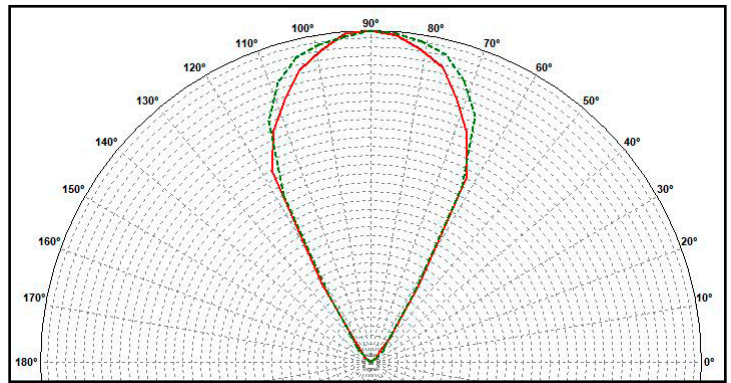
Technical drawing showing dimensions for the PIXEL06 Multi Array Reflector. Key dimensions include: 13.97 (0.55) For PCB layout, 27.94 (1.11) Typical for PCB layout, 7.29 (0.287), 6.96 (0.274), 35.84 (1.413) For PCB layout, 55.88 (2.2) For PCB layout, 55.87 (2.199) For PCB layout, 111.75 (4.399) total length, 2° angle, 8 (0.315) width, 167.64 (6.6) - 3.2 total length, 21.54 (1.021) height, 40.08 (1.579) height, 3° angle, 4° angle, 5 (0.197) and 3 (0.118) hole diameters, 21.73 (0.855) height, 3.73 (0.147) height, 1 (0.039) height, and 0 (0) height.

Notes:
 - Dimensions in inches into brackets
 - For missing dimensions see 3D 21a
 - WHITE surfaces mirror polished
 - BLUE surfaces embossed 25/27 VDI
 * = Led Center
 - Aluminium Reflective Coating with protective clear coat
 © = Quality Control Dimension (QCD)

Project and design owned by Khatod OPTOELECTRONIC s. r. l. The technical solutions adopted in this design are Khatod intellectual property, they cannot be reproduced and transmitted to third parties without our prior written permission. Unauthorized disclosure of confidential proprietary information will be prosecuted by law.

DESCRIPTION: Multi Array Reflector		DESIGNER: LM/GV	PROJECOR: Lyra / Kel
CODE: PIXEL 06	ALL DIMENSIONS IN mm	CHECKED: SB/GV	CONTROLLED: SB/LM
Khatod Via Alessandro, 25 Cusano Milanino Milano ITALIA WWW.KHATOD.COM		REVISION: No One	MATERIAL: Black PC
Scale: 1 : 1		DATE: 28/03/2017	
SHEET: 1 of 1			

PIXEL06WP - 60° FWHM Square



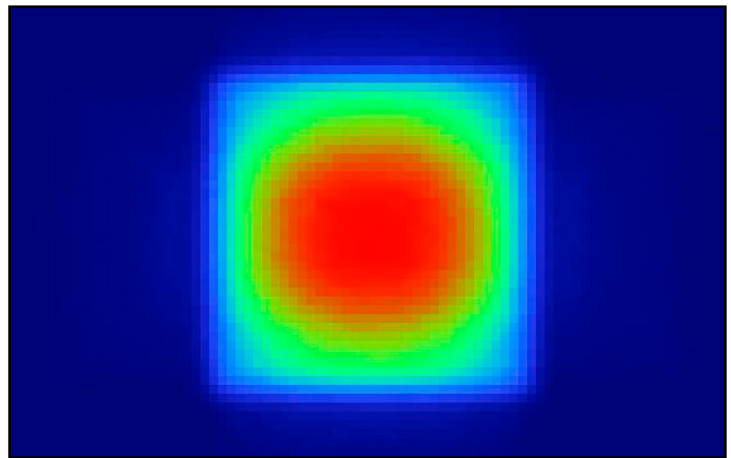
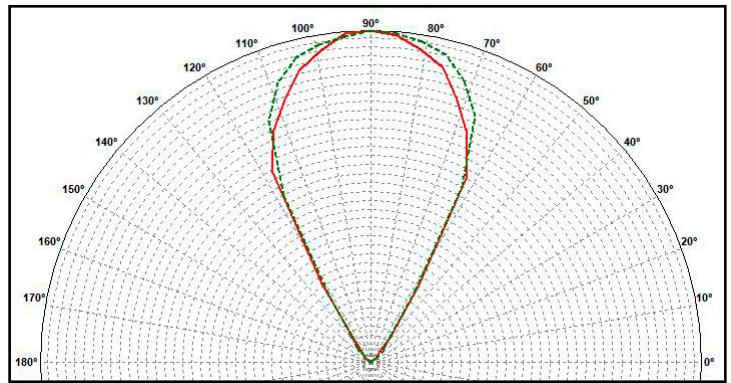
- Material = PC Black + Aluminium Reflective Coating with Protective Clear Coat
- Full angle at 50% from maximum: ~ 60° Square
- Full angle at 10% from maximum: ~ 75° Square
- The light spots here represented refer to tests carried out with 1/2Watt LEDs, 3.0x3.0mm size, ~131 lm@LED

Note:

- Dimensions in inches into brackets
- For missing dimensions see 3D file
- SURF surfaces mirror polished
- SURF surfaces embossed 25/27 VDI
- * = Led Center
- Aluminium Reflective Coating with protective clear coat
- Ⓞ Quality Control Dimension (QCD)

** Project and design owned by Khatod OPTOELECTRONIC s. r. l. ** The technical solutions adopted in this design are Khatod intellectual property, they cannot be reproduced and transmitted to third parties without our prior written permission. Unauthorized disclosure of confidential proprietary information will be prosecuted by law.			
DESCRIPTION: Multi Array Reflector	DESIGNER: LM/GV	PROJECT: Lyra / Xel	
CODE: PIXEL 06 WP	CHECKED: SB/GV	CONTROLLED: SB/LM	DATA: 28/03/2017
KHATOD Via Alessandro, 25 Casasco Milanino MILANO ITALIA WWW.KHATOD.COM	All Dimensions in mm General Tolerance: +/- 0.25 mm		MATERIAL: Black PC FINISH TREATMENT: No One SCALE: 1 : 1 SHEET: 1 of 1

PIXEL12 - 60° FWHM Square



- Material = PC Black + Aluminium Reflective Coating with Protective Clear Coat
- Full angle at 50% from maximum: ~ 60° Square
- Full angle at 10% from maximum: ~ 75° Square
- The light spots here represented refer to tests carried out with 1/2Watt LEDs, 3.0x3.0mm size, ~131 lm@LED

Note:

- Dimensions in inches into brackets
- For missing dimensions see 2D files
- WHITE surfaces mirror polished
- BLUE surfaces embossed 35/27 VHS
- = Led Center
- Aluminium Reflective Coating with protective clear coat

⊙ = Quality Control Dimension (QCP)

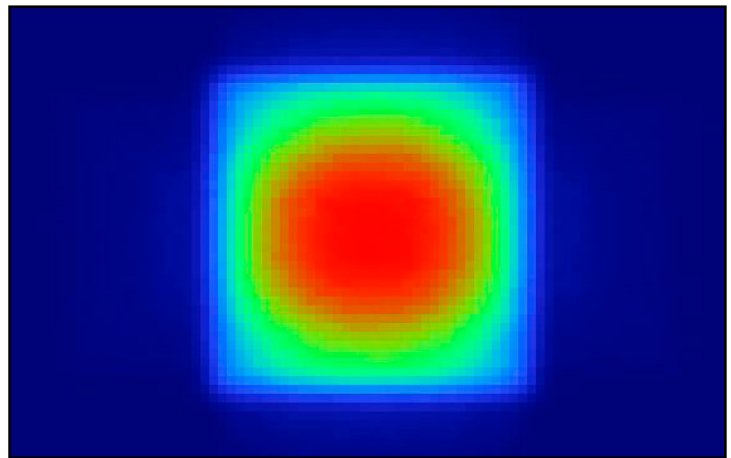
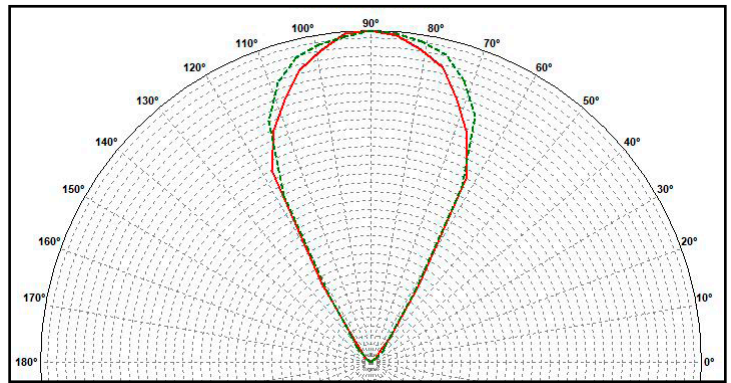
Top View Dimensions: 175.64 (6.915) mm, 17.97 (0.707) For PCB layout, 27.94 (1.1) Typical for PCB layout, 7.29 (0.287), 6.95 (0.274), 11.2 (0.441), 11.52 (0.454), 27.94 (1.1) For PCB layout, 21.95 (1.258) For PCB layout, 55.89 (2.2) For PCB layout, 55.89 (2.2) For PCB layout, 21.95 (1.257) For PCB layout.

Side View Dimensions: 183.64 (7.23), 187.64 (7.38), 86.9 (2.393) ⊙.

Cross-section Dimensions: 21.73 (0.855) ⊙, 19.73 (0.777), 3.47 (0.136), 1 (0.039), 0 (0), 8 (0.313), 4°, 3°, 5 (0.197), 5 (0.197).

<p>Project and design owned by Khatod OPTOELECTRONIC s. r. l. The technical solutions adopted in this design are Khatod intellectual property, they cannot be reproduced and transmitted to third parties without our prior written permission. Unauthorized disclosure of confidential proprietary information will be prosecuted by law.</p>			
DESCRIPTION: Multi Array Reflector	DESIGNER: LM/GV	PROJECT: Lyra / Xel	
CODE: PIXEL 12 rev1	CHECKED: SB/GV	CONTROLLED: SB/LM	DATA: 28/03/2017
KHATOD Via Alessandro, 25 Casasco Milanino MILANO ITALIA WWW.KHATOD.COM	All Dimensions in mm General Tolerance: +/- 0.25 mm	HEAT TREATMENT: No One MATERIAL: Black PC SCALE: 1 : 1 SHEET: 1 of 1	

PIXEL12WP - 60° FWHM Square



- Material = PC Black + Aluminium Reflective Coating with Protective Clear Coat
- Full angle at 50% from maximum: ~ 60° Square
- Full angle at 10% from maximum: ~ 75° Square
- The light spots here represented refer to tests carried out with 1/2Watt LEDs, 3.0x3.0mm size, ~131 lm@LED

Notes:

- Dimensions in inches into brackets
- For missing dimensions see 3D File
- SURF surfaces mirror polished
- SURF surfaces embossed 25/27 VDI
- = Led Center
- Aluminium Reflective Coating with protective clear coat
- Ⓢ Quality Control Dimension (QCD)

Top View Dimensions:
 - Total Length: 167.64 (6.60) ±0.2
 - Grid Spacing: 27.94 (1.1) (Typical for PCB layout)
 - LED Spacing: 13.89 (0.551) (For PCB layout)
 - LED Diameter: 3.29 (0.287) / 5.94 (0.274)
 - Grid Spacing: 27.94 (1.1) (For PCB layout)
 - LED Diameter: 11.5 (0.453) / 11.5 (0.453)

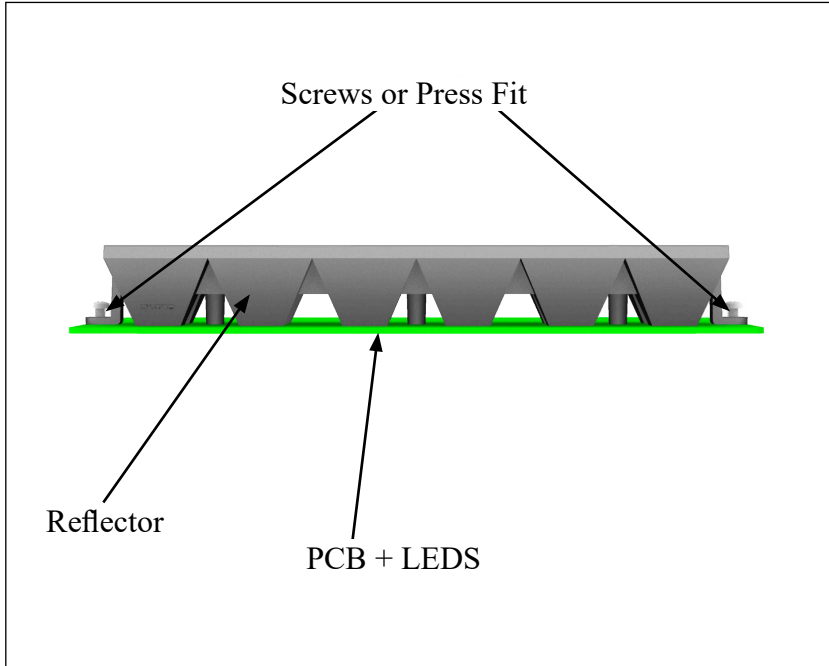
Side View Dimensions:
 - Total Length: 167.64 (6.60) ±0.2
 - Height: 85.9 (3.381) ±0.2

Cross-section L-L Dimensions:
 - LED Height: 21.73 (0.855)
 - LED Diameter: 3.47 (0.136) / 1 (0.039) / 0 (0)
 - LED Spacing: 3" / 76.2 (3.000)
 - LED Diameter: 5.5 (0.187) / 5.3 (0.210)

Project and design owned by Khatod OPTOELECTRONIC s. r. l. The technical solutions adopted in this design are Khatod intellectual property, they cannot be reproduced and transmitted to third parties without our prior written permission. Unauthorized disclosure of confidential proprietary information will be prosecuted by law.

DESCRIPTION: Multi Array Reflector		DESIGNER: LM/GV	PROJECT: Lyra / Xel
CODE: PIXEL 12 WP	CHECKED: SB/GV	CONTROLLED: SB/LM	DATE: 28/03/2017
KHATOD Via Alessandro, 25 Casasco Milanese MILANO ITALIA WWW.KHATOD.COM		All Dimensions in mm General Tolerances +/- 0.25 mm SURF TREATMENT: No One SCALE: 1 : 1	MATERIAL: Black PC SHEET: 1 of 1

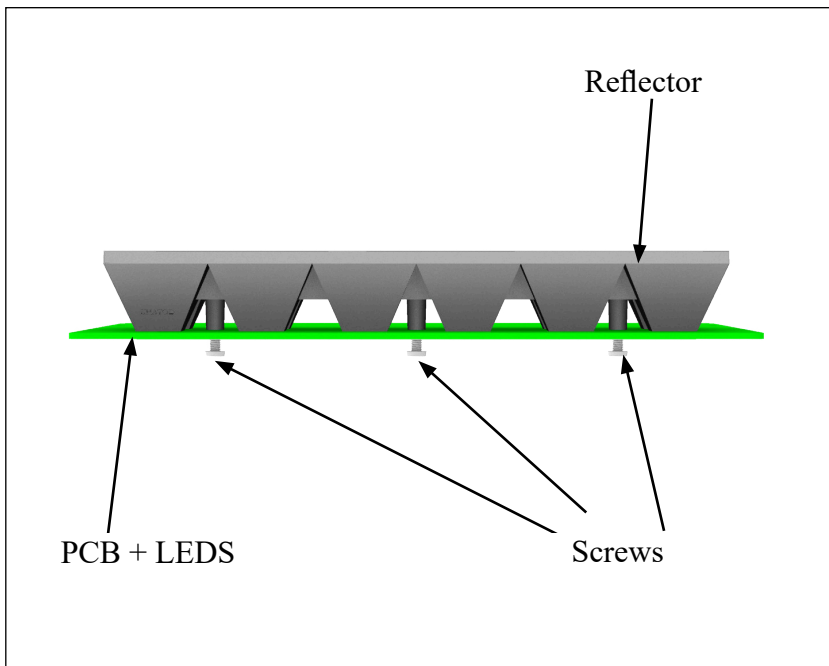
Assembly Specification



Example:

Pixel12 Assembly

- Use TCEI M3 screws
- Use Press Fit
- Maximum tightening torque: 0.48 Kn



Example:

Pixel12WP Assembly

- Use TCEI M3 screws
- Maximum tightening torque: 0.48 Kn

Materials

Material	Top
PC Black + Aluminium Reflective Coating with Protective Clear Coat	-20°...105°C

Notes:

- Intensity (I) and illuminance (E) data are normalized by 1000 lm
- 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 various products. Our warranty and liability are limited only to the manufacture of the lens. You may not modify, copy, distribute reproduce, license or alter the lens and related materials of Khatod. Khatod does not warrant against damages or defects arising out of the use or misuse of the products; against defects or damage arising from improper installation, or against defects in the product or in its components. No warranty of any kind, expressed or implied, is made regarding the safety of the products. The entire risk as to the quality or performance of the product is with the buyer. In no event shall Khatod be liable for any direct, indirect, punitive, incidental, special, consequential damages, or any damages whatsoever arising out of or connected with the use or misuse of the product. Khatod shall not have any obligation with respect to the product or any part thereof, whether based on contract, tort, strict liability or otherwise. Buyer assumes all risks and liability from use of the product. The laws of Milan, Italy govern this product warranty and liability and you hereby consent to the exclusive jurisdiction and venue of courts in Milan, Italy in all disputes arising out of or relating to the use of this product. Production, marketing, distribution, sale of these products as well as their possible modifications and variations are only exclusive right of Khatod Optoelectronic. No company can perform any of these actions without written permission released by Khatod Optoelectronic. The information contained in this document is proprietary of Khatod Optoelectronic and may change without notice.

REPRODUCTION PROHIBITED.