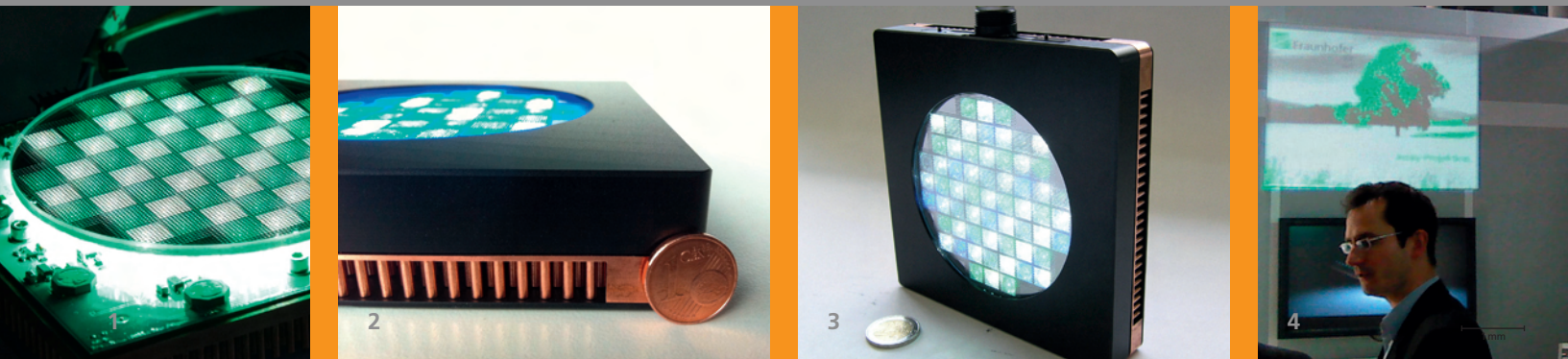




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- 1 2D array of 9100 micro projectors on a 4" glass wafer, thickness 3 mm.
- 2 Size comparison to an 1 cent coin.
- 3 Prototype, size 140 x 140 x 22 mm³.
- 4 Projected image, size 100 x 75 cm².

ARRAY PROJECTOR "LIGHT TILE" @ 1800 LUMENS

Fraunhofer Institute for Applied Optics and Precision Engineering IOF

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Director
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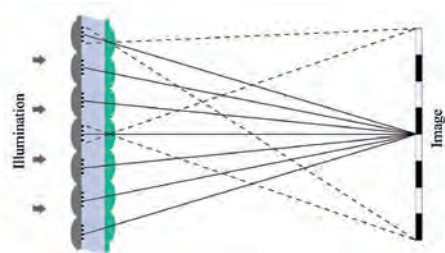
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Applications

- Structured illumination, images
- Mobile 3D metrology
- Advertising applications



Technology "ARRAY PROJECTION"

- Patented technology
- Thousandfold superposition of micro-optical projectors on the screen
- Super slim form factor
- High flux

System specifications

- Projection optics: $f=2$ mm, $f/\# = 2.5$
- Image resolution: 400 x 300 px
- System thickness: 22 mm
- Flux: 1800 lumens
- Light source: 61 collimated LEDs, 100 W
- PWM controlled RGB image sequences

Realization

- Image content is lithographically structured onto a Cr mask
- Fabrication of molding tools
- UV molding of tandem lens arrays

Competences

- Design of array projectors
- Customized system development
- Prototyping of compact LED projectors