



1 *Monolithic freeform lens design for night vision devices.*

2 *Manufactured demonstrator.*

## OPTICAL SYSTEM DEVELOPMENT FROM THE IDEA TO PROTOTYPE

The Fraunhofer IOF offers you the entire development of optical systems from one source. You have a contact person who will accompany you from your idea to the prototype or to system integration. The Fraunhofer IOF coordinates and ensures the processing of all individual areas through its excellent experts.

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#### System conception

- Development of optimized solutions meeting the economic boundary conditions

#### Optical design

- Imaging and non-imaging optics
- Standard and diffractive optical components

#### System analysis

- Simulation of optical components and assemblies
- Stray light analysis

#### Tolerancing

- Component tolerances
- Alignment tolerances

#### Mechanical construction

- Functional modules
- Adjustment strategies, tools, and machines

#### Mechanical simulation

- Thermal analysis
- Stress and deformation analysis

#### Prototype manufacturing, assembly, and test

- Assembly and test
- Measurement of key parameters

#### System integration

- Support with integration in final product
- Transfer to production