

ImageMaster® Lab AR

Optical Performance Testing of Waveguides





As technological pioneer, TRIOPTICS is the first to offer a flexible testing solution for Augmented Reality Optics. The new ImageMaster® Lab AR measures single components like waveguides and projectors as well as complete AR modules.

Key Features

- Highly accurate measurement of waveguides, projector lenses, projectors and AR modules
- Measurement of various pupil distances and sizes
- Adjustable angle of incidence: sample rotation +/- 45° in both directions
- Lateral scanning of exit pupil in eyebox distance
- Effective aperture scan within exit pupil
- Software controlled RGB light source for measurement of different wavelengths
- Measurement for transmission and reflection setup

Measurement Parameters

- MTF/Contrast on and off-axis
- Chromatic abberation
- Efficiency
- Distortion
- Relative illumination
- Homogenity of illumination
- Veiling glare index (on request)

Software

- Scripting tools for customer-specific programming and analysis
- Functions for easy alignment of the sample
- Intuitive user interface and time-saving lens testing routines
- Measurement certificates
- Target generator

Technical Data

| | MTF | Chromatic Abberation | Distortion |
|--------------------|------------------|----------------------|------------|
| Measuring accuracy | +/- 1% lp/degree | 10 arcsec | 10 arc |
| Repeatability | +/- 0.5% | 2 arcsec | 2 arcsec |