High resolution wavefront sensing solution for quality control of Sports Optics: PHA riflescopes, binoculars

Challenges / Goals

Sport optics (ex. riflescopes, binoculars) is optical system with specific technical requirements such as high accuracy performance.

Characterizing Sport optics with precise, complete and reproducible measurements.

PHASICS propose various solution for optical quality control of Sport Optics: All levels of integration from the single wavefront sensor to the complete turnkey system

Versatile measurement

One-step alignment process

Live & single-shot measurement

Direct access to measurement results

- Modular metrology system => Kaleo Kit \checkmark
- Wavefront test station => Kaleo MultiWAVE \checkmark

Outcomes

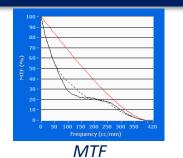
- Wavefront measurement
- Robust PSF and MTF (on & off axis) calculations
- Optical aberrations, Zernike analysis
- Comparison to Zemax design
- Magnification

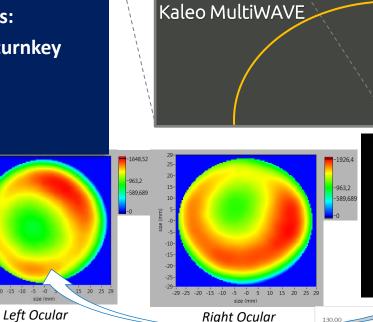
Advantages

Precision

- Nanometric accuracy
- High-resolution measurement

MTF





Coefficient valu

(nm RMS)

^{laleo}MultiWAVE

Reliable measurement

-29 -25 -20 -15 -10 -5 -0

- Operator independent results
- Compatible with workshop enviroment
- Vibration insensitivity



PHASICS

Lateral

(QWLSI)

specializes

Shearing

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Binocular

resolution wavefront sensors from

UV to far IR. based on Quadriwave

in high

Interferometry

Reference

mirror

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Thank you! Question? For more information: Contact us: contact@phasics.fr



