

# Osiris-T

ABERROMETER | TOPOGRAPHER



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CSO

# Osiris-T

ABERROMETER | TOPOGRAPHER

The information provided by Osiris-T, a corneal topographer combined with a total ocular aberrometer, is indispensable for the correct evaluation of patients who have, in addition to traditional low-order defects, even more complex ocular aberrations, either corneal or internal.

## ABERROMETER:

Osiris-T has a unique pyramidal sensor design that allows the aberrometer to measure aberrations with a resolution of 45,000 points (at the maximum pupil diameter), with a wide dynamic range. It is also able to measure the

ocular wavefront in real time with a frame rate of up to 33 images per second: this makes it possible to measure and view changes in power and aberrations while the patient is accommodating.

Phoenix software offers a wide range of analysis options, such as refractive error maps and visual simulations (PSF, MTF and convolution with optotype), which helps the clinician to understand and explain the patient's visual problems.

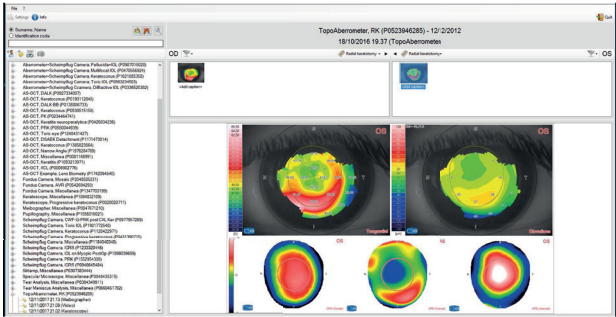


TOPOGRAPHY:

Using a reflection topography system based on a 22 ring Placido disk, Osiris-T is able to measure the morphology and the corneal refractive component by means of the sagittal curvature, tangential curvature, elevation and power maps. The availability of consolidated synthesis parameters makes the follow-up and diagnosis of keratoconus simple and intuitive. The integration of topography and aberrometry enables the calculation of the internal component of the wavefront.

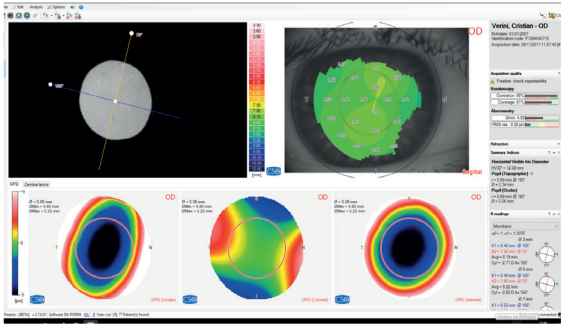
FEATURES OF THE PHOENIX SOFTWARE

Osiris-T uses the Phoenix software platform allowing patient data to be saved for future review and analysis, shared by all CSO devices.



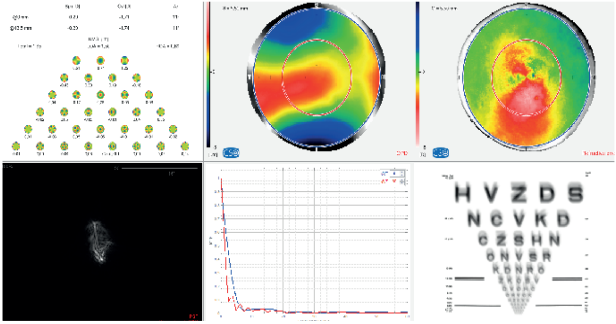
TORIC LENS ASSISTANT

For the evaluation of the performances of a toric system the combination of corneal topography imported from CSO topographers and ocular aberration makes it possible to distinguish whether any astigmatic residue is due to a rotation of the lens or to an incorrect calculation.

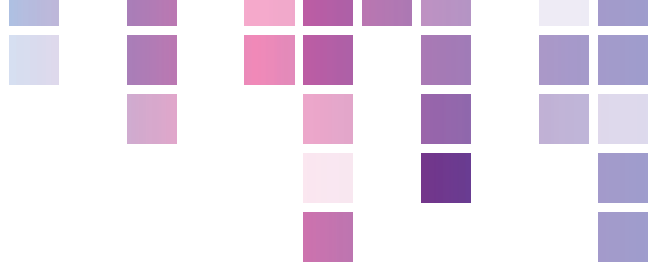


ANALYSIS SOFTWARE FOR ABERRATIONS

The tool integrates with the Phoenix software, offering a wide range of analysis options, such as refractive error maps and visual simulations (PSF, MTF and convolution with optotype), which helps the clinician to understand and explain the patient's visual problems.

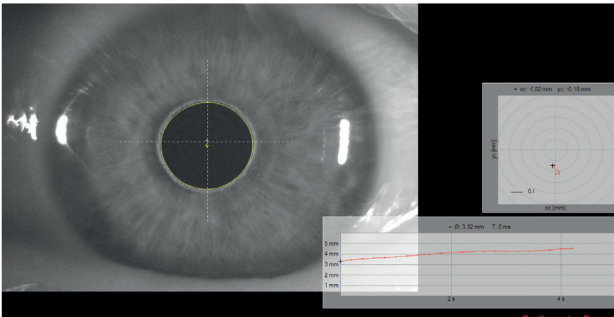






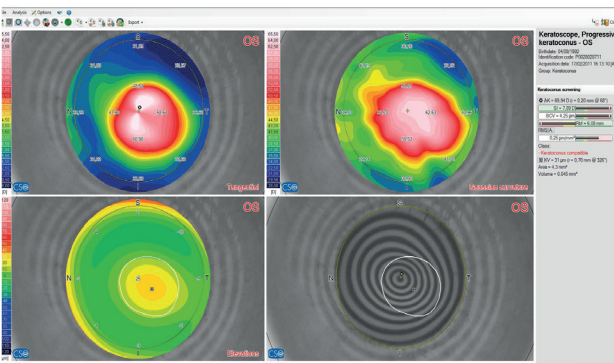
# PUPILLOGRAPHY

Completely integrated with the topography of the anterior surface of the cornea, it performs the pupil measurement in scotopic (0.04 lux), mesopic (4 lux), photopic (50 lux) conditions and in dynamic mode. Knowing the center and the diameter of the pupil, is essential for many clinical procedures which seek to optimize vision quality.



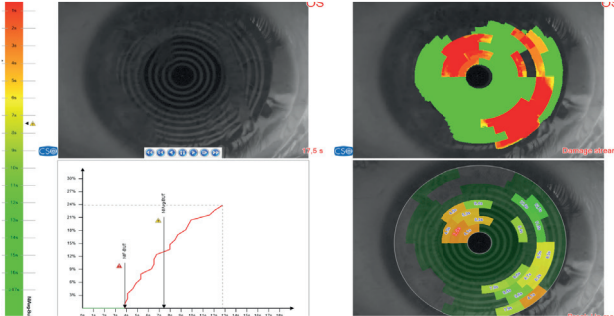
# KERATOCONOUS SCREENING

Keratoconous screening software, provides the clinician with important information about the patient's cornea. Understanding this can help prevent complications associated with ectasia before corneal surgery is undertaken.



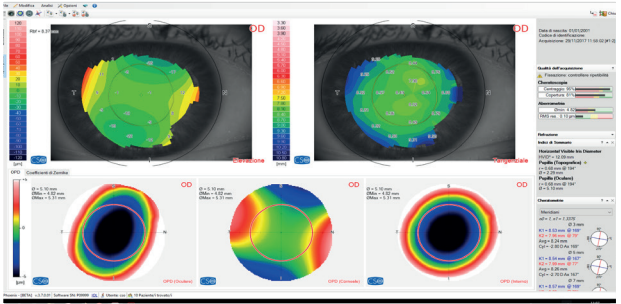
# ADVANCED ANALYSIS OF THE TEAR FILM

Placido disk technology allows for the advanced analysis of the tear film such as NI-BUT (Non Invasive Break-up Time).



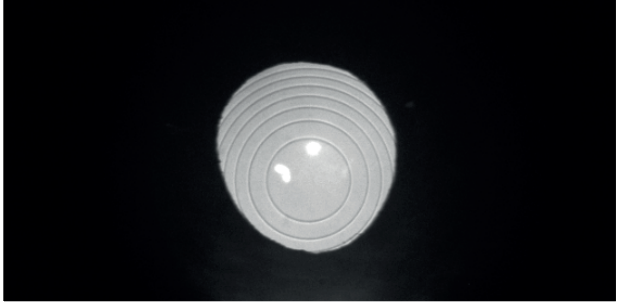
# OCULAR WAVEFRONT

Phoenix software enables the analysis of the patient's ocular wavefront, both as a deviation from the wavefront and as a refractive difference from the ideal.



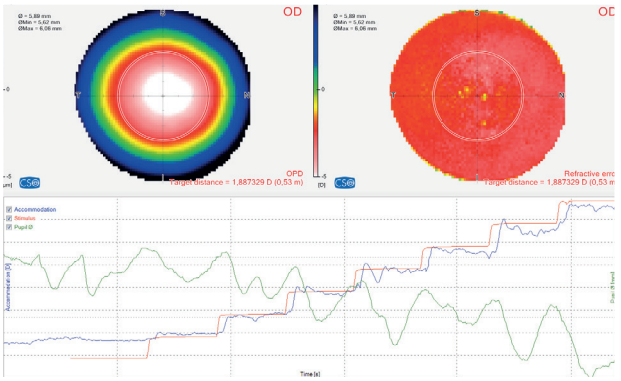
# DENSITOMETR

For an objective assessment of cataract and optical media opacity evaluation, Osiris-T can acquire backlit images without reflections.



# DYNAMIC ACCOMODATION

Real-time measurement of the ocular wavefront is indispensable during the evaluation of the accommodative phases. Customizable exam modes (ramps or square waves) are available to evaluate the patient's ability to focus at near.



TECHNICAL DATA

|                                               |                                                                                       |
|-----------------------------------------------|---------------------------------------------------------------------------------------|
| Data transfer                                 | USB 3.0                                                                               |
| Power supply                                  | external power source 24 VCC<br>In: 100-240Vac - 50/60Hz - 0.9-05A - Out: 24Vdc - 40W |
| Power net cable                               | with plug C14                                                                         |
| Dimensions (HxWxD)                            | 515 x 315 x 255mm                                                                     |
| Weight                                        | 6.9Kg                                                                                 |
| Chin rest movement                            | 70mm ± 1mm                                                                            |
| Minimum height of the chin cup from the table | 24cm                                                                                  |
| Base movement (xyz)                           | 105 x 110 x 30mm                                                                      |
| Working distance                              | 74mm                                                                                  |
| LIGHT SOURCES                                 |                                                                                       |
| Aberrometer                                   | Led @850nm                                                                            |
| Fixation                                      | Led @450-650nm                                                                        |
| Placido                                       | Led @635nm                                                                            |
| Pupillometry and auxiliary                    | Led @780nm                                                                            |
| ABERROMETRY                                   |                                                                                       |
| Points measured at maximum pupil              | 45000                                                                                 |
| Spatial resolution                            | 41µm                                                                                  |
| Pupil size range                              | 2-9mm                                                                                 |
| Dioptric range                                | Sph from -25D to +15D; Cyl up to 10D                                                  |
| Repeatability                                 | 0.05D on test eyes                                                                    |
| TOPOGRAPHY                                    |                                                                                       |
| Placido rings                                 | 22                                                                                    |
| Measured points                               | 5632                                                                                  |
| Topographic covering (in 43D)                 | 10mm                                                                                  |
| Dioptric measurement range                    | from 1D to 100D                                                                       |
| Measurement accuracy                          | Class A according to UNI EN ISO 19980-2012                                            |
| Compatibility with standard                   | DICOM v3 (IHE integration profile EYECARE Workflow)                                   |

MINIMUM SYSTEM REQUIREMENT

PC: 4 GB RAM - Video Card 1 GB RAM (not shared) resolution 1024 x 768 pixels - USB 3.0 type A  
Operating system: Windows XP, Windows 7 and Windows 10 (32/64 bit).

*\*The specifications and the images are not contractually binding and can be modified without notice. Windows® is a Microsoft Corporation trade mark.*





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