

# Osiris-T

ABERROMETER | TOPOGRAPHER

The information provided by Osiris-T, a corneal topographer combined with a total ocular aberrrometer, 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 aberrrometer 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

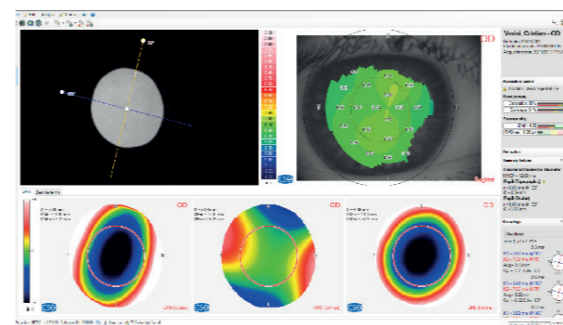
ocular wavefront in real time with a frame rate of up to 33 images per second: this makes it possible to measure and view changes in power and aberrations while the patient is accommodating. Phoenix software offers a wide range of analysis options, such as refractive error maps and visual simulations (PSF, MTF and convolution with optotype), which helps the clinician to understand and explain the patient's visual problems.



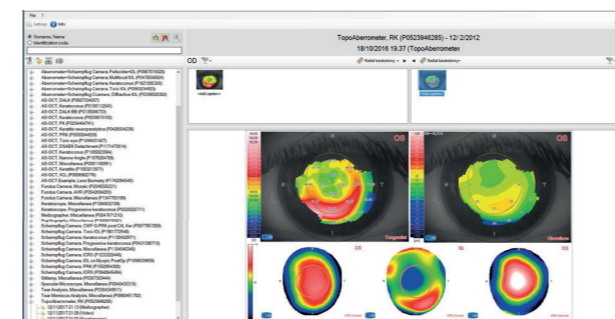
**TOPOGRAPH:** Using a reflection topography system based on a 22 ring Placido disk, Osiris-T is able to measure the morphology and the corneal refractive component by means of the sagittal curvature, tangential curvature, elevation and power maps. The availability of consolidated synthesis parameters 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.



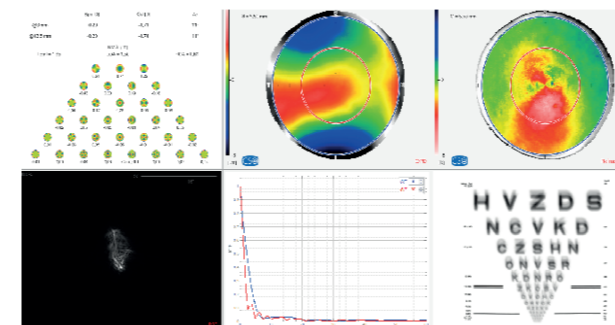
**TORIC LENS ASSISTANT** For the evaluation of the performances of a toric system the combination of corneal topography imported from CSO topographers and ocular aberration makes it possible to distinguish whether any astigmatic residue is due to a rotation of the lens or to an incorrect calculation.



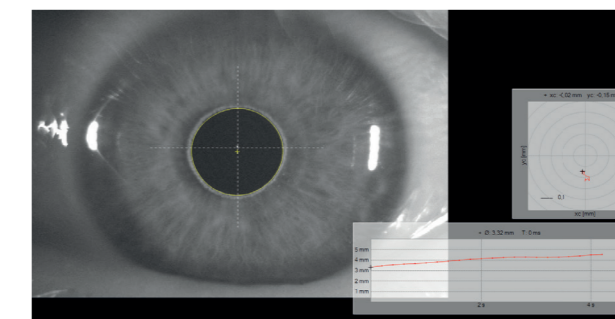
**FEATURES OF THE PHOENIX SOFTWARE** Osiris-T uses the Phoenix software platform allowing patient data to be saved for future review and analysis, shared by all CSO devices.



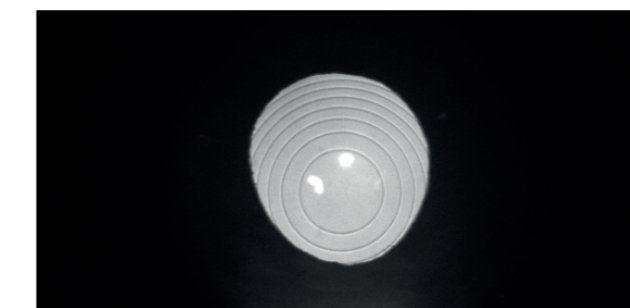
**ANALYSIS SOFTWARE FOR ABERRATIONS** The tool integrates with the Phoenix software, offering a wide range of analysis options, such as refractive error maps and visual simulations (PSF, MTF and convolution with optotype), which helps the clinician to understand and explain the patient's visual problems.



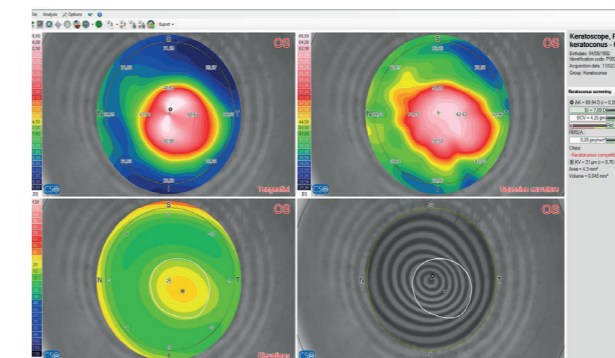
**PUPILLOGRAPHY** Completely integrated with the topography of the anterior surface of the cornea, it performs the pupil measurement in scotopic (0.04 lux), mesopic (4 lux), photopic (50 lux) conditions and in dynamic mode. Knowing the center and the diameter of the pupil, is essential for many clinical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



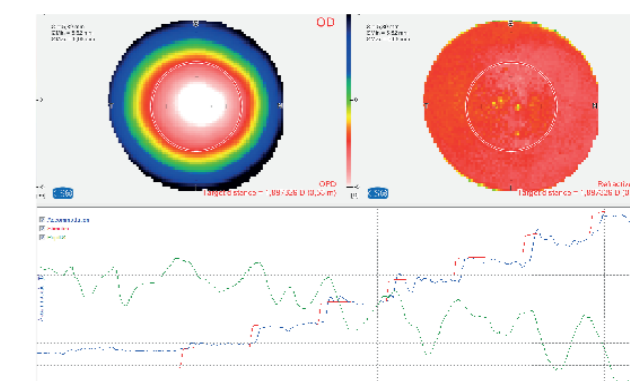
**DENSITOMETR** For an objective assessment of cataract and optical media opacity evaluation, Osiris-T can acquire backlit images without reflections.



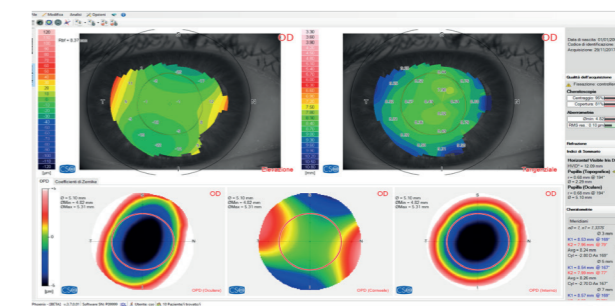
**KERATOCONOUS SCREENING** Keratoconous screening software, provides the clinician with important information about the patient's cornea. Understanding this can help prevent complications associated with ectasia before corneal surgery is undertaken.



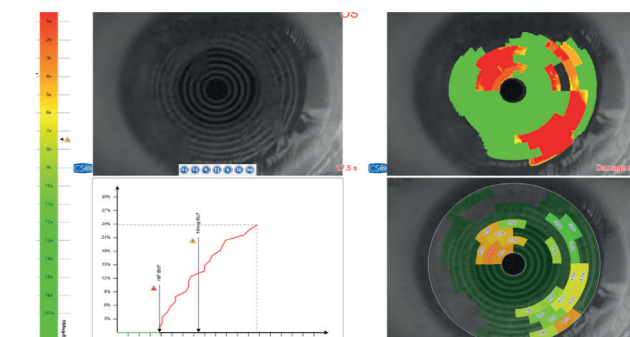
**DYNAMIC ACCOMODATION** Real-time measurement of the ocular wavefront is indispensable during the evaluation of the accommodative phases. Customizable exam modes (ramps or square waves) are available to evaluate the patient's ability to focus at near.



**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.



**ADVANCED ANALYSIS OF THE TEAR FILM** Placido disk technology allows for the advanced analysis of the tear film, such as NIBUT (Non Invasive Break-up Time). Based on the Ocular Surface Disease Index questionnaire (OSDI), limbal and conjunctival hyperaemia, Meibomian glands analysis, tear meniscus



analysis and tear osmolarity, calculated merging together all partial scores, provides an overall evaluation of the clinical condition of the patient for a comprehensive diagnosis of the dry eye disease.



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## TECHNICAL DATA

Data transfer	USB 3.0
Power supply	external power source 24 VCC 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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