ALADDIN

Optical Biometry and Topography System
10 Reasons to Choose Aladdin

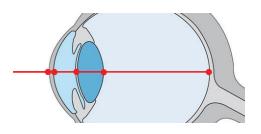






Accurate reading through dense opacities.

Using a low-coherence interferometry system with a super luminescent diode of 850 nm and signal processing, the ALADDIN achieves Axial Length measurement with high signal-to-noise ratio and is able to penetrate even high grade dense cataracts. Axial length measurements can be performed on normal eyes as well as on aphakic, pseudophakic and silicone oil-filled eyes.



"The ALADDIN performs better in cases of sub capsular opacities".1

Dr. Claudio Carbonara (Member of the IOL Power Club)



Full corneal topography incorporated.

Full corneal topography provides substantially more information than conventional central keratometry. Corneal topography data is especially useful in the selection of Toric IOLs to quickly differentiate regular and irregular astigmatism as well as corneal aberrations. The ALADDIN provides accurate corneal topography obtained from the reflection of a set of 24 Placido rings in combination with a low coherence interferometer.



"The biggest advantage that we found in our comparison is that the Aladdin offers topography of the cornea. This is unique to other diagnostic systems on the market. With the other systems, K readings are acquired based on various measurement points, but the most accurate K readings were obtained with the Placido disc topography system included with the Aladdin"²

Christopher Kiss, MD, Associate Professor of Ophthalmology at the Medical University of Vienna.



Wave front analysis of the anterior cornea.

Zernike analysis of the topographic data provides the Optical Path Difference (OPD) and information on astigmatism, spherical aberrations, higher order aberrations and Coma for pupil sizes of 2.5mm to 7.0mm assisting in the selection of the appropriate aspherical IOL with standardized spherical aberration correction according to the patient's individual requirements.



"The Aladdin represents the latest advancement in optical biometry. Having a corneal topographer built into the biometer is the most exciting addition to available biometry devices. Not only do I enjoy its speed of acquisition of measurements, but I also appreciate that pupillometry and Zernike analysis are automatically performed during the measurement."³

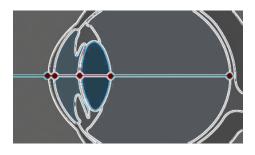
Thierry Amzallag, MD, Cataract Surgeon - Ophthalmic Institute of Somain, France.

- 1. Results presented at the IPC meeting 2013 in Haarlem, North Holland, The Netherlands
- 2. CATARACT & REFRACTIVE SURGERY TODAY EUROPE OCTOBER 2013
- 3. INSERT TO CATARACT & REFRACTIVE SURGERY TODAY EUROPE



Biometry of every structure of the eye.

The Aladdin provides low coherence interferometry biometric readings of all structures of the eye, precise keratometry, astigmatism and axis positioning using a 26 ring Placido topography system that reads 6200 points on the cornea, crystalline lens thickness, White to White, and dynamic and static pupillometry in one



single measurement. The ample variety of IOL calculation formulae plus the Barrett IOL Calculation Suite provide solutions for improved refractive results in all types of eyes.

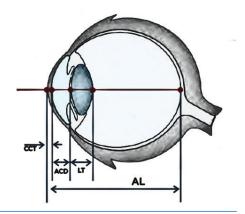
"Another nice thing about the Aladdin is that it can store all the preoperative data necessary to determine the corneal power to be used for IOL calculation, not just the axial length and anterior chamber depth. It also stores the measurements for spherical aberration induced by the corneal measurement, the Kappa angle, and the size and position of the pupil, which is analyzed in its mesopic, scotopic, and dynamic forms."

Claudio Carbonara, MD, Carbonara Eye Center - Primavista Eye Surgery Center, Rome.



ACD and crystalline lens thickness measurements for ELP determination.

Modern IOL calculation formulae such as the Barrett IOL Calculation Suite, require measurements of the anterior chamber depth, the lens thickness and the corneal diameter or "White to White" for ELP determination. The Aladdin performs accurate measurements of the ACD, LT and WtW by low coherence interferometry, providing exact information for determining the ELP.



"Dr. Barrett's formula is unique because it takes into account the posterior cornea and considers the effective lens position for each individual patient versus using what is known about the average eye."²

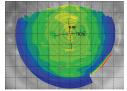


Precise axis positioning for Toric IOL.

The Aladdin features a generic Toric IOL calculator for most of the available IOL brands, allowing for the selection of premium Toric as well as spherical IOL's with a powerful program that allows for simulation IOL rotation for optimum results. It now comes with the option to use the Abulafia-Koch astigmatism cylinder correction for Toric IOLs.



"Using optical low-coherence interferometry and analyzing approximately 1,000 data points at a 3-mm diameter, the Aladdin can measure almost any eye, regardless of the type or grade of cataract. Whereas other topographers use only K values to assess cylindrical power of the cornea, the Aladdin also determines if corneal astigmatism is regular or irregular, it identifies corneal aberrations, and it can detect if previous corneal refractive surgery such as LASIK or PRK was previously performed."³



Thierry Amzallag, MD, Cataract Surgeon - Ophthalmic Institute of Somain, France.

- 1. CATARACT & REFRACTIVE SURGERY TODAY EUROPE OCTOBER 2013
- 2. Eye World February 2015
- 3. INSERT TO CATARACT & REFRACTIVE SURGERY TODAY EUROPE



Onboard Barrett IOL Calculation Suite.

The Aladdin's Barrett Formula Suite includes the Barrett Rx, the Barrett Toric Calculator Formula, the Barrett True K and the Barrett Universal II formulae. The Barrett formula uses several variables (keratometry, axial length, anterior chamber depth, lens thickness and horizontal white-to-white measurement) to obtain accurate calculation of IOL power.¹



Onboard Abulafia-Koch regression formula for toric intraocular lens calculation.

Standard toric IOL calculators with anterior cornea-based keratometry adjusted by the new Abulafia-Koch formula had significantly reduced errors in the prediction of residual astigmatism in Toric IOL calculations to a level similar to that of the Barrett Toric calculator without adjustments.²





Dr. Adi Abulafia

Dr. Douglas Koch



Fast and easy operation.

Point and shoot acquisition: all necessary measurements are taken in under five seconds. Single measurements are supported for even faster ACD, AL or topography, as well as a separate full pupillometry. The 10.1 inch full color touchscreen monitor is responsive and comfortable to use and the user-friendly interface guides you through the main functions with ease.



"We also found that the Aladdin was extremely handy and easy to use. The other three biometry devices were also intuitive, but the Aladdin was among the fastest in terms of acquisition of the scan."³

Christopher Kiss, MD, Associate Professor of Ophthalmology at the Medical University of Vienna.



Expanded EMR and DICOM connectivity

The Aladdin can export reports to a shared folder and to external software such as an EMR system.



Also, it can send information to several of the Topcon Image Management programs such as IMAGEnet and Synergy. The DICOM panel in the Aladdin Connectivity section allows the user to set the needed parameters for the connections to the available DICOM features: Modality Worklist; Patient Root Query; Storage and Storage Commitment.

- 1. Power Calculation: How to Up Your Game, Review of Ophthalmology, March 2016
- 2. J CATARACT REFRACT SURG VOL 42, MAY 2016
- 3. CATARACT & REFRACTIVE SURGERY TODAY EUROPE OCTOBER 2013

