

# ALADDIN

Optical Biometry and Topography system



ALADDIN  
addresses the  
limitations of  
conventional  
biometers

### 1 Instrument; 9 Functions

- | Axial length
- | Keratometry
- | Anterior chamber depth
- | Central corneal thickness
- | Lens thickness
- | Corneal topography
- | Corneal wavefront analysis
- | Pupillometry
- | White-to-white



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## The complete picture - enhanced

With the combination of an optical biometer and full corneal topographer, Topcon pioneered the concept of “the complete picture” in IOL power calculation. Now the complete picture has been enhanced with the addition of the Barrett Universal formula and Olsen formula as a standard component of the ALADDIN.

The final optical result and patient’s satisfaction are paramount in today’s cataract surgery. With the incorporation of the latest in IOL calculation formulae, the ALADDIN remains at the forefront of IOL calculation technology.

### Features

#### True color fundus images

- | High quality sensor using proprietary technology

#### Fully integrated patient database

- | Patient search function
- | Input post refraction data

#### Easy acquisition 9-in-1

- | Pre-op input of lens and vitreous body

#### Conventional IOL calculation formulae

- | SRK II, SRK/T, Hoffer Q, Holladay 1, Haigis
- | Multiple surgeon pre-settings
- | ULIB database compatible
- | Database customizable

#### Post refractive IOL calculation formulae

- | Camellin-Calossi, Shamma (no history)

#### Generic toric IOL calculation

- | Toric IOL rotation simulator
- | Abulafia-Koch Astigmatism Formula

#### Barrett & Olsen formulae

- | With the Barrett Rx, the Barrett Toric Calculator Formula, the Barrett True K and the Barrett Universal II formulae.

### Topography

- | Full featured corneal mapping
- | Accurate corneal radii
- | Keratoconus probability index

### Corneal wavefront (Zernike) analysis

- | Maps (pupil size 2.5 mm – 7.0 mm)
- | Simulation graphs

### Interferometer graphs

- | Axial length
- | Central corneal thickness
- | Anterior chamber depth
- | Lens thickness

### Pupillometry

- | Dynamic, Photopic, Mesopic
- | Decentralization and Latency graph

### White-to-white measurement

### Reports

- | Biometry report (AL, K, ACD, LT, CCT, WTW)
- | To USB, shared folder and printer
- | Topography report
- | IOL report
- | Pupillometry

### DICOM™ Compliance

### IMAGeNet®6 Compliance

# DICOM™ Compliance

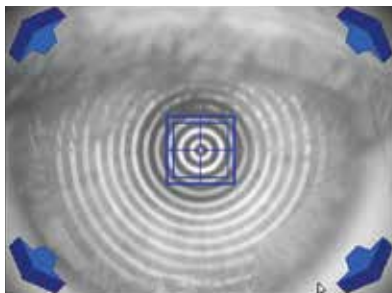
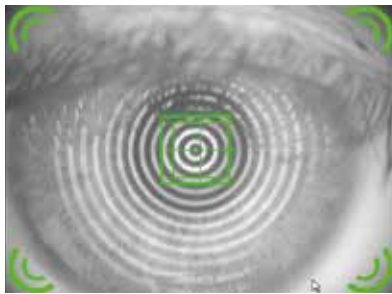
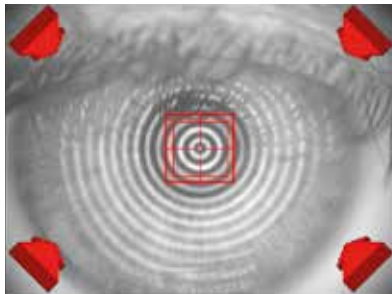


The DICOM panel in the ALADDIN connectivity section allows the user to set the needed parameters for the connections to the available DICOM features:

- | Modality Worklist
- | Patient Root Query
- | Storage
- | Storage Commitment



# Ease of use



## Speed

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.

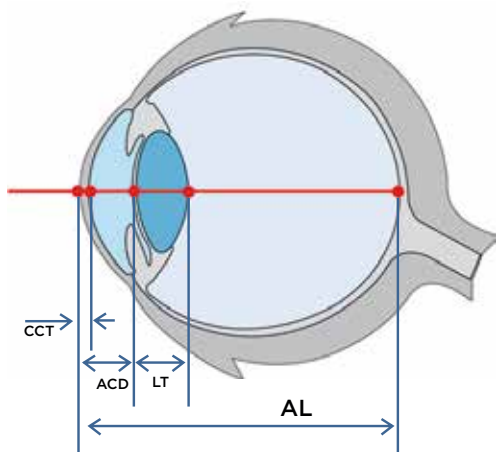
## Accuracy

Proven interferometry accuracy combined with new technology for keratometry, provide extremely accurate axial length and corneal radii information for precise calculation of IOL spherical and toric powers.

## Ease of use

The operator is only three clicks away from printing the ALADDIN report. The 10.1 inch full color touch-screen monitor is very responsive and comfortable to use. The user-friendly interface guides you through the main functions with ease.

Making an acquisition has never been easier. To ensure complete accurate biometry, the ALADDIN guides you in focus and alignment with visual color coded signs while taking the acquisition.



## Posterior & Anterior interferometry

You get the complete picture for all cataract surgeries. Whether you are performing standard cataract surgery or premium IOL implantation, you will be screening for corneal aberrations, Keratoconus and previous corneal refractive surgery procedures all at once. The ALADDIN only requires just one acquisition.

Biometry results are complemented with anterior topography, Zernike analysis and pupillometry. ALADDIN also provides anterior measurements such as the Central Corneal Thickness (CCT), Anterior Chamber Depth (ACD) and Lens Thickness (LT).

# Barrett and Olsen formulae



Dr. Graham D. Barrett



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. Aberrometry analysis (Zernike)

## Onboard Barrett Formula

Dr. Graham D. Barrett developed the Barrett formula in 2013 and takes into account the posterior cornea considering the lens position for each individual patient instead calculating IOL power by estimating lens thickness based on patient's age.

The Barrett formula uses the Universal II, which is a method of predicting IOL power to work out where the lens is and utilizes that information to calculate the effect of the cylinder power at the cornea.

The Universal II formula was also developed by Dr. Barrett. Dr. Barrett's formula considers the thickness and shape of the lens as well, which provides a more sophisticated way of predicting and translating the cylinder power. The formula is able to predict posterior corneal curvature without actually measuring it. The new version of the ALADDIN accurately measures the lens thickness, an important component of the Barrett formula.



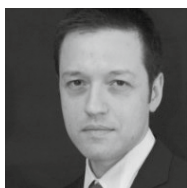
Dr. Thomas Olsen

## Onboard Olsen Formula

The ALADDIN HW3.0 provides precise measurements of the internal structures of the eye including Central Corneal Thickness and crystalline Lens Thickness. Those measurements used in combination with the onboard Olsen IOL calculation formula provides accurate IOL power calculations in virtually all types of eyes regardless of size. The Olsen formula utilizes a newly developed concept by Dr. Olsen called the C-constant which predicts the Effective Lens Position (ELP) when performing in-the-bag IOL implants. This model also predicts the lens position of anterior chamber IOLs. The C-constant approach performs independently of other conventional measurements such as axial length, keratometry, white-to-white length, IOL power, etc. It will provide accurate IOL calculations in any type of eye.

## Abulafia-Koch astigmatism cylinder correction for Toric IOL calculations incorporated

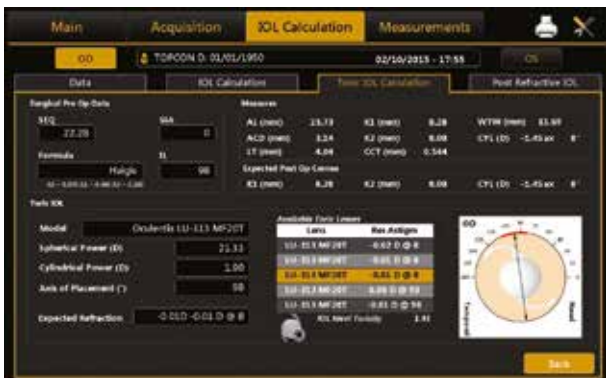
The Abulafia-Koch correction formula calculates the estimated total corneal astigmatism based on standard keratometry measurements.



Dr. Adi Abulafia

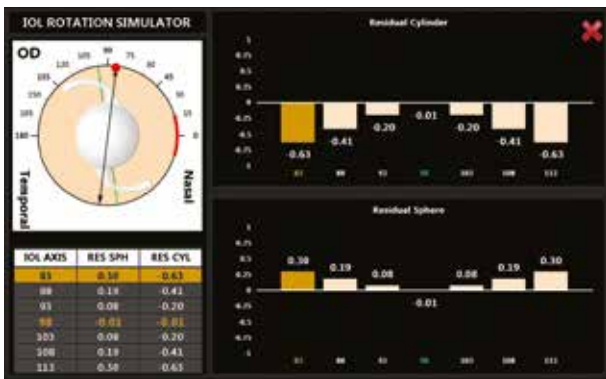


Dr. Douglas Koch



## Precise Toric IOL calculation

A robust generic Toric IOL calculator is incorporated into the ALADDIN software. This integrated toric IOL calculator saves time and avoids unnecessary mistakes when manually entering data online. IOL toric rotation simulation software calculates the induced spherical and cylindrical power for every five degrees that the toric IOL rotates. Surgically Induced Astigmatism (SIA) and Incision Location (IL) can be inserted by the surgeon and are taken into account for the Toric IOL calculation.



## Axial length

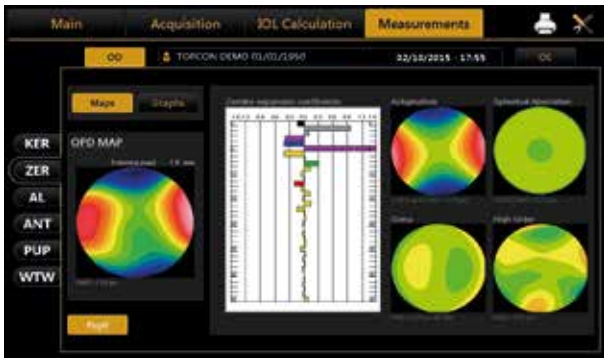
Using a low-coherence interferometry system with a super luminescent diode of 830 nm and signal processing, the ALADDIN achieves axial length measurement with high signal-to-noise ratio and is able to penetrate even high grade dense cataracts. Axial length measurements can be done on normal eyes as well as on aphakic, pseudo-aphakic and silicone oil-filled eyes.



## Anterior biometry

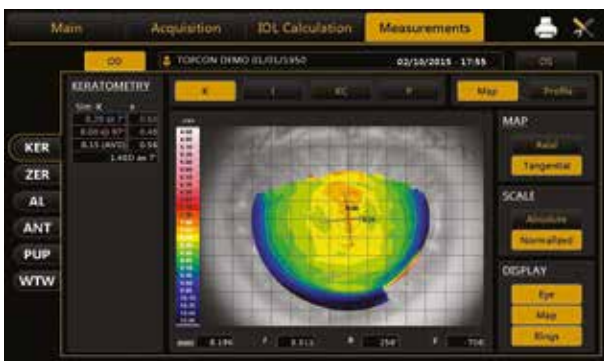
Anterior biometry with the ALADDIN makes it possible to measure Central Corneal Thickness (CCT), Anterior Chamber Depth (ACD) and the crystalline Lens Thickness (LT). ACD is measured through interferometry providing high precision and reproducibility. All interferometry measurements are shown in a single graph quick reference.





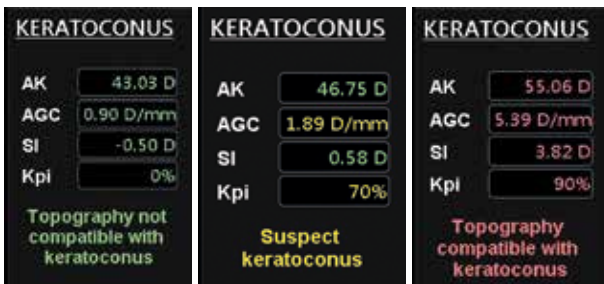
### Aberrometry analysis (Zernike)

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 2.5 mm to 7.0 mm. When using the actual spherical aberration provided by Zernike analysis, you can select the appropriate aspherical IOL with standardized spherical aberration correction according to the patient's individual required spherical aberration.



### Keratometry / Topography

Full corneal topography provides substantially more information than conventional central keratometry. Corneal topography data is especially useful in the selection of toric IOL's 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.

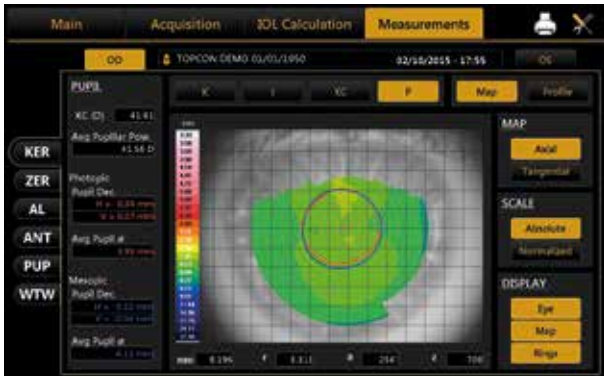


### Keratoconus screening

The ALADDIN is capable to screen the corneal surface for Keratoconus probability. This information provides the surgeon in detail the corneal keratometric indices to assist in making the correct toric IOL selection. The Keratoconus Probability Index is shown in percentage as well as in color codes.

- Green Not compatible with Keratoconus
- Yellow Suspected Keratoconus
- Red Compatible with Keratoconus





## Pupillometry

During Placido evaluation, pupillary response is observed to assess a pseudo Photopic and pseudo Mesopic pupil size, indicating response and normal range of the pupil. Full pupillometry screening assists to evaluate eyes for multifocal IOL implantation or refractive surgery.

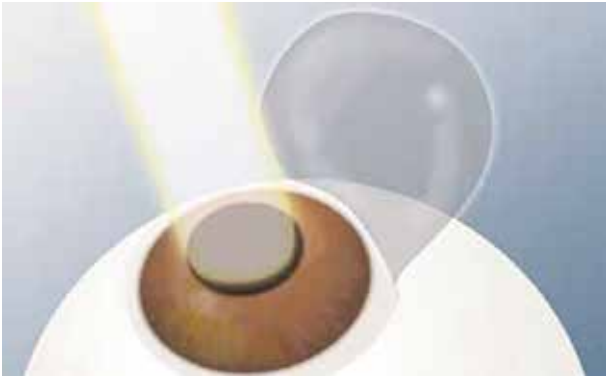
For any refractive procedure it is important to carefully evaluate the pupil size in different light conditions to address cases of extremely small or decentered pupils. The ALADDIN can perform pupillometry in three different modes:

- | Dynamic
- | Photopic
- | Mesopic

## White-to-white

The ALADDIN automatically measures white-to-white length which can be manually edited. Reliable white-to-white measurement is used for anterior chamber intraocular lens and sulcus fixated posterior chamber intraocular lens calculation in highly myopic eyes.





## Post refractive IOL

In eyes that have previously undergone refractive surgery such as RK, PRK, Lasik, Lasek, LK and PTK, spherical aberrations are often outside the standard values. In these cases the ALADDIN provides the Camellin-Calossi and the Barrett True K formulae. If there is no patient history the Shammas (no history) or the Barrett True K formulae can be used for the correct IOL calculation.



## Customizable IOL database

The ALADDIN provides a full ULIB database which can be easily upgraded and customized. The surgeon can manually upgrade the A-constant for each individual IOL to obtain even a higher accuracy every time a cataract surgery is performed. Favorite IOL's can be selected and programmed for each surgeon, making IOL selection simple and personalized.



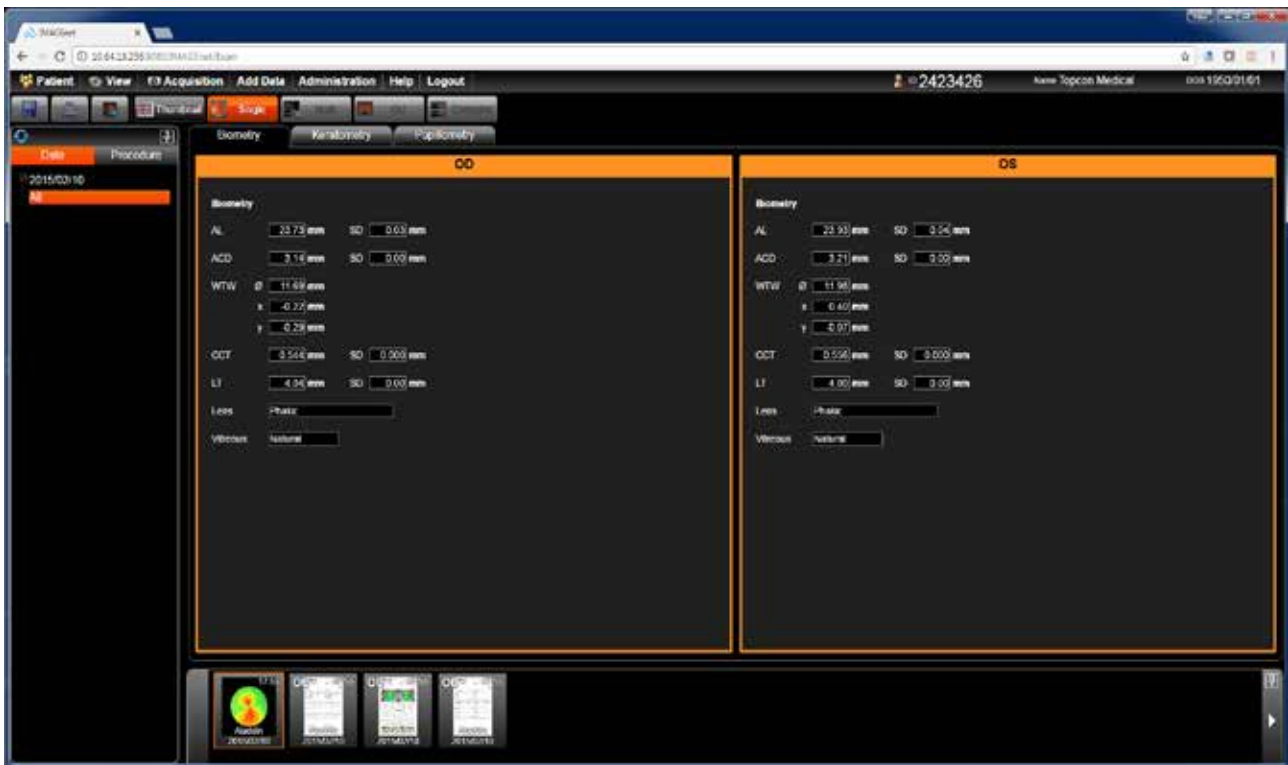
# IMAGEnet®6 Compliance



## IMAGEnet®6 viewer software

IMAGEnet®6 is Topcon's web based digital software platform for ophthalmic imaging, capable of acquiring, displaying, enhancing, analyzing, and saving digital images and reports obtained with a variety of Topcon devices such as the ALADDIN.

IMAGEnet®6 provides flexibility of viewing Biometry, Keratometry, Pupillometry data and all available ALADDIN exported reports in a network environment. There are a variety of software configurations available. Additional components can be added according to your clinic's needs.



Screenshot of Biometry data in IMAGEnet®6

# Topcon's Cataract Workstation



## KR-800S Auto kerato-refractometer with subjective function

- 1 VA check far vision
- 2 VA check near vision
- 3 VA check glare condition
- 4 VA check contrast condition
- 5 Grid test (AMD screening)
- 6 VA simulation Premium IOL



## KR-800S



Pre-Operative  
Subjective Refraction  
and Pre-OP-diagnostics

# Cataract surgery quality control

## Topcon's Cataract Workstation

Visual acuity (VA) is the most common clinical measure of the quality of cataract surgery. It is how the success of surgery is measured and it is therefore critical that it is measured correctly. Measurement of VA must be standardized and systematic. Topcon's KR-800S Auto Kerato-Refractometer with subjective VA check will do exactly that. With the KR-800S the VA can be subjectively tested before and after cataract surgery. With the unique features of the KR-800S such as Glare test and Contrast test, the progression and differentiation of nuclear cataract from cortical cataract can be evaluated.

## Premium IOL simulation

The KR-800S offers a spherical equivalent mode, which can simulate the benefit of a premium (toric) IOL, to encourage the patient to reach an even higher post-operative VA. The subjective VA test for near vision will demonstrate the benefits of a multifocal IOL to the patient.

## ALADDIN



Pupillography  
Topography  
Biometry incl. K1 & K2  
IOL Calculation




Cataract surgery

## KR-800S



Post-Operative  
Subjective Refraction  
and Post-OP-diagnostics

# Reports measurement summary



**Topcon Europe Medical bv**

**Patient** : TOPCON DEMO

**Patient ID** :

**Date Of Birth** : 01/01/1950  
(mm/dd/yyyy)

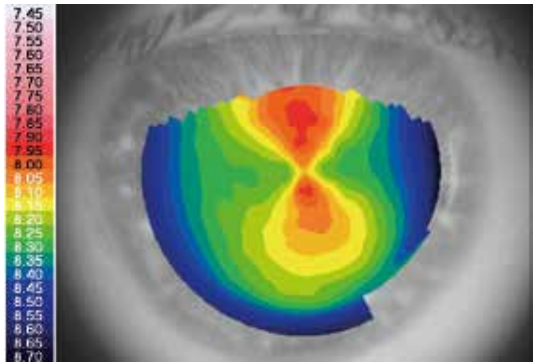
**Surgeon** : Surgeon Generic

**Exam Date** : 02/10/2015 - 17:55  
(mm/dd/yyyy)

## OD

Phakic

Normalized Axial Map

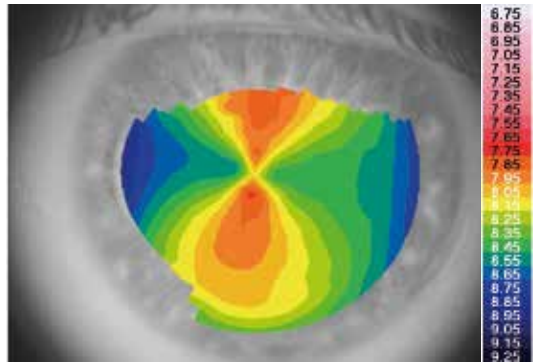


mm

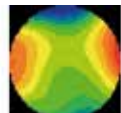


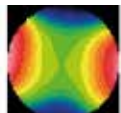


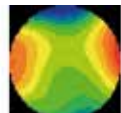


## OS

Phakic


Normalized Axial Map



mm

Measurement Summary									
AL	23.73 mm	K1	8.28 mm@	8 °	AL	23.93 mm	K1	8.51 mm@	173 °
ACD	3.14 mm	K2	8.00 mm@	98 °	ACD	3.21 mm	K2	7.90 mm@	83 °
LT	4.04 mm	CCT	0.544 mm		LT	4.00 mm	CCT	0.556 mm	
WtoW	11.70 mm	Dec	(-0.22, -0.29)		WtoW	11.92 mm	Dec	(0.40, -0.07)	
Keratorefractive Indices									
CYL 3 mm	-1.44 D	Ax:	7°		CYL 3 mm	-3.18 D	Ax:	172°	
CYL 5 mm	-1.46 D	Ax:	8°		CYL 5 mm	-3.16 D	Ax:	172°	
SD	SAI	e	Kc		SD	SAI	e	Kc	
0.36 D	0.47 D	0.49	41.61		0.44 D	0.55 D	0.39	41.40	
Keratoconus Screening									
AK	AGC	SI	p		AK	AGC	SI	p	
43.03 D	0.90 D/mm	-0.50 D	0%		43.46 D	0.68 D/mm	-0.40 D	0%	
Pupil Data									
Photo: Diam	3.95 mm	Dec	0.35 mm; 168°		Photo: Diam	4.24 mm	Dec	0.21 mm; 343°	
Meso: Diam	4.11 mm	Dec	0.32 mm; 187°		Meso: Diam	4.45 mm	Dec		
Zernike Analysis 5 mm									
OPD	Coma	Sph. Ab.	OPD	Coma	Sph. Ab.	OPD	Coma	Sph. Ab.	
									
rms: 0.80 µm	rms: 0.15 µm	rms: 0.10 µm	rms: 1.43 µm	rms: 0.07 µm	rms: 0.14 µm	rms: 0.80 µm	rms: 0.15 µm	rms: 0.10 µm	

ALADDIN Summary (V. 1.4.0)



# Reports IOL calculation



**Patient** : TOPCON DEMO

**Patient ID** :

**Date Of Birth** : 01/01/1950  
(mm/dd/yyyy)

## OD

Phakic

**Data Measurements** n: 1.3375

*Aladdin Optical*

AL : 23.73 mm K1 : 8.28 mm @ 8°  
 ACD : 3.14 mm K2 : 8.00 mm @ 98°  
 LT 4.04 mm CYL : -1.45 D ax 8°  
 CCT 0.544 mm

**Target Refraction: 0**

Oculentis  
L-313

SRK/T	
IOL(D)	REF(D)
20.50	0.83
21.00	0.47
<b>21.50</b>	<b>0.10</b>
22.00	-0.27
22.50	-0.64

IOL @ Target A = 118.100  
21.64

Oculentis  
LS-313 MF30

SRK II	
IOL(D)	REF(D)
21.00	0.77
21.50	0.37
<b>22.00</b>	<b>-0.03</b>
22.50	-0.43
23.00	-0.83

IOL @ Target A = 118.600  
21.97

Oculentis  
LU-313 MF30T

Haigis	
IOL(D)	REF(D)
21.50	0.58
22.00	0.21
<b>22.50</b>	<b>-0.16</b>
23.00	-0.54
23.50	-0.92

IOL @ Target A0 = 0.870  
22.28 A1 = 0.400  
A2 = 0.100

Oculentis  
LS-412Y

Hoffer Q	
IOL(D)	REF(D)
21.00	0.86
21.50	0.51
<b>22.00</b>	<b>0.16</b>
22.50	-0.20
23.00	-0.56

IOL @ Target pACD = 5.070  
22.22

Oculentis  
LU-800 RZI

Holladay I	
IOL(D)	REF(D)
19.00	0.90
19.50	0.52
<b>20.00</b>	<b>0.13</b>
20.50	-0.25
21.00	-0.65

IOL @ Target SF = 0.310  
20.17

**Topcon Europe Medical bv**

**Surgeon** : SURGEON GENERIC

**Exam Date** : 02/10/2015 - 17:55  
(mm/dd/yyyy)

## OS

Phakic

**Data Measurements** n: 1.3375

*Aladdin Optical*

AL : 23.93 mm K1 : 8.51 mm @ 173°  
 ACD : 3.21 mm K2 : 7.90 mm @ 83°  
 LT 4.00 mm CYL : -3.06 D ax 173°  
 CCT 0.556 mm

**Target Refraction: 0**

Oculentis  
L-313

SRK/T	
IOL(D)	REF(D)
20.50	0.67
21.00	0.31
<b>21.50</b>	<b>-0.06</b>
22.00	-0.43
22.50	-0.81

IOL @ Target A = 118.100  
21.42

Oculentis  
LS-313 MF30

SRK II	
IOL(D)	REF(D)
21.00	0.62
21.50	0.22
<b>22.00</b>	<b>-0.18</b>
22.50	-0.58
23.00	-0.98

IOL @ Target A = 118.600  
21.77

Oculentis  
LU-313 MF30T

Haigis	
IOL(D)	REF(D)
21.00	0.81
21.50	0.45
<b>22.00</b>	<b>0.08</b>
22.50	-0.30
23.00	-0.67

IOL @ Target A0 = 0.870  
22.10 A1 = 0.400  
A2 = 0.100

Oculentis  
LS-412Y

Hoffer Q	
IOL(D)	REF(D)
21.00	0.72
21.50	0.37
<b>22.00</b>	<b>0.01</b>
22.50	-0.35
23.00	-0.71

IOL @ Target pACD = 5.070  
22.02

Oculentis  
LU-800 RZI

Holladay I	
IOL(D)	REF(D)
19.00	0.76
19.50	0.38
<b>20.00</b>	<b>-0.01</b>
20.50	-0.40
21.00	-0.80

IOL @ Target SF = 0.310  
19.99

# Reports generic toric IOL calculation



Topcon Europe Medical BV

Patient : TOPCON DEMO

Surgeon : Surgeon Generic

Patient ID : ~

Exam Date (dd/mm/yyyy) : 10/02/2015 - 17:55

Date Of Birth (dd/mm/yyyy) : 01/01/1950

**OS**  
Phakic

Measures (Aladdin Optical)

K1:	<b>39.64 D</b>	AL:	<b>23.93 mm</b>	LT:	<b>4.00 mm</b>	WTW:	<b>11.98 mm</b>
K2:	<b>42.71 D</b>	ACD:	<b>3.21 mm</b>	CCT:	<b>0.556 mm</b>	WTW Dec	<b>(0.40,-0.07) mm</b>
CYL:	<b>-3.06 D @ 173°</b>						
n:	<b>1.3375</b>						

Toric IOL

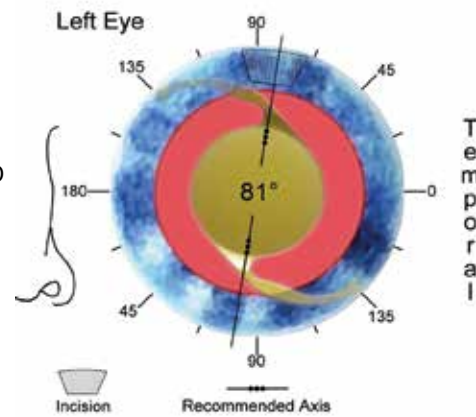
Target Refraction: **0.00 D**      SIA: **0.00 D**      IL: **83°**

**Toric IOL: Oculentis LS-313 T3**  
**21.50 D (S.E.) 3.00 D @ 81°**

LF = 1.412, A constant = 118.100

Cylinder Power: IOL Plane 3.00 D ~ Corneal Plane 2.20 D

Predicted refraction:  
0.07 D sph. -0.03 D @ 81°



IOL Power (S.E.)	Refraction (S.E.)	IOL submodel	IOL toricity	Residual astigmatism
20.50 D	0.81 D	} LS-313 T1 LS-313 T2 <b>LS-313 T3</b> LS-313 T4 LS-313 T5	1.50 D	-1.07 D @ 171°
21.00 D	0.43 D		2.25 D	-0.52 D @ 171°
<b>21.50 D</b>	<b>0.06 D</b>		<b>3.00 D</b>	<b>-0.03 D @ 81°</b>
22.00 D	-0.33 D		3.75 D	-0.58 D @ 81°
22.50 D	-0.71 D		4.50 D	-1.13 D @ 81°



# Reports generic toric IOL calculation



## TORIC IOL



### Patient Information

Patient <b>TOPCON DEMO</b>	Surgeon <b>SURGEON GENERIC</b>	<b>OS</b>
Patient ID	Clinic <b>Topcon Europe Medical bv</b>	
Date of Birth <b>01/01/1950</b> <small>mm/dd/yyyy</small>	Exam Date <b>02/10/2015 - 17:55</b> <small>mm/dd/yyyy</small>	

### Biometry Data

AL (mm)	<b>23.93</b>	LT (mm)	<b>4.00</b>	K1 (mm)	<b>8.51</b>	CYL (D)	<b>-3.06@173°</b>
ACD (mm)	<b>3.21</b>	CCT (mm)	<b>0.556</b>	K2 (mm)	<b>7.90</b>	n	<b>1.3375</b>

### Surgical Pre Op Data

SEQ (D)	<b>23.00</b>	SIA (D)	<b>0</b>
Formula	<b>Holladay I</b>	IL (°)	<b>83</b>

SF = 1.980

### Expected Post Op Cornea

K1 Post (mm)	<b>8.51</b>	K2 Post (mm)	<b>7.90</b>
CYL Post (D)	<b>-3.06 @ 173°</b>		

### Toric IOL

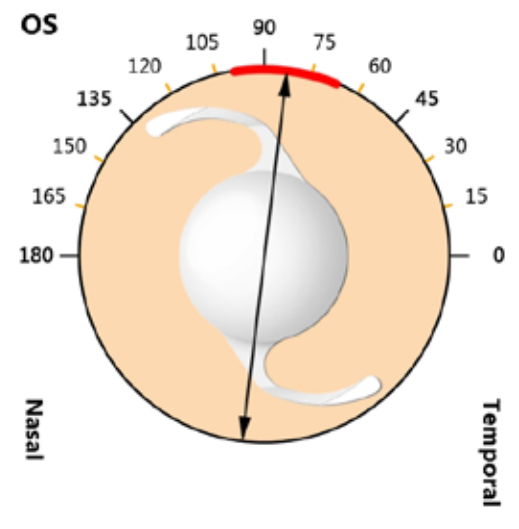
Lens Model  
**Alcon AcrySof SN6AT6**

Spherical Power	Cylindrical Power
<b>21.50 D</b>	<b>3.75 D</b>
Sph. Equiv. Power	Axis Of Placement
<b>23.38 D</b>	<b>83°</b>

Expected Refraction  
**-0.02D -0.44 D @ 173°**

Lens	Residual Astigmatism
AcrySof SN6AT4 (22.00D 2.25C)	-1.48 D @ 173°
AcrySof SN6AT5 (21.50D 3.00C)	-0.96 D @ 173°
AcrySof SN6AT6 (21.50D 3.75C)	-0.44 D @ 173°
AcrySof SN6AT7 (21.00D 4.50C)	-0.08 D @ 83°
AcrySof SN6AT8 (20.50D 5.25C)	-0.60 D @ 83°

### Toric IOL Placement



Quantity **1**

### Notes

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1.4.0

# Reports generic toric IOL calculation



Topcon Europe Medical bv

**Patient** : TOPCON DEMO

**Surgeon** : Surgeon Generic

**Patient ID** :

**Exam Date** : 02/10/2015 - 17:55  
(mm/dd/yyyy)

**Date Of Birth** : 01/01/1950  
(mm/dd/yyyy)

**OD**

**OS**

Phakic

Phakic

**Axial length values**

Comp. AL: 23.73 mm		Comp. AL: 23.93 mm	
AL	AL	AL	AL
23.79 mm		23.95 mm	
23.77 mm		23.91 mm	
23.72 mm		23.85 mm	
23.73 mm		23.93 mm	
23.73 mm		23.96 mm	
23.72 mm		23.94 mm	

**Value Corneal Curvature**

KER: 8.28/8.00 mm CYL: -1.45 D Ax 8°		KER: 8.51/7.90 mm CYL: -3.06 D Ax 173°	
K1: 8.28 mm @ 8°	40.74 D	K1: 8.51 mm @ 173°	39.64 D
K2: 8.00 mm @ 98°	42.19 D	K2: 7.90 mm @ 83°	42.71 D
CYL: -1.45 D ax 8°		CYL: -3.06 D ax 173°	

**ACD value**

ACD: 3.14 mm		ACD: 3.21 mm	
3.14 mm		3.21 mm	

**LT value**

LT: 4.04 mm		LT: 4.00 mm	
4.04 mm		4.00 mm	

**CCT value**

CCT: 0.544 mm		CCT: 0.556 mm	
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**White to White**

WTW 11.70 mm Dec (-0.22 mm, -0.29 mm)		WTW 11.92 mm Dec (0.40 mm, -0.07 mm)	
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# Reports generic toric IOL calculation



Topcon Europe Medical bv

Patient : TOPCON DEMO

Surgeon : Surgeon Generic

Patient ID :

Exam Date : 02/10/2015 - 17:55  
(mm/dd/yyyy)

Date Of Birth : 01/01/1950  
(mm/dd/yyyy)

## Dynamic Pupillography

**OD**

Diameter (mm)

Min	Max
3.48	4.98

Center (mm)

Mean	Std Dev
x= -0.27	0.07
y= 0.02	



**OS**

Diameter (mm)

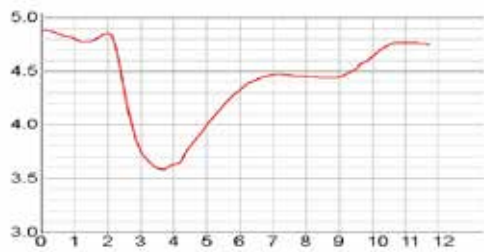
Min	Max
3.27	4.78

Center (mm)

Mean	Std Dev
x= 0.25	0.08
y= -0.04	



## Latency



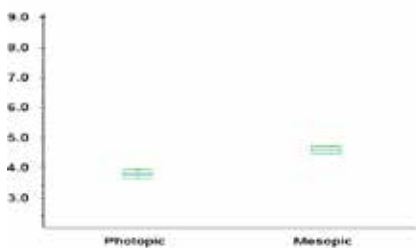
## Static Pupillography

Diameter (mm)

	Mesopic	Photopic
Mean	4.57	3.80
Std Dev	0.09	0.09

Center (mm)

	Mesopic	Photopic
X	-0.33	-0.27
Y	0.04	-0.01

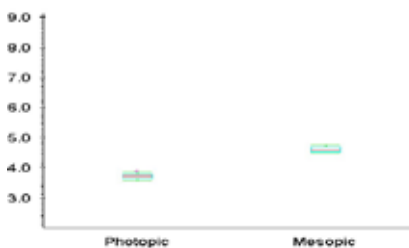


Diameter (mm)

	Mesopic	Photopic
Mean	4.60	3.71
Std Dev	0.09	0.10

Center (mm)

	Mesopic	Photopic
X	0.25	0.21
Y	-0.15	-0.09



## Specifications

<b>Measurement range for IOL</b>	
<b>Axial length (Interferometry)</b>	Super luminescent diode 830 nm, 15.00 mm - 38.00 mm
<b>Corneal radii</b>	5.00 mm - 12.00 mm / 28.00D - 67.50D
<b>Anterior chamber depth measurement</b>	interferometer 1.50 mm - 6.50 mm
<b>White-to-white measurement</b>	8.00 mm - 14.00 mm
<b>Pupillometry</b>	Dynamic, Photopic & Mesopic, pupil size 0.50 mm - 10.00 mm
<b>Lens thickness (interferometry)</b>	1.50 mm - 6.50 mm (phakic) 0.50 mm - 3.50 mm (pseudo-phakic)
<b>Central Corneal Thickness measurement (interferometry)</b>	0.300 mm - 0.800 mm
<b>Onboard calculation formulae</b>	
<b>IOL formulae</b>	Haigis, Hoffer Q, Holladay 1, SRK <sup>III</sup> & SRK <sup>*T</sup> , Barrett Universal II, Olsen
<b>Post Refractive IOL formulae</b>	Camellin-Calossi & Shammas (no history) Olsen, Barrett True K
<b>Placido Topography specifications</b>	
<b>Keratoscopic Cone (topographic map)</b>	24 rings on a 43 dpt sphere, working distance 80 mm
<b>Points analyzed</b>	over 100,000
<b>Points measured</b>	over 6,000
<b>Cornea coverage</b>	up to Ø 9.8 mm (on a 8 mm sphere) 42.20D with n=1.3375
<b>Guided focus system</b>	yes
<b>Keratoconus screening</b>	
<b>Apical curvature</b>	yes
<b>Apical gradient of curvature</b>	yes
<b>Symmetry index</b>	yes
<b>Kpi (Keratoconus probability index)</b>	yes
<b>Software features</b>	
<b>Toric IOL calculator</b>	Generic Toric IOL, Oculentis Toric IOL
<b>Zernike analysis</b>	Pupil size 2.5 mm - 7.0 mm
<b>Print to</b>	USB printer, Network printer, PDF to shared network folder & PDF to USB drive
<b>Instrument specifications</b>	
<b>Display</b>	10.1 inch touchscreen
<b>Storage</b>	At least 320 GB HDD + 32 GB SSD
<b>Operating system</b>	Windows 7 Embedded OS
<b>Processor</b>	AMD G-T56N
<b>Internal memory</b>	2 GB RAM
<b>Power input</b>	AC 100 - 240V, 50 - 60Hz
<b>Dimensions</b>	320 mm (W) x 490 mm (H) x 470 mm (L)
<b>Weight</b>	18 kg
<b>Connections</b>	1x LAN, 2x USB
<b>Supports</b>	USB Barcode scanner, External USB keyboard / mouse
<b>Marking</b>	CE, ETL
<b>Reports</b>	
<b>ALADDIN report</b>	yes
<b>Measurement overview</b>	yes
<b>Pupillometry</b>	yes
<b>IOL</b>	yes
<b>Generic Toric IOL</b>	yes
<b>Oculentis Toric IOL</b>	yes

### IMPORTANT

Subject to change in design and/or specifications without advanced notice.  
In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.  
Medical device Class IIa. Manufacturer: VISIA imaging S.r.l.



VISIA Imaging S.r.l.

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