Aladdin

Combination optical biometer and corneal topographer

TOPCON Healthcare

Mastering IOL Selection: Expert Tools, Informed Decisions

The Aladdin is an easy-to-use, combination optical biometer and corneal topographer. 9-in-1 features include optical coherence biometry, Placido topography, wavefront analysis of the cornea, IOL calculation suite, pupillometry, DICOM connectivity and the RX/AL Trends Module.

Overview

Keratometry, Topography

Keratoconus Screening*

Aberrometry Analysis (Zernike)

White to White Measurement

Axial length measurement

Dynamic pupillometry

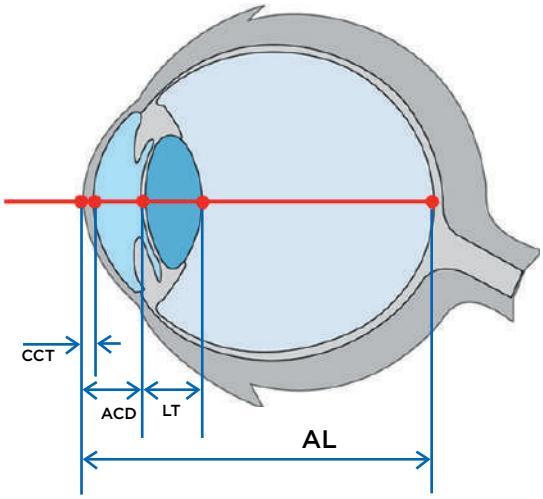
IOL & Toric IOL Calculation

Comprehensive Reports

RX/AL Trends Module

Posterior & Anterior interferometry

Biometry results are complemented with anterior topography, Zernike analysis and pupillometry in one fast, accurate and easy acquisition.
The Interferometer of ALADDIN also provides anterior measurements such as the Central Corneal Thickness (CCT), Anterior Chamber Depth (ACD) and Lens Thickness. You get the complete picture for your 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.

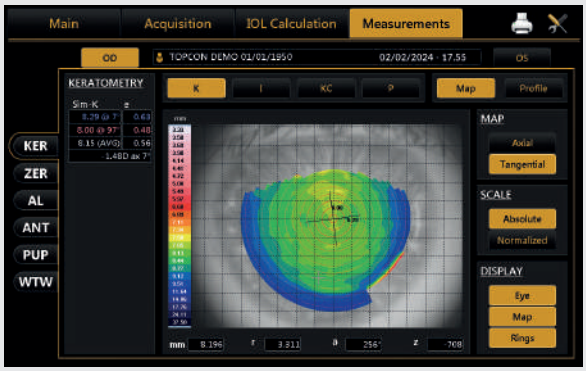


* Not available in the US.

Keratometry / Topography

Corneal topography provides much more information than just K-values. Not only the power, but also the shape of the corneal astigmatism can be easily detected with topography maps, facilitating your decision on toric IOL implantation. The keratometry provided by the placido rings of ALADDIN is extremely accurate due to simultaneous use of the interferometer.

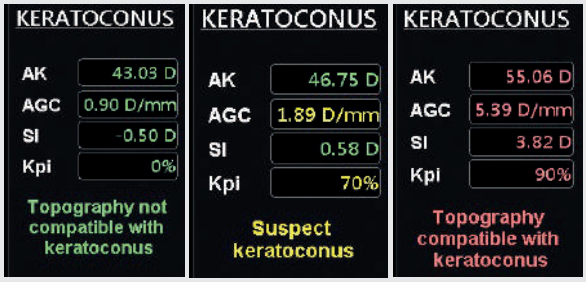
- Axial and tangential map
- Absolute and normalized scale
- Millimeters or diopters
- Grid, rings, and 3, 5 and 7 mm zones



Keratoconus screening*

The Aladdin is capable of screening the anterior corneal surface for keratoconus. The Keratoconus Probability Index is shown in percentage as well as in colour codes. This information assist surgeons in deciding the best IOL type for the patient.

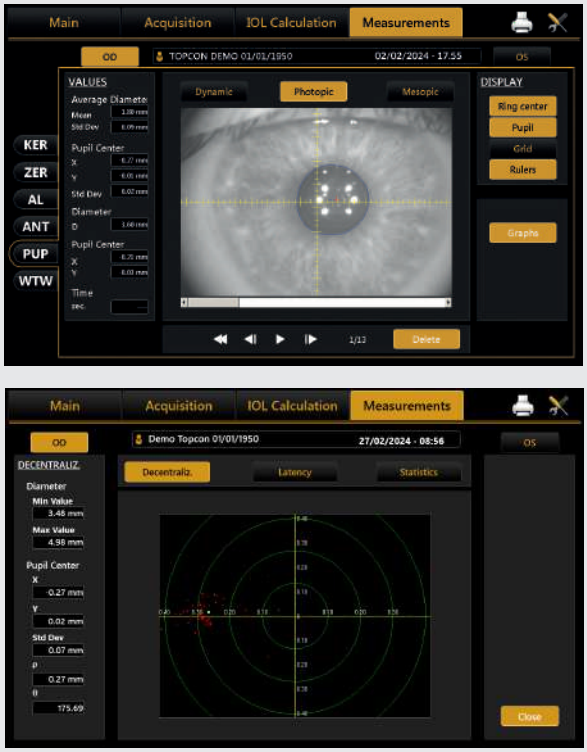
Green	Not compatible with Keratoconus
Yellow	Suspected Keratoconus
Red	Compatible with Keratoconus



Dynamic Pupillometry

Aladdin provides different light conditions to measure the pupil size during dynamic pupillometry. This information is very important while evaluating candidates for multifocal IOLs or refractive surgery. For any refractive procedure, it is vitally important to diagnose the pupil very carefully in different light conditions, and exclude cases of extreme small or decentered pupils.

- Dynamic
- Photopic
- Mesopic

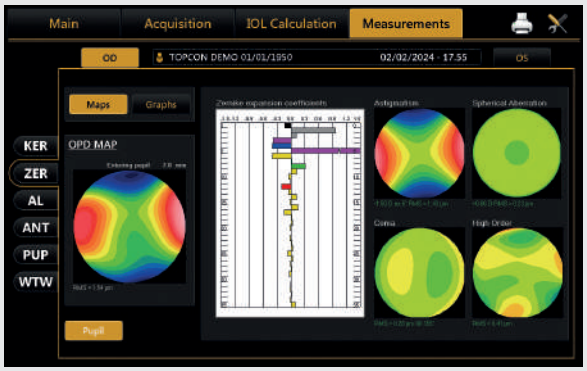


* Not available in the US.

Aladdin Features

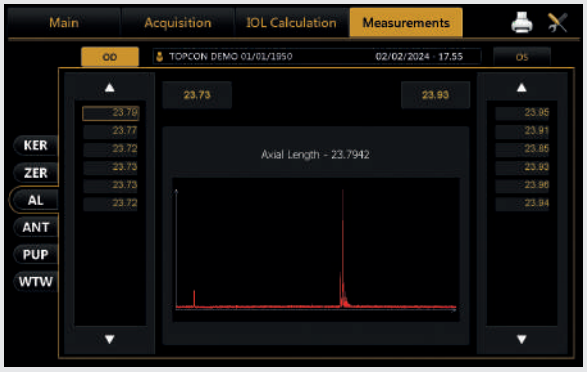
Aberrometry analysis (Zernike)

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 2.5mm to 7.0mm



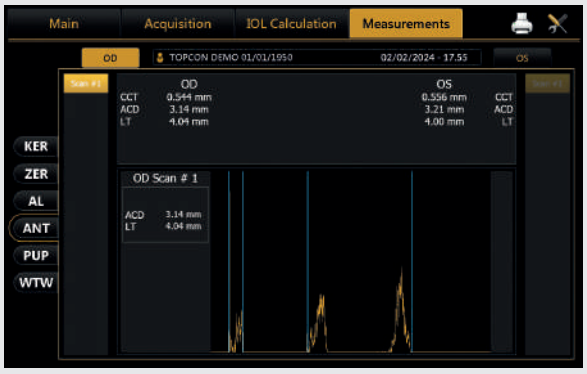
Axial length

Using a low-coherence interferometry system with a superluminescent diode of 830 nm and signal processing, the ALADDIN achieves Axial length measurement with high signal-to-noise ratio. Axial length measurements can be done on phakic eyes as well as on aphakic, pseudoaphakic and silicone oil-filled eyes.



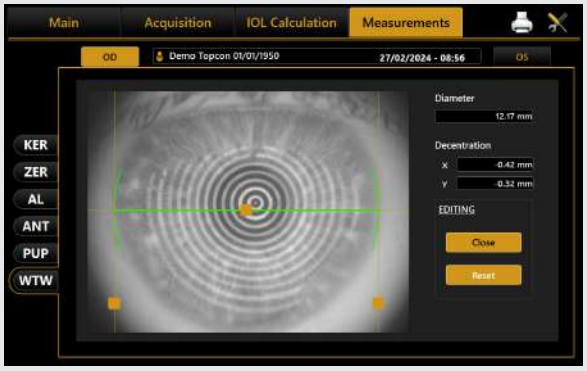
Anterior biometry

Anterior biometry with the ALADDIN allows measuring the Central Corneal Thickness, Anterior Chamber Depth and the crystalline Lens Thickness. The resulting interferometry measurements are presented graphically for clear visualization.

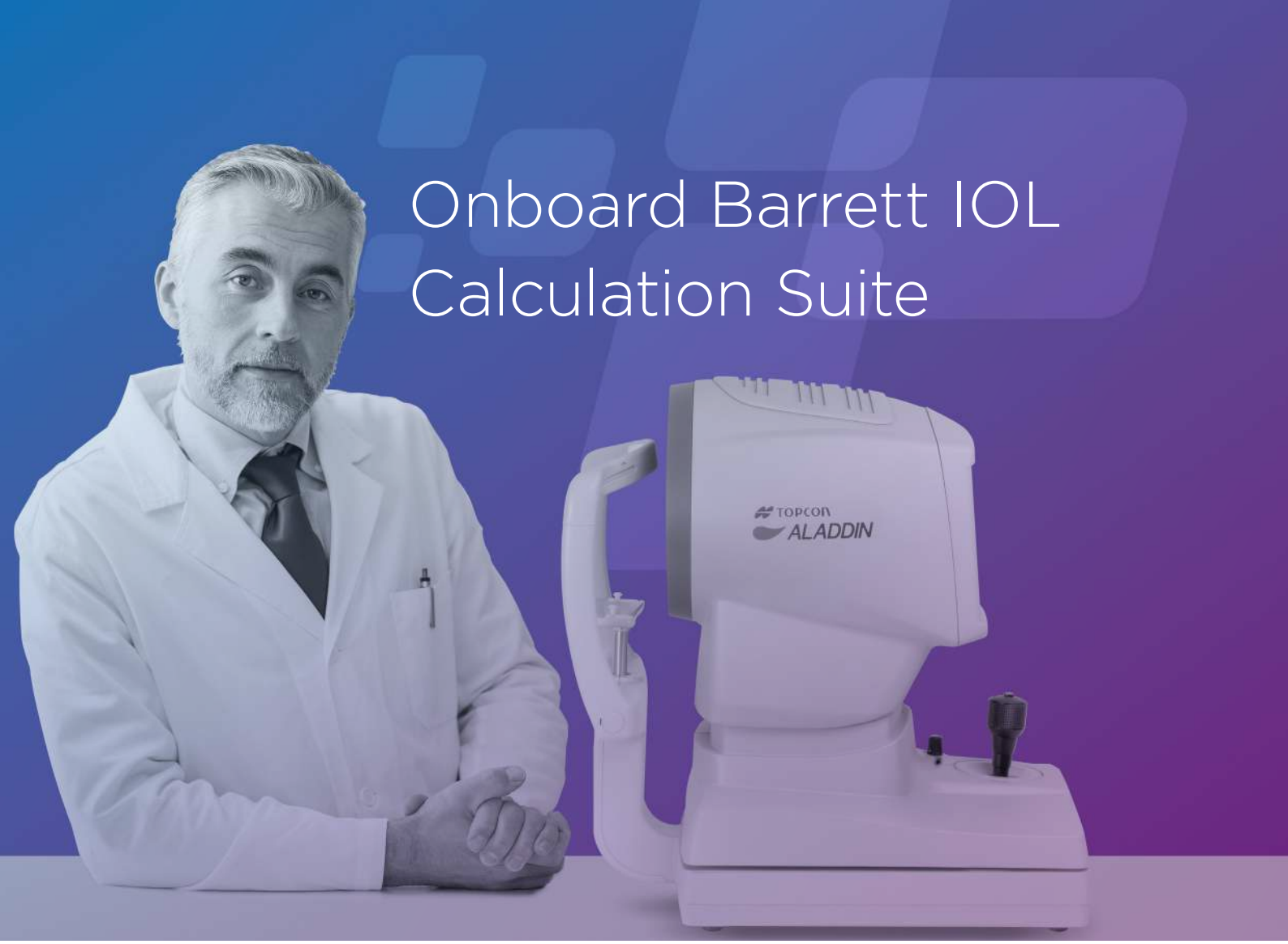


White to white

ALADDIN automatically calculates the white-to-white measurement, which can be edited manually if necessary. This precise measurement is particularly valuable for the placement of anterior chamber intraocular lenses and sulcus fixated posterior chamber intraocular lenses, especially in highly myopic eyes, ensuring reliable outcomes.



Onboard Barrett IOL Calculation Suite

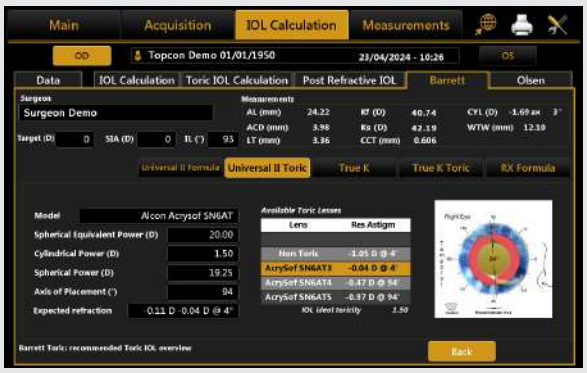


On-board calculation formulas

IOL formulas	Haigis, Hoffer Q, Holladay 1, SRK®II, SRK®T, Barrett Universal II, Olsen
Post-refractive Surgery IOL formulas	Camellin Calossi and Shammas No History, Barrett True K, Barrett Rx

Onboard Barrett IOL Calcuation Suite

Dr. Graham D. Barrett developed his own formula in 2013. The Barrett Univesal II formula is unique, as it predicts the posterior corneal curvate without the need of actually measuring it.

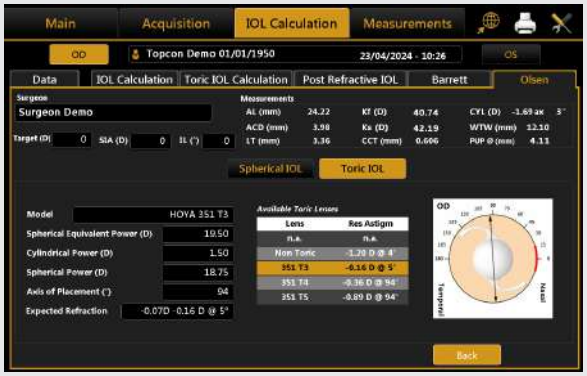


The Aladdin's Barrett IOL Calculation Suite includes:

- Barrett Universal II
- Barrett Toric
- Barrett True K
- Barrett Rx

Onboard Olsen Formula

The Aladdin features the Olsen IOL calculation formula. It utilizes the C-constant, together with many biometric measurements of the eye to predict the effective lens position.



Olsen Formula

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.

TOPCON

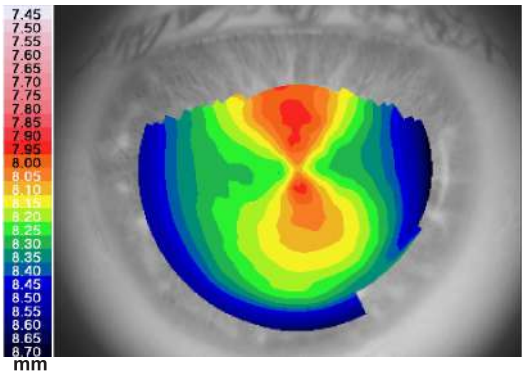
Topcon Europe Medical bv

Patient	: **TOPCON DEMO**	***Surgeon***	: **Surgeon Generic**
Patient ID	:	***Exam Date*** (mm/dd/yyyy)	: **03/12/2024 - 16:35**
Date Of Birth (mm/dd/yyyy)	: **01/01/1950**		

OD

Phakic

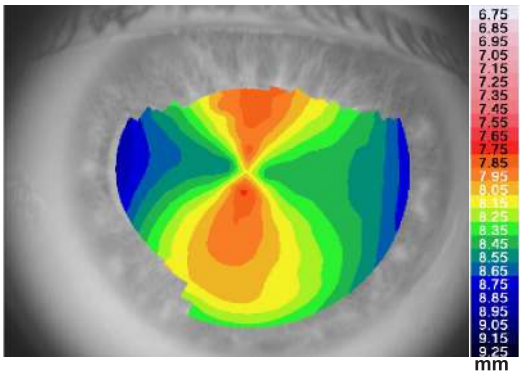
Normalized Axial Map



OS

Phakic

Normalized Axial Map



Measurement Summary

OD					OS				
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

OD				OS			
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**

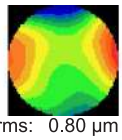
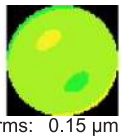
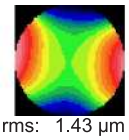
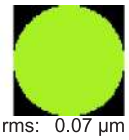
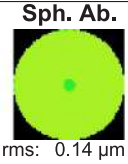
Keratoconus Screening

OD				OS			
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

OD					OS				
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*

OD			OS		
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

Aladdin Summary (V. 1.3.4)

ALADDIN

TOPCON

Topcon Europe Medical bv

Patient :TOPCON DEMO
Patient ID :Demo
Date Of Birth (dd/mm/yyyy) :01/01/1950

Surgeon :SURGEON GENERIC
Exam Date (dd/mm/yyyy) :27/02/2024 - 10:23

OD
Phakic

Data Measurements **n** :1.3375
Aladdin Optical

AL	: 23.73 mm	K1	: 40.74 D	@	8 °
ACD	: 3.14 mm	K2	: 42.19 D	@	98 °
LT	: 4.04 mm	CYL	: -1.45 D	ax	8 °
CCT	: 0.544 mm	AvgK	: 41.47 D		
WTW	: 11.69 mm				

Target Refraction: 0

Teleon
AN6V

Haigis	
IOL(D)	REF(D)
23.00	0.58
23.50	0.23
24.00	**-0.12**
24.50	-0.48
25.00	-0.84

IOL @ Target 23.83
A0 = 1.625
A1 = 0.400
A2 = 0.100

Teleon
LS-313 MF15

Hoffer Q	
IOL(D)	REF(D)
21.50	0.62
22.00	0.27
22.50	**-0.08**
23.00	-0.44
23.50	-0.80

IOL @ Target 22.38
pACD = 5.152

Teleon
LS-313 MF20

Holladay I	
IOL(D)	REF(D)
21.50	0.71
22.00	0.36
22.50	**0.01**
23.00	-0.35
23.50	-0.71

IOL @ Target 22.51
SF = 1.569

Teleon
LS-313 MF20

Barrett Universal II	
IOL(D)	REF(D)
21.50	0.62
22.00	0.25
22.50	**-0.13**
23.00	-0.50
23.50	-0.89

IOL @ Target 22.33
LF = 1.707
A = 118.660

Teleon
LS-313 MF20

SRK/T	
IOL(D)	REF(D)
21.50	0.59
22.00	0.23
22.50	**-0.13**
23.00	-0.49
23.50	-0.86

IOL @ Target 22.32
A = 118.663

OS
Phakic

Data Measurements **n** :1.3375
Aladdin Optical

AL	: 23.93 mm	K1	: 39.64 D	@	173 °
ACD	: 3.21 mm	K2	: 42.71 D	@	83 °
LT	: 4.00 mm	CYL	: -3.06 D	ax	173 °
CCT	: 0.556 mm	AvgK	: 41.17 D		
WTW	: 11.98 mm				

Target Refraction: 0

Bausch + Lomb
AO1UV

Holladay I	
IOL(D)	REF(D)
22.00	0.59
22.50	0.24
23.00	**-0.11**
23.50	-0.46
24.00	-0.81

IOL @ Target 22.85
SF = 1.850

Bausch + Lomb
MX60E

Haigis	
IOL(D)	REF(D)
22.50	0.55
23.00	0.20
23.50	**-0.16**
24.00	-0.52
24.50	-0.88

IOL @ Target 23.28
A0 = 1.460
A1 = 0.400
A2 = 0.100

Bausch + Lomb
LI61AO

Hoffer Q	
IOL(D)	REF(D)
21.50	0.81
22.00	0.47
22.50	**0.13**
23.00	-0.22
23.50	-0.58

IOL @ Target 22.68
pACD = 5.400

Bausch + Lomb
IC-8 Apthera

Barrett Universal II	
IOL(D)	REF(D)
22.50	0.83
23.00	0.48
23.50	**0.13**
24.00	-0.22
24.50	-0.58

IOL @ Target 23.69
LF = 2.486
A = 120.150

Bausch + Lomb
IC-8 Apthera

SRK/T	
IOL(D)	REF(D)
23.00	0.67
23.50	0.34
24.00	**0.01**
24.50	-0.33
25.00	-0.67

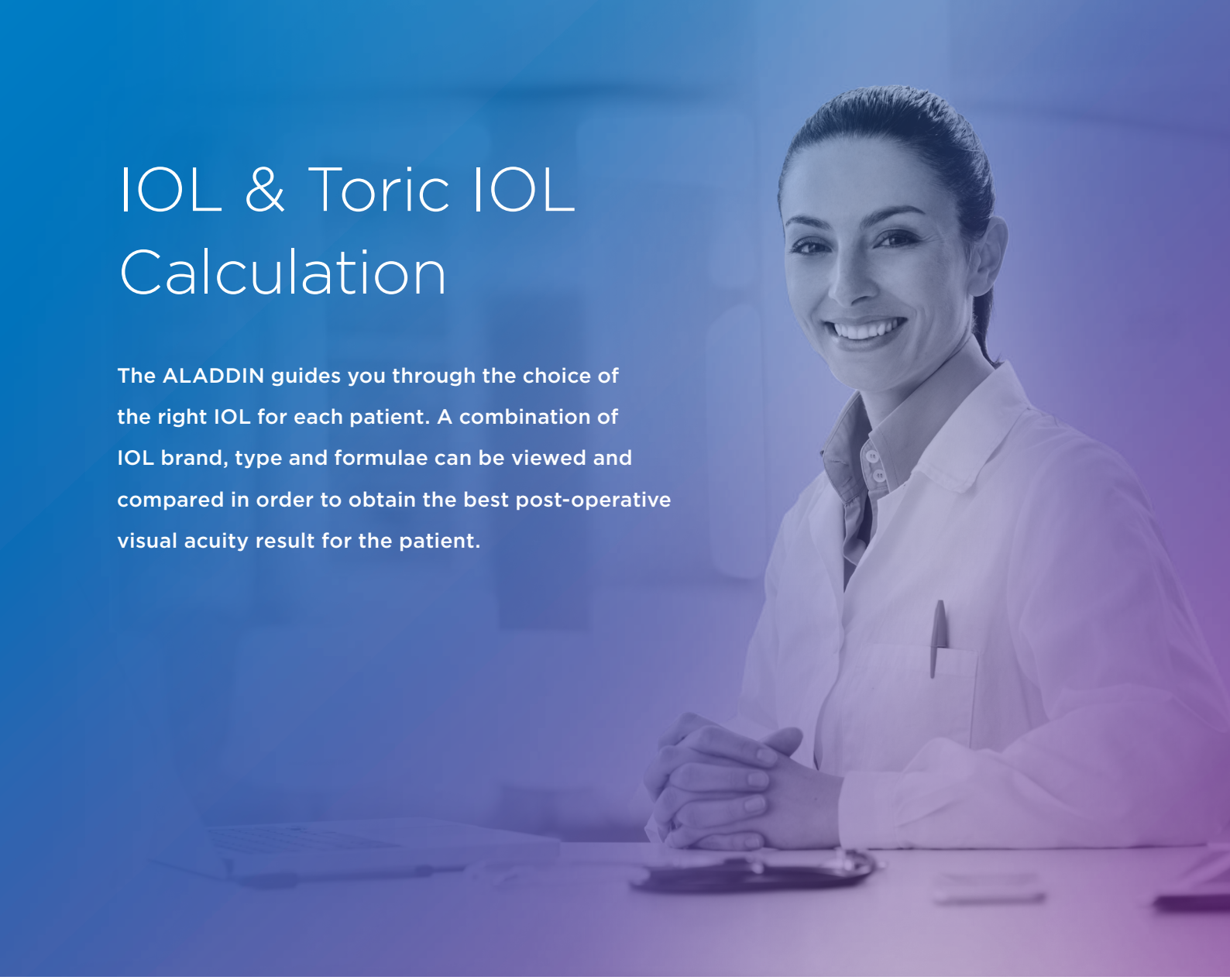
IOL @ Target 24.01
A = 120.150

IOL Calculator (V. 1.11.0) SN: 2023/12/18 12:08:42

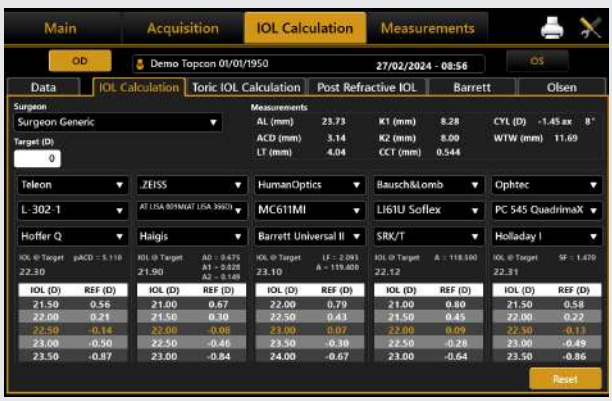
ALADDIN

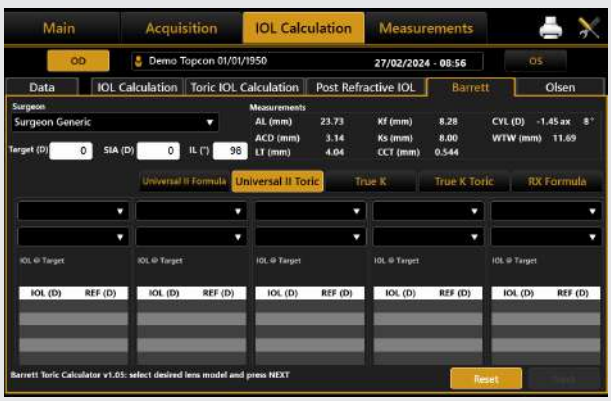
IOL & Toric IOL Calculation

The ALADDIN guides you through the choice of the right IOL for each patient. A combination of IOL brand, type and formulae can be viewed and compared in order to obtain the best post-operative visual acuity result for the patient.



A pre-defined IOL selection can be programmed for each surgeon. When implanting a toric IOL, specific software assists you in calculating the best option. This integrated toric IOL calculator saves you 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 toric IOL rotation.

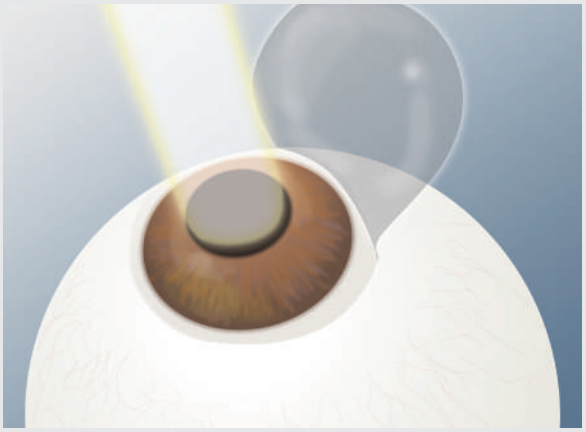




IOL & Toric IOL Calculation

Post-refractive IOL

In eyes that have previously undergone refractive surgery such as LASIK and PRK, spherical aberrations are often outside the standard values. Aladdin's on board Barrett True-K, True-K Toric, Camellin-Calossi and Shammas No-history formulae provide the tools for post-refractive IOL calculations.



Customisable IOL database

The ALADDIN provides a IOL database which can be upgraded and customised. You can manually customize the A- constant for each IOL to obtain even a higher accuracy every time you perform cataract surgery. Your favourite IOLs can be pre-defined and programmed for each individual surgeon, simplifying and personalising IOL selection.

TORIC IOL

TOPCON

Patient Information

Patient **TOPCON DEMO**	Surgeon **SURGEON GENERIC**	**OS**
Patient ID	Clinic **Topcon Europe Medical bv**	
Date of Birth **01/01/1950** dd/mm/yyyy	Exam Date **03/10/2023 - 14:25** dd/mm/yyyy	

Biometry Data

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

Surgical Pre Op Data

SEQ (D)	**23.00**	SIA (D)	**0**
Formula	**Holladay I**	IL (°)	**83**

SF = 1.980

Expected Post Op Cornea

K1 Post (mm) **8.51** K2 Post (mm) **7.90**

CYL Post (D) **-3.06 @ 173°**

Toric IOL

Lens Model

Alcon AcrySof SN6AT6

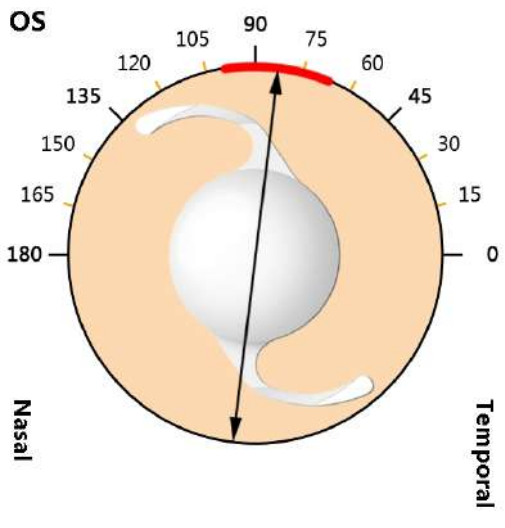
Spherical Power	Cylindrical Power
21.50 D	**3.75 D**
Sph. Equiv. Power	Axis Of Placement
23.38 D	**83°**

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

1.0.0

TOPCON

Topcon Europe Medical bv

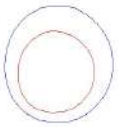
Patient	: TOPCON DEMO	*Surgeon*	: Surgeon Generic
Patient ID	:	*Exam Date* (mm/dd/yyyy)	: 03/16/2024 - 10:45
Date Of Birth (mm/dd/yyyy)	: 01/01/1950		

Dynamic Pupillography

OD

Diameter (mm)

Min	Max
3.48	4.98



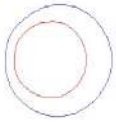
Center (mm)

Mean	Std Dev
x= -0.27 y= 0.02	0.07

OS

Diameter (mm)

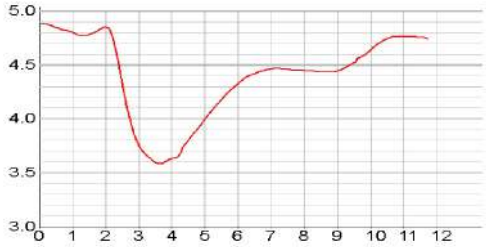
Min	Max
3.27	4.78



Center (mm)

Mean	Std Dev
x= 0.25 y= -0.04	0.08

Latency



Static Pupillography

Diameter (mm)

	Mesopic	Photopic
Mean	4.57	3.80
Std Dev	0.09	0.09

Diameter (mm)

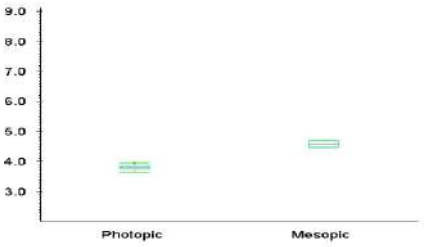
	Mesopic	Photopic
Mean	4.60	3.71
Std Dev	0.09	0.10

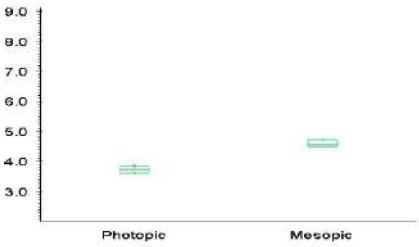
Center (mm)

	Mesopic	Photopic
X	-0.33	-0.27
Y	0.04	-0.01

Center (mm)

	Mesopic	Photopic
X	0.25	0.21
Y	-0.15	-0.09





Pupillometry (V. 1.3.4)

ALADDIN

Report Samples

TOPCON

Topcon Europe Medical bv

Patient	: TOPCON DEMO	*Surgeon*	: Surgeon Generic
Patient ID	:	*Exam Date* (mm/dd/yyyy)	: 03/22/2024 - 10:35
Date Of Birth (mm/dd/yyyy)	: 01/01/1950		

OD
Phakic

OS
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

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)

Topcon's Cataract Workstation

Cataract surgery quality control

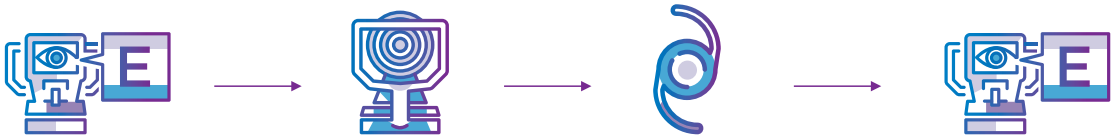
Visual acuity (VA) is the best parameter to measure refractive success after cataract surgery. Topcon's KR-800S Auto Kerato- Refractometer can measure VA in a standardized and systematic way, both pre- and post-surgery. With unique features "Glare" and "Contrast" tests, KR-800S also assists you evaluating the progression of cataract, as well as distinct nuclear from cortical cataract.

VA Simulation Premium IOL

KR-800S offers a Spherical Equivalent mode which can simulate the benefits of a premium (toric) IOL, to educate the patient on the advantages of a better post-operative VA. The subjective VA test for near will assist the patient in considering a Multifocal IOL.

Cataract workstation

The KR-800S completes the screening workflow of cataract surgery. All necessary cataract pre-op information can be obtained by KR-800S and ALADDIN, while the KR-800S assist you post-op in Visual Acuity evaluation and the success of the cataract surgery. ALADDIN and KR-800S are the perfect combination for your cataract practice.



KR-800S
PRE-OPERATIVE
Subjective Refraction
and Pre-OP-diagnostics

Aladdin
Pupillography
Topography
Biometry inkl. K1 & K2
IOL Calculation

Cataract Surgery

KR-800S
POST-OPERATIVE
Subjective Refraction
and Post-OP-diagnostics

Aladdin

Optical Biometry &
Topography System

KR-800S

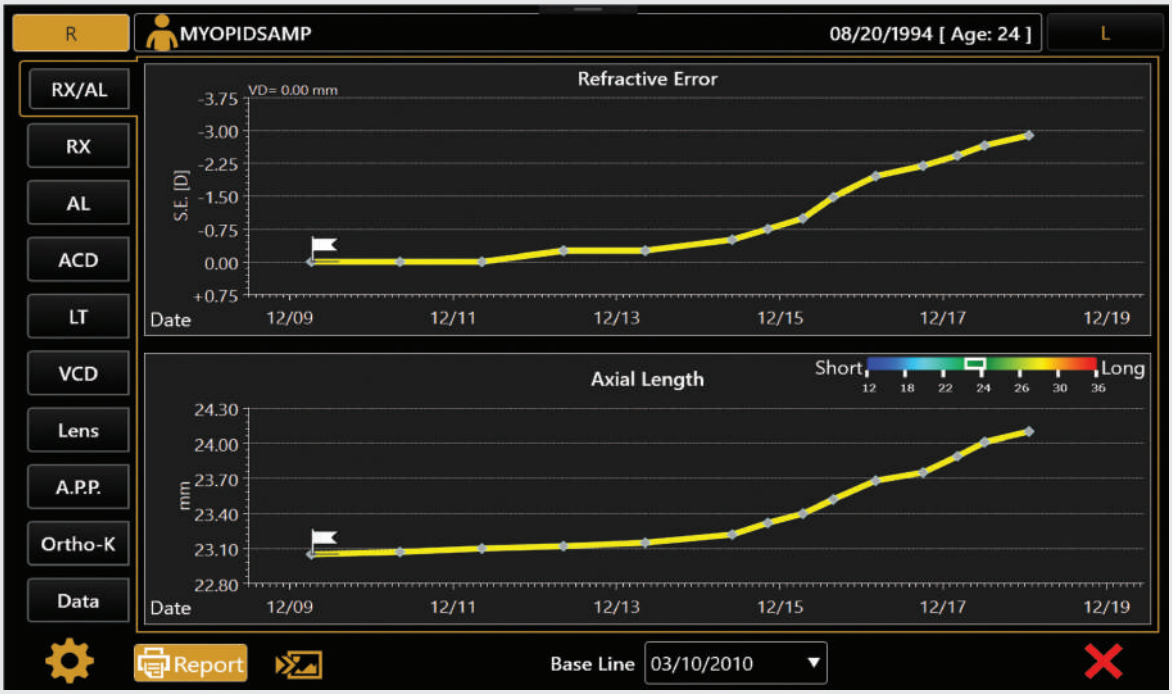
Auto kerato refractometer
with subjective function

Are you focusing on refractive changes?

Experience the Aladdin RX/AL Trends Module: The precise tool to monitor longitudinal changes in the eye.

RX/AL Trends Module

- **Measures and displays trends in AL changes**
- **Allows you to monitor change progression**
- **Charts and tracks refractive variations**
- **Provides comprehensive printouts**



Trend Monitoring

By combining manually entered refractive information with biometric data obtained by low-coherence interferometry, the Aladdin provides a quantitative report of the progression of changes in the eye's refractive power.

After the refraction values are entered, the Aladdin provides a numerical analysis of the trends of the eye parameters related to changes in the axial length, corneal curvature, anterior corneal wave front analysis and other dimensional variations. Changes can be followed in periods of 3, 6 and 12 months providing a trend that can be used to track the progression of certain eye conditions.

Specifications of Aladdin

Measurement range for IOL	
Axial Length (Interferometry)	Super luminescent diode 830nm, 15mm - 38mm
Corneal Radii	5.00mm – 12.00mm / 28.00D - 67.50D
ACD measurement	Interferometer 1.5mm – 6.5mm
WTW measurement	8.0mm- 14.0mm
Pupillometry	Dynamic, Photopic & Mesopic, pupil size 0.5mm - 10mm
Lens Thickness (interferometry)	0.5mm – 6.5mm
CCT measurement (interferometry)	0.300mm – 0.800mm
On-board calculation formulas	
IOL formulas	Haigis, Hoffer Q, Holladay 1, SRK®II, SRK®T, Barrett Universal II, Olsen
Post-refractive Surgery IOL formulas	Camellin Calossi and Shammas No History, Barrett True K, Barrett Rx
Placido Topography specifications	
Keratoscopic Cone (topographic map)	24 rings on a 43D sphere, working distance 80mm
Points analysed	Over 100,000
Points measured	Over 6,000
Cornea coverage	up to Ø 9,8mm (on a 8mm sphere) 42.2D with N=1.3375
Guided focus system	Yes
Apex Keratometry	
Apical Curvature	Yes
Apical Gradient of Curvature	Yes
Symmetry index	Yes
Kpi (Keratoconus probability index)	Yes*
Software features	
Toric IOL calculator	Generic Toric IOL, Teleon Toric IOL
Zernike analysis	Pupil size 2.5mm - 7.5mm
Print to	USB printer, Network printer, PDF to shared network folder & PDF to USB drive
Instrument Specifications	
Display	10.1" touch screen
Storage	At least 500GB
Operating system	WINDOWS Embedded
Processor	Intel®
Internal memory	At least 4GB RAM
Power input	AC 100-240V 50/60Hz
Dimensions	320mm (W) x 490mm (H) x 470mm (L)
Weight	18kg
Connections	1 x LAN, 2 x USB
Supports	USB Barcode scanner, External USB keyboard / mouse
Marking	CE, ETL
Reports	
Aladdin report	Yes
Measurement overview	Yes
Pupillometry	Yes
IOL	Yes
Generic Toric IOL	Yes
Teleon Toric IOL	Yes

* Not available in the US.

IMPORTANT In order to obtain the best results with this instrument, please be sure to review all user instructions prior to operation.
Not all products, services, or offers are available in all markets. Contact your local distributor for country-specific information and availability.

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