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Barrett formulae

in Aladdin HW3.0

(for sw v1.6.0 and up)

Release Notes for the software version 1.6.0

Introduction

This document is the official list of the changes that are included in the next software version 1.6.0 for Aladdin .

Changes List

Referring to the latest released version 1.5.0 following is the list of the added features and bug that will be solved.

- **Integrated Barrett IOL calculation module**

Barrett IOL calculator is the IOL calculation choice of APACRS and ASCRS:

https://www.apacrs.org/

http://www.ascrs.org/barrett-toric-calculator

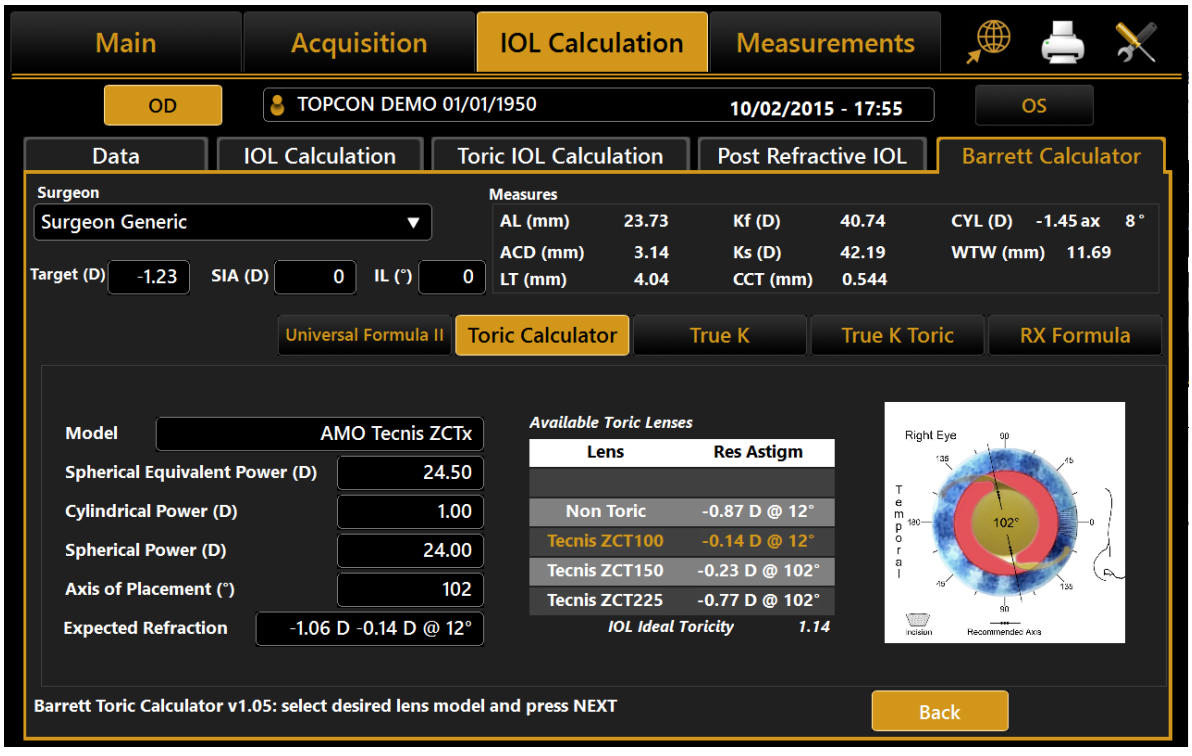
New deliveries of Aladdin HW3.0 are pre-installed with software v1.6.0 with the following Serial Numbers 92160283~92160285, 92160303~92160310 & 92170313→ Also the Barrett formula is pre-installed and activated. These instruments (with Barrett activated) will get a free Olsen formula activation (once available) with the next software upgrade. (v1.7.x expected May).

All existing Aladdin users can upgrade to v1.6.0. Once Olsen formula becomes available existing Aladdin HW3.0 (v1.6.0 and up) users can upgrade their instrument with an optional Barrett/Olsen formulae activation package, expected in May.
Item code and price of this optional Barrett/Olsen activation package will be released later.

The Barrett Calculator integrates the Barrett IOL Calculator v1.05. The calculation methods are the following:

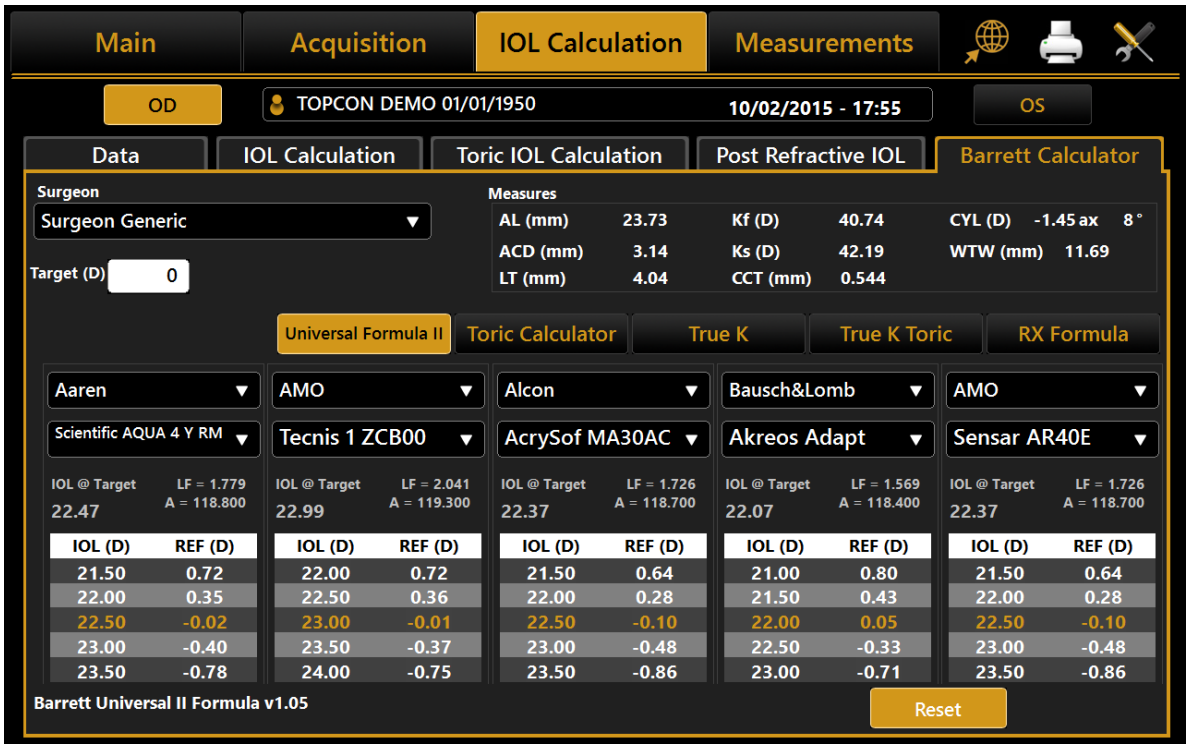
- **Universal Formula II**: Barrett Universal II Formula v1.05, for alle yes regardless of axial length
- **Toric Calculator:** Barrett Toric Calculator v1.05, for correction of pre-existing corneal astigmatism with Toric IOLs
- **True K:** Barrett True K Formula v1.05, for eyes with prior myopic or hyperopic LASIK/PRK/RK
- **True K Toric:** Barrett True-K Toric Calculator v1.05, for eyes with prior myopic or hyperopic LASIK/PRK/RK and corneal astigmatism
- **Rx Formula:** Barrett Rx Formula v1.05, for IOL exchange and piggy back IOLs based on refraction after cataract surgery

All the formulas are based on the *Barrett Universal II Formula*.



Universal Formula II (Barrett)

Barrett Universal II Formula v1.05, for all eyes regardless of axial length.



In the ***"Surgeon"*** field, you can choose which surgeon will perform the IOL implant and any customization of the constants or pre-setting of the preferred lenses will be applied on this basis.

In ***"Target"*** field the target refractive value for the Post-Op must be inserted.

The ***"Measurements"*** field summarizes the measurement data.

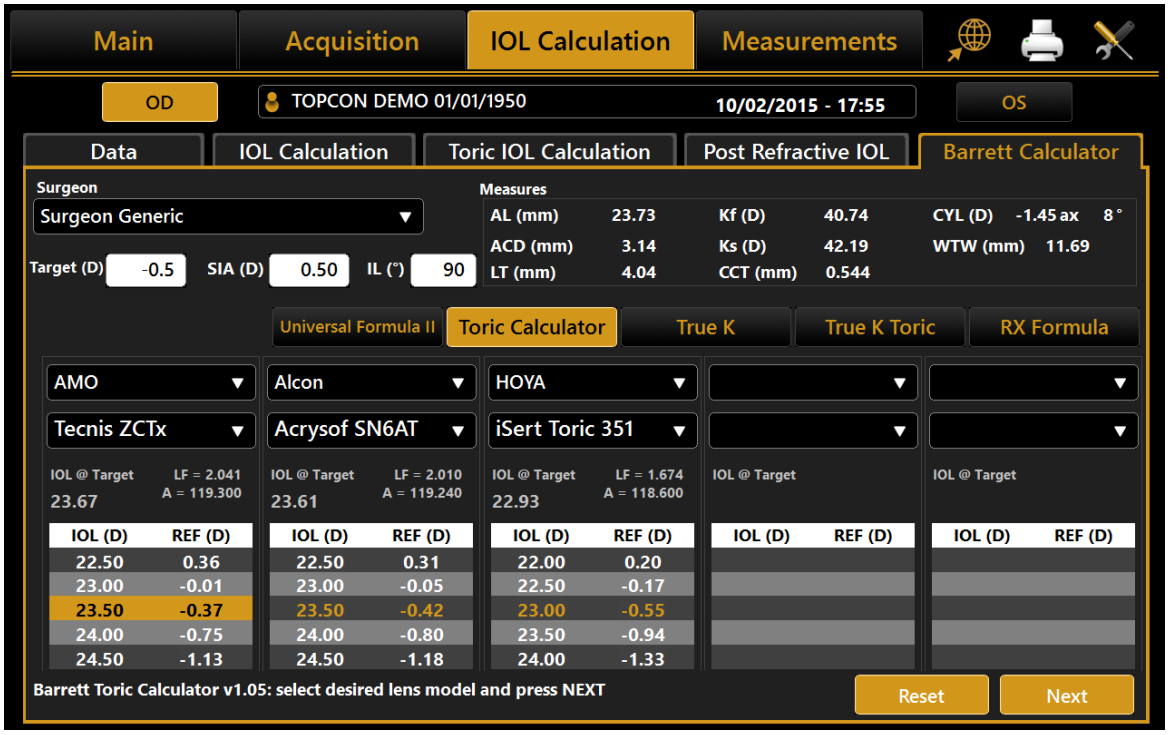
From the drop-down menu, select the IOL manufacturer and model with which to calculate the best lens.

Once this data has been entered, the most appropriate lens can be chosen at the discretion of the surgeon. The latter is highlighted in orange. Once selected, the lens will be memorized as the preferred one and will be shown highlighted on the report printout.

Pressing **"Reset"** will reset the initial preset conditions.

Toric Calculator (Barrett)

Barrett Toric Calculator v1.05, for correction of pre-existing corneal astigmatism with Toric IOLs.



Toric Calculator (Barrett) is divided into two main steps. The first one consists on the calculation of the Spherical Equivalent Power; in the second one you can select the toric IOL that produce the best correction.

The first-step interface that has quite the same structure as the spherical IOL calcualtion. The available toric lenses you can select come from a list of models whose calculation constants have been published by their manufacturer. The user can in case insert new toric manufacturers and/or models inside toric IOL settings section.

In addition to choosing the **"Target"**, you need to specify also the **"Surgical Induced Astigmatism (SIA)"** and **"Incision Location (IL)".** The former identify the astigmatism (in diopters) induced by the incision while the latter identify the surgical incision axis.

After having selected the Toric IOL model, a values table from which the **Spherical Equivalent Power** is obtained. Once you choose a lens, pressing **"Next"** at the bottom right, you enter in the second-step of Toric IOL calculation.

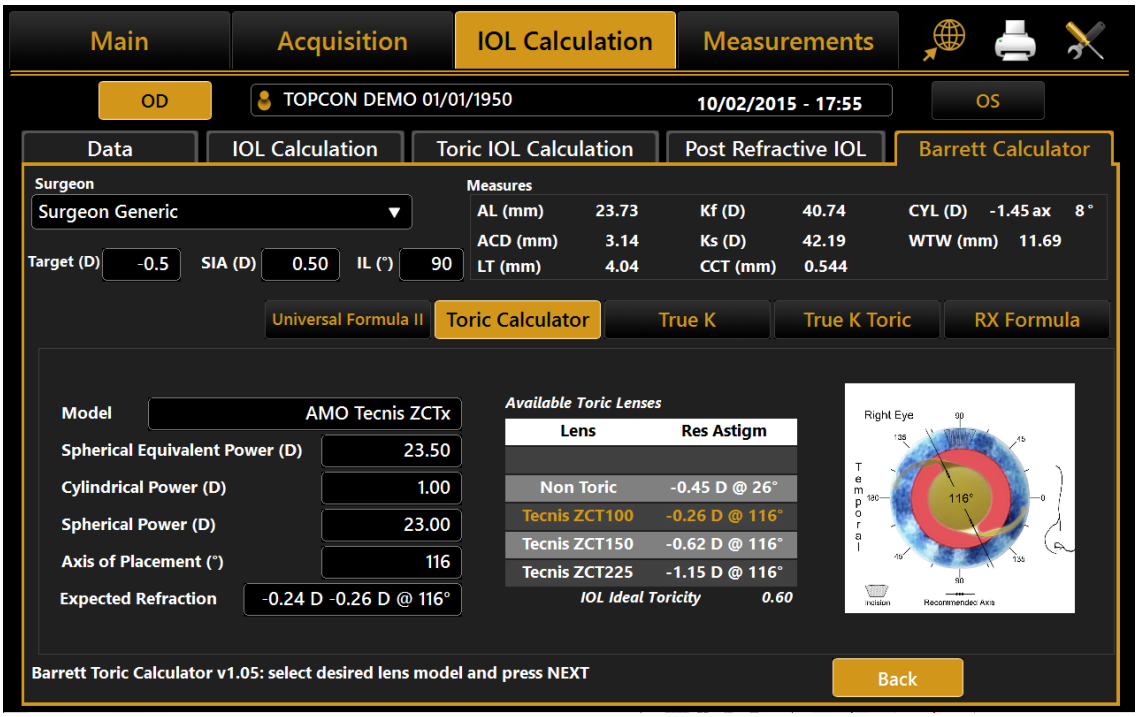


Figure 1

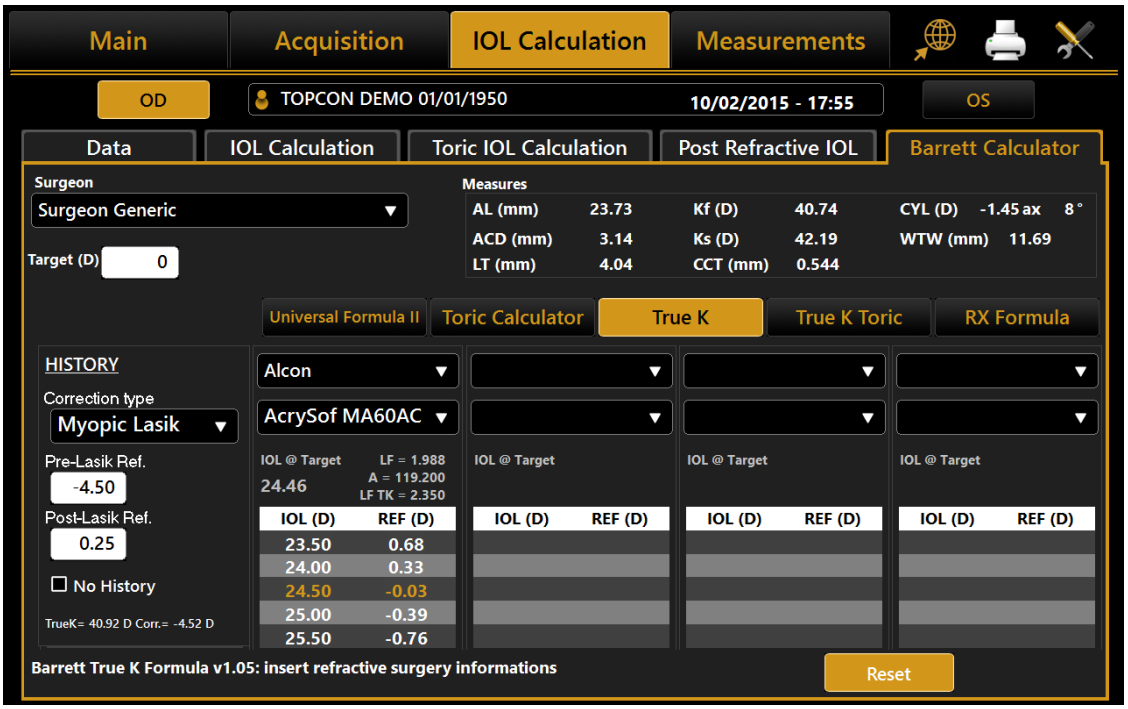
As a result, the **"Toric Calculator"** frame, immediately below, details the best toric lens computed automatically by the system for the manufacturer and model selected previously in the first-step.

From **"Available Toric Lenses"** table you can choose also a different cylinder value for the lens, based on the Residual Astigmatism you want to achieve (under-correction/overcorrection). In particular, the best Toric lens value is shown in the central row and (if available) the ones that under-correct above the central row, the ones that overcorrect below.

At the right side, you can find an image that illustrates the ideal position of the IOL once the implant is in place and the incision location angle.

True K (Barrett)

Barrett True K Formula v1.05, for eyes with prior myopic or hyperopic LASIK/PRK/RK.



In ***"Target"*** field the target refractive value for the cataract Post-OP must be inserted.

The ***"Measurements"*** field summarizes the measurement data.

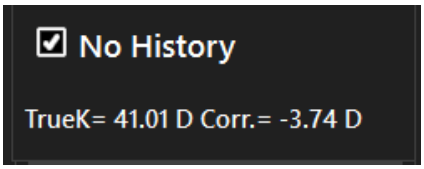
In the "***HISTORY"*** section select the correction type performed in the preceeding Refractive Surgery:

- **Myopic Lasik**
- **Hyperopic Lasik**
- **Radial Keratotomy**

Insert the measured Refraction (**Pre-Lasik Ref., in dioptres**) before the Refractive Surgery and the measured Refraction (**Post-Lasik Ref., in dioptres**) after the Refractive Surgery, accordingly the selected correction type.

Pre-Lasik Ref. must be negative for Myopic Lasik and Radial Keratotomy corrections, while must be positive for Hyperopic Lasik.

Otherwise select "**No History**" if pre and post refractive surgery measurements are not available in order to obtain an estimate of the correction amount based on the correction type and the eye biometry data.



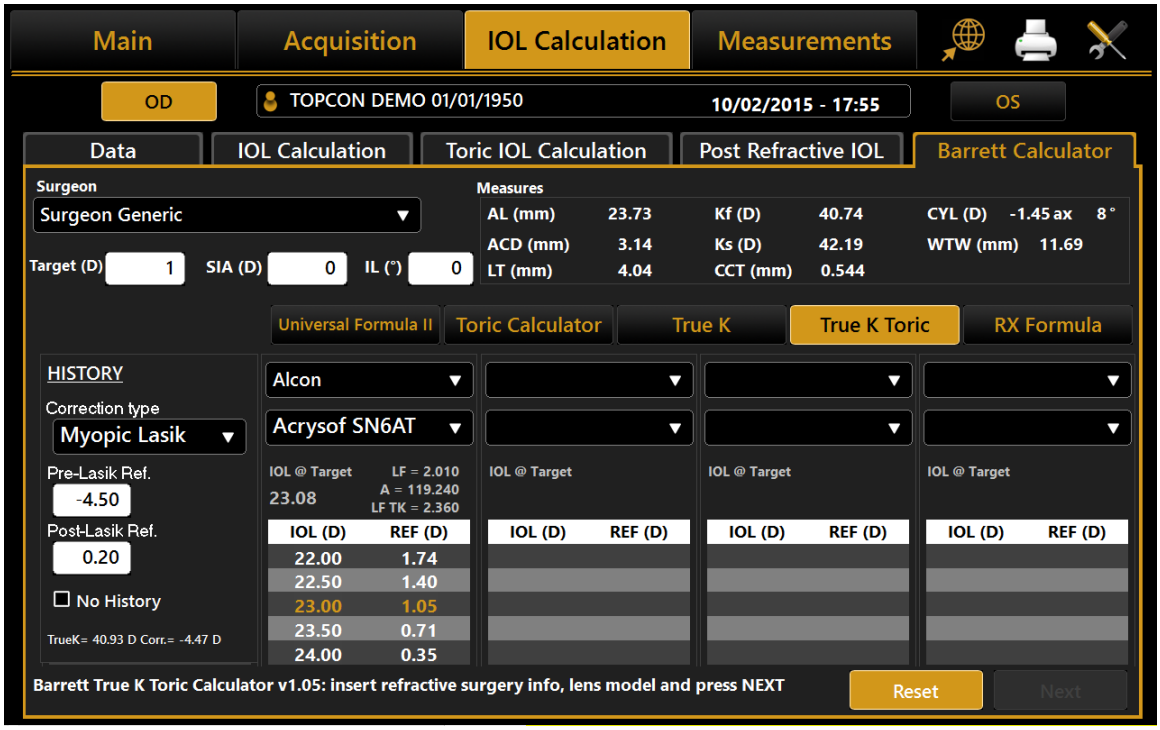
From the drop-down menu, select the IOL manufacturer and model with which to calculate the best lens.

Once this data has been entered, the most appropriate lens can be chosen at the discretion of the surgeon. The latter is highlighted in orange. Once selected, the lens will be memorized as the preferred one and will be shown highlighted on the report printout.

Pressing **"Reset"** will reset the initial pre-set conditions.

True K Toric (Barrett)

Barrett True-K Toric Calculator v1.05, for eyes with prior myopic or hyperopic LASIK/PRK/RK and corneal astigmatism.



True K Toric Calculator (Barrett) is divided into two main steps. The first one consists on the calculation of the Spherical Equivalent Power; in the second one you can select the Toric IOL that produce the best correction.

The first-step interface that has quite the same structure as the spherical IOL calcualtion. The available Toric lenses you can select come from a list of models whose calculation constants have been published by their manufacturer. The user can in case insert new Toric manufacturers and/or models inside Toric IOL settings section.

In addition to choosing the **"Target"**, you need to specify also the **"Surgical Induced Astigmatism (SIA)"** and **"Incision Location (IL)".** The former identify the astigmatism (in diopters) induced by the incision while the latter identify the surgical incision axis.

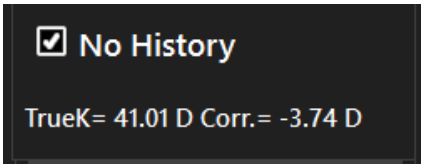
In the "***HISTORY"*** section select the correction type performed in the proceeding Refractive Surgery:

- **Myopic Lasik**
- **Hyperopic Lasik**
- **Radial Keratotomy**

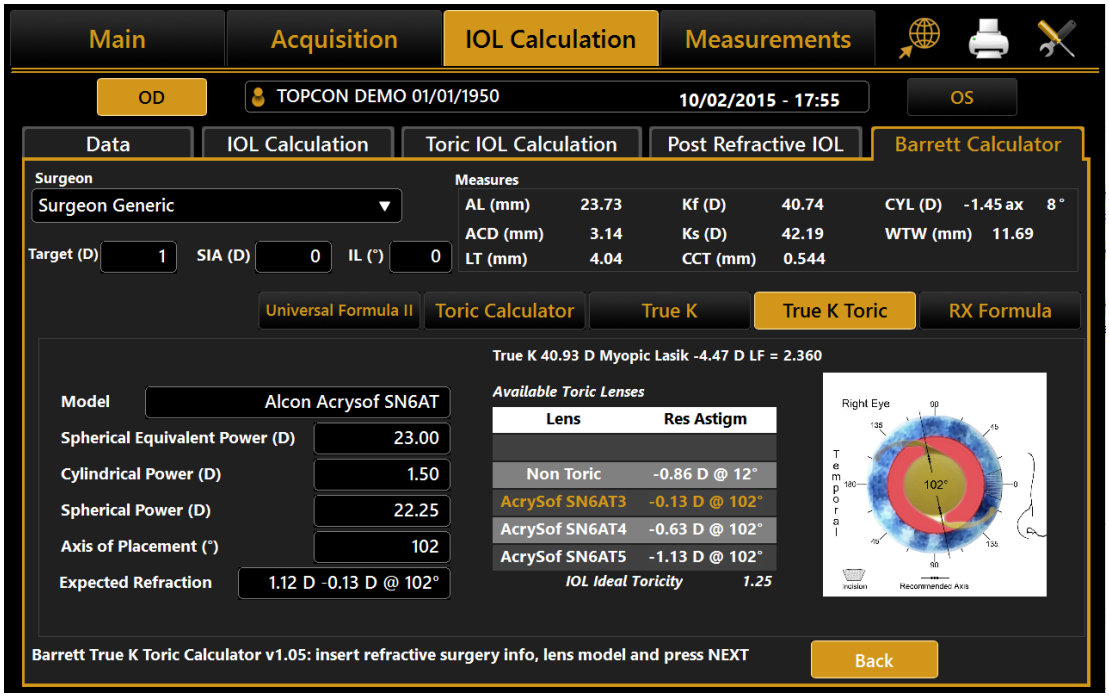
Insert the measured Refraction (**Pre-Lasik Ref., in diopters**) before the Refractive Surgery and the measured Refraction (**Post-Lasik Ref., in diopters**) after the Refractive Surgery, accordingly the selected correction type.

Pre-Lasik Ref. must be negative for Myopic Lasik and Radial Keratotomy corrections, while must be positive for Hyperopic Lasik.

Otherwise select "**No History**" if pre and post refractive surgery measurements are not available in order to obtain an estimate of the correction amount based on the correction type and the eye biometry data.



After having selected the toric IOL model, a values table from which the **Spherical Equivalent Power** is obtained. Once you choose a lens, pressing **"Next"** at the bottom right, you enter in the second-step of True K toric IOL calculation.



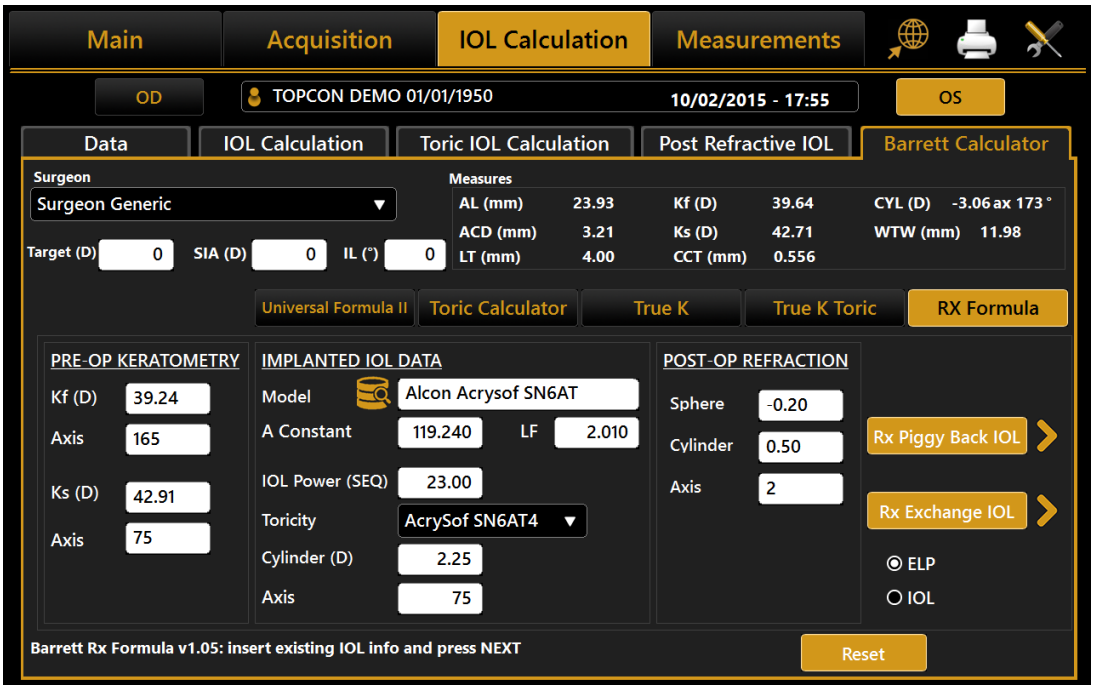
As a result, the **"True K Toric"** frame, immediately below, details the best Toric lens computed automatically by the system for the manufacturer and model selected previously in the first-step.

From **"Available Toric Lenses"** table you can choose also a different cylinder value for the lens, based on the Residual Astigmatism you want to achieve (under-correction/overcorrection). In particular, the best Toric lens value is shown in the central row and (if available) the ones that under-correct above the central row, the ones that overcorrect below.

At the right side, you can find an image that illustrates the ideal position of the IOL once the implant is in place and the incision location angle.

RX Formula (Barrett)

Barrett Rx Formula v1.05, for IOL exchange and piggy back IOLs based on refraction after cataract surgery.



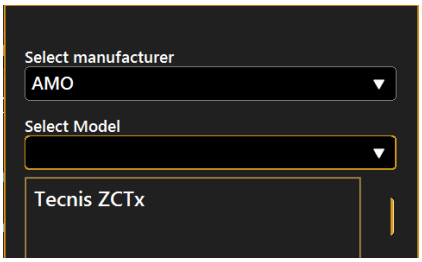
RX Formula (Barrett) is divided into two main steps. The first one consists in inserting all the information regarding the current situation of the patient's eye.

The ***"Measurements"*** field summarizes the measurement data achieved in the current exam, and they represent the current eye biometry.

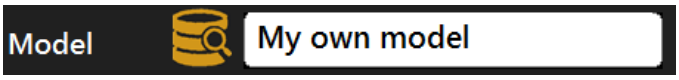
In ***"Target"*** field the target refractive value for the new surgery Post-OP must be inserted. In addition to choosing the **"Target"**, you need to specify also the **"Surgical Induced Astigmatism (SIA)"** and **"Incision Location (IL)".** The former identify the astigmatism (in diopters) induced by the incision while the latter identify the surgical incision axis.

In the section “PRE-OP KERATOMETRY” you can insert the Keratometry data that was measured before the first cataract surgery. In the section “IMPLANTED IOL DATA” you can insert information about the IOL implanted in the first cataract surgery:

- Model: allows to insert the implanted IOL model:
  - selecting from the on-board database of Toric IOL lenses, by using the button which opens the selection list 

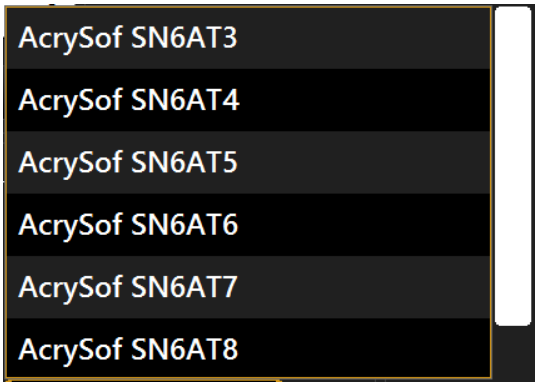


  - Inserting manually the description of the implanted IOL

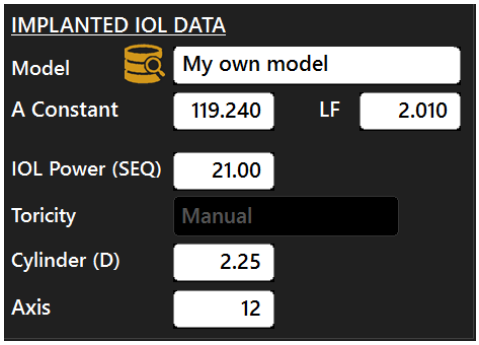


- A Constant/ LF: are the calculations constants used for the calculation performed to select the power of the IOL implanted in the first cataract surgery, are filled automatically if the lens model is selected from the on-board archive or must be inserted manually for manually inserted models.

  Adjust the appropriate Lens Factor/A Constant for IOL by subtracting 0.25 mm from Lens Factor "bag" constant if IOL in sulcus.
- IOL Power (SEQ): is the spherical Equivalent power of the Implanted IOL
- Toricity: is the cylinder value selection list for the toricity of the implanted IOL, it’s automatically populated with a list of cylinder values and sub models if the implanted IOL information has been selected from the on board database



Otherwise if the IOL model information has been inserted manually, this list is locked to “Manual” and the cylinder value must be inserted manually



- Cylinder: is the cylinder value of the implanted IOL which can be inserted manually or selected from the Toricity list if available
- Axis: is the axis of placement of the implanted toric IOL

In the section “POST-OP REFRACTION” you can insert information about the refraction measured after the first cataract surgery during which the Implanted IOL described in the “Implanted IOL data” was applied.

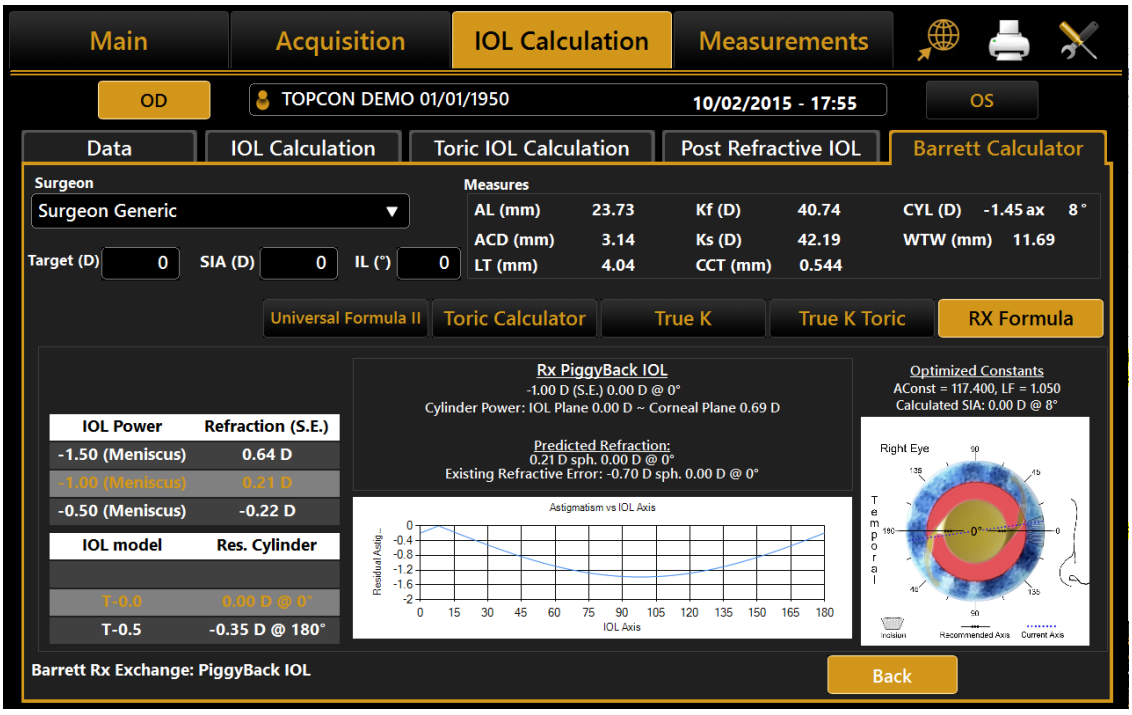
All the mentioned values are required to proceed in the second step of the RX Formula. Then it’s possible to proceed to the second step using one of the two available options:

- Rx Piggy Back IOL
- Rx Exchange IOL

Choose between the two options:

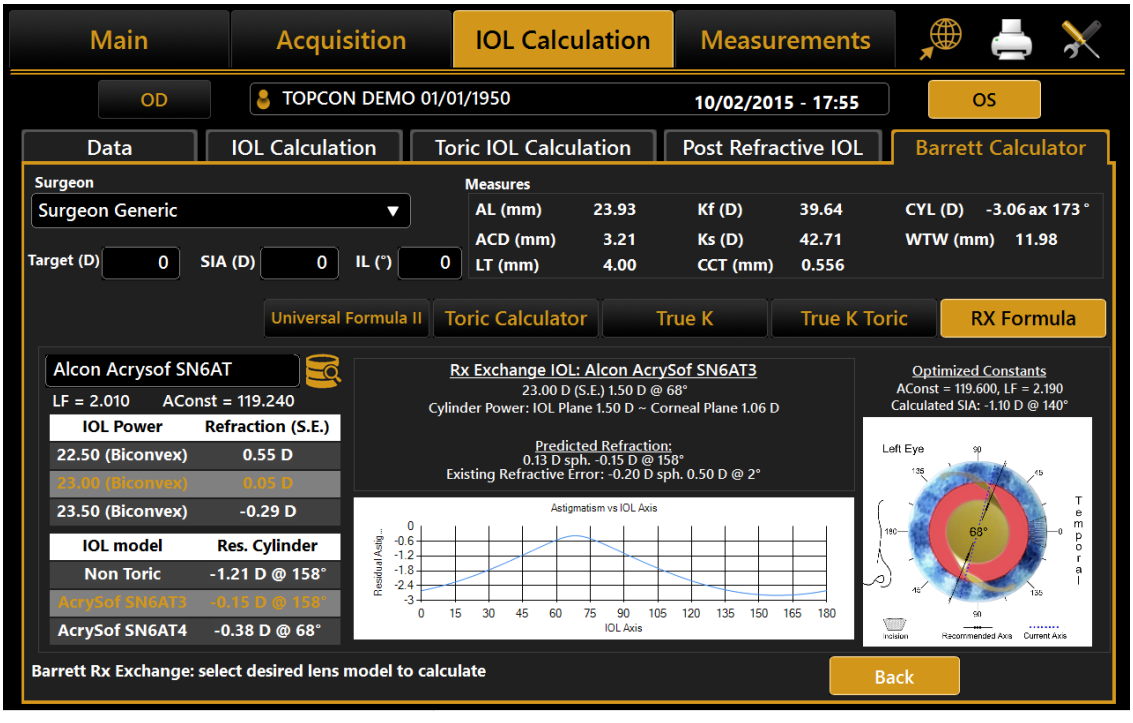
- ELP(default) if an error in the predicted ELP is assumed
- IOL for Post Lasik, RK or Low Diopters IOL where predicted ELP is unreliable

The recommended IOL/Piggy Back IOL and Refractive Outcome are calculated according the Barrett Universal II Formual and Barrett Toric Calculator.



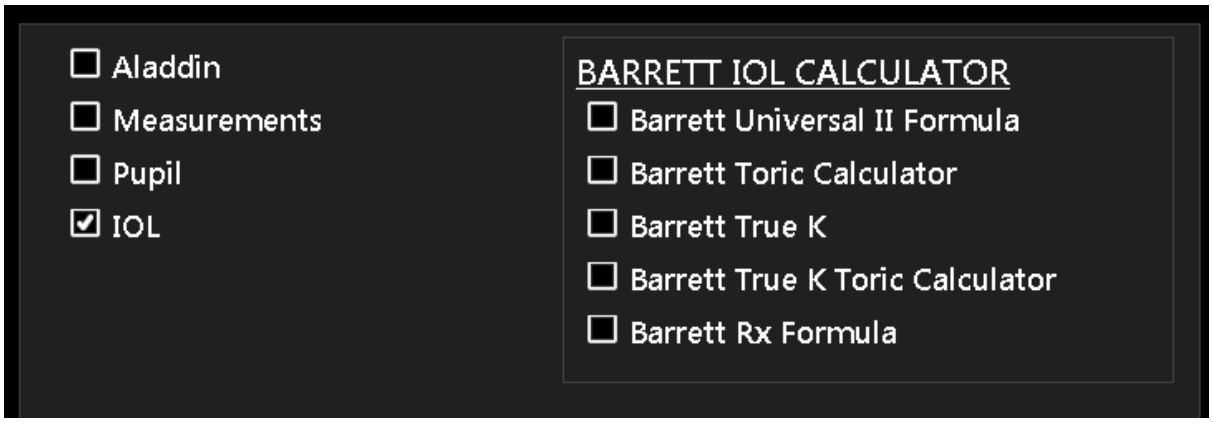
The recommended TORIC IOL and Axis alignment for the targeted refractive outcome is displayed. The axis that provides the minimum astigmatism for the existing IOL is calculated as well as the rotation in degrees from the current axis of the existing implanted IOL.

The SIA and Optimised Lens Factor/A Constant are provided according to the pre and post op Keratometry and the refractive outcome.



Barrett Reports

Together with each Barrett IOL calculation function it is available the relative report.



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Topcon Europe Medical BV

Patient	:TOPCON DEMO
Patient ID	:TPCDM010150
Date Of Birth (dd/mm/yyyy)	:01/01/1950

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

OD
Phakic

Correction type:: Lasik Miopia
Pre-Op Refr: -2.30 D Pre-Op Refr: 0.00 D

OS
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 True K= 41.20 D Corr.= -2.24 D

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

IOL(D)	REF(D)

IOL @ Target

AMO
PS60 ANB

Barrett U. II True K	
IOL(D)	REF(D)
22.00	0.83
22.50	0.47
23.00	**0.11**
23.50	-0.26
24.00	-0.64

IOL @ Target
23.15

LF = 1.726
A = 118.700
LF TK = 1.920

IOL(D)	REF(D)

IOL @ Target

IOL(D)	REF(D)

IOL @ Target

IOL(D)	REF(D)

IOL @ Target

IOL(D)	REF(D)

IOL @ Target

IOL(D)	REF(D)

IOL @ Target

IOL(D)	REF(D)

IOL @ Target

ALADDIN

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TOPCON

Topcon Europe Medical BV

Patient : TOPCON DEMO
Patient ID : TPCDM010150
Date Of Birth (dd/mm/yyyy) : 01/01/1950

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

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

Alcon
AcrySof MA50BM

Barrett Universal II	
IOL(D)	REF(D)
22.00	0.79
22.50	0.43
23.00	**0.07**
23.50	-0.30
24.00	-0.67

IOL @ Target 23.10   LF = 2.093 A = 119.400

Aaren
Scientific AQUA 4 Y RM

Barrett Universal II	
IOL(D)	REF(D)
21.50	0.72
22.00	0.35
22.50	**-0.02**
23.00	-0.40
23.50	-0.78

IOL @ Target 22.47   LF = 1.779 A = 118.800

AMO
Tecnis 1 ZCB00

Barrett Universal II	
IOL(D)	REF(D)
22.00	0.72
22.50	0.36
23.00	**-0.01**
23.50	-0.37
24.00	-0.75

IOL @ Target 22.99   LF = 2.041 A = 119.300

AMO
Sensar AR40E

Barrett Universal II	
IOL(D)	REF(D)
21.50	0.64
22.00	0.28
22.50	**-0.10**
23.00	-0.48
23.50	-0.86

IOL @ Target 22.37   LF = 1.726 A = 118.700

Alcon
ReSTOR SA60D3

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.87
21.50	0.50
22.00	**0.13**
22.50	-0.25
23.00	-0.63

IOL @ Target 22.17   LF = 1.622 A = 118.500

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

Oculentis
L-303

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.58
21.50	0.20
22.00	**-0.18**
22.50	-0.56
23.00	-0.95

IOL @ Target 21.77   LF = 1.517 A = 118.300

Oculentis
L-313

Barrett Universal II	
IOL(D)	REF(D)
20.50	0.81
21.00	0.43
21.50	**0.06**
22.00	-0.33
22.50	-0.71

IOL @ Target 21.58   LF = 1.412 A = 118.100

Oculentis
LS-313 MF30

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.72
21.50	0.35
22.00	**-0.03**
22.50	-0.40
23.00	-0.79

IOL @ Target 21.97   LF = 1.622 A = 118.500

Oculentis
LS-313 MF30

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.72
21.50	0.35
22.00	**-0.03**
22.50	-0.40
23.00	-0.79

IOL @ Target 21.97   LF = 1.622 A = 118.500

Oculentis
LS-313 MF30

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.72
21.50	0.35
22.00	**-0.03**
22.50	-0.40
23.00	-0.79

IOL @ Target 21.97   LF = 1.622 A = 118.500

Barrett Univeral II Formula (V. 1.6.0) 2017/02/09 11:46:30

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Topcon Europe Medical BV

Patient	: **TOPCON DEMO**	*Surgeon*	: **Surgeon Generic**
Patient ID	: **TPCDM010150**	*Exam Date* (dd/mm/yyyy)	: **10/02/2015 - 17:55**
Date Of Birth (dd/mm/yyyy)	: **01/01/1950**		

OD

Phakic

Measurements (Aladdin Optical)

K1:	**40.74 D**	AL:	**23.73 mm**	LT:	**4.04 mm**	WTW:	**11.69 mm**
K2:	**42.19 D**	ACD:	**3.14 mm**	CCT:	**0.544 mm**	WTW Dec	**(-0.22,-0.29) mm**
CYL:	**-1.45 D @ 8°**						
n:	**1.3375**						

Refractive surgery history

Correction type:	**Myopic Lasik**	Pre Lasik Refraction:	**-2.30 D**
		Post Lasik Refraction:	**0.00 D**

Toric IOL

Target Refraction: **0.00 D** SIA: **0.00 D** IL: **98°**

Toric IOL: HOYA Non Toric
23.00 D (S.E) 0.00 D @ 102°

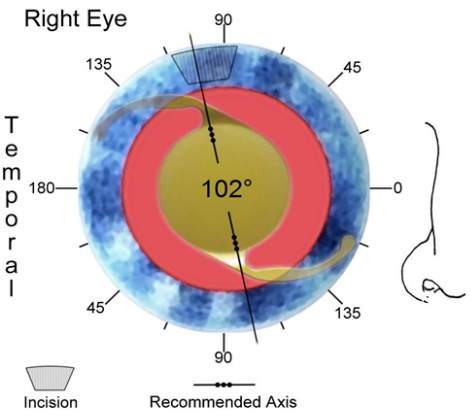
LF = 1.674, A constant = 118.600

Cylinder Power: IOL Plane 0.00 D ~ Corneal Plane 0.00 D

Predicted refraction:

0.47 D sph. -0.88 D @ 12°

True K 41.20 D Myopic Lasik -2.24 D LF = 1.860



IOL Power (S.E.)	Refraction (S.E.)	IOL submodel	IOL toricity	Residual astigmatism
22.00 D	0.76 D	n.a.	n.a.	n.a.
22.50 D	0.40 D	n.a.	n.a.	n.a.
23.00 D	**0.03 D**	**Non Toric**	**0.00 D**	**-0.88 D @ 12°**
23.50 D	-0.34 D	351 T3	1.50 D	-0.19 D @ 102°
24.00 D	-0.72 D	351 T4	2.25 D	-0.73 D @ 102°

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Topcon Europe Medical BV

Patient	: **TOPCON DEMO**	*Surgeon*	: **Surgeon Generic**
Patient ID	: **TPCDM010150**	*Exam Date* (dd/mm/yyyy)	: **10/02/2015 - 17:55**
Date Of Birth (dd/mm/yyyy)	: **01/01/1950**		

OD

Phakic

Measurements (Aladdin Optical)

K1:	**40.74 D**	AL:	**23.73 mm**	LT:	**4.04 mm**	WTW:	**11.69 mm**
K2:	**42.19 D**	ACD:	**3.14 mm**	CCT:	**0.544 mm**	WTW Dec	**(-0.22,-0.29) mm**
CYL:	**-1.45 D @ 8°**						
n:	**1.3375**						

Toric IOL

Target Refraction: **0.00 D** SIA: **0.00 D** IL: **98°**

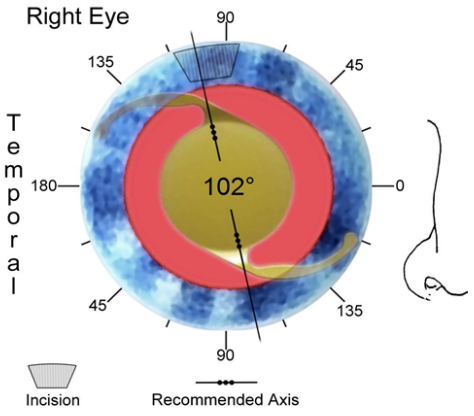
Toric IOL: HOYA Non Toric
22.50 D (S.E) 0.00 D @ 102°

LF = 1.674, A constant = 118.600

Cylinder Power: IOL Plane 0.00 D ~ Corneal Plane 0.00 D

Predicted refraction:

0.25 D sph. -0.85 D @ 12°



IOL Power (S.E.)	Refraction (S.E.)	IOL submodel	IOL toricity	Residual astigmatism
21.50 D	0.57 D	n.a.	n.a.	n.a.
22.00 D	0.20 D	n.a.	n.a.	n.a.
22.50 D	**-0.17 D**	**Non Toric**	**0.00 D**	**-0.85 D @ 12°**
23.00 D	-0.55 D	351 T3	1.50 D	-0.24 D @ 102°
23.50 D	-0.94 D	351 T4	2.25 D	-0.78 D @ 102°

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Topcon Europe Medical BV

Patient	:TOPCON DEMO
Patient ID	:TPCDM010150
Date Of Birth (dd/mm/yyyy)	:01/01/1950
Surgeon	:SURGEON GENERIC
Exam Date (dd/mm/yyyy)	:10/02/2015 - 17:55

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

Alcon
AcrySof MA30AC

Barrett Universal II	
IOL(D)	REF(D)
21.50	0.64
22.00	0.28
22.50	**-0.10**
23.00	-0.48
23.50	-0.86

IOL @ Target 22.37 — LF = 1.726, A = 118.700

Alcon
AcrySof MA30AC

Hoffer Q	
IOL(D)	REF(D)
22.00	0.70
22.50	0.36
23.00	**0.01**
23.50	-0.34
24.00	-0.69

IOL @ Target 23.02 — pACD = 5.460

Alcon
AcrySof MA30AC

SRK/T	
IOL(D)	REF(D)
21.50	0.62
22.00	0.26
22.50	**-0.09**
23.00	-0.46
23.50	-0.82

IOL @ Target 22.37 — A = 118.700

Alcon
AcrySof MA30AC

Haigis	
IOL(D)	REF(D)
22.00	0.87
22.50	0.52
23.00	**0.16**
23.50	-0.20
24.00	-0.56

IOL @ Target 23.23 — A0 = 1.340, A1 = 0.400, A2 = 0.100

Alcon
AcrySof MA30AC

Holladay I	
IOL(D)	REF(D)
21.50	0.80
22.00	0.46
22.50	**0.11**
23.00	-0.24
23.50	-0.60

IOL @ Target 22.66 — SF = 1.640

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

Oculentis
L-303

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.58
21.50	0.20
22.00	**-0.18**
22.50	-0.56
23.00	-0.95

IOL @ Target 21.77 — LF = 1.517, A = 118.300

Oculentis
L-313

Barrett Universal II	
IOL(D)	REF(D)
20.50	0.81
21.00	0.43
21.50	**0.06**
22.00	-0.33
22.50	-0.71

IOL @ Target 21.58 — LF = 1.412, A = 118.100

Oculentis
LS-313 MF30

Haigis	
IOL(D)	REF(D)
21.50	0.56
22.00	0.19
22.50	**-0.18**
23.00	-0.55
23.50	-0.93

IOL @ Target 22.26 — A0 = 0.950, A1 = 0.400, A2 = 0.100

Oculentis
LS-313 MF30

Barrett Universal II	
IOL(D)	REF(D)
21.00	0.72
21.50	0.35
22.00	**-0.03**
22.50	-0.40
23.00	-0.79

IOL @ Target 21.97 — LF = 1.622, A = 118.500

Oculentis
LS-313 MF30

SRK/T	
IOL(D)	REF(D)
21.00	0.64
21.50	0.28
22.00	**-0.08**
22.50	-0.45
23.00	-0.82

IOL @ Target 21.89 — A = 118.500

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Clinic Name Header

Patient	: **SAMPLE PATIENT**	*Surgeon*	: **Surgeon22**
Patient ID	: **6lhpw76HuQ**	*Exam Date* (dd/mm/yyyy)	: **28/06/2016 - 12:14**
Date Of Birth (dd/mm/yyyy)	: **22/03/1990**		

R
Phakic

Measurements (Aladdin Optical)

K1:	**43.46 D**	AL:	**25.76 mm**	LT:	**3.34 mm**	WTW:	**11.74 mm**
K2:	**44.69 D**	ACD:	**3.84 mm**	CCT:	**0.561 mm**	WTW Dec	**(-0.33,0.00) mm**
CYL:	**-1.23 D @ 10°**						
n:	**1.3375**						

IOL History

Pre Op Keratometry		Implanted IOL data		Post Op Refraction	
K1:	**43.46 D @ 10°**	Model:	Alcon AcrySof SN6AT5	Sphere:	**0.50 D**
K2:	**44.69 D @ 100°**	LF = 1.988 Aconst = 119.200		Cylinder:	**-1.00 D @ 10°**
		S.E.: **13.50 D**	Toricity: **3.00 D @ 100°**		

Exchange IOL

Target: **0 D** SIA: **0 D** IL: **0°**

Rx Exchange IOL: Alcon AcrySof SN6AT7 13.50 D (S.E.) 4.50 D @ 100°

LF = 1.988, A constant = 119.200

Cylinder Power: IOL Plane 4.50 D ~ Corneal Plane 2.91 D

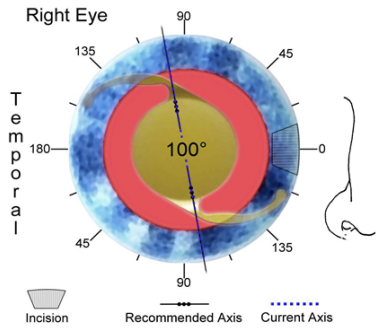
Predicted refraction:
Predicted refraction: 0.00 D sph. 0.00 D @ 10°

Existing refractive error: 0.50 D sph. -1.00 D @ 10°

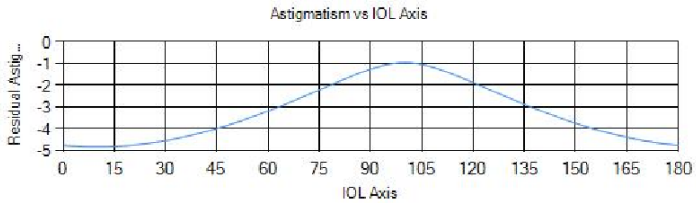
Do not rotate existing IOL (13.50 D (S.E.) 3.00 D @ 100°)

Recommended rotation: 0° anti-clockwise
For Minimum Residual Astigmatism = -0.97 D

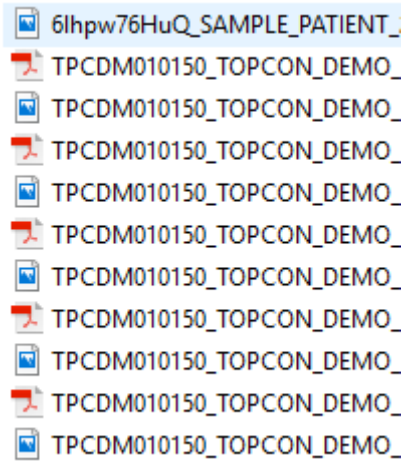
Optimized constants: AConst = 119.300, LF = 2.060
Calculated SIA: 0.00 D @ 100°



IOL Power (S.E.)	Refraction (S.E.)	IOL toric submodel	IOL toricity	Residual astigmatism
13.00 (Biconvex)	0.46 D	AcrySof SN6AT6	3.75 D	-0.49 D @ 10°
13.50 (Biconvex)	**0.00 D**	**AcrySof SN6AT7**	**4.50 D**	**0.00 D @ 10°**
14.00 (Biconvex)	-0.31 D	AcrySof SN6AT8	5.25 D	-0.48 D @ 100°



- **Added the patient ID to filename of reports exported to network folder or USB**



09/02/2017

Arrigucci Marco
Aladdin Product Manager
Visia Imaging S.r.l.