



## **Adding Spherical & Toric Lenses in EyeSuite**

## **Tips & Tricks**

Look closer. See further.

## Lenstar IOL Data Collection Worksheet

⇒ Collecting the following information from your lens manufacturer will help you add lenses to the EyeSuite Software for calculating suggested lens powers using Optical Biometry measurements.

**Manufacturer name:** \_\_\_\_\_ **Lens name:** \_\_\_\_\_

**Lens type:**      spherical      toric (see additional requirements for Toric lenses below)

**Available spherical power range:** \_\_\_\_\_ **available increments:** \_\_\_\_\_

(You may wish to leave this defaulted at -10 to 40 to see calculations regardless of lens availability and the available increments is typically 0.50D)

**Manufacturer A** (referred to as A for ultrasound, "optical" can be changed to "acoustical" to best represent this value) \_\_\_\_\_

**SRK/T-A** for optical biometry (also referred to as A-Constant, must be a value between 100 to 132 & can be used for Shammas) \_\_\_\_\_

**Hoffer Q pACD** for optical biometry (must be a value between -6 to 40) \_\_\_\_\_

**Holladay sf** for optical biometry (must be a value between -10 to 20) \_\_\_\_\_

**Haigis A0** (must be a value between -10 to 10) \_\_\_\_\_, **A1** (between -1 to 1) \_\_\_\_\_, and **A2** (between -1 to 1) \_\_\_\_\_

\*(The above constants may also be found on the Users Group for Laser Interference Biometry or ULIB at [www.ocusoft.de/ulib/](http://www.ocusoft.de/ulib/)  
 OR you can access these same constants along with more recently optimized constants by Steinbeis Vision Research at [www.iolcon.org](http://www.iolcon.org)

**Hill RBF A** for optical biometry **only** (must be between 100 to 132)

(Hill RBF A can be found posted on Dr. Warren Hill's website, [www.rbfcaculator.com](http://www.rbfcaculator.com) under 'Lens Constants'. When a constant is not posted here, it is acceptable to use the SRK/T-A constant value as a starting point)

**Barrett LF** for optical biometry **only** (must be a value between -2 to 5) and can be calculated within EyeSuite as long as the SRK/T-A for optical biometry has been entered. To add the Barrett, select the value field and then right mouse click. The option to 'Calculate Barrett LF from SRK/T A Constant' will appear, left mouse click to choose the calculation. The Barrett value will automatically calculate and become available for IOL calculations.

**Olsen** for optical biometry **only**. Constants are provided by Dr. Olsen. You may wish to refer to a separate data collection sheet for Olsen.

**For Toric lenses, the following information needs to be collected in addition to the above information:**

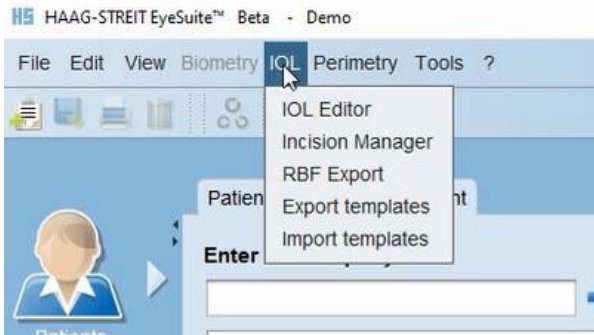
\*Recommended - first add a "Non Toric" model to capture the lower amounts of astigmatism with a cylinder range of 0.00 to the first cylinder power in the range of the lowest powered model available and 0.01 for the Power @ IOL to display an axis.

Model Name	Power @ IOL	Astigmatic Correction Range	Power @ Cornea
Non Toric	0.01	0.00 to _____	0.00
_____	_____	_____ to _____	_____
_____	_____	_____ to _____	_____
_____	_____	_____ to _____	_____
_____	_____	_____ to _____	_____
_____	_____	_____ to _____	_____

Look closer. See further.

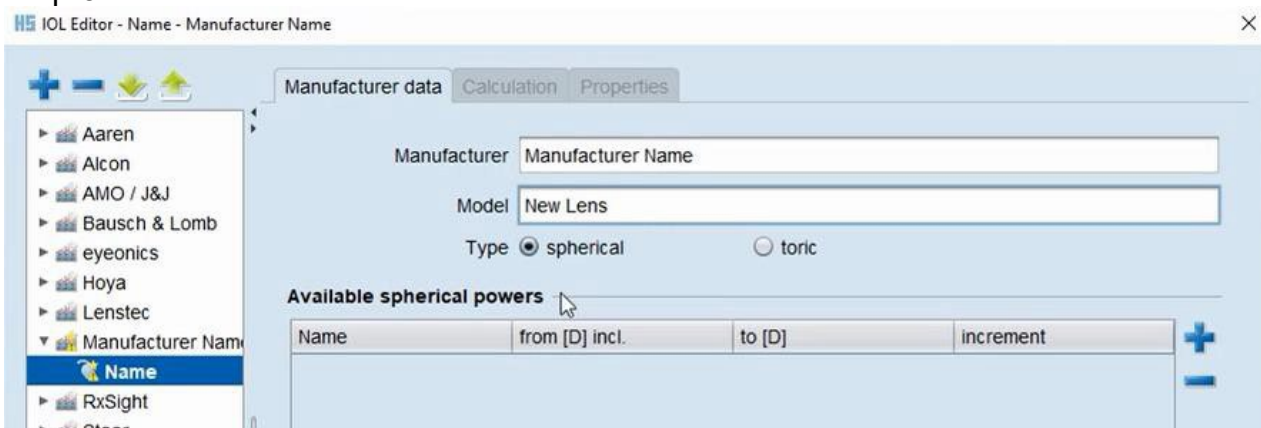
## Adding Spherical Lenses in EyeSuite

Step 1: Open the IOL Editor

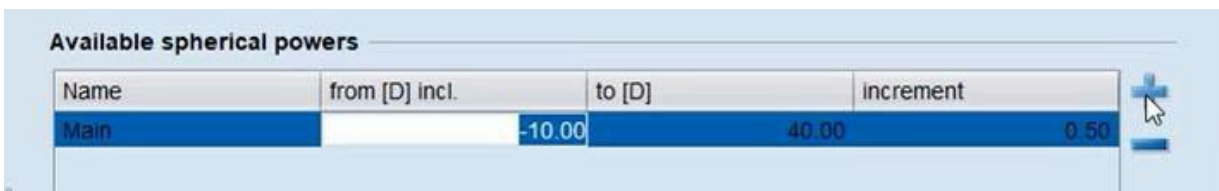


Step 2: Click on the blue “+” above the list of existing lenses to add a new lens entry.

Step 3: Enter the name of the Manufacturer and model name.

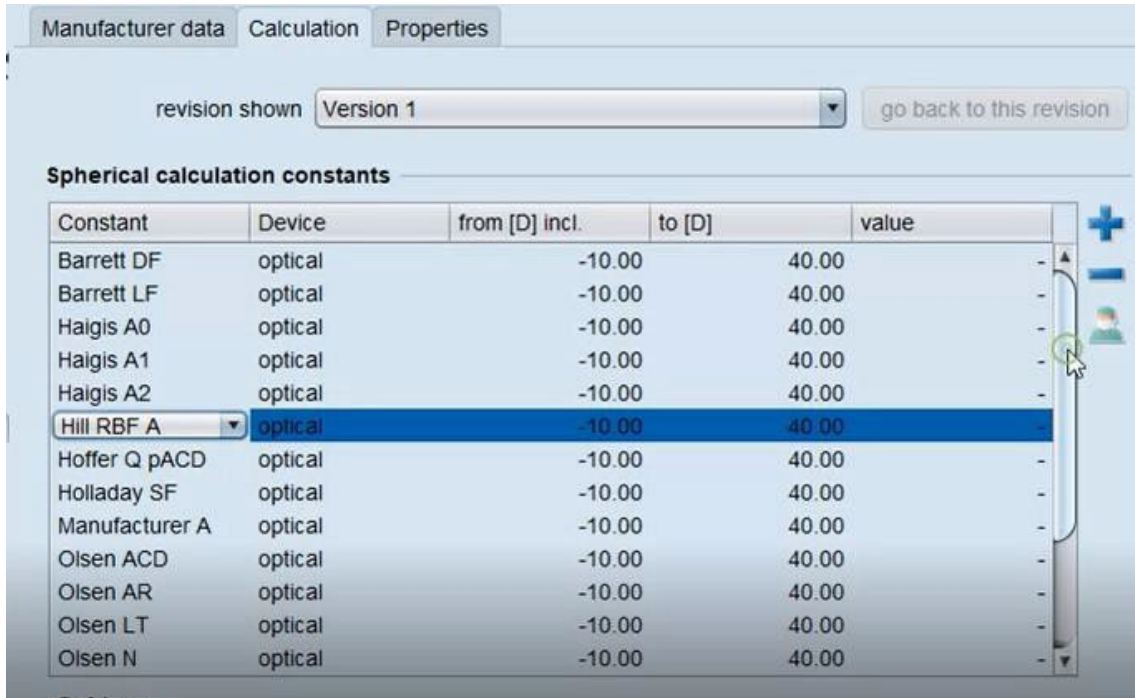


Step 4: Click on the blue “+” to the right of the “Available spherical powers” to add a range. This range can be edited to reflect the actual powers and increments that the lens is available in. However, the default range of -10.00 to +40.00 can be used for a greater range to calculate.



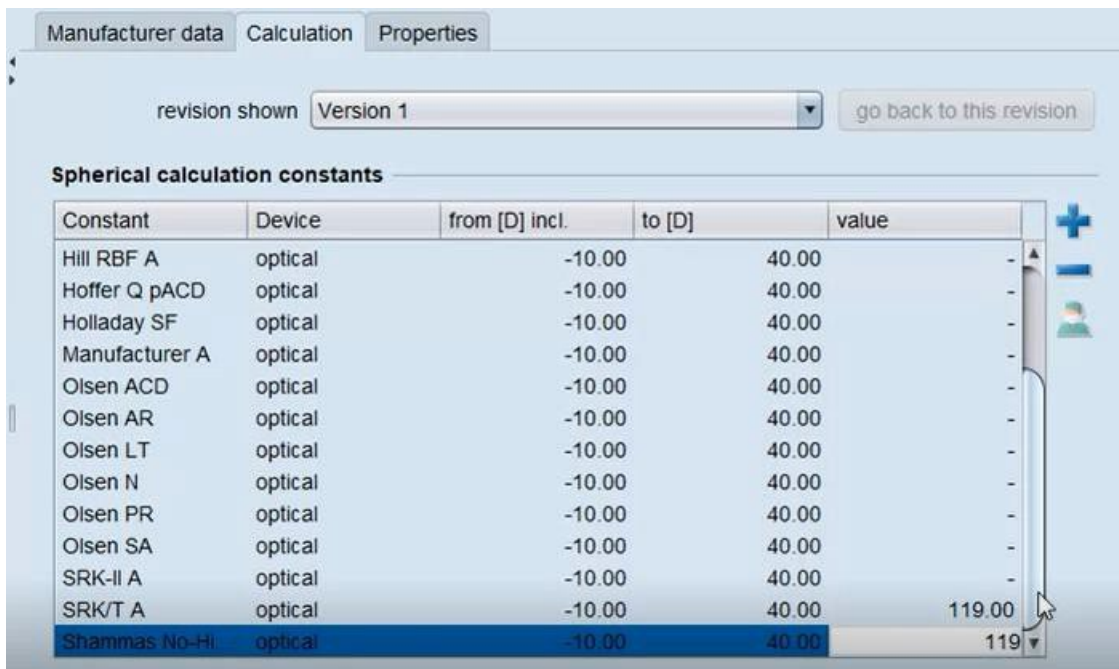
Look closer. See further.

Step 5: Click on the “Calculation” tab and the blue “+” to the right of the “Spherical calculation constants” to add the available formula constants.



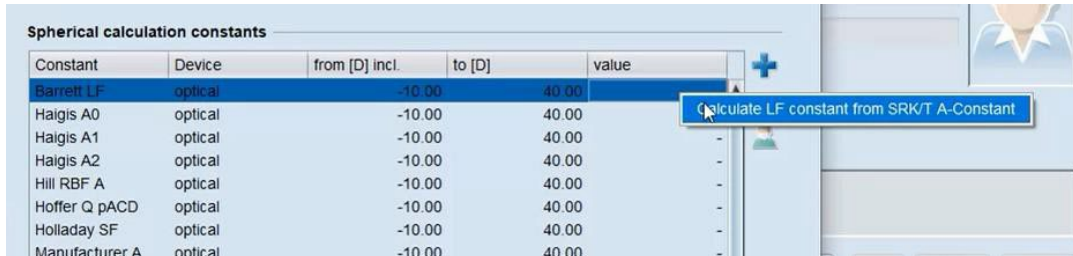
Step 6: Begin entering the values for each of the formula constants.

Note: You will not be able to calculate without these values entered for any given formula.



Look closer. See further.

Step 7: Once you have entered a value in the value column, scroll up to the Barrett LF and select the row, then right mouse click to populate the option to “Calculate LF from SRK/T A-Constant”. Click on that option to auto-populate a value. This value can also be typed in if you do not wish to utilize the calculated value based on the SRK/T A Constant for optical biometry.

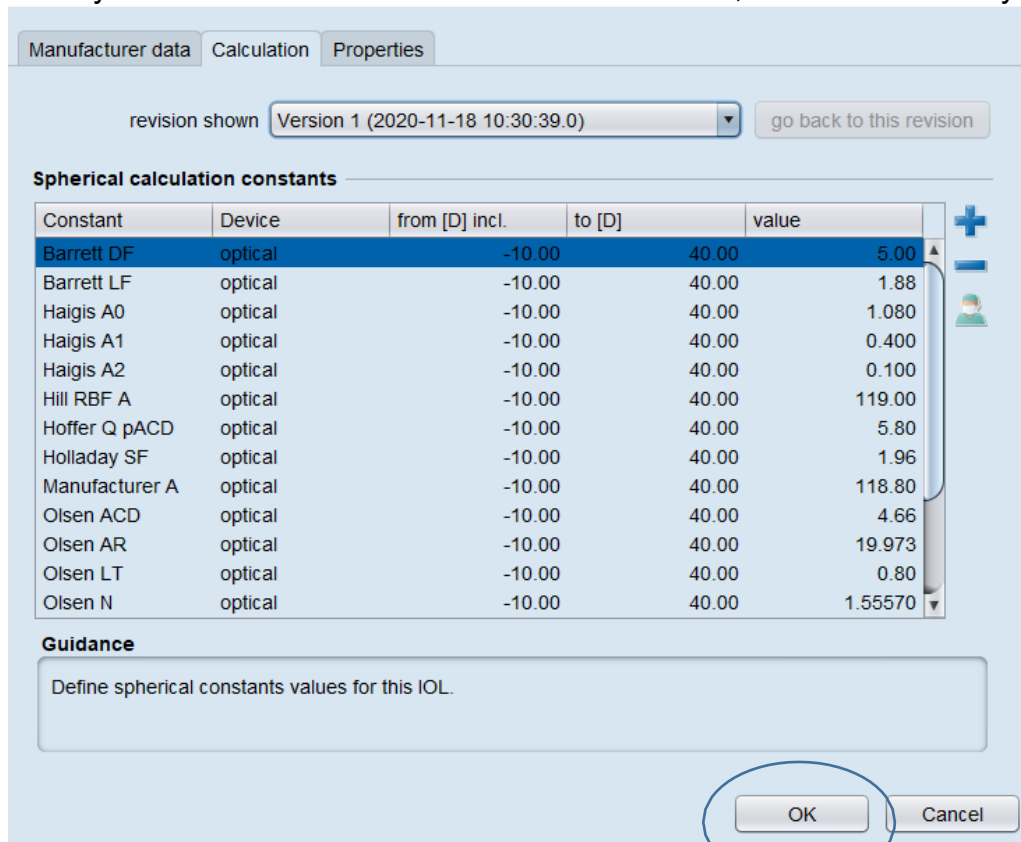


Constant	Device	from [D] incl.	to [D]	value
Barrett LF	optical	-10.00	40.00	
Haigis A0	optical	-10.00	40.00	
Haigis A1	optical	-10.00	40.00	
Haigis A2	optical	-10.00	40.00	
Hill RBF A	optical	-10.00	40.00	
Hoffer Q pACD	optical	-10.00	40.00	
Holladay SF	optical	-10.00	40.00	
Manufacturer A	optical	-10.00	40.00	

Step 8: The Barrett DF may be entered if the lens shifts to a meniscus lens design for low powers. For example, some lenses will shift from a biconvex lens design to meniscus at 5.00D. Therefore, the value for the Barrett DF would be 5.00D.

Barrett DF	optical	-10.00	40.00	5.00
------------	---------	--------	-------	------

Note: Please refer to the Olsen IOL Data Collection Worksheet for calculated Olsen values. Step 9: Once you have entered all of the formula constants, click “OK” to save your entries.



revision shown: Version 1 (2020-11-18 10:30:39.0) [go back to this revision](#)

Constant	Device	from [D] incl.	to [D]	value
Barrett DF	optical	-10.00	40.00	5.00
Barrett LF	optical	-10.00	40.00	1.88
Haigis A0	optical	-10.00	40.00	1.080
Haigis A1	optical	-10.00	40.00	0.400
Haigis A2	optical	-10.00	40.00	0.100
Hill RBF A	optical	-10.00	40.00	119.00
Hoffer Q pACD	optical	-10.00	40.00	5.80
Holladay SF	optical	-10.00	40.00	1.96
Manufacturer A	optical	-10.00	40.00	118.80
Olsen ACD	optical	-10.00	40.00	4.66
Olsen AR	optical	-10.00	40.00	19.973
Olsen LT	optical	-10.00	40.00	0.80
Olsen N	optical	-10.00	40.00	1.55570

**Guidance**  
Define spherical constants values for this IOL.

**OK** **Cancel**

Look closer. See further.

## Adding Toric Lenses in EyeSuite

Step 1: Repeat steps 1-3 from “Adding Spherical Lenses in EyeSuite”, EXCEPT in Step 3:

Choose “Toric”

Manufacturer data | Calculation | Properties

Manufacturer:

Model:

Type:  spherical  toric

**Available spherical powers**

Name	from [D] incl.	to [D]	increment
Main	-10.00	40.00	0.50

**Available cylindrical powers**

Model	Power@IOL

Note: This also adds a section for “Available cylindrical powers”.

Step 2: Click on the blue “+” next to the “Available cylindrical powers” to add each model of cylinder correction.

Note: It’s best to add these one at a time. It is also recommended, to enter a “Non Toric” model for the lower amount of measured astigmatism so a calculator will still populate.

Manufacturer data | Calculation | Properties

Manufacturer:

Model:

Type:  spherical  toric

**Available spherical powers**

Name	from [D] incl.	to [D]	increment
Main	-10.00	40.00	0.50

**Available cylindrical powers**

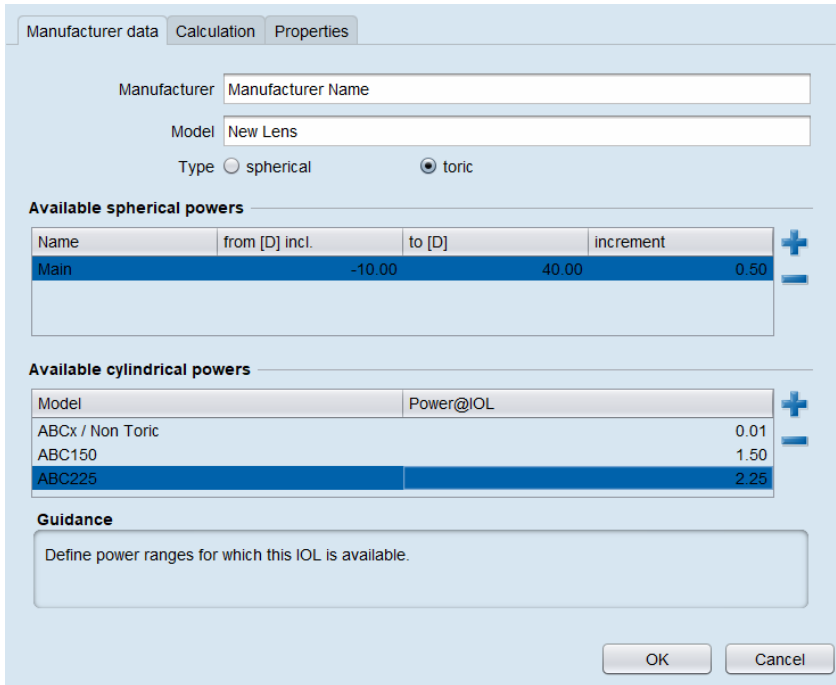
Model	Power@IOL
ABCx / Non Toric	0.01

**Guidance**

Define power ranges for which this IOL is available.

Look closer. See further.

Step 3: Once you have finished entering each model and Power at IOL, Click on “Calculation” to continue.



Manufacturer data Calculation Properties

Manufacturer:

Model:

Type:  spherical  toric

**Available spherical powers**

Name	from [D] incl.	to [D]	increment
Main	-10.00	40.00	0.50

**Available cylindrical powers**

Model	Power@IOL
ABCx / Non Toric	0.01
ABC150	1.50
ABC225	2.25

**Guidance**

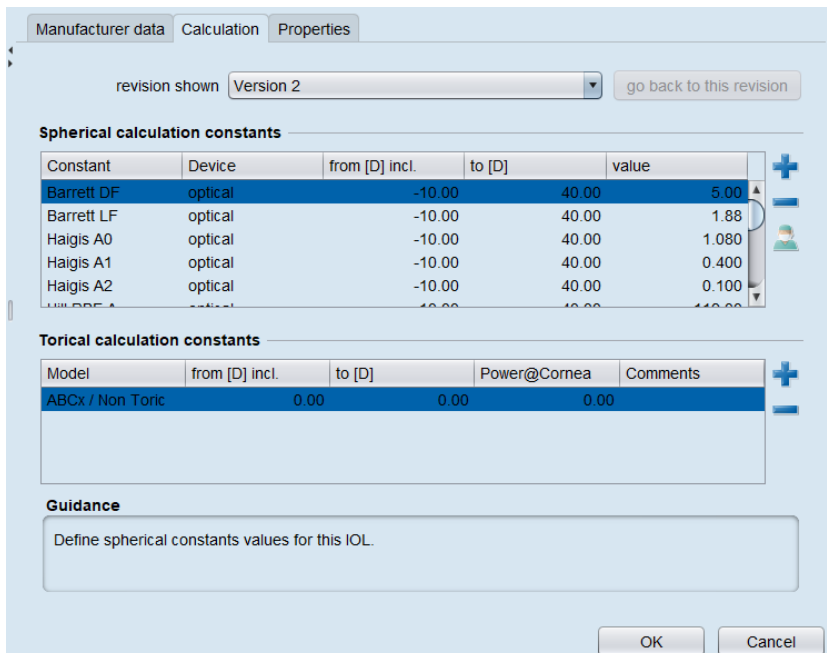
Define power ranges for which this IOL is available.

OK Cancel

Step 4: Repeat steps 5-8 from “Adding Spherical Lenses in EyeSuite”.

Step 5: Click on the blue “+” to the right of the “Toric Calculation Constants” to pull over each toric model that was entered in the “Manufacturer Data” tab.

**CAUTION:** Do this one at a time!



Manufacturer data Calculation Properties

revision shown:  go back to this revision

**Spherical calculation constants**

Constant	Device	from [D] incl.	to [D]	value
Barrett DF	optical	-10.00	40.00	5.00
Barrett LF	optical	-10.00	40.00	1.88
Haigis A0	optical	-10.00	40.00	1.080
Haigis A1	optical	-10.00	40.00	0.400
Haigis A2	optical	-10.00	40.00	0.100

**Toric calculation constants**

Model	from [D] incl.	to [D]	Power@Cornea	Comments
ABCx / Non Toric	0.00	0.00	0.00	

**Guidance**

Define spherical constants values for this IOL.

OK Cancel

Look closer. See further.

Step 6: Modify the cylinder ranges and power at the IOL plane for the first model.

Note: EyeSuite does not allow for a gap between ranges. Therefore, ranges may require slight modifications.

revision shown: Version 2

go back to this revision

**Spherical calculation constants**

Constant	Device	from [D] incl.	to [D]	value
Barrett DF	optical	-10.00	40.00	5.00
Barrett LF	optical	-10.00	40.00	1.88
Haigis A0	optical	-10.00	40.00	1.080
Haigis A1	optical	-10.00	40.00	0.400
Haigis A2	optical	-10.00	40.00	0.100

**Toric calculation constants**

Model	from [D] incl.	to [D]	Power@Cornea	Comments
ABCx / Non Toric	0.00	0.75	0.00	

**Guidance**

Define spherical constants values for this IOL.

OK Cancel

Step 7: Click on the blue “+” to right of the “Toric calculation constants” to pull in the next model and modify the cylinder range and the “Power @ Cornea”. Repeat Step 5 until completed.

revision shown: Version 2

go back to this revision

**Spherical calculation constants**

Constant	Device	from [D] incl.	to [D]	value
Barrett DF	optical	-10.00	40.00	5.00
Barrett LF	optical	-10.00	40.00	1.88
Haigis A0	optical	-10.00	40.00	1.080
Haigis A1	optical	-10.00	40.00	0.400
Haigis A2	optical	-10.00	40.00	0.100

**Toric calculation constants**

Model	from [D] incl.	to [D]	Power@Cornea	Comments
ABCx / Non Toric	0.00	0.75	0.00	
ABC150	0.75	1.50	1.03	

**Guidance**

Define spherical constants values for this IOL.

OK Cancel



Look closer. See further.

Step 8: Click "OK" to save your entries.

Manufacturer data Calculation Properties

revision shown Version 2 go back to this revision

**Spherical calculation constants**

Constant	Device	from [D] incl.	to [D]	value
Barrett DF	optical	-10.00	40.00	5.00
Barrett LF	optical	-10.00	40.00	1.88
Haigis A0	optical	-10.00	40.00	1.080
Haigis A1	optical	-10.00	40.00	0.400
Haigis A2	optical	-10.00	40.00	0.100

**Torical calculation constants**

Model	from [D] incl.	to [D]	Power@Cornea	Comments
ABCx / Non Toric	0.00	0.75	0.00	
ABC150	0.75	1.50	1.03	

**Guidance**

Define spherical constants values for this IOL.

OK Cancel