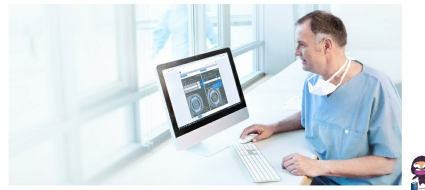


ZEISS Z CALC 2.3 Toric and Non Toric IOL Calculation



ZEISS Z CALC 2.3 Toric and Non Toric IOL Calculation User Guide

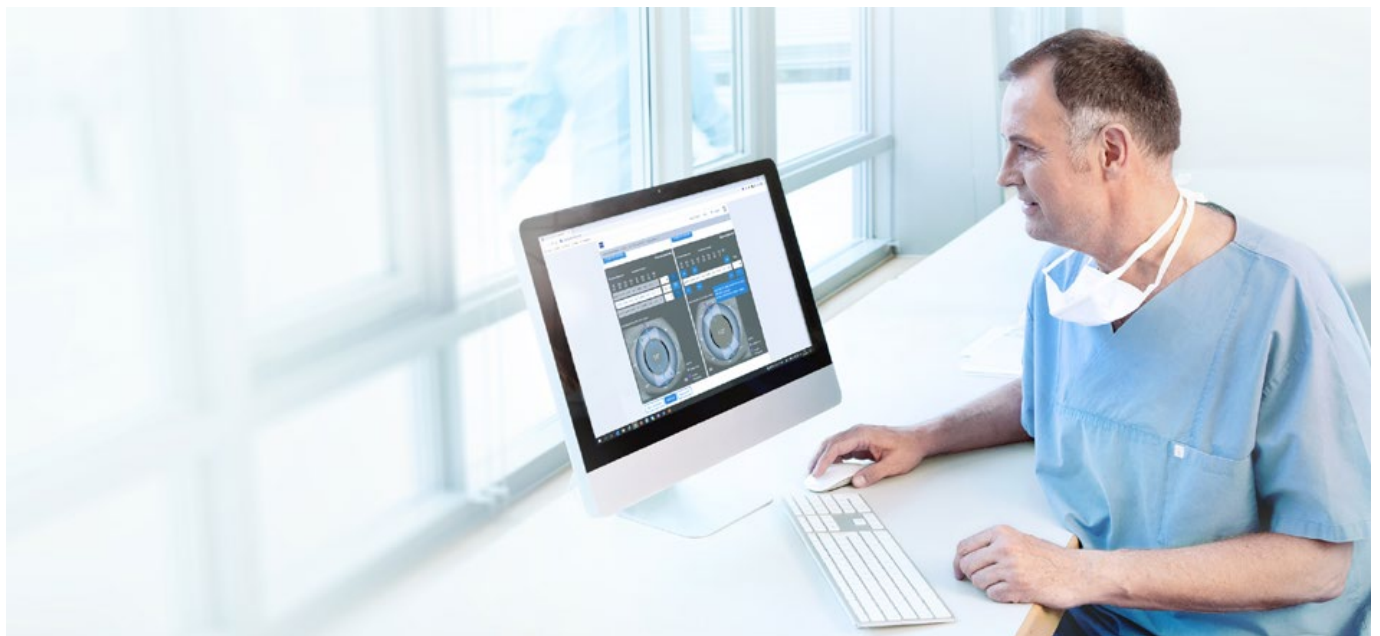
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ZEISS Z CALC 2.3 Toric and Non Toric IOL Calculation



Specifications

- Compatible browsers: Apple Safari mobile for iOS (Version 15 or higher), Apple Safari Version for MacOS (Version 15 or higher), Google Chrome for Windows 10 (Version 102 or higher), Google Chrome mobile for Android (Version 102 or higher), Microsoft Edge for Windows 10 (Version 102 or higher)
- Preconditions: Deactivate pop-up blockers

Product Usage Instructions

Region Selection / Terms & Condition / Data Protection

Review and agree to the terms and conditions before proceeding.

Patient Information

1. Enter the patient ID (do not enter the patient's name).
2. Optionally, enter the biometry examination date.
3. Optionally, enter the surgery date.

Calculation Screen

Follow the steps on the calculation screen to input necessary data:

1. Enter axial length from the patient's record.
2. Enter the ACD from the patient's record and specify the measurement method.
3. Choose between standard (K) Keratometry values or Total Keratometry (TK) values.
4. Enter the K- or TK-readings in either D or mm.
5. Enter Flat axis.
6. Select the Keratometric index.
7. Select Z CALC Nomogram if desired.
8. Insert target refraction, incision position, and SIA for personalized calculation (optional).
9. Choose between toric or non-toric IOL calculation.
10. Select the desired IOL from the drop-down menu and click Accept and calculate.

Z CALC 2.3 Quick Guide

Toric & non-toric IOL calculation and ordering with Z CALC®

Z CALC:

Z CALC® from ZEISS is a software intended to support a user in selecting ZEISS IOLs by calculation of intraocular lens power and predicted residual refraction. Z CALC can also be used for IOL power calculations for patients with previous LASIK, LASEK and PRK treatments.

The new Z CALC is compatible with the following browsers

Apple Safari mobile for iOS (Version 15 or higher)

Apple Safari Version for MacOS (Version 15 or higher) Google Chrome for Windows 10 (Version 102 or higher)

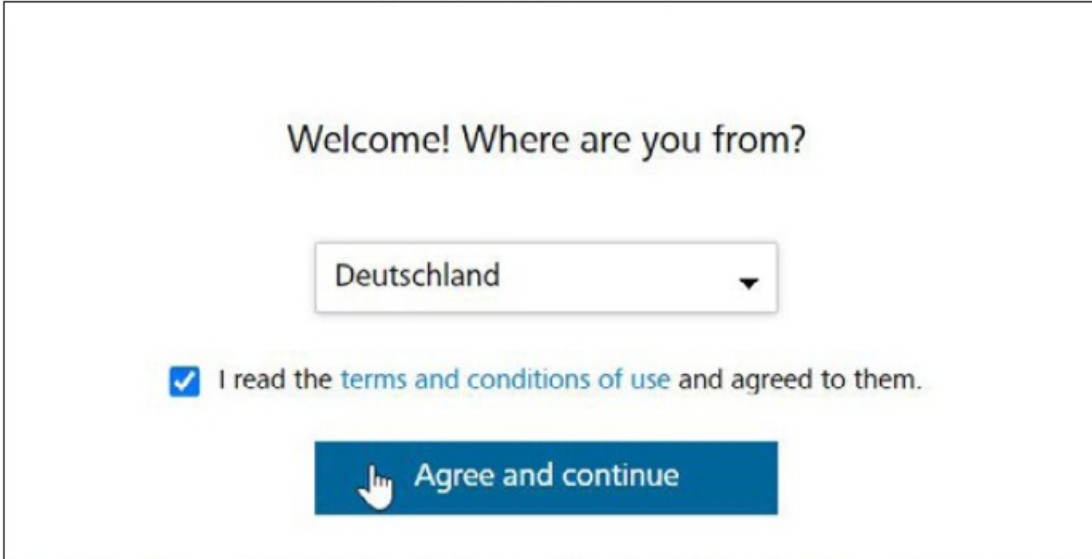
Google Chrome mobile for Android (Version 102 or higher) Microsoft Edge for Windows 10 (Version 102 or higher)

Preconditions for use:

Please ensure that your pop-up blocker is deactivated.

For detailed instructions on how to deactivate the pop-up blockers, please review Pop-Up Blockers and how to deactivate. Before using the product, please consult the instructions for use.

Region Selection / Terms & Condition / Data Protection



The screenshot shows a web interface with the heading "Welcome! Where are you from?". Below this is a dropdown menu currently displaying "Deutschland". Underneath the dropdown is a checkbox that is checked, followed by the text "I read the [terms and conditions of use](#) and agreed to them.". At the bottom is a large blue button with a white hand cursor icon and the text "Agree and continue".

- Select region.
- Please read "Terms and Conditions of Use". Click the checkbox.
- Click "Agree and continue".
- Additionally you can find the "Data protection guidelines".

Patient Information

•

Patient information

Patient identification

Patient ID 1

Enter the anonymized patient ID of the patient for unique identification. Do not use patient names for data protection reasons.

Biometry date (optional)

MM/DD/YYYY 3

Surgery date (optional)

MM/DD/YYYY 4

Laser Vision Correction ⓘ

☒ No ☐ Yes (LASIK, LASEK, or PRK) 2

1 Enter patient ID (Please do not enter the patient's name!).

- 2 Select whether or not patient has undergone a previous laser vision correction treatment (LASIK, LASEK or PRK):

LVC status must be selected for both eyes.

If yes; be sure to enter whether myopic or hyperopic treatment has occurred.

- 3 Enter biometry examination date (optional).
- 4 Enter surgery date (optional)

Calculation Screen

- 5 Enter axial length from the patient's record. Select IOLMaster for measurements with an optical biometry device or immersion ultrasound. Select applanation for measurements with applanation ultrasound.
- 6 Enter the ACD from the patient's record and indicate if it has been measured from the epithelium or endothelium.
- 7 Please choose if you want to enter standard (K) Keratometry values or "Total Keratometry (TK)" values, if you want to use the TK values incorporating the posterior corneal curvature measurements from the IOLMaster 700.
- 8 Enter the K- or TK-readings either in D or radii in mm.
- 9 Enter "Flat axis".
- 10 Select the "Keratometric index" from the drop down menu.
- 11 Select Z CALC Nomogram*, if desired.
- 12 Insert target refraction, incision position and SIA for personalized calculation (optional).
- 13 Choose between toric or non-toric IOL calculation.
- 14 Select the desired IOL from the drop-down menu.

AL **5**
23.85
(15.00 - 40.00 mm)

ACD **6**
3.26
(1.50 - 6.00 mm)

Measurement method **1**
☒ IOLMaster
☐ Applanation

Measured from
☒ Epithelium
☐ Endothelium

Keratometry **7** Total Keratometry (TK) **1**

R1 (flat) **1**
7.82
(5.00 - 10.00 mm / 35.00 - 65.00 D)

Flat axis **9**
125
(0 - 180°)

R2 (steep) **8**
7.53
(5.00 - 10.00 mm / 35.00 - 65.00 D)

Steep axis
35

Keratometric index **10**
1.3375

Asst. K
1.66

Z CALC Nomogram **11**
☐ Yes ☒ No

Target refract. SE **1**
0.00
(-5.00 - 5.00 D, optional)

Incision position
0
(0 - 360°, optional)

SIA **12**
0.00
(0.00 - 1.00 D, optional)

Toric **13** Non-toric

AT LARA® toric 929 **14**

Ensure that the data entered is correct. ZEISS does not send or save any patient identification information. By clicking on the "Accept and calculate" button, you agree to the terms and conditions of use. [Open the terms and conditions of use](#)

Accept and calculate

Click "Accept and calculate".

Result Screen

Standard Mode

[Show expanded mode](#)

| IOL refractive power | | | | Predicted outcome 1 | | | | | |
|----------------------|---------|---------|----------|----------------------------|---------|---------|----------|-----|------------|
| SE [D] | Sph [D] | Cyl [D] | Axis [°] | SE [D] | Sph [D] | Cyl [D] | Axis [°] | | |
| +19.50 | +18.50 | +2.00 | 35 | -0.56 | -0.49 | -0.13 | 125 | --- | 101 |
| +19.00 | +18.00 | +2.00 | 35 | -0.18 | -0.12 | -0.13 | 125 | --- | 101 |
| +18.50 | +17.50 | +2.00 | 35 | +0.19 | +0.26 | -0.14 | 125 | --- | 101 |

Visualization of the IOL value: **Select the product model using the drop-down menu: MP: MICS, preloaded**

Expanded Mode

[Hide expanded mode](#)

| IOL refractive power | | | | Predicted outcome 1 | | | | | |
|----------------------|----------|---------|----------|----------------------------|---------|---------|----------|-------------------|--------------|
| SE [D] | Sph [D] | Cyl [D] | Axis [°] | SE [D] | Sph [D] | Cyl [D] | Axis [°] | ELP [mm] 1 | |
| + | + | | | | | | | + | Reset |
| +19.00 | +18.00 | +2.00 | 35 | -0.18 | -0.12 | -0.13 | 125 | 4.28 | --- |
| - | - | | | | | | | - | MP |

Visualization of the IOL value: **Select the product model using the drop-down menu: MP: MICS, preloaded**

- A You may switch between “Standard Mode” or “Expanded Mode” by clicking the desired mode (top right corner).
 - Standard Mode: Z CALC presents three calculations from which you may choose the most appropriate based on your requirements.
 - Expanded Mode: You may vary Spherical Equivalent (SE) and cylinder powers (toric IOLs only) to review associated residual refraction and Effective Lens position (ELP).

* Mathematical compensation for the posterior corneal astigmatism (first implemented with v2.0).

IOL product model selection

| IOL refractive power | | | | Predicted outcome | | | |
|----------------------|---------|---------|----------|-------------------|---------|---------|----------|
| SE [D] | Sph [D] | Cyl [D] | Axis [°] | SE [D] | Sph [D] | Cyl [D] | Axis [°] |
| +19.50 | +18.50 | +2.00 | 35 | -0.56 | -0.49 | -0.13 | 125 |
| +19.00 | +18.00 | +2.00 | 35 | -0.18 | -0.12 | -0.13 | 125 |
| +18.50 | +17.50 | +2.00 | 35 | +0.19 | +0.26 | -0.14 | 125 |

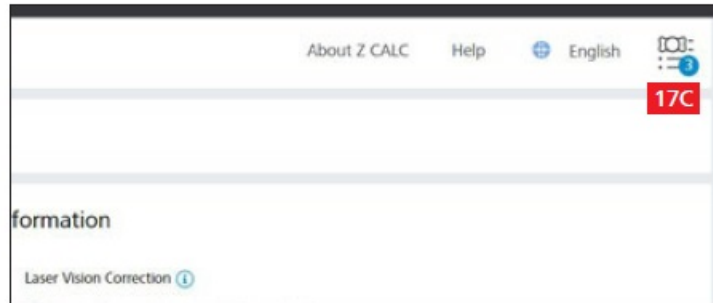
Visualizations of the IOL values:

Select the product model using the drop-down menu: MP: MICS, preloaded

- 15 Choose between different product models (depending on the availability) from the drop-down menu from the generated readings.
- 16 Click on the “Add to wish list” button adjacent to the drop-down menu to transfer the result to the wish list.
- M MICS (Micro Incision Cataract Surgery), suitable for 1.8mm incision size
- MP MICS (Micro Incision Cataract Surgery), suitable for 1.8mm incision size & Preloaded
- MV MICS (Micro Incision Cataract Surgery), suitable for 1.8mm incision size & Violet and blue filtering (yellow)
- P Fully Preloaded in injector
- PY Fully Preloaded in injector & Yellow blue-light filtering “-” No variant

Navigate to the Wishlist/PDF-Printouts

•



- 17A Click on Save as PDF button to save the selected results as PDF directly from the calculation screen.
- 17B Click on wish list button at the bottom. This will lead you to the second screen, where you can select lenses for ordering or PDF-print-outs.
- OR
- 17C Click on the wish list symbol in the right upper corner, which will lead you to the same screen as the wish list button at the bottom of the page.

Create PDF printouts for selected IOLs or order via e-mail



- 18 Select the desired quantity for the IOL.
 - 19A Click "Order by E-Mail" (to directly send your order to the local ZEISS sales representative).
- OR
- 19B Click "Save as PDF" to create a PDF with the calculation results and ordering information of the selected IOLs in the wish list.

Order by e-mail or create PDF printouts

Send order e-mail

Select which PDF form(s) you want to create and enter your information.

- ☐ IOL Order form
☐ IOL plan
☒ IOL order form and IOL plan

Your e-mail address:

e.g., test@mail.com

E-mail address of ZEISS IOL representative

iol.meditec.de@zeiss.com

Clinic name

e.g., Clinic for ophthalmology

Department (optional)

e.g., Ophthalmology

Street and number

e.g., 20 Main Street

Additional address information (optional)

e.g., Building C

City

e.g., Potsdam

Zip code

e.g., 01010

State (optional)

e.g., Brandenburg

Country

e.g., Germany

Telephone number (optional)

e.g., +49 11 1122000345

Fill out all mandatory fields: name and address of the clinic, e-mail address of ZEISS IOL representative.

Check your entries

Send

Cancel

Save PDF form

Select which PDF form(s) you want to create and enter your information.

☐ IOL Order Form
☐ IOL plan
☒ IOL order form and IOL plan

Your e-mail address (optional)

e.g., test@mail.com

Clinic name (optional)

e.g., Clinic for ophthalmology

Department (optional)

e.g., Ophthalmology

Street and number (optional)

e.g., 20 Main Street

Additional address information (optional)

e.g., Building C

City (optional)

e.g., Potsdam

Zip code (optional)

e.g., 01010

State (optional)

e.g., Brandenburg

Country (optional)

e.g., Germany

Telephone number (optional)

e.g., +49 11 1122000345

Check your entries

For Ordering

- Enter all the relevant details including clinic name, department, address, phone number and email address (your local ZEISS partner's email address is filled in automatically based on your country selection).
- By hitting the "Send" button, an email with your order is sent out to the local ZEISS business partner (automatically filled based on your country selection).

For Printing and/or manually faxing

- For saving as PDF, you don't need to enter your data (data entry is only required for direct ordering).
- Please just scroll down and click "Save", the PDFs will be created and open in a new tab window in your browser.

Note: Please ensure the pop-up blocker is deactivated in your browser. Otherwise please follow the instruction in

the addendum: Pop-Up Blockers and how to deactivate.

- A Clinic-specific information (Optional).
- B Name and type of the lens.
- C Formula and type of measurement (Keratometry or Total
- Keratometry).
- D Labeled values on the product package of the calculated lenses are highlighted with bold font and not labeled ones greyed out.
- E Selected lenses from the wishlist for OD and OS.
- F Eye schematic with main incision position and implant axis for toric IOLs.
- G Anatomical position.

IOL PLAN

Patient ID: TEST ID

Test Clinic

Department

Max-Böhm-Straße 8-10

Building C

10589 Berlin State

Germany

Telephone number

test@clinic.com

OD right

EYE STATUS

left OS

LS Phakic

EVC untreated

EVC mode untreated

Target ref. 0.00 D

SIA 0.00 D

Inc. 0°

LS Phakic

EVC LASIK/LASEK/PRK

EVC mode Hyperopic

Target ref. 0.00 D

SIA 0.00 D

Inc. 0°

BIOMETRY VALUES

Date of measurement: ---

n 1.3375

AL 23.85 mm

ACD 3.26 mm

Aut. K -1.66 D @ 125°

Aug. K 7.68 mm

R1 7.82 mm @ 125°

R2 7.53 mm @ 35°

Date of measurement: ---

n 1.3375

AL 21.00 mm

ACD 3.00 mm

Aut. TK -1.21 D @ 100°

Aug. TK 8.00 mm

TR1 8.11 mm @ 100°

TR2 7.88 mm @ 10°

IOL CALCULATION

ZEISS AT LARA® toric 929 MP

Z-CALC | Keratometry

| IOL [D] | | | | | Predicted outcome [D] | | | | |
|---------------|---------------|--------------|------------|--|-----------------------|--------------|--------------|-------------|--|
| SE | Sph | Cyl | Ax | | SE | Sph | Cyl | Ax | |
| +20.00 | +19.00 | +2.00 | 35° | | -0.94 | -0.87 | -0.13 | 125° | |
| +19.50 | +18.50 | +2.00 | 35° | | -0.56 | -0.49 | -0.13 | 125° | |
| +19.00 | +18.00 | +2.00 | 35° | | -0.18 | -0.12 | -0.13 | 125° | |
| +18.50 | +17.50 | +2.00 | 35° | | +0.19 | +0.26 | -0.14 | 125° | |
| +18.00 | +17.00 | +2.00 | 35° | | +0.56 | +0.63 | -0.14 | 125° | |

ELP 4.28 mm

ZEISS AT LARA® toric 929 MP

Z-CALC | Total Keratometry

| IOL [D] | | | | | Predicted outcome [D] | | | | |
|---------------|---------------|--------------|------------|--|-----------------------|--------------|--------------|-------------|--|
| SE | Sph | Cyl | Ax | | SE | Sph | Cyl | Ax | |
| +32.50 | +31.75 | +1.50 | 10° | | -0.67 | -0.66 | -0.02 | 100° | |
| +32.00 | +31.25 | +1.50 | 10° | | -0.28 | -0.27 | -0.02 | 100° | |
| +31.50 | +30.75 | +1.50 | 10° | | +0.11 | +0.12 | -0.03 | 100° | |
| +31.00 | +30.25 | +1.50 | 10° | | +0.49 | +0.50 | -0.03 | 100° | |
| +30.50 | +29.75 | +1.50 | 10° | | +0.87 | +0.88 | -0.03 | 100° | |

ELP 3.91 mm

35°

180°

90°

0°

270°

180°

90°

0°

270°

T

N

Incision orientation: 0°

Implant axis: 35°

10°

180°

90°

0°

270°

180°

90°

0°

270°

N

T

Incision orientation: 0°

Implant axis: 10°

Comment

Signature

2020 Calculation Reference - version 1.7.0 1050

Created on 2024-01-24 12:58:22 by test, test

Page 1 of 1

- A Based on the labeling of the selected lens, ordering relevant values are displayed bold.

IOL ORDER FORM

Patient ID: 1037 ID

Test Clinic
Department
Max Oschm-Straße 8-10
Building C
10589 Berlin State
Germany
Telephone number
test@clinic.com

OD

OS

| | | |
|---|--|-------------------------------------|
| IOL | ZEISS AT LABAS toric 929 MP | ZEISS AT LABAS toric 929 MP |
| IOL (SE / Sph / Cyl / Axis) | A +19.90 D / - / -2.00 D / 35° | +19.90 D / - / +1.50 D / 10° |
| Order quantity | 1 | 1 |
| Surgery date | | |
| Target refraction (SE) | 0.00 D | 0.00 D |
| Axial length | 23.85 mm | 21.00 mm |
| Anterior chamber depth | (from Epithelium) 3.26 mm | (from Epithelium) 3.00 mm |
| Keratometric index | 1.3375 | 1.3375 |
| R1 | 7.82 mm @ 125° | --- @ --- |
| R2 | 7.53 mm @ 35° | --- @ --- |
| Asst. K | -1.66 D @ 125° | --- @ --- |
| R11 | --- @ --- | 8.11 mm @ 100° |
| R12 | --- @ --- | 7.68 mm @ 10° |
| Asst. TK | --- @ --- | -1.21 D @ 100° |
| Incision orientation | 0° | 0° |
| ISA | 0.00 D | 0.00 D |
| ELP | 4.28 mm | 3.91 mm |
| Predicted outcome (SE / Sph / Cyl / Axis) | -0.18 D / -0.12 D / -0.13 D / 125° | +0.11 D / +0.12 D / -0.03 D / 100° |

Order reusable STACY: ☐

Disclaimer:

The order request is based on a non-binding recommendation. I have accepted the Terms and Conditions of use of the ZEISS product that generated this order request. The recommendation is merely an approximate value on the basis of general experience and a calculation algorithm and I have verified it on the basis of my special expertise. The order request and a resulting order are based on the General Terms and Conditions of Carl Zeiss Meditec AG that I was able to access online at <https://www.zeiss.com/meditec/typing/terms-and-conditions.html>.

Comment

Signature

ZEISS Calculation Worksheet - Version 1.7.0-1080 Created on 2024-01-24 12:59:00 by test, test

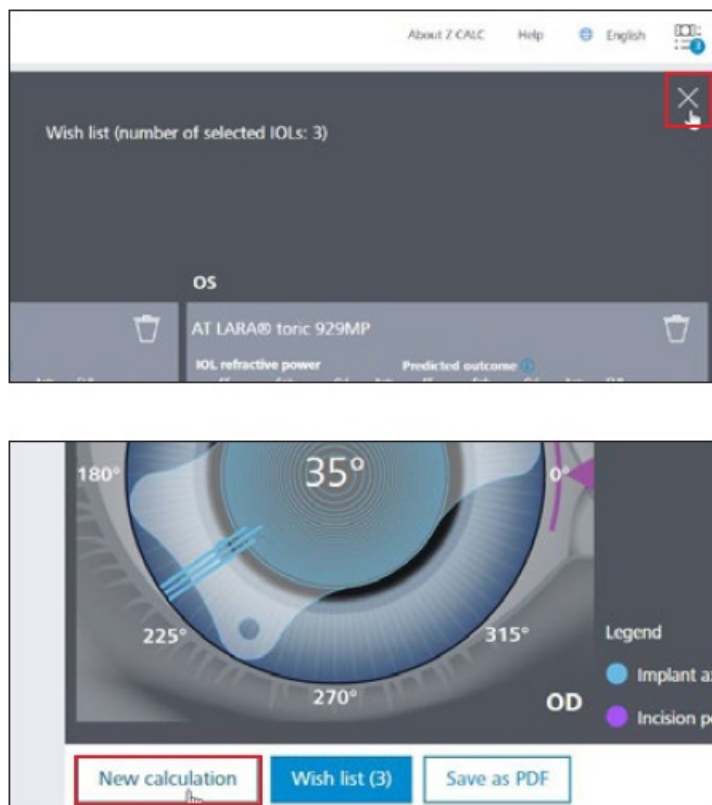
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- OD: Oculus Dexter (right eye)
- OS: Oculus Sinister (left eye)
- OU: Oculus Uterque (both eyes)
- LS: Lens state
- Target ref.: Target refraction
- LVC: Laser vision correction
- SIA: Surgical induced astigmatism
- Inc: Incision direction
- n: Keratometric index
- AL: Axial length
- ACD: Anterior chamber depth
- Ast. K/ Ast. TK: Astigmatism K/ TK
- Avg. R/ Avg. TR: Average R/ TR
- K1 & K2: Keratometry values
- TK1 & TK2: Total Keratometry values
- SE: Spherical equivalent
- Sph: Sphere
- Cyl: Cylinder
- Ax: Axis
- ELP: Effective lens position

Start new calculation

-



Close the wish list window by clicking the cross on the top right of the screen.

- Start a new calculation by clicking on the “New calculation” button. Please note, that all input data and the calculation results including the wish list, will be deleted when you click this button. If you only want to add another calculation to add to your wish list, do not click “New Calculation”.

Addendum

Pop-Up Blockers and how to deactivate

- To download the IOL calculations/ IOL order forms, pop-ups must be allowed for the Z CALC page.
- Please ensure to deactivate browser-based pop-up blockers, in case the pop-ups are blocked (PDF creation is suppressed). This option can be found within the settings of the browser you are using.
- In some browsers you see the blocking as a warning message and you can enable the option directly by clicking on the message.
- It may then be necessary to start downloading the documents again.

Further information can be found on the respective homepages of the browser providers

Z CALC 2.3

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Germany


<https://zcalc.meditec.zeiss.com> www.zeiss.com/med/contacts

en-INT_32_025_0384I CZ-III/2024 International edition: Only for sale in selected countries.

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Documents / Resources

| | |
|---|---|
|  | <p>ZEISS Z CALC 2.3 Toric and Non Toric IOL Calculation [pdf] User Guide</p> <p>Z CALC 2.3 Toric and Non Toric IOL Calculation, Z CALC 2.3, Toric and Non Toric IOL Calculation, Non Toric IOL Calculation, Toric IOL Calculation, IOL Calculation</p> |
|---|---|

References

- [Contact us](#)
- [Z CALC Online IOL Calculator](#)
- [User Manual](#)

[Manuals+](#), [Privacy Policy](#)

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