Casuïstry rigid contact lenses

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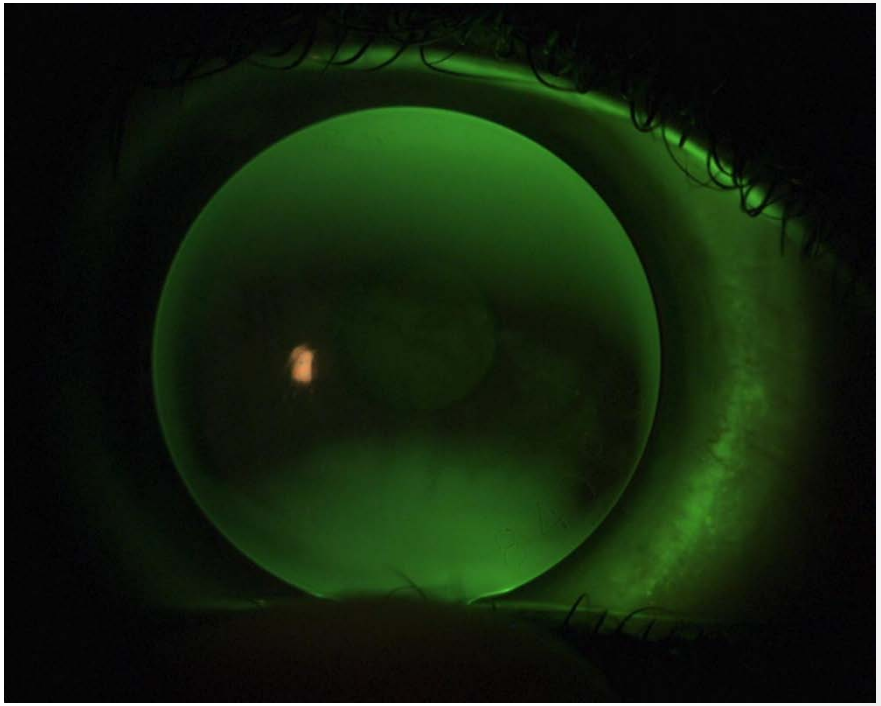
Lens evaluation

Watch the image and answer the following questions:

- What are the two main directions of the cornea?
- In which direction do you find the flat curve of the cornea?
- Evaluate the lens fitting in both directions.
- Given is that the aspheric lens has a diameter of 9,60 and a radius of 7,70. What will be your next lens choice?



Lens evaluation

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- In which direction do you find the flat curve of the cornea?
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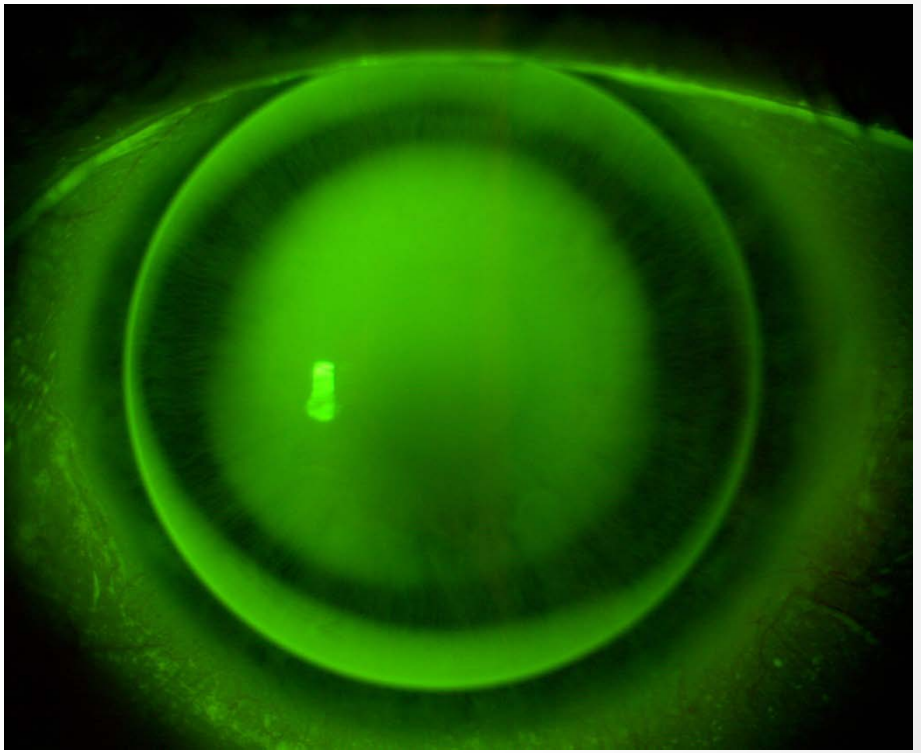
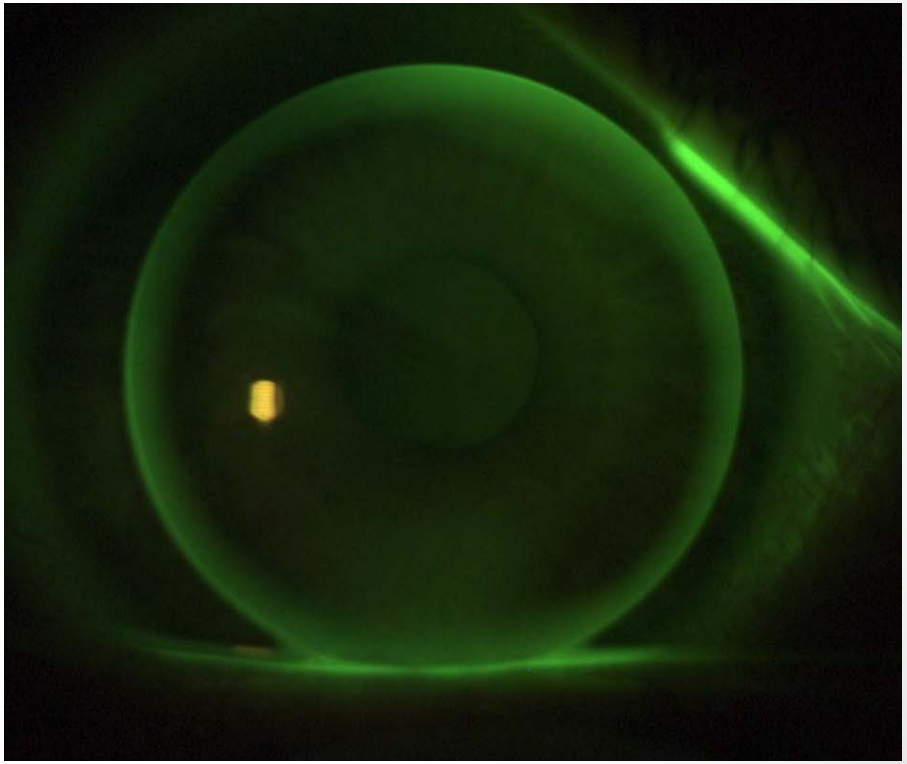


Case 1

Customer, 44 years old wears spherical rigid lenses. He complains about irritation during blinking.

Questions:

- What do you think might cause the problems?
- What can you do to solve the problems.
- Give two advantages of the solutions that you have chosen.
- Give two disadvantages of the solutions that you have chosen.

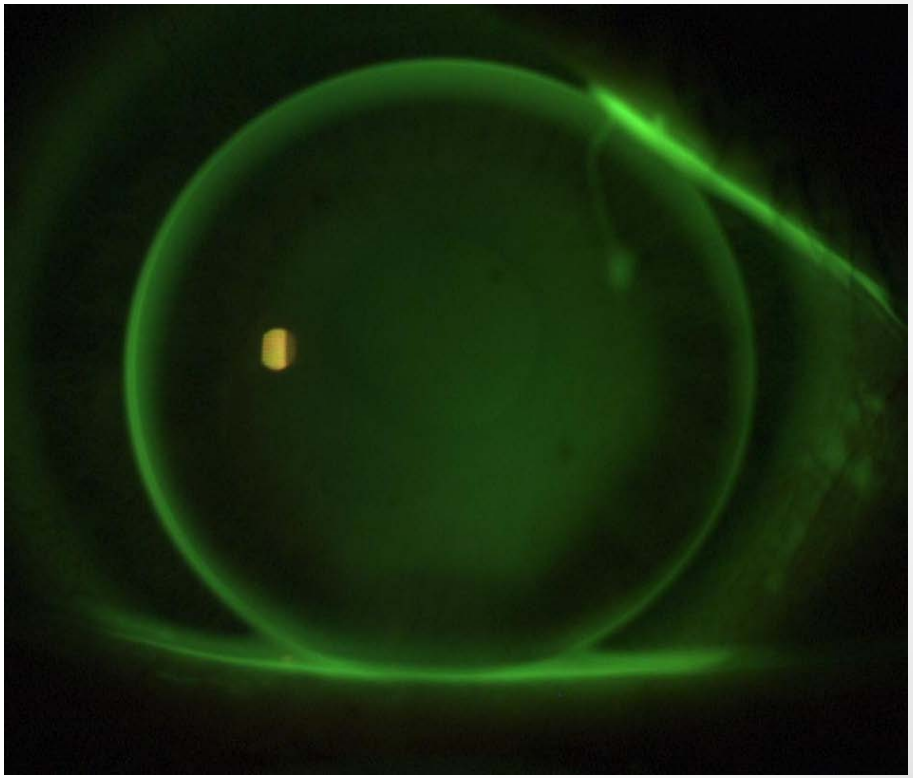


Casus 2

Customer, 20 years old wears spherical rigid lenses. He complains about irritation at the end of the day.

Questions:

- What do you think might cause the problems?
- What can you do to solve the problems.
- Give two advantages of the solutions that you have chosen.
- Give two disadvantages of the solutions that you have chosen.

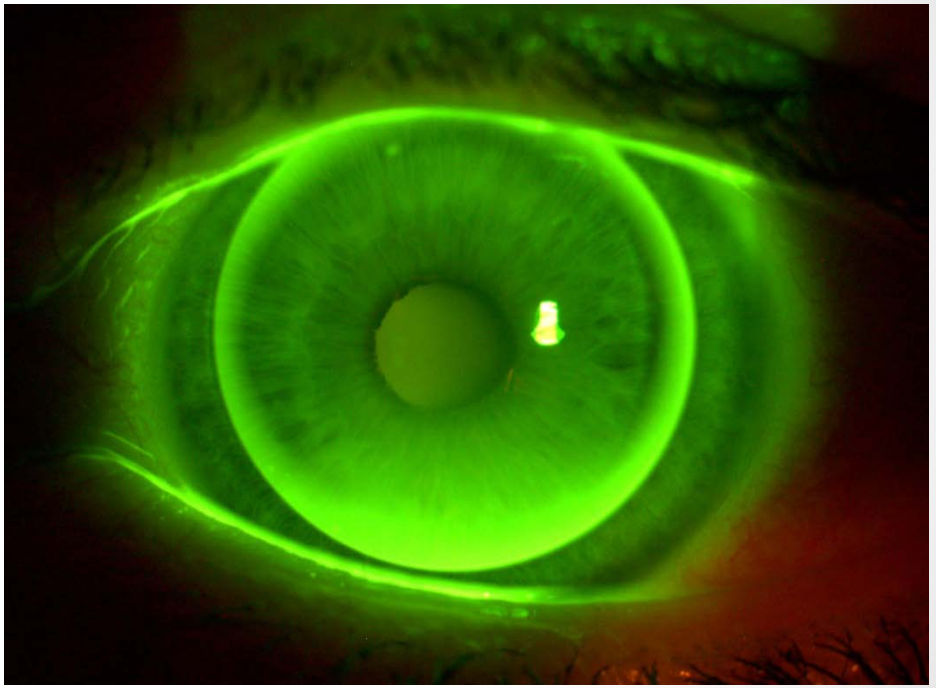


Case 3

Customer wears rigid spherical lenses (-5.00). The lens is situated a little high in the eye. In the evening he sees halo's. Sometimes the lens falls out during blinking.

Questions:

- Give two reasons why the lens is situated high in the eye.
- Give two possible solutions for the problem and give your argumentation for these solutions.

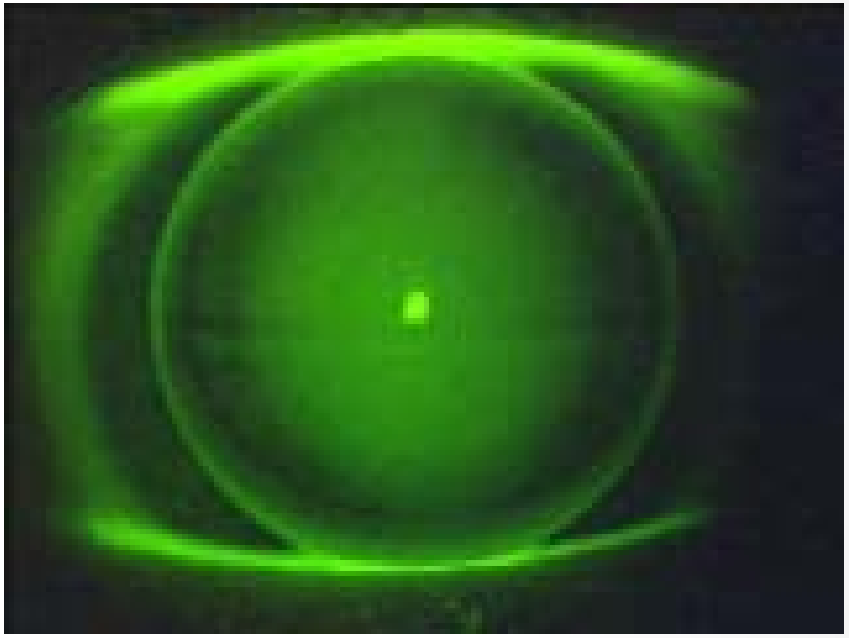


Case 4

Customer, 48 years old, wears Longline lenses.
S -2.00, add. +1.75

Questions:

- Evaluate the lens fitting in both directions.
- Evaluate the inclination.
- Given that the lens inclinates 30^0 nasaly.
  - How whould you change the lens fitting?
- Customer tells you that he can wear the lenses maximum 6 hours.
  - What can be the reason for that?



Case 5

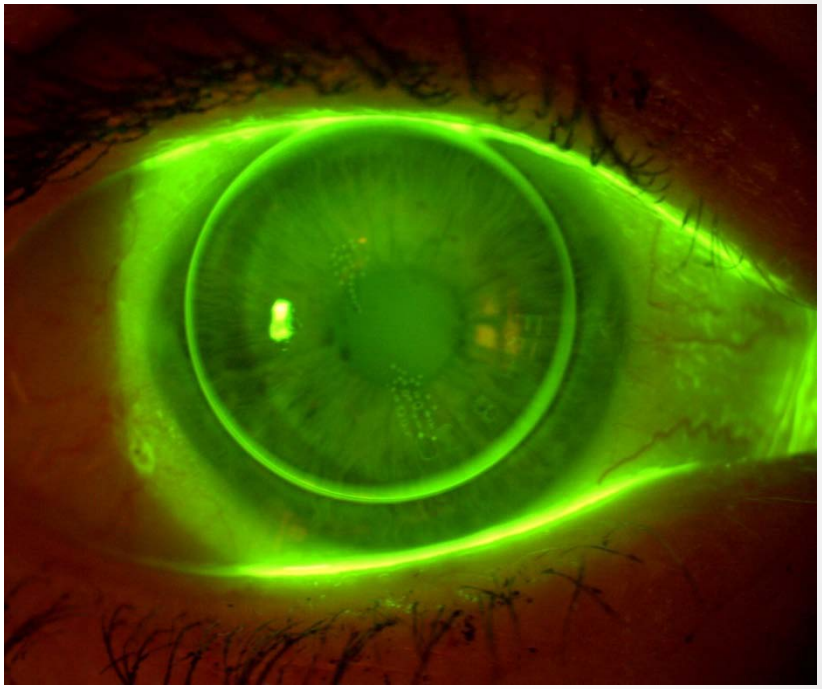
Customer, 53 years old, wears Longline lenses. (Flexi TC), S -1.50, add. +2.25.

Questions:

- Given that the diameter is too small and the lens fitting is too flat.
- What happens when we increase the diameter?
- What do you expect regarding inclination then?
- Customer tells you that his vision at distance is ok but reading is a problem.
  - What might be the most probable reason for the problem?
  - What could you do to solve this problem?
  - Do you think that fiting aspheric lenses might be a solution?

Case 6

Customer, 49 years old, wears aspheric lenses.
Watch the image:

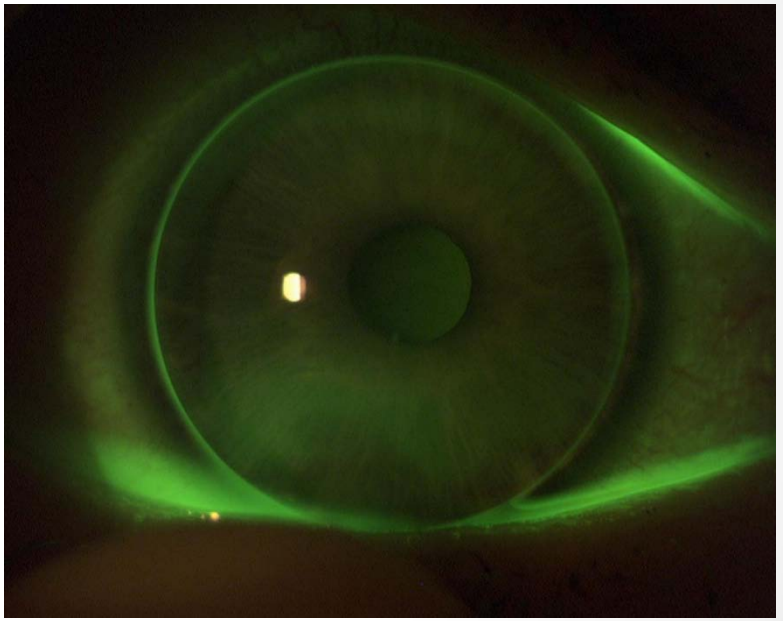


Questions:

- Evaluate the diameter and the centration of the lens.
- Evaluate the lens fitting in both main directions.
- What do you see underneath the lens?
- What might have caused this?
- What problems might be experienced by the customer?
- What would you do to solve the problem?

Case 7

Customer, 23 years old, wears aspheric lenses.
Watch the image:



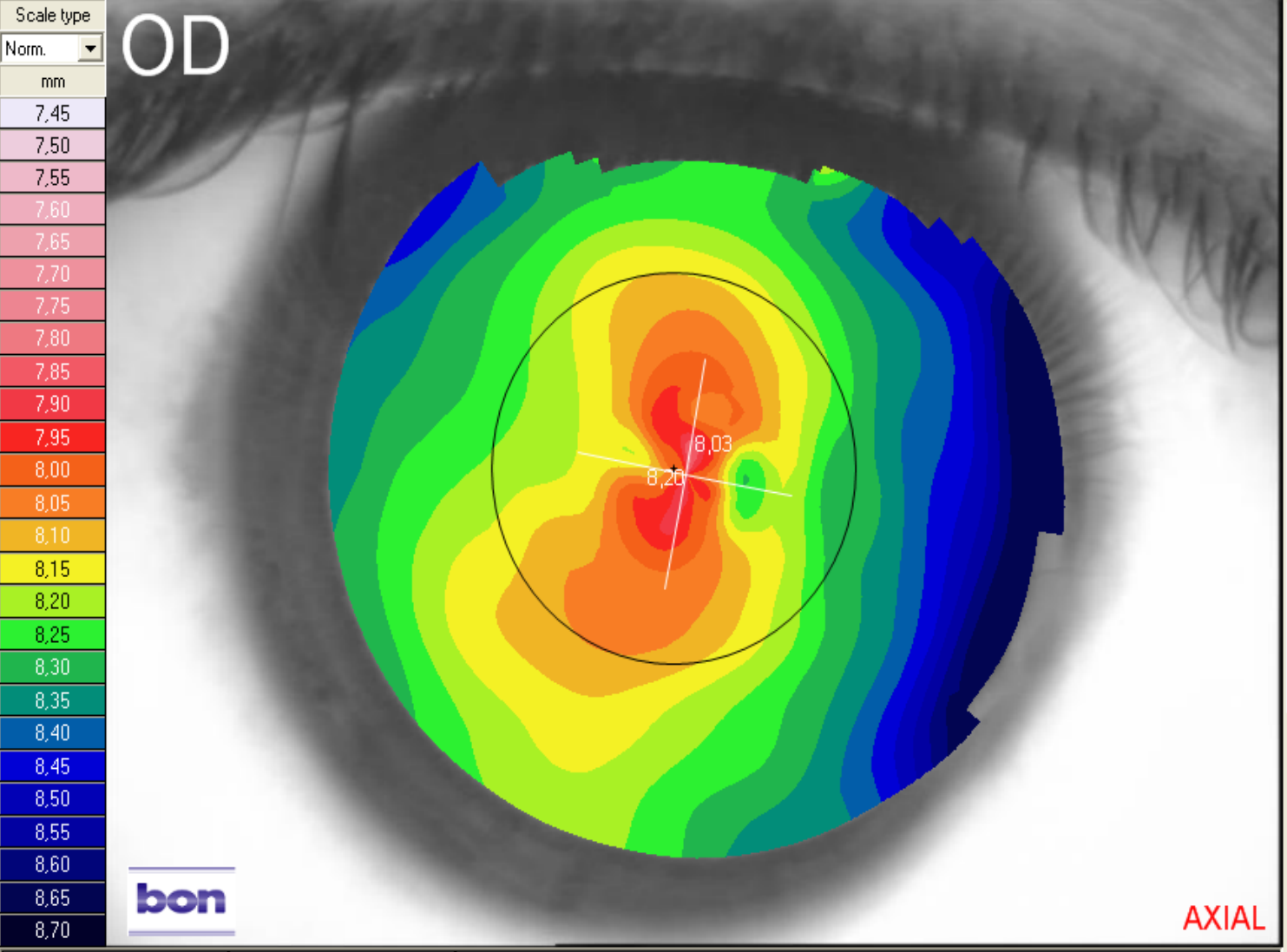
Vragen:

- Evaluate the diameter and the centration of the lens.
- Evaluate the lens fitting in both main directions.
- What problems might be experienced by the customer?
- What would you do to solve the problem?

Case 8

Watch the image on the next slide and give an answer to the following questions.

- What is the advantage of a corneal topgrapher when compared to a keratometer?
- What is the difference between ‘tangential’ en ‘saggital’ values?
- What is the difference between ’absolute’ and ‘relative’ presentation of values?
- When is each kind of value preferably used?
- Which kind of astigmatism is presented by the image?
- In which direction is the flat curve of the cornea?
- How high is the cilinder of this cornea?
- What is presented by the blue and the red line?



SIM-K

K1	= 8,20 mm @ 169°	e = 0,46
K2	= 8,03 mm @ 79°	e = 0,61
AVG	= 8,10 mm	e = 0,54
CYL	= -0,85 D	ax = 169°

MERIDIANS

SEMIMERIDIANS

KERATOREFRACTIVE INDICES

ASPHERICITY

Principal Meridians (4.5 mm)

Ro	= 8,10 mm @ 169°	e = 0,65
Ro	= 7,93 mm @ 79°	e = 0,77
Ro(AVG)	= 8,02 mm	e = 0,71

Principal Meridians (8 mm)

Ro	= 8,13 mm @ 169°	e = 0,46
Ro	= 7,95 mm @ 79°	e = 0,61
Ro(AVG)	= 8,04 mm	e = 0,54

KERATOCONUS SCREENING

Case 8

LOCAL VALUES

Power	
Radius	
Distance	= 6,23 mm
Meridian	= 286°
x	= 1,82 mm
y	= -5,96 mm

PUPIL AND LIMBUS

Pup. Dec. x = -0,18 mm

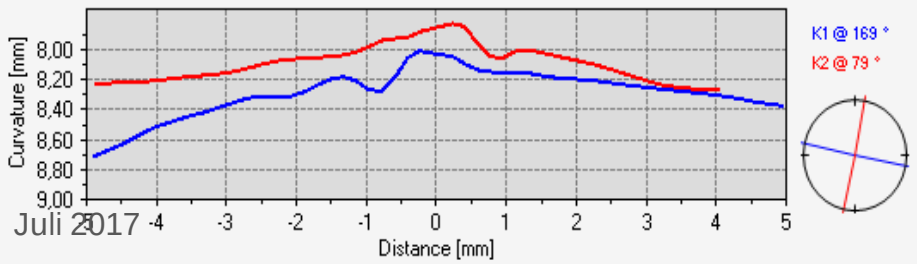
Pup. Dec. y = 0,09 mm

Ø Mean = 5,08 mm

Mean Pup. Pow. = 41,75 D

HVID = 12,51 mm

PRINCIPAL MERIDIANS



About the author

- This resource has been donated from FIACLE Henri Eek from Hogeschool Utrecht, The Netherlands. Henri is also affiliated with Deltion College in The Netherlands.

- Henri is a proud IACLE member 'IACLE has given me the opportunity to get in contact with contact lens involved people from all over the world. They've also provided me a lot of tools for improving my way of teaching contact lens education to students at both the institutes that I work for.'