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VIEWLIGHT
POWERED BY INNOVATION

NEW

# SIRIUS+ SCHEIMPFLUG

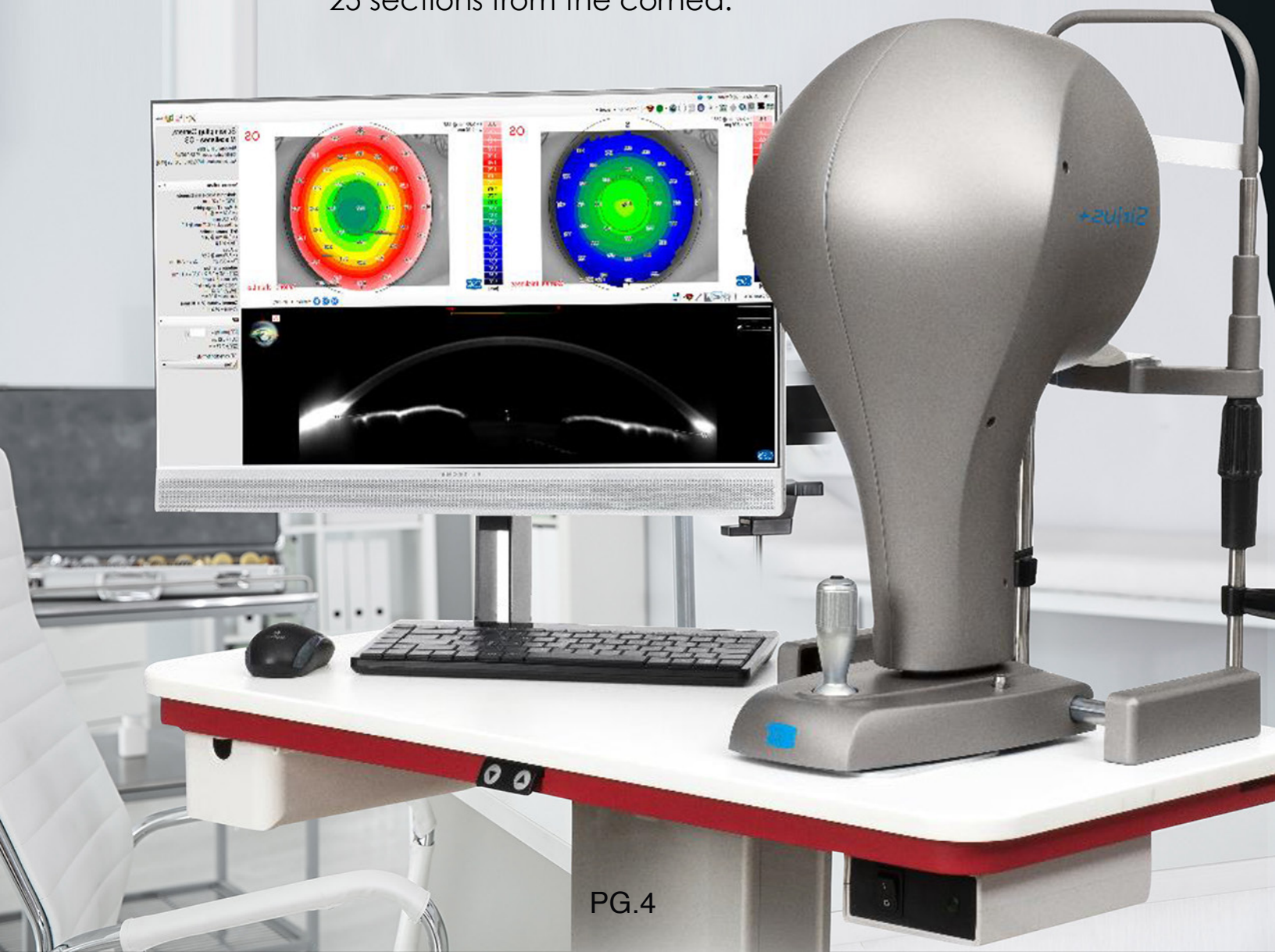
## Tomographer & Topographers

MADE IN ITALY

# TOMOGRAPHER + TOPOGRAPHER

## ABOUT SIRIUS+

SIRIUS examinations provides an accurate measurment of pupil diameter in scotopic, mesopic and photopic conditions. When combined with the corneal map they can be used for refractive surgery planning and follow up. All biometric measurements of the anterior chamber are calculated using 25 sections from the cornea.



# PRODUCT OVERVIEW

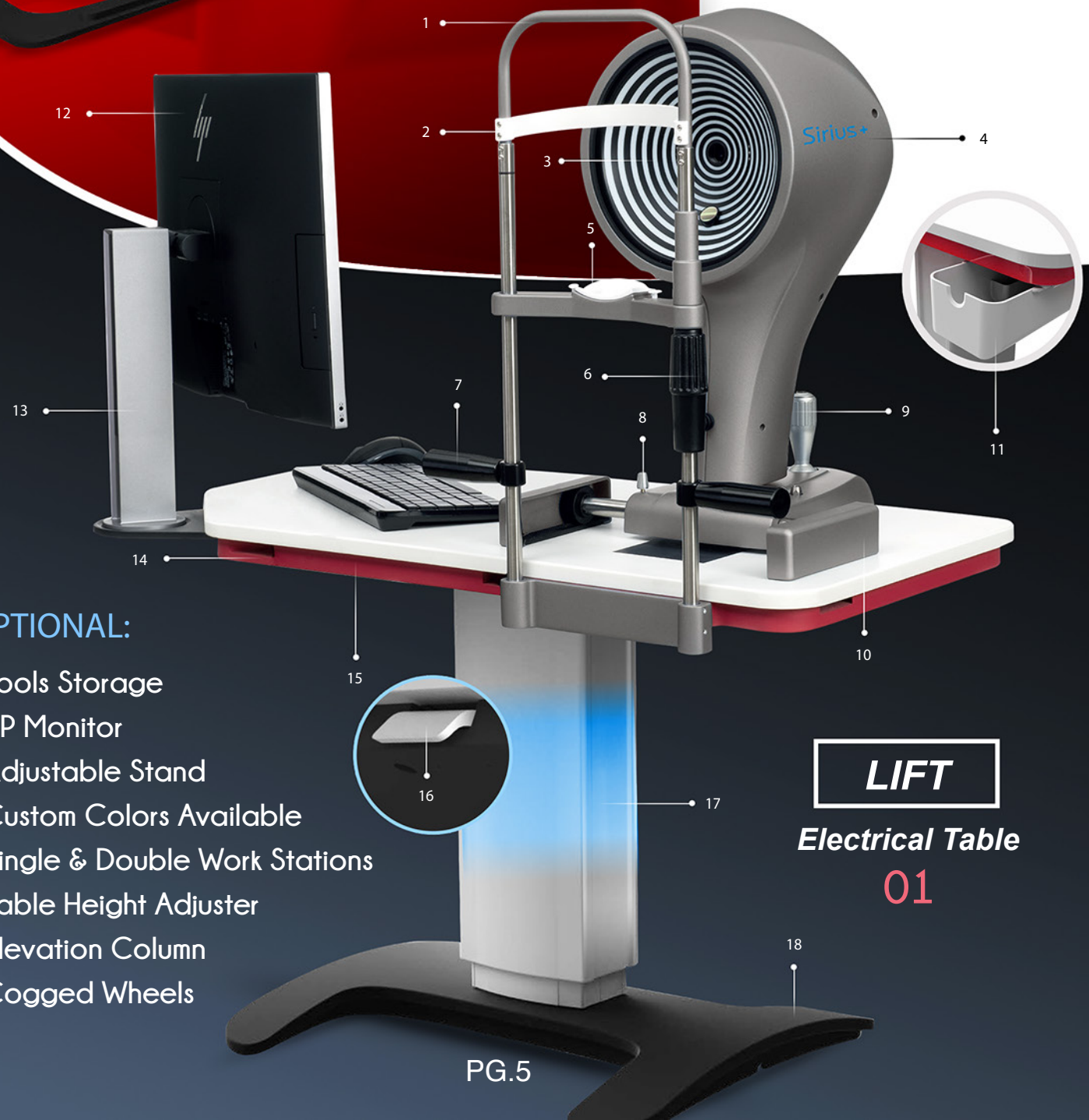
**LIFT**

***Electrical Table***

02

## INCLUDED:

1. Chinrest Module
2. Head Rest
3. Capturing Channel
4. Resolution (1280x960)
5. Chinrest Cup
6. Knob Adjuster
7. Patient's Handle
8. Device Blocking Knob
9. Capturing Trigger Joystick
10. Slide Guide Guards




## OPTIONAL:

11. Tools Storage
12. HP Monitor
13. Adjustable Stand
14. Custom Colors Available
15. Single & Double Work Stations
16. Table Height Adjuster
17. Elevation Column
18. Cogged Wheels

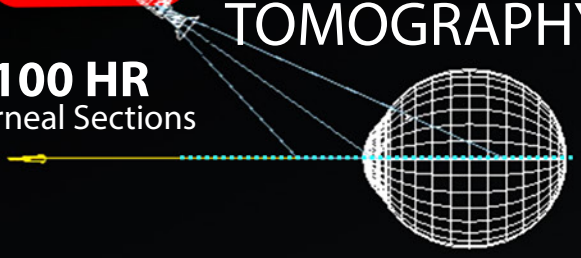
**LIFT**

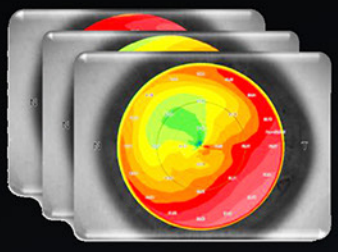
***Electrical Table***

01

# SCHEIMPFLUG TOMOGRAPHY

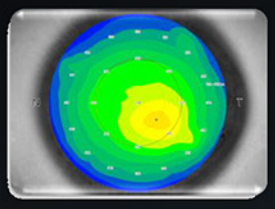
**100 HR**
Corneal Sections



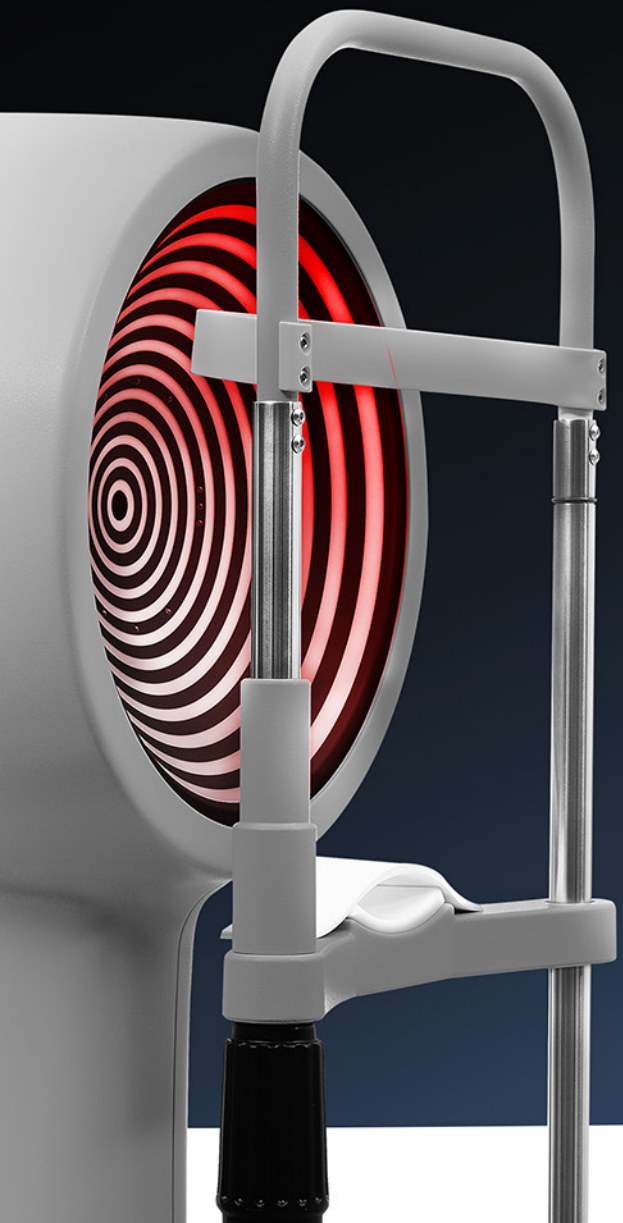


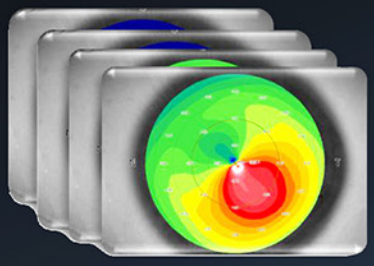
Corneal Thickness

SIRIUS is a fully featured multi-functional placido disk topographer and Scheimpflug's tomographer with a dedicated software designed to help in the detection and analysis of Dry Eyes.

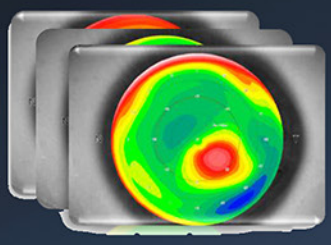


Anterior, posterior and total refractive power map reports





Anterior chamber depth and posterior corneal surface elevations



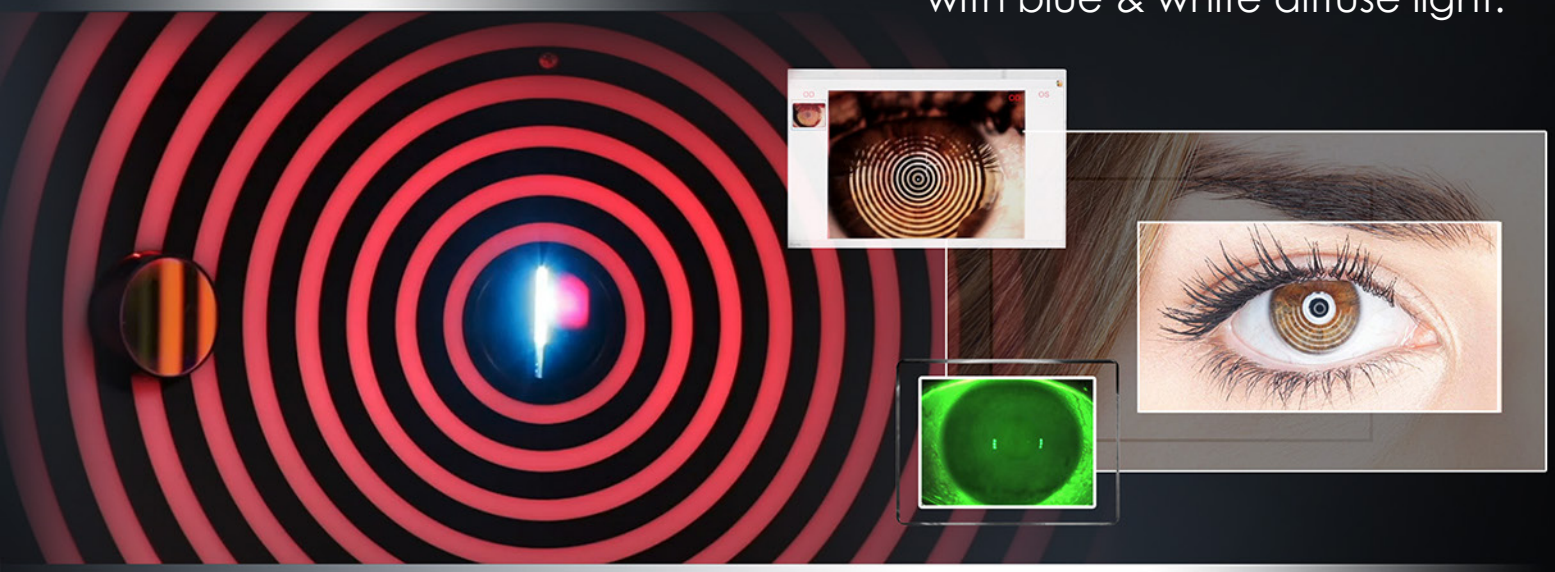
Tangential and axial curvature of anterior and posterior corneal surface

## PRECISE SURFACES

SIRIUS is able to obtain the accurate measurement of elevations, curvature, power and thickness for the whole cornea surfaces over a 12mm in diameter.

# CORNEAL Measurements

The most common uses are for refractive and cataract surgery, and IOL calculation module is available. Photos and videos with blue & white diffuse light.



## ILLUMINATION

| | |
|---|---|
| Placido Disk | LED @400-700nm |
| Scheimpflug | LED @475nm UV-free |
| Pupillography | LED @940nm |
| Auxilary Lighting | LED 400-700nm |
| Fluorescene Lighting | LED @470nm |

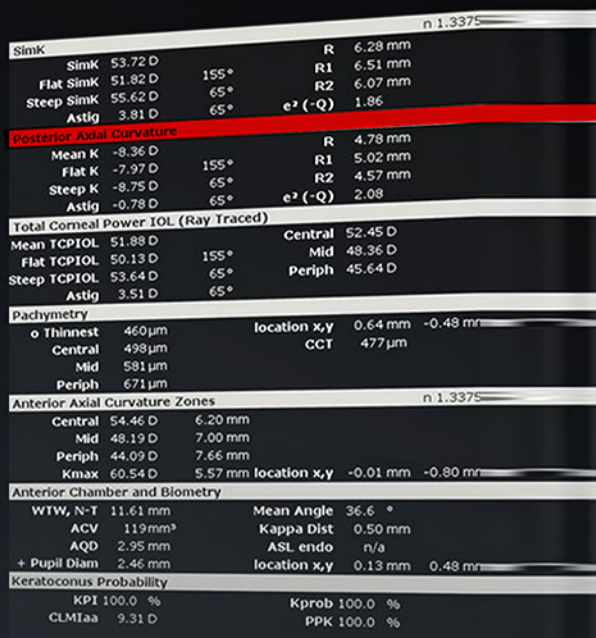
PHOENIX

# SOFTWARE

## CONNECT YOUR TWO DEVICES

**SIRIUS+ uses the Phoenix Software platform allowing patient data to be saved for future review and analysis, shared by all CSO devices. Enables both comfort and flexability with CSO's optional single and double electrical tables designed for all ophthalmic instruments.**

Windows




COBRA+

# ANTERIOR SEGMENT DIAGNOSTICS

Anterior and posterior corneal topography information are available for diagnosis, for refractive/ cataract pre-operative planning or for follow up purposes.

Pupillography

Dry Eye Report

Tear meniscus & Ocular Redness

RGP lens fitting

Tear Film Analysis

Meibomian Glands Analysis

Densitometry

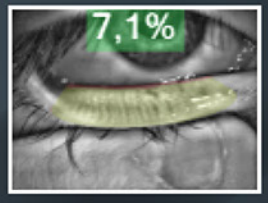
Topographic Maps & Summary

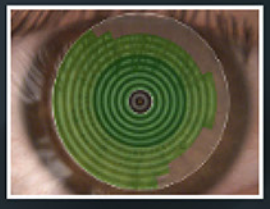
## What does it do?

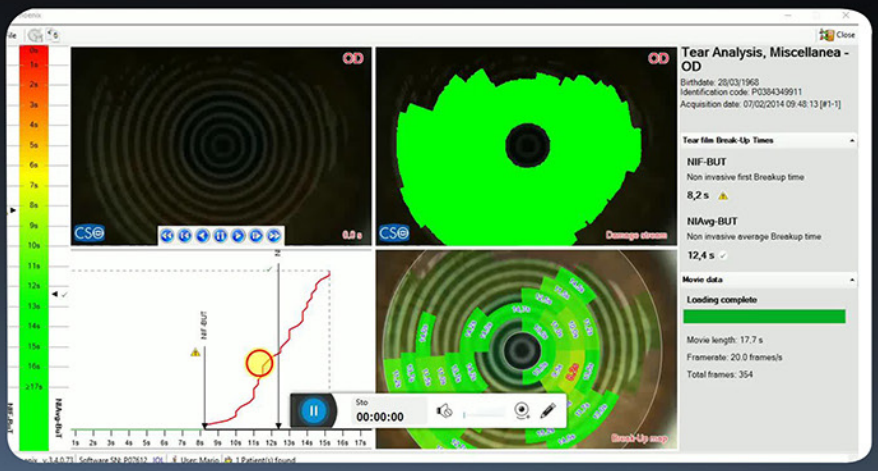
- Map of Anterior Chamber Depth & Analysis
- Refractive & Cataract Surgery Planning Tools
- IOL calculation with Ray Tracing Techniques
- Automatic Calculation of Iridocorneal Surface and works with already treated eyes (e.g. LASIK)
- Advanced Topography Ring Editing System
- Corneal Pachymetry (12 mm diameter)
- Contact Lenses Application Module
- OPD Analysis and Visus Simulation
- Scheimpflug's Images Comparison
- Summary of Acquisition Reliability
- Intra Stromal Rings Summary
- Phoenix Software Platform
- IOP Correction Formulas
- 4 maps + image summary
- 24 Rings Placido's Disk
- Contact Lenses Autofit
- Keratoconus Summary
- Corneal Aberrometry
- Glaucoma Summary
- Videokeratoscope
- Cataract Summary

# DRY EYE REPORT OD

Thanks to the new color camera, allows the measure of tear film break-up time, meibomian glands analysis, conjuntival, limbar hyperemia and tear meniscus height. In addition, all functionalities merge together for all partial score to provide a complete Dry Eye report for comprehensive assessment of the patients corneal condition and helping the diagnosis of the Dry Eye Disease DED.

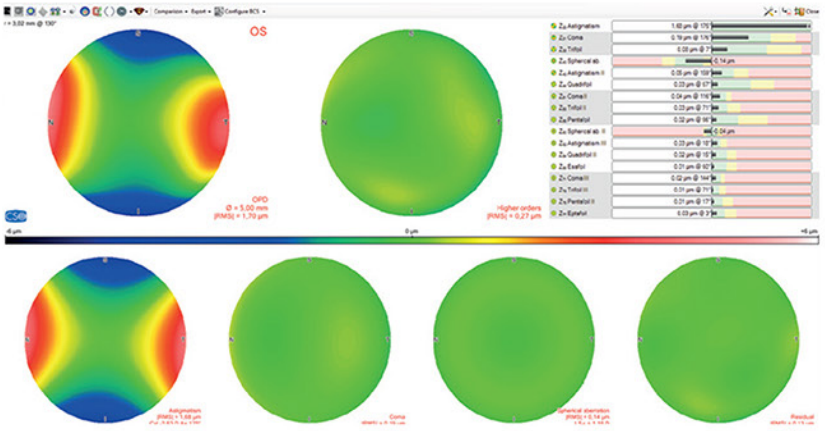


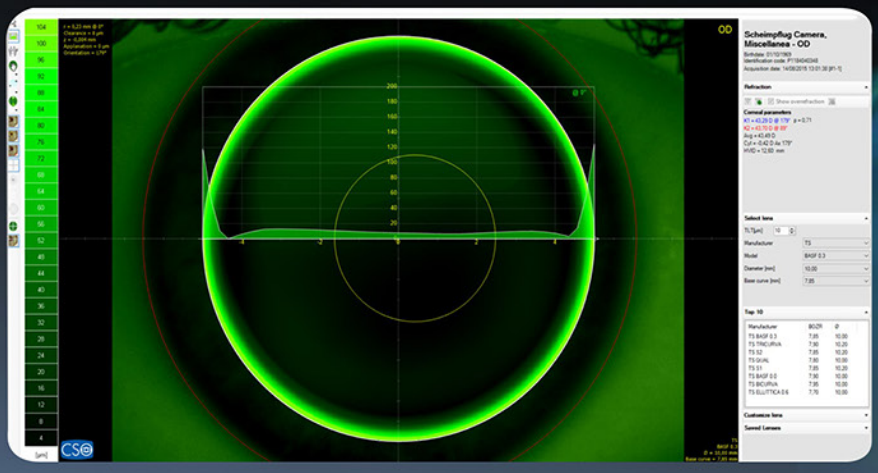

## ADVANCED ANALYSIS OF THE TEAR FILM

Placido disk technology allows for the advanced analysis of the tear film, such as NI-BUT (Non Invasive Break-up Time).

## CORNEAL ABERROMETRY

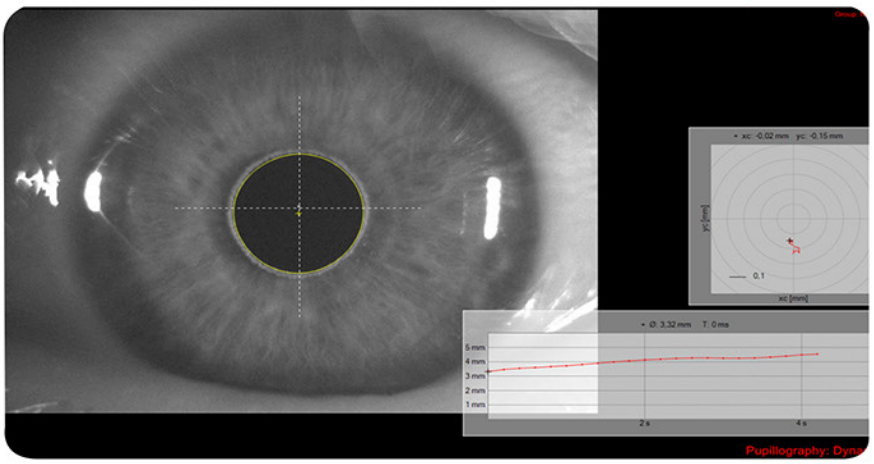
Offers a complete overview of the corneal contribution to the vision. Anterior, posterior or total corneal aberration are selectable for several pupil diameters. The OPD/ WFE map and the simulated vision functions (Spot Diagram, PSF, MTF, Image convolution) help the clinician understanding and explaining the visual discomfort to the patient.




## CONTACT LENSES APPLICATION MODULE

A contact lens fitting module is available which simulates the fit of rigid lenses based on an internal database of many lens manufacturers.

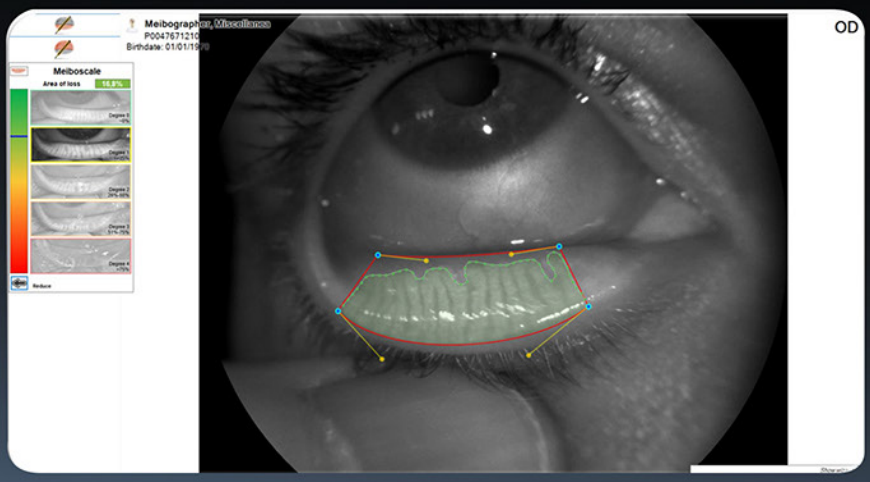


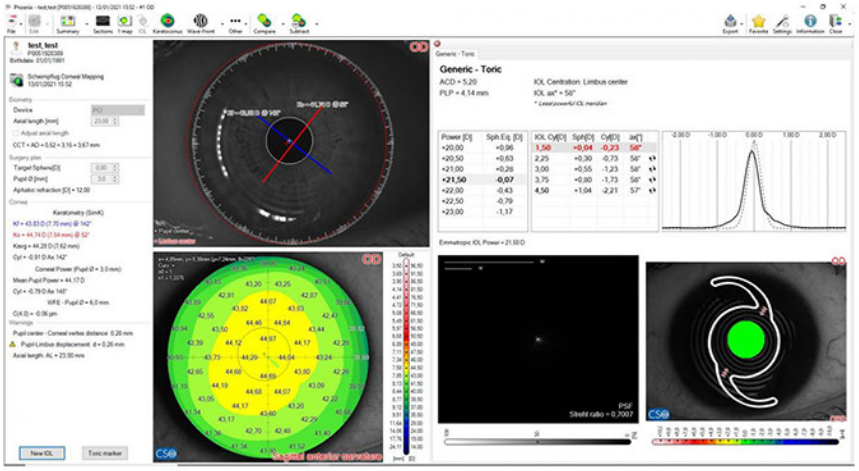
## PUPILLOGRAPHY

Sirius has built-in pupillography withpupil measurement of scotopic (0.04 lux), mesopic (4 lux), photopic (50 lux) conditions and in dynamic mode. Knowing the center and the diameter of the pupil, is essential for many clinical procedures which seek to optimize vision quality.

## MEIBOGRAPHY

Meibomian glands can be viewed under infrared light once the image is captured, you can use the software to aid in the analysis of the condition of the glands

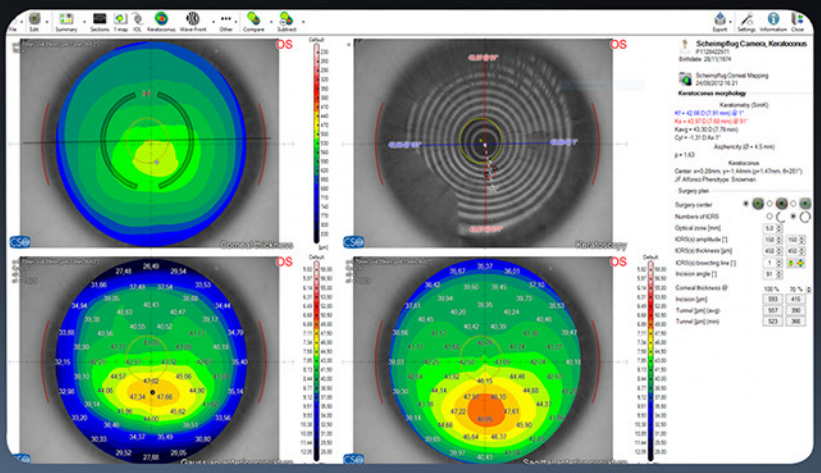



## IOL CALCULATION MODULE

(OPTIONAL)

This module is based on Ray-Tracing techniques, regardless of the state of the cornea (untreated or previously treated for refractive purposes), provides the calculation of the spherical and toric power of the intraocular lens.

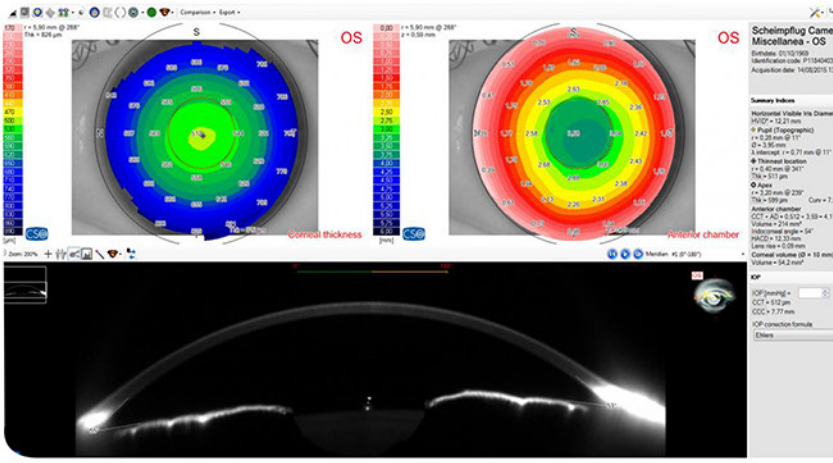


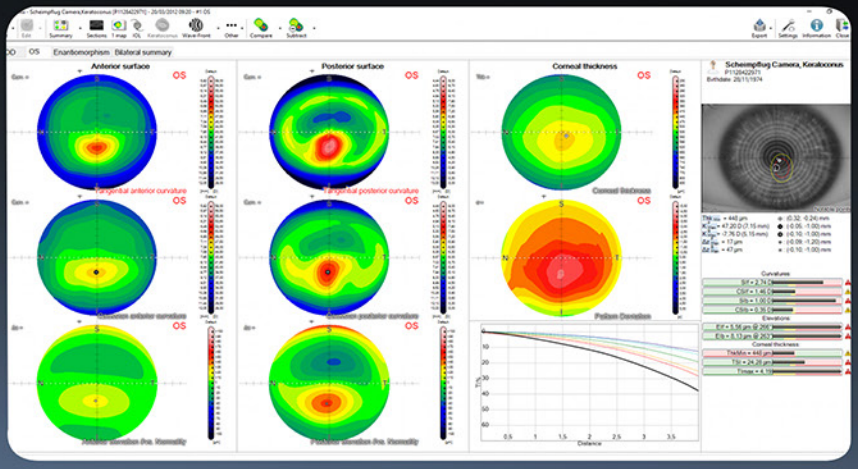
## INTRASTROMAL RINGS

On the basis of the pachymetry map and corneal alti - metric data, SIRIUS allows for intrastromal rings system planning, with variableoptions for the correction ofrefractive defects and some forms of keratoconus.

## GLAUCOMA SUMMARY

Aberrometric analysis offers a complete overview of the corneal aberrations. It is possible to select the contribution cornea of the anterior, posterior or total for different pupil diameters. The OPD/WFE maps and the visual simulations (PSF & MTF) can help the clinician in understanding or explaining the patient's visual problems.



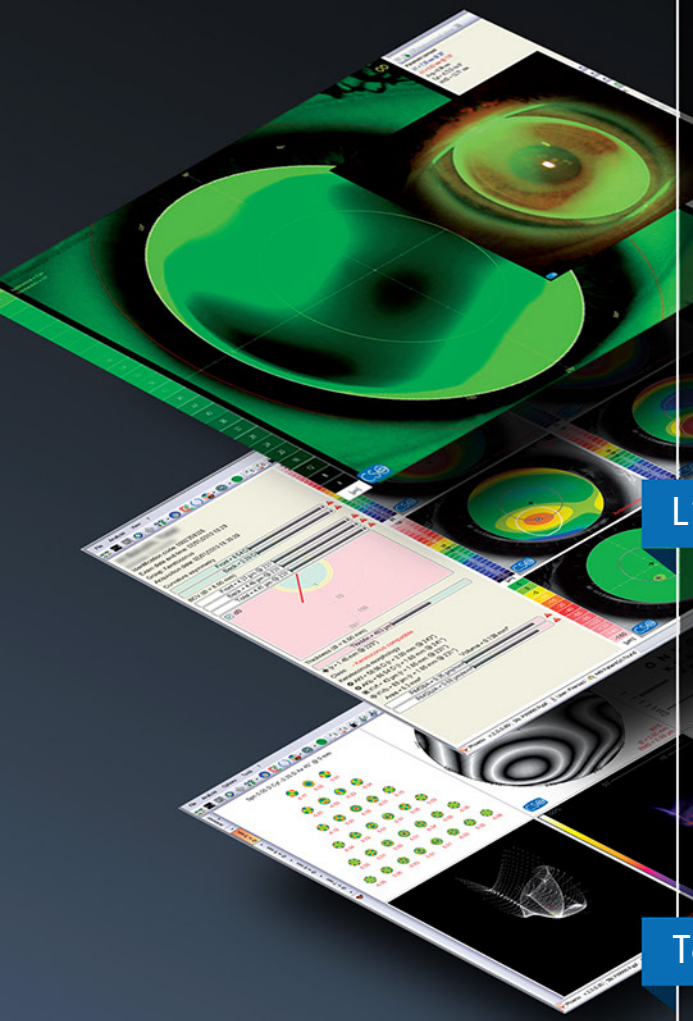


## KERATOCONUS SCREENING

Keratoconous screening provides the clinician with important information about the patients cornea. This will help prevent complications associated with ectasia before corneal surgery is undertaken.

# PRODUCT SPECIFICATIONS

MADE IN ITALY



## Technical Data

| | |
|---|---|
| Data Transfer | USB 3.0 |
| Power Supply | External power source 24 VCC |
| Power net cable | IEC C14 plug |
| Dimensions (HxWxD) | 515 x 315 x 255mm |
| Weight | 7 Kg |
| Chin rest movement | 70mm ± 1mm |
| Base movement (xyz) | 105 x 110 x 30mm |
| Working distance | 74mm |

## Light Source

| | |
|---|---|
| Placido Disk | LED @400-700nm |
| Scheimpflug | LED @475nm UV-free |
| Pupilligraphy | LED @940nm |
| Fluoresceine Lighting | LED @470nm |
| Auxiliary Lighting | LED 400-700nm |

## Topography

| | |
|---|---|
| Placido rings | 22 |
| Topographic Coverage | 12mm |
| Measured Points | Class A according to UNI EN ISO 19980-2012 |
| Dioptric Measurement range | 1D to 100DT |
| Measurement accuracy | Class "A" as per "ISO19980:2005 (E) |
| Power frequency | (50/60Hz) magnetic field IEC 61000-4-8 |
| Power cable | Four-core cable conductors |

FDA

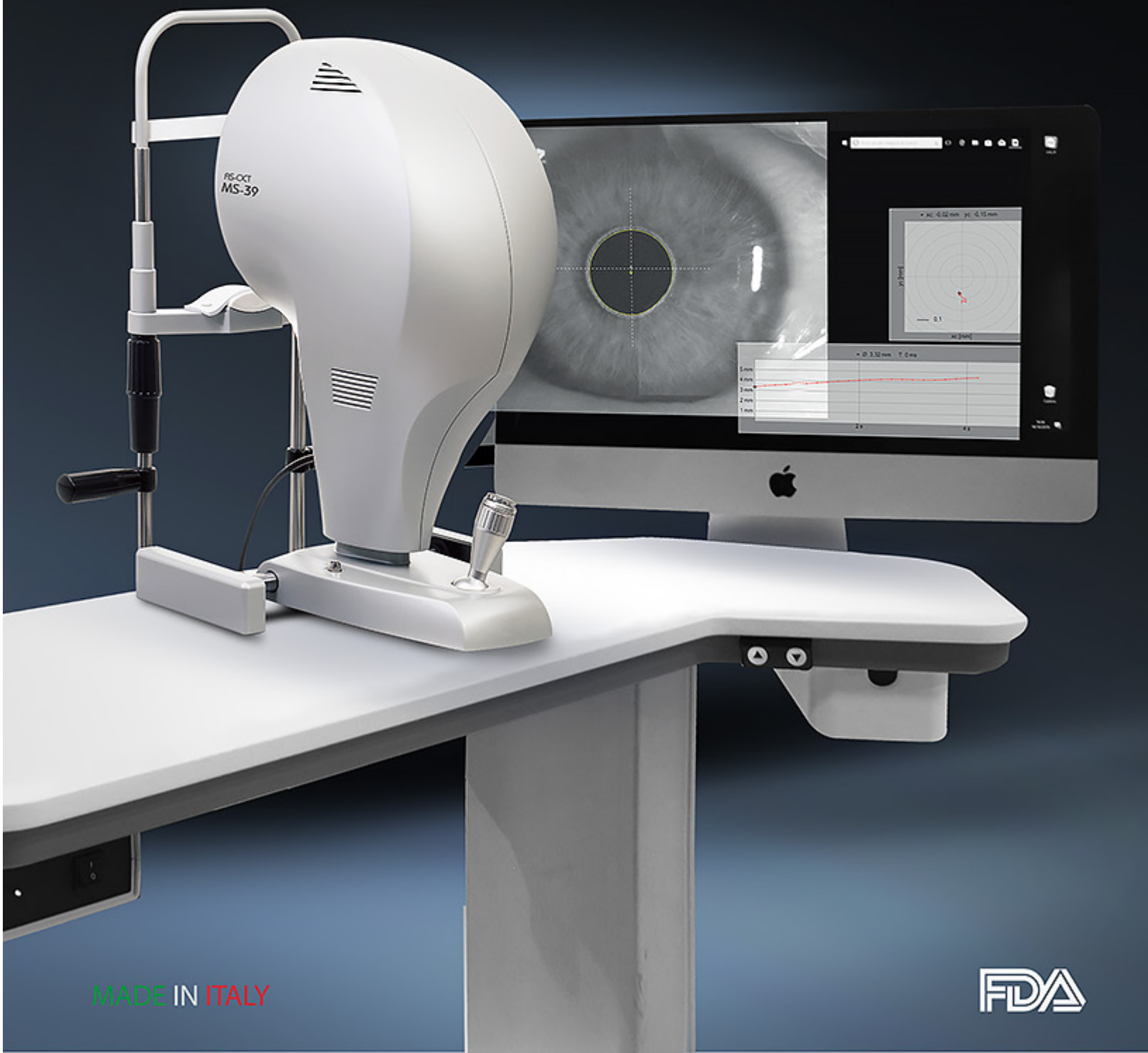
## Accessories

| | |
|---|---|
| Light Diffuser Filter | Auxiliary illumination & magnetic |
| Yellow Barrier Filter | Magnetic 530 nm filter |
| Additional Lens | Magnetic -6D lens |
| Calibration Tool | R8 mm calibration tool |

VIEWLIGHT
POWERED BY INNOVATION

# MS-39

## Anterior Segment OCT




MADE IN ITALY

FDA

## *Anterior Segment OCT*

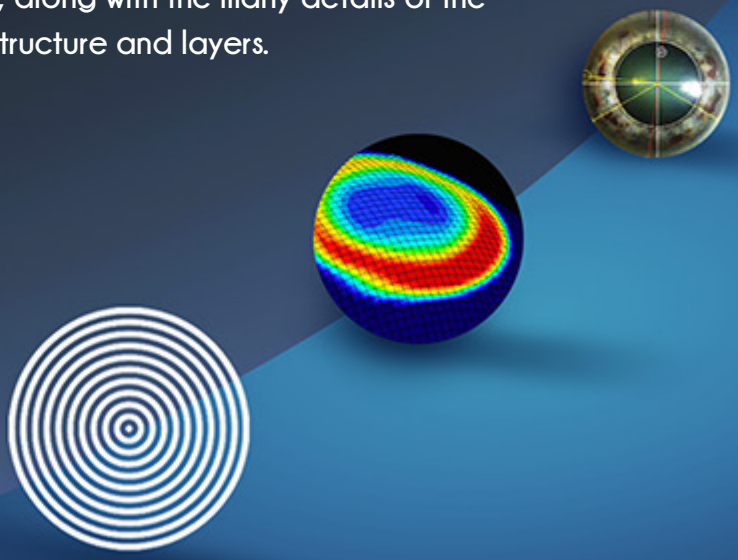
# MS-39

*The MS-39 is the most advanced corneal map device using a SD-OCT and Placido disk corneal topography to obtain measurements of the anterior segment of the eye.*

- MS-39 provides topographic maps:
  - Tangential curvature (anterior and posterior)
  - Sagittal curvature (anterior and posterior)
  - Elevation (anterior and posterior)
  - Refractive power (equivalent, anterior and posterior)
  - Corneal thickness
  - Epithelial thickness
  - Anterior chaber depth

- In addition to anterior segment clinical diagnostics, MS-39 can be used in corneal surgery for refractive surgery planning.

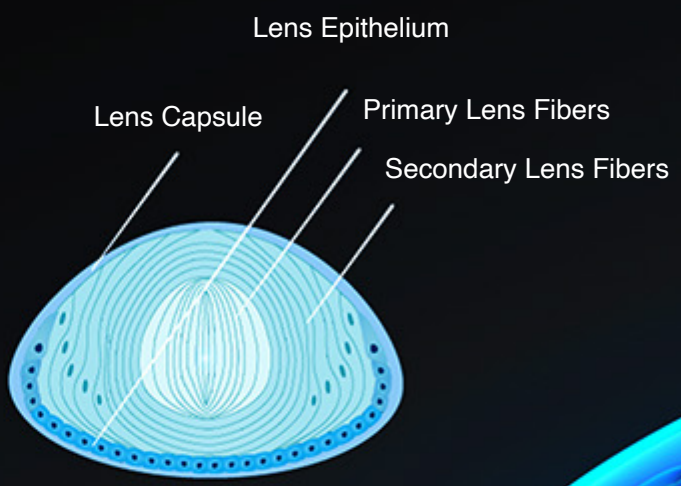
- MS-39 is known to produce the highest resolution and clarity of the cross-sectional images, with a 16 mm diameter, along with the many details of the cornea structure and layers.

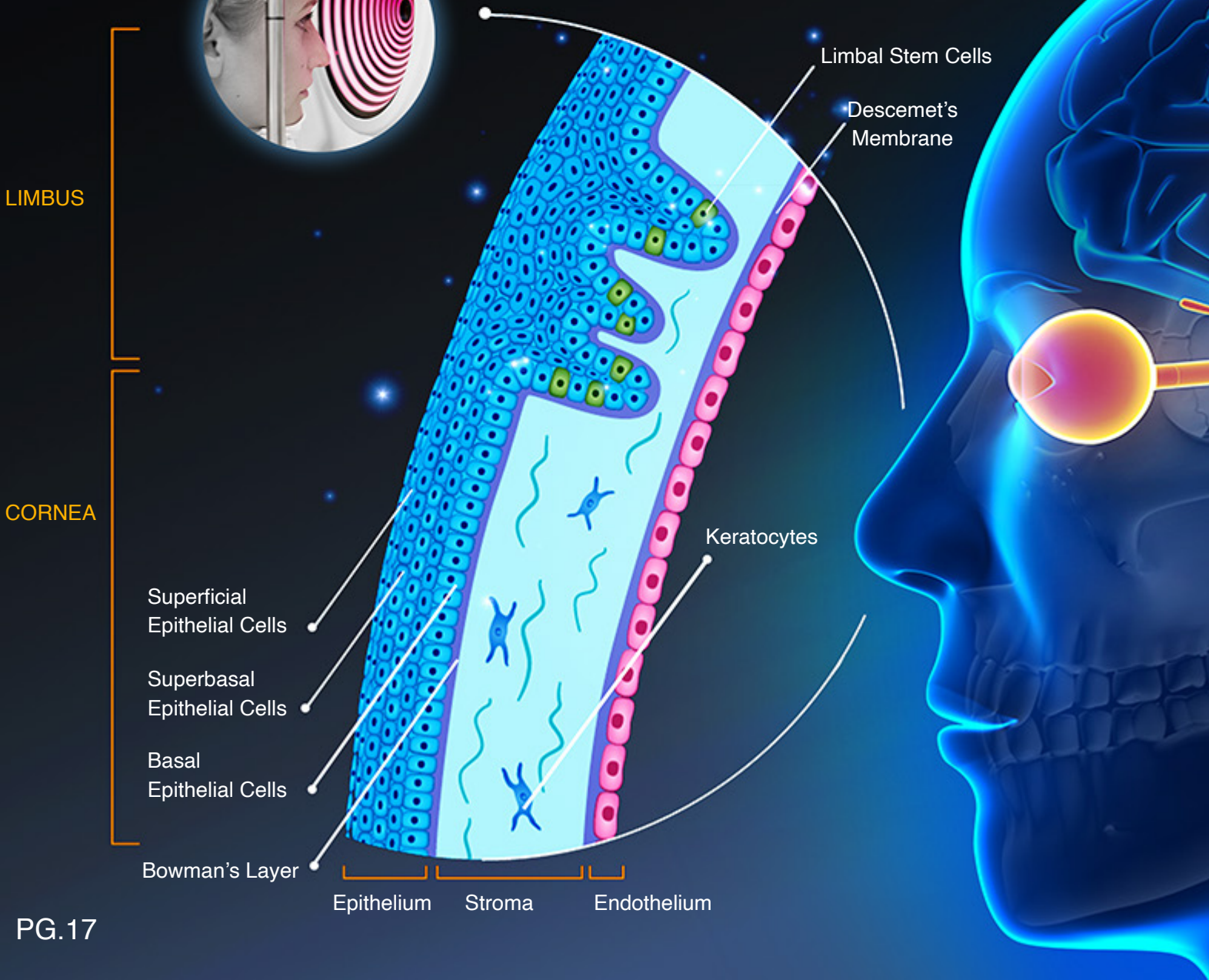


# OCT - Behind the Eyes

MS-39 can measure and detect on the Placido image so that height, slope, and curvature data can be calculated using the arc-step method with conic curves. Profiles of the anterior cornea, posterior cornea, anterior lens, and iris are derived from the SD-OCT scans.

Data for the anterior surface from the Placido image and SD-OCT scans are merged using a proprietary method. All other measurements for internal structures (posterior cornea, anterior lens, and iris) are derived solely from SD-OCT data.



# MS-39 | ANTERIOR SEGMENT OCT

## USB CONNECTION

The USB connection between the device and the PC enables a fast and easy transfer of the images.

## AUTOMATIC MEASUREMENTS

MS-39 combines a Placido disk corneal topography, with high resolution OCT based anterior segment tomography.

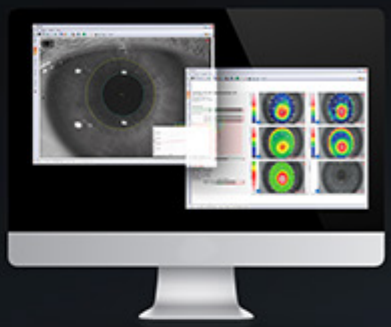
## HIGH PRECISION JOYSTICK

MS-39 captures footage with the advanced manual acquisition and electronically guided control joystick, which guarantees high precision and repeatability of all measurements.

# Phoenix Software

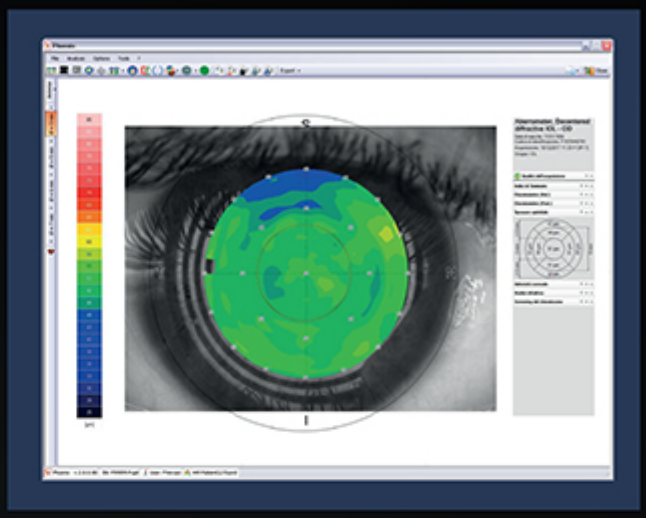
MADE IN ITALY

The MS-39 works perfectly with the advanced PHOENIX software. This program enables comfortable working, by connecting all of your diagnostic instruments with apowerful patient database, giving you an extraordinarily effective work station.



Windows

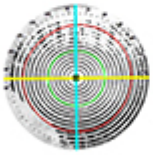
# MS-39 | ANTERIOR SEGMENT OCT



## EPITHELIAL MAP

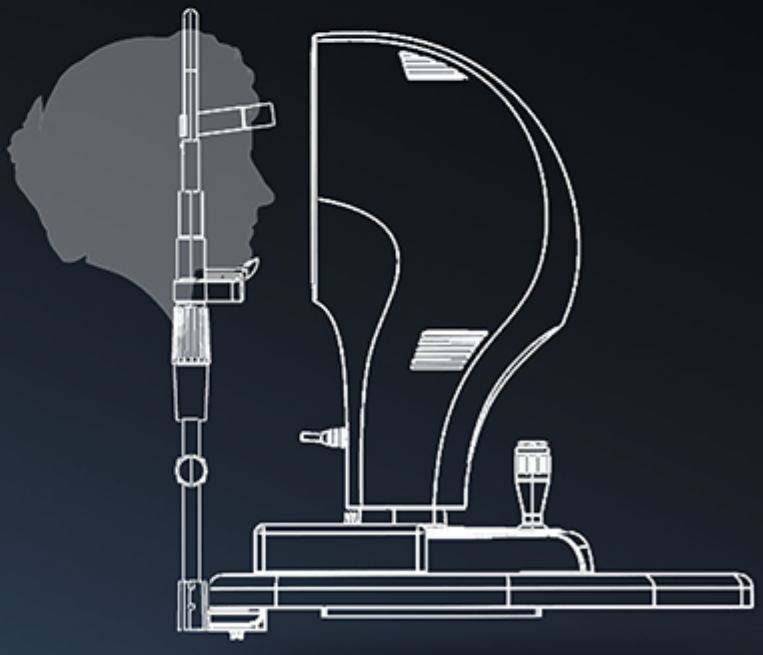
Epithelial thickness mapping can help us identify early keratoconus while screening patients for corneal refractive surgery. Epithelial thickness mapping provides additional supporting evidence in the diagnosis, which allows us to offer alternative treatment options.

Thickness Map

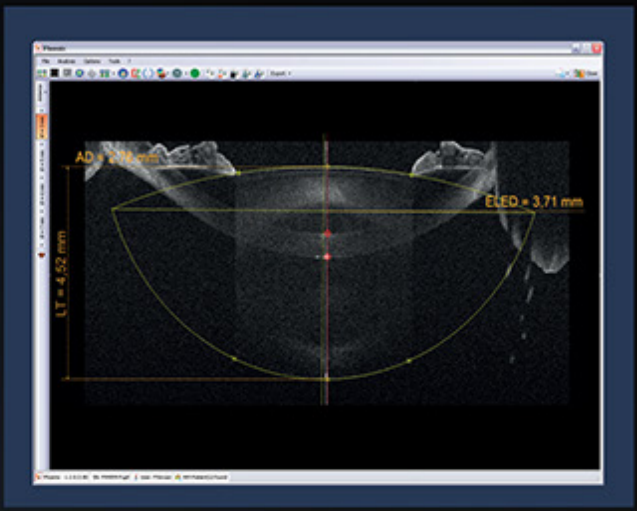


Placido Imaging

The MS-39 Anterior Segment OCT includes the innovative and advanced measurement of the epithelial layer. The epithelial masking effect is known for its morphology which is very useful assess abnormalities of the corneal surface.



# MS-39 | ANTERIOR SEGMENT OCT




## CRYSTALLINE BIOMETRY

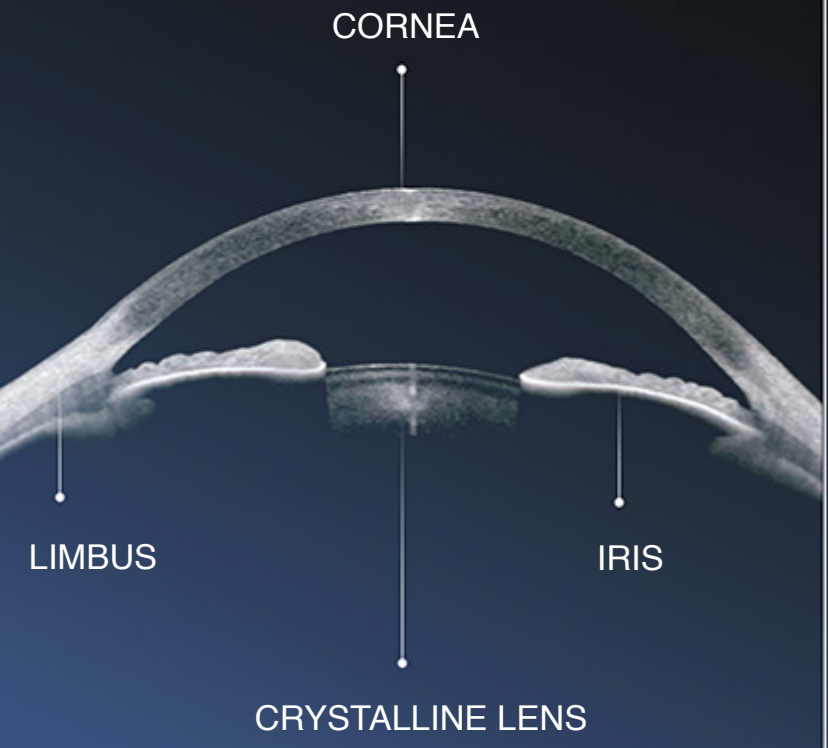
Lenticular crystalline biometry on non cataractous lenses has been studied by means of Scheimpflug photography and digital image analysis.

Anterior Lens Surface

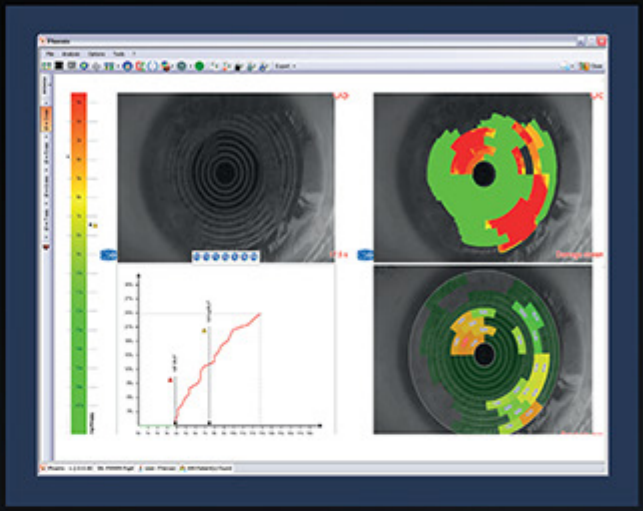
Crystalline Lens

In order to more accurately determine and refine the intra-ocular lens calculation, the device provides a capture mode to measure the crystalline lens thickness, its distance from the cornea and its equator.

The crystalline lens of the eye is the only human organ which undergoes a steady increase in size due to growth throughout the life of the individual.



# MS-39 | ANTERIOR SEGMENT OCT



## ADVANCED ANALYSIS OF THE TEAR FILM

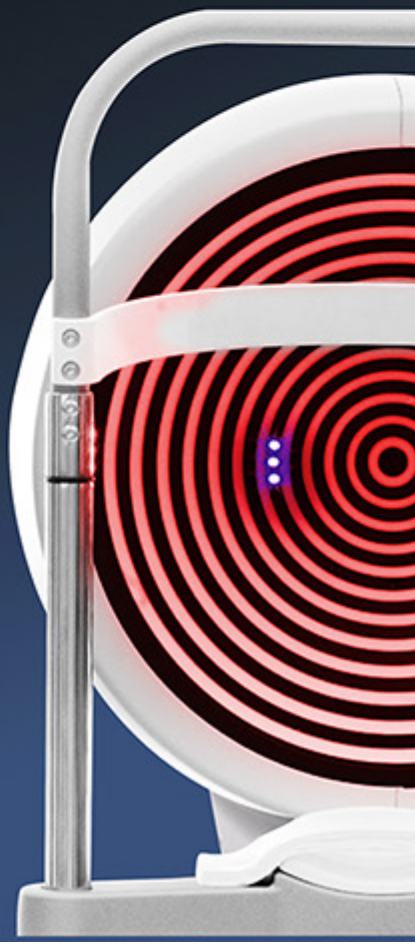
Placido disk technology allows for the advanced analysis of the tear film, such as NI-BUT (Non Invasive Break-up Time).

Placido Disk

Meniscus Evaluation

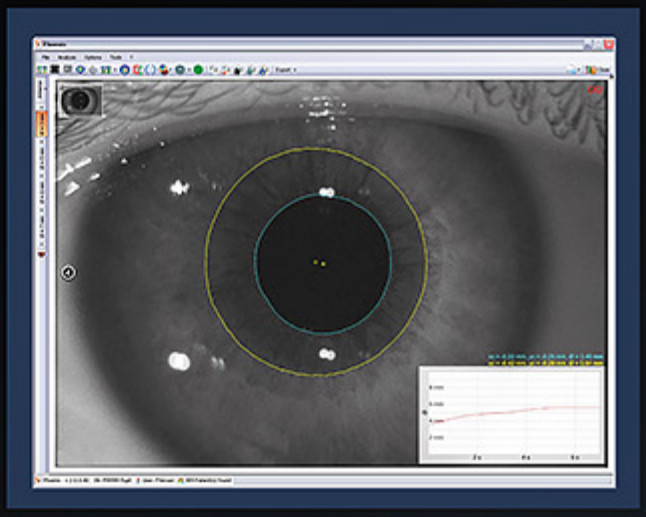
### VIDEOKERATOSCOPY MODULE

- Tear film examination with white light
- Tear film examination with fluorescein
- Break-up time measurement.
- Examination of tear layers.
- Examination of rigid LAC clearance with fluorescein

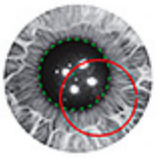


# MS-39 | ANTERIOR SEGMENT OCT

## PUPILLOGRAPHY



Sirius has built-in pupillography measurement software. Knowing the center and the diameter of the pupil, is essential for many clinical procedures which seek to optimize vision quality.

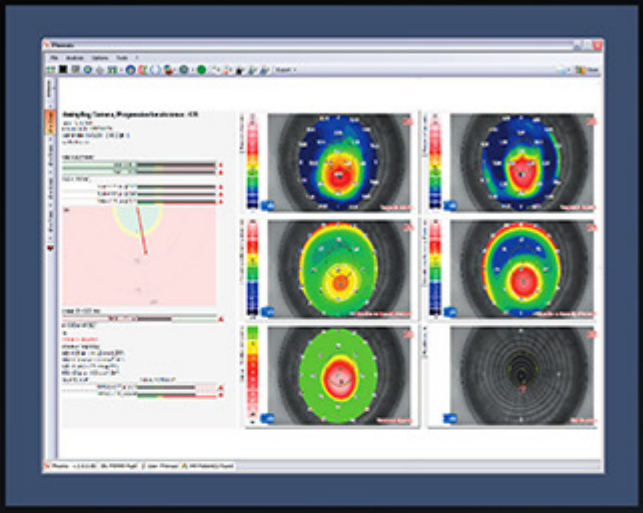


3D Scheimpflug

Contour Detection

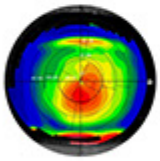
### PUPILLOMETRY MODULE

- Pupillometry with scotopic light to determine pupil maximum extension and optic zone diameters for treatment settings.
- Pupillometry with mesopic light (4 lux)
- Pupillometry with photopic light (50 lux)
- Dynamic pupillometry, starting with over 400 lux and switching off the light source so that the pupil can dilate to its maximum extension
- Evaluation of pupil decentralization from the corneal vertex and calculation of the pupil centre during dilation.

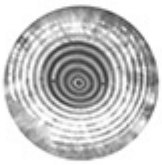


## KERATOCONUS SCREENING

Keratoconous screening provides the clinician with important information about the patients cornea. This can help prevent complications associated with ectasia before corneal surgery is undertaken.



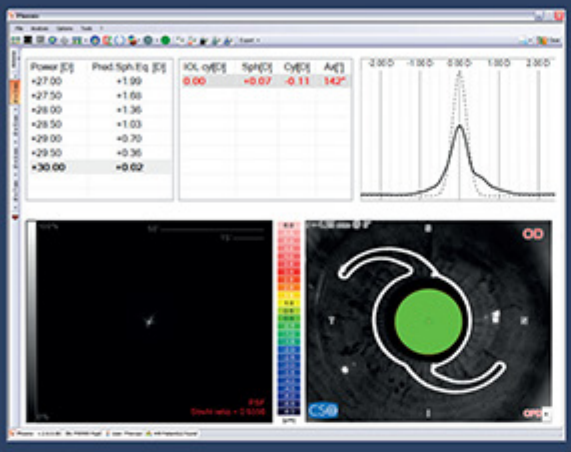
Klyce / Maeda Indices



Rabinowitz Values

Keratoconus is a non-inflammatory, progressive thinning process of the cornea. It is a relatively common disorder of unknown etiology that can involve each layer of the cornea and often leads to high myopia and astigmatism.

# MS-39 | ANTERIOR SEGMENT OCT

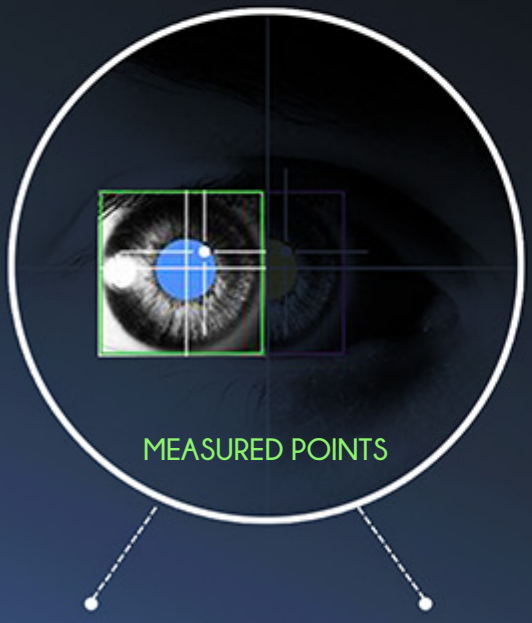


## IOL CALCULATION MODULE

This module is based on Ray-Tracing techniques, regardless of the state of the cornea (untreated or previously treated for refractive purposes), provides the calculation of the spherical and toric power of the intraocular lens.

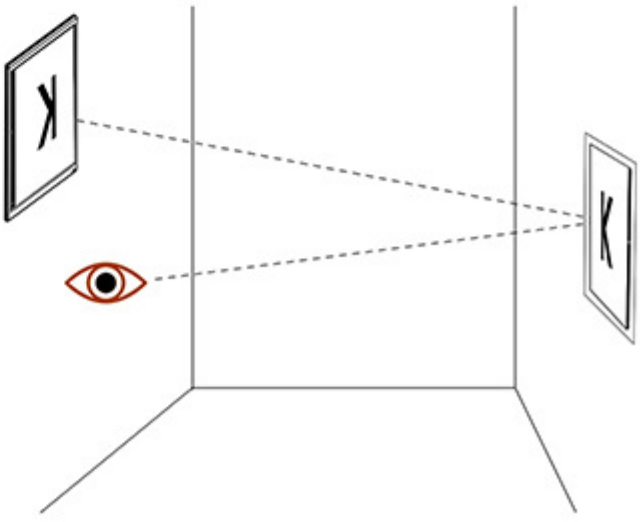
Post Refractive

Toric Results

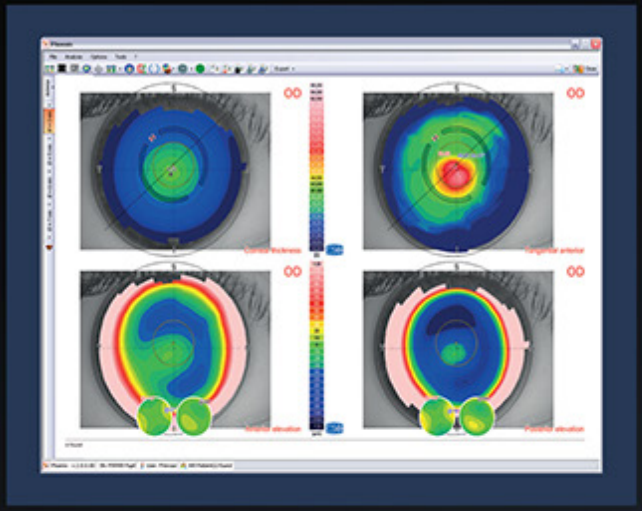



31,232
(anterior surface)

25,600
(posterior surface)



## INTRASTROMAL RINGS



On the basis of the pachymetry map and corneal alti - metric data, SIRIUS allows for intrastromal rings system planning, with variable options for the correction ofrefractive defects and some forms of keratoconus.

Intracorneal Ring

Surgical Incision

### PROS:

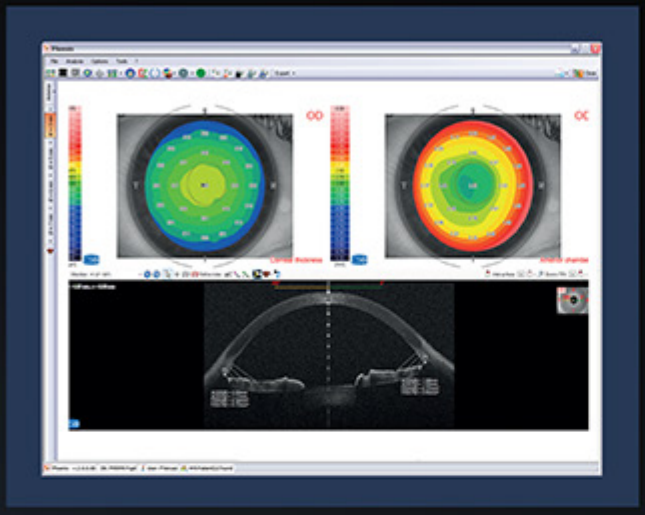
- For patients with progressive keratoconus,
- Reversible
- Patients may achieve a better fit and hence a more comfortable fit with their contact lenses

### CONS:

- Postoperative discomfort/pain for 1-4days
- Vision may not improve or change
- Fluctuating vision for weeks to months after the procedure

RESHAPED CORNEA

# MS-39 | ANTERIOR SEGMENT OCT



## GLAUCOMA SCREENING

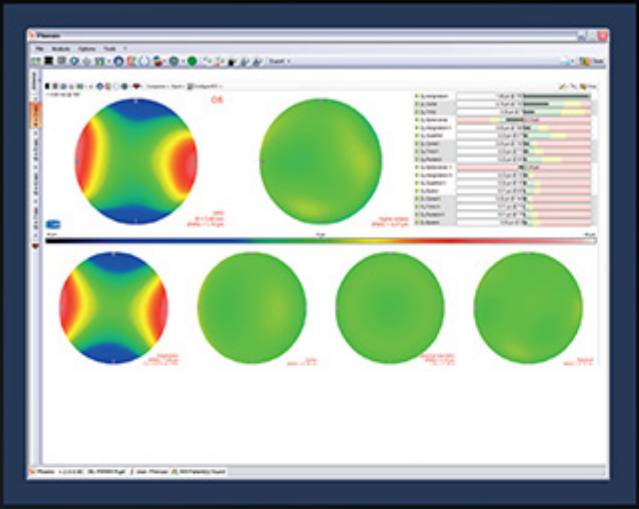
The MS-39 device allows the glaucoma screening and gives the measurement of irido-corneal angles AOD, TISA and corneal pachymetry.

Healthy

Glaucoma

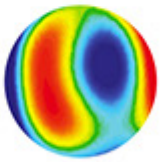
These values are the most common IOP correction formulas, useful to diagnose the eyes optic nerve and intraocular pressures to detect any diseases which can be due to the conformation of the anterior chamber.

# MS-39 | ANTERIOR SEGMENT OCT

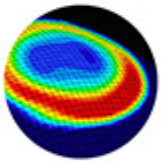



## CORNEAL ABERROMETRY

Aberrometric analysis offers a complete overview of the corneal aberrations. It is possible to select the contribution of the anterior, posterior or total cornea for different pupil diameters. The OPD/WFE maps and the visual simulations (PSF & MTF) can help the clinician in understanding or explaining the patient's visual problems.



Wavefront Imaging



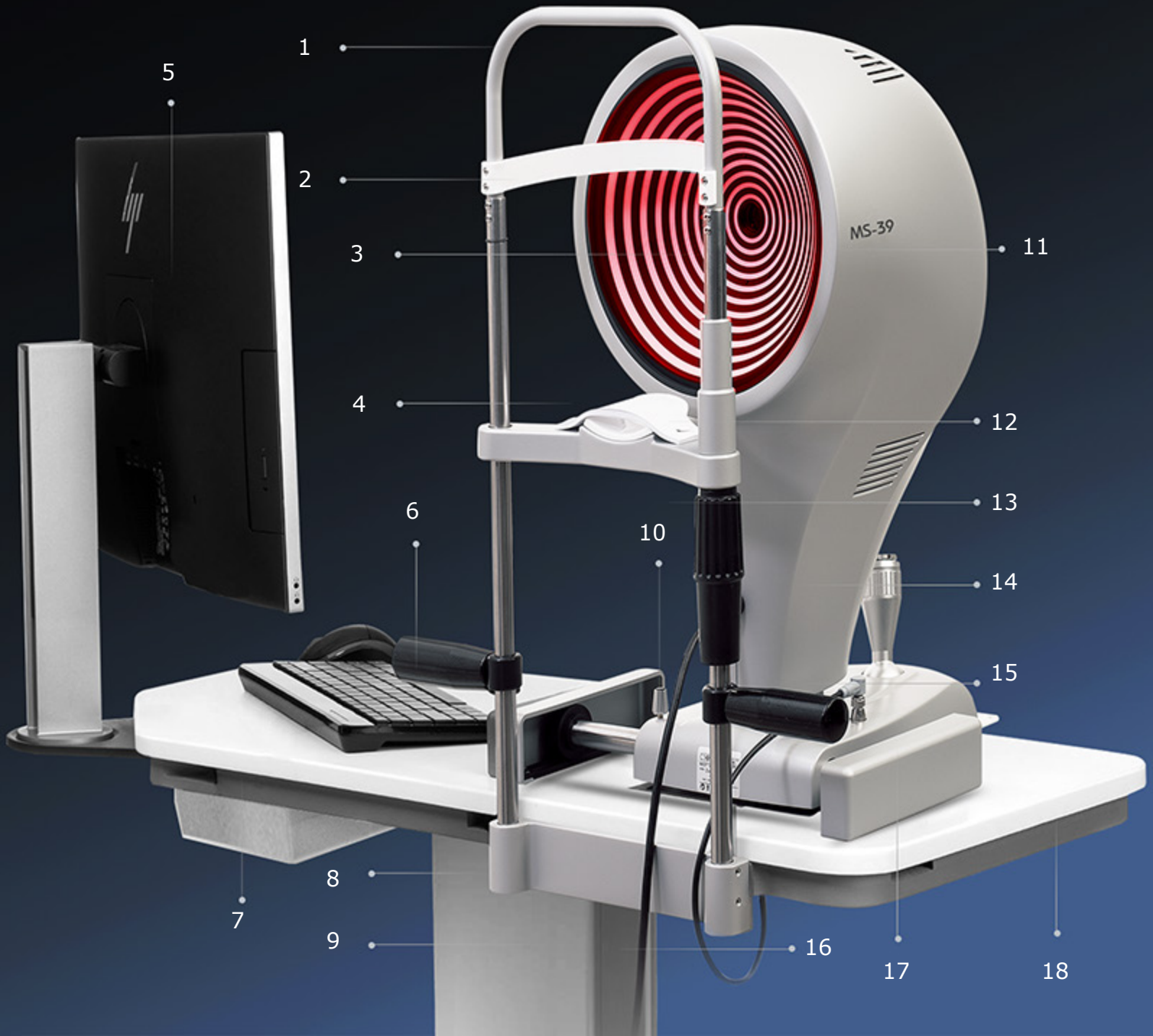
OPD Maps

Assisted manual acquisition advanced ring editing system available maps:

1. Sagittal curvature map
2. Angential curvature map
3. Altimetry
4. Refractive power
5. Gaussian curvature map

# MS-39 | PRODUCT OVERVIEW

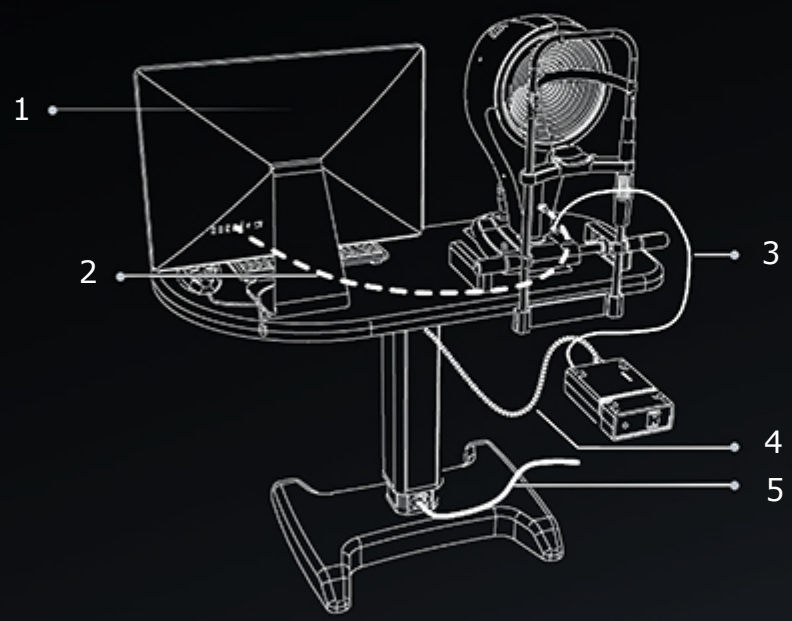
1. Chin Rest Module
2. Head Rest
3. Shooting Channel
4. Chin Rest Cup
5. Personal Computer (Optional)
6. Patient's Handle
7. Table Drawer
8. Chin Rest Support
9. Electrical Table Adjuster
10. Device Locking Knob
11. Instrument / Placido Disk
12. Paper for Chin Rest
13. Chin Rest Knob Adjuster
14. Joystic (Capturing Trigger)
15. Power Supply Connector
16. Device Supply Cable
17. Slide Guard Guards
18. LIFT 02 - Tabletop (Optional)

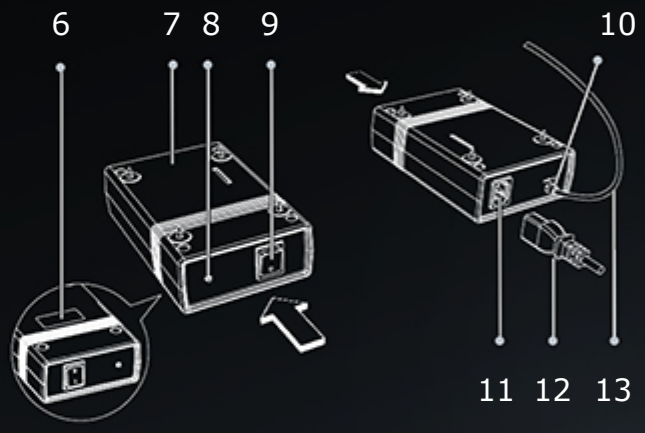


# MS-39 | PARTS & ACCESSORIES

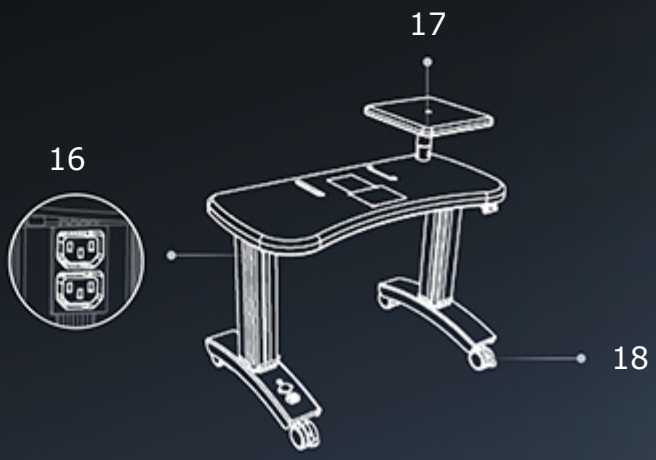
1. Monitor (Optional)
2. USB Connection (Device + PC)
3. Power Cable Connection (Power Supplier + Device)
4. Power Cable Connection (Electrical Table + Power Supplier)
5. Power Cable Connection (Electrical Table + Power Supply)
6. Data Plate
7. Power Supplier
8. Supply Control Light
9. ON / OFF Switch
10. Power Supply Out Connector
11. Power Supply Mains Connector
12. Power Supply Cable
13. Power Supply Cable (Out)
14. One Column Table (Optional)
15. Power Supply Connector
16. Power Sockets
17. Two Column Table (Optional)
18. Table Placement

Not Included (Optional)

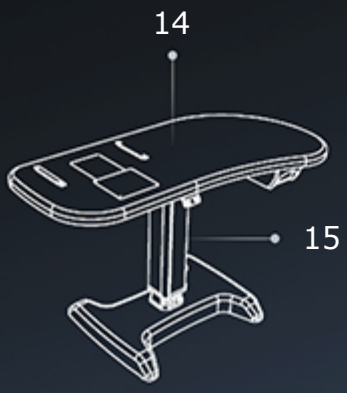



Not Included (Optional)




Not Included (Optional)



# MS-39 | PRODUCT SPECIFICATIONS


## Technical Data

| | |
|---|---|
| Data Transfer | USB 3.0 |
| Power Supply | External power source 24 VCC In: 100-240Vac 50/60Hz - 2A - Out: 24Vdc - 100W |
| Power net cable | IEC C14 plug |
| Dimensions (HxWxD) | 505 x 315 x 251mm |
| Weight | 10.4Kg |
| Chin rest movement | 70mm ± 1mm |
| Minimum height of the chin cup from the table | 23cm |
| Base Movement (xyz) | 105 x 110 x 30mm |
| Working distance | 74mm |

## Light Sources

| | |
|---|---|
| Placido disk illumination | Led @635nm |
| OCT source | Led @845nm |
| Pupillographic illumination | Led @635nm |

## Topography

| | |
|---|---|
| Placido disk rings | 22 |
| Measured points | 31232 (anterior surface) 25600 (posterior surface) |
| Topographic covering | 10mm |
| Dioptric measurement range | 1D to 100D |
| Measurement accuracy | Class A according to UNI EN ISO 19980-2012 |

## Section

| | |
|---|---|
| Image field | 16mm x 8mm |
| Axial resolution | 3.6 µm (in ti ssue) |
| Transversal resolution | 35 µm (in air) |
| Image(s) resolution | Keratoscopy (640x480) + 25 radial scans on a 16mm transversal fi eld (1024 A-scan) - Section: on 16mm (1600 A-scan) on 8mm (800 A-scan) |
| Operating system | Windows 10 (64 bit) |

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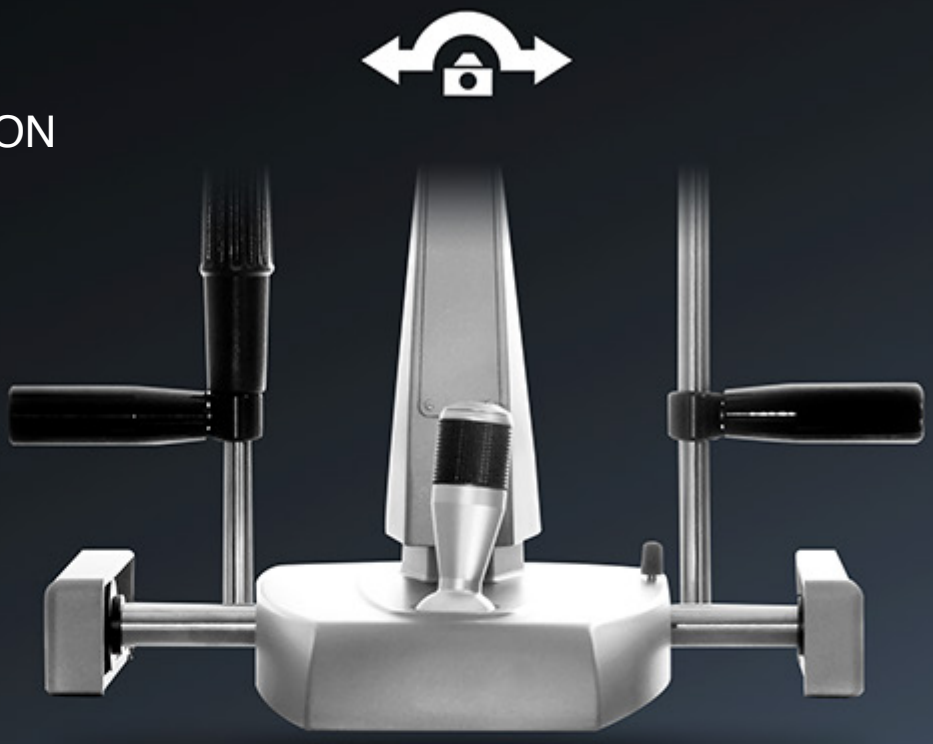
# ANTARES

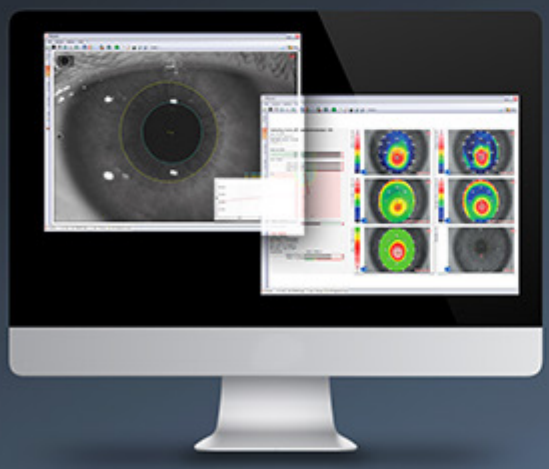
## Topographer

# ANTARES | KEY PRODUCT FEATURES

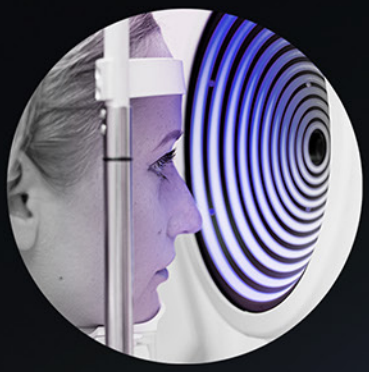
## HIGH PRECISION ACQUISITION



## DATA AND ANALYSIS



- Pupillography
- Fluorescein Imaging
- Lipid layer pattern imaging
- Advanced Analysis of the Tear Film
- Contact Lenses Application Module
- Tear meniscus height imaging and measurement
- Meibomian glands analysis, imaging & screening
- Keratoconous screening and detection
- High-resolution color video camera
- Advanced ring editing system
- 24 rings Placido's disk
- Videokeratoscope



## CORNEAL MEASUREMENTS

ANTARES topography function provides information about the curvature, elevation and refractive power of the cornea. Also provides many parameters to aid in the diagnosis and monitoring the corneal surface.


## PUPILLOMETRY MODULE

- Pupillometry with scotopic light to determine pupil maximum extension and optic zone diameters for treatment settings.
- Pupillometry with mesopic light (4 lux)
- Pupillometry with photopic light (50 lux)
- Dynamic pupillometry, starting with over 400 lux and switching off the light source so that the pupil can dilate to its maximum extension
- Evaluation of pupil decentralization from the corneal vertex and calculation of the pupil centre during dilation.

## CORNEAL TOPOGRAPHY MODULE

- Assisted manual acquisition
- Advanced ring editing system
- Available maps:

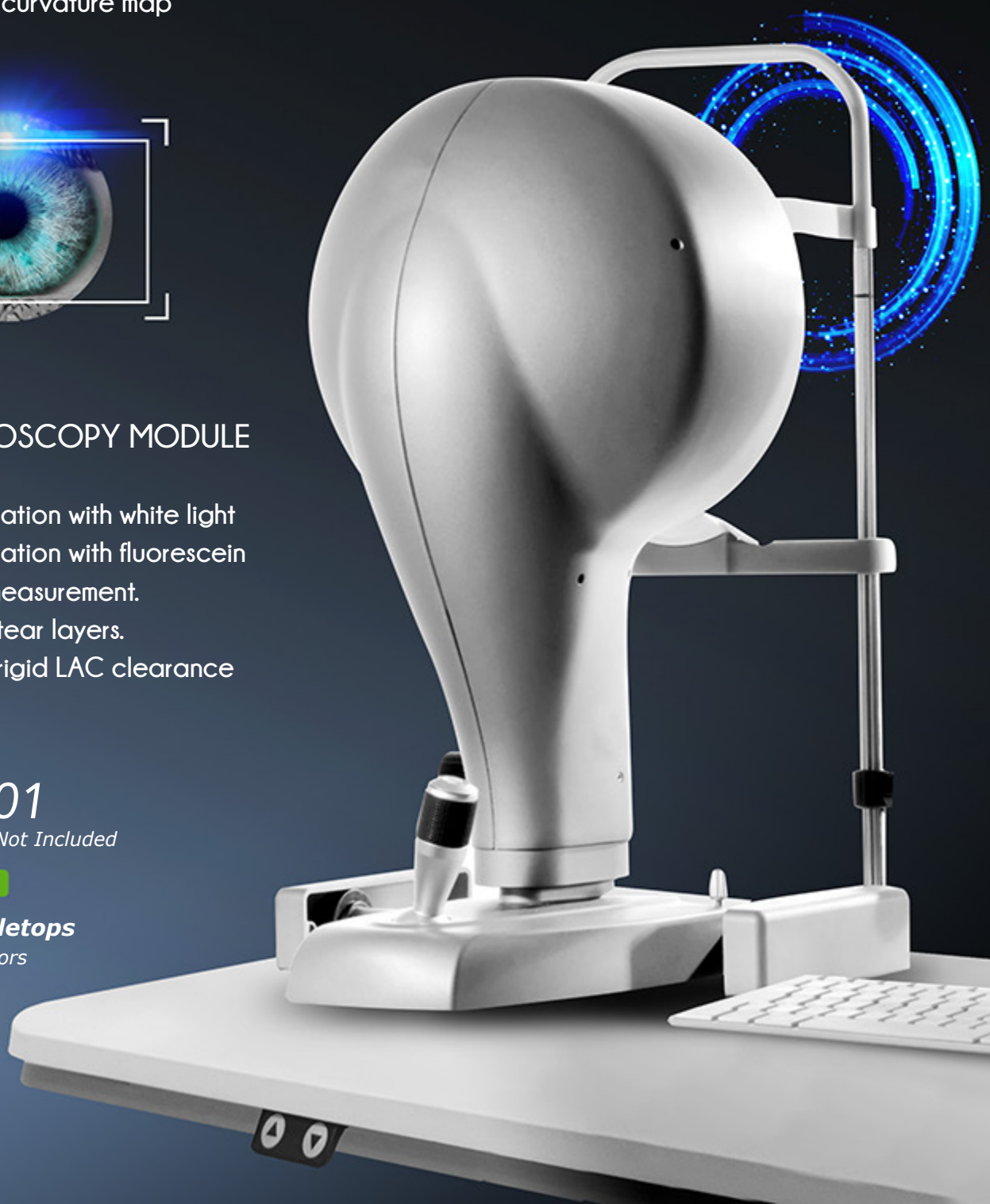
1. Sagittal curvature map
2. Angential curvature map
3. Altimetry
4. Refractive power
5. Gaussian curvature map

## VIDEOKERATOSCOPY MODULE

- Tear film examination with white light
- Tear film examination with fluorescein
- Break-up time measurement.
- Examination of tear layers.
- Examination of rigid LAC clearance with fluorescein

## PRODUCT DESCRIPTIONS

ANTARES provides a multi topography report from the images captured from the built-in digital video camera. This device includes an editing software which allows you to edit edge position for proper reconstruction on all distorted surfaces.



*LIFT 01*

***Electrical Table*** *- Not Included*

***Optional Tabletops***

*Available Colors*

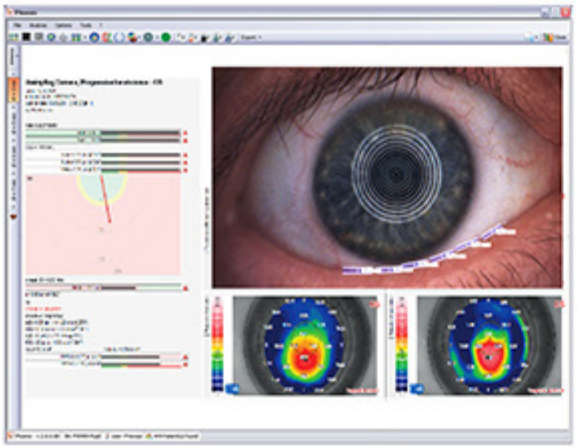
# ANTARES

## Phoenix Software

MADE IN ITALY

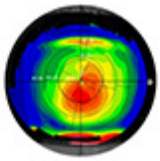
**ANTARES** works perfectly with the advanced **PHOENIX** software. This program enables comfortable working, by connecting all of your diagnostic instruments with a powerful patient database, giving you an extraordinarily effective work station.

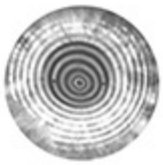
Windows

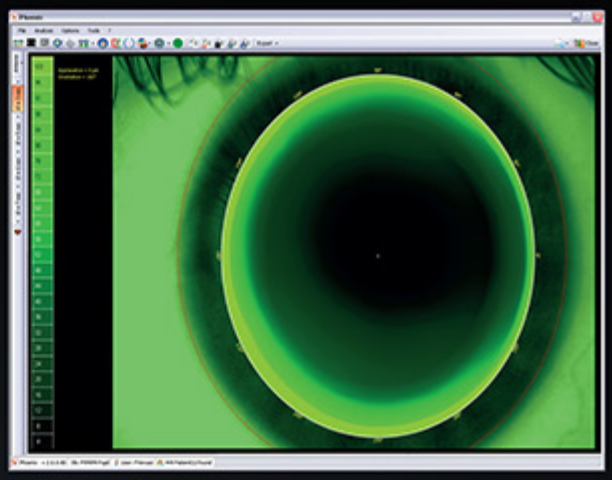


## KERATOCONUS SCREENING

Keratoconous screening provides the clinician with important information about the patients cornea. This can help prevent complications associated with ectasia before corneal surgery is undertaken.





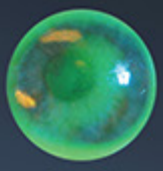



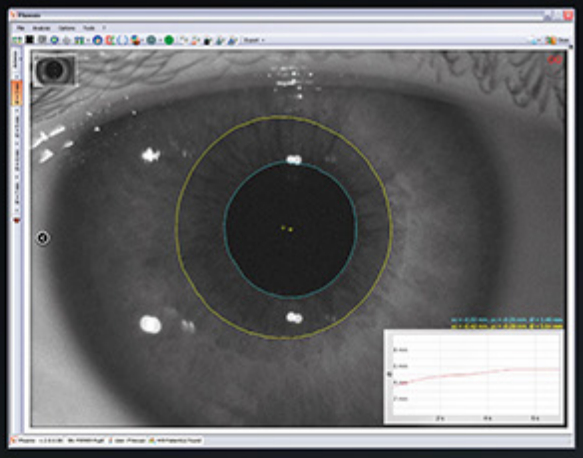
## CONTACT LENSES APPLICATION MODULE

A contact lens fitting module is available which simulates the fit of rigid lenses based on an internal database of many lens manufacturers.

Lens Module

Anterior Segment





## PUPILLOGRAPHY

**ANTARES** has built-in pupillography measurement software. The measurement of the pupil in scotopic (0.04 lux), mesopic (4 lux), photopic (50 lux) conditions and in dynamic mode. Knowing the center and the diameter of the pupil, is essential for many clinical procedures which seek to optimize vision quality.

Infrared Pupillograph

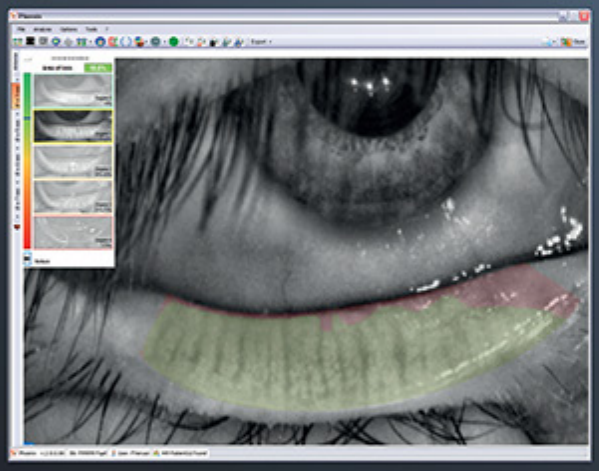
Pupil Detection

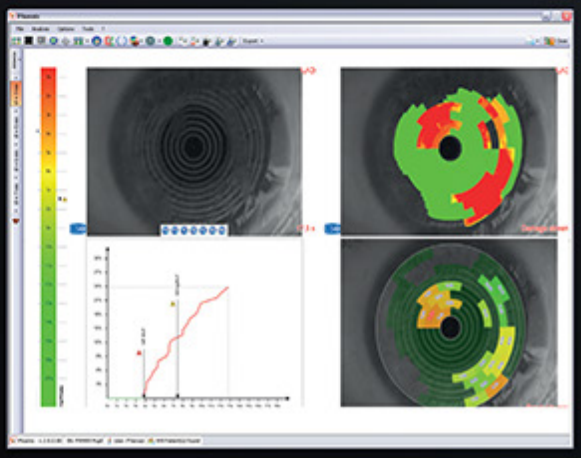
## MEIBOGRAPHY

Meibomian glands can be viewed under infrared light once the image is captured, you can use the software to aid in the analysis of the condition of the glands

Infrared Imaging

Transillumination





## ADVANCED ANALYSIS OF THE TEAR FILM

Placido disk technology allows for the advanced analysis of the tear film, such as NI-BUT (Non Invasive Break-up Time).

Placido Disk

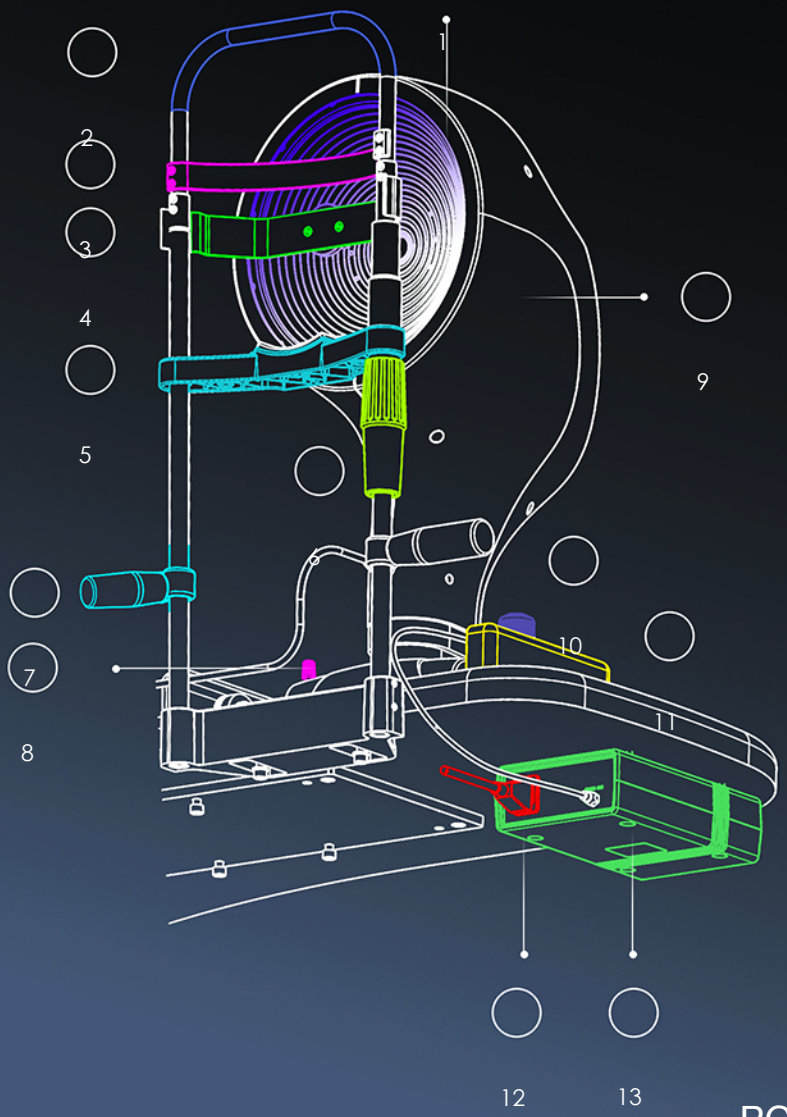
Meniscus Evaluation

## DRY EYE REPORT

Based on the Ocular Surface Disease Index questionnaire (OSDI), limbal and conjunctival hyperaemia, Meibomian glands analysis, tear meniscus analysis, NIBUT, and tear osmolarity, calculated merging together all partial scores, provides an owerall evaluation of the clinical condition of the patient for a comprehesive diagnosis of the dry eye disease.

# ANTARES

## DEVICE DIAGRAM




1. Capturing Channel
2. Chin Rest Module
3. Head Rest
4. Calibration Tool
5. Chin Rest Cup
6. Knob Adjuster
7. Patient's Handle
8. Device Blocking Knob
9. Instrument with Placido's Disk
10. Joystick with Capturing Trigger
11. Slide Guide Guards
12. Power Supply Cable
13. Power Supplier

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# ANTARES | TOPOGRAPHER

## Measurements

| | |
|---|---|
| Operation Distance | 74 mm from corneal vertex |
| Number of Rings | 24 |
| Number of Measuring Points | 6144 (24x256) |
| Number of Points Analysed | Over 100000 |
| Diameter of the corneal area covered | 0.4 to over 9.6 mm of Diameter |
| Dioptres Measuring Arc | 1 to 100 D |
| Size ( HxWxD) mm | 505x315x251 mm |
| Weight | 6.2 kg |

## Applicable Lighting

| | |
|---|---|
| Placido's LED lighting | White LED |
| Fluorescein LED lighting | Blue LED 460 nm |
| Pupillometry | LED lighting IR LED 875 nm |

## Notes

| | |
|---|---|
| Accuracy and repeatability error | Class "A" as per "ISO19980:2005 (E) |
| Power supply | 24V DC external power supply unit |
| Input power supply unit | 90-264 V AC: - 47/63 Hz<br>Max 0.9 A OUTPUT: 24 V DC - 2 A |
| Power frequency | (50/60Hz) magnetic field IEC 61000-4-8 |
| Power cable | Four-core cable conductors |
| Computer connection | USB3 Type A cable |

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VIEWLIGHT
POWERED BY INNOVATION

# MODI-02

## Topographer

*LIFT 02*

***Electrical Table*** *- Not Included*

***Optional Tabletops***

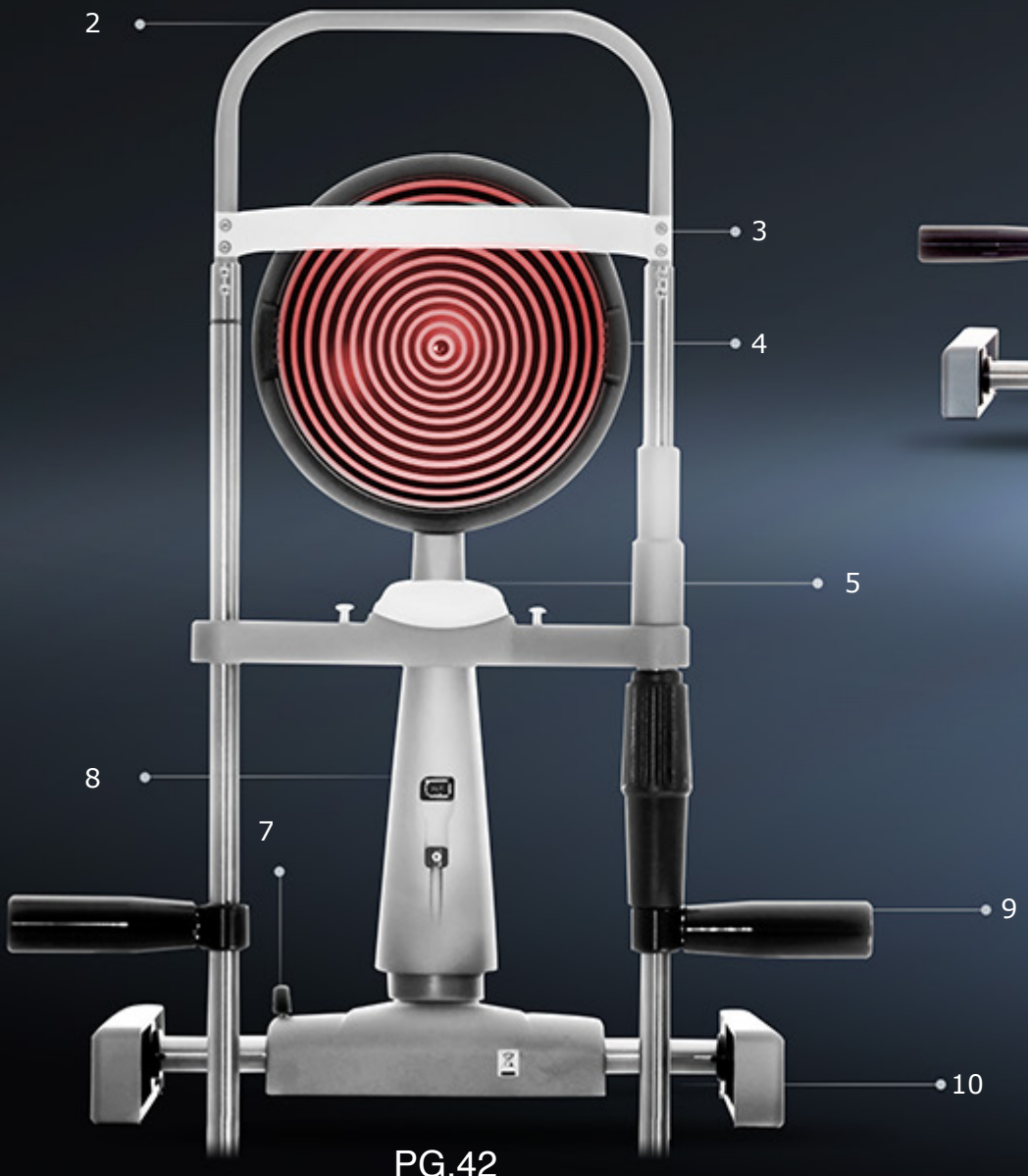
*Available Colors*

FDA

# MODI-02

## Topographer

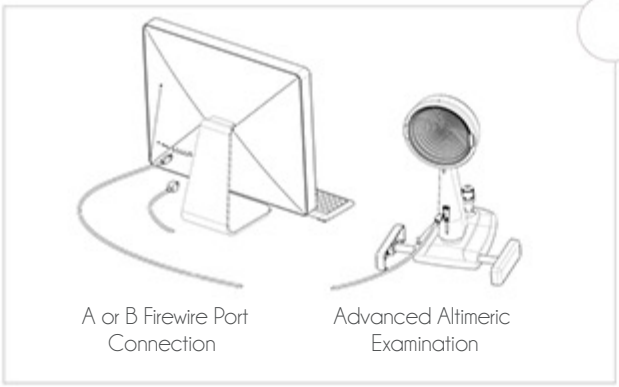
1. Instrument with Placido's Disk
2. Chinrest Module
3. Headrest
4. Capturing Channel
5. Chinrest
6. Joystick with Capturing Trigger Button
7. Base Slides Locking Knob
8. Firewire Port
9. Patient's Handle
10. Glide Slides Guards


FDA

## Features:

- Ergonomic design, high quality optics and precision mechanical parts
- MODI is an electro medical system for the detection, capturing and digital processing of an image of the cornea.
- MODI is a device that allows "live" shooting on the computer monitor.
- Management and control software including cornea measurement.
- High-resolution monochromatic video camera
- Multiple maps comparison in a single display window
- Placido's disk with 24 rings



A or B Firewire Port Connection

Advanced Altimeric Examination

## Product Introduction

# MODI-02

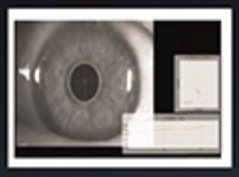
***Topographer***

### *Corneal Topographer*

MODI technology is featured through multi-functional corneal topographrer. It has a dedicated software designed to help in the analayis of the Dre Eye.

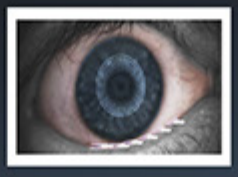
### *Software Phoenix*

Phoenix Software is designed for taking fine and detailed digital images, and sorting files. Software run in all Windows XP, 7, 8, and 10. (Included)



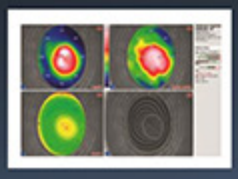
### *Pupillography*

Antares measures the pupil in scotopic (0.04 lux), mesopic (4lux), photopic (50 lux)conditions and in dynamic modality is fast and simple.



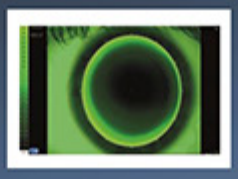
### *Videokeratoscope*

Antares has a white light to capture color images and videos as well as cobalt light blue light for analysis of contact lenses fitting with flourescein.



### *Keratoconous Screening*

The LED technology has an estimated life of 5000 of continuos use. Image colour temperature is maintained at all illumination levels.



### *Contact Lenses Module*

The MODI application contact fiting module stimulates the fit of rigid contact lenses based on an internal database lens manufacturers.

# MODI-02

## Topographer

## Product Specifications

### Measurements

| | |
|---|---|
| Operation Distance | 74 mm from corneal vertex |
| Number of Rings | 24 |
| Number of Measuring Points | 6144 (24x256) |
| Number of Points Analysed | Over 100000 |
| Diameter of the corneal area covered | 0.4 to over 9.6 mm of Diameter |
| Dioptres Measuring Arc | 1 to 100 D |
| Size ( HxWxD) mm | 470 x 315 x 250 mm |
| Weight | 4.5 kg |
| Tabletop Size | 500 x 405 mm |

### Applicable Lighting

| | |
|---|---|
| Placido's LED lighting | White LED |
| Fluorescein LED lighting | Blue LED 460 nm |
| Pupillometry | LED lightingIR LED 875 nm |

### Notes

| | |
|---|---|
| Accuracy and repeatability error | Class "A" as per "ISO19980:2005 (E) |
| Power supply | 24V DC external power supply unit |
| Input power supply unit | 90-264 V AC: - 47/63 Hz<br>Max 0.9 A OUTPUT: 24 V DC - 2 A |
| Power frequency | (50/60Hz) magnetic field IEC 61000-4-8 |
| Power cable | Four-core cable conductors |
| Computer connection | USB3 Type A cable |

FDA

VIEWLIGHT
POWERED BY INNOVATION

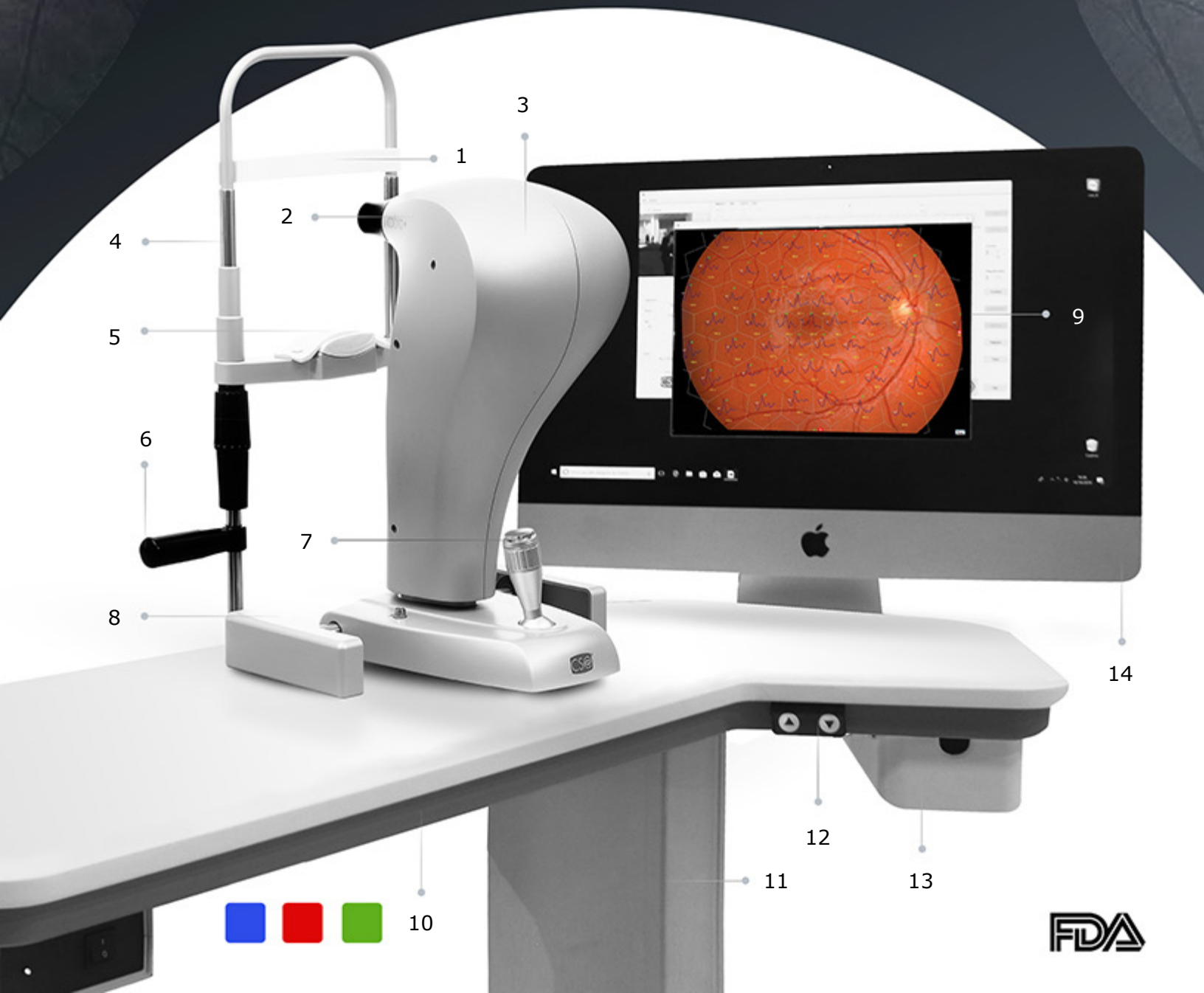
Retinal Camera

# COBRA PLUS

***Retinal Camera***

# COBRA PLUS

1. Head Rest
2. Optical Lens
3. Instrument
4. Fixation Point
5. Chin Rest
6. Chin Rest Hand Held
7. Joystick
8. Guide Guards
9. Phoenix Softeare (Included)
10. Two Device Table Top (Optional)
11. LIFT 02 Electrical Stand (Optional)
12. Table Up / Down Control
13. Table Storage Drawer
13. Personal Computer (Optional)




FDA

***Retinal Camera***

# COBRA PLUS

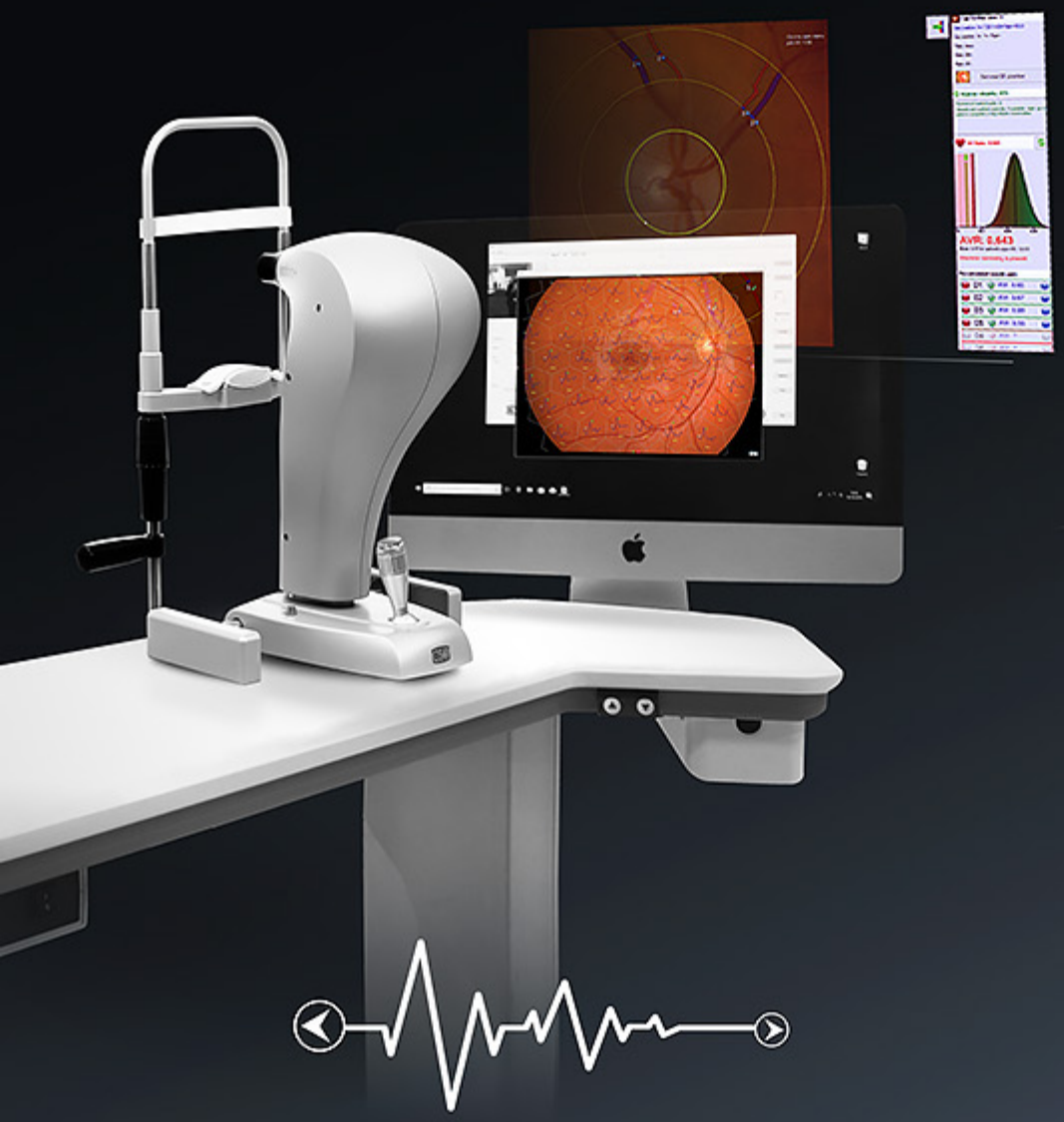
The Cobra + is a non-mydatic fundus camera that compromises all the functions required for a rapid screening of the status of the retina. This ergonomic design provides a clear and detailed image of the ocular fundus with a field of vision of up to 50°.


## Advanced Technology

Cobra+ has 9 internal fixation points that allows to capture panoramic images of the peripheral areas. Cobra+ also can record simultaneously colour and infrared images through a CCD high resolution sensor.

## High Precision Measurements

Cobra+ uses a manual acquisition and electronically guided joystick to ensure precise focus control and repeatability measurements for multiple fixation points.



# Phoenix

***(Software Included)***

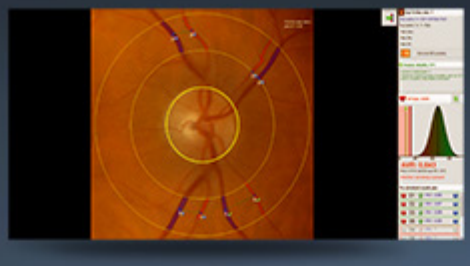
The Cobra Series uses an advance software platform called "Phoenix" which allows the patients data to be saved for future review and analysis.

Multiple wave-length images can be displayed on one screen such as: MGD analysis, choroidal, vascular, nerve fiber, infrared and red-free images.

## Data Communication

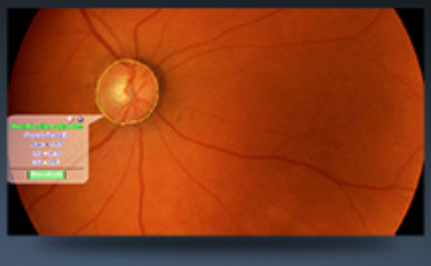
USB 3.0 connection between the device and the PC enables a fast, easy transfer of the images, and saved in the Phoenix patient management software.

## AVR evaluation module (optional)



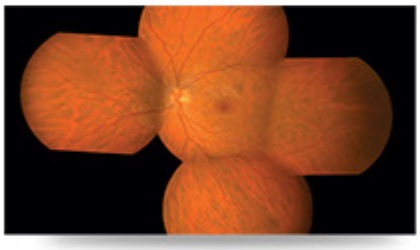
The AVR tool measures the ratio between the branch arteriolar-venous diameter. A low ratio between the dimension of the vessels, may be predictive of cardio-vascular problems in adult patients

## Cup to disk measurement



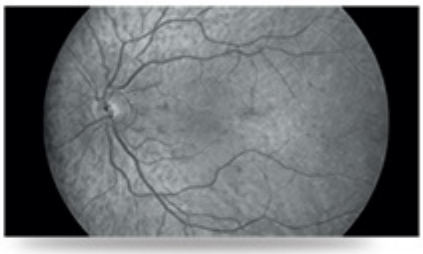
The measurement of the Cup to Disk ratio is easily achieved using the built in measurement tools that are available in the Phoenix soft ware platform for the detection of glaucomatous disease.

## Mosaic function



The COBRA+ can capture multiple images up to 50° field of view) which can be combined together in order to create a panoramic image of the peripheral retina.

## AVR evaluation module (optional)

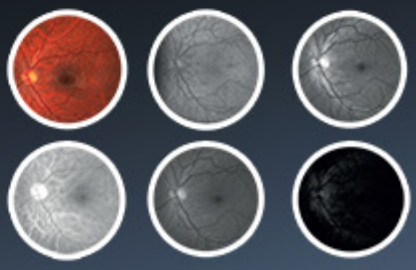


Multiple wave-length images can be displayed on one screen: the original image, infrared image red-free image; as well the choroidal, vascular and nerve fiber images.

## Integration tool with ERG test

COBRA+ retinal fundus images can be combined with the multi focal ERG test, performed with the RETIMAX device. This new module provides a precise indication of the functionality of every analyzed retinal area (useful for follow-up of Macular Degeneration and degenerative hereditary retinal diseases.

## Multiple wave-length imagest



Multiple wave-length images can be displayed on one screen: the original image, infrared image red-free image; as well the choroidal, vascular and nerve fiber images.

Retinal Camera

# COBRA HD

## Product Specifications

### Measurements

| | |
|---|---|
| Image Resolution | 2448 x 2051 (5M Pixel) |
| Working Distance | 20mm |
| Dimension | 420mm (w) x 315mm (l) x 255mm (h) |
| Shelf Size | 380mm (w) x 500mm (l) |
| Weight | 6kg |
| Base Movement | 105mm (w) x 110mm (l) x 30mm (h) |
| Field of View | 50 x 45 |

### Light Source

| | |
|---|---|
| Auxiliary IR | LED @850nm |
| White Flash | LED @450-650nm |

### Notes

| | | |
|---|---|---|
| Operating Environment | Temperature | -10 C ~ +35 C |
| | Humidity | 30% ~ 90% RH |
| | Atmospheric pressure range | 800 hPa ~ 1060 hPa |
| Storage and Environment Condition | Temperature | -10 C ~ +55 C |
| | Humidity | 10% ~ 95% |
| | Atmospheric pressure range | 700 hPa ~ 1060 hPa |
| Shipping Condition | Temperature | -40 C ~ +70 C |
| | Humidity | 10% ~ 95% |
| | Atmospheric pressure range | 500 hPa ~ 1060 hPa |
| Vibration | 10Hz @ 500Hz, 0.5g \| Shock 30g Duration 6ms, Bumb 10g Duration 6ms, | |
| Power Supply | External power source 24 VCC In: 100-240 Vac - 50/60Hz - 0.9-05A - Out: 24Vdc - 40W | |
| Frequenzy Range | 80MHz - 800MHz | |

### Additional Accessories

| | |
|---|---|
| Isolation Transformer | 230V / 230V |
| Motor Driven Telescopic Column \| | SCHUMO AG, Model TES2 23 / TA0113 X20 400238Z |

VIEWLIGHT
POWERED BY INNOVATION

Retinal Camera

# COBRA HD

## Features:

- With its ergonomic design Cobra provides a clear and detailed image of the ocular fundus with a field of vision of up to 50 degrees.
- Cobra HD uses the Phoenix software platform allowing patient data to be saved for future review and analysis.
- Cobra HD allows the acquisition of multiple images, to create a panoramic image of the peripheral retinal areas.
- The instrument, with manual acquisition and electronically guided control guarantees high precision and repeatability of the measurements.

Direct Monitoring Screening

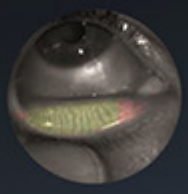
High Precision Measurements

*Retinal Camera*

# COBRA-HD

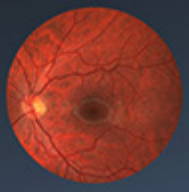
## Product Introduction

The Cobra HD is a non-mydatic fundus camera that compromises all the functions required for a rapid screening of the status of the retina.



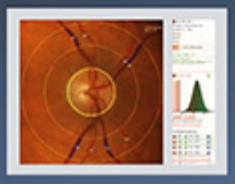
Cobra HD includes a module for the analysis of the Meibomian Glands Using Pheonix soft ware, the glands structure and health can be analysed..

Cobra HD shares the use of the CCD high-resolution sensor (5 megapixel) for the alignment of the patient and the capture of retinal images.



Multiple wave-length images can be displayed on one screen: the choroidal, vascular, nerve fiber, infrared and red-free images,

Cobra HD USB connection between the device and the PC enables a fast and easy transfer of the images and saved in the Phoenix patient management software.

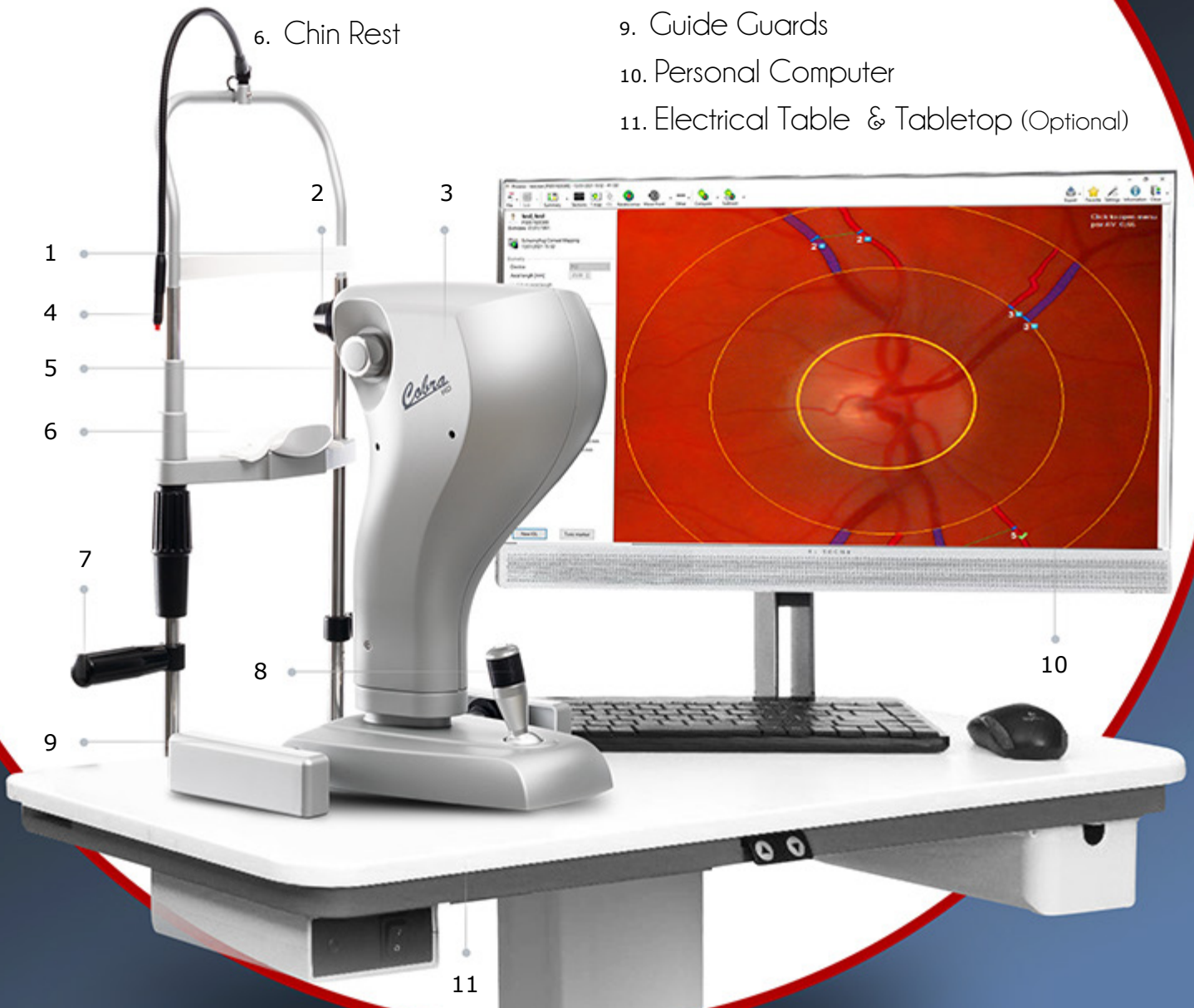


AVR Evaluation Module - The AVR tool measures the relationship between the branch arteriolar-venous diameter.

***Retinal Camera***

# COBRA HD

1. Head Rest
2. Optical Lens
3. Instrument
4. Fixation Point
5. Focus Adjustment Handle
6. Chin Rest
7. Chin Rest Hand Held
8. Joystick with Acquisition Button
9. Guide Guards
10. Personal Computer
11. Electrical Table & Tabletop (Optional)



# Retinal Camera COBRA HD

## Product Specifications

### Measurements

| | |
|---|---|
| Image Resolution | 2448 x 2051 (5M Pixel) |
| Working Distance | 20mm |
| Dimension | 420mm (w) x 315mm (l) x 255mm (h) |
| Shelf Size | 380mm (w) x 500mm (l) |
| Weight | 6kg |
| Base Movement | 105mm (w) x 110mm (l) x 30mm (h) |
| Field of View | 50 x 45 |

### Light Source

| | |
|---|---|
| Auxiliary IR | LED @850nm |
| White Flash | LED @450-650nm |

### Notes

| | | |
|---|---|---|
| Operating Environment | Temperature | -10 C ~ +35 C |
| | Humidity | 30% ~ 90% RH |
| | Atmospheric pressure range | 800 hPa ~ 1060 hPa |
| Storage and Environment Condition | Temperature | -10 C ~ +55 C |
| | Humidity | 10% ~ 95% |
| | Atmospheric pressure range | 700 hPa ~ 1060 hPa |
| Shipping Condition | Temperature | -40 C ~ +70 C |
| | Humidity | 10% ~ 95% |
| | Atmospheric pressure range | 500 hPa ~ 1060 hPa |
| Vibration | 10Hz @ 500Hz, 0.5g \| Shock 30g Duration 6ms, Bumb 10g Duration 6ms, | |
| Power Supply | External power source 24 VCC In: 100-240 Vac - 50/60Hz - 0.9-05A - Out: 24Vdc - 40W | |
| Frequenzy Range | 80MHz - 800MHz | |

### Additional Accessories

| | |
|---|---|
| Isolation Transformer | 230V / 230V |
| Motor Driven Telescopic Column \| | SCHUMO AG, Model TES2 23 / TA0113 X20 400238Z; |

VIEWLIGHT
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# OSIRIS-T

## Aberrometer & Topographer


## Features:

- Osiris -T has the ability to measure high order aberrations and topography calculations of the internal component of the wave-front.
- Osiris-T is a total ocular aberrometer, and is indispensable for the correct evaluation of critical patients who have, in addition to traditional low-order defects, even more complex ocular aberrations.
- Osiris-T has a unique design that enables it to measure aberrations with a resolution of 45,000 points (at the maximum pupil diameter), with a wide dynamic.
- Osiris-T is also able to measure the total wave-front in real time with a frame rate of up to 33 images per second: this makes it possible to measure and view changes in power and aberrations while the patient is accomodating.

***Aberrometer + Topographer***

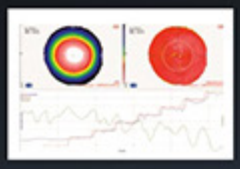
# Product Introduction OSIRIS-T

### Aberrometer & Topographer

Osiris-T has a unique design that enables it to measure aberrations with a resolution of 45,000 points and topographer system based on a 22 ring Placido disk.

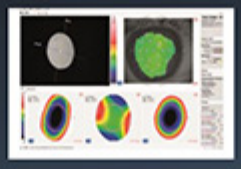
### *Software Phoenix*

Osiris-T uses Phoenix software platform allowing patient data to be saved for future review and analysis, shared by all CSO devises.



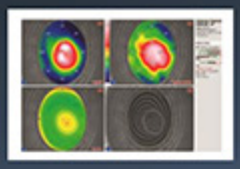
### *Dynamic Accomodations*

Real-time measurements of the ocular wave-front with customizable exam modes (ramps or square waves) to evaluate patients the ability to focus.



### *Toric Lens Assistant*

Osiris-T aberration makes it possible to distinguish weather any asitigmatic residue is due to a rotation of the lens or to an incorrect calculation.



### *Analysis Software for Aberrations*

The Phoenix software offers a wide range of analysis options such as refractive error maps and visual stimulations (PSF, MTF and with optotype).

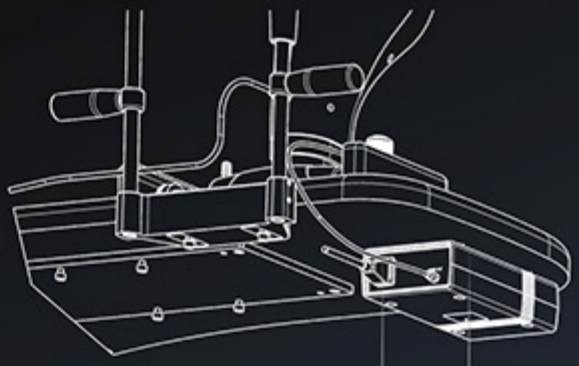
### *Densitometry*

Osiris-T can acquire backlight images without refelctions in order for an asses-tment of cataract and optical media opacity evaluation.

# OSIRIS-T

## *Aberrometer + Topographer*

1. Chinrest Module
2. Headrest
3. Capturing Channel
4. Chinrest Support
5. Chinrest Adjuster Knob
6. Handrest
7. Drawer
8. Guide Guard
9. Power In
10. LIFT Electrical Tables
11. Joystick (Capturing Trigger Button)
12. OSIRIS -T instrument
13. Main Supply Cable
14. Switching Adapter (Data Nameplate)





PC: 4 GB RAM - Video Card 1 GB RAM (not shared) resolution 1024 x 768 pixels - USB 3.0 type A Operati ng system: Windows XP, Windo and Windows 10 (32/64 bit).

# *LIFT 02*

*Electrical Table (Optional)*

***Tabletops***

*Available Colors*

# OSIRIS-T

## Aberrometer & Topographer



## Product Specifications

### Technical Data

| | |
|---|---|
| Data Transfer | USB 3.0 |
| Power Supply | External power source 24 VCC In: 100-240Vac 50/60Hz - 0.9-05A \| Out: 24Vdc - 40W |
| Power net cable | with plug C14 |
| Dimensions (HxWxD) | 515 x 315 x 255mm |
| Weight | 6.9Kg |
| Chin rest movement | 70mm ± 1mm |
| Minimum height of the chin cup from the table | 24cm |
| Base Movement (xyz) | 105 x 110 x 30mm |
| Working distance | 74mm |

### Light Sources

| | |
|---|---|
| Aberrometer | Led @850nm |
| Fixation | Led @450-650nm |
| Placido | Led @635nm |
| Pupillometry and auxiliary | Led @780nm |

### Aberrometry

| | |
|---|---|
| Points measured at maximum pupil | 45000 |
| Spatial resolution | 41µm |
| Pupil size range | 2-9mm |
| Dioptric range | Sph from -25D to +15D; Cyl up to 10D |
| Repeatability | 0.05D on test eyes |

### Topography

| | |
|---|---|
| Placido rings | 22 |
| Measured points | 5632 |
| Topographic covering (in 43D) | 10mm |
| Dioptric measurement range | from 1D to 100D |
| Measurement accuracy | Class A according to UNI EN ISO 19980-2012 |
| Compati bility with standard | DICOM v3 |

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# OSIRIS

MADE IN ITALY
Aberrometer


## LIFT 02

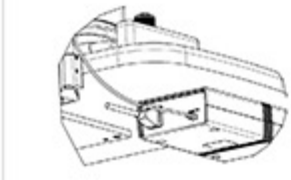
*Electrical Table (Optional)*

***Tabletops***

*Available Colors*

## Features:

- Osiris has the ability to measure high order aberrations as well as standard refraction has become the new standard of care for your patients.
- Osiris, is a total ocular aberrometer, and is indispensable for the correct evaluation of critical patients who have, in addition to traditional low-order defects, even more complex ocular aberrations.
- Osiris has a unique design that enables it to measure aberrations with a resolution of 45,000 points (at the maximum pupil diameter), with a wide dynamic.
- Osiris is also able to measure the total wave-front in real time with a frame rate of up to 33 images per second: this makes it possible to measure and view changes in power and aberrations while the patient is accomodating.



Advanced Electromedical System

Image Processing Software

***Aberrometer***

# OSIRIS

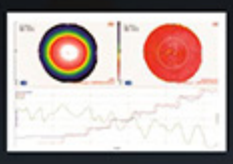
## Product Introduction

### *Ocular Aberrometer*

Osiris has a unique design that enables it to measure aberrations with a resolution of 45,000 points (at the maximum pupil diameter), with a wide dynamic.

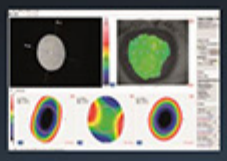
### *Software Phoenix*

Osiris uses Phoenix software platform allowing patient data to be saved for future review and analysis, shared by all CSO devises.



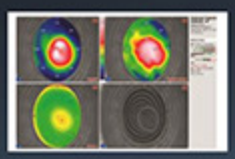
### *Dynamic Accomodations*

Real-time measurements of the ocular wavefront with customizable exam modes (ramps or sqaure waves) to evaluate patients the ability to focus.



### *Toric Lens Assistant*

Osiris aberrotion makes it possible to distinguish weather any asitigmatic residue is due to a rotation of the lens or to an incorrect calculation.



### *Analysis Software for Aberrations*

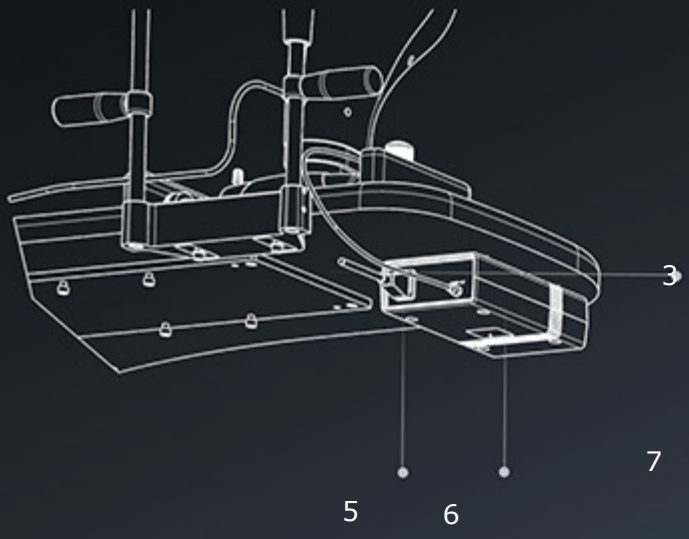
The Phoenix software offers a wide range of analysis options such as refractive error maps and visual stimulations (PSF, MTF and with optotype).

### *Densitometry*

Osiris can acquire backlight images without refelctions in order for an assestment of cataract and optical media opacity evaluation.

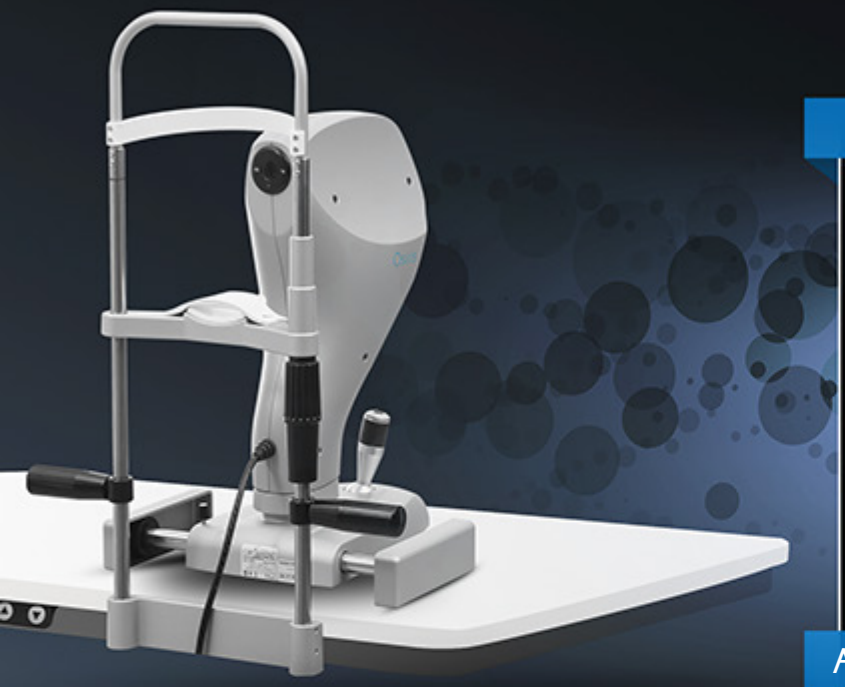
# OSIRIS *Topographer*

1. Chinrest Module
2. Headrest
3. Shaped Tabletop
4. LED Shooting Lens
5. Main Supply Cable
6. Switching Adapter
7. Data Nameplate
8. Chinrest
9. Handrest
10. Joystick with Capturing Trigger Button
11. Instrument Power Supply Cable
12. Guide guard




# OSIRIS

## Aberrometer



## Product Specifications

### Measurements

| | |
|---|---|
| Operation Distance | 79 mm from corneal vertex |
| Number of Rings | 24 |
| Number of Measuring Points | 5632 |
| Number of Points Analysed | Over 100000 |
| Diameter of the corneal area covered | 0.4 to over 9.6 mm of Diameter |
| Dioptres Measuring Arc | 1 to 100 D |
| Size ( HxWxD) mm | 510 x 313 x 280 mm |
| Weight | 6.5 kg |

### Applicable Lighting

| | |
|---|---|
| Placido's LED lighting | White LED |
| Fluorescein LED lighting | Blue LED 460 nm |
| Pupillometry | LED lighting IR LED 850 nm |


### Notes

| | |
|---|---|
| Accuracy & repeatability error | Class "A" as per "ISO19980:2005 (E) |
| Power supply | 24V DC external power supply unit |
| Input power supply unit | 90-264 V AC: - 47/63 Hz<br>Max 0.9 A OUTPUT: 24 V DC - 2 A |
| Power frequency | (50/60Hz) magnetic field IEC 61000-4-8 |
| Power cable | Four-core cable conductors |
| Computer connection | USB3 Type A cable |

VIEWLIGHT
POWERED BY INNOVATION

Clinical Slit Lamp

MADE IN ITALY

# ZOOM

Magnification

## SL-9900

FDA


## Magnification Options

The SL-9900 Series microscopes has multiple continuous enlargements, giving a clear, brilliant and well contrasted images thanks to the multi-layer anti reflection treatment.

| | 2X | 3X | 5X | ZOOM |
|---|---|---|---|---|
| Binocular Head | Converging Stereoscopic | Galilean magnification changer with converging eyepieces | | |
| Magnification | 10x, 16x | 10x, 16x, 25x | 6x, 10x, 16x, 25x, 40x | 6x - 33x Continuous |
| Light Source | LED | LED | LED | LED |
| Built-in Yellow Filter | No | Yes | Yes | Yes |
| Digital Imaging Ready | No | Yes | Yes | Yes |
| Optional Eyepieces | 16x, 26x | No | No | No |
| Weight (Lbs/Kg) | 49 / 22 | 53 / 24 | 45 / 20 | 50 / 23 |

⊕ ⊖ The SL-9800 & SL9900 slit lamps has a rotation of ± 90° continuous with a Tabo system and actual visual field of 32-6.2.

## Precise Adjusters

Viewlights slit lamps are built with high quality optics and very precise mechanical parts, feasible for all adjustable slit positions designed for comfort and a new experience while capturing and recording the patients eyes.

## Maneuver Cross Slide Joystick

The SL-9800 & SL-9900 series are built with a precise, smooth and high quality joystick. It provides lateral, longitudinal and vertical movements during all patients examinations.

## Filter Insertion Control + Lever

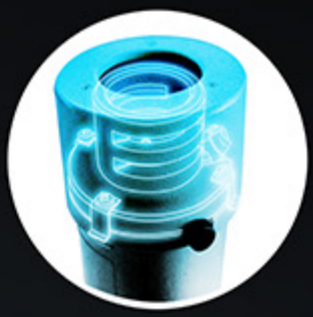
The optical filters devices controllers can selectively transform light of different wavelengths used in many applications Available Filters: Blue, Red, Gray, Green (Red free).

## Lightning Card Red LED Reflex

SL-9800 & SL9900 Series slit lamps are built with a tilting device where the diagonal light sources can be vertically projected up to 20˚ with 5˚ intervals. This shows to be very helpful in the horizontal optical observation gonioscopy & posterior eye examination.

# Illumination System

SL-9800 & SL-9900 series slit lamp offers an LED illumination lamp designed for accurate and detailed observations. The life of the LED is longer than 50,000 working hours.



# High Quality Optics

SL-9800 & SL-9900 Series slit lamps provides high quality optics and excellent image quality for all ophthalmology demands. Our slit lamps features one stereoscopic microscope with 2 magnifications, or one Galilean system with 3, 5 magnifications, or with progressive zoom, complete with screw-out eyepieces.

## *LIFT 02*

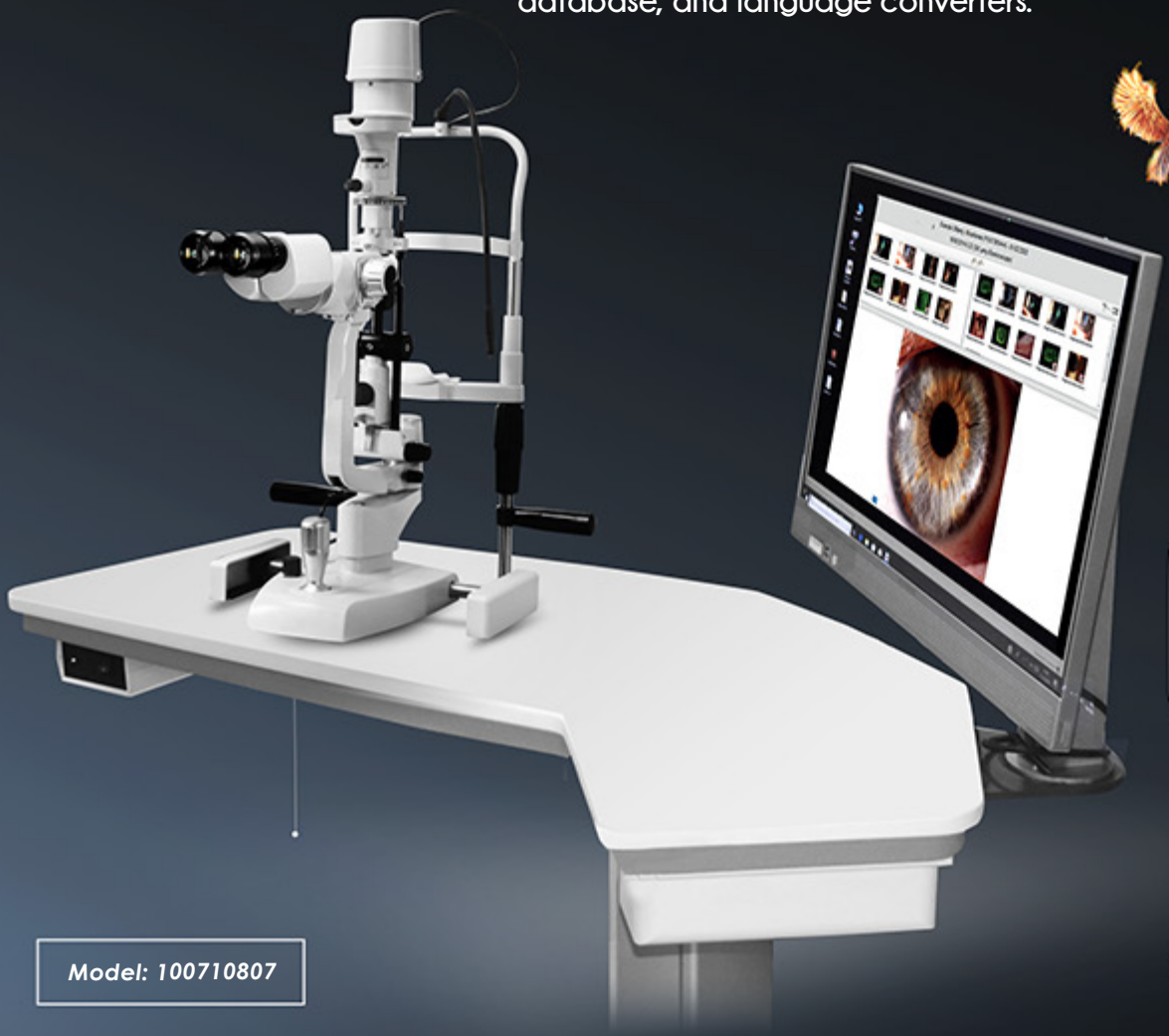
*Electrical Table (Optional)*

***Tabletops***

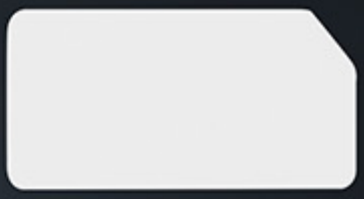
*Available Colors*

# Phoenix Software

The SL-9900 Series slit lamps includes a Phoenix software technology which manages to collect data, measurements, captures high quality photos and video for all conducted examinations. Also features an image comparison, drawing tools, user calibration sources, network database, and language converters.



*Viewlight Monitor Optional*

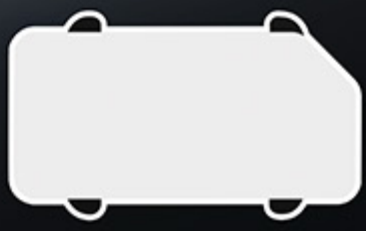


*Model: 100710805*

*Model: 100710807*

## LIFT Electrical Tables *( LIFT-01 & LIFT-02 )*

CSO sturdy and secured instrument table features an adjustable height sequence designed for 1-2 optical instrument configurations.



*Model: 100710803*

## Table Tops *( Not Included )*

All CSO surfaces of these tables are designed to be very rigid with minimum deflection so that the alignment of optical elements remains stable over time

*Model: 100710801*

*Accessory Drawer*

# HR - Digital Video Camera

The new HR digital video camera has been particularly designed with hardware, firmware and optimized for all ophthalmologic purposes.

Optional - Accessory

USB CONNECTION

HR camera is based on a high performances CCD sensor, an excellent color rendering and a integrated Phoenix software.

CANON - EOS Rebel T Series


## Canon Cameras

All our hightech slit lamps offers an optional Canon EOS Rebel Series cameras deisgned to capture photos and videos with its high resolution megapixel sensors and precise focus.

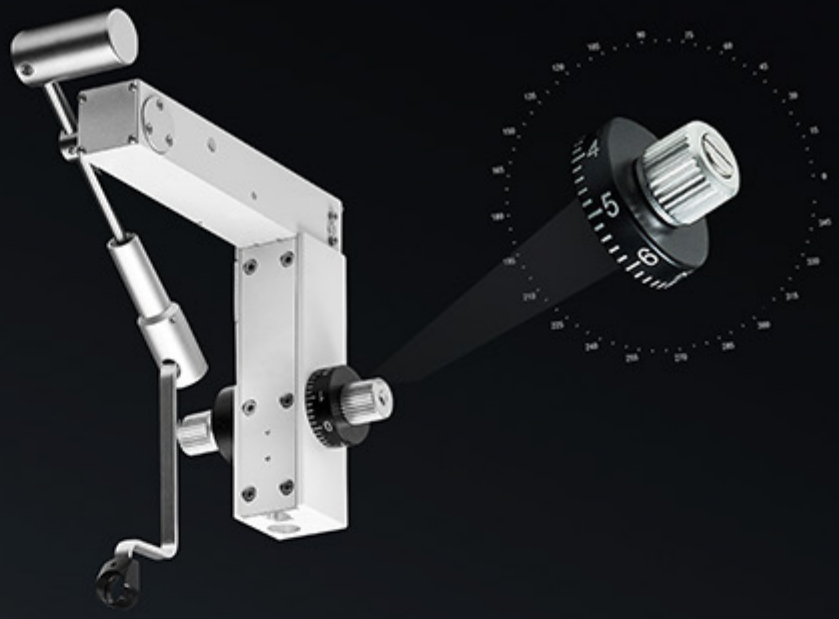
Digital Adaptors VL-Z8

## Optional Adaptors

Viewlight USA slit lamp are designed to incorporate optional accessories such as the beam splitter and camera adaptor so that it can be attached with the stylish Canon professional camera.

## Tonomter Z-800

The Z-800 tonometer provides extreme measurement accuracy. All values are directly readable on the instrument and without any standardization or calibration difficulties.

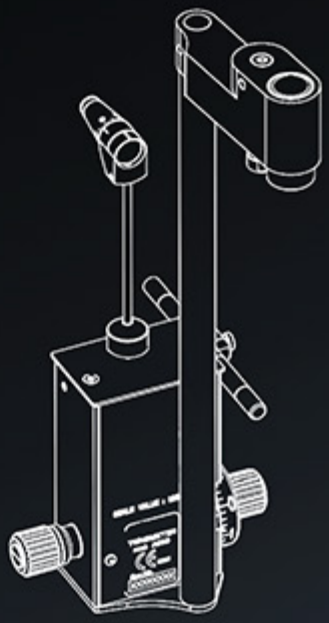


## Tonomter A-900

The A-900 is an accessory to any slit lamp model, used for measuring ocular pressure, amount of force needed to temporarily flatten part of your cornea and to prevent risk of developing glaucoma.

# A-900

## Tonometer



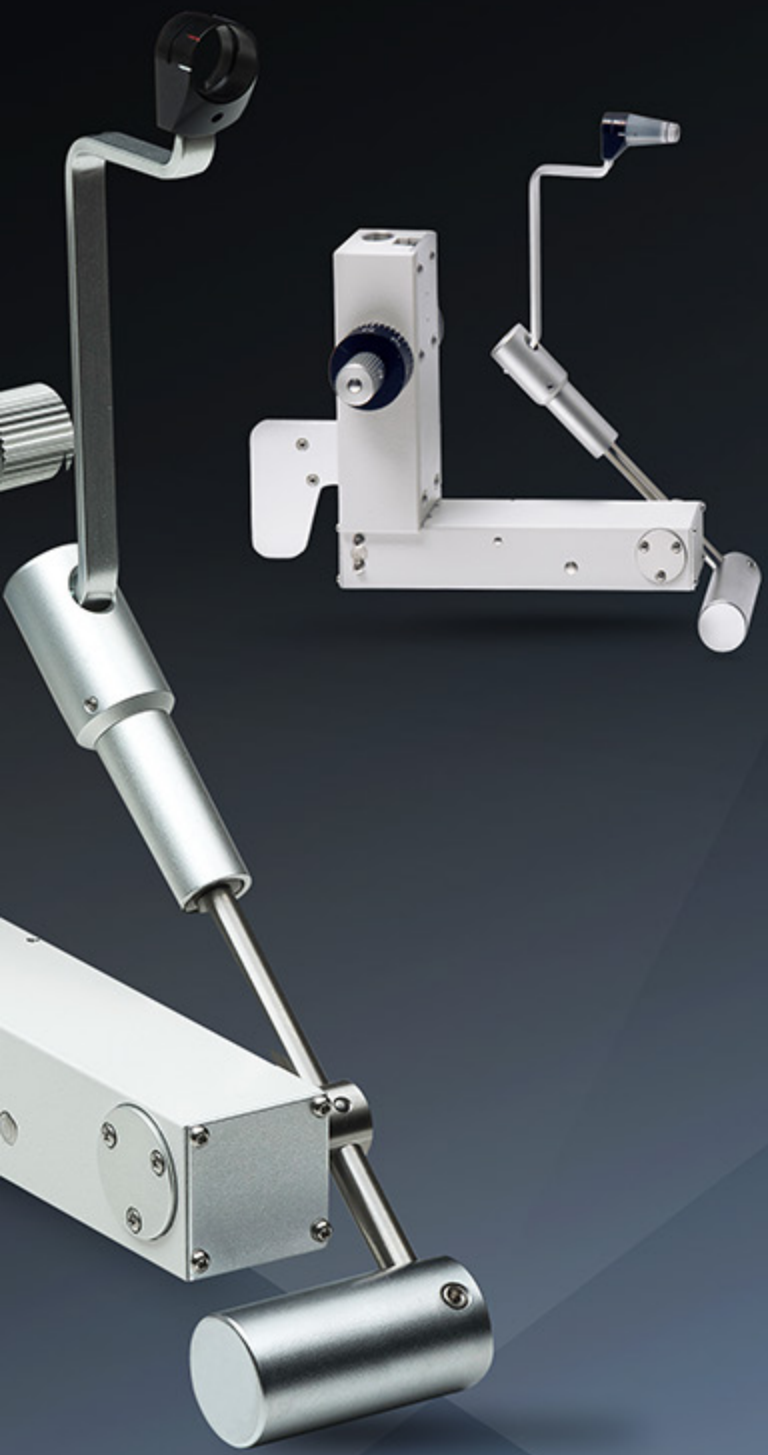
## Product Specifications

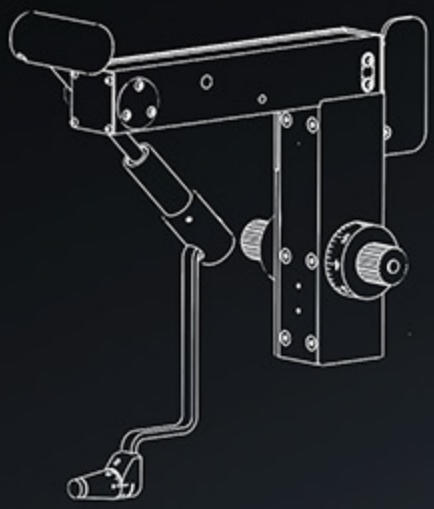
### Measurements

| | |
|---|---|
| Pressure Surface | 7mm |
| Measurement Drum Surface | 3.06mm (7,354mm area) |
| Conversations Pressure | mmHG to Kpa |
| Angle Light Source | 60° |
| Tonomoter Scale | 6 Calibrations |
| Measurement Force | Generated by the Spring |
| Measurement Range | 0 / 80 mmHG (0/10,64kPA) |
| Weight | 0.48 kg (without accessories) |

# Z-800

## Tonometer





## Product Specifications

### Measurements

| | |
|---|---|
| Pressure Surface | 7mm |
| Measurement Drum Surface | 3.06mm (7,354mm area) |
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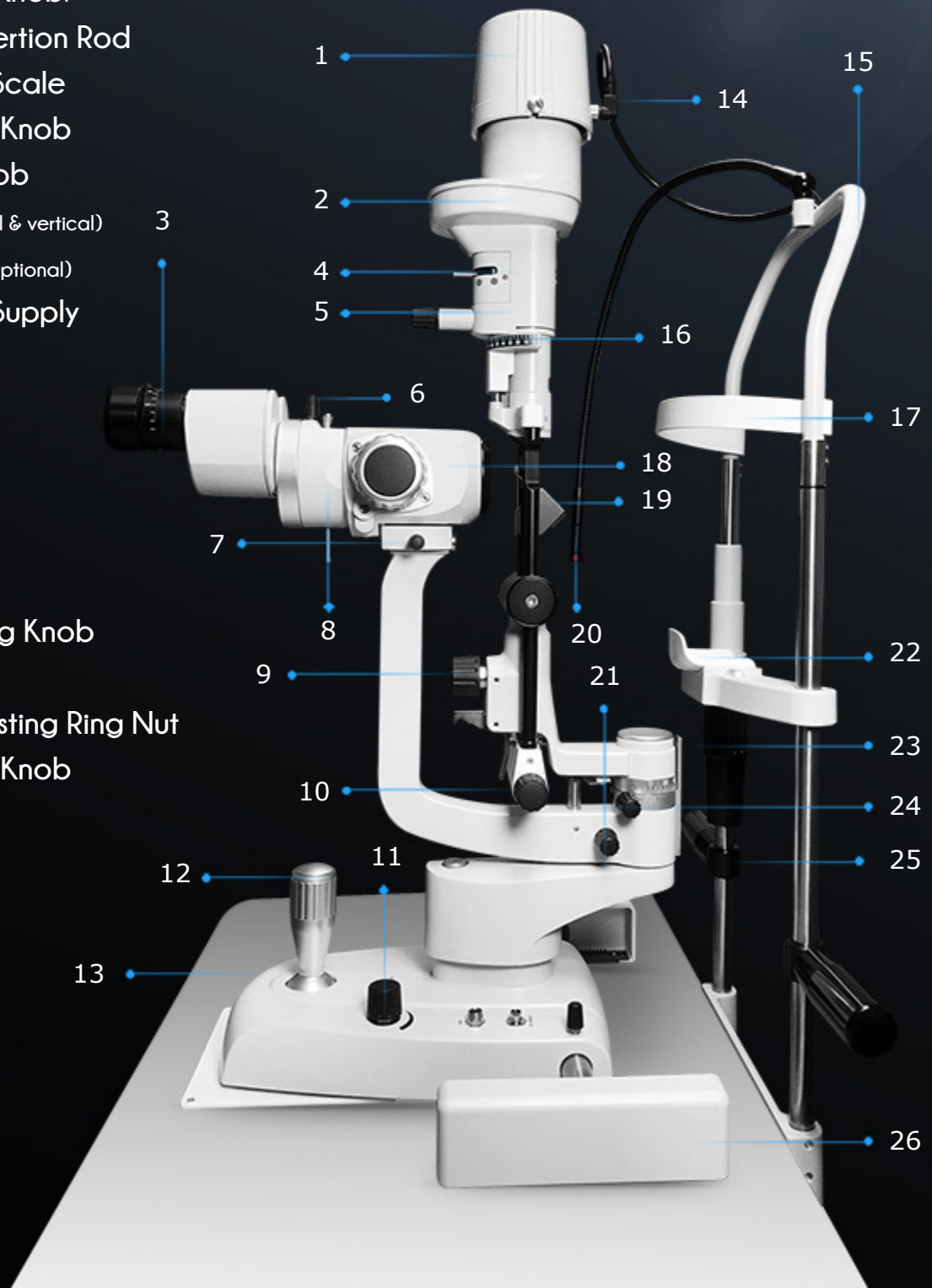
| Measurement Force | Generated by the Spring |
| Measurement Range | 0 / 80 mmHG (0/10,64kPA) |
| Weight | 0.48 kg (without accessories) |

FDA

# Slit Lamp SL-9900 Series

SL-9900 Series are designed slit lamps for ophthalmologists and optometrists for specific diagnostic procedures such as the biomicroscopic examination of the eye, ocular fundus, and posterior vitreous body.

1. Light Bulb / LED Cover
2. Slit Height Value Index
3. Extractable Eyepieces
4. Filter Selection Knob
5. Slit Height Adjuster / Tuner
6. Microscope Splitter Knob
7. Microscope Locking Knob.
8. Fluorescein Filters Insertion Rod
9. Projector Positioning Scale
10. Slit Width Adjustment Knob
11. Bightness Control Knob
12. Joystick (lateral, longitudinal & vertical)
13. Shaped Table Top (Optional)
14. Fixation Point Power Supply
15. Chinrest Module
16. Raduated Scale
17. Head Rest
18. Magnification Tuner
19. Slit Lamp Mirror
20. Fixation Point
21. Microscope Arm Fixing Knob
22. Chin Rest
23. Chinrest Height Adjusting Ring Nut
24. Slit Width Adjustment Knob
25. Patient's Handle
26. Wheel Shields



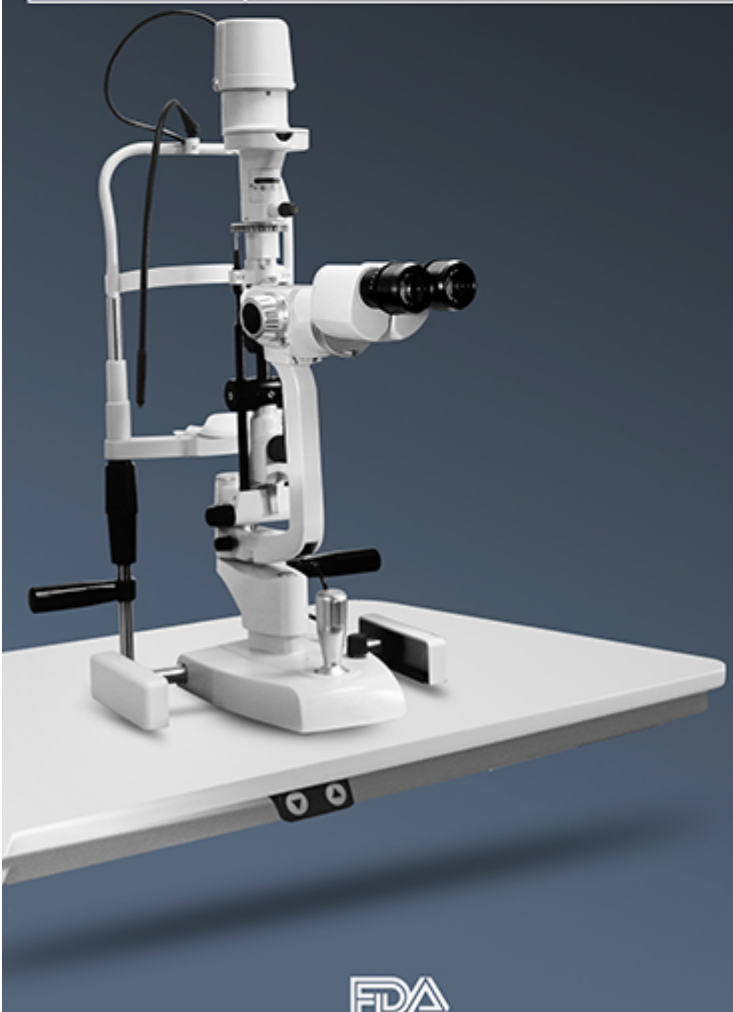
# SL-9800 & SL9900

## Slit Lamp Series

# Specifications

## Stereoscopic Microscope

| Microscope | 2x | 3x | 5x | Zoom |
|---|---|---|---|---|
| Type | Convergent | Galileian convergent with magnification change syste | | Galileian convergent w/ variable magnification |
| Eyepiece Convergence Angle | 13° | | 6° | |
| Eyepieces | 10x | 12,5x | 12,5x | 12,5x |
| Eyepiece adjustment | ±8 D. | | | |
| Magnifications | 10x \| 16x | 10x \| 16x \| 25x | 6x \| 10x \| 16x \| 25x \| 40x | 7X \| 30X |
| Field of View | | 8,5x \| 14,8x \| 25,6x | 5,6x \| 8,5x \| 14,8x 25,6x \| 39,3x | |
| Interpupillary distance | 18,5mm \| 12mm | 26mm to 8,5mm | 41mm to 5,7mm | 30mm to 7,4mm |
| Barrier filter | 51,5mm to 87mm | 50mm to 80mm | | |
| Barrier filter | Yellow | | | |



## Technical Data

| | |
|---|---|
| Slit Projection | 1X |
| Slit Width (setting continuous) | 0 – 12 mm |
| Slit length (setting continuous) | 1– 12 mm |
| Slit Length (max) | 12 mm |
| Apertures | 12, 9, 5, 1, 0.2 mm |
| Filters | Blue, Red, Gray, Green (Red free) |
| Light Diffuser | Light Diffuser |
| Background Light | Only with Digital Vision HR |
| Slit Rotation | ± 90° continuous (Tabo system) |
| Slit Angle | Variable 0° \| 5° \| 10° \| 15° \| 20° |
| Rotation - Slit projection | ±90°, angular scale, ref. on 0° and ±10° |
| Working distance | 80 mm |
| Joystick Push Button | Only with Digital Vision HR |
| Left / Right Detection | Only with Digital Vision HR |
| Voltage | 15V DC 1A |
| Light Source | White LED |
| Brightness | 248000 LUX conti nuous adjustment |
| Dimensions (HxWxD) | 675 x 313 x 335mm |
| Weight | 7 kg |

## System Requirements (Version Digital HR)

| | |
|---|---|
| PC: | 4 GB RAM |
| Video Card: | 1 GB RAM |
| Resolution: | 1024 x 768 pixels |
| USB | 3.0 Type A |
| Operati ng System | Windows XP, Windows 7 and Windows 10 (32/64 bit). |

VIEWLIGHT
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# SLIT LAMP SL-9900

## LED Elite

## LIFT 02

*Electrical Table (Optional)*

***Tabletops***

*Available Colors*

FDA

# SLIT LAMPS

The new SL-9900 ELITE slit lamps, works with an innovative LED illumination system. Offers a new beam splitter equipped with the new high resolution digital camera, and it has been designed for whom wants high performances and smart design.


5x

## Magnification Tuners

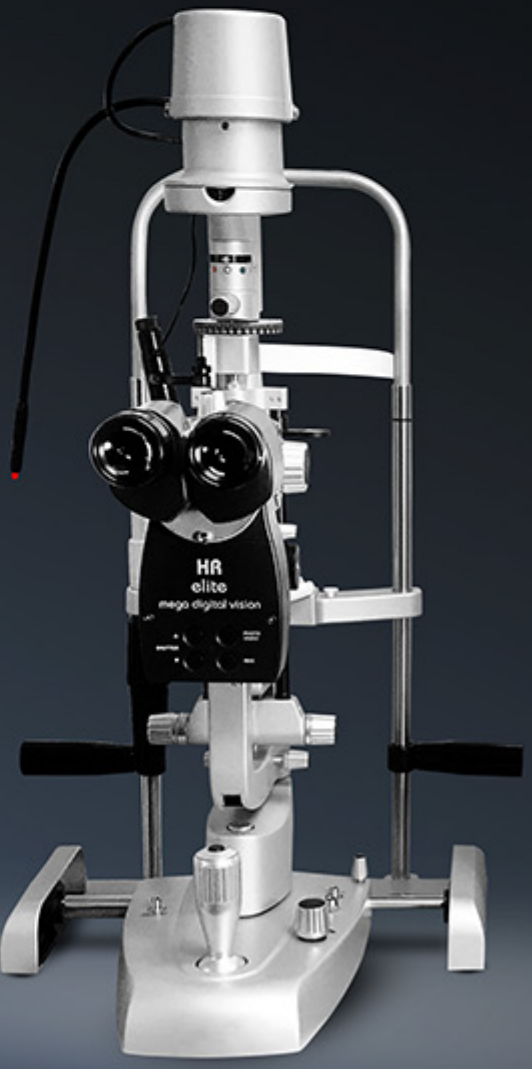
The SL-9900 Elite slit lamps have multiple continuous enlargements, giving a clear, brilliant and a well contrasted images thanks to the multi-layer antireflection treatment.

Galilean magnification changer with converging eyepieces

| | |
|---|---|
| Magnification | 6x, 10x, 16x, 25x, 40x |
| Light Source | LED |
| Built-in Yellow Filter | Yes |
| Digital Imaging Ready | Yes |
| Optional Eyepieces | No |
| Weight (Lbs/Kg) | 45 / 20 |

## Maneuver Joystick

The SL-9900 Elite are built with a precise, smooth and high quality joystick. It provides lateral, longitudinal and vertical movements during all patients examinations. Enables you to optically change the illumination field up by a single click actions; ideal for contact lens fitting observation.




## Precise Slit Lamp Adjusters

The L-9900 Elite slit lamps are built with high quality optics and precision mechanical parts feasible for all adjustable slit positions designed for comfort and a new experience while capturing & recording all examinations.


# Illumination System

The advanced SL-9900 Elite offers a new LED illumination source therefore allowing the examination with very comfortable and bright experience while taking clear pictures with each magnification device.

1. LED Power Illuminator
2. LED Background Illumination (Built-in)
3. Lighting Card Red LED Reflex

# Lightning Card Red LED Reflex

SL-9900 Elite slit lamps are built with a tilting device where the diagonal light sources can be vertically projected up to 20˚ with 5˚ intervals.This shows to be very a helpful horizontal optical observation gonioscopy & posterior eye examination.

# Filter Insertion Control + Lever

The slit lamp SL-9900 Elite offers an optical filters devices controllers can selectively transform light of different wavelengths used in many applications available filters: Blue, Red, Gray, Green (Red free).

VIEWLIGHT
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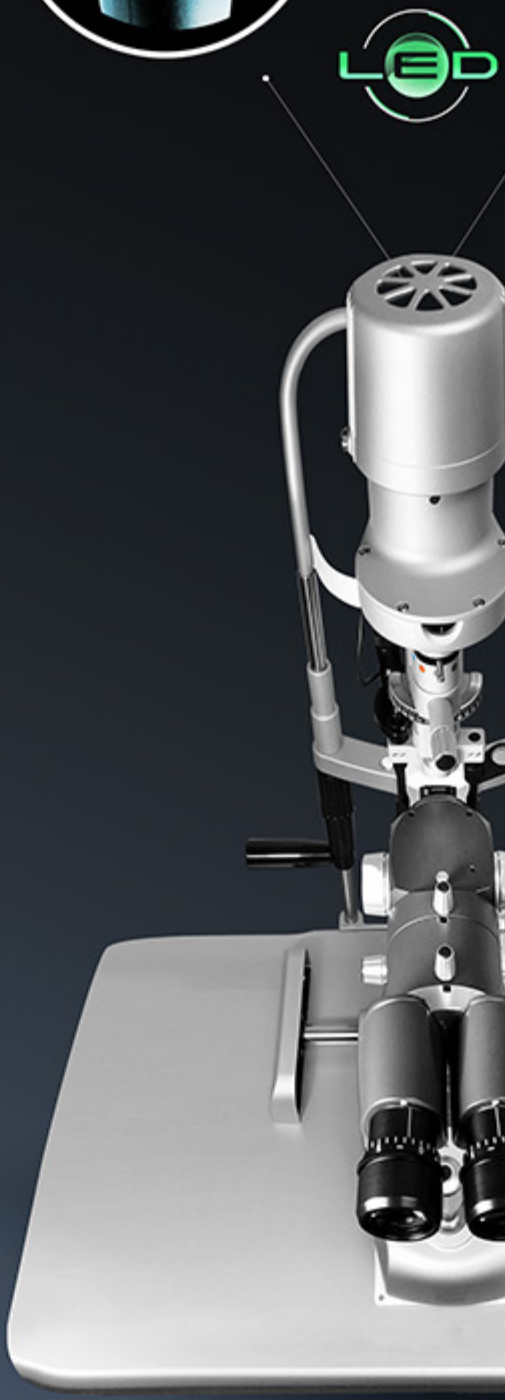
## Illumination System

The SL-9900 Elite offers an LED illumination lamp designed for accurate and detailed observations. The life of the LED is longer than 50,000 working hours and its color temperature is constant in each situation.





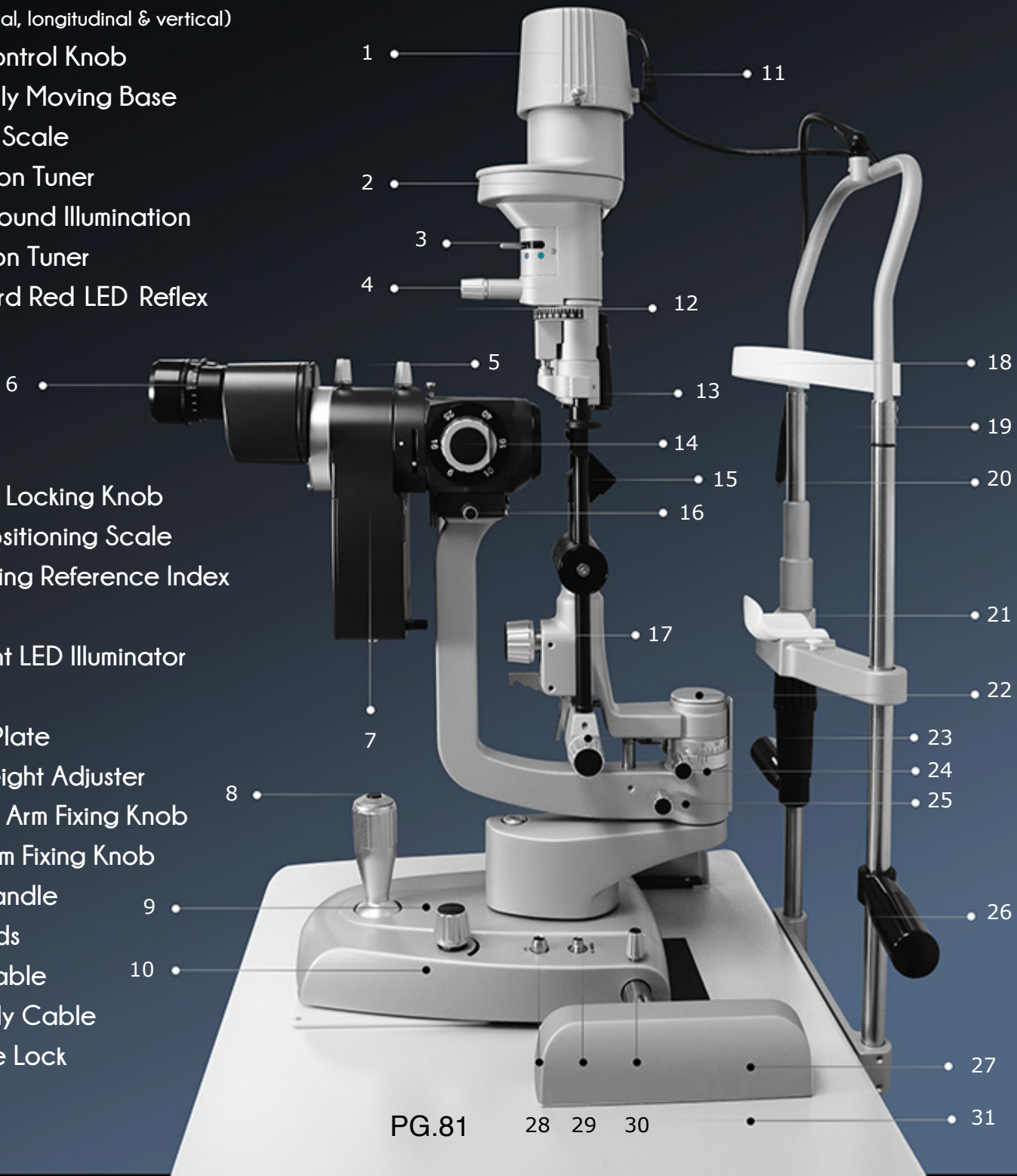
## High Quality Optics

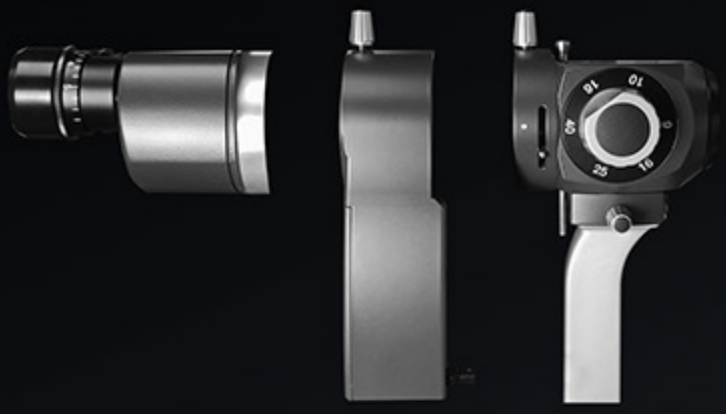
L-0990 Elite slit lamps provides excellent high optics and excellent image quality for all ophthalmology demands. These converging microscope optics provides comfort to the user when using the slit lamp. All the microscopes have a yellow filter to improve the image quality during fluorescein tests.

# Specifications:

## Slit Lamp SL-9900
## ELITE

1. Light Bulb / LED Cover
2. Slit Height Value Index
3. Filter Selection Knob
4. Slit Height Adjuster / Tuner
5. Microscope Splitter Knob
6. Extractable Eyepieces
7. Digital Video Camera
8. Joystick (lateral, longitudinal & vertical)
9. Bightness Control Knob
10. Orthogonally Moving Base
11. Raduated Scale
12. Magnification Tuner
13. LED Background Illumination
14. Magnification Tuner
15. Lighting Card Red LED Reflex
16. Microscope Locking Knob
17. Projector Positioning Scale
18. Eye Positioning Reference Index
19. Head Rest
20. Fixation Point LED Illuminator
21. Chin-Rest
22. Tonomoter Plate
23. Chin-rest Height Adjuster
24. Microscope Arm Fixing Knob
25. Projector Arm Fixing Knob
26. Patient's Handle
27. Wheel Shields
28. LED Light Cable
29. Power Supply Cable
30. Device Base Lock



## HR Digital Video Camera

The new HR digital video camera has been particularly designed with hardware, firmware and optimized for all ophthalmologic purposes. HR camera is based on a high performances CCD sensor, an excellent color rendering and a integrated Phoenix Software.

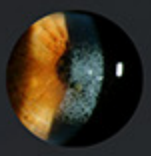


## Canon Cameras

SL-9900 Series slit lamps are designed to incorporate optional accessories such as the beam splitter and camera adaptor so that it can be attached with the stylish Canon professional camera.

1. Digital Camera Beam Splitter (Optional)

# Phoenix
*(Software Included)*



# HR-Elite Digital Camera



## Product Specifications

| | |
|---|---|
| Image Sensor Type | 1/1.8" progressive scan color CCD |
| Picture Size (LIVE) | Up to 1624 (h) x 1232 (v) @8fps |
| Cell Size | 4.40 µm x 4.40 µm |
| Resolution depth | 14 bit |
| Digital Interface | IEEE 1394a; DCAM V1.31 |
| Transfer Rate | 400 Mb/s |
| Frame Rates | 15 fps |
| Video Modes | 1600 x 1200, 800 x 600, ROI |
| Power Consumption | Less than 3 W |

## Minimum PC Requirements

| | |
|---|---|
| Processor | i5 or newever |
| RAM | 8GB |
| Hard Drive | 1 Tera Byte |
| Connection | USB 3.0 |
| Resolution | 1280x1024 pixels |
| Operating System | Microsoft Windows XP , Microsoft Windows 7, Microsoft Windows 10 |
| Networking | TCP/IP protocol for network |

MADE IN ITALY

VIEWLIGHT
POWERED BY INNOVATION

# Specifications

## Slit Lamp SL-9900 Elite

## Stereoscopic Microscope

| Microscope | 5x |
|---|---|
| Type | Galileian convergent with magnification change system |
| Eyepiece Convergence Angle | 6° |
| Eyepieces | 12,5x |
| Eyepiece adjustment | ±8 D. |
| Magnifications | 6x \| 10x \| 16x \| 25x \| 40x |
| Field of View | 8,5x \| 14,8x \| 25,6x |
| Interpupillary distance | 41mm to 5,7mm |
| Barrier filter | 50mm to 80mm |
| Barrier filter | Yellow |

## Technical Data

| | |
|---|---|
| Slit Projection | 1X |
| Slit Width (setting continuous) | 0 – 12 mm |
| Slit length (setting continuous) | 1– 12 mm |
| Slit Length (max) | 12 mm |
| Apertures | 12, 9, 5, 1, 0.2 mm |
| Filters | Blue, Red, Gray, Green (Red free) |
| Light Diffuser | Light Diffuser |
| Background Light | Only with Digital Vision HR |
| Slit Rotation | ± 90° continuous (Tabo system) |
| Slit Angle | Variable 0° \| 5° \| 10° \| 15° \| 20° |
| Rotation - Slit projection | ±90°, angular scale, ref. on 0° and ±10° |
| Working distance | 80 mm |
| Joystick Push Button | Only with Digital Vision HR |
| Left / Right Detection | Only with Digital Vision HR |
| Voltage | 15V DC 1A |
| Light Source | White LED |
| Brightness | 248000 LUX conti nuous adjustment |
| Dimensions (HxWxD) | 675 x 313 x 335mm |
| Weight | 7 kg |

## System Requirements (Version Digital HR)

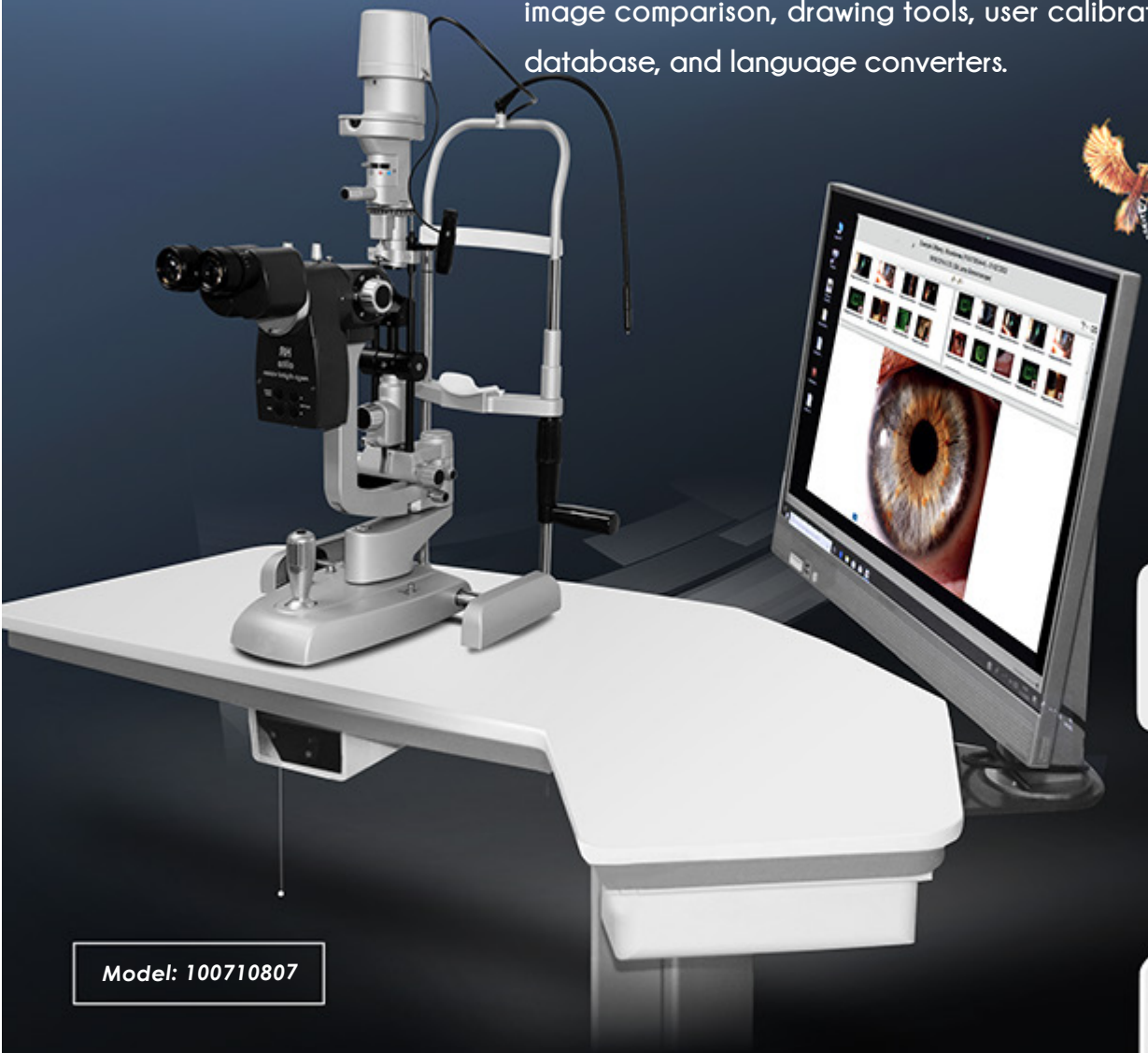
| | |
|---|---|
| PC: | 4 GB RAM |
| Video Card: | 1 GB RAM |
| Resolution: | 1024 x 768 pixels |
| USB | 3.0 Type A |
| Operati ng System | Windows XP, Windows 7 and Windows 10 (32/64 bit). |



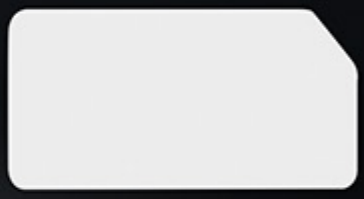
FDA

# Phoenix Software

The SL-9900 - Elite slit lamps includes a Phoenix software technology which manages to collect data, measurements, captures high quality photos and video for all conducted examinations. Also features an image comparison, drawing tools, user calibration sources, network database, and language converters.



*Viewlight Monitor Optional*



*Model: 100710805*

*Model: 100710807*

## LIFT Electrical Tables *( LIFT-01 & LIFT-02 )*

CSO sturdy and secured instrument table features an adjustable height sequence designed for 1-2 optical instrument configurations.

*Model: 100710803*

## Table Tops *( Not Included )*

All CSO surfaces of these tables are designed to be very rigid with minimum deflection so that the alignment of optical elements remains stable over time

*Accessory Drawer*

*Model: 100710801*

# NEW LIFT

## 01 & 02

## *Electrical* Tables

*Table Tops - Not Inclcude*

# LIFT *ELECTRICAL TABLES*

## Overall Features

The new ophthalmic electrical table **LIFT 01 & 02** allows to place one or more devices on its table top, whose elevation can be adjusted. The electric table is composed of an optional table top where,cogged guides are already installed for the device housing.

The “strong” design, obtained by the increasing of weight and dimension, the use of new material (no plastic), gives a modern and essential appearance.

- Power cable connection
- Cogged Wheels
- Scrolling plate
- Keyboard Connection
- Speed: 10mm/s
- Voltage: 100-240V

## Electrical Table Elevation

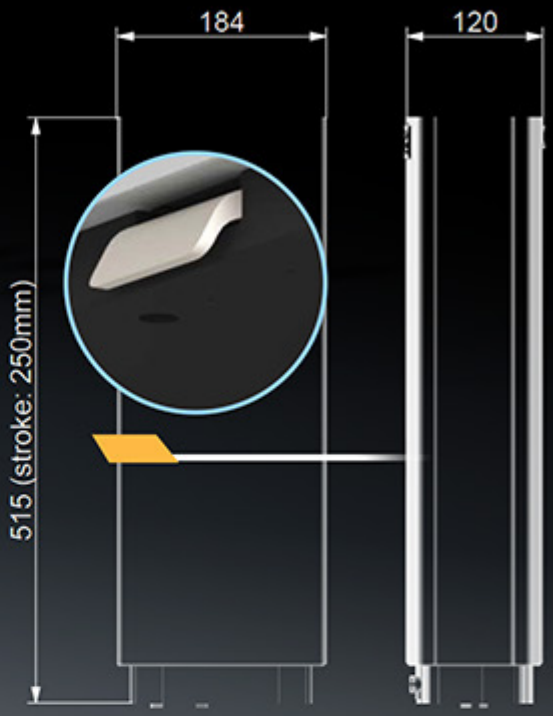



Table top elevation can be adjusted by using the keypad which operates on the elevation telescopic column.

## Smooth Transitions

Multivoltage elevation column from 100Vac to 240Vac (50Hz o 60Hz) and offers a power supply cable (German and USA plug).

*NEW*

# LIFT - 01 Electrical Table

Standard base is made by die-cast aluminum. Its weight is 6,5kg but can be increased using ballasts to fix under the base (+7kg). It is painted by anti-scratch coating. It can support feet or wheels.

- Power Cable Connection
- Cogged Wheels
- Max Thrust Load: 1400N
- Speed: 10mm/s
- Voltage: 100-240V
- Absorption Max: 1,5A


## Multi Voltage - Elevation

Multivoltage elevation column from 100Vac to 240Vac (50Hz o 60Hz) with wheels and feet power supply cable (German and USA plug) Keypad for up/down control with cable.

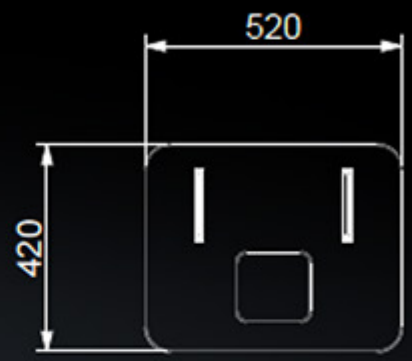
*LIFT - 01*

# Table Tops

## STANDARD DESIGN - Optional

Model: 100710801

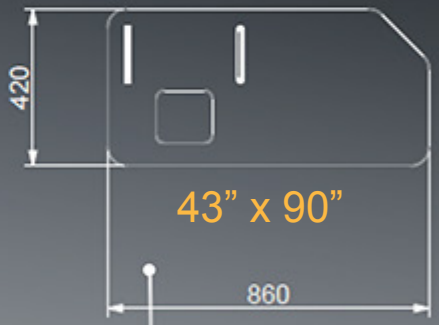
Standard base is made by die-cast aluminum. Its weight is 6,5kg but can be increased using ballasts to fix under the base (+7kg). Painted by anti-scratch coating. It can support feet or wheels.



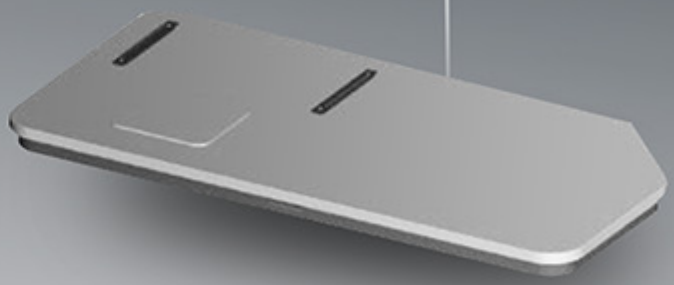

- Made out of Wood
- Tools Compartment
- Cogged Wheels
- Max thrust load: 1400N

40” x 50”

Model: 100710803




43” x 90”



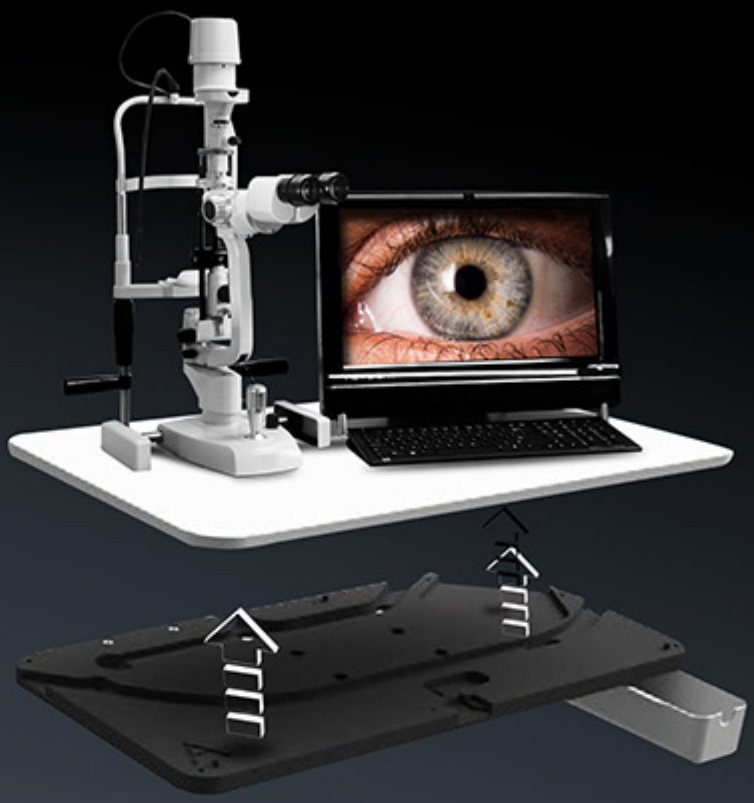
## Recommended Devices:

1. EndoThelial Microscope - Perseus
2. Topographer & Tomographer - SIRIUS
3. Aberrometer & Topographer - OSIRIS-T
4. Digital Slit Lamp - ELITE

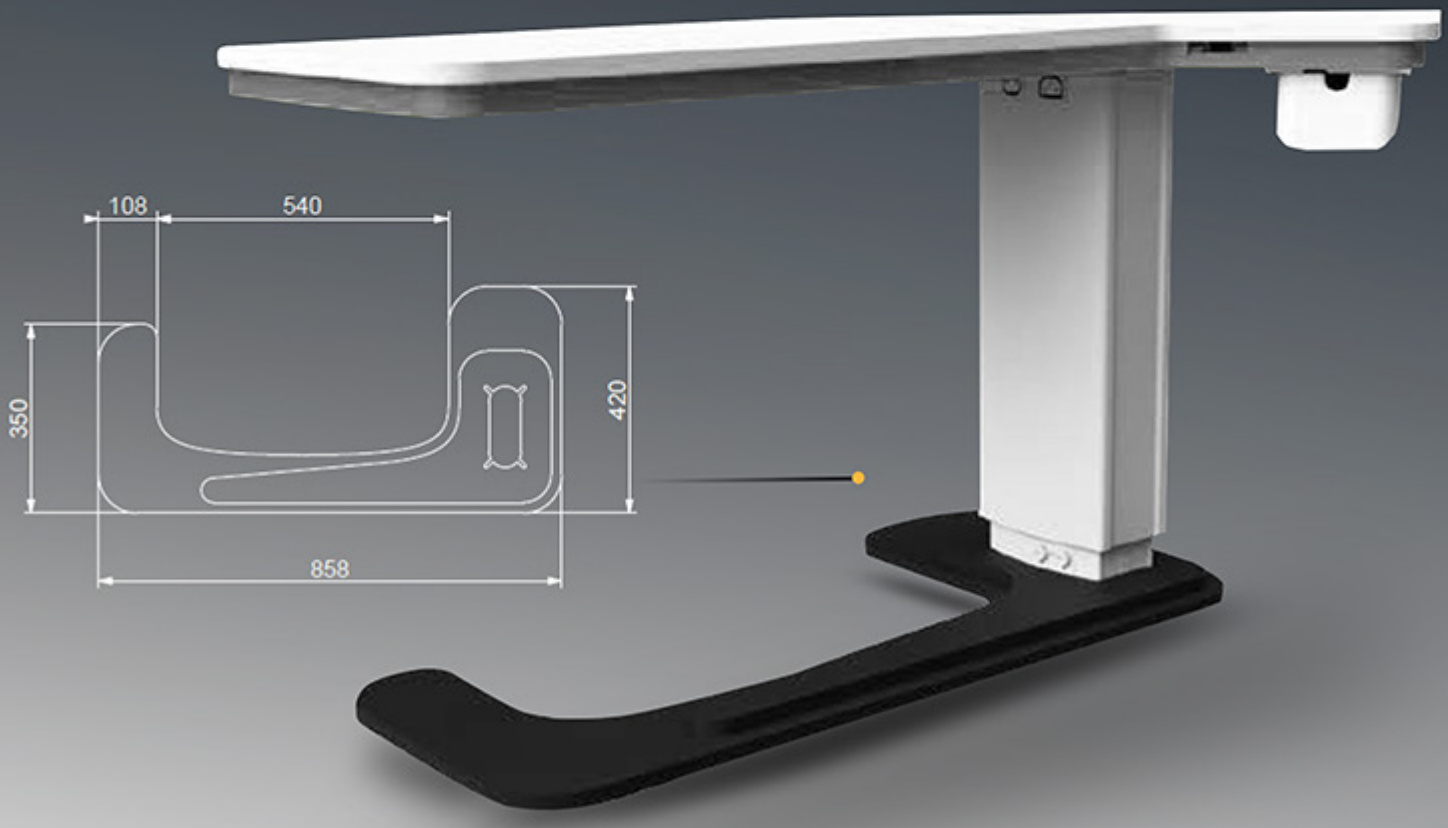
*NEW*

# LIFT - 02 Electrical Table

Lift 02 - is features a adjustable configuration, designed with metal sheets to improve a stable support for 1 or 2 instruments display. Its rugged construction and simplicity allows you peace of mind in knowing your instruments are secured on a stable platform.



1. Stability
2. Hidden cables
3. Easy to assembly
4. Anti-Scratch Coating
5. Heavy (23Kg)



## *LIFT - 02*

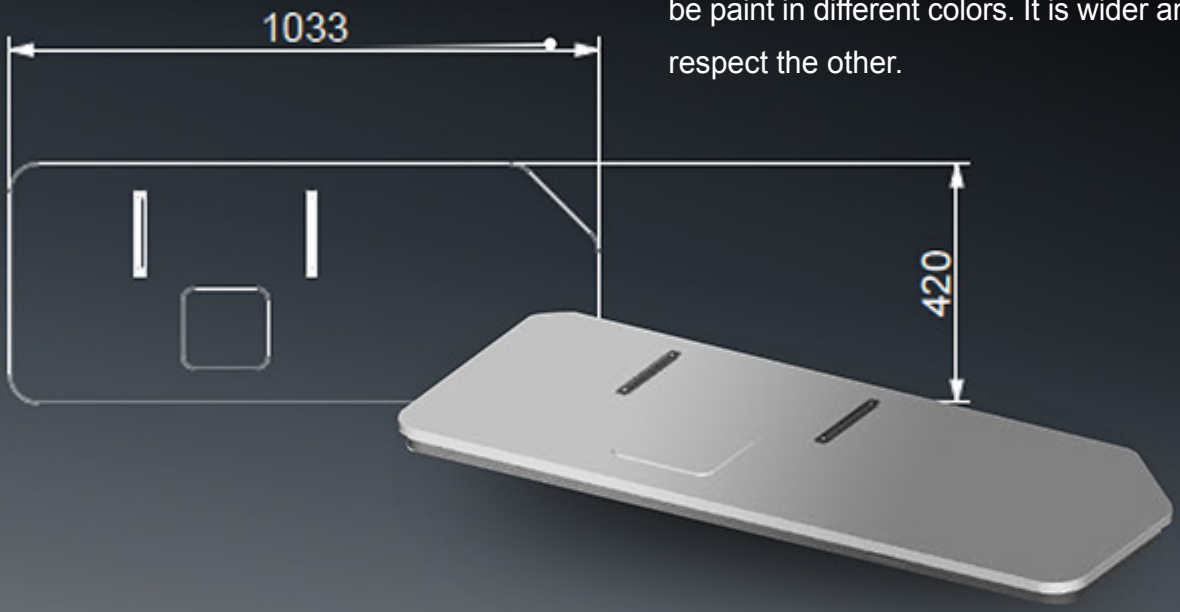
# Table Tops

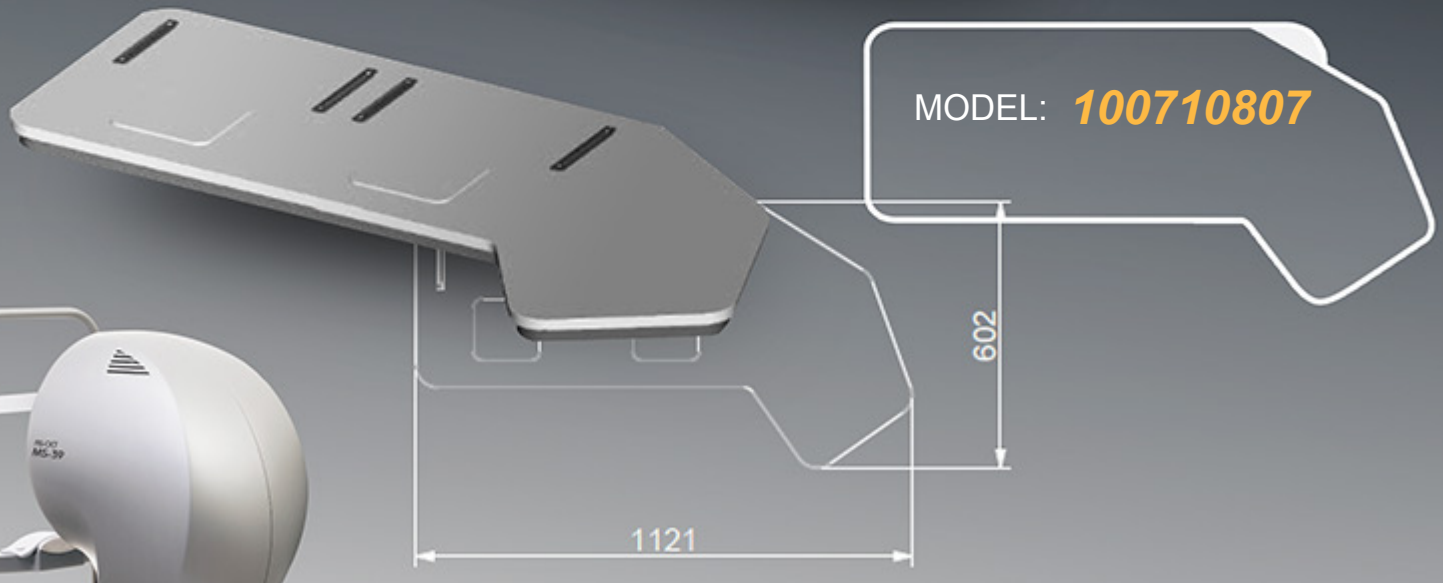
MODEL: ***100710805***

## HANDICAP DESIGN - Optional

The LIFT - 02 table tops are all composed with two different side: Top Side is assembled on the bottom side. It is painted by anti- scratch coating, and generally in white color.

Bottom Side is assembled on the colu mn. It can be paint in different colors. It is wider and stronger respect the other.




MODEL: ***100710807***

## Recommended - Devices

1. Slit Lamps SL-9900 Series
2. Topographer - Anatares
3. MS-39 Anterior Segement OCT
4. Retinal Camera - COBRA

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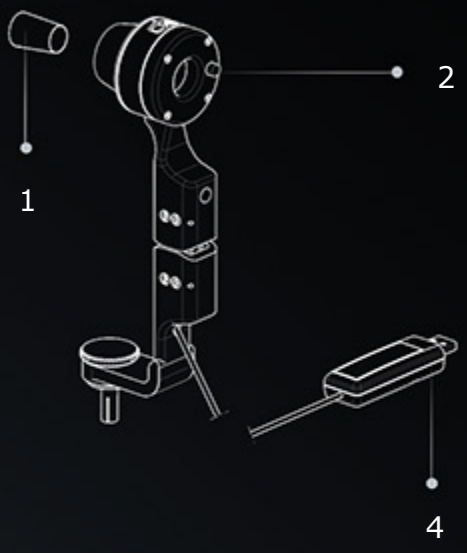
# POLARIS

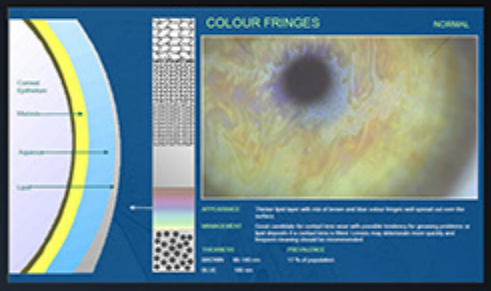
## Tear Film Analysis

# POLARIS

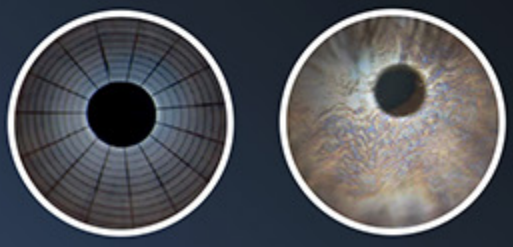
## *Tear Film Analysis*




*Tear Film Examination*

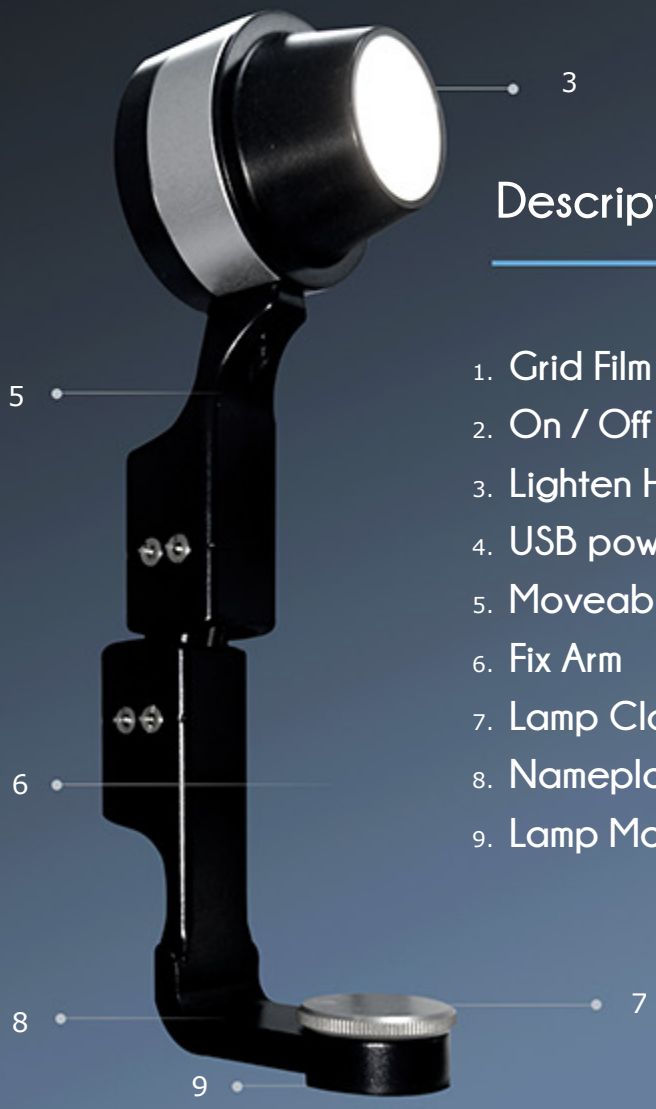



*Pupillography*



## Features:

- Polaris allows you to assess stability and regularity of the tear film, using non-invasive break up time measurement (NIBUT)
- Display and assess tear film lipid patterns
- Analyses the interference between the white light and fringes
- The 20 tilted beam splitter is an available accessory, suitable for all slit lamps models
- Evaluates tear meniscus




## Descriptions

1. Grid Film
2. On / Off Button
3. Lighten Head
4. USB power stick
5. Moveable Arm
6. Fix Arm
7. Lamp Clamping Nut
8. Nameplate
9. Lamp Mount

# POLARIS

## Tear Film Analysis

## Product Specifications

### Measurements

| | |
|---|---|
| Dimensions | 22mm (w) x217mm (l) x 74.5mm (h) |
| Weight | 300 g |
| Manual | Alignment |
| LED Lighting Source | White LED |
| Computer Connection | USB Cable |

### Notes

| | | |
|---|---|---|
| Power Supply Voltage | 5V - 100mA | |
| Operating Environment | Temperature | +10 C ~ +35 C |
| | Humidity | 30% ~ 90% RH |
| | Atmospheric pressure range 800 hPa ~ 1060 hPa | |
| Storage and Environment Condition | Temperature | -10 C ~ +55 C |
| | Humidity | 10% ~ 95% |
| | Atmospheric pressure range 700 hPa ~ 1060 hPa | |
| Shipping Condition | Temperature | -40 C ~ +70 C |
| | Humidity | 10% ~ 95% |
| | Atmospheric pressure range 500 hPa ~ 1060 hPa | |
| Vibration | 10Hz @ 500Hz, 0.5g \| Shock 30g Duration 6ms, Bumb 10g Duration 6ms, | |
| Power Supply | External power source 24 VCC In: 100-240 Vac - 50/60Hz - 0.9-05A - Out: 24Vdc - 40W | |
| Frequenzy Range | 80MHz - 800MHz | |

VIEWLIGHT
POWERED BY INNOVATION

# PERSEUS

## Endothelial Microscope


NOT SOLD IN USA

***Endothelial Microscope***

# PERSEUS

## What does PERSEUS do?

*PERSEUS is a fully automated non-contacted instrument providing analysis of the corneal endothelial while producing high definition quality and well contrasted images.*

## What type of diagnoses PERSEUS can detect?

*The endothelial microscopy is essential in the diagnosis of many corneal dystrophy, degenerative diseases of pre and post operative assessment of cataract surgery and corneal transplants.*

## What other medical features it displays?

*PERSEUS enables mapping and measurement of the endothelial cells and the acquisition of a series of parameters to evaluate the cornea's health status. See below for all relevant data:*

- *Cell density and average area*
- *Automatic focus of the endothelial layer*
- *Automatic calculation of cells centres and extensive statistical analysis based on the collected data*
- *Variance coefficient*
- *Average median error*
- *Cell size occurrence histogram*

***Endothelial Microscope***

# PERSEUS

## Mosaic Functions

*PERSEUS capture multiple images while viewing on one screen 1 central and 6 peripheral*

## Quick Acquisition of Images

*The digital CCD camera enables PERSEUS to automatically track and focus on the patients eye, taking high quality images. Simply touch the LCD screen and PERSEUS will simply do the rest.*

- *Photographic method : Contactless*
- *Photographic field: 0.54 mm x 0.27 mm*
- *Measurement accuracy: ±10 µm*

## Comparison Function

*PERSEUS application software allows the comparison of all patients so that disease progression can be properly monitored.*

## Analysis and Detection

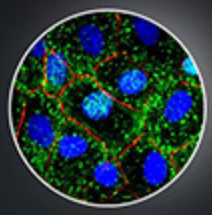
- *Allows for non-invasive non-contact examination.*
- *No risk of transmission of infectious diseases*
- *Pain-free examination not requiring local anaesthesia.*
- *Non-invasive exam of the endothelial tissue*

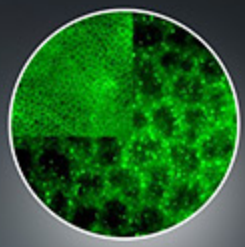

*LIFT 02*

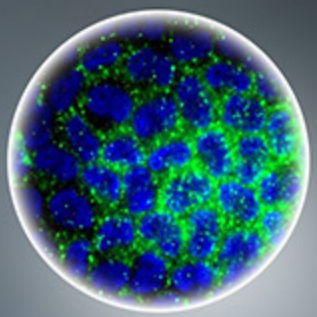
***Electrical Table*** *- Not Included*

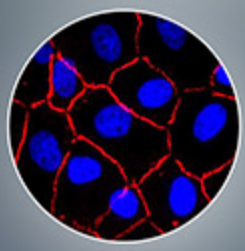
***Optional Tabletops***

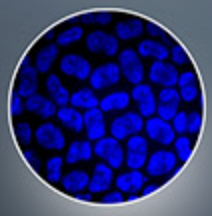
*Available Colors*











## PHOENIX - Patient Management Software

*PERSEUS application software can be connected to the Phoenix patient management platform, allowing patient data to be saved for future review and analysis.*

## Non-invasive examination of the Endothelial Layer

*PHOENIX software measures and displays a color coded map of the endothelial layer along with a set of indices based on the shape and size of cells.*

## Evaluation and Manual Editing

*PERSEUS enables single acquisition to autamically measure and counts up to 400 cells. It can also calculate the cell density, Pleomorphism , Poimegatism and Pachymetic data values.*

- *Hexagonal deviation (percentage of hexagonal cells)*
- *Cell shape occurrence histogram.*
- *Shape factor*

## *LIFT 01*

***Electrical Table** - Not Included*

***Optional Tabletops***

*Available Colors*

***Endothelial Microscope***

# PERSEUS

1. Headrest
2. Optical Unit
3. Chinrest
4. 2 USB Ports
5. Ethernet Port
6. Phoenix Software (Included)
7. 10.4" LED Touch Screen
8. Table Top (Optional)
9. Start Button


*Endothelial Microscope*

# PERSEUS

## Product Specifications


## Measurements

| | |
|---|---|
| Picture Size | 0.54mm x 0.27mm |
| Measurement Accuracy | ±10 µm |
| LCD screen | 10.4" |
| Dimension | 250mm (w) x 448mm (l) x 437mm (h) |
| Weight | 15 kg |

## Technical Data

| | |
|---|---|
| Acquisition Mode | Non-contact, Automatic |
| Camera | CCD Camera |
| Focusing Light | LED |
| Magnification | 180X |
| Pachymetry Measurement | from 400 µm - 700 µm step 10 µm increments |
| Fixation Target | Internal LED |

## Notes

| | |
|---|---|
| Power Supply Voltage | 100V-120V ac ±10%<br>230V-240V ac ±10% 50 Hz, 60Hz |
| Fuses | Mains socket unit: 5x20 mm 2x 1.25AT |
| Power Absorbed | 200 VA |
| Power Cable | Three-core cable (with protective earth), conductors minimum cross-section 1 mm^2 |
| External Plugs: | Ethernet, 2 USB |
| Max Power Absorption: | 100 VA |

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