One vision, Two sharp eyes with Our Innovation

EM-3000
SPECULAR MICROSCOPE

EM-3000 SPECIFICATIONS

Observation and analysis of corneal endothelium

Photographing method
Non-contact
Photographing range
0.5 mm x 0.5 mm
Measurement mode
Auto / Manual 1 / Manual 2
Capturing position
Center & 6 peripheral points
Cornea thickness measurement accuracy
± 10 μm

Analysis method
Automatic analysis
Analysis values
Number (the number of analyzed cells)
CD (cell density) AVG (average cell area)
SD (standard deviation of cell area)
CV (coefficient of variation of cell area)
Max (maximum cell area) Min (minimum cell area)

Histogram
Area (Polygons; Distribution by areas)
Apex (Foci; Distribution by polygonal shape types)

Main unit
Display
8.4” color LCD
Stroke of moving sections
89 mm (x axis), 40 mm (y axis), 50 mm (z axis)
Stroke of chin rest
70 mm
Data output type
Printer (A4/USB)
Dimensions and weight
308 mm x 490 mm x 453 mm; approx. 16 kg
Power source
100 VAC, 200 VAC; 50/60 Hz, 100 VA, 1300VA

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**Easy photographing using the touch alignment function**

Simply touching the center of the pupil displayed on the screen centers the image. You can then take photos immediately with the Auto Alignment and Auto Shot functions by lightly pressing the center of the screen and moving the measuring head toward the patient’s eye. Touching the eye display button automatically moves the measuring head to the other eye, so the patient does not need to move their face.

**Serial photographs of 15 shots**

15 shots can be taken in series and errors during photographing are reduced. In addition, the best image among the 15 shots is automatically selected and displayed on the screen.

**Wide photographing range and 7 capturing positions**

Our unique technology enables a wide photographing range of 0.25 x 0.54 mm and allows you to observe the endothelium over a wide range. Photos can be taken at 7 points: the center and 6 peripheral points (2, 4, 6, 8, 10, and 12 o’clock positions on a ø 6 mm arc). Because there are many photographing points, you can select the point with the best conditions even when the cornea surface is irregular. The cornea thickness is also measured at the same time.

**Quick and automatic analysis of corneal endothelium cells**

The software for automatic analysis is pre-installed, so images are analyzed automatically without using personal computers. Colorful icons and touch panel ensure easy operation for anyone.

**Various display functions**

The image of the corneal endothelium can be displayed with the cell shapes traced, as well as with different areas and structural forms of cells displayed in different colors. This provides a visual understanding of the condition of the corneal endothelium.

**Manual photographing is also available**

When automatic photographing is difficult, you take photos manually using the joystick.

**LED light source**

A long-life LED has been introduced for the photographing light source instead of the conventional xenon lamp, which requires maintenance. Regular replacement of the lamp is a thing of the past.

**USB connector for printer and LAN connector for PC**

- USB-D connector: Connected to a Pict Bridge compatible printer to print images of the corneal endothelium and analysis results.
- USB-II connector: Connected to a barcode reader or electromagnetic card reader to enter patient ID data. A digital printer may also be connected.
- LAN connector: After installing the “Data Transfer” software provided with the EM-3000 in your personal computer, inspection result files assigned a patient ID can be saved in the personal computer.