

DARKadaptometer

Description

The DARKadaptometer is a electrophysiological device connected with a USB-Port, contains a bleaching light from the white LED modul and illuminates the retina indirectly from the Ganzfeld globe. The light of the stimulation area and has two different colours: red for cones and green for rods. There is a push button for the patient. In the globe are different fixation points to have the opportunity to measure the adaptation on local parts on the retina. The fixation is observed with an integrated camera.

Specifications

- PC dependent equipment
- Maximum bleaching luminance 7000 cd/m²
- Stimulus spot colours:
red (625 nm), green (525 nm)
- 8log stimulation range: 251 to 3.98 * 10⁻⁶ cd/m²
- Fixation target brightness: 50
- Stimulus impulse with a PWM of 10 kHz
- Stimulus spot size: 2°
- Fixations: Center 5°, 10°, 20°(default), 30°

Requirements

- Operating System: Windows XP or higher
- PC Processor: 800 MHz Pentium III or better
- Computer Memory: 512 MB or more
- Screen Resolution: 1024 x 768 pixel
- Connection: USB 2.0 port

Examination conditions

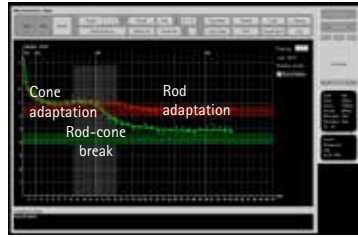
- Absolute dark room!
- Patient is not dark adapted
- Patient's eye is dilated
- One eye is covered
- Bleaching about 5 min
- Measurement 30 - 40 min

Device

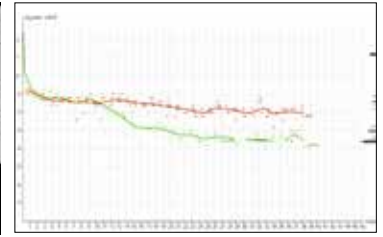
- Dimensions: 550 x 400 x 450 mm (H x L x W)
- Weight: 16 kg
- Power Supply: 115-230 V, 50-60 Hz, 1.0-0.5 A

Distributor:

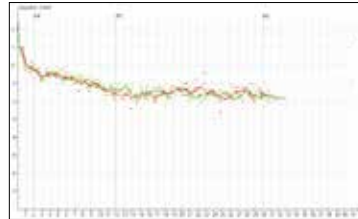
Characteristic dark adaptation curves



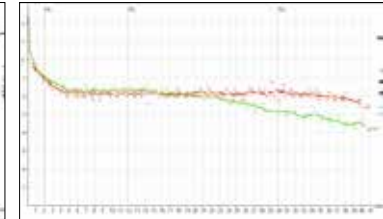
Application



Normal patient



CSNB patient

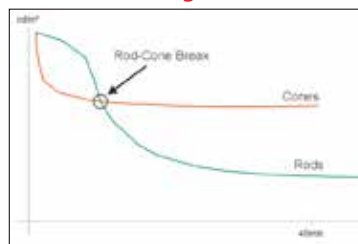


Vitamin-A deficiency

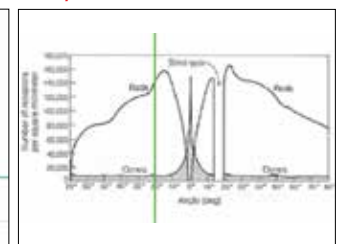


Choroideremia patient

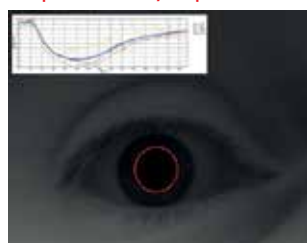
With bleaching



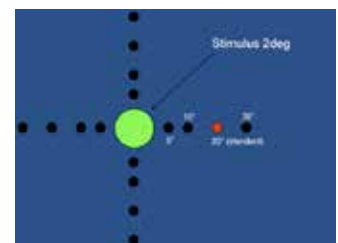
Why 20° fixation



Pupillometry Option



Patients view



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DARKadaptometer

with option Pupillometry

Hereditary retinopathies . Immune & Inflammatory eye diseases

DARK
adaptation

Metabolic disorders . Vitamin A-Deficiency . Exposure to retinotoxic agents



Certification:
Quality Management System
EN ISO 13485:2008
TÜV Rheinland CE 0197

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