

# compass



Setting the Platinum Standard in Perimetry

## The Evolution of Standard Automated Perimetry

### COMPASS brings visual field analysis to the next level: the Fundus Automated Perimetry (FAP)

Standard Automated Perimetry (SAP) is the traditional diagnostic tool for monitoring glaucoma, however it is sensitive to patient's physical and ocular movements and can therefore be unreliable in effective follow-up and treatment planning.

The COMPASS Fundus Automated Perimetry (FAP) overcomes the Standard Automated Perimetry (SAP) limitations setting a new paradigm in visual field testing.

#### Higher accuracy → **Reduced uncertainty**

COMPASS measures sensitivity at specific retinal locations with high topographic accuracy thanks to the retinal tracking which compensates eye movements during visual field examination.

#### Function-Structure → **Neural loss equals visual field loss**

COMPASS overimposes the threshold map over a 60° image of the fundus, allowing simultaneous assessment of retinal function and structure.

#### TrueColor Confocal Imaging → **The best assessment of the ONH**

COMPASS offers the advantage of a true color confocal imaging system, allowing the visualization of the retina in real color, with outstanding details of the Optic Nerve Head.

#### Automated refraction correction → **Improved patient workflow**

COMPASS facilitates operator activities and reduces wait times thanks to the autocorrection of refractive errors eliminating the need for trial lenses.

#### Clear & Comprehensive printout → **The perfect educational tool**

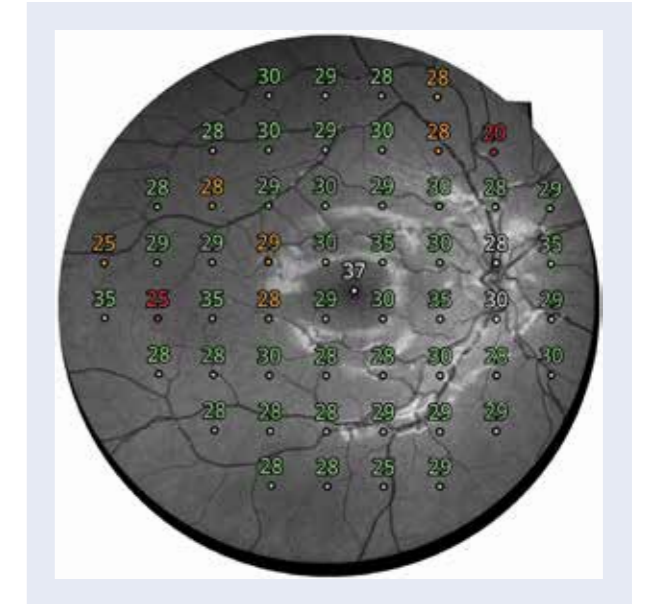
Today's patients are more involved in the diagnostic and treatment process. The COMPASS comprehensive report allows easier explanation of visual field function.

COMPASS is an automatic perimeter combined with a scanning ophthalmoscope that provides retinal threshold sensitivity as well as confocal images of the retina.

### Visual field test Compatibility with SAP

As a perimeter, COMPASS offers full compatibility with standard 24-2 visual field testing containing an age-matched database of retinal sensitivity in normal subjects.

The COMPASS 10-2 and 30-2 grids, allow eye care specialists the possibility to perform other visual field tests commonly used in glaucoma evaluation.

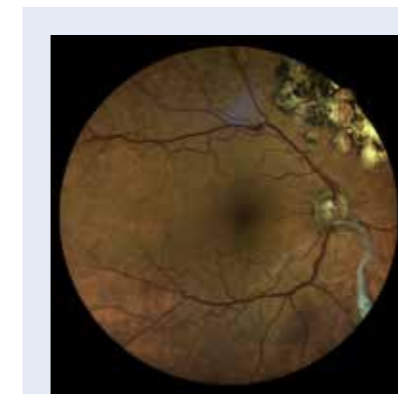


24-2 test performed with Compass

### TrueColor Confocal Imaging

#### Enhancing diagnostic and prognostic capabilities in glaucoma management

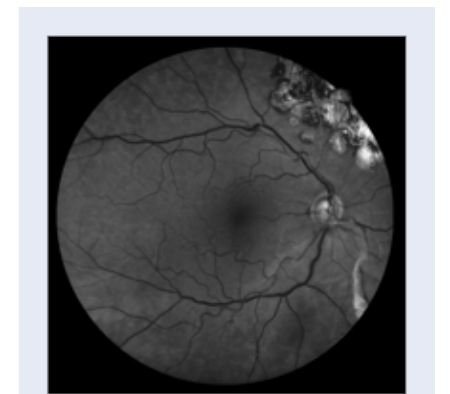
Evaluation of the fundus is crucial in a thorough glaucoma assessment. For the first time in a visual field test, COMPASS provides 60° confocal images of the retina in different modalities: TrueColor, Infrared and Red-free.



TrueColor Image



Infrared image



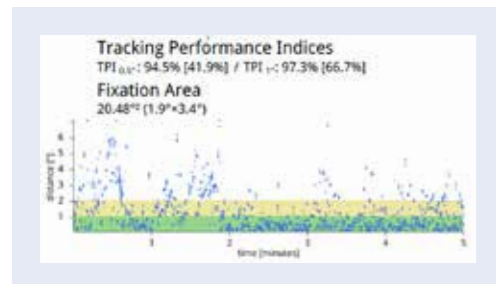
Red-free image

## Active retinal tracking

### Increased reliability in case of fixation losses

Retinal tracking is at the heart of Fundus Automated Perimetry.

Continuous, automated, tracking of eye movements yields to active compensation of fixation losses, with perimetric stimuli being automatically re-positioned prior to and during projection based on the current eye position.



Plot of patient fixation over the exam time

This mechanism is critical to ensure accurate correlation between function (i.e. retinal threshold values) and structure (fundus image).

In absence of this mechanism, any shift in eye position occurring at the time of stimuli projection would easily produce artifacts in VF results, with an inaccurate sensitivity being reported.

## Bifocal Stereo Image

### The best 3D visualization of the ONH

Glaucoma diagnosis, management and research, require complex assessments of the optic disc. 3D images of the optic nerve head (ONH) are essential tools in such evaluations.

The unique 3D Stereo View technology of COMPASS captures automatically two separate photos of the nasal field, at different angles and different focal planes (bifocal), creating outstanding 3D perception of the disc.

ONH stereo visualization: as never seen before!

- Automatic
- Ultra High resolution
- Reliable



## Easy to use

### No need for trial lenses with Automatic Refraction Correction

Traditional SAP is performed through refractive correction with trial lenses, which increases examination time and may induce artifacts. COMPASS is equipped with an automatic refractive correction system, improving patient flow.



Ergonomic and motorized chinrest design.



Touch screen interface via high resolution integrated tablet.



Patient push-button designed for improved ergonomics.



All In-one design (no external PC) with 1 Ethernet and 3 USB Ports.

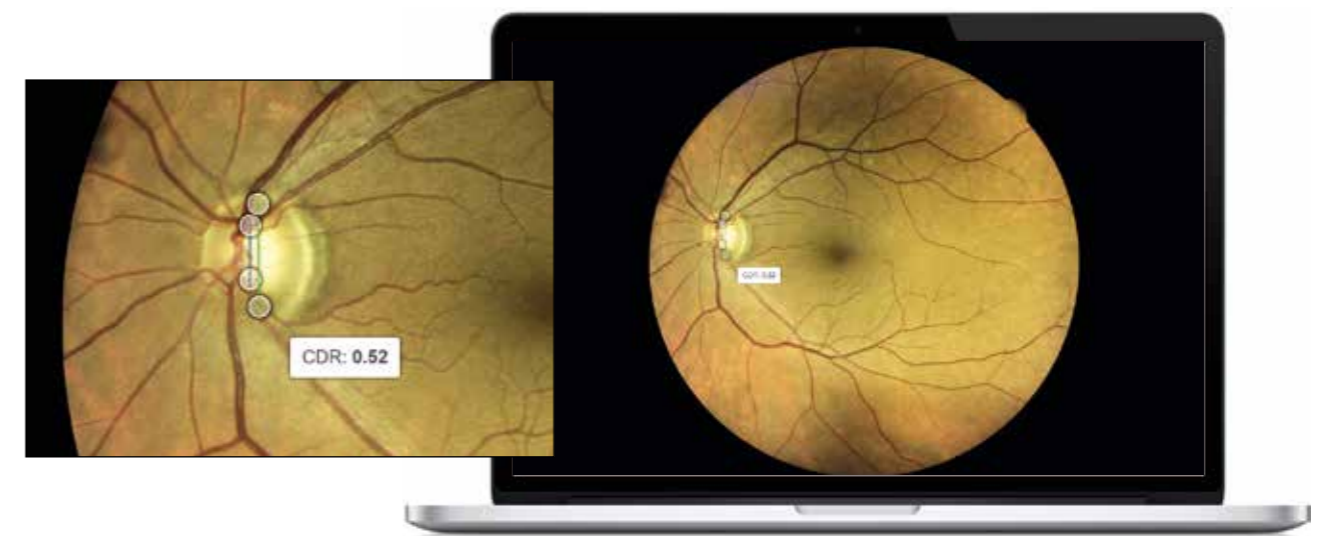
## Remote viewing software

### Seamless connectivity without the need of a dedicated application

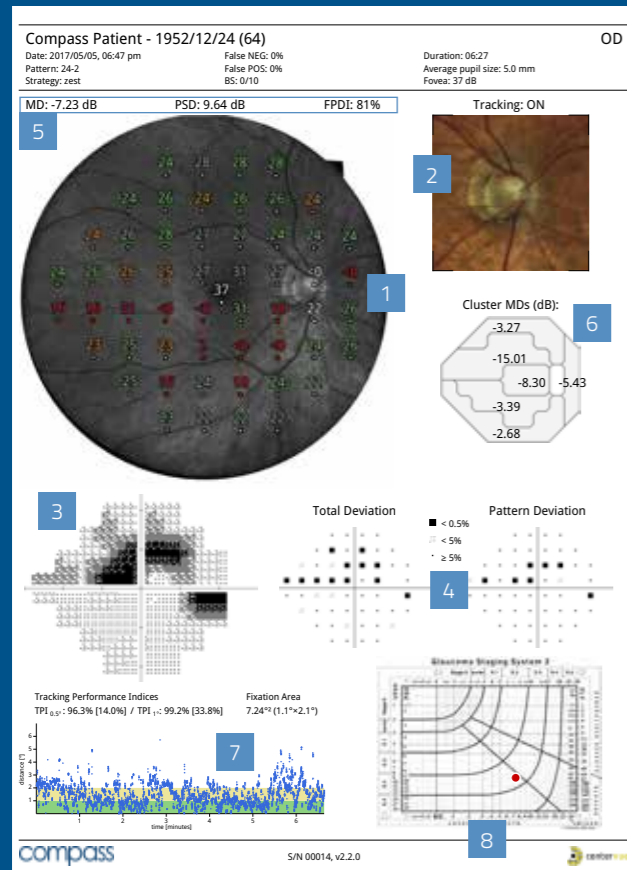
COMPASS offers embedded capabilities for network connectivity, for both remote data review and data backup. The COMPASS Remote Viewer is a browser-based software that allows for reviewing from any network computer on the same local area network (LAN), with password protection.

The Remote Viewer provides image comparison tools, anatomic measurements, post-processing tools and more.

- Images taken at different times can be registered and displayed as rapidly alternating to facilitate detection of morphologic changes over time.
- Cup to disc calculation – ratios can be measured and stored



# COMPASS Printouts

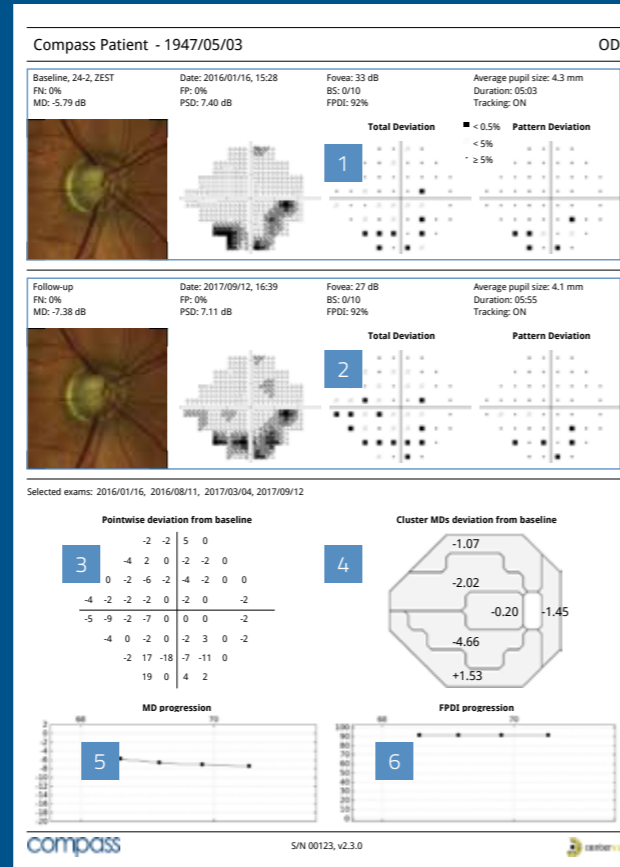


## Exam Report

- 1 Fundus Automated Perimetry (dB) over red-free image
- 2 Color image of ONH
- 3 Standard VF map
- 4 Deviation maps
- 5 Mean Deviation, Pattern Standard Deviation & Fundus Perimetry Deviation Index
- 6 Mean Deviation Cluster
- 7 Fixation plot
- 8 Glaucoma Staging Classifier

## Progression Report

- Baseline test 1
- Follow-up test 2
- Pointwise differential map 3
- Cluster differential map 4
- Mean Deviation progression 5
- Fundus Perimetry Deviation Index progression 6



## Benefits at a glance

- Combined structure and function analysis
- High test – retest repeatability
- Reliable automated follow up with combined structure-function progression report
- High-resolution TrueColor confocal imaging of the retina & outstanding 3D viewing of optical disk details
- Comprehensive VFA & fundus related reports
- Automatic refractive correction, NO trials lens required
- More patient comfort: test can be suspended at any time without data loss

## Technical specifications\*

### Class and type of applied part

1, B (according to EN 60601-1).

### Fundus Automated Perimetry:

- Projection field: 30° (radius)
- Background luminance: 31.4 asb
- Maximum luminance: 10000 asb
- Dynamic range: 0 - 50 dB
- Stimulus size: Goldmann III (26")
- Stimulus duration: 200 ms
- Test strategies: ZEST, 4-2
- Threshold tests: 30-2, 24-2, 10-2
- Suprathreshold testing
- Foveal threshold testing
- Fixation control: 25 Hz automated retinal tracking
- Automatic pupil size measurement

### Fundus Imaging:

- Field of view: 60° (diameter)
- Bi-focal Stereo Image of the ONH
- Sensor resolution: 5 Mpixel (2592x1944)
- Light source: infrared (825-870 nm) and white LED (440-650 nm)
- Imaging modalities: color, infrared, red-free
- Resolution: 17 µm

### Other features:

- Automatic operation: auto-alignment, auto-focus, auto-retinal tracking, auto-pupil tracking, auto-exposure, auto-capture
- Non-mydratric operation: minimum pupil size 3 mm
- Working distance: 28 mm
- Auto-focusing adjustment range: -12D to +15D
- Tablet operated, with multi-touch, color display
- Ethernet connection
- DICOM support, modality worklist
- Hard disk: SSD, 256 GB

### Remote Viewer:

- Manual cup to disc calculation (on color picture)
- Imaging Flickering

### Dimensions:

- Weight: 25 Kg
- Size (WxDxH): 360mm x 620mm x 590mm

### Electrical requirements:

- Power: 100-240 VAC, 50-60 Hz
- Consumption: 80 W

\* Specifications are subject to change without notice for improvement.



# compass

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