COAS-HD™ Model 2800
High Definition Wavefront Aberrometer

Based on patented Shack-Hartmann wavefront sensing technology with the bloodlines of the original R&D100 award winning Complete Ophthalmic Analysis System™ (COAS™), AMO WaveFront Sciences COAS family of precision aberrometers provides unparalleled accuracy, range, and resolution for ophthalmic research. The Model 2800 (2800 is the number of samples in a 9.5mm pupil) extends the capability of wavefront-based ophthalmic metrology and gives the physician an ultra-detailed map of the eye.

The 2800's wavefront maps are reconstructed directly from the sensor array without mathematical interpolations or smoothing. While the competition is content to use sensors that only support 4th order Zernike reconstructions, the entire COAS™ family provides data to 10th order and higher, while the 2800 provides reconstructions equivalent to 25th order. The 2800 has sufficient resolution to provide on-screen displays of stria, corneal scarring, flap folds, cataracts, incipient kerotaconus, and advanced keratoconus.

The 2800 accurately characterizes up to 10 diopters of astigmatism throughout the spherical range of +7 to -15 diopters. Pupil diameters as large as 9.5mm are measureable. The combination of large pupil diameter and cylinder range means the 2800 can easily measure patients that other aberrometers simply can't. The 2800 can measure all patients.

Ophthalmic researchers now can collect and analyze data previously not available. The 2800 provides clinicians with unique insight into proper treatment protocols and unexpected outcomes. Biomechanical characteristics can be seen by the 2800 that simply can not be seen by any other instrument. As with the entire COAS™ family, the COAS-HD™ software is fully automated, flexible, and can be customized to the user's application. The 2800 combines the lessons in AMO WaveFront Sciences LLCs' pioneering work in ophthalmic aberrometers with state-of-the-art sensor technology. If you need the very best data for research or treatment analysis, you need the COAS-HD™ Model 2800.

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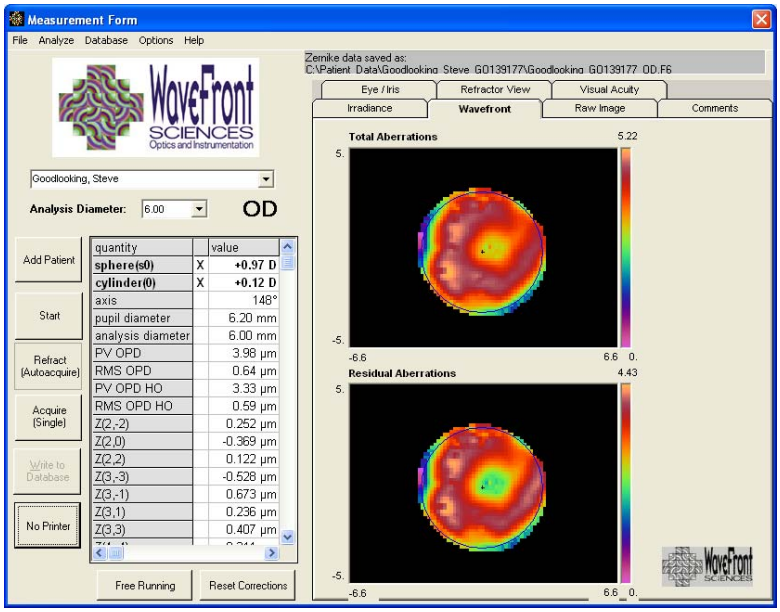
AMO WaveFront Sciences Precision Aberrometers™			
Specification	**Measurement Unit**	**COAS™**	**COAS-HD 2800™**
Array Resolution (effective lenslet pitch)	Microns	210	158
Samples in pupil diameter of:	Unit		
7.0 mm		872	1541
9.5 mm		N/A	2837
Maximum Measurable Pupil Diameter	Millimeters	7.2	9.5
Sphere Range	Diopters	-17 to +7	-17 to +8
Accuracy	Diopters	±0.15D in the range: -14 to +7D ±0.5D in the range: -17 to -14D	±0.15D in the range: -15 to +8D ±0.5D in the range: -17 to -15D
Cylinder Range	Diopters	±3.0	±5.0
Accuracy	Diopters	better than 0.05 using test lenses	better than 0.05 using test lenses
Axis Accuracy	Degrees	±2 degrees	±2 degrees
Wavefront Accuracy	Microns	0.05 RMS	0.05 RMS
Repeatability			
Sphere	Diopters	0.02 scan to scan using test lenses	0.02 scan to scan using test lenses
Cylinder	Diopters	0.02 scan to scan using test lenses	0.02 scan to scan using test lenses
Visual Stimulus	Diopters	fogged at 1.5D	fogged at 1.5D



High Definition Wavefront Map of Corneal Scarring

Specifications are subject to change without notice.