

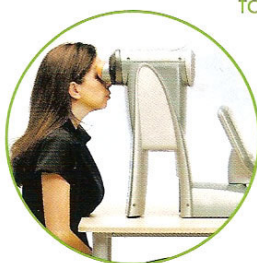
## THE Z-VIEW™ ABERROMETER

Working closely with Eye Care Practitioners, Ophthonix® developed the Z-View Aberrometer (non-Hartmann-Shack) based on a holographic grating design. The result is a compact, flexible instrument that performs like a high-end surgical aberrometer, but at a fraction of the cost. The Z-View Aberrometer allows you to obtain objective wavefront measurements via through-the-lens optics, virtually eliminating instrument myopia. Besides the conventional sphere, cylinder and axis, the Z-View Aberrometer also separately measures high order (3rd – 6th) aberrations, enabling the production of customized iZon™ Wavefront-Guided Lenses.



### HOW IT WORKS

Using binocular optics, the patient looks at either an internal fixation target or external target (practitioner's choice). As the patient focuses on the target, the Z-View Aberrometer sends a painless, invisible, low-power laser beam into the patient's eye and onto the retina. The beam is then reflected out of the eye, and is detected and analyzed to capture the wavefront measurements. In approximately one minute, the Z-View Aberrometer determines the patient's optimal prescription, both low and high order.



### UNIQUE Z-VIEW FEATURES

- ▣ Internal or external target options
- ▣ Wide dynamic range
  - -12.0 D to +11.0 D sphere
- ▣ Pupil diameter measurement
- ▣ Pupillary distance measurement
- ▣ Automatic pupil capture
- ▣ High accuracy
  - R² of 0.988 with manifest refraction from -11.0 D to +5.0 D
- ▣ Highly repeatable
- ▣ Small and transportable – 12" x 24"
- ▣ Resolution: >11,300 points over 6 mm pupil
- ▣ Integrated normative database and algorithm to identify iZon Wavefront-Guided Lens candidates



# iZon WAVEFRONT-GUIDED LENSES

Ophthonix uses a digital prescription, its patented iZonik™ material and its proprietary design to produce iZon Wavefront-Guided Lenses.

This patented process literally builds lenses point by point (much as how a CD is programmed) to specifically match a patient's "Eyeprint".

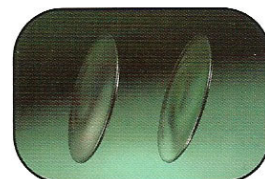
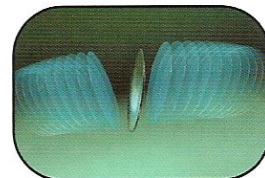
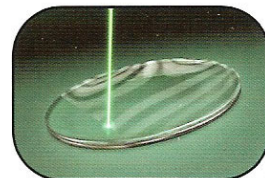
Unlike other technologies, the refractive properties which result from the Ophthonix process correct for both low order sphere, cylinder and axis to better than 0.10D and also high order aberrations of the eye such as coma, trefoil and spherical aberration.

Patented iZonik programmable and photo-refractive polymer is sandwiched between front and back surface blanks. This creates a multiple composition layer of the lens.

This proprietary composition allows Ophthonix to incorporate the wavefront measurements from the Z-View Aberrometer onto the lens.

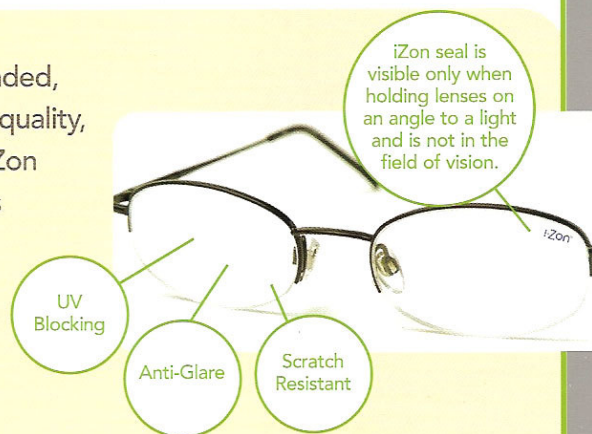
iZon Lens is 1.6 index with anti-reflective, UV-Blocking, scratch resistant and hydrophobic coatings.

Final iZon Lens is thin and lightweight just like conventional high-index lenses on the market today.



The iZon Wavefront-Guided Lens is a fully loaded, customized spectacle lens that improves the quality, not just the acuity, of a patient's vision. The iZon logo is programmed into the proprietary lens material as a seal of authenticity.

Please contact Ophthonix to determine the availability of iZon Lenses in your area.



## iZon Wavefront-Guided Lenses vs. CONVENTIONAL LENSES<sup>†</sup>

Among both myopes and emmetropes, the iZon Lens exhibits a superior clinical performance over conventional lenses for visual acuity, low contrast visual acuity and contrast sensitivity.

### CLINICAL RESULTS

- Statistically significant difference ( $p < .05$ ), iZon Lenses over conventional lenses.
- Difference is not statistically significant ( $p > .05$ ).

<sup>†</sup> Data on file.

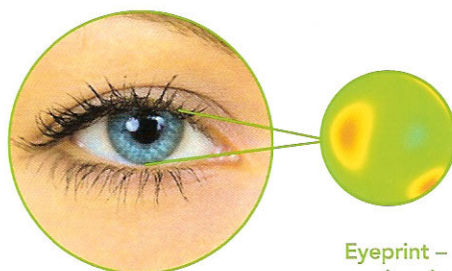
	MYOPES	EMMETROPES
VISUAL ACUITY	●	●
LOW CONTRAST VISUAL ACUITY	●	●
CONTRAST SENSITIVITY		
Low spatial frequency (3 c/d)	○	○
Mid spatial frequency (6 c/d)	●	●
Mid spatial frequency (12 c/d)	○	○
High spatial frequency (18 c/d)	●	○



## THE PRESCRIPTION AND EYEPRINT

The Z-View Aberrometer provides a customized, comprehensive prescription which includes the conventional sphere, cylinder and axis, and also high order (3rd-6th order) aberration measurements.

A detailed "Eyeprint" – an optical map of the unique microscopic irregularities of each eye – is also produced. The Eyeprint indicates the presence of high order aberrations that impact the quality of the patient's vision.



As with fingerprints, no two Eyeprints are alike.

Eyeprint – an eye's unique optical map.

The Z-View Aberrometer also incorporates a proprietary algorithm that processes all low and high order refractive measurements to determine if the patient is a good candidate for the iZon Lens.

### HOW IT WORKS

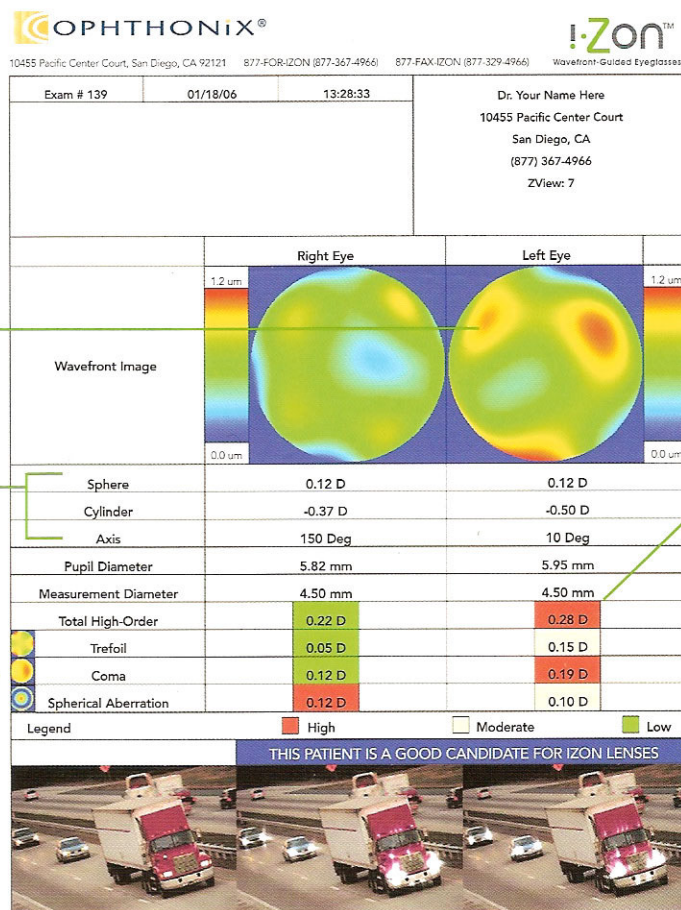
The Eyeprint – with its total prescription (low and high order) is embedded into a digital bar code and forwarded to the Ophthonix lab where iZon Wavefront-Guided Lenses are manufactured.

### PATIENT EYEPRINT

Wavefront map for each eye indicating the presence of high order aberrations

Traditional sphere, cylinder and axis for right and left eye

Graphic definition of trefoil, coma and spherical aberrations



High order aberrations converted to diopter equivalents and then color coded for low, moderate and high readings

Message indicating patient is a good candidate for the iZon Lens based on computerized algorithm

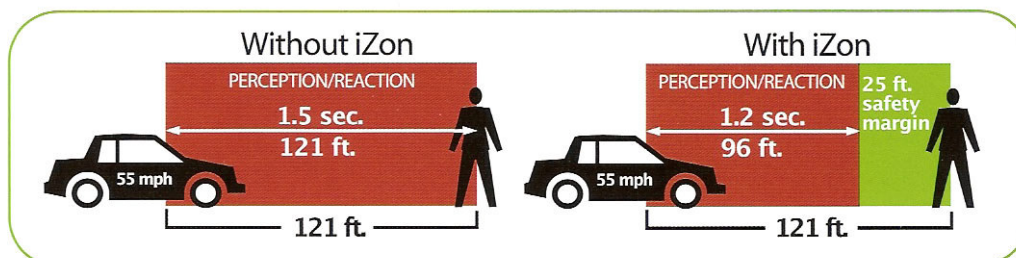
Computerized simulation of patient's vision corrected for high order, compared to uncorrected high order in each eye



## HIGH-DEFINITION VISION DAY & NIGHT

In FDA validated simulated nighttime driving tests, iZon Wavefront-Guided Lenses significantly improved nighttime driving performance over conventional lenses.

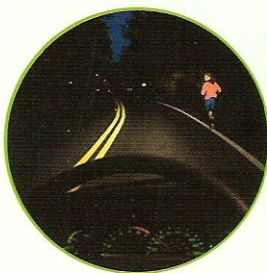
iZon Lenses performed exceptionally well in glare conditions. Travelling at 55 MPH, wearers were able to detect, recognize and react to a potential hazard 3/10ths of a second and 25 feet faster.\*



Derived from data from NHTSA "Driving at Night Can Be Deadly".

This 25 foot safety margin is greater than two car lengths, roughly the distance across an intersection or possibly even the difference between life and death.

N=29



"I recommend iZon Lenses to all my patients who complain about difficulty driving at night. The lenses correct high order aberrations reducing glare and increasing contrast. When I prescribe iZon Lenses I feel as though I am giving my patients an extra margin of safety."

**Dr. Daniel Quon**  
South Coast Optometry  
Costa Mesa, CA

### iZon LENS PATIENT PROFILE

iZon Wavefront-Guided Lenses are currently available in single vision lenses for the correction of myopia and mild astigmatism.

Ideal patients are typically adults who:

- ☐ wear glasses as their primary form of vision correction.
- ☐ are contact lens wearers and also have a need for glasses.
- ☐ are new to vision correction.
- ☐ desire high precision with their vision to enhance various lifestyle activities.



Patients  
prefer  
iZon Lenses  
3 to 1\* over  
conventional  
lenses.

\* data on file.

To aid in identifying ideal iZon Lens candidates, the Z-View Aberrometer includes an advanced proprietary algorithm. Approximately half of all patients in an average practice fit the optimal profile.

**iZon™**



Ophthonix is leading the way using wavefront-guided technology to create a fully integrated vision correction solution, from refraction through lens manufacturing.



Wavefront-guided technology is used successfully everyday in LASIK and PRK procedures. Now, Ophthonix has taken this technology to a new frontier for dispensing practices. Its integrated vision correction solution is the first to use wavefront technology to measure low order and high order aberrations of the eye, allowing for highly precise prescriptions and customized iZon Wavefront-Guided Lenses.

#### PRACTICE BENEFITS

- The only lens to correct for the unique aberrations of the eye itself, means superior vision results for your patients
- Enhanced exam diagnostics and improved through-put with the Z-View™ Aberrometer
- Customized iZon Lens solution reinforces patient relationship
- High order aberration correction will change over time, resulting in increased patient compliance with regular eye exams

"I've been in practice 25 years and I've never seen the type of excitement in a lens product that I have with the iZon Lens. Patients always call us back and they say this lens is phenomenal, it's very sharp, it's crisp, and it has a big Wow factor."

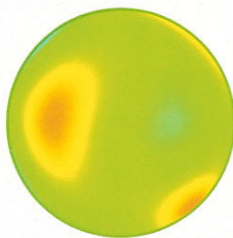
*Dr. Greg Evans  
Palm Desert, CA*

## THE OPHTHONIX WAVEFRONT-GUIDED VISION CORRECTION SOLUTION. THREE PROPRIETARY TECHNOLOGY PLATFORMS.



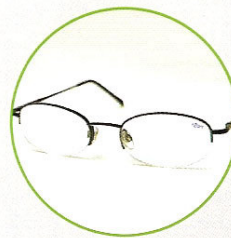
#### Z-View Aberrometer

A highly accurate wavefront-guided refraction conducted in about one minute.



#### Total Prescription (Eyeprint)

Includes low order and high order measurements, digitally embedded in a bar code and sent to Ophthonix.



#### iZon Wavefront- Guided Lenses

Manufactured to the patient's unique Eyeprint.

**iZon™**