

## Give Your Patients the Most Precise Vision Available.

In addition to incorporating each patient's unique visual behaviors into the design, Varilux Ipseo IV™ goes one step further with W.A.V.E. Technology 2™.

### W.A.V.E. Technology 2: Unsurpassed Visual Performance

W.A.V.E. (Wavefront Advanced Vision Enhancement) Technology 2 has a powerful impact on patients' overall quality of vision.

By analyzing the entire wavefront, lens designers can calculate targeted optical functions for each point and each gaze direction.

The result of these complex analyses is a lens design that reduces or eliminates higher order aberrations, resulting in unsurpassed visual performance.

#### W.A.V.E. Technology 2 Lens Wearers Enjoy:

- Safer, more confident night driving
- Less strain during low-light reading, television and computer usage
- Reduction of swim and ease of adaption

## The DualOptix™ Difference

Varilux Ipseo IV also offers the advanced technology of Essilor's DualOptix.

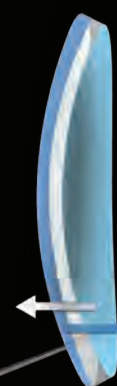
With DualOptix two progressive surfaces work together to modify and control distortions.

On lenses with a one surface design, the curvature of the lens is directly linked to the lens power, which gives rise to distortions.

#### The DualOptix Advantage

- Greater precision and accuracy of surfacing
- An unlimited ability to customize patients' visual demands
- Infinite ability to improve lens design

DualOptix™ uses both sides of the lens to optimize vision even more.



## Measurement Requirements

- Head/Eye Movement
- Pantoscopic Tilt\*
- Wrap Angle\*
- Vertex Distance\*

## Measurement Options

Varilux Ipseo IV™ Measuring Chart	Visioffice®	VisionPrint™	Varilux Measuring Tool
Head/Eye Movement	✓	✓	
Pantoscopic Tilt*/Wrap Angle*/Vertex Distance*	✓	✓	✓
eyecode™ lenses	✓		

\* default measurements available

### The Visioffice System

Essilor's Visioffice delivers the most precise, individualized measurements for your patients. It's an all-in-one measuring system that offers a full range of measurements unique for every patient.

### Vision Print System

The Vision Print System provides the measurements necessary to individualize Varilux Ipseo IV lenses. It takes into account head and eye movement – to create a "print" of the patients visual habits.

Varilux Ipseo IV also allows you to also factor in fitting parameter options to further enhance the lens performance.

## Materials and Range

1.5 Clear & Transitions® VI lenses (Gray)	-10.00 / +6.00	Cyl 6.00	Add .75 to 3.50
Airwear® Clear & Transitions® VI lenses (Gray)	-10.00 / +6.00	Cyl 6.00	Add .75 to 3.50
Thin&Lite® 1.67 Clear & Transitions® VI lenses (Gray/Brown)	-12.00 / +9.00	Cyl 6.00	Add .75 to 3.50
Thin&Lite® 1.74 lenses	-14.00 / +9.00	Cyl 6.00	Add .75 to 3.50

All Varilux Ipseo IV lenses come with Crizal Avancé™ with Scotchgard™ Protector or Crizal® Alizé® anti-reflective technology.

### Variable Progression Length

Varilux Ipseo IV offers a wide range of progression lengths. Choose between 14, 16 and 18mm.



For more information contact:  
Luzerne Optical Laboratories, LTD at 800-233-9637  
or on the web at [www.LuzerneOptical.com](http://www.LuzerneOptical.com)

Varilux Ipseo IV™  
now with W.A.V.E. Technology 2™  
NO LENS HAS EVER BEEN CREATED LIKE THIS BEFORE

**VARILUX**  
Ipseo®

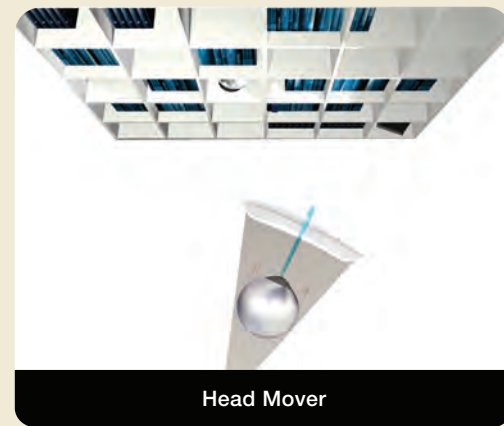
DualOptix™

W.A.V.E. 2™

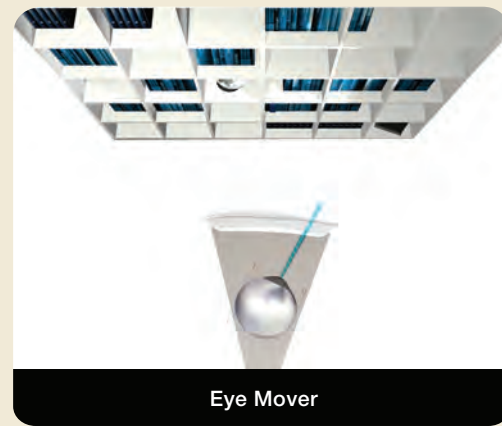
**VARILUX**  
Ipseo®

## No Lens Can Provide the Individualized Visual Experience of Varilux Ipseo IV™ Lenses with W.A.V.E. Technology 2™

Since their inception, Varilux® Ipseo® lenses have taken into account your patients' unique pattern of visual behavior. In fact, they are the only lenses to incorporate your patients' distinct pattern of head and eye movement. (see image below)



Head Mover



Eye Mover

The visual experience Varilux Ipseo IV lenses represent is the pinnacle of Varilux lens technology. Now, Varilux has improved upon this technology by adding the power of W.A.V.E. Technology 2 and DualOptix™.

### Sharper Vision – In Any Light

Varilux Ipseo IV has taken individualized vision to another level. With new W.A.V.E. Technology 2, you can further customize lenses for your patients.

With the ability to reduce aberrations by managing distortions, W.A.V.E. Technology 2 gives patients better visual contrast in low light. This has a powerful impact on patients' overall quality of vision giving them the sharpest vision at all distances and in any light condition.

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Wearers enjoy crisper, clearer, and sharper vision than ever before.

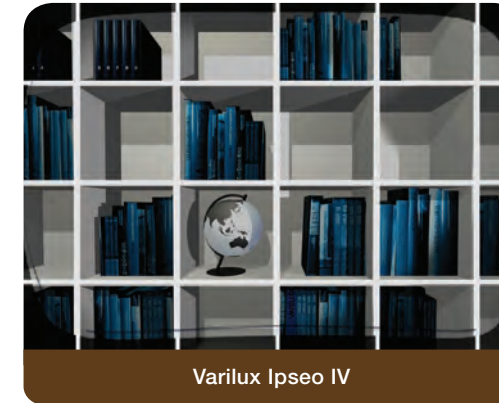
## The Only Lens with the Image Stabilizer

No other design utilizes the interactive relationship of the front and back surfaces of the lens like Varilux Ipseo IV™ with W.A.V.E. Technology 2™. Through the DualOptix™ process, the Image Stabilizer is created. The Image Stabilizer optimizes benefits for both head movers and eye movers.

### Less Swim



One-Surface Lens



Varilux Ipseo IV

### Greatly Reduced Swimming Effect for Head Movers

Because of the way they behave visually, head movers often contend with the swimming effects caused by optical aberrations inherent to previous one-surface lens designs.

With the Image Stabilizer, front and back surfaces work together to reduce optical aberrations in a way not possible on one-surface lenses. **The result: greatly reduced swim or blurring of the image.**

### More Magnification



One-Surface Lens



Varilux Ipseo IV

### Significantly Enhanced Magnification for Eye Movers

Because their eyes sweep over the entire breadth of the lens, eye movers contend with image displacement deviations in standard progressive lenses. Shape deformations modify the appearance of the image, which may appear smaller or bigger, twisted or delocalized, compared to the object viewed.

The Image Stabilizer allows the front and back surfaces to interact to enhance magnification. **The result: minimized retinal image displacement when the eyes move.**

## Live Optics: A Foundation for Superior Lens Design

To meet the highest level of performance and achieve a superior lens design, Varilux® lenses go through a process called Live Optics.

**Step 1a – Human Vision** Exploring systematically the eye/brain link by drawing on fundamental research in optics and physiology and using virtual reality techniques.

**Step 1b – Varilux Virtual Reality** Only Varilux adds this step, allowing many lens designs to be tested BEFORE real-world testing.

**Step 2 – Computing** Transforming physiological data into optical design, using 3D wavefront optimization technology.

**Step 3 – Prototyping** Prototyping lenses and controlling quality.

**Step 4 – Wearer Testing** Testing of the lenses, using double-blind methods and final adjustments on patients.



## The Result: A High Level of Performance

### Designed With Patients In Mind

Your patients have a routine for viewing peripheral objects. Some patients tend to move their heads more, while others move their eyes more.

A patient's unique combination of these behaviors affects the demands they place on a pair of lenses: the need of reduced peripheral distortions for head movers or wider fields of vision for eye movers. Varilux Ipseo IV™ lenses with W.A.V.E. Technology 2™ are optimized to meet these specific demands.

Using a Virtual Simulator, multiple projections within an enclosed space can show the world as it would appear through lenses that do not yet exist.

Varilux virtual reality produces an image of a scene in 3D. The optical properties of the test lenses can be varied, and the user's experience assessed simultaneously.

