

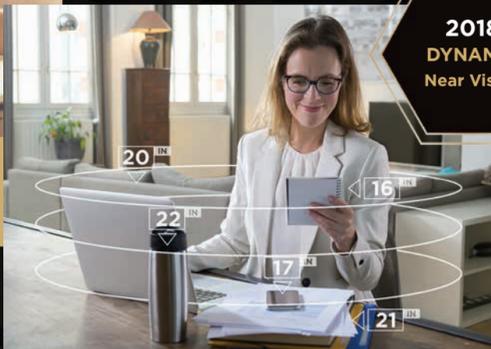
# TODAY'S PRESBYOPE NEEDS TO SEE MULTIPLE DISTANCES WITHIN ARM'S REACH

1990  
STATIC  
Near Vision



A Single Distance:  
16 in

2018  
DYNAMIC  
Near Vision



Multiple Working Distances  
Sphere at Arm's Length: 16 to 28 in

## ESSILOR R&D CREATED NEW TOOLS TO MEASURE TODAY'S NEAR VISION NEEDS

Essilor R&D developed new tools and methodologies to quantify the modern presbyope's dynamic near vision needs. For example, Essilor created the **Movis™** lab, a new state of the art facility that captures data by monitoring and analyzing progressive lens wearers' movements and posture both in real time and in 3D. Essilor even had wearers make video selfies to show the day-to-day situations modern presbyopes encountered with their progressive lenses.

VARILUX® X series™

THE MOST ADVANCED VARILUX® LENS. EVER.

No other progressive lens on the market has the technology found in *Varilux X Series* lenses.

This innovation is the result of:

- » 5 years of research and development
- » 19 studies among thousands of wearers
- » 15 pending patents

“*Varilux X Series* lenses are by far the most natural and comfortable progressive lens I have ever tried. No looking for ‘just the right the spot’ and there is no unnatural vision in any part of the lens. I am pretty critical when it comes to my vision. I give the *Varilux X* an A+.”

- Harkins & Karsten, OD

*Varilux X Series* lenses also include:



Better Sight.  
Better Life.

Transitions™

Crizal®

VARILUX®

Eyezen™

Xperio™

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VARILUX® X series™



THE SCIENCE BEHIND  
VARILUX® X SERIES™

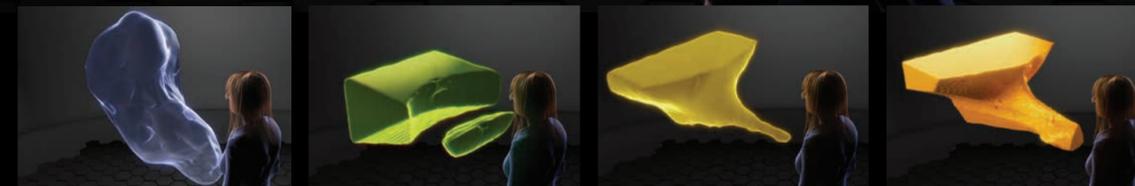
# INNOVATION.

Truly groundbreaking products come from constantly reimagining how to meet consumers' needs. This consumer-focused approach to innovation led Essilor to a better understanding of today's presbyope and a new way of designing progressive lenses. Today's presbyopes spend most of their time with arm's length activities and thus, the way to measure their near vision needs had to evolve.

VARILUX® X SERIES™

## A NEW APPROACH TO PROGRESSIVE LENS DESIGN

Essilor was able to quantify the **Volume of Vision** needed by today's presbyope; this is a brand new measure that has never been defined for a progressive wearer until now. By measuring the acuity necessary to see sharply during multiple important arm's length tasks, Essilor R&D was able to model and define the total space where a patient wearing progressive lenses most needed to have sharp, clear vision. Put simply, Essilor was now able to design a progressive lens that maximizes the range of sharp vision needed at arm's length.



Area needed for sharp vision within arm's length

Bifocal Lenses

Ordinary Progressive Lenses

Varilux X Series Lenses

## XTEND® TECHNOLOGY MAXIMIZES THE VOLUME OF VISION FOR TODAY'S PRESBYOPE

Maximizing the volume of vision delivered by a lens led Essilor to completely reinvent how to design a progressive lens. *Xtend* technology is a result of this **new design philosophy** and resulted in exclusive software calculations that were so innovative that Essilor was able to file **15 patents** on this new process.

FOUND ONLY IN *VARILUX X SERIES* LENSES, *XTEND* TECHNOLOGY ALLOWS THE WEARER TO:

- See multiple distances through any point in the near and intermediate zones of the lens
- Experience reduced head movement
- Have a better overall visual experience