

Introducing New State-of-the-Art Technologies

IOT Digital Ray-Path 2 Technology

What is IOT Digital Ray-Path 2 Technology?

IOT Digital Ray-Path 2 is a new foundational technology for free-form digital lens designs. This technology is patent pending and only available from IOT.

How is IOT Digital Ray-Path 2 Technology an improvement over Digital Ray-Path?

IOT Digital Ray-Path 2 Technology allows for the intelligent use of the wearer's own accommodation within the calculation methodology. In other words, in addition to taking the physical elements of the position and rotation of the eye relative to the lens into account, we now also consider the eye's natural ability to accommodate or change focus. Patient benefits of this new technology include drastically reduced oblique aberrations across the entire visual field, greater comfort, and impeccable visual quality.

Digital Ray-Path Technology

Digital Ray-Path Technology minimizes aberrations in personalized lenses to provide improved visual quality at a specific distance associated with each direction of gaze. However, eliminating them completely is not mathematically possible. As a result, some residual power error remains, causing a slight blur.



IOT Digital Ray-Path 2 Technology

IOT Digital Ray-Path 2 harnesses the intrinsic potential of the visual system to refine the optimization process for personalized lenses. It analyzes oblique aberrations at various focal distances for each direction of gaze. **Minimization of oblique aberrations is balanced throughout the accommodative object space,** providing extremely clear vision and precise focus.



Lens Optimization with Digital Ray-Path Technology



Single vision lens, [+3.00 -1.00 x 90], 6 D base curve and 1.5 index

43% of any direction of gaze is fully optimized. The **wearer notices some peripheral blur**, though it is greatly reduced when compared to a traditional lens.

Lens Optimization with IOT Digital Ray-Path 2 Technology



Single vision lens, [+3.00 -1.00 x 90], 6 D base curve and 1.5 index

99.5% of any direction of gaze is fully optimized when the wearer accommodates slightly. IOT Digital Ray-Path 2 lenses have **virtually no full-field blur** in any gaze direction.

Steady Methodology and Steady Plus Methodology

Steady Methodology is a technological breakthrough in free-form, digital lenses. In addition to **controlling for unwanted cylinder power**, Steady Methodology addresses unwanted changes to mean power in the lateral areas of the lens. This **improves peripheral visual acuity**, reduces swim effect, and provides superior image stability and offers more comfortable vision.

Steady Plus Methodology represents an evolution of Steady Methodology. It carefully balances the needed sphere power to achieve a **perfectly symmetrical and smooth distribution** on both sides of the lens.

Distribution of spherical equivalent with Steady Methodology and Steady Plus Methodology

Rx: Plano Sph. +2.00

Traditional progressive lens

Lens with Steady Methodology

Lens with Steady Plus Methodology



New vs. Previous Lens Design Comparisons

New Lens Designs	New Lens Design Details	Previous Lens Designs
Camber Steady Plus Progressive	<p>Included technologies</p> <ul style="list-style-type: none"> IOT Digital Ray-Path 2 Technology NEW Steady Plus Methodology NEW Camber™ Technology <p>4 configurations available to fit your patient's visual needs</p> <ul style="list-style-type: none"> Camber Steady Plus Progressive Initial Configuration Camber Steady Plus Progressive Distance Vision Camber Steady Plus Progressive Intermediate Vision Camber Steady Plus Progressive Near Vision 	<p>Camber Progressive</p> <ul style="list-style-type: none"> Digital Ray-Path Technology Camber™ Technology <ul style="list-style-type: none"> Camber Steady Camber Distance Camber Mobile and Camber First Camber Near
Endless Steady Progressive	<p>Included technologies</p> <ul style="list-style-type: none"> IOT Digital Ray-Path 2 Technology NEW Steady Methodology NEW <p>4 configurations available to fit your patient's visual needs</p> <ul style="list-style-type: none"> Endless Steady Progressive Initial Configuration Endless Steady Progressive Distance Vision Endless Steady Progressive Intermediate Vision Endless Steady Progressive Near Vision 	<p>Ultimate Progressive</p> <ul style="list-style-type: none"> Digital Ray-Path Technology <ul style="list-style-type: none"> Ultimate Balanced Ultimate Distance Ultimate Mobile and Ultimate First Ultimate Near
Essential Steady Progressive	<p>Included technology</p> <ul style="list-style-type: none"> Steady Methodology NEW <p>4 configurations available to fit your patient's visual needs</p> <ul style="list-style-type: none"> Essential Steady Progressive Initial Configuration Essential Steady Progressive Distance Vision Essential Steady Progressive Intermediate Vision Essential Steady Progressive Near Vision 	<p>Everyday Progressive</p> <ul style="list-style-type: none"> Surface Power Technology <ul style="list-style-type: none"> Everyday Balanced Everyday Distance Everyday First Everyday Near
Endless Office Occupational	<p>Included technologies</p> <ul style="list-style-type: none"> IOT Digital Ray-Path 2 Technology NEW Camber™ Technology upon request <p>3 focal lengths available to fit your patient's visual needs</p> <ul style="list-style-type: none"> 1.3 m Clear vision from 35 cm (14 in) to 1.3 m (4.2 ft) 2 m Clear vision from 35 cm (14 in) to 2 m (6.5 ft) 4 m Clear vision from 35 cm (14 in) to 4 m (13.1 ft) 	<p>Office Reader II</p> <ul style="list-style-type: none"> Digital Ray-Path Technology Smart Add Technology <ul style="list-style-type: none"> 1.3 m 2 m 4 m
Endless Drive Progressive and Single Vision	<p>Included technology</p> <ul style="list-style-type: none"> IOT Digital Ray-Path 2 Technology NEW <p>Unique power distribution based on the driver's visual needs</p> <ul style="list-style-type: none"> Available in progressive and single vision A unique power distribution specifically adapted for driving A night vision zone designed to correct for night myopia 	<p>inMotion Progressive and Single Vision</p> <ul style="list-style-type: none"> Digital Ray-Path Technology
Endless Anti-fatigue Single Vision	<p>Included technology</p> <ul style="list-style-type: none"> IOT Digital Ray-Path 2 Technology NEW <p>3 power boosts available to fit your patient's visual needs</p> <ul style="list-style-type: none"> 0.50 D Those with mild symptoms of visual fatigue 0.75 D People with moderate symptoms of visual fatigue 1.00 D Pre-presbyopes and those with severe symptoms of visual fatigue 	<p>Acomoda II</p> <ul style="list-style-type: none"> Digital Ray-Path Technology Smart Add Technology <ul style="list-style-type: none"> 0.50 D 0.75 D 1.00 D
Endless Single Vision	<p>Included technology</p> <ul style="list-style-type: none"> IOT Digital Ray-Path 2 Technology NEW <p>The single vision lens designed for modern life</p> <ul style="list-style-type: none"> Impeccable visual quality and greater comfort for digitally connected wearers Optimized for the volume of accommodative space not just one point in the distance Designed to consider the wearer's accommodative ability to focus on all working distances and focal ranges 	<p>IOT Digital Single Vision</p> <ul style="list-style-type: none"> Digital Ray-Path Technology



See the difference

APPROVED PARTNER

Camber is a trademark of Younger Mfg. Co.











800.523.1141

allentownoptical.com


525 Business Park Lane, Allentown, PA 18109



allentown optical

Portfolio		Technologies	Lifestyle	MFHs
	Camber Steady Plus Progressive	<div>CamberDRP 2Steady +</div>	Near, distance, and intermediate enhancements	14, 15, 16, 17, 18
	Endless Steady Progressive	<div>DRP 2Steady</div>	Near, distance, and intermediate enhancements	14, 15, 16, 17, 18
	Essential Steady Progressive	<div>Steady</div>	Near, distance, and intermediate enhancements	14, 15, 16, 17, 18
	Endless Office Occupational	<div>DRP 2</div>	Focal lengths: 1.3 m 2 m 4 m	14, 18
	Endless Bifocal	<div>DRP 2</div>	Segment diameters: 32 mm 40 mm	14
	Endless Sport Progressive	<div>DRP 2</div>	Panoramic distance vision for outdoor activities	16, 18
	Endless Pilot Progressive	<div>DRP 2</div>	Extra segment for near vision at the top of the lens	16, 18
	Endless Drive Progressive and Single Vision	<div>DRP 2</div>	Perfect for driving in all lighting conditions – night vision zone	PAL: 16, 18
	Endless Anti-fatigue Single Vision	<div>DRP 2</div>	Power boosts: 0.50 D 0.75 D 1.00 D	16, 18
	Endless Single Vision	<div>DRP 2</div>	Unparalleled visual quality	–

Technologies



With IOT Intelligenc

Synergy of front and back surfaces

Camber

Camber Technology combines complex curves on both sides of the lens to provide excellent vision correction. When combined with a back surface design using IOT Digital Ray-Path 2, both surfaces work together to accommodate an expanded Rx range, offer better cosmetics for many prescriptions, and yield wearer-preferred near vision and performance.¹

IOT DIGITAL RAY-PATH® 2

Pushing the limits of geometry in lens personalization

DRP 2

IOT Digital Ray-Path 2 Technology mathematically compensates for oblique aberrations and adds the intelligent use of the wearer's accommodation; the small adjustments the eyes naturally make to view objects at different distances. The result is a drastic reduction of oblique aberrations throughout the visual field. Wearers will enjoy impeccable visual quality, greater comfort, and more precise focus.²

STEADY METHODOLOGY

More efficient vision through image stability

Steady

Steady Methodology is a technological breakthrough in free-form, digital lenses. In addition to controlling for unwanted cylinder power, Steady Methodology addresses unwanted changes to mean power in the lateral areas of the lens. This improves peripheral visual acuity, reduces swim effect, and provides superior image stability and offers more comfortable vision.³

STEADY PLUS METHODOLOGY

Substantial improvement in binocular performance

Steady +

Steady Plus Methodology represents an evolution of Steady Methodology. It carefully balances the needed sphere power to achieve a perfectly symmetrical and smooth distribution on both sides of the lens.⁴



allentown optical[®]

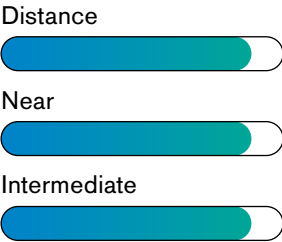
Lens Design Portfolio

There are moments in our lives that require a specific lens, moments such as driving, playing sports, or working with a computer. **Allentown Optical's** digital lens designs provide wearers with the appropriate solution for every situation, improving their visual comfort and quality of vision.

Camber™ Steady Plus Progressive



Performance



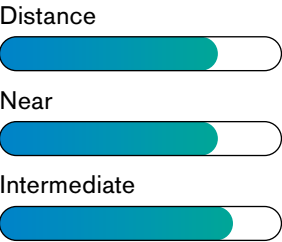
Features & Benefits

- Fully personalized dual-sided progressive lens
- Near, distance, & intermediate enhancements available
- Optimized for accommodative object space
- Superior visual acuity
- Improved quality of vision in the near zone
- Improved aesthetics in many prescriptions
- Precise & comfortable focus for all working distances in any direction of gaze
- Near elimination of peripheral blur
- Superior visual quality for viewing digital devices
- Higher image stability for reduced swim effect
- Better performance in binocular vision at near & intermediate

Endless Steady Progressive



Performance



Features & Benefits

- Fully personalized progressive lens
- Near, distance, & intermediate enhancements available
- Optimized for accommodative object space
- Great visual acuity
- Precise & comfortable focus for all working distances in any direction of gaze
- Near elimination of peripheral blur
- Superior visual quality for viewing digital devices
- Higher image stability for reduced swim effect
- Improvement of peripheral visual quality in the distance zone

Endless Bifocal



Performance



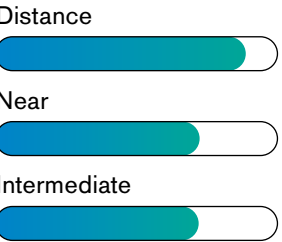
Features & Benefits

- Fully personalized digital bifocal lens
- 2 segment diameters available: 32 mm | 40 mm
- Optimized for accommodative object space
- Wide areas of view at near & distance, free of aberrations
- Better aesthetics, less visible segment line
- Easy transition between visual fields
- Precise & comfortable focusing, especially when using electronic devices
- Near elimination of peripheral blur
- Countless material & treatment options
- High-value solution

Endless Sport Progressive



Performance



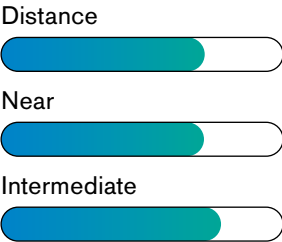
Features & Benefits

- Fully personalized progressive lens
- Maximum distance vision
- Optimized for accommodative object space
- Optimized fields of view, even with highly wrapped frames & higher prescriptions
- Unmatched dynamic vision with comfortable & precise focus at any distance
- Near elimination of peripheral blur

Essential Steady Progressive



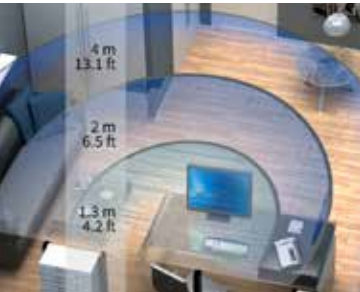
Performance



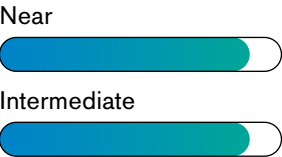
Features & Benefits

- Non-compensated progressive lens
- Near, distance, & intermediate enhancements available
- Good visual acuity
- Precise focus for all working distances
- Higher image stability for reduced swim effect
- Improvement of peripheral visual quality in the distance zone
- High-value solution

Endless Office Occupational



Performance



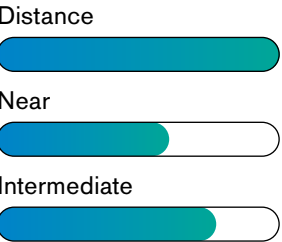
Features & Benefits

- Fully personalized occupational lens
- 3 focal lengths available: 1.3 m | 2 m | 4 m
- Optimized for accommodative object space
- Maximum intermediate & near visual fields
- Improved postural ergonomics avoiding unnecessary head movements
- Precise & comfortable focusing, especially when using electronic devices
- Near elimination of peripheral blur
- Superior visual quality for viewing digital devices
- Excellent dynamic vision, easy transition between near & intermediate visual fields
- Immediate adaptation

Endless Drive Progressive & Single Vision



PAL Performance



Features & Benefits

- Fully personalized progressive & single vision lenses
- Optimized for accommodative object space
- Improves visual experience when driving in daytime & nighttime conditions
- Compensates for the effects of night myopia with a unique zone to provide better focus
- Optimized vision for a better view of the dashboard & mirrors
- Near elimination of peripheral blur
- Reduces visual fatigue symptoms when driving at night
- Greater visual acuity for easy focus & more agile eye movement

Endless Anti-fatigue Single Vision



Performance



Features & Benefits

- Fully personalized anti-fatigue single vision lens
- 3 power boosts available: 0.50 D | 0.75 D | 1.00 D
- Optimized for accommodative object space
- Impeccable visual quality & precise focus
- More relaxed vision with less accommodative effort
- Precise & comfortable focus for all working distances in any direction of gaze
- Near elimination of peripheral blur
- Superior visual quality for viewing digital devices
- Designed to significantly improve reading speed on digital devices
- Excellent distance & peripheral vision