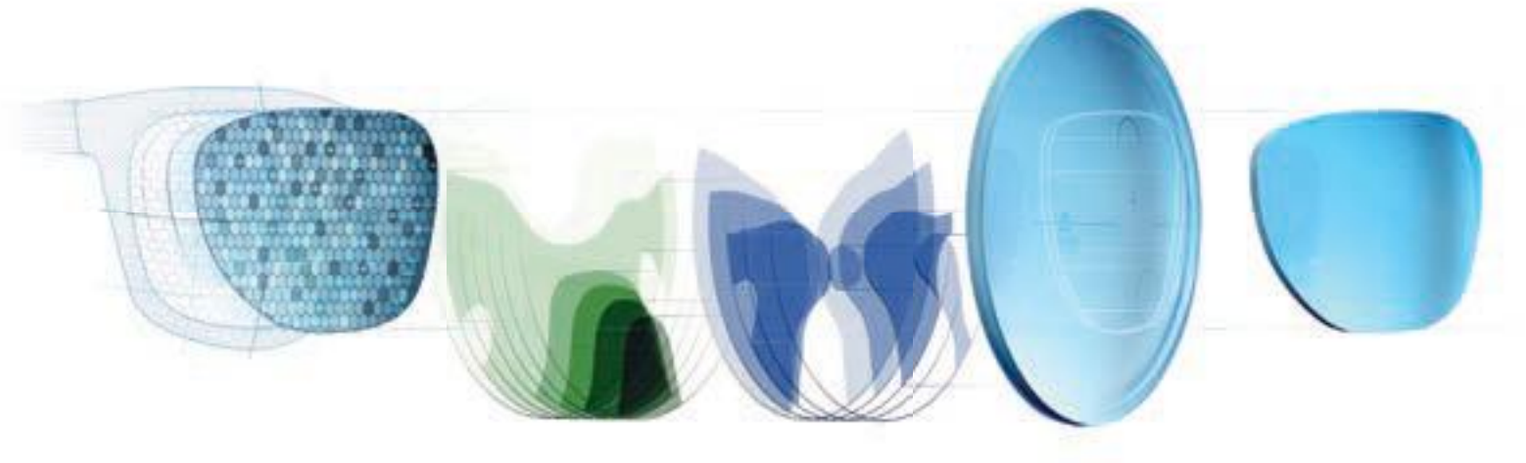
INDIZEN OPTICAL
TECHNOLOGIES



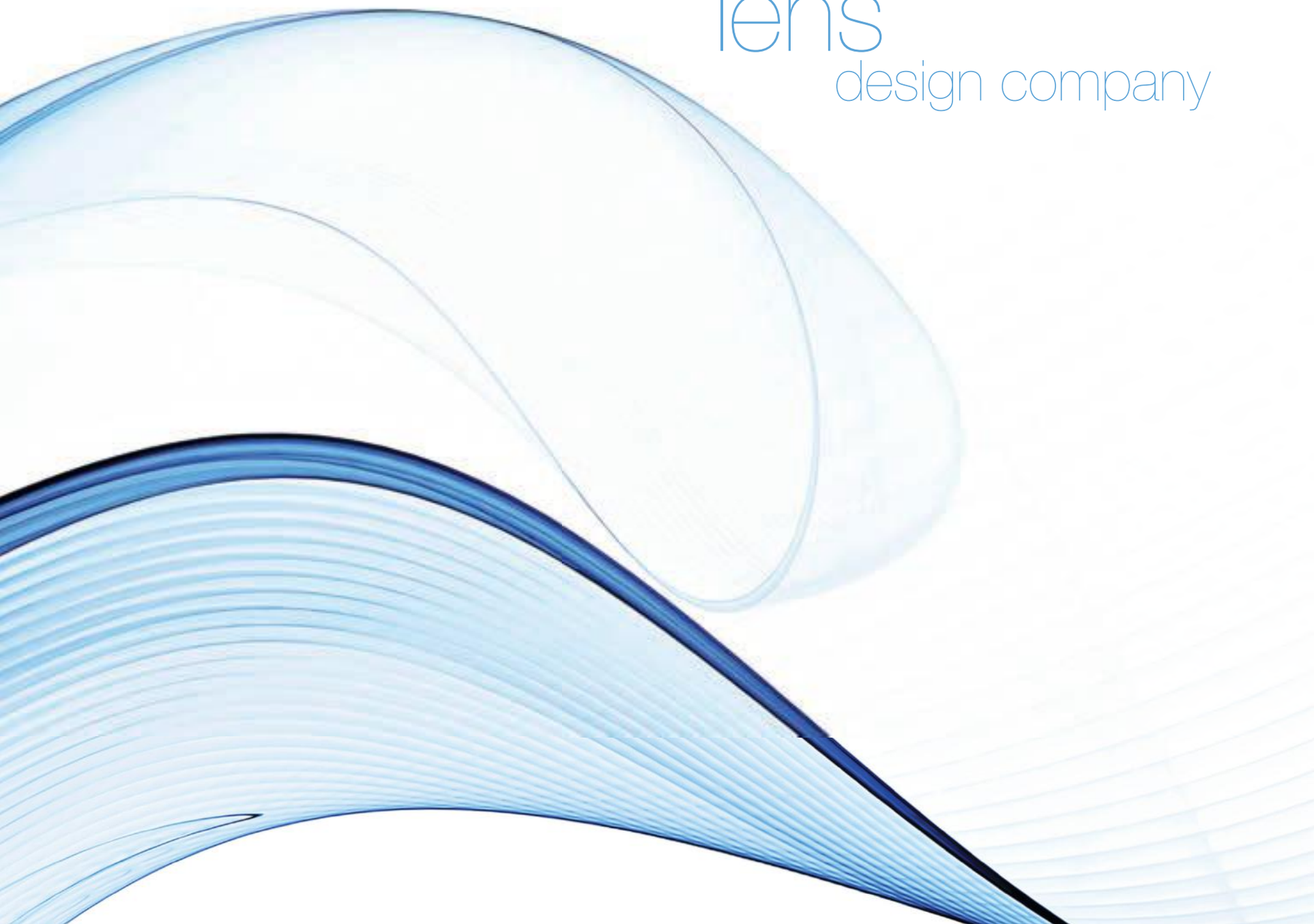
DIGITAL LENS DESIGNS

DIGITAL RAY-PATH

camber technology

SURFACE POWER

The independent free-form lens design company



Ideal partner for **independent Rx-Labs**

History

IOT started as a Joint-Venture between members of the Optics Department at the University Complutense of Madrid and the software company Indizen Technologies. Since the beginning, IOT focused its efforts to combine in-depth knowledge of ophthalmic optics with enterprise-level software development. This combination of skills was oriented to create the first company specialized exclusively in free-form lens design. From the beginning, IOT has considered free-form technology as the key innovation that will let independent Rx-labs be successful in this increasingly demanding industry. But harnessing the potential of free-form technology requires more than just new machinery. IOT offers the rest of the ingredients: accessible know-how on advanced free-form lenses, custom-made state-of-the-art lens designs and exclusive service. Working together with IOT, any independent Rx-Lab can be as innovative and competitive as the big leaders of the industry. With this idea in mind, and as the result of a continuous effort in R&D, IOT launched the first version of its innovative Lens Design Software (LDS) in 2008. Ever since then, this revolutionary technology is being constantly improved and expanded with the feedback from our customers.

Nowadays, IOT has attained a pre-eminent position as a provider of free-form Lens Designs. IOT offers a reliable partnership to its customers all around the globe, contributing to their success through constant innovation.

In early 2010, Younger Optics entered as a partner in IOT, to help expand its business in North America, and around the world.

The Independent
Free-form specialist

Business Vision

IOT is a company fully specialized in free-form technology, it doesn't sell finished lenses or semi-finished blanks. Its business activity is exclusively centred on lens design software.

This high degree of specialization has put IOT in a leadership position; nowadays there is no other company in the world totally focused in free-form lens design.

Even more, IOT is proud of being an independent company. This is a clear advantage for Rx-labs that believe in the independent business.

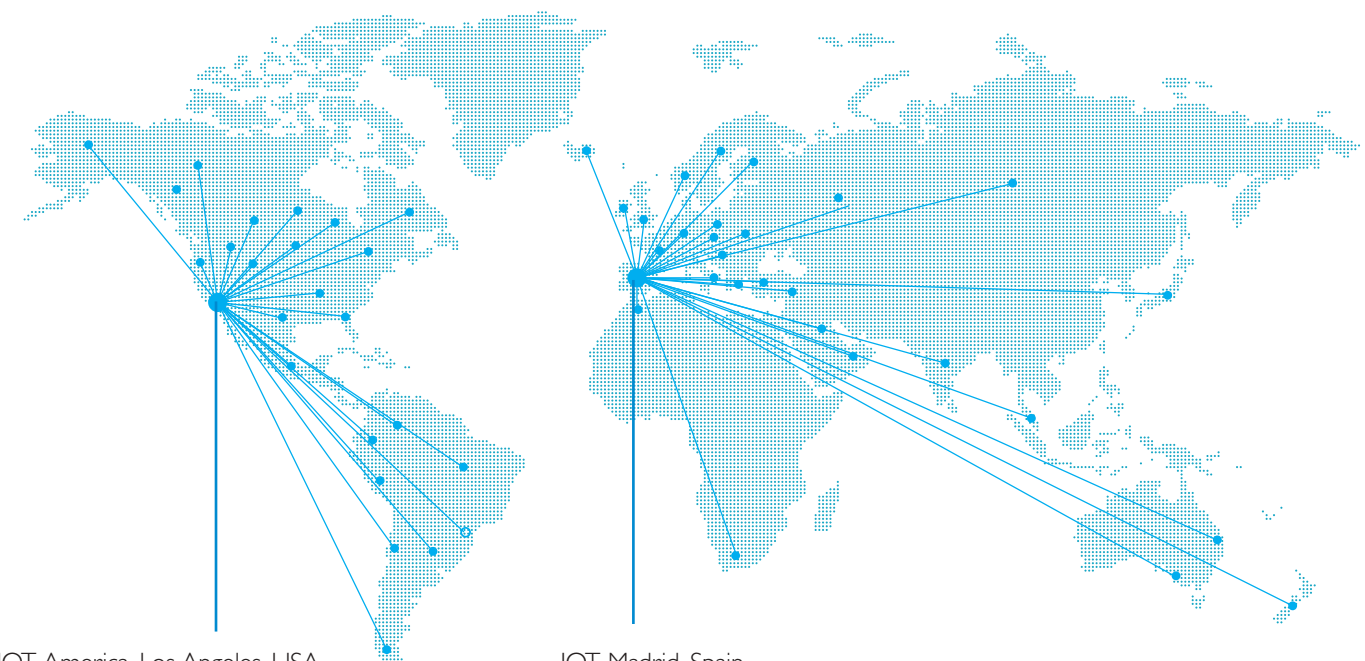
IOT believes that free-form brings an excellent opportunity for Independent Labs. They can deliver the same level of quality and sophistication as the big global players, at a similar cost. At the same time, they can offer a much better service to opticians and optometrists, due to proximity and personalized attention.

IOT gives you the chance to offer your own and exclusive designs, and start building your own and distinguished brand.

Global Market

IOT is constantly growing. Independent Rx_Labs located in 40 countries are currently using IOT's technology to produce lenses, all together produced more than seven million lenses during 2013.

Specialized technicians provide support from IOT, located in Madrid, Spain, and IOT America, located in Torrance, California.



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Technology

Lens Design Software (LDS)

IOT Lens Design Software

IOT Lens Design Software is a flexible calculation platform devised from the beginning to adapt to the needs of any Rx Lab. Each version is customized for each Lab, making each system unique.

IOT calculation platform implements any type of lens design (Progressive Addition Lenses (PAL), SV, Office, Wraps…) and offers different levels of lens personalization, no other LDS in the market offers so many customization options.

The calculation process is fast enough to follow the fastest production capacity of any machinery in the market, just few seconds to calculate a pair of personalized progressive lenses.

This advanced platform is totally compatible with any free-form machinery in the market; so it can be easily integrated in any free-form line. It is also compatible with the most common Lab Management Systems.

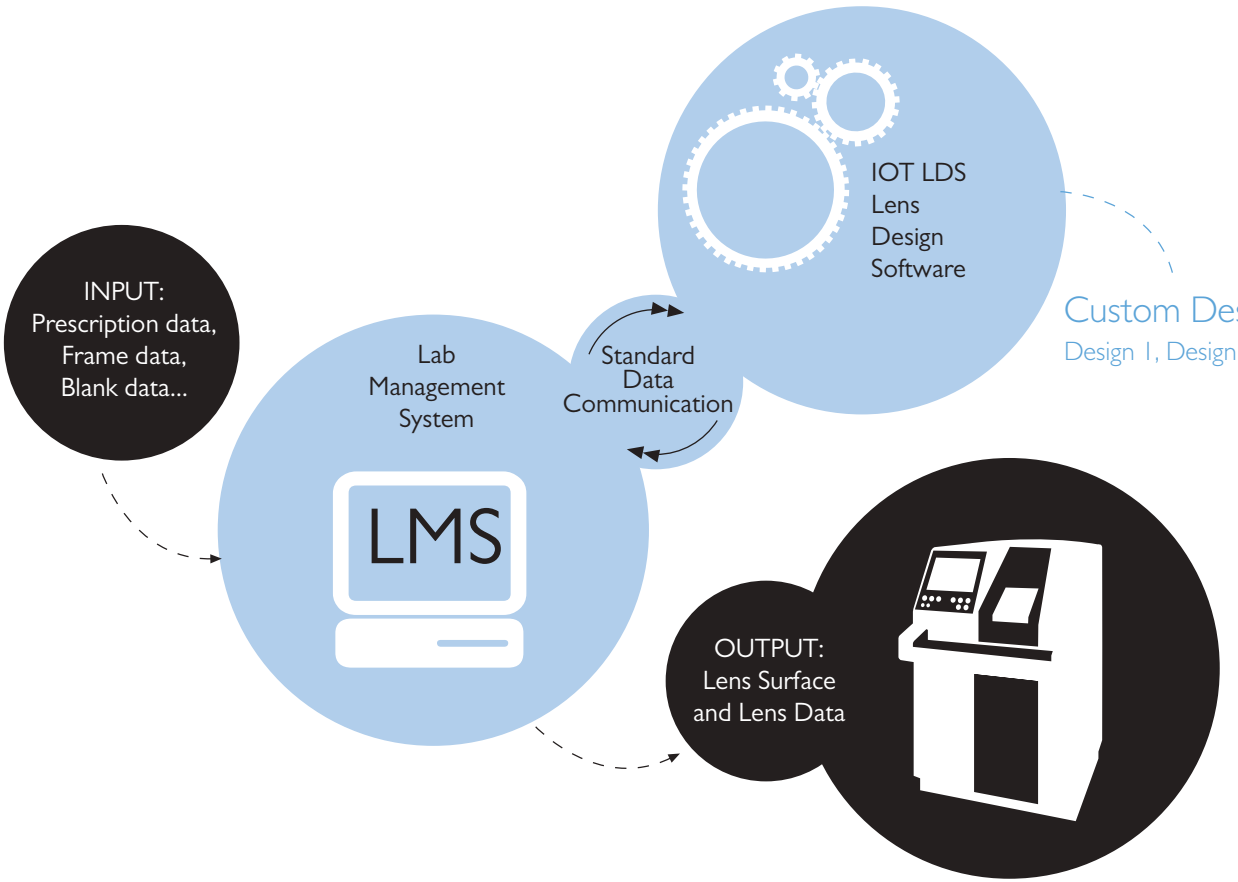
This software will be installed in the Lab facilities, calculations are made locally. The complete calculation platform will be at the same location as your machinery, guaranteeing an efficient production process.

Advantages

- Flexibility
- Customizable
- Fast and precise calculation
- Compatible with any free-form machinery
- Integrated with most common LMSs
- Installed at the Lab facilities
- Local calculation

IOT LDS Communication Scheme

IOT LDS receives all the necessary information from the Lab Management System (LMS). Prescription, Wrap, Tilt, and morphological parameters are taken into account to calculate the customized surface which adapts best to the data received, creating a lens that is always personalized for every wearer. After the calculation, that takes less than few seconds for a pair of lenses, the LDS sends the surface file back to the LMS, which will communicate with the free-form machinery that will produce the lens.
IOT LDS is compliant with the specifications for LDS Input and Output from the latest versions of the Data Communication Standard, guaranteeing an optimum integration in the production process.



Scheme of the
IOT LDS communication

Technology

Conventional Progressive Addition Lens

A conventional progressive lens is made using a progressive blank where the progressive surface is located on the front side. A simple curve is cut on the back side to provide a lens with the required power. This method to produce lenses has important limitations, there is only a limited number of progressive surfaces available, and it is not possible to produce personalized lenses.

Conventional progressive has progressive surface distributed on the front side of the lens

Free-form Basic Progressive Addition Lens

SURFACE POWER

IOT Surface Power® is the entry-level technology to make digital lenses. Progressive lenses made with this technology will have the progressive surface on the back of the lens, and a simple curve, typically a sphere, on the front side. The progressive surface is calculated using a pure geometrical method that gives as a result lenses with similar optical performance as conventional progressive lenses, but with the advantages of the digital process, like flexible designs, variable corridor lengths and insets.

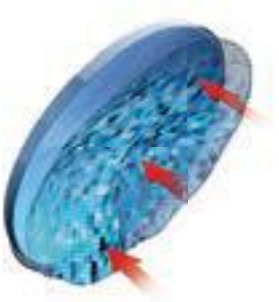
Surface Power® progressive design transfers progressive design to the back surface of the lens to allows free-form processing.

Evolution

Free-form Personalized Progressive Addition Lens

DIGITAL RAY-PATH®

IOT Digital Ray-Path® is the most advanced technology to make digital lenses. The important difference appears when calculating the back surface. Instead of using a pure geometrical method, Digital Ray-Path® technology is based on an advanced three-dimensional calculation model that takes into account the real position of the lens and the natural movements of the human eye. The result of this innovative calculation method is a progressive lens that is personalized and provides better vision in all zones of the lens.

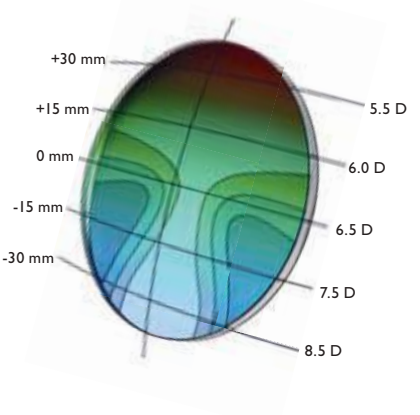


Digital lens takes into account the progressive design model and adjusts it according to individual demands of any wearer.

Synergy of Front and Back Surfaces

camber technology

Camber™ Technology combines complex surfaces on both sides of the lens to provide excellent vision correction. The unique, continuously changing surface of the specially designed lens blank allows expanded reading zones with improved peripheral vision. When combined with a back surface design using Digital Ray-Path®, both surfaces work together to accommodate an expanded Rx Range, offer better cosmetics for many prescriptions, and yield user-preferred near vision performance.



Camber™ is an innovative new lens technology that combines complex curves on both of the lens to provide excellent vision correction.

camber
technology

Combining traditional optics with advanced digital design
to bring the ideal optical solution to progressive lens wearers.

THE ORIGIN OF CAMBER

Digital processing is perhaps the most significant and exciting technological development of the optical industry in the last decade. While there are many advantages to this technology, there are also some optical and aesthetic issues that need to be addressed.

The Camber lens was born from a simple question: ***How can we combine the best features of both conventional and digitally surfaced progressive lenses, and avoid each one's limitations?***

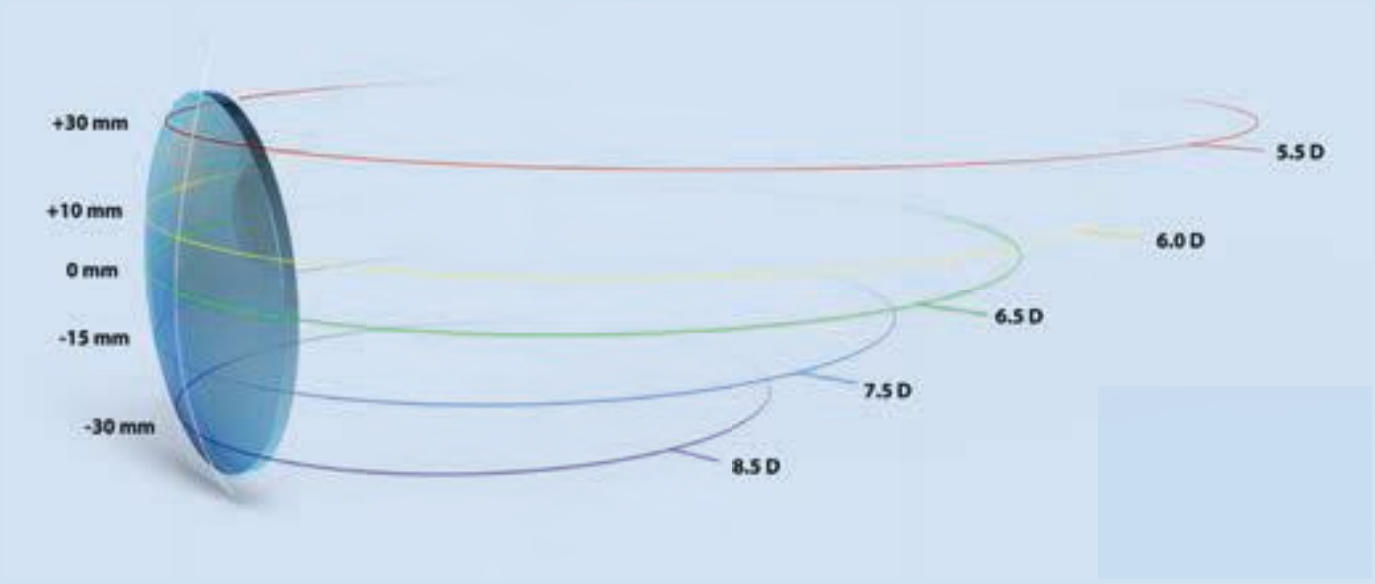
After two years of R&D, IOT introduces Camber technology, an innovative product that meets this goal by unifying traditional optical principals with today's digital production capabilities.

DESCRIBING THE CAMBER BLANK

The Camber lens blank has a unique front surface with a variable base curve, which means the power of the front surface increases continuously from top to bottom.

This provides the ideal base curve for all visual areas, which reduces the oblique aberration of the lens.

Thanks to the unique function of its front surface, all Camber finished lenses offer unbeatable quality of vision at any distance, especially in the near zone.

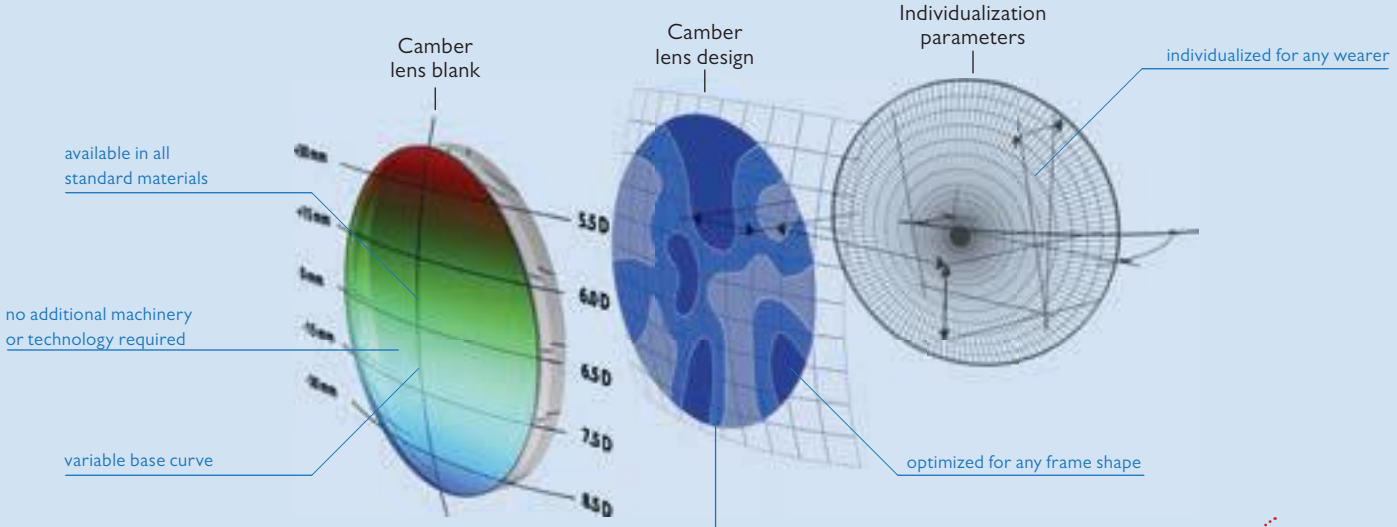


camber
technology

A synergy of complex curves
on both surfaces of the lens.

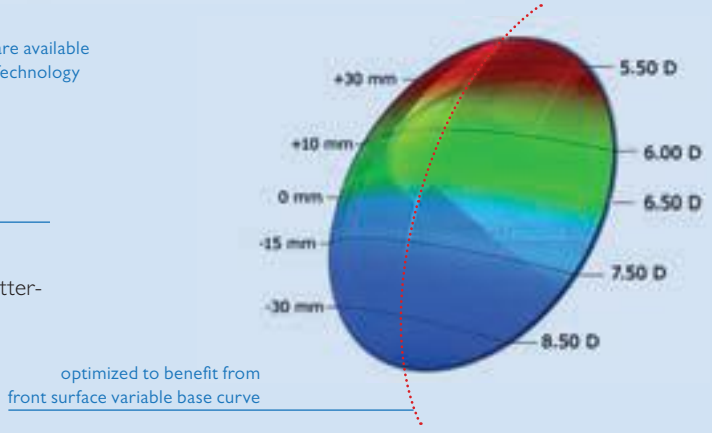
COMBINING FRONT AND BACK SURFACE

Camber Technology is the most advanced digital progressive lens design technology available today. It combines all the sophistication and engineering of the unique Camber lens blank with an optimized digital design on the back surface. Camber's variable base curve reduces oblique aberrations, while Camber design technology compensates and optimizes the back surface to enlarge distance, intermediate and near visual fields. Each unique wearer receives a fully personalized progressive lensthat is more effective and comfortable to wear.



AN ADVANCED LENS LIKE NO OTHER

Camber finished lenses give wearers an outstanding visual experience, with spacious reading zones, improved peripheral vision, an expanded Rx range, better-looking lenses in many prescriptions, and user-preferred vision performance.



camber
technology

OPTIMIZED OPTICS FOR ALL DISTANCES

It is well known that there is an ideal base curve for each power, one which minimizes oblique aberrations and maximizes visual acuity. Most digital progressive lenses are made from a spherical or single vision lens blank, which offers only one base curve for the entire lens.

The Camber blank is different, because the base curve on the front surface continually increases from top to bottom, providing the lens with the appropriate base curve for the distance, intermediate, and near powers. Wearers enjoy noticeably increased acuity in the periphery of the distance zone, as well as a reading area that is more comfortable and easier to find with the eye.

UNBEATABLE NEAR VISION

At near vision, Camber benefits are even more significant, the near visual field is wider and achieves higher visual acuity. Tested through a clinical trial progressive lenses made with Camber Technology reached an important enhancement compared to the same design produced with regular spherical blank. Wearers reported a much better quality of vision and level of comfort while reading.

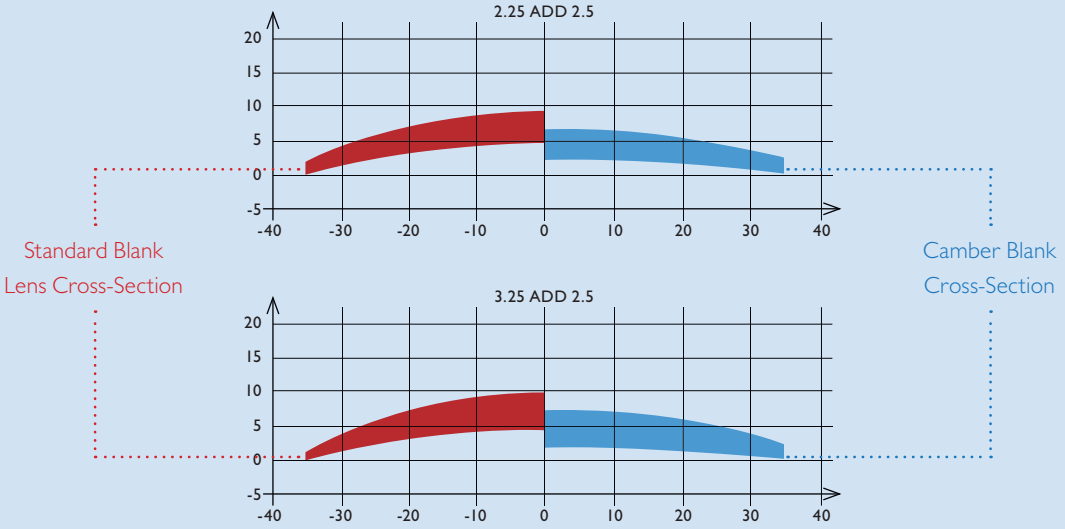
CAMBER IS PREFERRED

In a clinical trial, wearers compared lenses made from Camber blanks to lenses of the same digital design made from spherical lens blanks. The results of this trial show that 83% of wearers adapt more easily to lenses made from Camber blanks. All wearers found the near zone of the Camber lenses to be easier to find or equal to the standard lenses. Overall, wearers preferred the Camber lenses 2 to 1.

camber
technology

BETTER COSMETICS

Digital progressive lenses produced using spherical blanks have not only optical issues, but cosmetic issues as well. The diagram below compares the curvature profiles of two lenses with the same prescriptions: the left processed from a spherical lens blank, the right processed from a Camber lens blank. With Camber Technology, it is possible to produce plus progressive lenses from flatter and better-looking base curves because the Camber lens blank has a flatter base curve in the distance zone and a steeper base curve only where it is needed - in the reading area.



FLEXIBLE OPTIONS

Wide Availability: Camber blanks are available in a wide range of materials, coatings and base curves, allowing the ECP more prescribing options.

Wide-ranging: There are many design options, so it is easy to select the best progressive design according to the unique user's lifestyle.

Versatile: Camber technology offers all the benefits of Digital Ray-Path® and Surface Power® technologies.

DIGITAL RAY-PATH®

Better vision on every point of the lens

Lenses calculated with this technology method provide a new visual experience no matter the prescription or frame selected

Digital Ray-Path® is based on the realistic simulation of the optical behaviour of the lens when its placed in front of the wearer's eye. This simulation computes the oblique aberrations that have a negative impact on the lens visual performance. Oblique aberrations are reduced in every point of the lens, taking into account the rotation of the eye and the real position of the lens. As a result, Digital Ray-Path® creates a unique lens for each wearer that provides better vision in every zone of the lens.

Benefits

- Improved vision in distance, intermediate and near zones
- Larger, clearer visual fields
- High Performance for high prescriptions & also for sport frames
- Oblique Aberrations Minimization
- Totally customized lens
- Material & Base flexibility
- Optimum Inset
- Frame flexibility

www.digitalray-path.com

DIGITAL RAY-PATH®

This is How it Works

Digital Ray-Path® computes the back surface of the lens through an optimization process that follows different steps until the lens surface is optimum for the combination of wearer´s prescription, physiological parameters and frame measurements.

Step 1.

Eye - Lens System

Digital Ray-Path® prepares a simulation of the lens in front of the eye, considering all the information available from the wearer (like tilts, back vertex distance...).

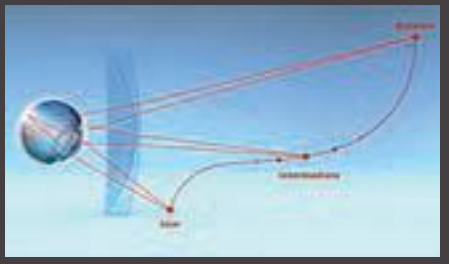
Step 2.

Space Object

Digital Ray-Path® understands which areas of the lens are meant for distance, intermediate or near vision. All this information is considered during the optimization process.

Step 3.

Ray Tracing



Digital Ray-Path® simulates how the eye rotates to look in different gaze directions and at different distances. For each position of the eye, it compensates the oblique aberrations of the lens at that particular point.

Thousands of rays tracings are used to optimize the back surface of the lens point by point to minimize those undesired aberrations.

Result of Digital Ray-Path®

A unique digital lens completely optimized for each user.

www.iot.es

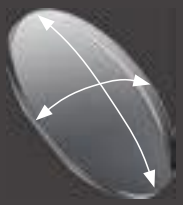
DIGITAL RAY-PATH®

Benefits

Getting rid of oblique aberration

Oblique aberration appears when the light refracts the lens obliquely. This happens when the wearer looks towards the periphery, on those cases the image is not focused on the fovea and the wearer will perceive the objects blurred. Digital Ray-Path® compensates this effect offering to the wearer the best visual quality from center to edge.

Achieving larger visual fields



Getting rid of oblique aberration is important both in single vision and progressive lenses. Thanks to Digital Ray-Path® oblique aberration is reduced everywhere on the lens, resulting in a wider area with sharp clear vision.

Variable Inset Optimization

Every person needs different inset to maximize the binocular near visual field. In Digital Ray-Path® lenses, the inset is exactly calculated for each wearer considering all the individual parameters.

Personalization for high prescriptions & sport frames

The effect of oblique aberration becomes more pronounced in high prescriptions and sport frames, and therefore lens optimization is even more important. Digital Ray-Path® can easily correct this aberrations no matter the prescription or frame selection.

Frame flexibility

Digital Ray-Path® lenses, both progressive and single vision, provide excellent vision for any wearer regardless of the frame that is selected. In addition, Digital Ray Path® lenses can be calculated with automatic decentration to improve the final thickness of the lens. Wearers can choose any frame they like, there are no restrictions any more.

Individual Personalization

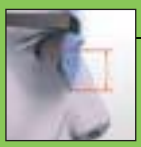
Personalization parameters used for the calculation are specific for each individual wearer. Those parameters represent the identity of each wearer and make it possible to create unique lenses.

Prescription & Addition

Digital Ray-Path® calculates the power that the user will truly perceive once the lenses are fitted on the frame.

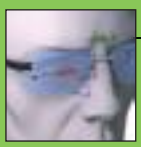
Nasopupilar Distance

Is defined as the distance from the axis of symmetry of the face to the center of the pupil.



Pupilar Heights

Is the vertical distance between the pupil center and the deepest part of the lens shape.



Frame Dimensions

Frame dimensions are used to calculate the final diameter, thickness of the lens and improve the efficiency of the optimization.

Pantoscopic Angle

This is the angle in the vertical plane between the optical axis of a spectacle lens and the visual axis of the eye in primary position.

Wrap Angle

Frame curvature

Back Vertex Distance

Distance between the cornea and the back surface of the lens.

Near Working Distance

This is the distance from the lens to the typical reading position for the wearer.

When some of the personalization parameters are not available, the final lens will be personalized using standard values for those parameters that are missing.

Prescribed Power vs. Compensated Power

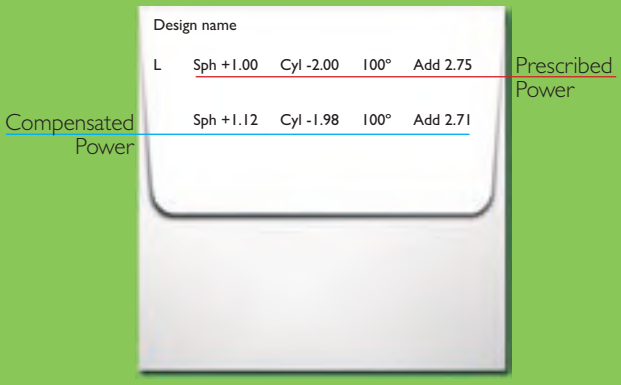
Prescribed Power

Prescribed Power is the prescription given by the doctor. Conventional lenses are calculated to yield this power when being measured on a lensometer. However, when the wearer is looking through different points of the lens, oblique aberrations appear reducing the wearer´s visual acuity.

Compensated Power

Digital Ray-Path® gets rid of those aberrations, modifying the power on each point of the lens. As a result, the user gets the power they need, and better vision, in each gaze direction. But the lens will read a different power when measured on a lensometer. This different power is called Compensated Power.

Digital Ray-Path® lenses will display both the Prescribed Power and the Compensated Power. The Compensated Power is the one that has to be checked on the lensometer for quality inspection.



SURFACE POWER

Surface Power®

This is the basic level of lens calculation technology that only considers a fixed, non-tilted lens, tangential rays, infinitely small pupil and replaces the eye by a constant remote sphere.

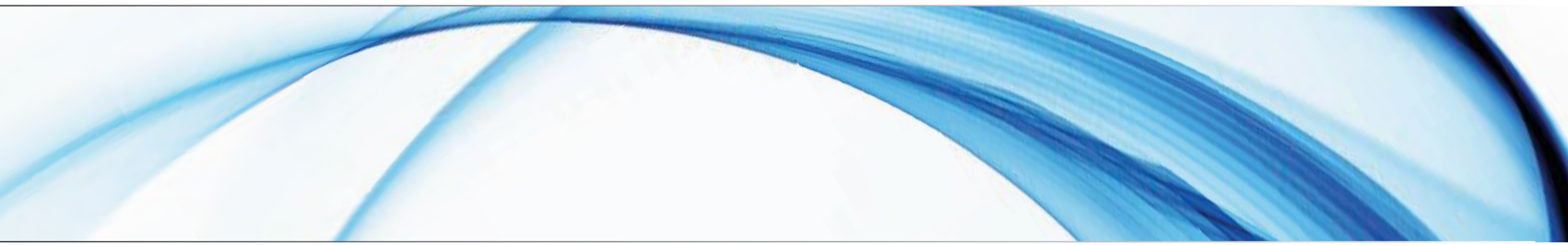
This method is based on a pure geometrical conception of the lens. It will provide the wearer with the prescribed power they need in the far, near and intermediate regions. But, unlike Digital Ray-Path®, no additional aberration compensation will be performed. The wearer will get a digital lens, but equivalent in terms of power computation to a conventional progressive. The Power and Addition are what we call Nominal, the Prescribed Power.

This technology is used only in our Basic designs, and according to this, we recommend our customers to position the lenses produced with this technology in the basic segment of their product portfolio.

Benefits

- Easy to be understood by opticians
- Easy to measure the power and compare to prescription with conventional means
- Variable Inset: Automatic and manual
- Freedom in base curve selection
- Nice entry-level digital lens

DIGITAL RAY-PATH® SURFACE POWER

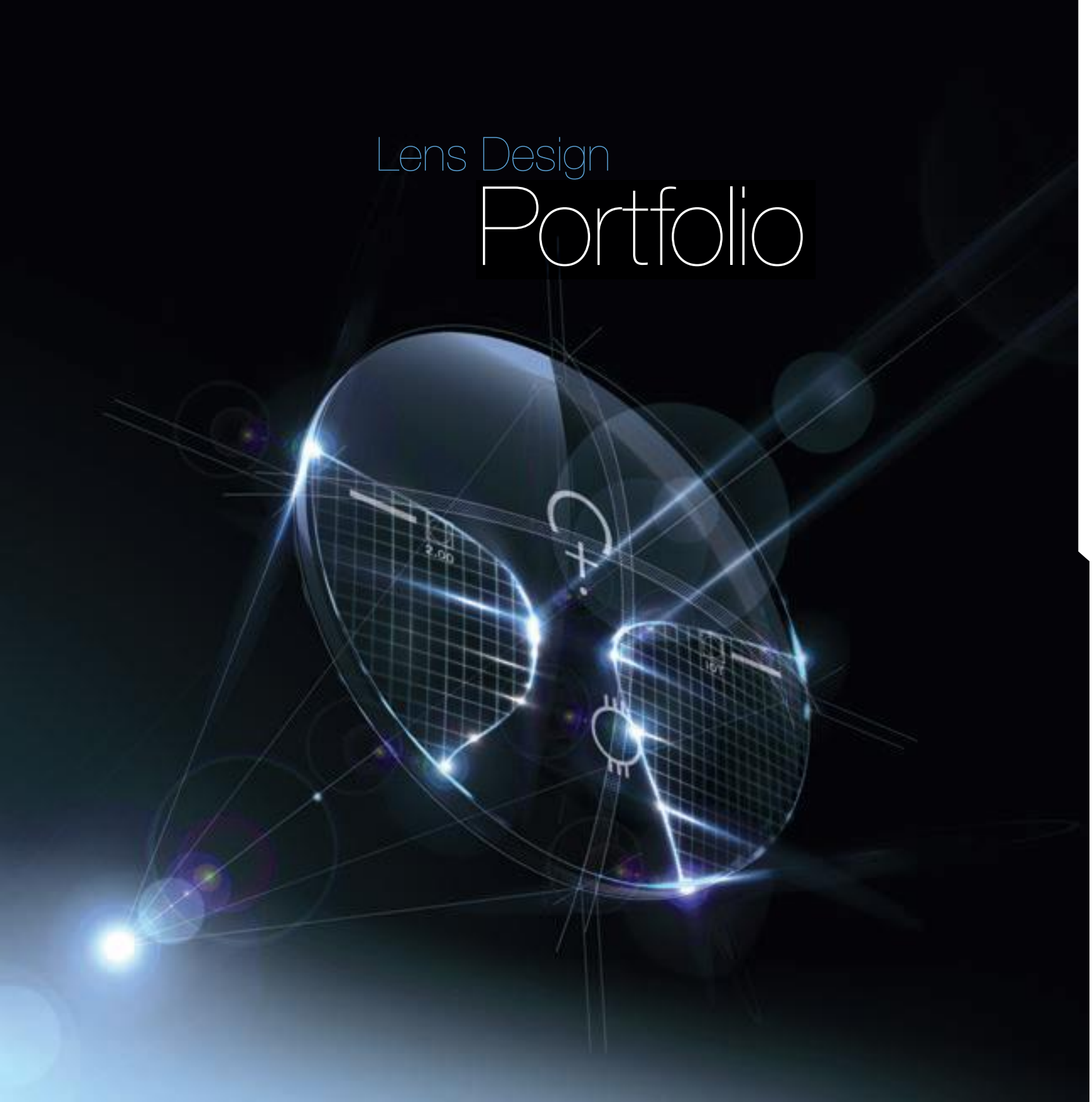


Calculation Technologies. Summary

IOT is proud to offer the most flexible solution in the market, with access to all types of lens designs and product levels: from the basic to the latest state-of-the-art compensated individual lenses. In order to have presence in every segment of the market, IOT offers two different patented calculation technologies: Digital Ray-Path® and Surface Power®.

	DIGITAL RAY-PATH®	SURFACE POWER
POWER CALCULATION	COMPENSATED	NOMINAL
Lens Personalization	★★★★★	★☆☆☆☆
Oblique aberration minimization	★★★★★	★★☆☆☆
Base Curve Freedom	★★★★★	★★★★★
Sport frame performance	★★★★★	★☆☆☆☆
High Prescription Performance	★★★★★	★★★☆☆
Manual Inset Selection	✔	✔
Automatic Variable Inset	✔	✔
Decentration	✔	✔
PARAMETERS		
Prescription Data	✔	✔
Pantoscopic Angle	✔	✖
Wrapping Angle	✔	✖
Vertex Distance	✔	✖
Inter-pupilar distance	✔	✔
Frame Parameters	✔	✔
Working Distance	✔	✖
Rotation axis of the eye	✔	✖

Lens Design Portfolio



IOT Lens Design Portfolio

At IOT we have created a complete portfolio of designs that have been conceived to cover all the different needs of the ophthalmic sector. With the goal to provide our customers with a complete solution, our range of products covers distinct calculation technologies and offers several progression lengths for each design.

Beyond the list of designs shown in this document; IOT offers a unique custom lens design developing service. This service puts at the Rx-Labs disposal the possibility to have their own and exclusive designs engineered by the IOT R&D department. Please see service section at the end for more information on custom lens designs.

	Name	Technology	camber technology	Far	Near	Comfort	MFH Available
ULTIMATE FREESTYLE		Digital Ray-Path®	N/A	★★★★★½	★★★★★☆	★★★★★★	14, 15, 16, 17, 18, 19, 20 mm
ALPHA SERIES	New Alpha mobile	Digital Ray-Path®	N/A	★★★★☆☆	★★★★★½	★★★★★½	14, 15, 16, 17, 18, 19, 20 mm
	Alpha H25	Digital Ray-Path®	Available	★★★★½☆	★★★★★½	★★★★½☆	14, 15, 16, 17, 18, 19, 20 mm
	Alpha H45	Digital Ray-Path®	Available	★★★★★☆	★★★★★☆	★★★★★☆	14, 15, 16, 17, 18, 19, 20 mm
	Alpha H65	Digital Ray-Path®	Available	★★★★★½	★★★★½☆	★★★★½☆	14, 15, 16, 17, 18, 19, 20 mm
	Alpha S45	Digital Ray-Path®	Available	★★★★½☆	★★★★½☆	★★★★★★	16, 17, 18, 19, 20 mm
	Ultra Short	Digital Ray-Path®	N/A	★★★★☆☆	★★★½☆☆	★★½☆☆☆	10, 11, 12, 13 mm
BASIC SERIES	Basic H20	Surface Power®	N/A	★★★½☆☆	★★★★½☆	★★★½☆☆	14, 16, 18, 20 mm
	Basic H40	Surface Power®	N/A	★★★★☆☆	★★★★☆☆	★★★★☆☆	14, 16, 18, 20 mm
	Basic H60	Surface Power®	N/A	★★★★½☆	★★★½☆☆	★★★½☆☆	14, 16, 18, 20 mm
	Basic S40	Surface Power®	N/A	★★★½☆☆	★★★½☆☆	★★★★★☆	16, 18, 20 mm
BIFOCAL	Digital Round-Seg	Digital Ray-Path®	N/A	-	-	-	14 mm
	New B-Free Bifocal	Digital Ray-Path®	N/A	-	-	-	15 mm
INDOOR SERIES	Office Reader	Digital Ray-Path® / Surface Power®	Available	☆☆☆☆☆☆	★★★★★★	★★★★★½	14, 18 mm
	Pure Office II	Digital Ray-Path® / Surface Power®	N/A	★☆☆☆☆☆	★★★★★½	★★★★★☆	14, 18 mm
	Acomoda	Digital Ray-Path®	N/A	-	-	-	14 mm
OUTDOOR SERIES	Sport Progressive	Digital Ray-Path®	N/A	★★★★★★	★★☆☆☆☆	★★★★★☆	16, 18 mm
	New Sporthin PAL	Digital Ray-Path®	N/A	★★★★★½	★★☆☆☆☆	★★★★½☆	16, 18 mm
	Drive Progressive	Digital Ray-Path®	N/A	★★★★★★	★★★☆☆☆	★★★★☆☆	18 mm
SINGLE VISION SERIES	Personalized SV	Digital Ray-Path®	N/A	-	-	-	-
	I-Venture	Digital Ray-Path®	N/A	-	-	-	-
	New Sporthin SV	Digital Ray-Path®	N/A	-	-	-	-
	SV Toric	Surface Power®	N/A	-	-	-	-

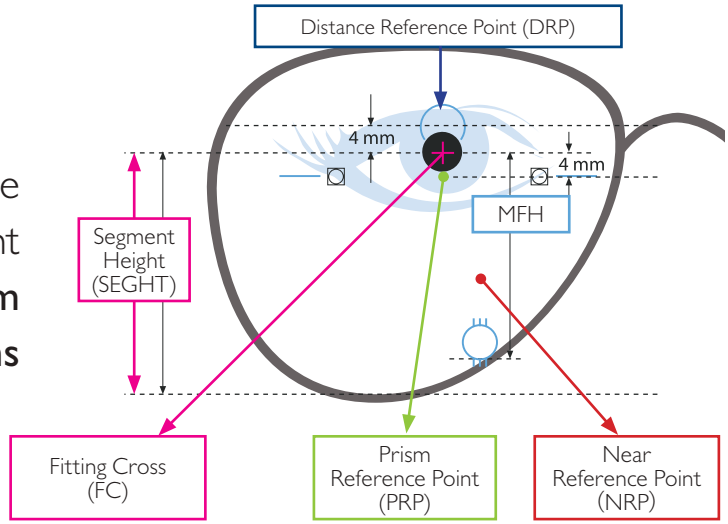
Building your unique lens portfolio

IOT Lens Design Portfolio can be completely adapted for each Rx Lab. IOT offers the opportunity for each specific lab to offer the perfect solutions for its unique needs. The complete IOT Lens Design Portfolio offers an extensive collection of different design possibilities, how to position them in the market is totally up to the lab. Each lab can combine the different designs and options to create different levels of complexity, from a simple catalog ideal for labs that are starting in the free-form business, to a total design list for maximum market penetration.

IOT experts have a wide experience in helping different labs worldwide develop their own, unique product portfolios. The table below shows an example with the recommended portfolio for a lab that desires to cover as much ground as possible with a limited level of complexity.

EXAMPLE OF PRODUCT PORTFOLIO ADAPTED FOR A GIVEN RX LABRATORY				
IOT Design	**Technology**	**Positioning**	**Target**	**Use**
Alpha H45 Camber	Camber™ & Digital Ray-Path®	Top range Progressive	Demanding Customers	General use
Alpha H45	Digital Ray-Path®	Premium Progressive	Demanding Customers	General use
Alpha S45	Digital Ray-Path®	First progressive	Novice wearer	General use
Basic H40	Surface Power®	Entry Level Progressive	Wearers with economic price demands	General use
Office Reader	Digital Ray-Path® / Surface Power®	Occupational lens	For office workers	Work on the computers
Single Vision	Digital Ray-Path®	Premium Single Vision	Young people	General use

Reference measurement in a **free-form ophthalmic lens**



Minimum Fitting Height (MFH)
Minimum distance from the pupil centre to the lower border of the frame recommended for the assembly.

Icons Description & Definition

Camber™

Design available for Camber™ variable curve blank lenses

Personalization

Personalized considering the individual parameters of each wearer

DigitalRay-Path®

Powered by Digital Ray-Path® technology

Enhanced Far

Especially improved distance vision area

Balanced

Balanced power distribution between near and distance vision

Enhanced Near

Especially improved for near vision area

Enhanced for Beginners

Especially improved for beginners

Enhanced for Computers

Special for computer and office activities

Short Available

Available short corridor options

Not For Driving

Not Suitable For Driving

Wrap Available

Lens available for sport frames, required real wrap angle or ZTILT as input

Ultimate FreeStyle

Powered By DIGITAL RAY-PATH®

DIGITAL RAY-PATH®

Ultimate FreeStyle

The most current progressive lenses in the industry offers the same visual solution to everyone. However each wearer has a unique lifestyle with different visual requirements.

Ultimate FreeStyle is a personalized progressive lens that produces for each wearer individually, taking into account the different tasks, which defines our unique lifestyle.

By gathering and studying the information given previously by the patient, Ultimate FreeStyle lens changes its optical performance to offer a completely adapted visual solution.

Gathering LifeStyle Patient Information

Ultimate FreeStyle uses an advance application, which includes a Lifestyle questionnaire in order to help patients define their unique lifestyles.

This survey includes questions such as, the main activities the patient does during work hours and spare time; the wearers previous experience using progressive lenses; patients reading habits, and what sort of computer the patient normally uses. All these questions are thoughtfully studied in order to achieve an accurate description of the patients' visual demand.

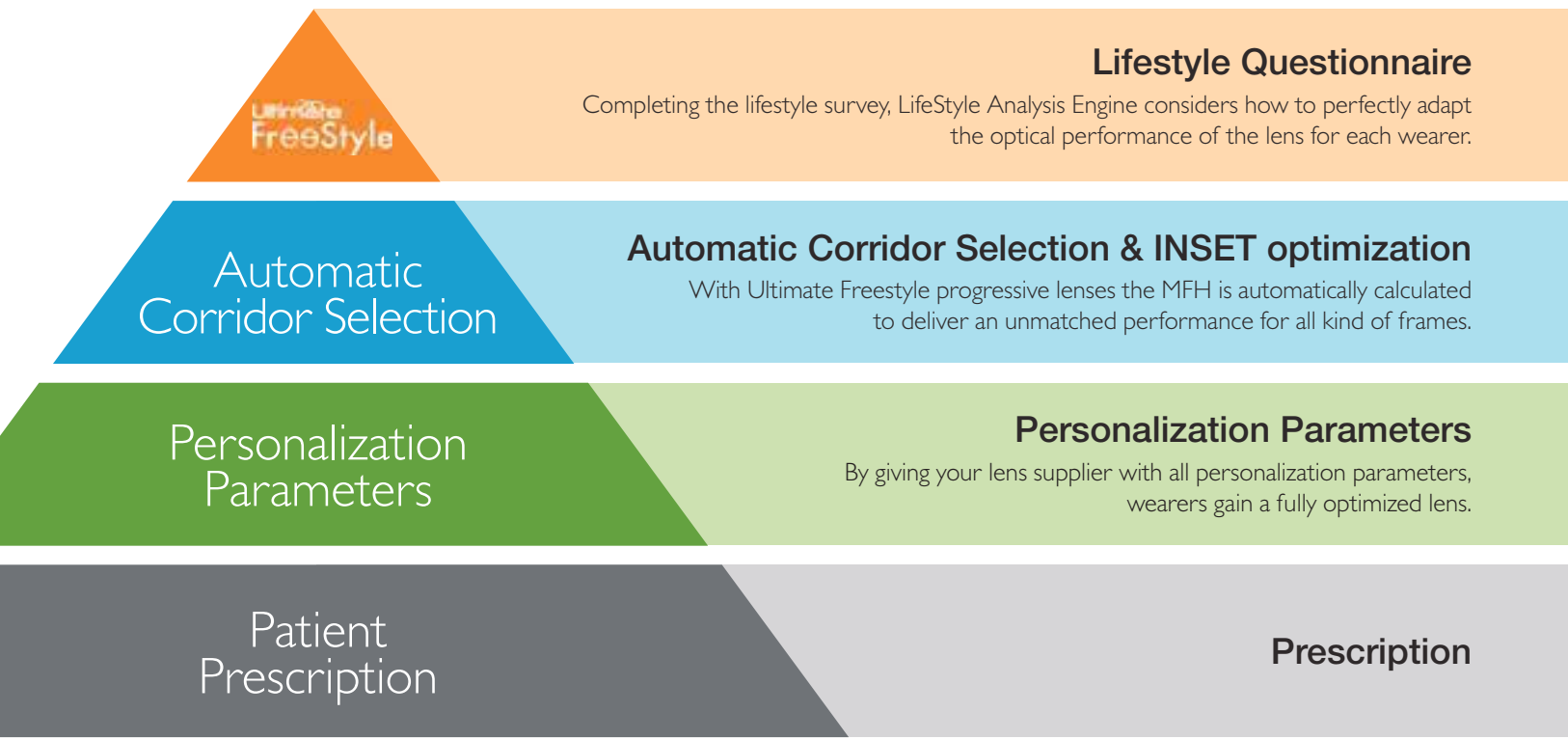
Ultimate FreeStyle App. includes an advanced algorithm (LifeStyle Analysis Engine) to estimate the different aspects related to each wearer lifestyle.

This engine has been developed using thousands of completed surveys, all of them carefully studied by a group of eye care professionals.

Further more, this engine uses the information from all completed surveys in order to improve the algorithm and there for, keep on learning.

Reaching brand new personalization level

By combining both physiological parameters and lifestyle information, Ultimate FreeStyle offers a whole new approach in lens personalization.



Ultimate FreeStyle

DIGITAL RAY-PATH®

The latest generation of progressive Lenses

Design Details

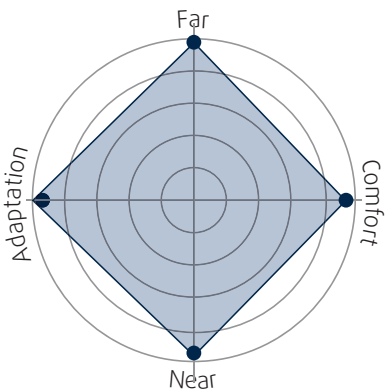
Ultimate FreeStyle is individually produced for each wearer, adapting its power distribution depending on the patient needs.

All power distributions available secure a great performance in all cases with a lower level of undesired astigmatism. This makes Ultimate FreeStyle the best optical solution for users who are searching for the most sophisticated lens flexible to all kind of lifestyles.

Benefits in the new version:

- Innovative and interactive Selling Tool
- LifeStyle Analysis Engine
- User Friendly App
- Enriched Selling Process

Performance



Advantages

- Adaptable Lens Performance
- LifeStyle Personalization
- Fast Adaptation
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism minimized
- Variable Inset: Automatic and manual
- Frame shape optimization available
- Automatic Corridor Selection

Target & Positioning

- Ideal for all progressive wearers who are looking for the maximum personalization level.

Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

Automatic Corridor Selection

From 14 mm
(In steps of 1 mm)



Collecting The Widest Range of Options to define accurately our LifeStyle

Experience & Expectations

Ultimate FreeStyle takes into consideration the patients experience to determinate the progression profile of the final lens.
The smoothness of the progressive lens is a crucial factor in order to ensure the patients adaptation.

Reading & Computer Habits

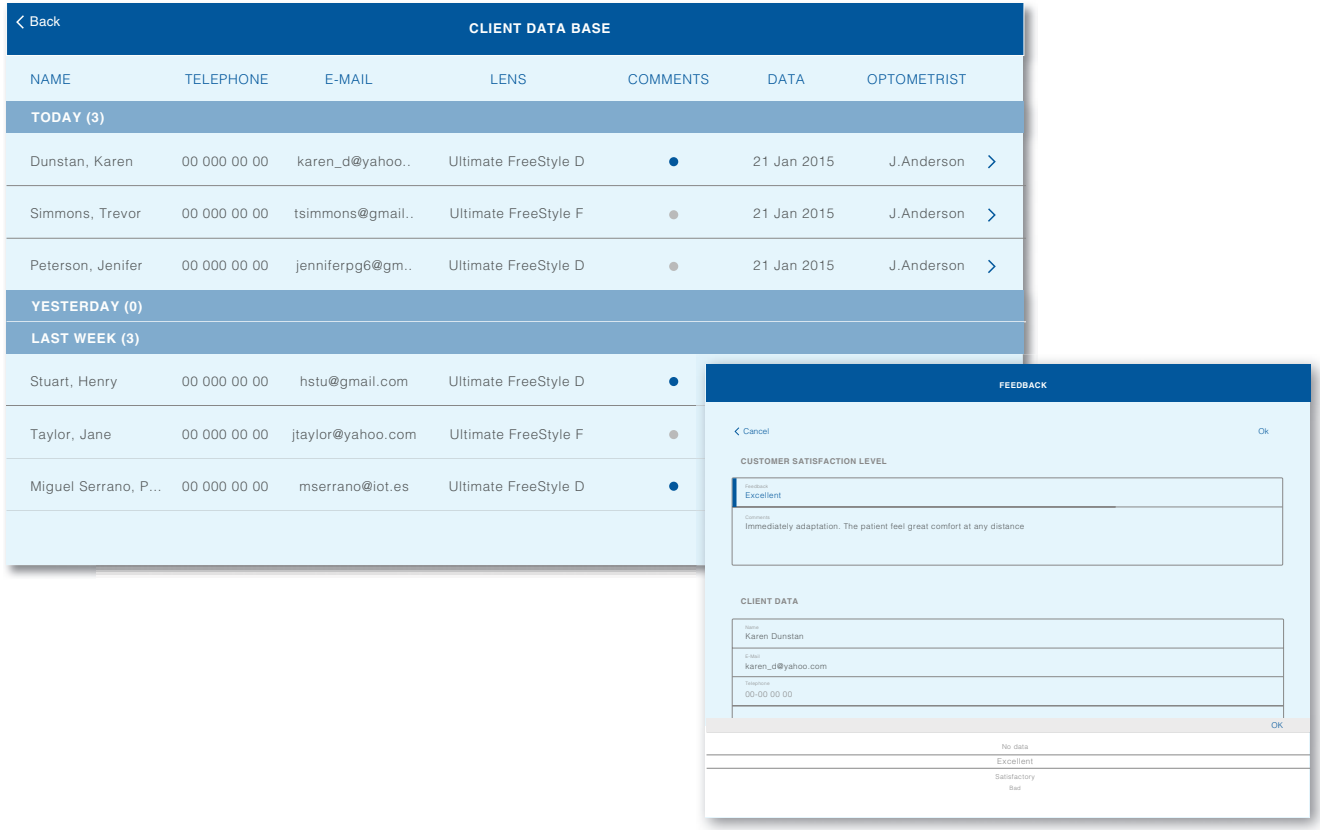
Reading a magazine is not the same as reading from electronic devices, such as tablets. Ultimate FreeStyle adapts the reading visual fields taking into account each patient´s reading habits.

Daily Habits

More than 25 different activities could be selected to obtain the necessary information about patient´s LifeStyle. Icons symbolize these activities. These are intuitive for the user, as they are easy to identify. With these icons, wearers can define their unique habits.

Data Base

Ultimate Freestyle incorporates an innovative database for sales tracking very easy to use. Eye care professionals have the possibility to introduce patients' feedback and their level of satisfaction towards this app.



Ultimate FreeStyle

www.digitalray-path.com

ALPHA SERIES

Powered By DIGITAL RAY-PATH®

DIGITAL RAY-PATH®

ALPHA SERIES

The arrival of free-form Technology has supposed a revolution in lens personalization, the accuracy of the new generators allows Labs to cut a nearly infinite number of surfaces with never-seen-before precision.

At present, combining Digital Ray-Path® technology with a free-form generator, it is possible to create a lens perfectly adapted for each wearer. Prescription, morphological parameters and frame data of the user are taken into account by the IOT LDS to generate a customized surface that will adapt to each wearer and frame, a lens that will compensate each point of the lens surface to grant the best possible visual quality and performance.

Alpha Series represents a group of engineered designs that incorporates the latest Digital Ray-Path® technology; each design under the name Alpha guarantees the most sophisticated possibilities of personalization and optical performance. Alpha Series is more than a lens design, it is a really personalized lens that adapts to wearers with extreme exactitude.

	Name	Technology	camber technology	Far	Near	Comfort	MFH Available
ALPHA SERIES	New Alpha mobile	Digital Ray-Path®	N/A	★★★★☆☆	★★★★★½	★★★★★½	14, 15, 16, 17, 18, 19, 20 mm
	Alpha H25	Digital Ray-Path®	Available	★★★★½☆	★★★★★½	★★★★½☆	14, 15, 16, 17, 18, 19, 20 mm
	Alpha H45	Digital Ray-Path®	Available	★★★★★☆	★★★★★☆	★★★★★☆	14, 15, 16, 17, 18, 19, 20 mm
	Alpha H65	Digital Ray-Path®	Available	★★★★★½	★★★★½☆	★★★★½☆	14, 15, 16, 17, 18, 19, 20 mm
	Alpha S45	Digital Ray-Path®	Available	★★★★½☆	★★★★½☆	★★★★★★	16, 17, 18, 19, 20 mm
	Ultra Short	Digital Ray-Path®	N/A	★★★★☆☆	★★★½☆☆	★★½☆☆☆	10, 11, 12, 13 mm

Alpha mobile

Alpha H45

Alpha H25

Alpha H65

Alpha S45

Ultra Short

Alpha mobile

DIGITAL RAY-PATH®

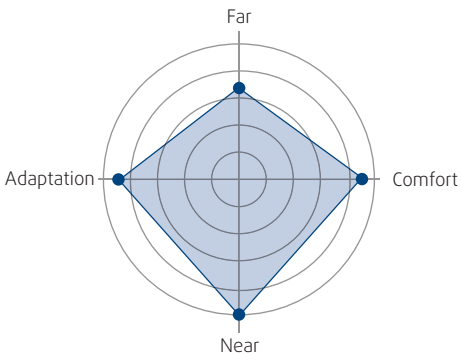
Designed exclusively for smartphone and tablet users

Design Details

The introduction of electronic devices such as smartphones and tablets in our lives has led to an increase in the frequency with which we find the need to switch between near and distance vision. This means we look at things in a new way, using a visual strategy that requires lenses to allow for switching between near and distance vision quickly and comfortably.

Developed specifically for users of electronic devices, this design provides wide visual fields for both near and distance vision combined with a smooth transition which facilitates switching between them. The design also includes a shorter progression profile in order to make the transition from distance to near vision even easier.

Performance



Advantages

- Developed specifically for users of electronic devices
- Wide visual fields for both near and distance vision
- Comfort and high definition thanks to Digital Ray-Path® technology
- Available in seven progression lengths
- High quality vision in all viewing directions
- Reduced oblique astigmatism
- Variable inset: Automatic and manual
- Frame shape optimization available

Target & Positioning

- Premium personalized progressive lens for users of electronic devices.
- Ideal for progressive lens wearers ages 40 and over, both experts and novices.

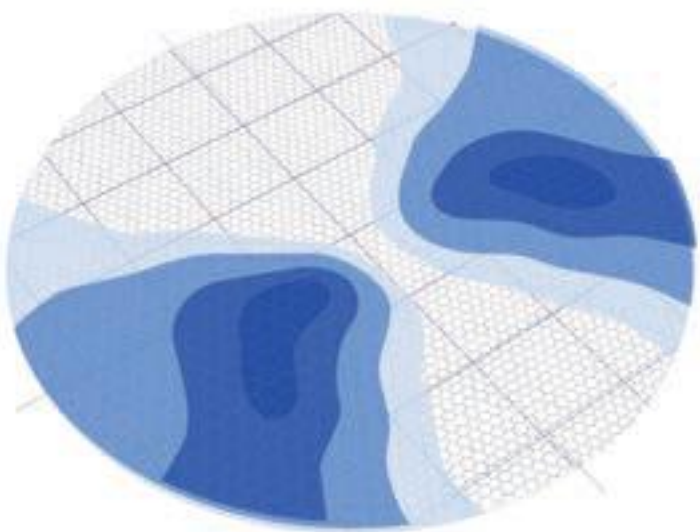
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

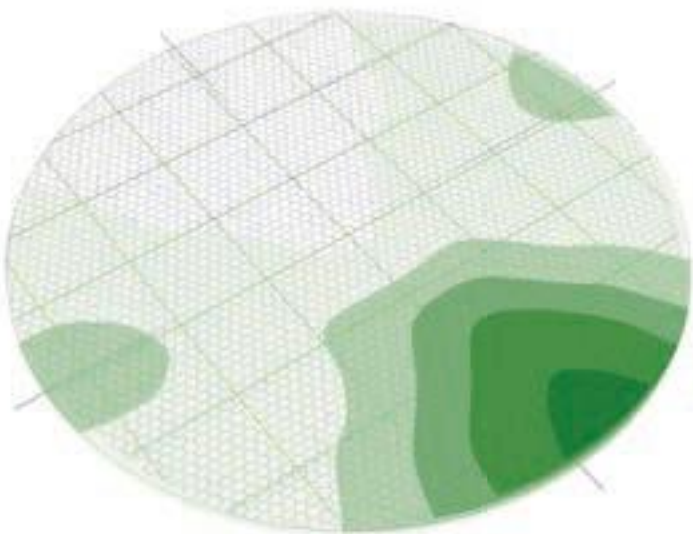
MFH Minimum Fitting Height

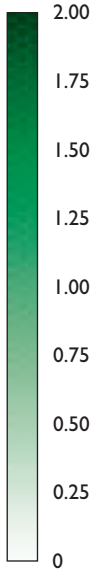
14 mm
15 mm
16 mm
17 mm
18 mm
19 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm





Alpha H25

DIGITAL RAY-PATH®

Specially designed for the near vision

Design Details

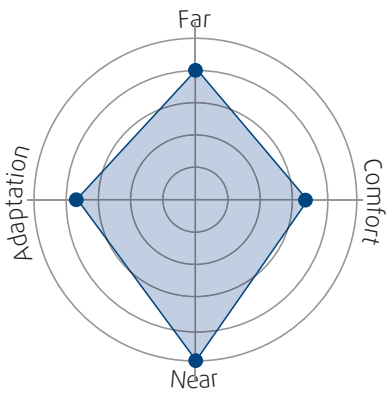
In our search for continuous improvement, IOT launches the Alpha H25. While maintaining the lens philosophy from the previous version (Alpha H20), Alpha H25 provides an enhanced reading area with an optimized and clear far vision.

More stable and wider visual fields mixed with a lower level of unwanted astigmatisms makes this design the best for users who are looking for a high quality lens specifically designed for near activities.

Benefits in the new version:

- Wider fields, specifically the reading area to guarantee better comfort
- Lower level of unwanted astigmatism
- Improvement of the general performance

Performance



Advantages

- Wider Near Visual field
- Balance between far and near
- Reduction of head inclination for near tasks
- Available in seven progression lengths
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism minimized
- Variable Inset: Automatic and manual
- Frame shape optimization available

Target & Positioning

- Ideal for experienced progressive wearers with an intensive use of near vision like frequent reading.
- A Personalized Progressive Lens with high performance at near vision.

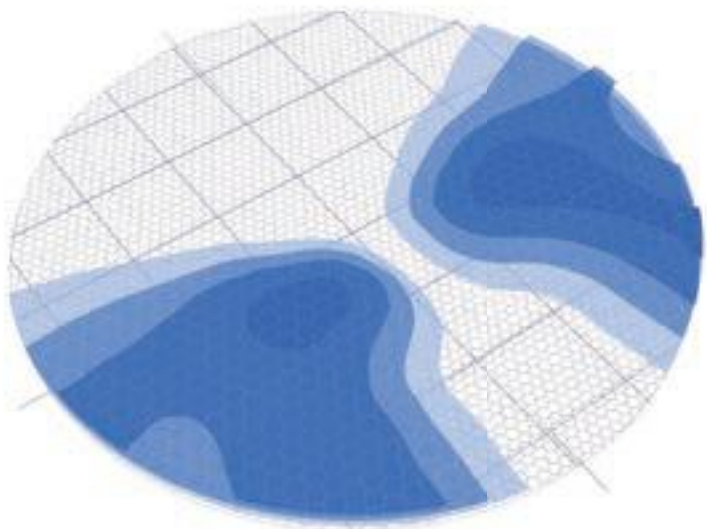
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

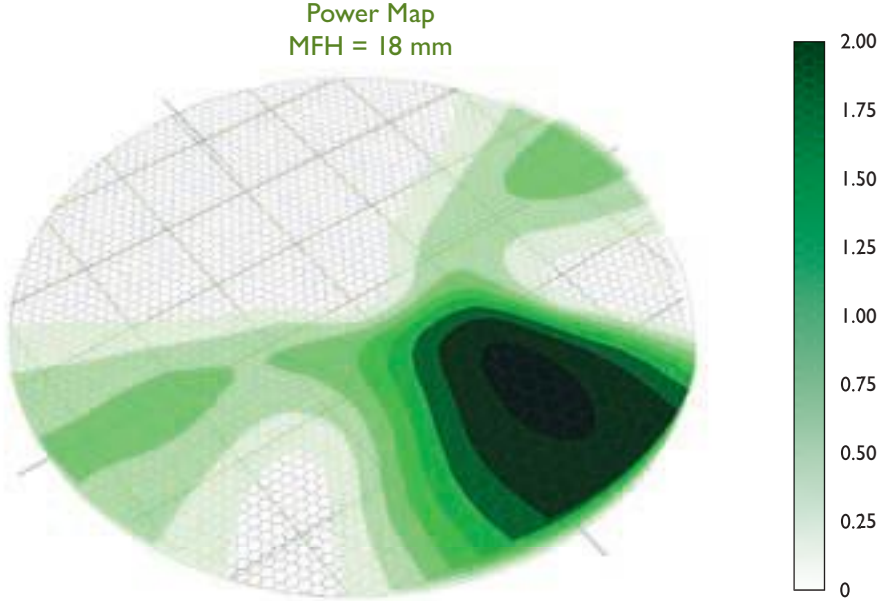
MFH (Minimum Fitting Height)

14 mm
15 mm
16 mm
17 mm
18 mm
19 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Alpha H45

DIGITAL RAY-PATH®

Perfect balance between distance and near visual fields

Design Details

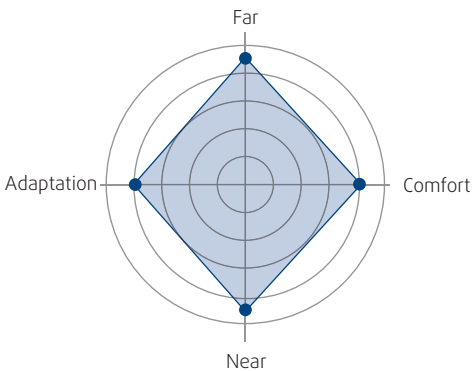
IOT engineers have developed a new calculation method that generates better and more sophisticated progressive lenses. As a result, IOT has now even better control of the progression profile and create wider visual areas.

Alpha H45 is the update version of IOT Alpha H40 design. This design represents the most sophisticated designs with a great level of success. It maintains the same philosophy as the previous version but improves softness and usable areas. Alpha H45 is the perfect balance between far, intermediate a near vision.

Benefits in the new version:

- Wider and more stable near and far vision
- More symmetric design, corridor is easier to be found
- Lower level of unwanted astigmatism
- Improvement of the general performance

Performance



Advantages

- Wide near and far visual zones
- Perfect balance between near and distance
- Comfort and high precision together in the same lens
- Available in seven progression lengths
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism minimized
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for demanding customers.
- Premium all-Purpose Personalized Progressive Lens .

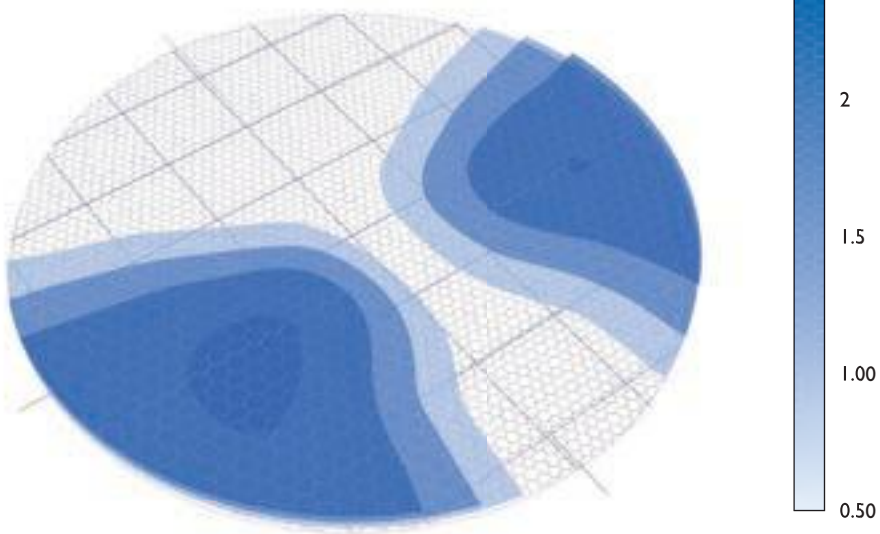
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

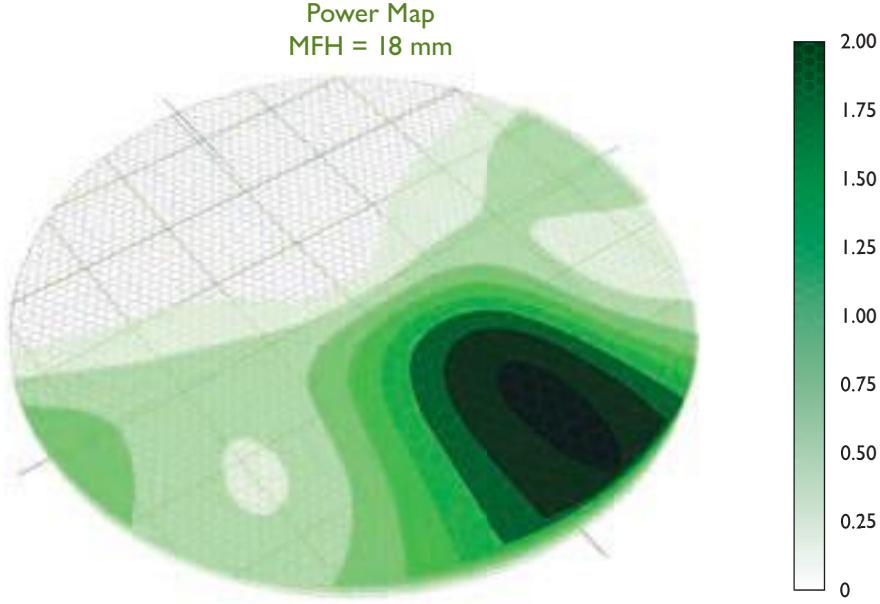
MFH (Minimum Fitting Height)

14 mm
15 mm
16 mm
17 mm
18 mm
19 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Alpha H65

Extremely wide distance visual area maintaining a comfortable near visual field

Design Details

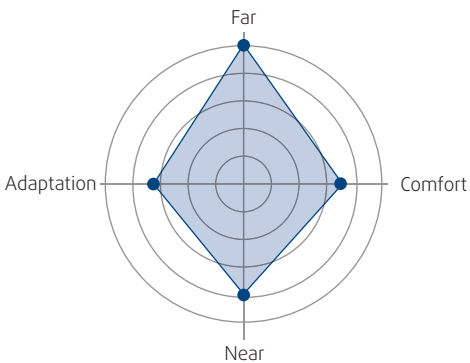
Enjoying landscapes, great buildings, movies in the cinema, etc. requires a wide, clear far field. Alpha H65 appears as great solution for people who spend long times outdoors, people that need a very good distance vision.

Alpha H65 is the updated version of Alpha H60, one of the most popular IOT designs. Alpha H65 is a design for general purposes but it has been developed focused on distance vision. It offers a panoramic far visual field with freedom for lateral movements of the eyes.

Benefits in the new version:

- Wider reading area to guarantee a better comfort
- Wider and clearer distance vision
- Lower level of unwanted astigmatism
- Improvement of the general performance

Performance



Advantages

- Extra wide distance visual zone
- Available in seven progression lengths
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism minimized
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for expert wearers who enjoy in outdoor environments or need superior distance vision.
- Personalized Progressive Lens with panoramic clarity in the distance zone.

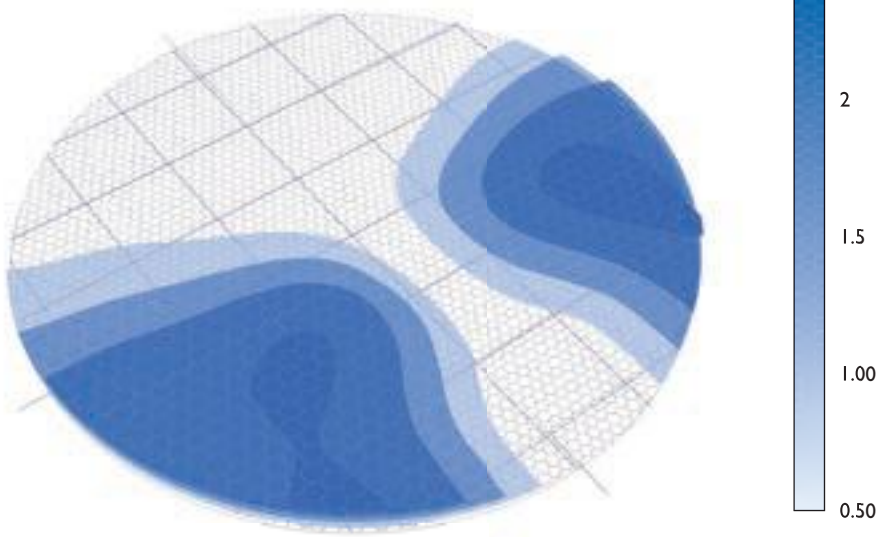
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

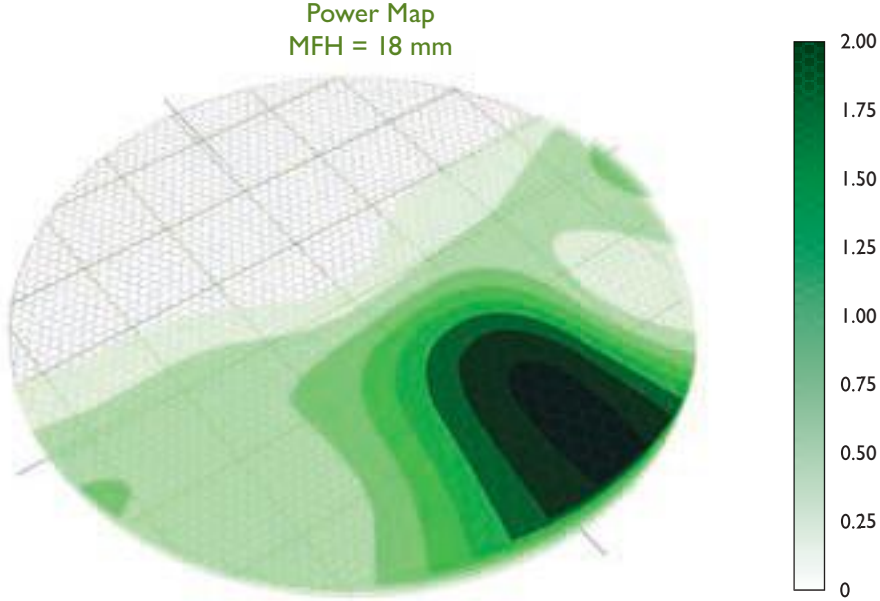
MFH Minimum Fitting Height

14 mm
15 mm
16 mm
17 mm
18 mm
19 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Alpha S45

DIGITAL RAY-PATH®

Fast adaptation and visual comfort

Design Details

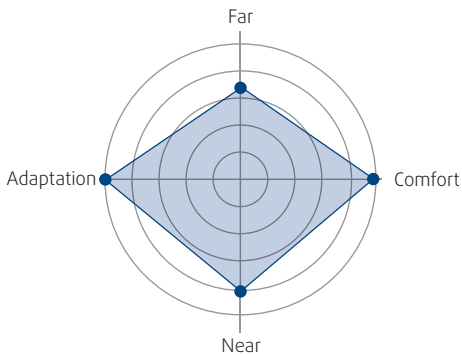
Apha S45 is a general use progressive design specially created for first time progressive wearers. It has a very smooth transition between distance and near vision that offers to the user the easiest way to find the focus points.

Alpha S45 is the new version of Alpha S40. It is a safe belt for first time progressive customer satisfaction due to its high performance and its easy adaptation.

Benefits in the new version:

- It has softer transitions between the different visual areas
- Shorter adaptation period
- Cleaner and more stables far and near visual fields
- Less level of unwanted astigmatism
- Improvement of the general performance

Performance



Advantages

- Very wide near field mixed with an also wide far vision zone
- Great comfort, adaptation is easy and fast
- Available in five progression lengths
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism minimized
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for beginners or non-adapted patients.
- First Personalized Progressive Design with instant comfort that reduces the risk of non-adaptation.

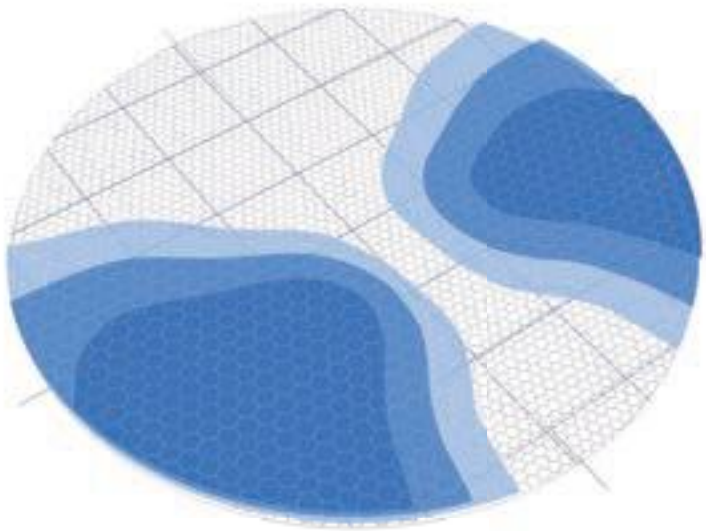
Parameters

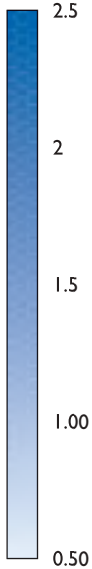
Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

MFH Minimum Fitting Height

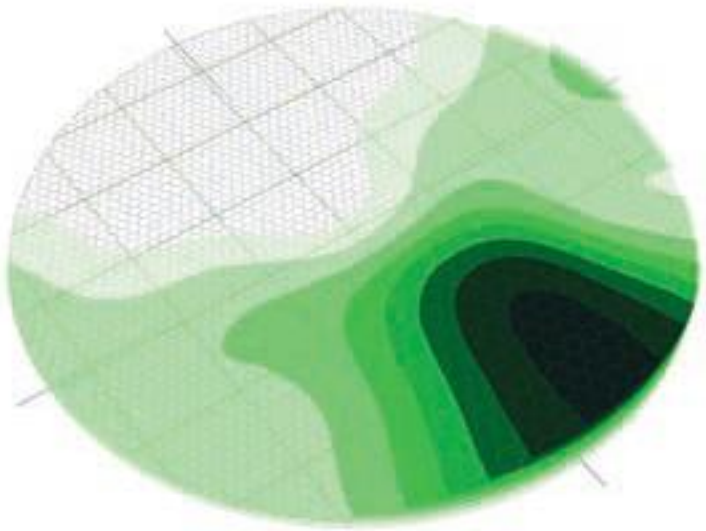
16 mm
17 mm
18 mm
19 mm
20 mm

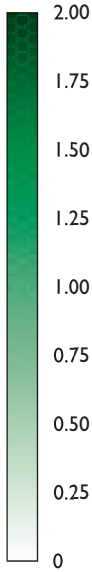
Cylinder Map
MFH = 18 mm





Power Map
MFH = 18 mm





Ultra Short

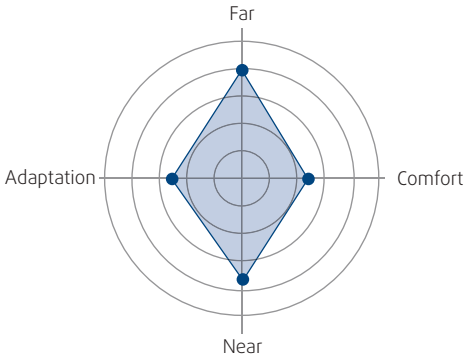
DIGITAL RAY-PATH®

Ultra short progression for small and fashion frames

Design Details

Sometimes fashion frames are too small for regular progressive lenses and the wearer is forced to select a bigger frame. Ultra Short, specially developed for small frames, offers more options and flexibility to select the ideal progression length perfectly adapted to each frame. Thanks to IOT's new mathematical methods to control the progression length, new concept of short progressive design has been engineered. Ultra short design has the perfect balance between far and near vision, for a lens that fits in the shortest fitting heights.

Performance



Advantages

- Developed for patients who want to wear small frames
- Fast transition between far and near vision
- Small progression length to adaptable to the smallest frames
- Available in four progression lengths
- High precision and high personalization due to Digital Ray-Path® Technology
- Clear vision in every gaze direction
- Oblique astigmatism minimized
- Variable inset: Automatic and manual
- Frame shape personalization available.

Target & Positioning

- Ideal for wearers who want to wear very small frames.
- 5 Personalized Progressive Lens ideal for small frames.

IOT recommends to use this design only for small frames. If a longer progression fits the frame, then it is better to choose a different design.

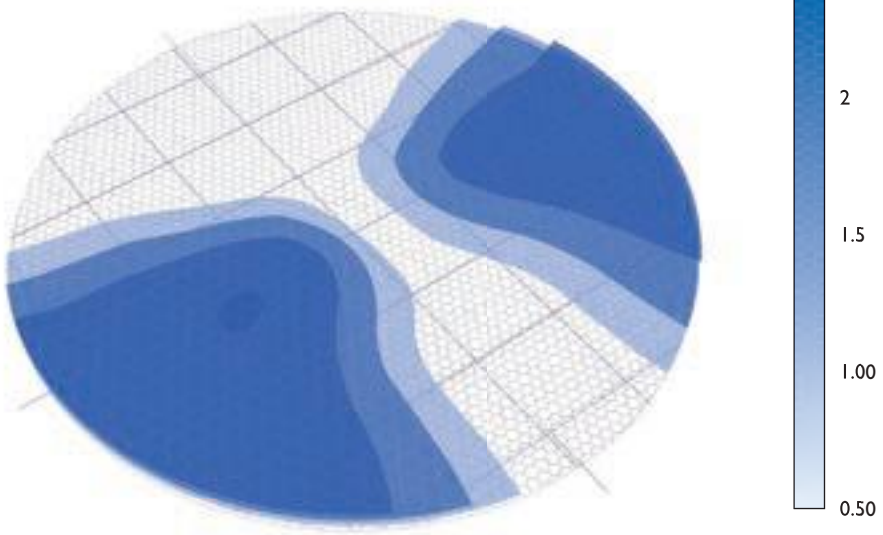
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

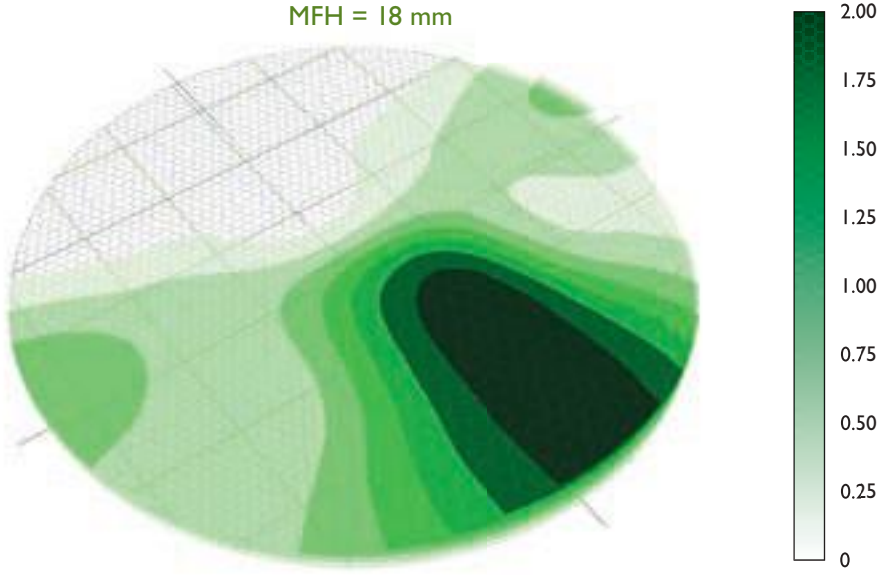
MFH Minimum Fitting Height MFH

10 mm
11 mm
12 mm
13 mm

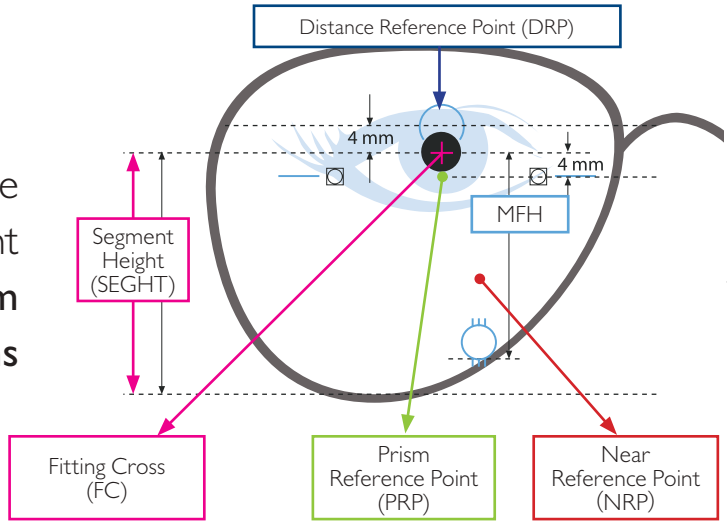
Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Reference measurement in a **free-form ophthalmic lens**



Minimum Fitting Height (MFH)
Minimum distance from the pupil centre to the lower border of the frame recommended for the assembly.

Icons Description & Definition

Camber™

Design available for Camber™ variable curve blank lenses

Personalization

Personalized considering the individual parameters of each wearer

DigitalRay-Path®

Powered by Digital Ray-Path® technology

Enhanced Far

Especially improved distance vision area

Balanced

Balanced power distribution between near and distance vision

Enhanced Near

Especially improved for near vision area

Enhanced for Beginners

Especially improved for beginners

Enhanced for Computers

Special for computer and office activities

Short Available

Available short corridor options

Not For Driving

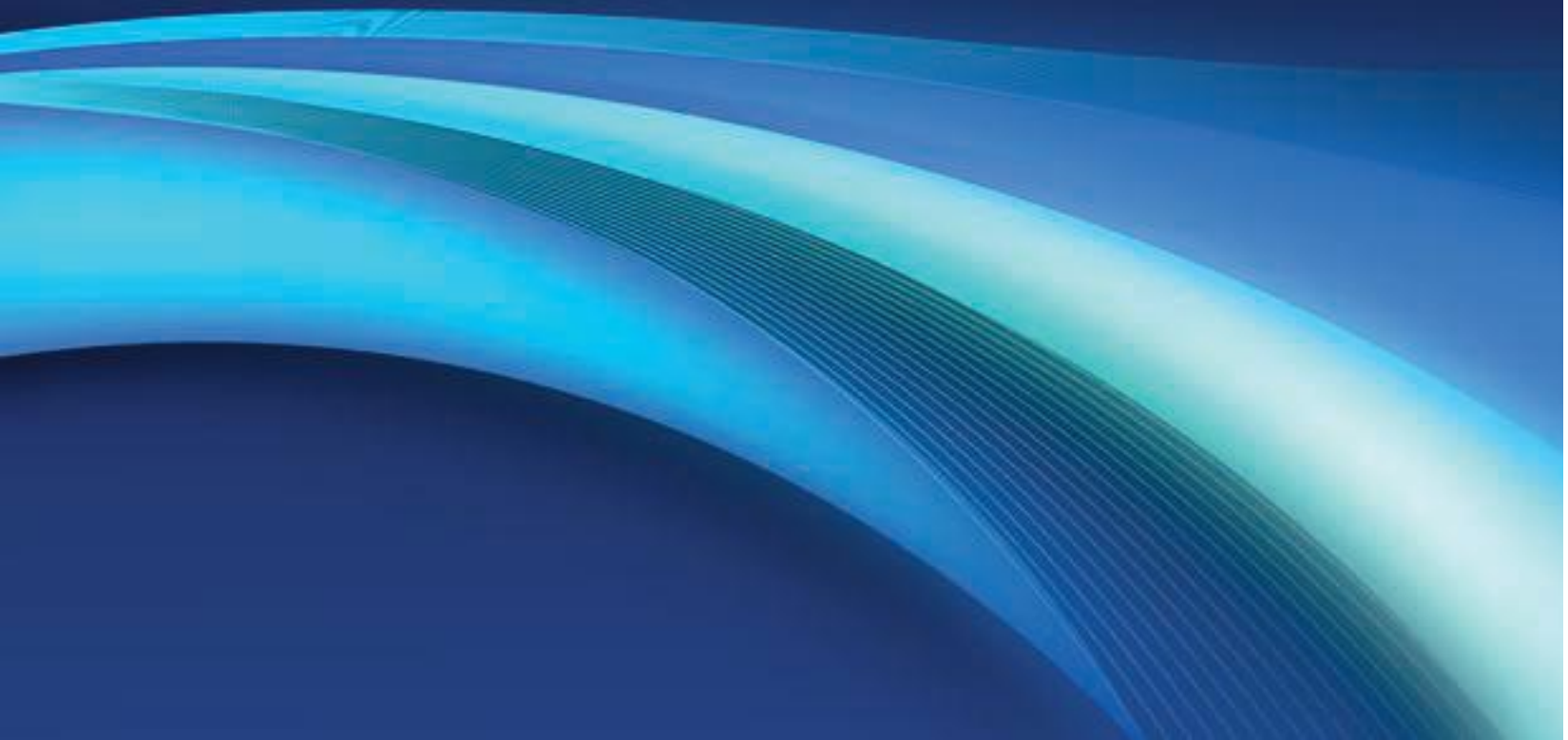
Not Suitable For Driving

Wrap Available

Lens available for sport frames, required real wrap angle or ZTILT as input

SP BASIC SERIES

Powered By SURFACE POWER



SURFACE POWER

SP BASIC SERIES

One of the most successful marketing strategies is to offer a complete portfolio of products that will cover any demands from the final user. As you have seen in the previous section, with the Alpha Series your company will be able to cover the highest top segment with high-performance customizable lenses.

Now, with the Basic Series you will also have the chance to offer a basic product with an intermediate position in your portfolio, a product that could be offered to a less demanding clientele, so finally, you will have potential to satisfy different market segments with good quality products.

Basic Series is a group of progressive designs in several progression lengths that have been calculated using the Surface Power technology, this means no personalization. This calculation method provides the final lens with the power prescribed to the wearer without considering the different personalization parameters.

	Name	Technology	camber technology	Far	Near	Comfort	MFH Available
BASIC SERIES	Basic H20	Surface Power®	N/A	★★★½☆☆	★★★★½☆	★★★½☆☆	14, 16, 18, 20 mm
	Basic H40	Surface Power®	N/A	★★★★☆☆	★★★★☆☆	★★★★☆☆	14, 16, 18, 20 mm
	Basic H60	Surface Power®	N/A	★★★★½☆	★★★½☆☆	★★★½☆☆	14, 16, 18, 20 mm
	Basic S40	Surface Power®	N/A	★★★½☆☆	★★★½☆☆	★★★★★☆	16, 18, 20 mm

Basic H40

Basic H20

Basic H60

Basic S40

BASIC H20

SURFACE POWER

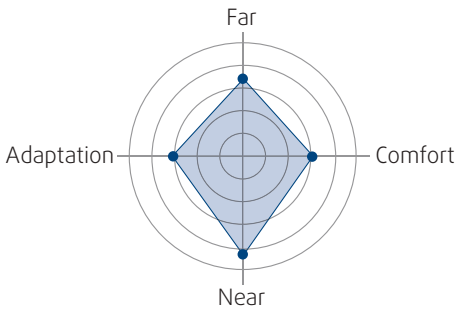
A non-compensated design improving near vision

Design Details

With the new Basic H20, IOT completes the Basic series including a non-compensated lens where the power distribution has been studied to provide the users with a wider reading area.

With an expanded near visual field and a good performance for intermediate and far areas, this lens is perfect for users who look for an economic option and have a preference for near-vision activities.

Performance



Advantages

- Enhanced near visual field
- Good performance in far and intermediate areas
- Available in four progression lengths
- Surface Power® calculation makes an easy-to-understand lens for practitioner
- Variable Inset: automatic and manual
- Frame shape optimization available

Target & Positioning

- Ideal as economic solution for expert users who needs a generous reading visual field.
- Non-compensated design for reading vision activities.

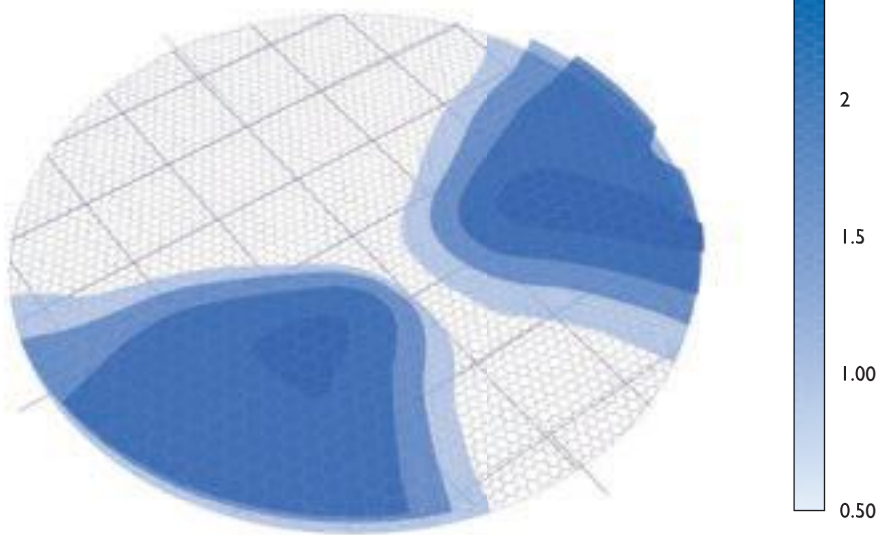
Parameters

Vertex distance	✖
Near working distance	✖
Pantoscopic angle	✖
Wrapping angle	✖
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

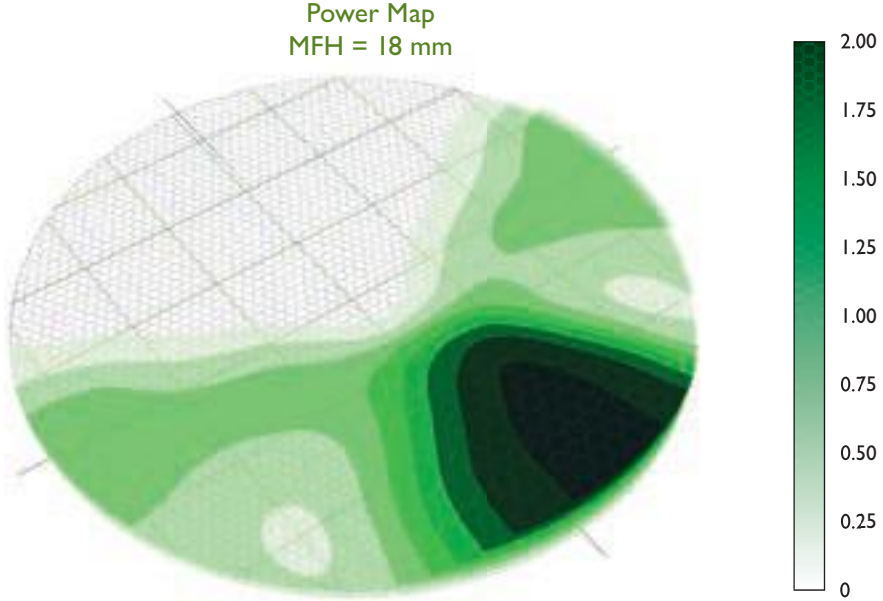
MFH Minimum Fitting Height

14 mm
16 mm
18 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



BASIC H40

SURFACE POWER

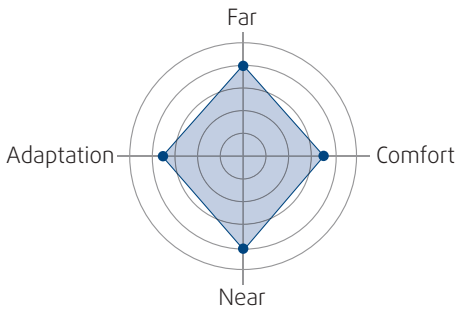
A non-compensated lens with good balance between distance and near visual fields

Design Details

Basic design well balanced between far and near fields. The technology used for calculating the surface of this basic progressive is Surface Power®. This technology guarantees that measured power will be the same as the prescription, and this makes this lens easy to be understood and sold by all kinds of practitioners.

Basic H40 power distribution has been designed to make a standard lens which will provide users with a balanced design with good performance in any scenario, wide near and also wide far mixed with a good corridor.

Performance



Advantages

- Well balanced basic lens
- Wide near and far
- Good performance for standard use
- Available in four progression lengths
- Surface Power® calculation makes an easy-to-understand lens for the practitioner
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for expert users who are looking for an economic solution.
- Non-compensated design for a general use with generous visual areas for near and distance.

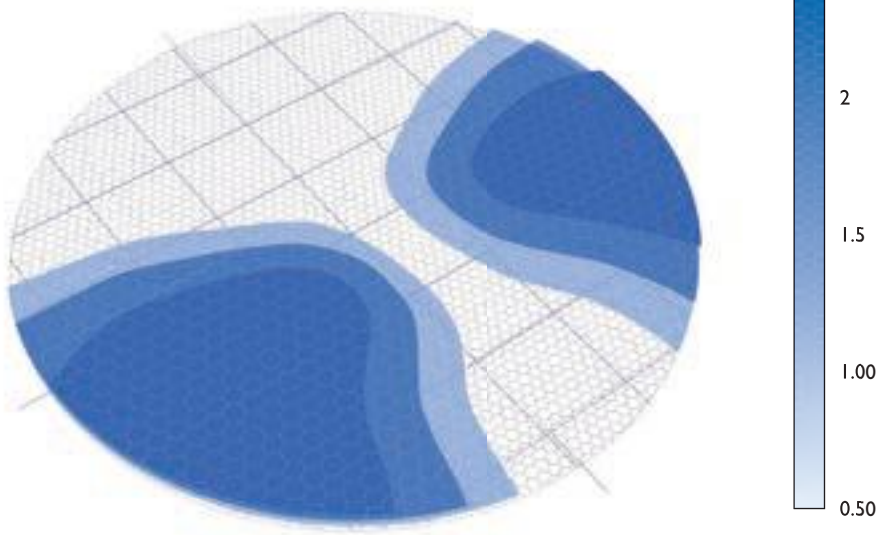
Parameters

Vertex distance	✖
Near working distance	✖
Pantoscopic angle	✖
Wrapping angle	✖
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

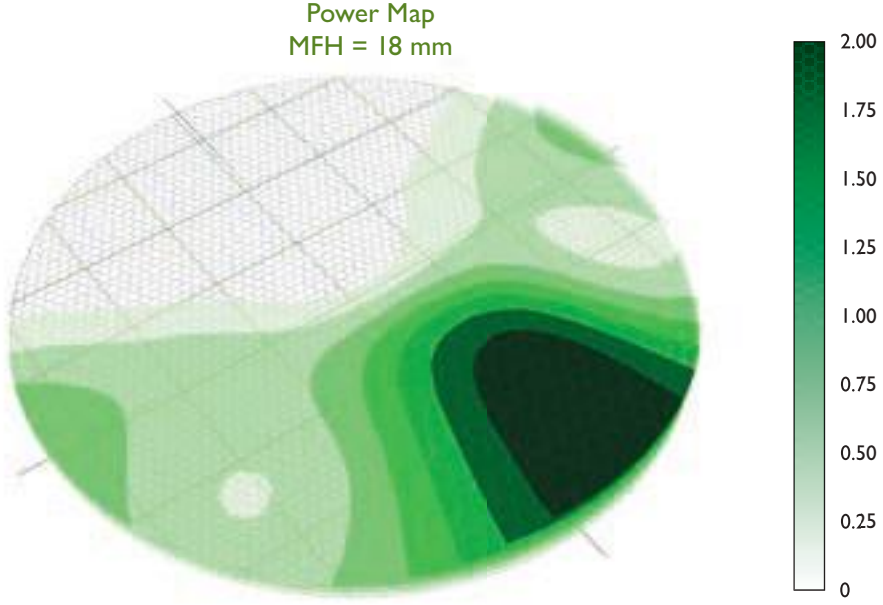
MFH Minimum Fitting Height

14 mm
16 mm
18 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



BASIC H60

SURFACE POWER

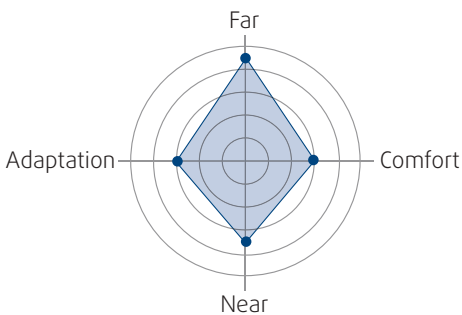
A non-compensated design focused on the distance vision

Design Details

This basic design represents the hardest version of the Basic Series. It has been engineered as a basic hard design with the widest far visual field.

The power distribution and hard transition make the Basic H60 a good lens for wearers with a preference for far-vision activities.

Performance



Advantages

- Hardest basic design
- Good visual fields
- Enhanced far field
- Available in four progression lengths
- Surface Power® calculation makes an easy-to-understand lens for the practitioner
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for expert users who needs a generous far visual field.
- Non-compensated design for far vision activities (walking, cinema, travels…).

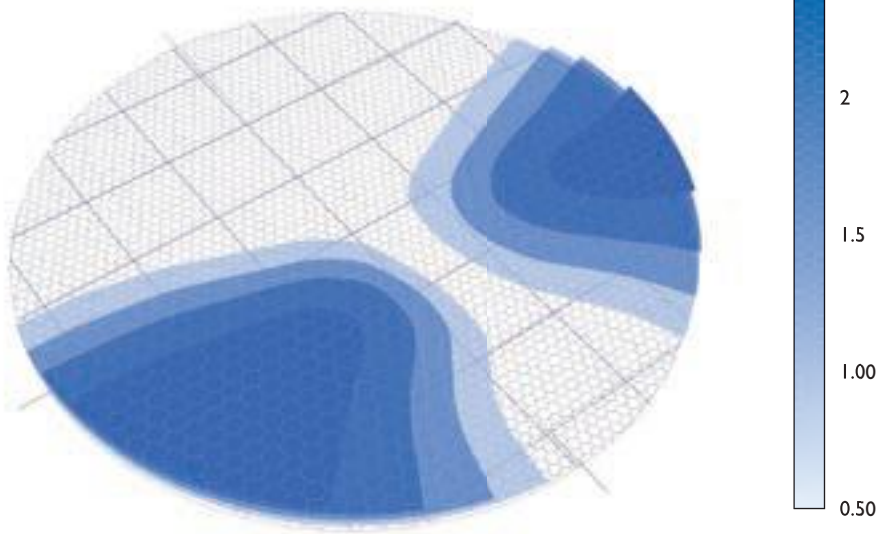
Parameters

Vertex distance	✖
Near working distance	✖
Pantoscopic angle	✖
Wrapping angle	✖
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

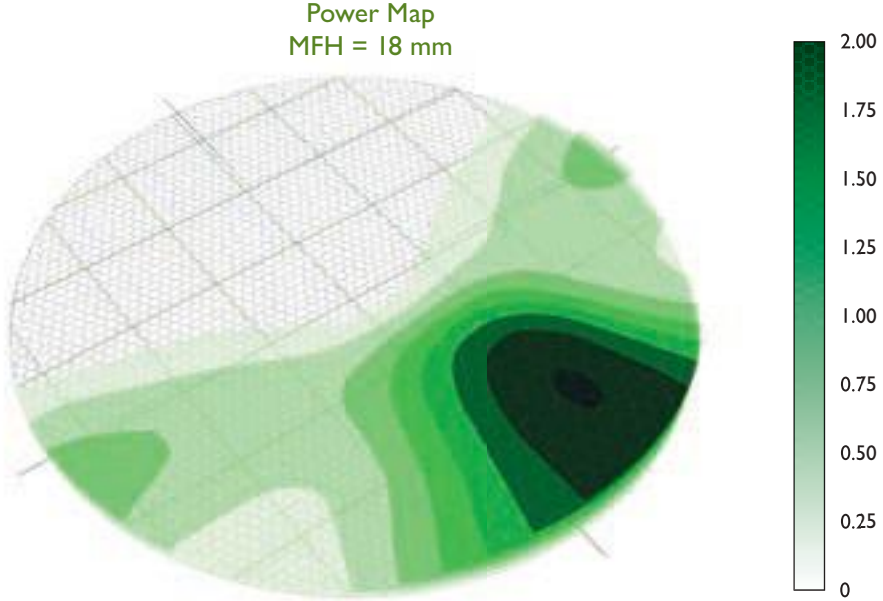
MFH Minimum Fitting Height

14 mm
16 mm
18 mm
20 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



BASIC S40

SURFACE POWER

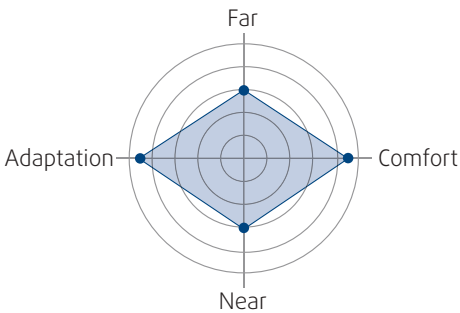
A non-compensated design for easy adaptation

Design Details

Basic S40 is a well-balanced design, the compromise between far and near has been engineered for giving good vision at both distances. As a soft design the unwanted astigmatism is very low, providing wearers with comfortable sensations due to the reduction of distortions like swim effect. Unexperienced wearers will appreciate it due its comfort and balanced compromise between distances.

Basic S40 is a good optical solution for those wearers that are looking for an intermediate price soft progressive lens.

Performance



Advantages

- Well balanced basic soft design
- Minimum astigmatism
- Soft transition between optical zones
- Available in three progression lengths
- Surface Power® calculation technologies guaranties a precise values with lensometers
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for novice (or non-adapted) users who needs a progressive design for a general use.
- Non-compensated design with an exceptional comfort and easy adaptation.

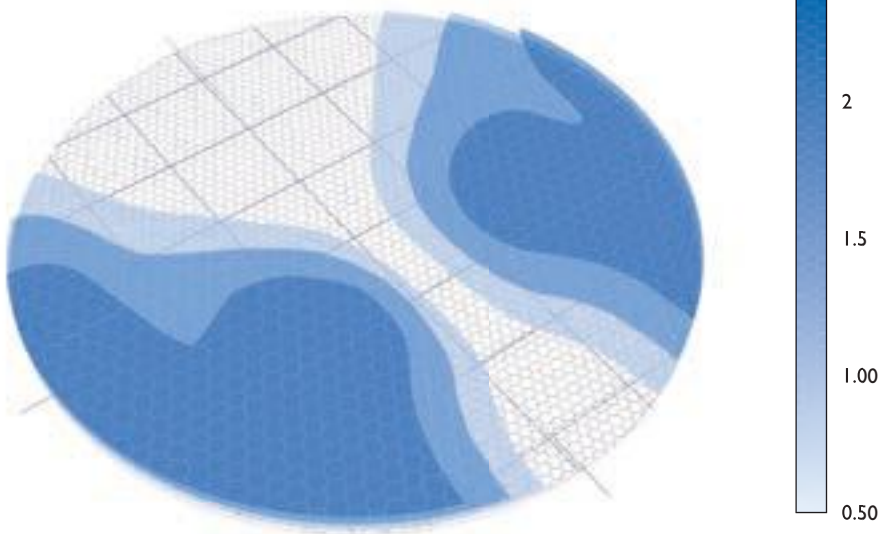
Parameters

Vertex distance	✖
Near working distance	✖
Pantoscopic angle	✖
Wrapping angle	✖
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

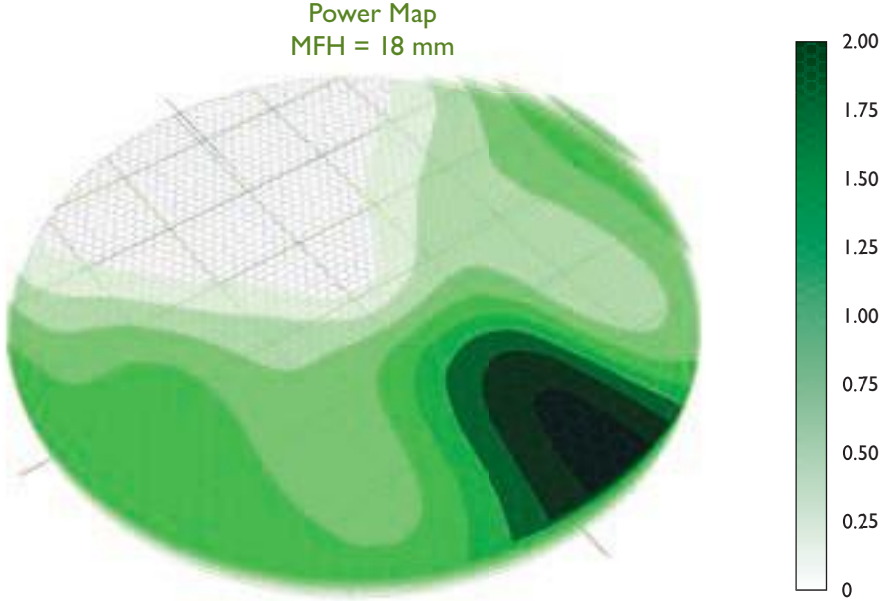
MFH Minimum Fitting Height

16 mm
18 mm
20 mm

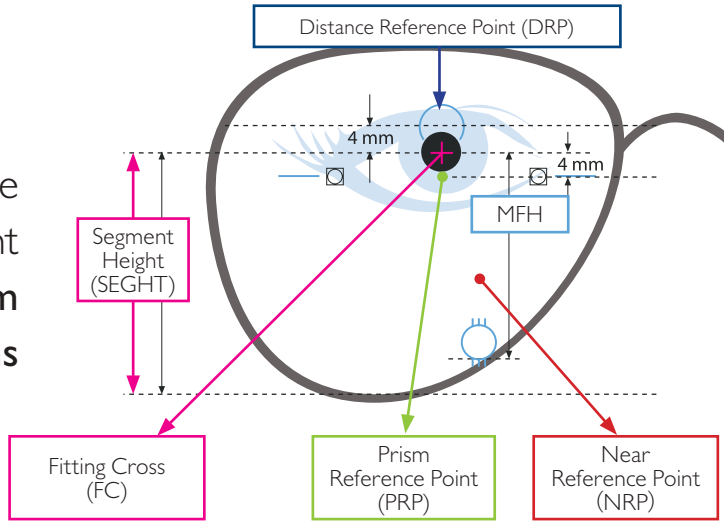
Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Reference measurement in a **free-form ophthalmic lens**



Minimum Fitting Height (MFH)
Minimum distance from the pupil centre to the lower border of the frame recommended for the assembly.

Icons Description & Definition

Camber™

Design available for Camber™ variable curve blank lenses

Personalization

Personalized considering the individual parameters of each wearer

DigitalRay-Path®

Powered by Digital Ray-Path® technology

Enhanced Far

Especially improved distance vision area

Balanced

Balanced power distribution between near and distance vision

Enhanced Near

Especially improved for near vision area

Enhanced for Beginners

Especially improved for beginners

Enhanced for Computers

Special for computer and office activities

Short Available

Available short corridor options

Not For Driving

Not Suitable For Driving

Wrap Available

Lens available for sport frames, required real wrap angle or ZTILT as input

Bifocal Series

Powered By
DIGITAL RAY-PATH®

DIGITAL ROUND-SEG

DIGITAL RAY-PATH®

Revolutionary full back side free-form round-seg bifocal

Design Details

The new Digital Round-Seg is a compensated design, made to focus with two different viewing areas. The top of the lens is for distance vision and the curved segment at the bottom is for reading.

It offers wide fields of clear vision for both distances. Because there is no power progression a sudden 'jump' between the two optical zones will be noticed.

There are no lateral lobes of unwanted astigmatism because of not having a power progression; this provides wearers with comfortable vision and no distortion or swim effect.

The diameter of the add segment is available in 28 mm and 40 mm with a transition area of 2.5 mm. The distance between the pupil and the segment is 3 mm.

Advantages

- High quality for distance and near vision
- Wide distance and near visual fields
- Clear vision in every gaze direction, no oblique astigmatism
- Frame shape personalization available

Target & Positioning

- Ideal for wearers who are looking for a digital free-form bifocal.
- Personalized free-form bifocal lens with optical clarity in the distance and near zone.

Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

MFH Minimum Fitting Height

14 mm

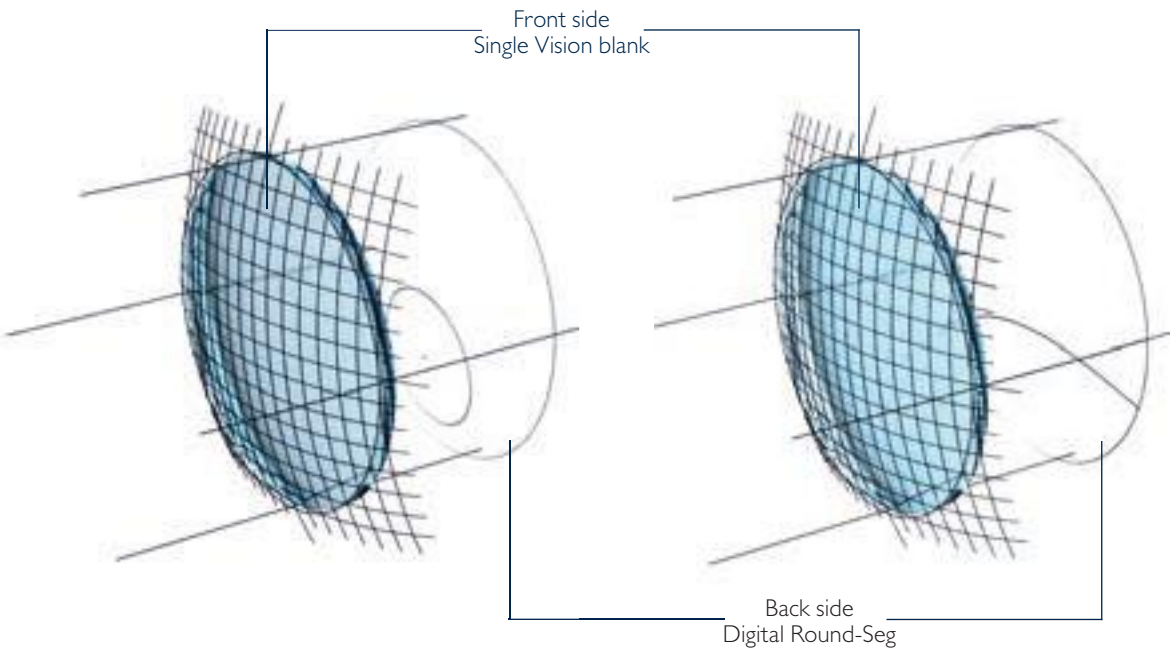
Segment Diameters

28 mm

40 mm

Digital Round Seg 28 mm

Digital Round Seg 40 mm



B-Free Bifocal

DIGITAL RAY-PATH®

The newest generation of digital Bifocal lenses

Design Details

B-Free Bifocal is a new digital bifocal lens which displays no "image jump" between distance and near visual zones.

B-Free Bifocal is a new generation of personalized free-form bifocal lenses optimized by Digital Ray-Path® technology. Engineered using the latest technology considering the binocular eye-lens system and movement across the lens, this design represents the most accurate combination of quality and comfort for bifocal wearers.

It is a fully compensated design offering comfortable vision free from distortion along the natural eye path by eliminating "image jump" when looking from the distance to the near zone. It is a new bifocal concept that not only improves vision, but is also more cosmetically pleasing. Now the lab can provide an upgraded fully personalized and compensated version of bifocal lenses.

Since the B-Free design is essentially a mix between a bifocal and multifocal lens, it can be used to help convert bifocal wearers into progressive wearers.

Advantages

- Better looking eliminating the visible dividing line
- No "image jump" from distance to near zone
- Better visional quality in the distance and near zones
- Fully compensated, enhanced vision
- Fully customizable
- No stocking
- Availability
- Ideal solution for non-adapted progressive wearers
- Frame shape personalization available

Target & Positioning

- Ideal for bifocal wearers or for non-adapted progressive lens wearers.
- B-free is a personalized and more cosmetically appealing solution that eliminates "image jump".

Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

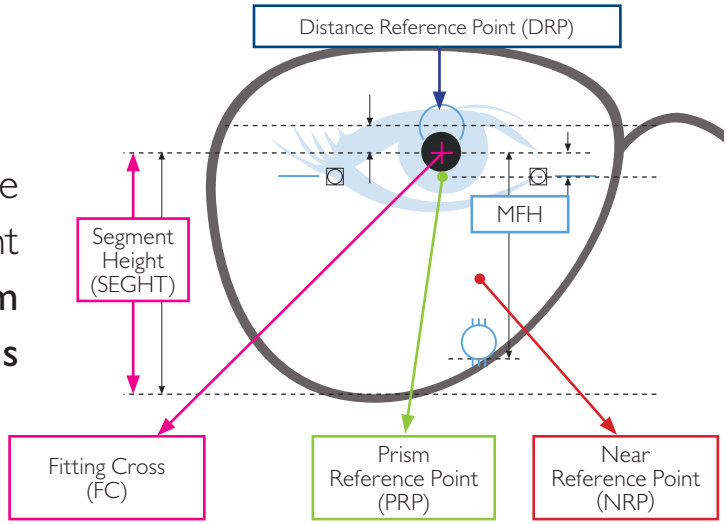
MFH Minimum Fitting Height

15 mm

Conventional Bifocal lens

B-Free lens

Reference measurement in a **free-form ophthalmic lens**



Minimum Fitting Height (MFH)
Minimum distance from the pupil centre to the lower border of the frame recommended for the assembly.

Icons Description & Definition

Camber™

Design available for Camber™ variable curve blank lenses

Personalization

Personalized considering the individual parameters of each wearer

DigitalRay-Path®

Powered by Digital Ray-Path® technology

Enhanced Far

Especially improved distance vision area

Balanced

Balanced power distribution between near and distance vision

Enhanced Near

Especially improved for near vision area

Enhanced for Beginners

Especially improved for beginners

Enhanced for Computers

Special for computer and office activities

Short Available

Available short corridor options

Not For Driving

Not Suitable For Driving

Wrap Available

Lens available for sport frames, required real wrap angle or ZTILT as input

Indoor Series

Powered By

SURFACE POWER DIGITAL RAY-PATH®

Indoor Series

Introduction

Occupational lenses are designed for intermediate and near environment (computer and reading). Undoubtedly, these lenses are the best choice to work at near-intermediate distance where reading glasses are inadequate and progressive lenses have limitations in the lateral visual field.

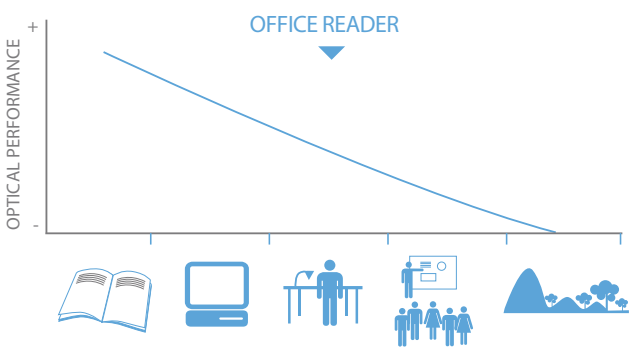
An occupational lens is the perfect complement to your current progressive or bifocal lenses, as they provide the freedom to work on your computer, at your desk, read a book or cook. Indoor environments are the adequate place for wearing this kind of lenses.

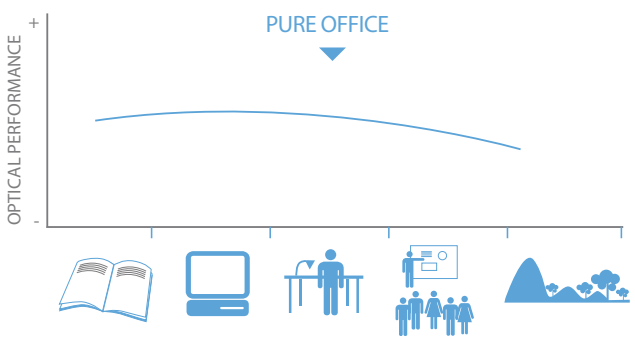
Occupational lenses allow users to work in a natural posture due to their power distribution, especially conceived for indoor environments. Thanks to the expanded near-intermediate visual fields of occupational designs wearers will reduce their necessary back and head movements.

Instant Adaptation

Occupational designs are also soft designs with a comfortable transition between distances. The focusing point is really easy to find, reducing the adaptation time.

Mixing expanded near-intermediate fields with soft transitions the final result is a top comfortable lens with nearly instant adaptation.





	Name	Technology	camber technology	Far	Near	Comfort	MFH Available
INDOOR SERIES	Office Reader	Digital Ray-Path® / Surface Power®	Available	☆☆☆☆☆☆	★★★★★★	★★★★★½	14, 18 mm
	Pure Office II	Digital Ray-Path® / Surface Power®	N/A	★☆☆☆☆☆	★★★★★½	★★★★★☆	14, 18 mm
	Acomoda	Digital Ray-Path®	N/A	–	–	–	14 mm

Office Lens

Single Vision Lens

Office Reader

An office lens with the widest near and intermediate visual fields

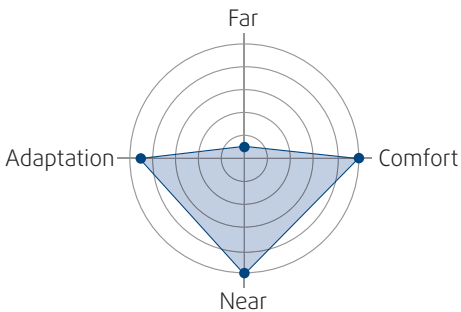
Design Details

Office Reader appears as the best occupational lens for those wearers who spend much time working at near and intermediate distances. It offers comfortable near and intermediate visual areas with a minimum lateral astigmatism. This perfect union reduces the adaptation period to almost immediate, allowing a natural posture when working on computers.

This is a degressive lens with multiple degression values. Office Reader offers several clear vision depths that provide the patients with a visual solution perfectly adapted to their individual needs:

- Office Reader 1.3 m (Allow to see clearly from near to 1.3 m)
- Office Reader 2 m (Allow to see clearly from near to 2 m)
- Office Reader 4 m (Allow to see clearly from near to 4 m)

Performance



Advantages

- Extremely wide near vision region
- Very soft design that eliminates swim effect and perceived lateral distortion
- No adaptation issues
- Clear vision from reading distance up to 4 meters
- Many available degressions for adapting to each user's needs
- Frame shape personalization available

Target & Positioning

- Ideal for those mid-age professionals who spend many time working at near & intermediate vision (office workers, chefs, painters, musicians, etc.).
- The best lens for office work. Occupational lens exclusively for intermediate and near vision.

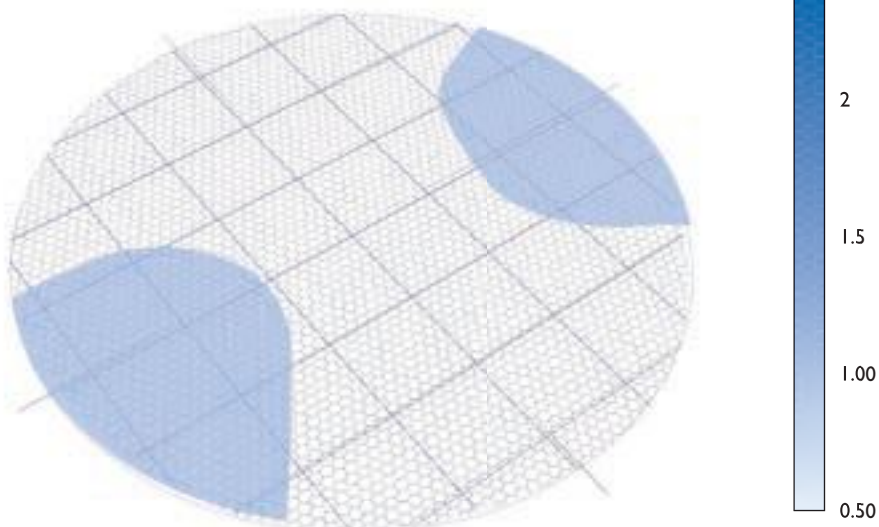
Parameters

Vertex distance	✖
Near working distance	✖
Pantoscopic angle	✖
Wrapping angle	✖
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

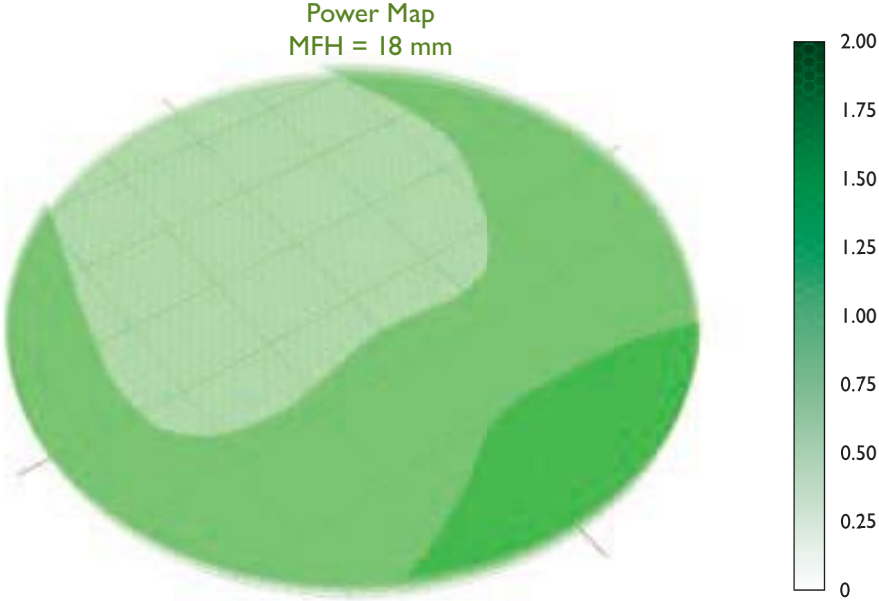
MFH Minimum Fitting Height

14 mm
18 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Office Reader

Two ways to offer your Office Reader

1. Automatic degression selection

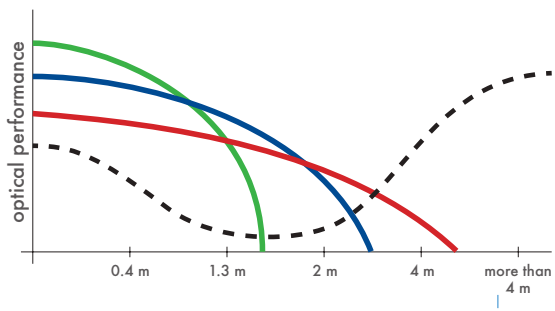
Depending on the addition and the type of Reader selected, IOT software automatically selects the exact digression based on the far working distance and prescribed power.

2. Manual degression selection

Office Reader can also be configured in your system for different digressions allowing them to be manually selected. This way to offer the Office Reader design can be useful for those opticians who are accustom to select directly the digression they want.

Relationship between vision performance and distance to the object

■	Reader 1.3 m	Up to 1.3 meters (4 ft) of clear vision
■	Reader 2 m	Up to 2 meters (6.5 ft) of clear vision
■	Reader 4 m	Up to 4 meters (13 ft) of clear vision
■	Progressive	Variable performance



MFH Minimum Fitting Height

14, 18 mm

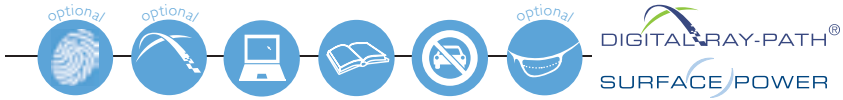
Equivalences between distances and degressions

Add	Degression		
	Reader 1,3 m	Reader 2 m	Reader 4 m
0,75	-	0,25	0,50
1,00	0,25	0,50	0,75
1,25	0,50	0,75	1,00
1,50	0,75	1,00	1,25
1,75	1,00	1,25	1,50
2,00	1,25	1,50	1,75
2,25	1,50	1,75	2,00
2,50	1,75	2,00	2,25
2,75	2,00	2,25	2,50
3,00	2,25	2,50	2,75
3,25	2,50	2,75	3,00
3,50	2,75	3,00	-

Note

Office Reader lenses should be checked only on the Near Reference Point, never on the Far Reference Point.

Pure Office II



An office lens with wide near & intermediate visual fields but also a respectable distance vision area

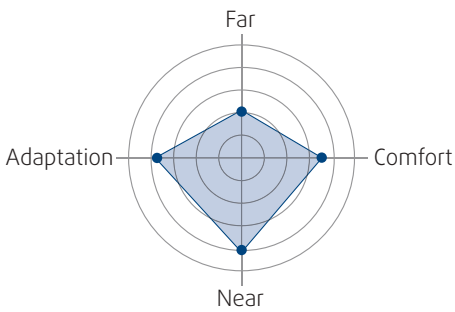
Design Details

Working at an office does not always entail an exclusive near or intermediate vision need. Professionals require a more flexible solution for reading, working on their computers, attending meetings, presentations and so on. For these professionals, it is also essential wearing lenses that can give them a good view of intermediate-far vision.

Pure Office is an innovative design which covers all the possible visual requirements that may arise when working on indoor environments, like offices, hospitals, shops, warehouses…

Near vision is delivered 17 mm under the pupil position, so it is easy to access to the near vision area, with a much better near vision than a standard progressive.

Performance



Advantages

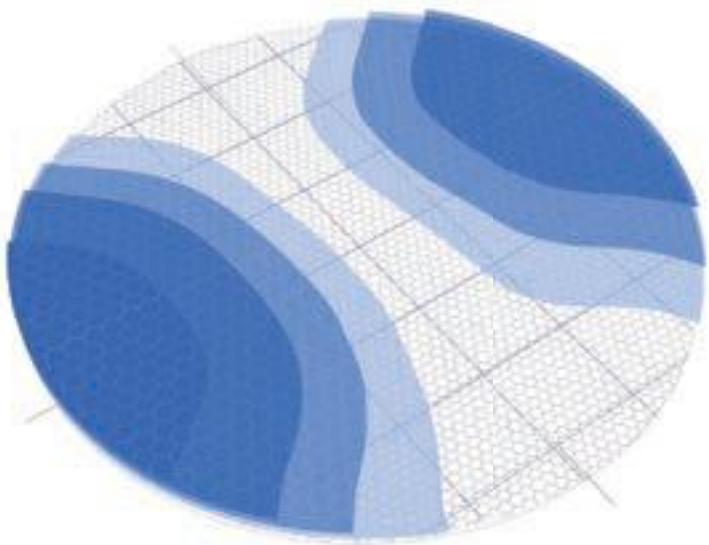
- Versatile indoor design, far vision is attained over pupil position
- Clear vision for all distances
- Wider near and intermediate regions compared to standard progressive
- Available for any addition
- Variable Inset: Automatic and manual
- Frame shape personalization available

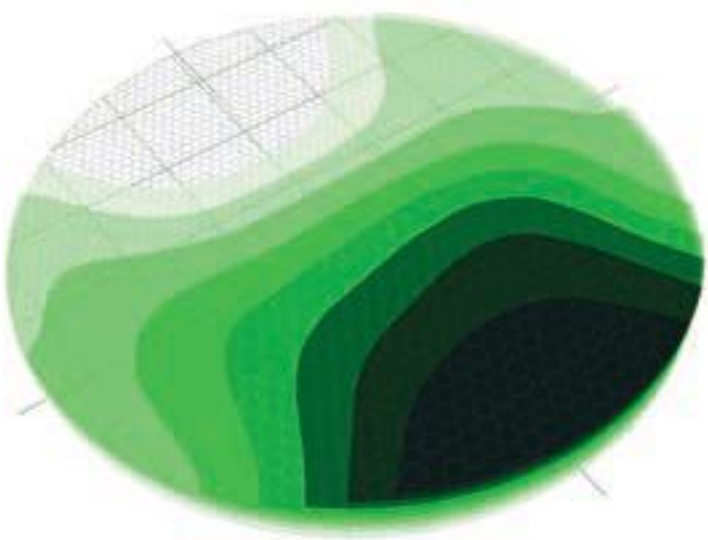
Target & Positioning

- Ideal for those mid-age professionals who spend many time reading, working in computers and also needs to see clearly at far distance (executives, doctors, lawyers, teachers, bank tellers…).
- An exclusive office lens for near, intermediate and far vision.

MFH Minimum Fitting Height

14, 18 mm





Acomoda

DIGITAL RAY-PATH®

An innovate design that reduces visual fatigue

Design Details

Let your eyes rest when reading, working with computers or playing video games. Acomoda is an anti-fatigue design that has been calculated to reduce visual fatigue produced by a continuous accommodation effort.

When working constantly at near distances, muscles that surround the crystalline became tired, and this may end in visual fatigue. The most common symptoms are pain, dryness, eyes become red and even headaches.

Acomoda reduces the weakening process of the mentioned muscles because it provides the wearer with a small touch of addition in the bottom part of the lens.

Acomoda is available in 0.50D and 0.75D.

Types

ACOMODA 050

Useful for people who spend much time working at a computer. Thanks to this little addition wearers will notice how their eyes get less tired.

ACOMODA 075

Useful for people who spend much time reading. A higher addition than 0.50D provides wearers with more power when reading so they don't need to accommodate so much and visual fatigue gets low.

Advantages

- Reduce visual fatigue
- IOT offers this design in two different additions: 0,5 D & 0,75 D
- High quality features in the near zone
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism reduced
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for wearers with ages between 18 and 45 who spend much time at near. vision and have visual fatigue symptoms
- An exclusive anti-fatigue designs.

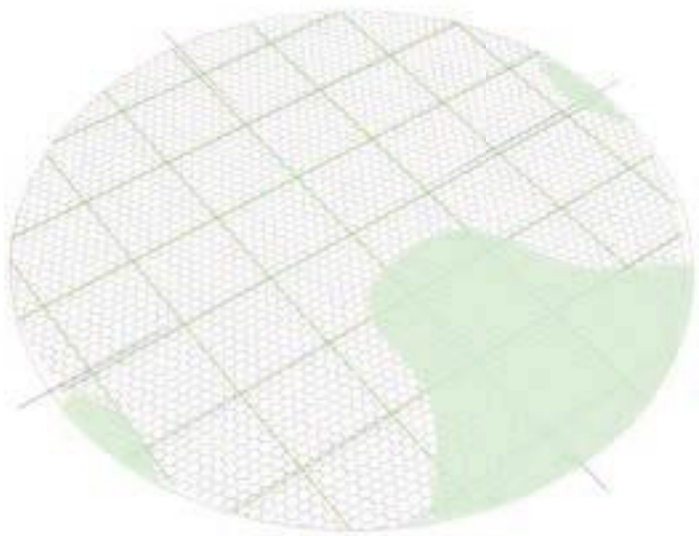
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

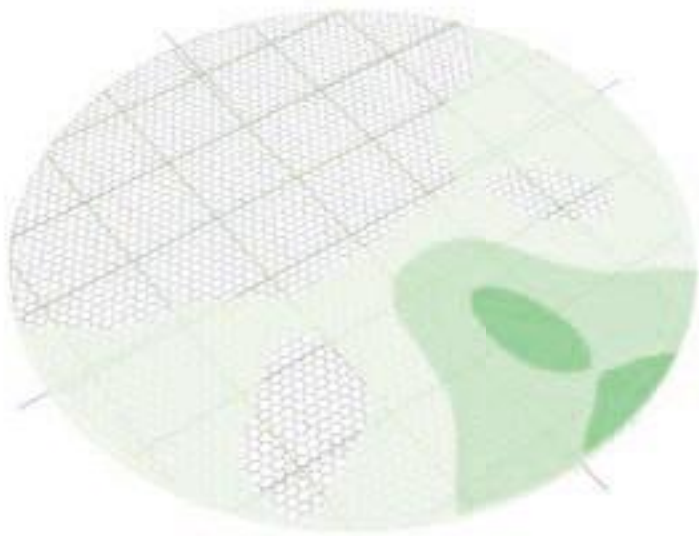
MFH Minimum Fitting Height

14 mm

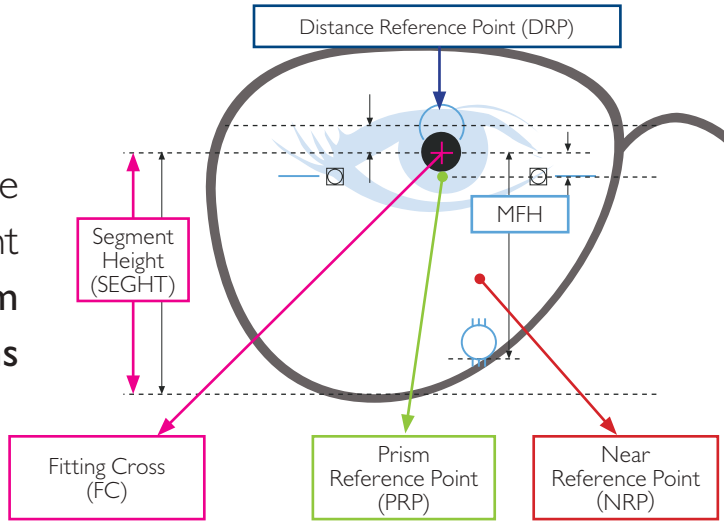
Acomoda 0,5 D



Acomoda 0,75 D



Reference measurement in a **free-form ophthalmic lens**



Minimum Fitting Height (MFH)
Minimum distance from the pupil centre to the lower border of the frame recommended for the assembly.

Icons Description & Definition

Camber™

Design available for Camber™ variable curve blank lenses

Personalization

Personalized considering the individual parameters of each wearer

DigitalRay-Path®

Powered by Digital Ray-Path® technology

Enhanced Far

Especially improved distance vision area

Balanced

Balanced power distribution between near and distance vision

Enhanced Near

Especially improved for near vision area

Enhanced for Beginners

Especially improved for beginners

Enhanced for Computers

Special for computer and office activities

Short Available

Available short corridor options

Not For Driving

Not Suitable For Driving

Wrap Available

Lens available for sport frames, required real wrap angle or ZTILT as input

Outdoor Series

Powered By DIGITAL RAY-PATH®

Outdoor Series

Introduction

Nowadays people past their fifties or sixties have very active lifestyles. Practicing sports or driving for hours are common tasks for progressive lens wearers. This kind of activities could be classified as outdoor activities, and the visual demands for these environments are notably different from the standard demands of PAL users. Due to the growth of sporty consumers of progressive lenses the Sport and Drive lenses are opening an interesting niche market.

Visual requirements for practicing sports and for driving are not exactly the same but both have a common factor, far vision is crucial. Also dynamic vision is very important when things around you are in constant movement, so these two variables have to be underlined.

For a Lab, IOT Outdoor series brings the possibility to offer high performance solutions for those progressive wearers with an active lifestyle that enjoy practicing sports.

The most advanced calculation technology is used to create the customized lens that is optimum for each wearer's outdoor activities. Digital Ray-Path® takes into account personalization parameters that will improve wearer experience.

	Name	Technology	camber technology	Far	Near	Comfort	MFH Available
OUTDOOR SERIES	Sport Progressive	Digital Ray-Path®	N/A	★★★★★★	★★☆☆☆☆	★★★★★☆	16, 18 mm
	New Sporthin PAL	Digital Ray-Path®	N/A	★★★★★½	★★☆☆☆☆	★★★★½☆	16, 18 mm
	Drive Progressive	Digital Ray-Path®	N/A	★★★★★★	★★★☆☆☆	★★★★☆☆	18 mm

Sport Progressive

Drive Progressive

Sport Progressive

DIGITAL RAY-PATH®

Improving dynamic and distance vision

Design Details

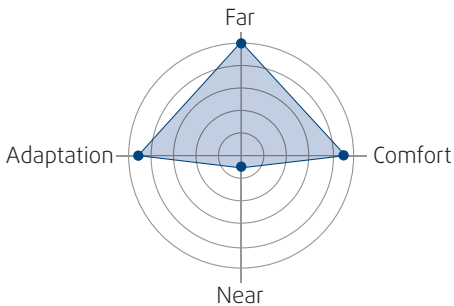
Nowadays PAL users practice more and more sports, so it just makes sense to develop a progressive that will provide them with the best optical quality in distance and intermediate vision. Dynamic vision is the key of success in this type of lenses. Sport Progressive, the ophthalmic lens design by IOT, has been engineered for the particular visual needs that arise in the practice of sports.

The area of near vision is in line with a sport design, conceived for focusing on objects slightly away from the user.

This will make it effective and comfortable for the perception of objects such as a clock, a sportmeters, the speedometer of a bike, a compass…

Typical frames for sports have a large size and steep base curves. Sport Progressive lenses from IOT are compensating these effects thanks to Digital Ray-Path® method, and are compatible with any sport frame.

Performance



Advantages

- Wide clear area of binocular vision in far distance
- Wide corridor provides a comfortable intermediate vision
- Low values of lateral unwanted cylinder
- Adjusted near vision for a clear view of the sports equipment (maps, compass, watch…)
- Ergonomic position of the head and body during sports activity
- Minimize swim effects
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism reduced
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for user who needs a progressive lens special for outdoor activities.
- A Compensated Progressive lens ideal for sports (sports or outdoor activities).

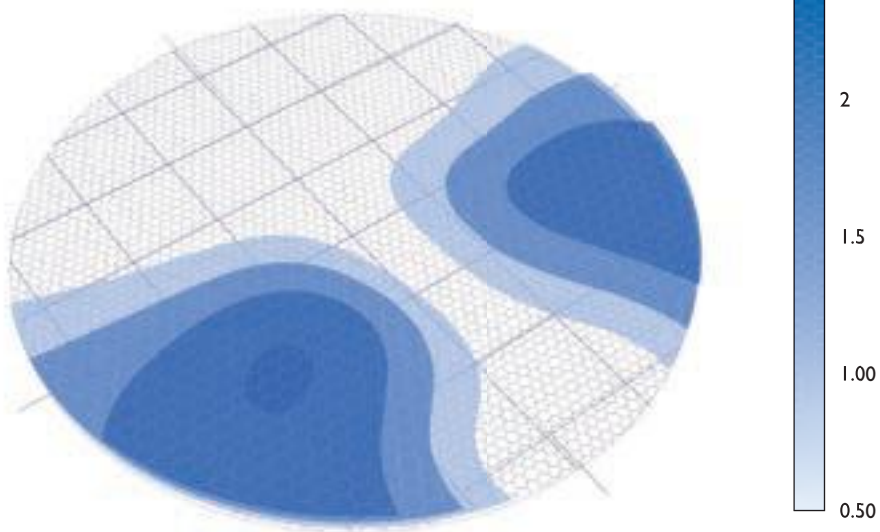
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

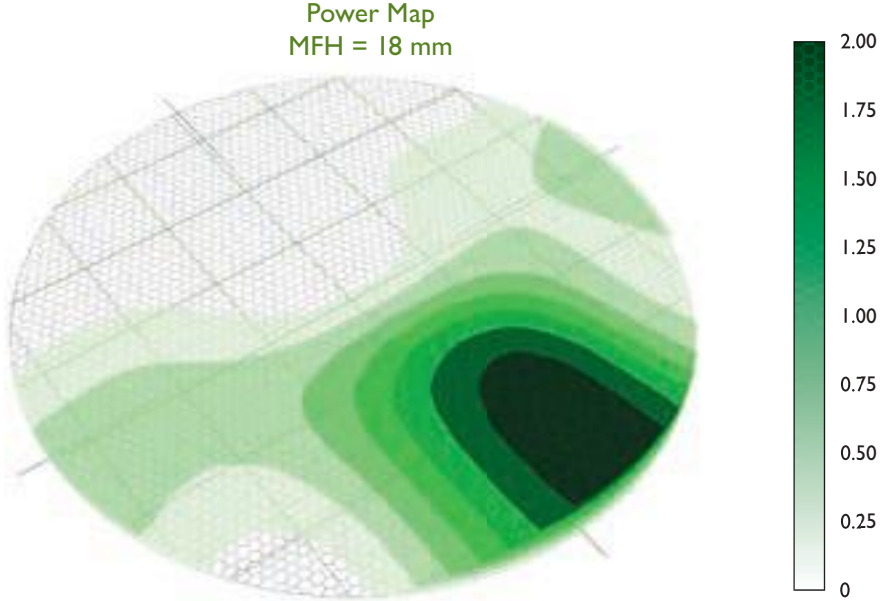
MFH Minimum Fitting Height

16 mm
18 mm

Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Sporthin PAL

DIGITAL RAY-PATH®

Thinner lenses for outdoor activities

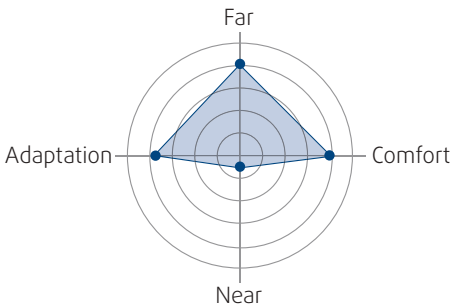
Design Details

Depending on the prescription and required thickness of the lens, there is sometimes a limitation when selecting frames for outdoor activities. Sport frames require large lenses and have high wrapping angles – both of which result in a thicker lens than with regular frames, which is not aesthetically pleasing. Sporthin PAL is IOT's answer to this limitation.

As a progressive design especially engineered for outdoor activities, Sporthin PAL offers a wide distance visual field, a long corridor that reduces the swim effect, and an acceptable near visual field for checking cell phones or reading a map while walking, playing golf, biking, etc.

In addition to the optical features, this design reduces lens thickness up to 34% by using a unique lenticular effect that maximizes the angle of clear vision without significantly increasing lens thickness. Another benefit of this unique configuration is the enlargement of the power range for sport frames, allowing labs to offer high minus or plus prescriptions with curved sport frames.

Performance



Advantages

- Up to a 34% reduction in lens thickness
- Wide corridor provides a comfortable intermediate vision
- Low values of lateral unwanted cylinder
- Adjusted near vision for a clear view of the sports equipment (maps, compass, watch…)
- Ergonomic position of the head and body during sports activity
- Minimize swim effects
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism reduced
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for those who want to wear curved sport frames but are limited due to high prescriptions.
- Ideal for golfing, running, biking, etc.

Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

MFH Minimum Fitting Height

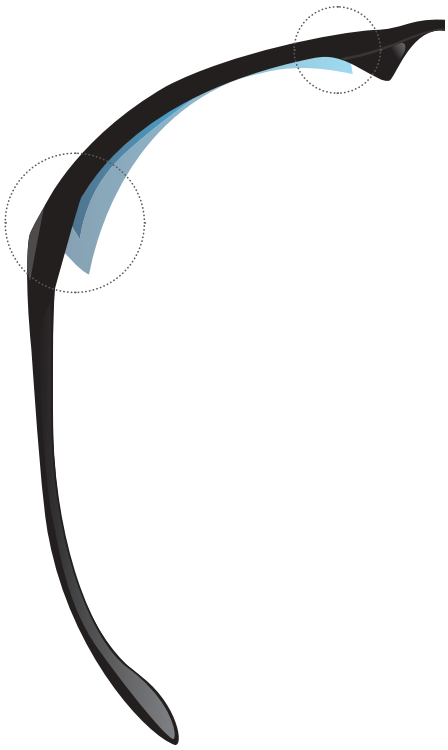
16 mm
18 mm

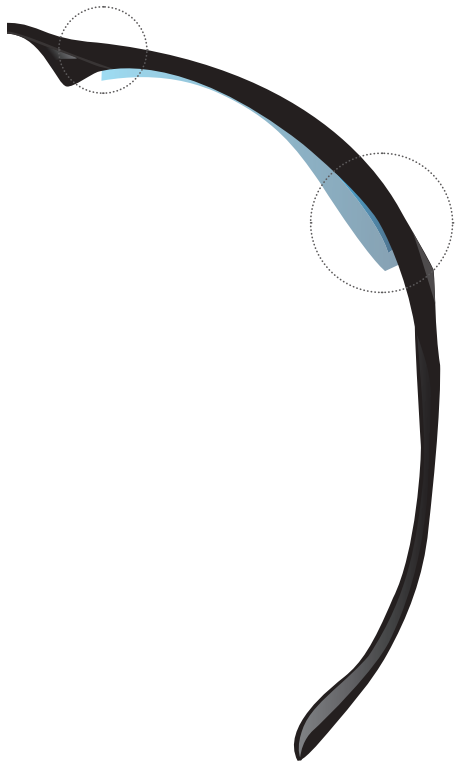
Pre-configuration

Vertex distance	14 mm
Pantoscopic angle	8°
Wrapping angle	15°

STANDARD LENS

SPORTHIN PAL LENS





Drive Progressive

DIGITAL RAY-PATH®

Finally, an appropriate progressive lens for driving

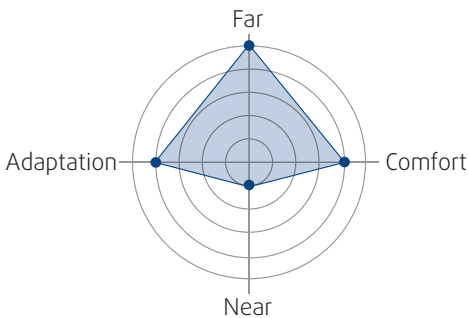
Design Details

Driving is a task that has very specific optical requirements, the position of the dashboard, external and internal mirrors and the strong distance jump between looking at the road or looking inside the car makes this scenario very particular.

Drive Progressive has been developed to adapt the lens for this specific task. Distance vision has being enhanced to provide the wearer with a perfect view of the road.

Due to the special location of mirrors and digital devices, power distribution has been specially conceived to allow wearers to drive without unnecessary head movements, lateral rear view mirrors located inside an astigmatism free zone, and dynamic vision has been also improved reducing astigmatism lobes to the minimum.

Performance



Advantages

- Wide clear area of binocular vision in far distance
- Adjusted special power distribution for driving
- Wide corridor and soft transitions for comfortable driving
- Low values of unwanted astigmatism to improve dynamic vision
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism reduced
- Variable Inset: Automatic and manual
- Frame shape personalization available

Target & Positioning

- Ideal for drivers or wearers who spend lots of time using the far visual field.
- A compensated Progressive Lens only for driving.

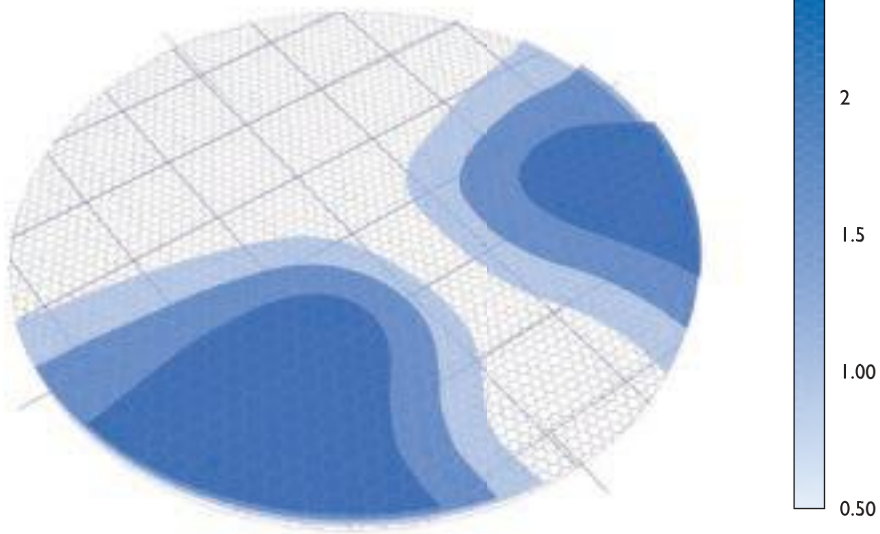
Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

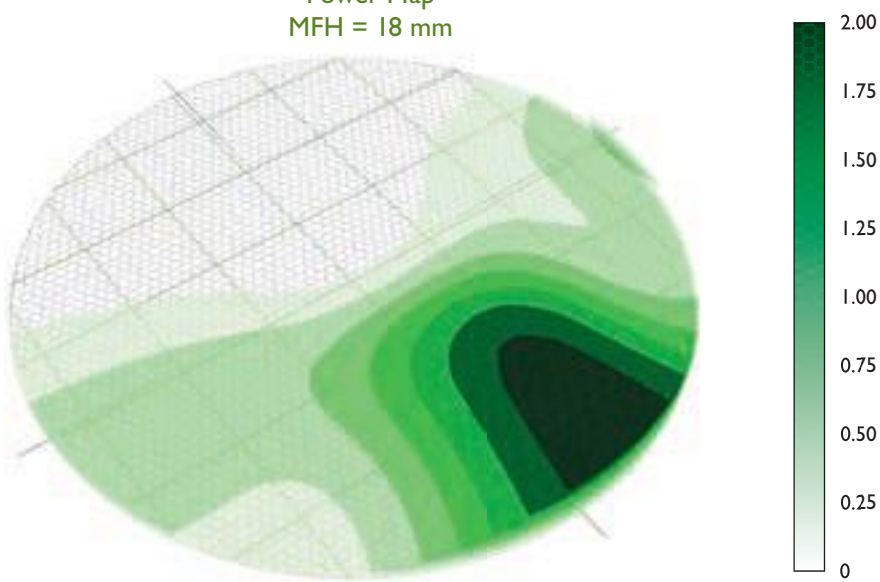
MFH Minimum Fitting Height

18 mm

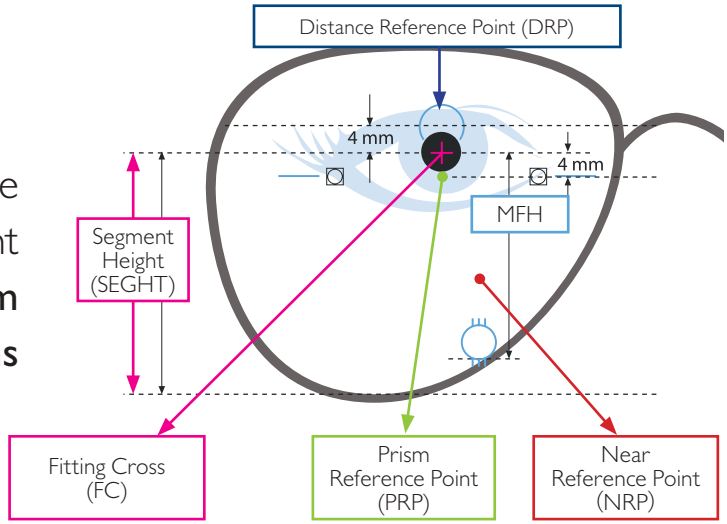
Cylinder Map
MFH = 18 mm



Power Map
MFH = 18 mm



Reference measurement in a **free-form ophthalmic lens**



Minimum Fitting Height (MFH)
Minimum distance from the pupil centre to the lower border of the frame recommended for the assembly.

Icons Description & Definition

Camber™

Design available for Camber™ variable curve blank lenses

Personalization

Personalized considering the individual parameters of each wearer

DigitalRay-Path®

Powered by Digital Ray-Path® technology

Enhanced Far

Especially improved distance vision area

Balanced

Balanced power distribution between near and distance vision

Enhanced Near

Especially improved for near vision area

Enhanced for Beginners

Especially improved for beginners

Enhanced for Computers

Special for computer and office activities

Short Available

Available short corridor options

Not For Driving

Not Suitable For Driving

Wrap Available

Lens available for sport frames, required real wrap angle or ZTILT as input

Single Vision Series

Powered By
DIGITAL RAY-PATH®

Find out
the most versatile
design for
Single Vision
Lenses

Single Vision

DIGITAL RAY-PATH®

Visual performance incomparable with any other Single Vision lens

Design Details

IOT's Advanced Single Vision takes advantage of our in-depth knowledge in personalized ophthalmic lens design to reach the highest performance also for Single Vision lenses. The IOT designers have engineered a Single Vision design with capacity to produce any type of Single Vision free-form lens, no matter the frame, material, base curve or prescription.

Not only standard prescriptions to be fitted in common frames can be produced with this design, IOT Single Vision is also a high performance design for complicated jobs such as high prescriptions or lenses for wrap frames. Thanks to Digital Ray-Path® each pair of Single Vision lenses are able to be calculated entering the real personalization parameters or, when this data is not provided, to be calculated using default values for these parameters.

Maximum performance can be only reached if having all the real personalization parameters, but for frames without pronounced wrap angles the quality reached using default values will be close to the maximum one.

Advantages

- Total personalization
- Maximum optical quality for any prescription
- Compatible with any material and base curve
- Thinner and lighter lenses
- High precision and high personalization due to Digital Ray-Path® technology
- Clear vision in every gaze direction
- Oblique astigmatism reduced
- Possibility to input the frame shape for accurate calculation
- Frame shape personalization available

Target & Positioning

- Ideal for everyone who need single vision correction. Specially beneficial for high minus and plus prescriptions or large astigmatic correction.
- The best Single Vision totally compensated for each specific user.

Note

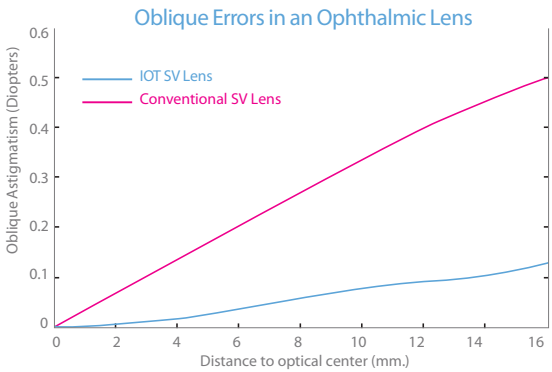
For sport frames and frames with pronounced wrap angles use I-Venture Design.

Parameters

Vertex distance	✔
Near working distance	✔
Pantoscopic angle	✔
Wrapping angle	✔
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

Better vision in all gaze directions

Conventional Single Vision lenses for high prescriptions have the weakness of losing visual clarity when looking in lateral directions. This inconvenience is caused by oblique astigmatism, and its correction is essential for providing clarity and comfort. With IOT Single Vision design people with high prescription will notice a notably improvement.



The graph on the left shows the importance of oblique errors for a single vision lens of -4.00 diopters, for a higher prescription the oblique errors are even higher. The horizontal axis represents the distance from pupil cross to the part of the lens which is being used when looking in gaze directions. The IOT Single Vision lens for high prescription is 76% more stable than for a conventional lens.

I-Venture

DIGITAL RAY-PATH®

Single Vision design providing superb acuity in sport frames

Design Details

I-Venture is a Single Vision design calculated through Digital Ray-Path® technology that has been specially designed for curved sport frames.

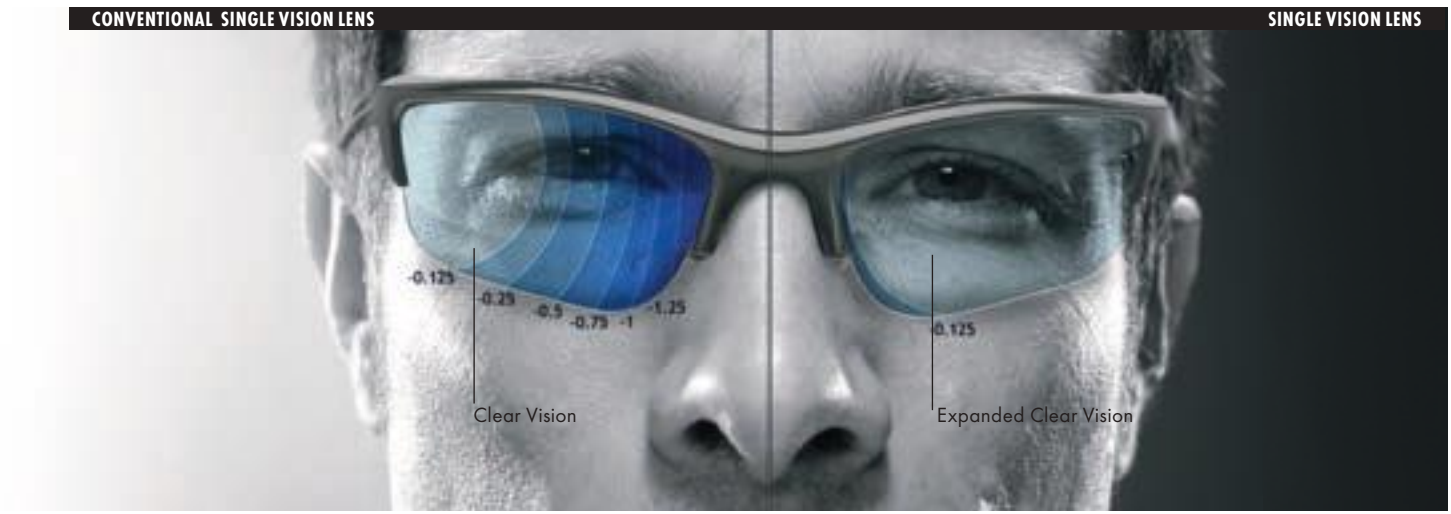
When a lens is tilted the visual quality experienced by the eye becomes diffuse, not clear for all directions of sights.

The only way to avoid this problem is to calculate its surface considering from the beginning that the lens will be positioned not perpendicular to the principal gaze direction.

Thanks to Digital Ray-Path® technology and the possibility to configure each product with unique parameters I-Venture reaches an impeccable visual quality in the entire lens surface, providing clarity and high definition in all gaze directions.

Advantages

- High Visual Definition in all gaze directions
- Pre-configured parameters
- Compatible with any base curve and material
- High precision and high personalization due to Digital Ray-Path® technology
- Frame shape personalization available



Target & Positioning

- Ideal for active single vision lens wearers who demand excellent visual acuity at all angles in their sport or wrap frames.
- The best Single Vision totally compensated for wrap or sport frames.

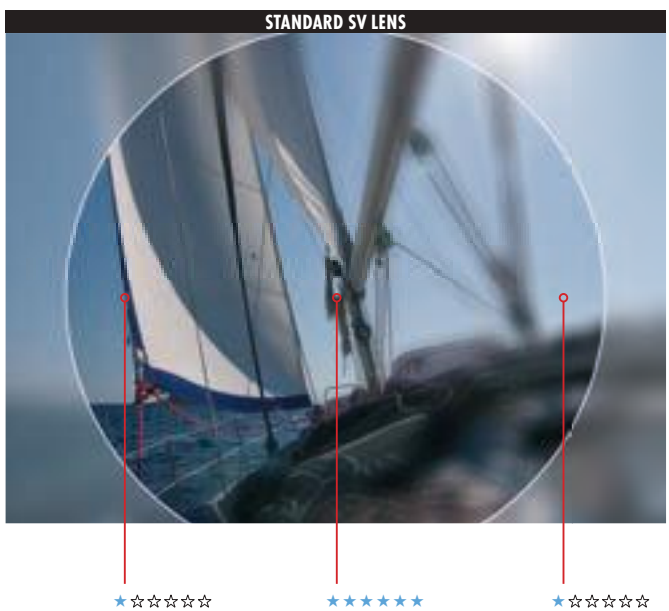
Pre-configuration

Vertex distance	14 mm
Pantoscopic angle	8°
Wrapping angle	15°

I-Venture demonstration

Optical performance decreases from centre to edges of the lens. Peripheral vision is not accurate as it should be.

Excellent optical performance not only in the centre of the lens but all across whole lens surface.



Sporthin SV

DIGITAL RAY-PATH®

Thinner lenses for sport frame lenses

Design Details

These days, outdoor activities are part of our everyday lifestyles. Many of us enjoy running, biking or golfing, and for all of these activities, sunglasses or sport frames are needed. Depending on the required lens thicknesses for high plus or high minus prescriptions, wearers may be limited in their sport frame choice, as the vast majority of Rx Labs do not offer sport frames for certain prescription ranges.

Sporthin SV solves this problem by reducing the final thickness of the lens by up to 34%. This design is the ideal solution for any single vision lens wearer who wants to have a curved frame but could not because of their prescription. Sporthin SV is a fully personalized single vision design that is preconfigured for sport frames by minimizing oblique aberrations and improving quality of vision.

The thickness reduction is achieved by using a unique lenticular effect that maximizes the angle of clear vision without significantly increasing lens thickness.

Advantages

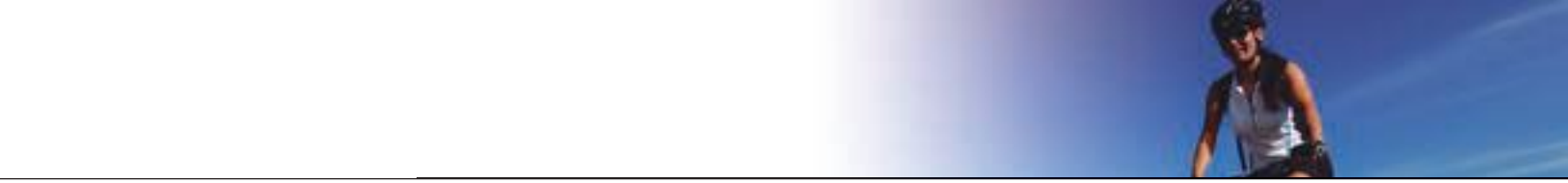
- Up to 34% thinner lenses
- Pre-configured parameters
- Compatible with any base curve and material
- High precision and high personalization due to Digital Ray-Path® technology
- Frame shape personalization available

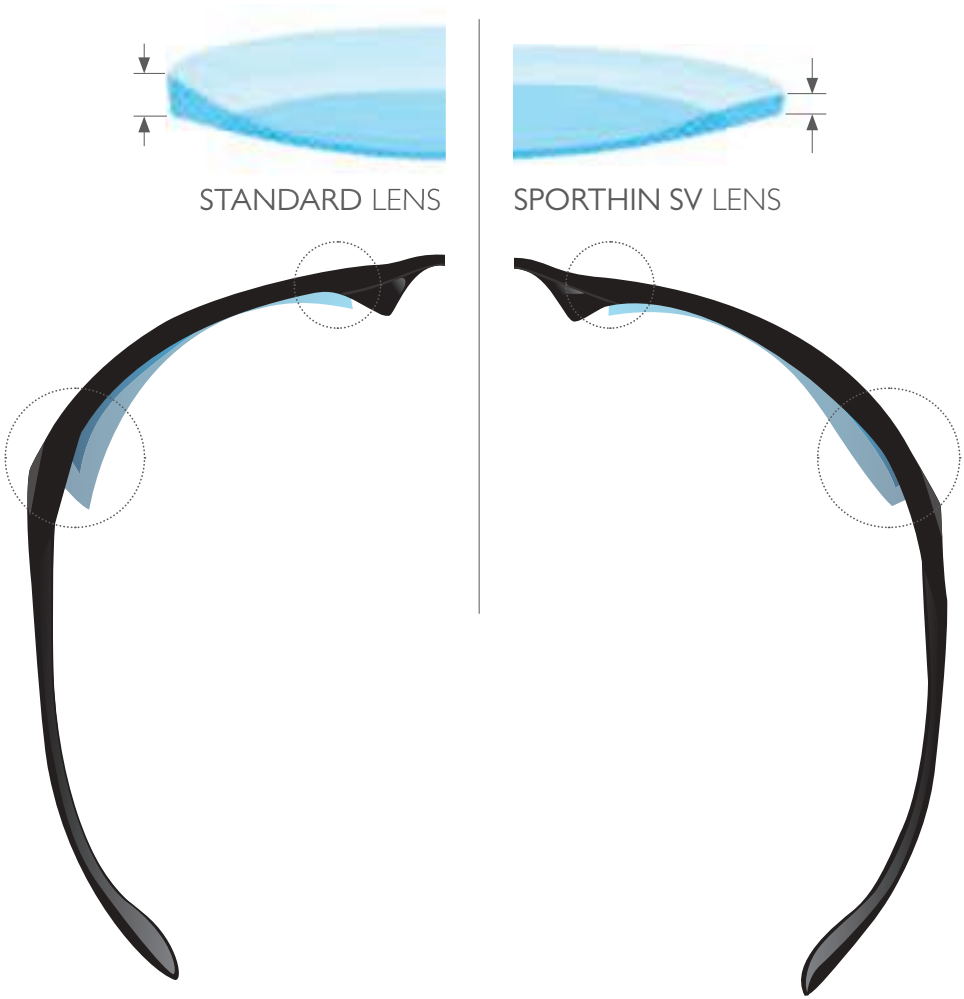
Target & Positioning

- Sunglass wearers with high plus or high minus prescriptions.
- Ideal for high curved sport frames.

Pre-configuration

Vertex distance	14 mm
Pantoscopic angle	8°
Wrapping angle	15°




STANDARD LENS
SPORTHIN SV LENS

SV Toric

SURFACE POWER

Digital entry-level Single Vision

Design Details

Digital Single Vision non-compensated that corrects standard prescriptions like myopia, hypermetropia and astigmatism.

There is no need to take any personalization parameters. For ordering the lens, the ECP will only indicate the distance prescription. It is a simple and easy lens to be ordered.

Frames dimensions are considered to reduce the final thickness of the lens.

Advantages

- Good visual performance
- Possibility to input the frame shape for a better thickness calculation
- Surface Power® calculation makes an easy-to-understand lens for practitioner
- Easy to be checked on the lensometer
- Compatible with any material and base curve

Target & Positioning

- Ideal for everyone who needs single vision correction and look for a economic solution.
- A basic digital Single Vision design.

Note

For high minus/plus prescriptions, large astigmatic correction and sport frames, it is highly recommend to use Single Vision fully compensated design.

Parameters

Vertex distance	✖
Near working distance	✖
Pantoscopic angle	✖
Wrapping angle	✖
IPD	✔
SEGHT	✔
HBOX	✔
VBOX	✔

Options

Available for all IOT designs

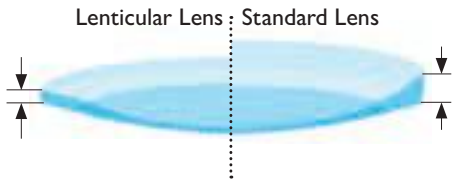
Lenticular Option

Available for all IOT designs

Power distribution, personalization and lifestyle are essential factors to be weighed up, and also final thickness (center and edge) is a very important aspect to be considered. IOT offers a unique additional option available for any design included in this catalog, the Lenticularization.

What is Lenticularization?

Lenticularization is a process developed to minimize the thickness and weight of lenses. The user defines an optimal region around the fitting cross (Optical area); outside this region the Lenticularization reduces the thickness with a gradual change in curvature, giving as a result a thinner lens in the edge for minus lenses and thinner in the center for plus lenses.

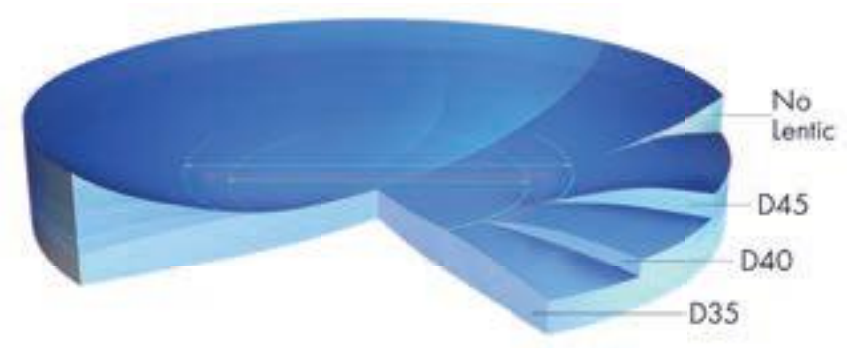


Advantages

- Reduction of edge thickness for minus lenses
- Reduction of central thickness for plus lenses
- Always thinner lenses
- Available for any design
- Compatible with any material and base curve

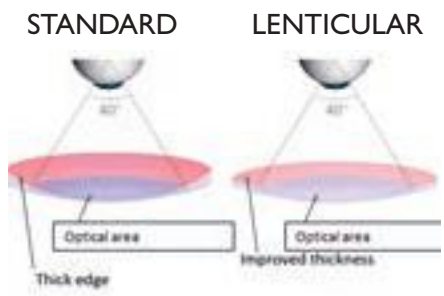
Diameters of lenticularization

To define the size of the Optical Area, there are several diameters available by default: 35, 40, 45 and 50 mm. The IOT LDS, can also select any diameter required by the laboratory. Besides the circular shape, the optical area can be elliptical or adjusted to the frame shape.



The smaller the diameter of the Optical Area, the thinner the lens.

Optical area



Optical area is a zone where the optical quality is optimum. Lenticular effect saves this area for optical vision and modifies the curvature of the lens outside the saved zone to reduce thickness. The relationship between the diameter selected and obtained result is simple: The smaller the optical area is, the more the thickness can be improved.

Lenticular Types

Lenticular

This type of lenticular is the strongest one; it makes a jump in power in the boundary from the optical to the lenticular area obtaining a thickness reduction. The lenticular zone is seen as a portion of the lens with different power and the boundary can be seen clearly.

MINUS LENS

PLUS LENS

Lenticular Parallel to the External Surface (PES)

This type of lenticular links the backside in the optical area with a surface of the same curve as the front side. This enables a more efficient polishing process and, at the same time, achieves a high thickness reduction.

The lenticular zone is seen as a section of the lens with different power, the boundary is wide and can be seen clearly.

MINUS LENS

PLUS LENS

Lenticular Frame Shape

How it works

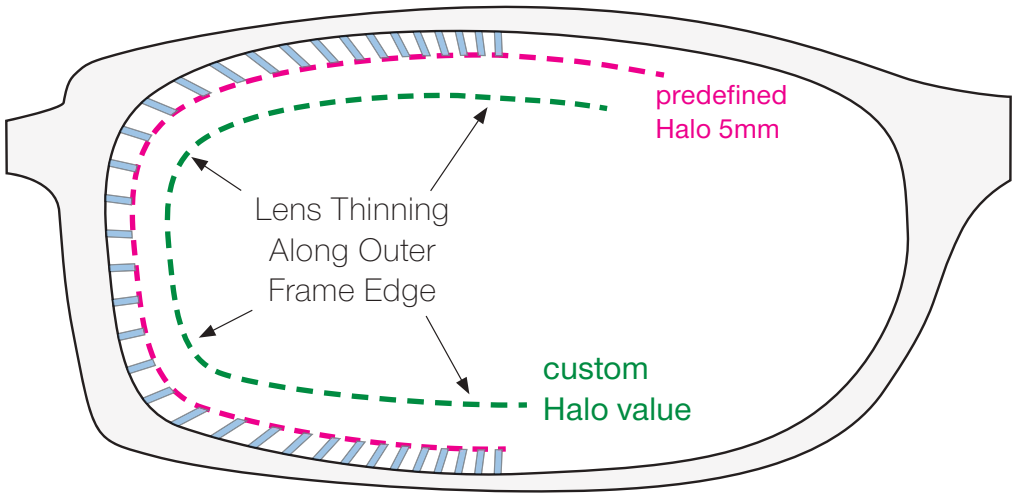
It is possible to input the frame shape data in the IOT LDS. For calculating a frame shape lenticular lens, the system applies the lenticularization in a region around the frame edge. This eliminates the need to select an optical bowl diameter for lenticularization, providing thickness reduction adapted for every frame.

Advantages

- Freedom to choose fashion frames
- Reduction of edge thickness for minus lenses
- Reduction of central thickness for plus lenses
- Always thinner lenses
- Available for any lenticular type
- Compatible with any material and base curve

Halo width

- The halo width comes predefined by the software in 5mm.
- Nevertheless the lab can modify it.
- Halo width and final edge thickness of the lens are directly related.



The wider the halo, the thinner the lens will be, but it will reduce the optimum visual region.

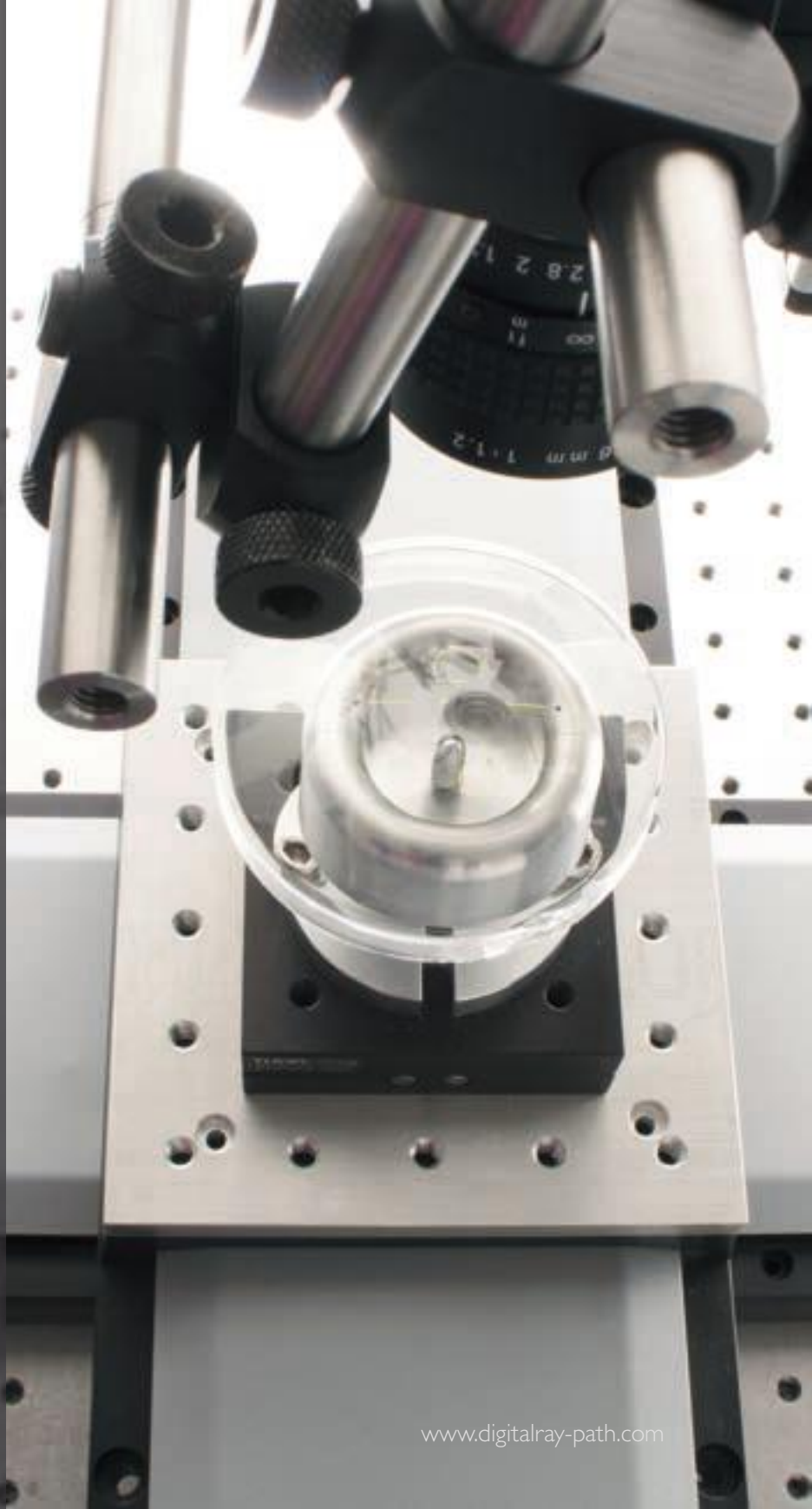

About our
services

Regular Upgrades

IOT is constantly improving its software, improving the designs, improving methods for thickness control, calculation speed and security. IOT regularly launches new upgrades, at least once a year. This service guarantees that your lab is always up-to-date producing digital lenses with state-of-the-art technology.

Blank Measurements

IOT has specialized equipment for measuring the refractive index and curve radius of blanks used in the free-form process. The correct measurement of blanks is important to ensure good free-form quality. This is especially important when the lab is planning to switch to a new lens material or a new blank provider. IOT offers free service to measure your blanks with high precision to guarantee the finest quality of your products.



Quality Control

Free-form machinery has reached an astonishing level of performance, but it requires constant maintenance and control to keep quality consistent.

IOT offers a quality control service. For each Quality Control Service IOT will ask you for specific lens samples. We will make a full power measurement evaluation of the samples, comparing them with the expected results. IOT will send you a complete report with these results.

These full map measurements will show lens quality throughout the whole lens, something that cannot be measured at the lab with standard lensometers.

Production Support

When lenses are produced off power or the quality is not as expected, the lab needs to understand what is going wrong. IOT has the required tools, technicians and experience to track the problems and recommend a solution.

This service also includes questions related to stamps and engravings.

Prescription Support

The goal of this service is to help the lab understand each design and solve issues related to lens power or lens measurement. Typically lab staff, doctors and opticians all have questions about the properties of specific lenses. IOT's support team, with extensive knowledge about advanced lens properties can answer all these questions, and help the lab provide better service to its customers.

Training

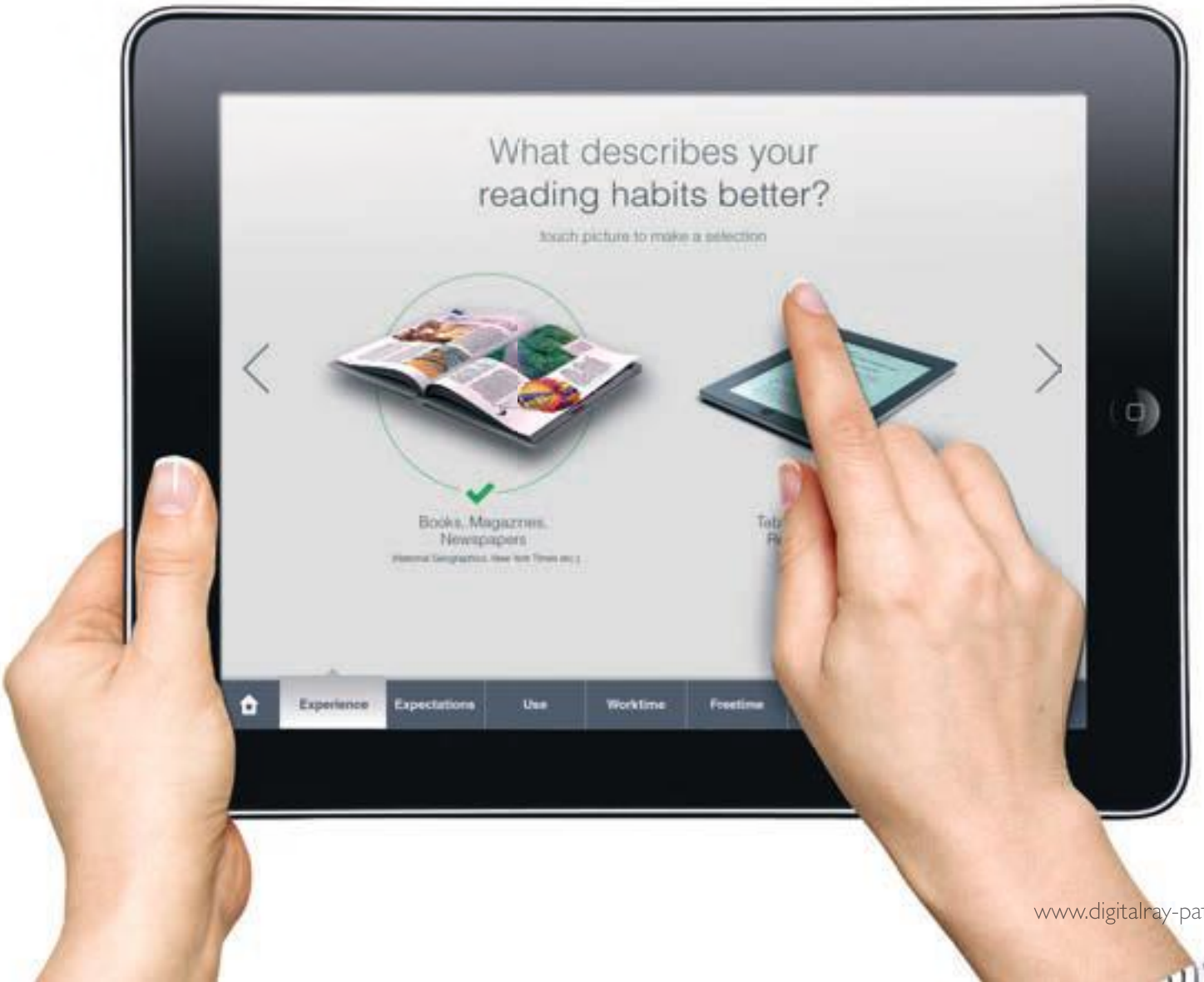
IOT offers customized training programs for the lab's sales force and production team. The goal of this service is twofold. The production staff will learn how to produce advanced lenses, and the sales force will learn how to best sell and communicate the advantages of the new products.

Marketing & Communications Consultancy

IOT can provide you with all the necessary technical information for properly positioning your products in the marketplace. Our Marketing team can develop custom promotional material and advanced lenses properties for the lab to use in their marketing material (brochures, Point of Sale material, etc.). The IOT team has extensive experience helping labs to sell free-form products and can advise you how to position your products with the advantages of different free-form lens wearers.

Apps Customization & Creation

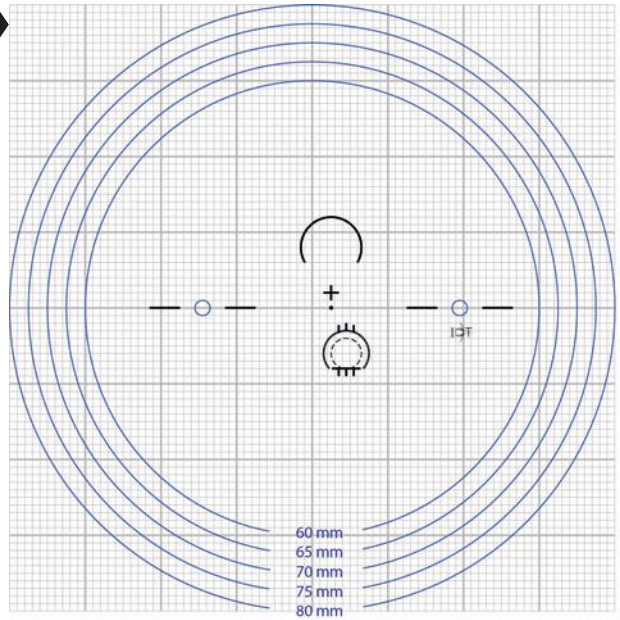
Drawing on industry best practices and deep software expertise, IOT consultants help you assess your business needs, create your enterprise apps and deploy new technology to maximize the value of your brand. As IOT has always done, these apps will be customizable using each laboratory logo. IOT's marketing experts clearly understand how important the brand, with this service IOT reaches a new leadership position becoming the first Lens Design Company that offers customizable apps to independent Rx_Labs.

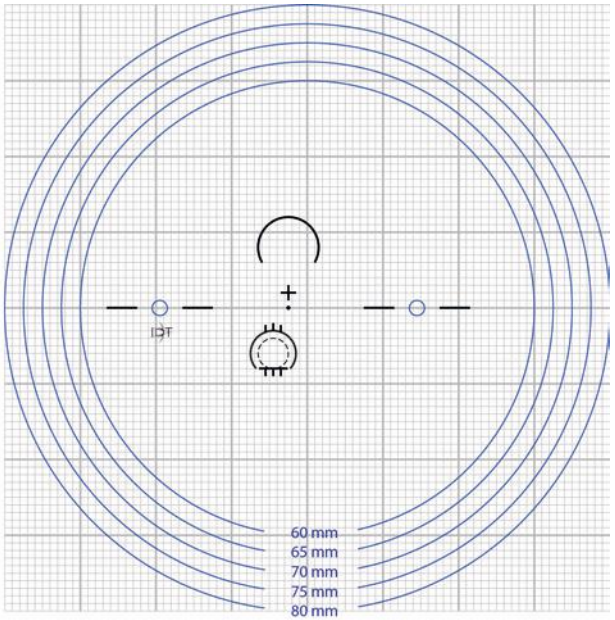



Centration Charts

Progressive Design Minimum Fitting Height 10 mm

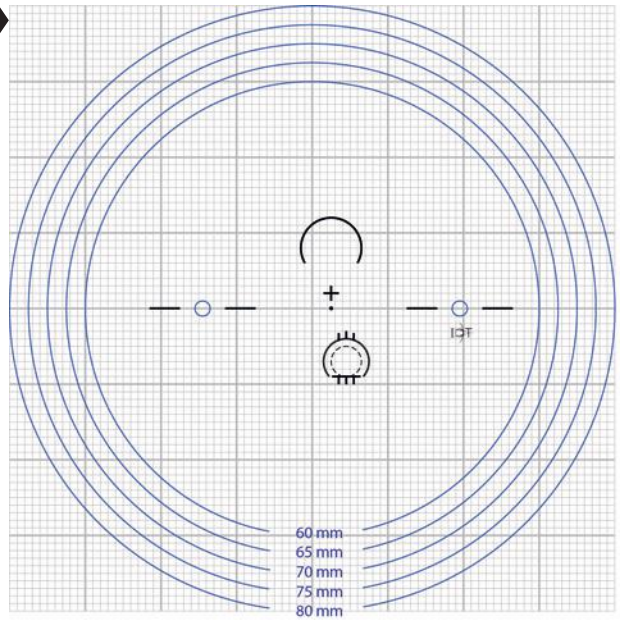
Ultra Short

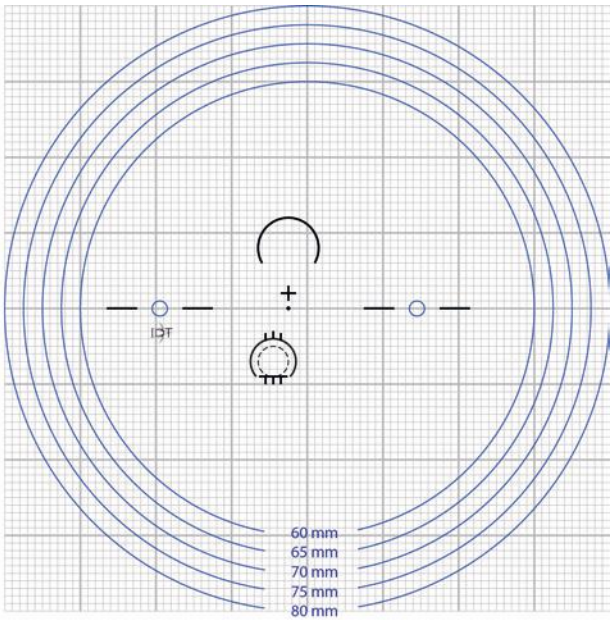




Progressive Design Minimum Fitting Height 11 mm

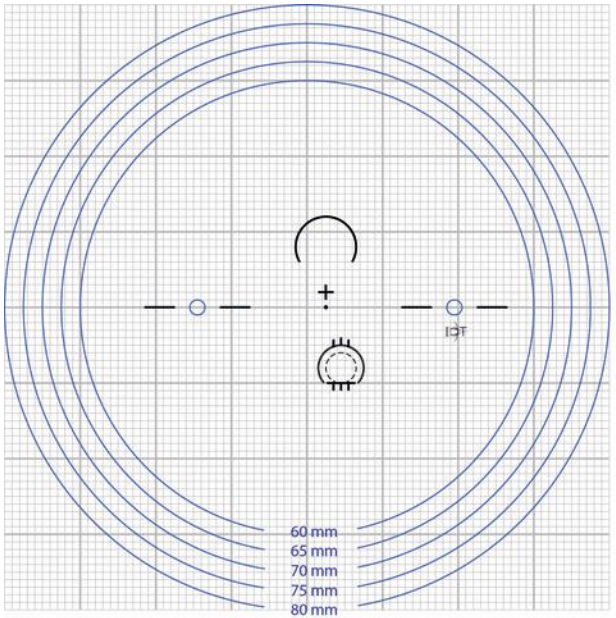
Ultra Short



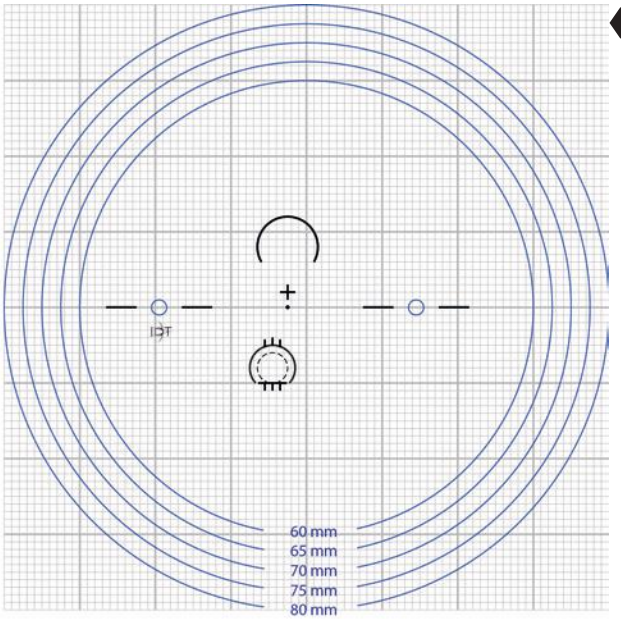


Minimum Fitting Height 12 mm

Progressive Design

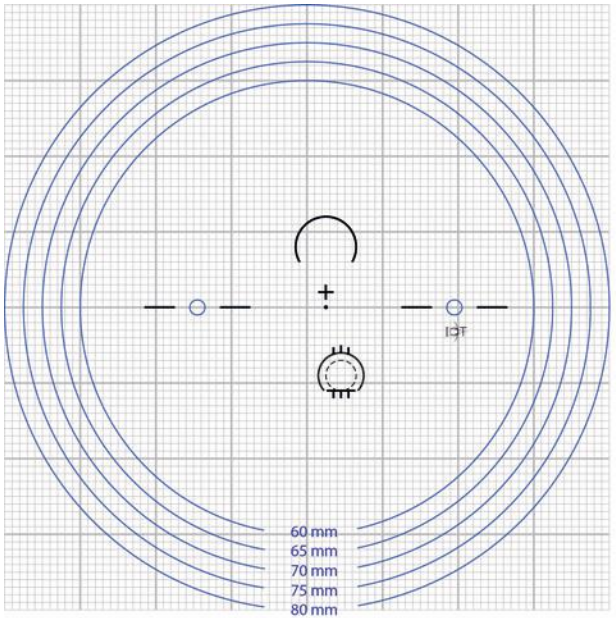


Ultra Short



Minimum Fitting Height 13 mm

Progressive Design



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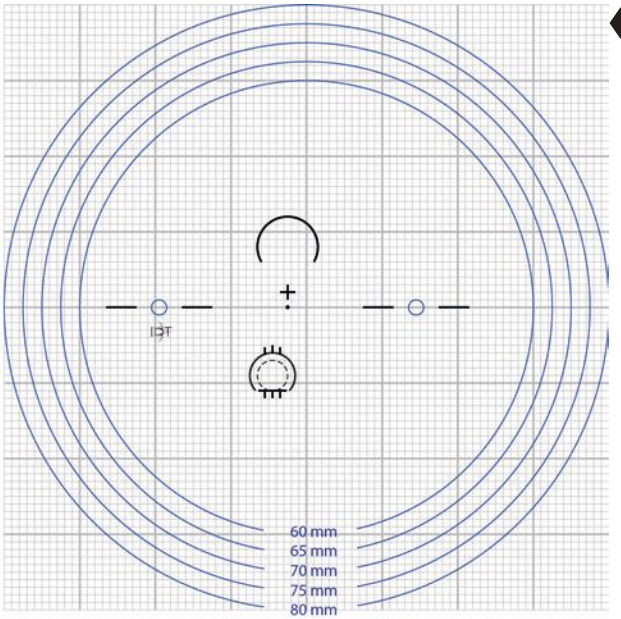
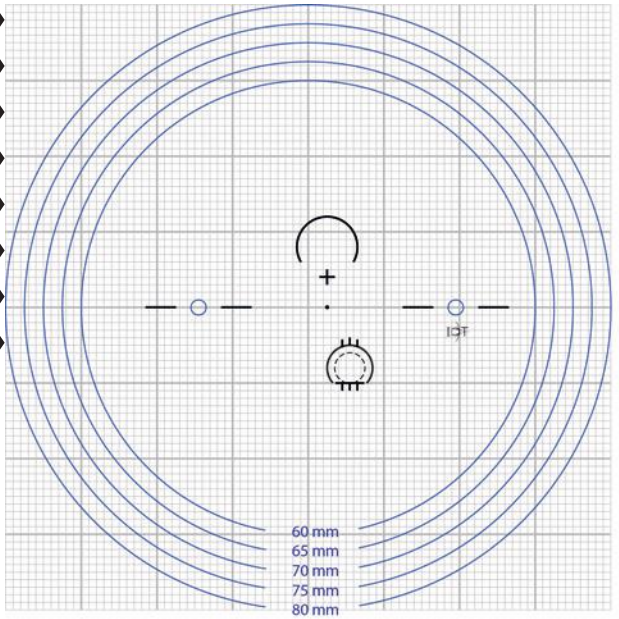
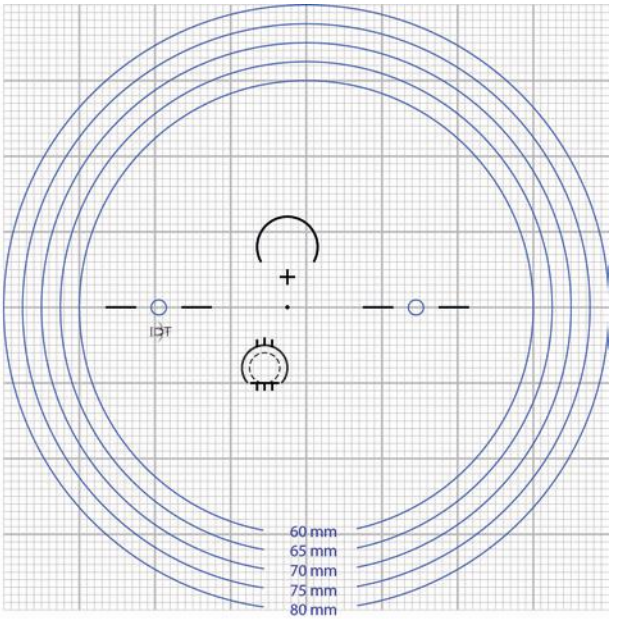


Progressive Design — Minimum Fitting Height 14 mm

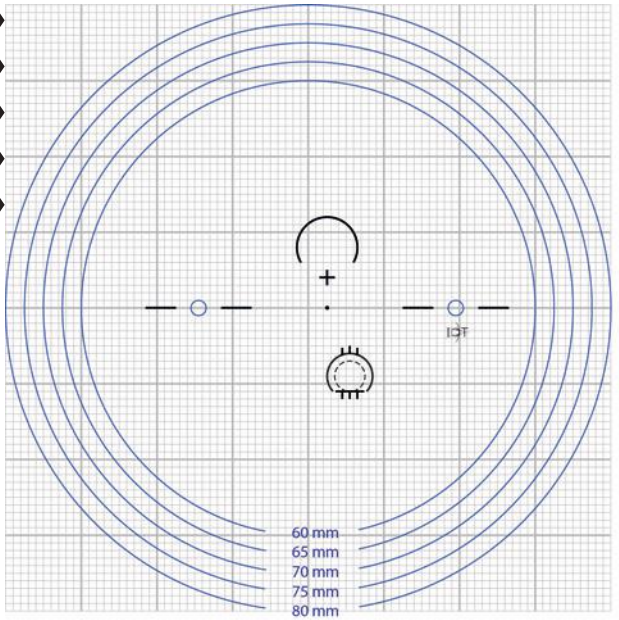
- Ultimate FreeStyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65
- Basic H20
- Basic H40
- Basic H60

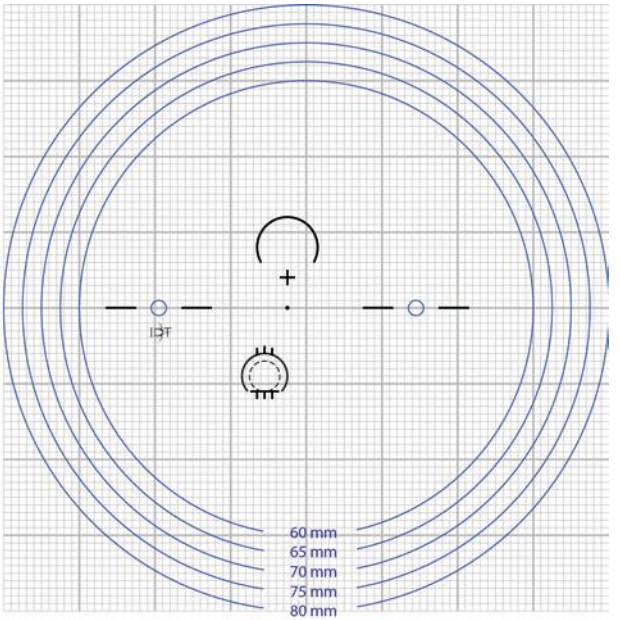




Progressive Design — Minimum Fitting Height 15 mm

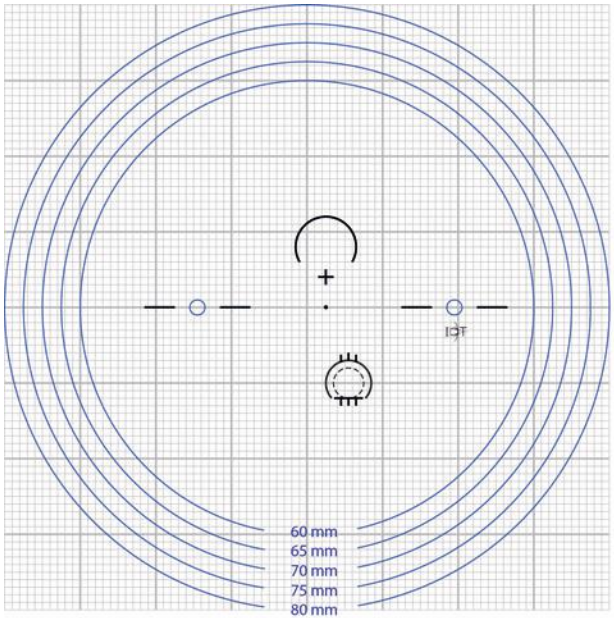
- Ultimate FreeStyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65

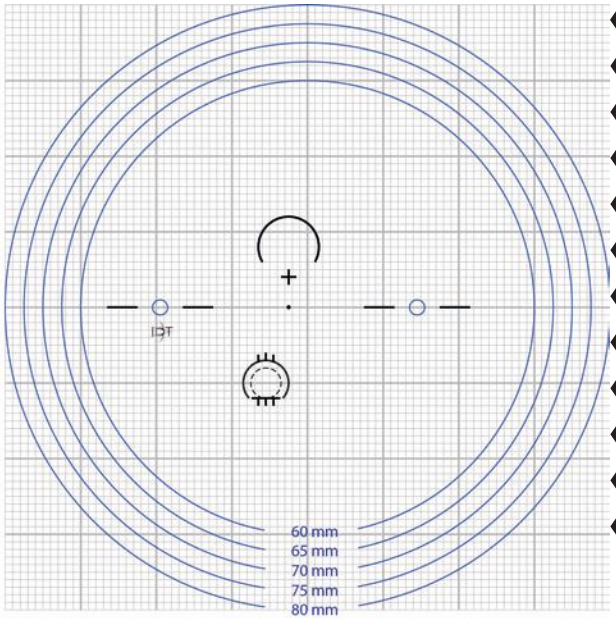




Minimum Fitting Height 16 mm

Progressive Design

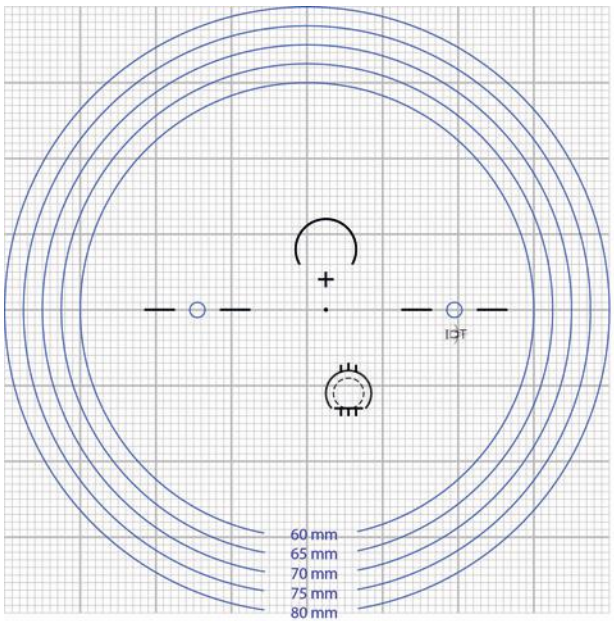


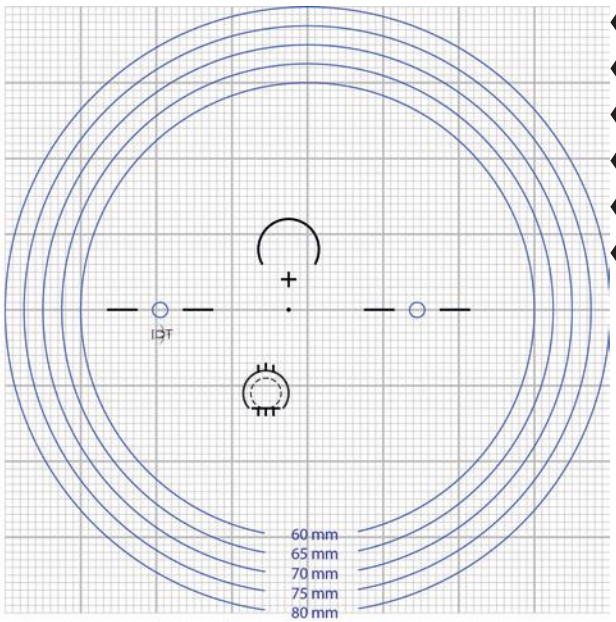


- Ultimate FreeStyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65
- Alpha S45
- Basic H20
- Basic H40
- Basic H60
- Basic S40
- Sport Progressive
- Sporthin PAL

Minimum Fitting Height 17 mm

Progressive Design

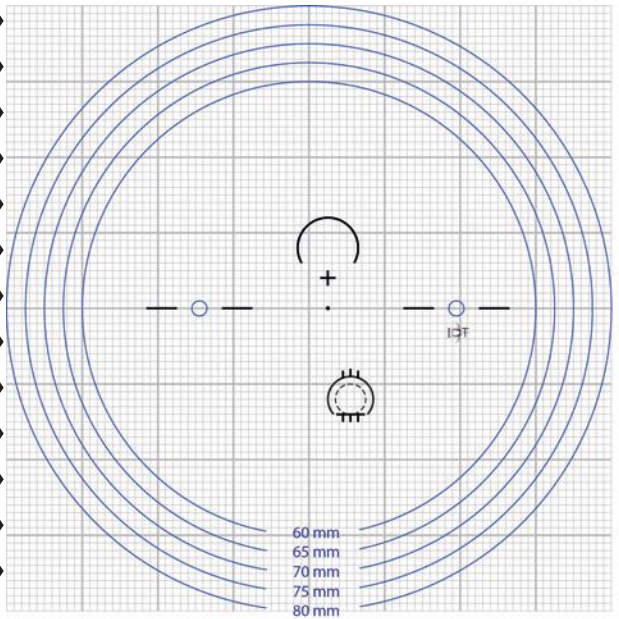


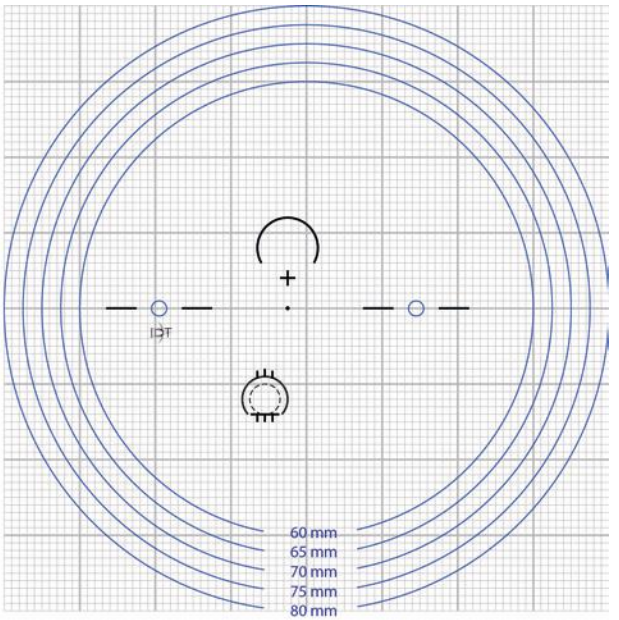


- Ultimate FreeStyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65
- Alpha S45

Progressive Design Minimum Fitting Height 18 mm

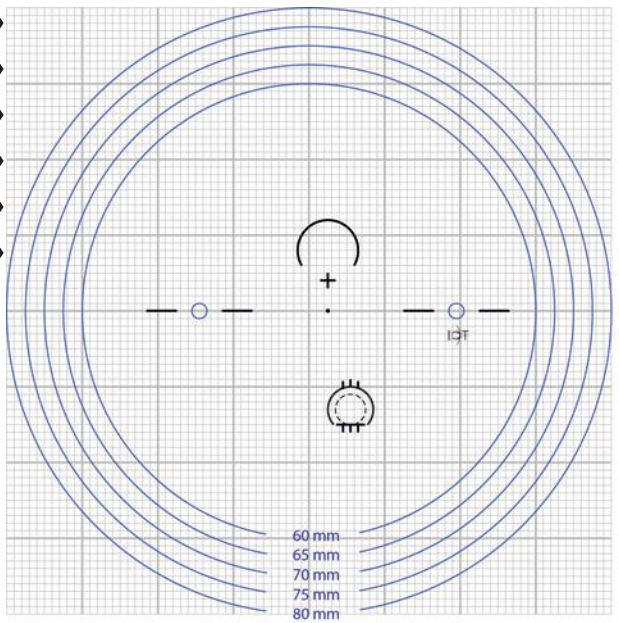
- Ultimate Freestyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65
- Alpha S45
- Basic H20
- Basic H40
- Basic H60
- Basic S40
- Sport Progressive
- Sporthin PAL
- Drive Progressive

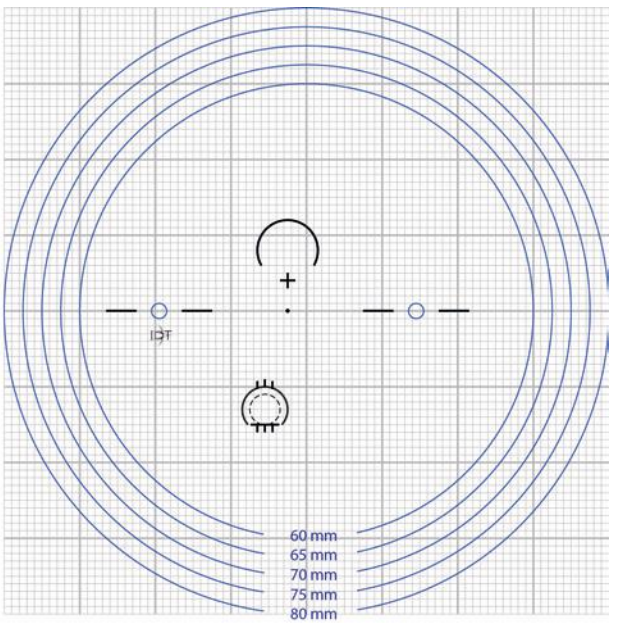




Progressive Design Minimum Fitting Height 19 mm

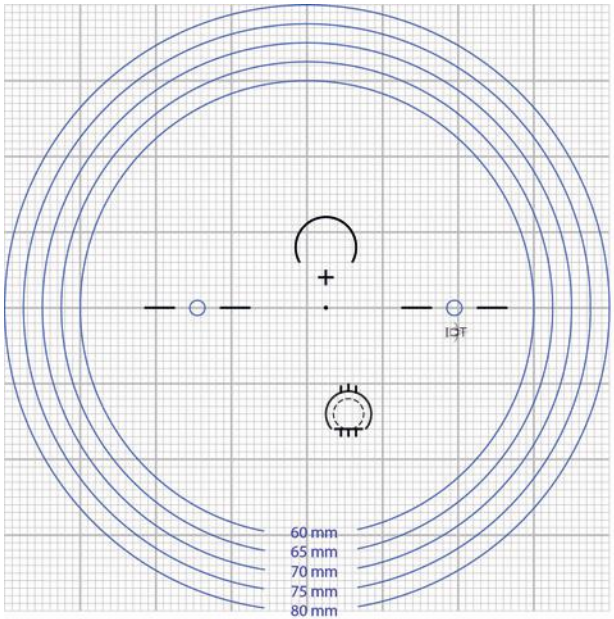
- Ultimate FreeStyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65
- Alpha S45

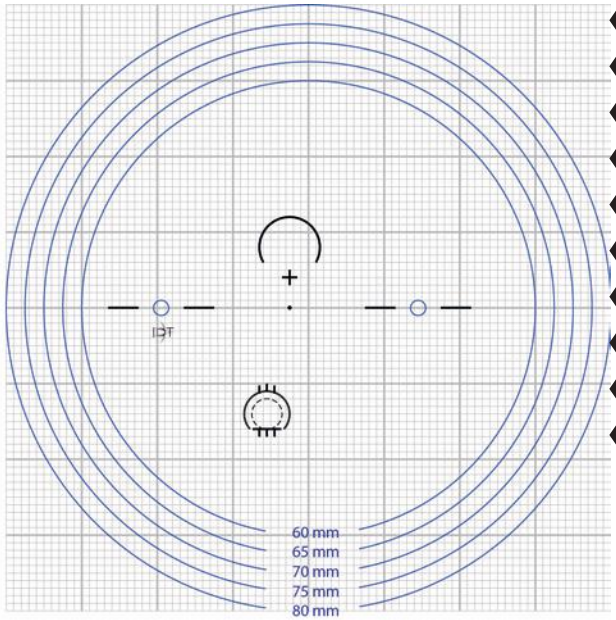




Minimum Fitting Height 20 mm

Progressive Design

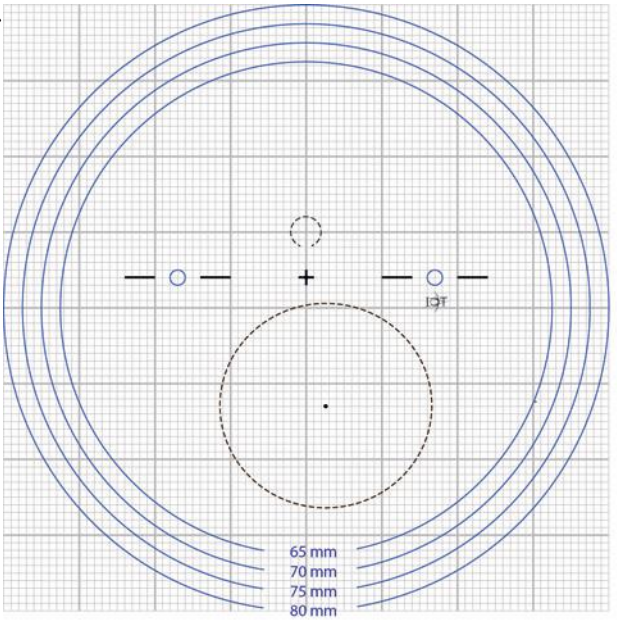


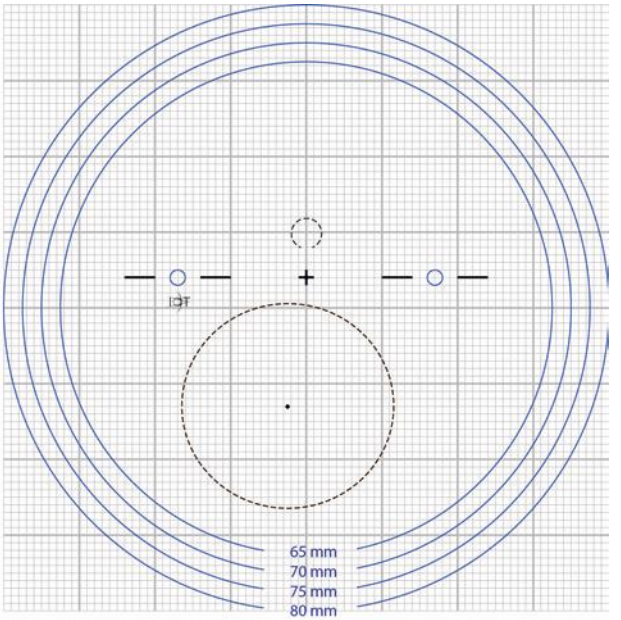


- Ultimate FreeStyle
- Alpha mobile
- Alpha H25
- Alpha H45
- Alpha H65
- Alpha S45
- Basic H20
- Basic H40
- Basic H60
- Basic S40

Bifocal Design Minimum Fitting Height 14 mm

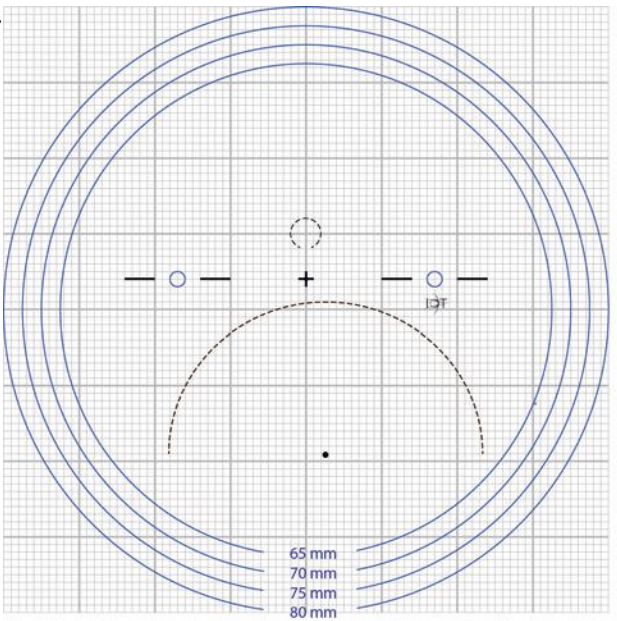
Digital Round Seg. 28

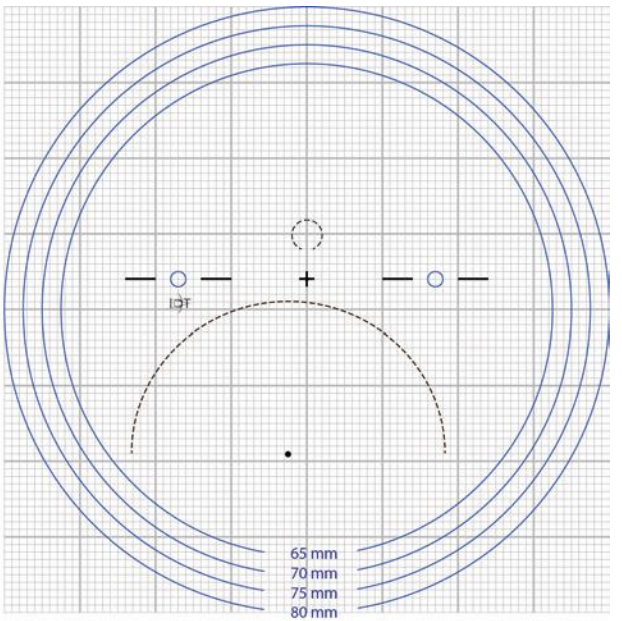




Bifocal Design Minimum Fitting Height 14 mm

Digital Round Seg. 40

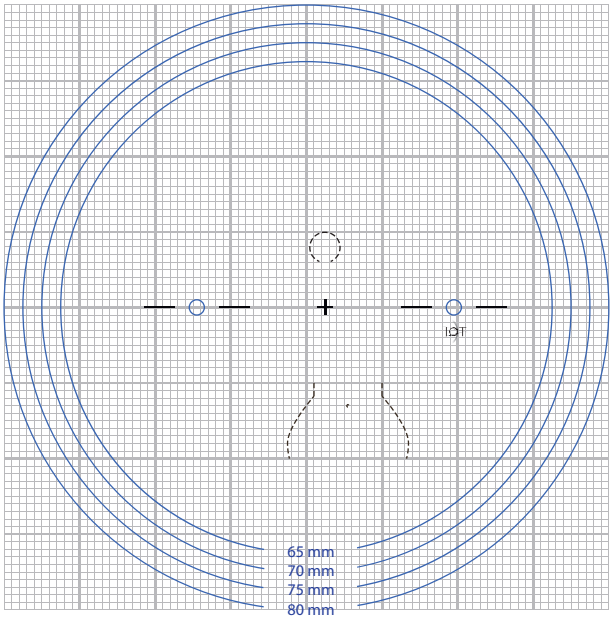


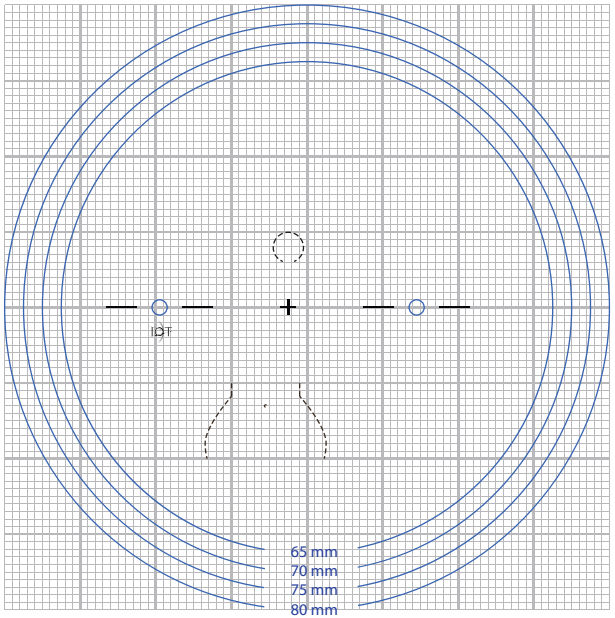


Minimum Fitting Height 15 mm

Bifocal Design

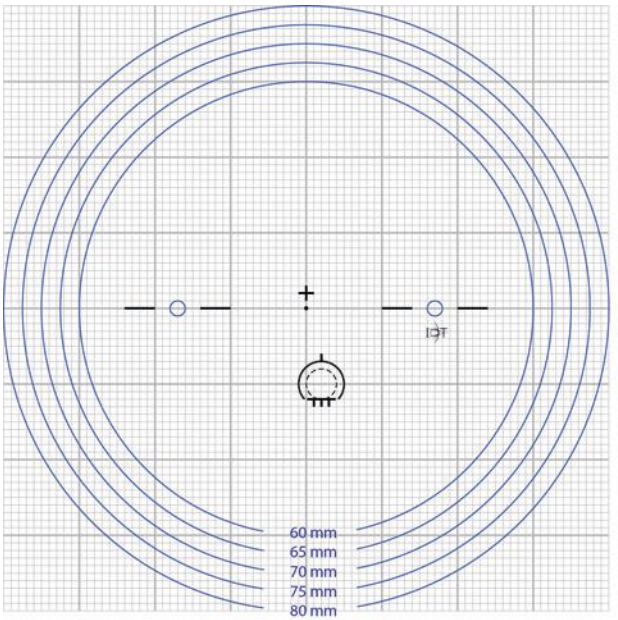
B-Free Bifocal

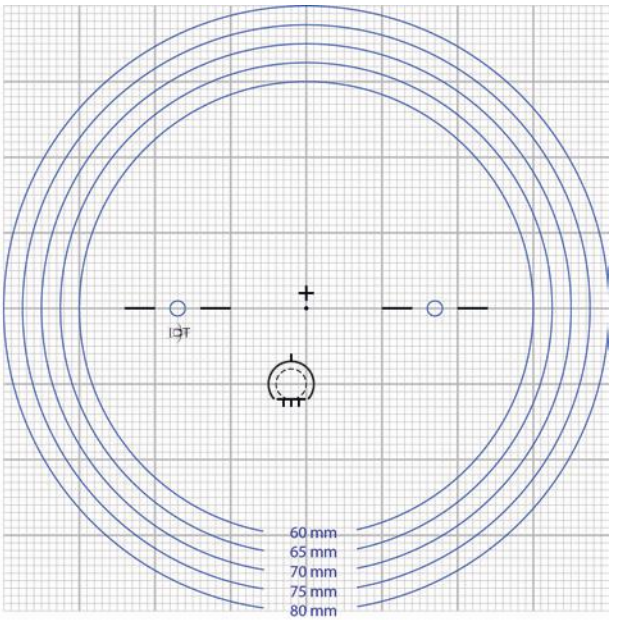




Indoor Design Minimum Fitting Height 14 mm

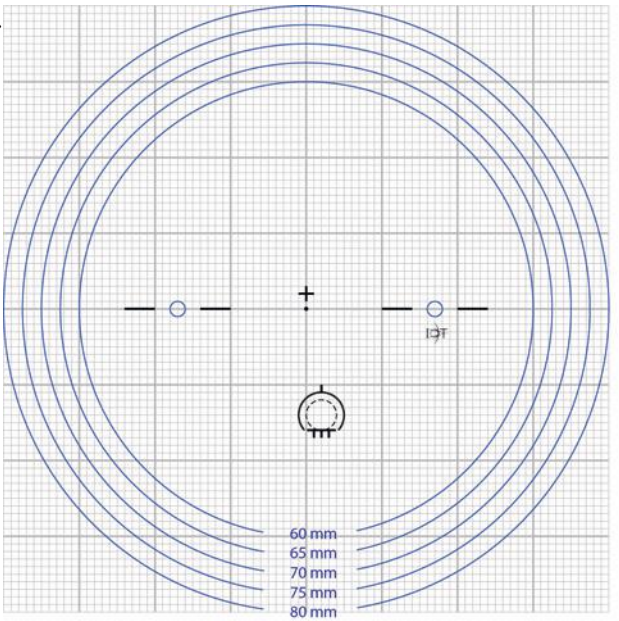
Office Reader

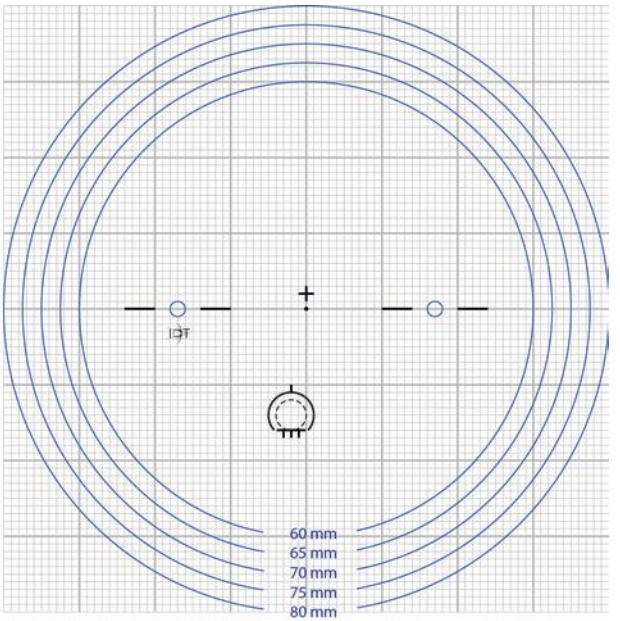




Indoor Design Minimum Fitting Height 18 mm

Office Reader

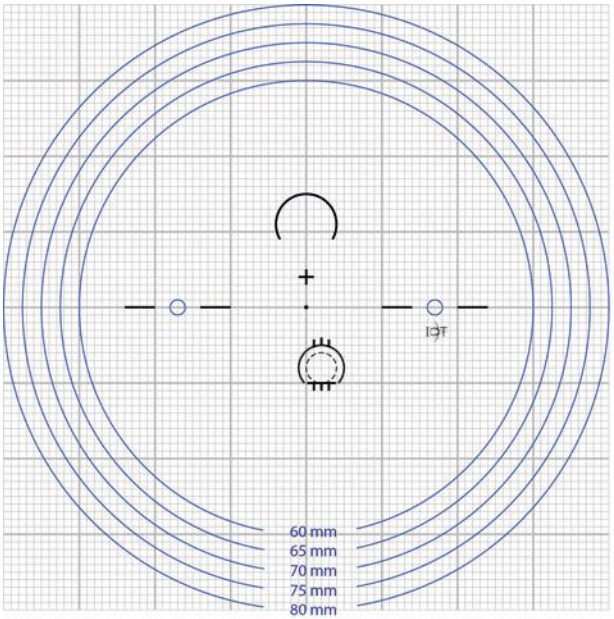


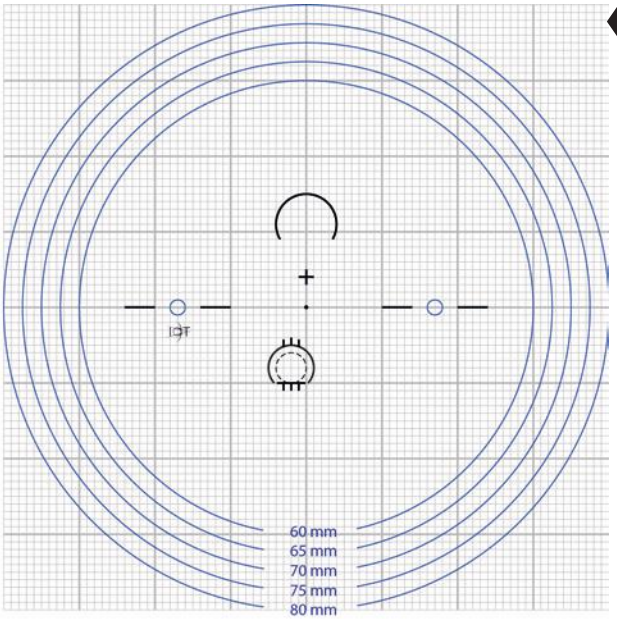


Minimum Fitting Height 14 mm

Indoor Design

Pure Office II

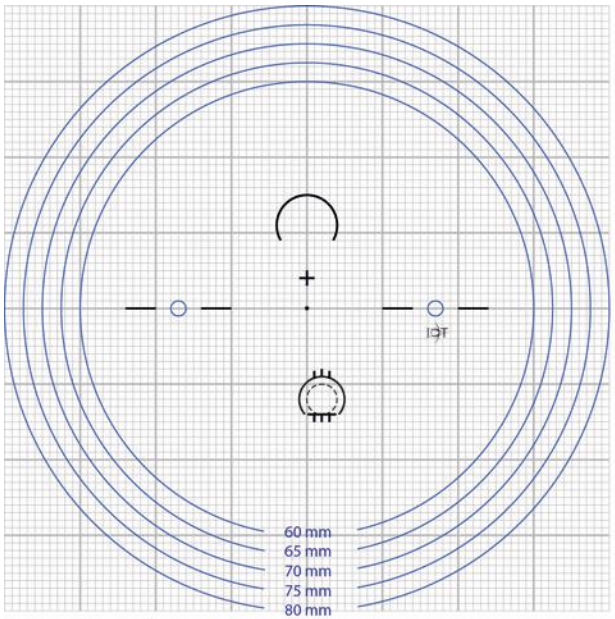


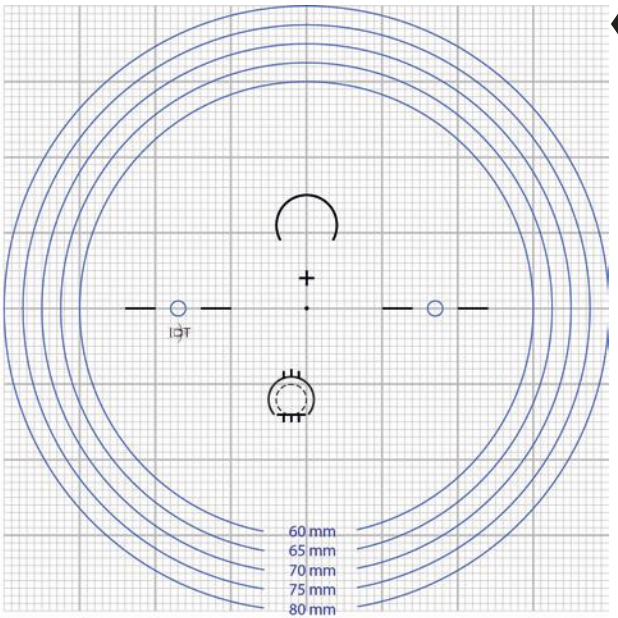


Minimum Fitting Height 18 mm

Indoor Design

Pure Office II

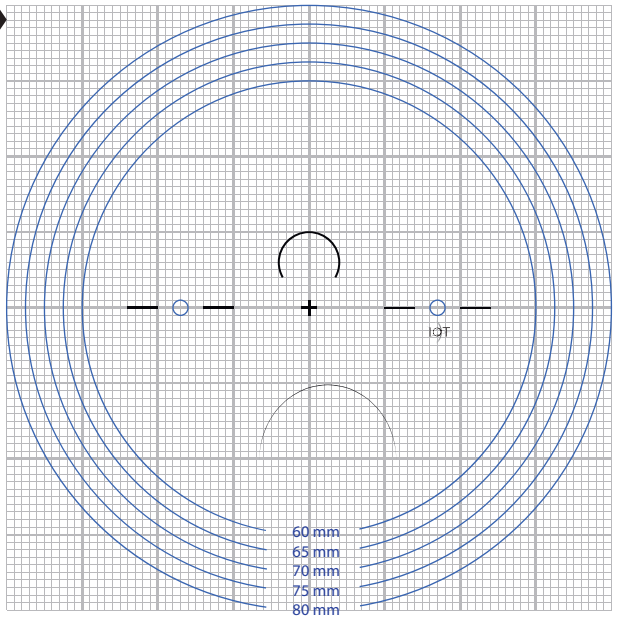


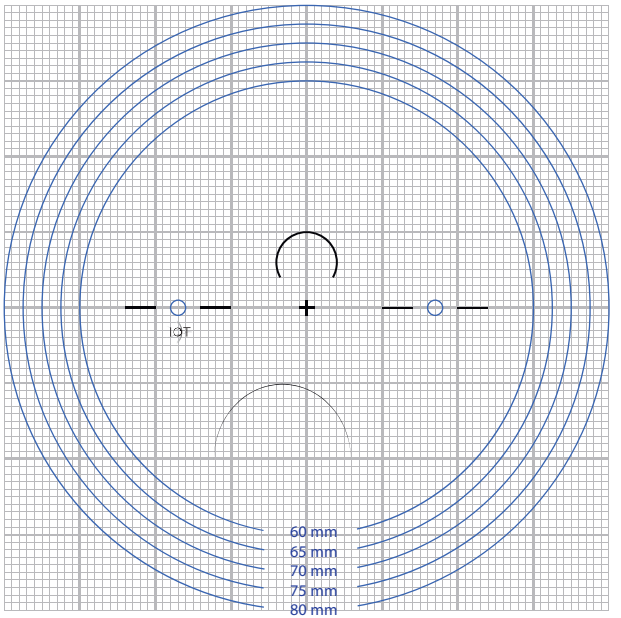


Indoor Design

Minimum Fitting Height 14 mm

Acomoda

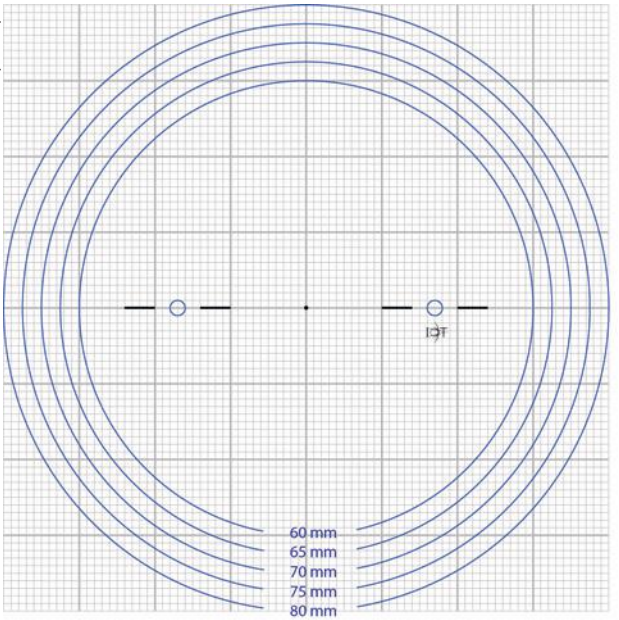


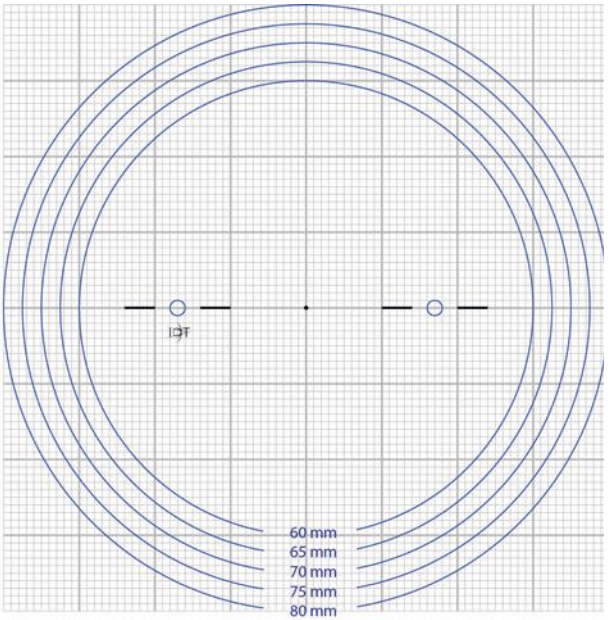


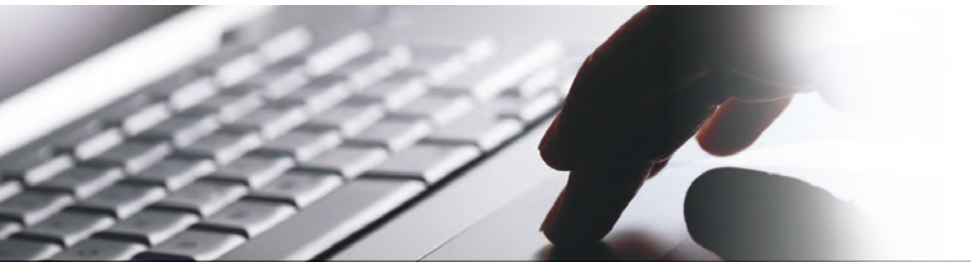
Outdoor Design

SV & I-Venture

Sporthin SV







System requirements

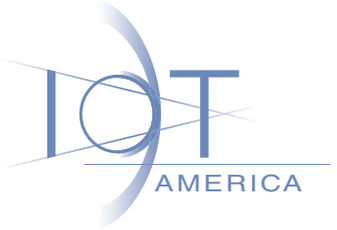
Integration with Lab Management Software (LMS)

Currently integrated with the most common LMS solutions in the market

If your LMS is not already integrated or custom, please ask the possibility of integration.

Hardware and Operating System requirements

- IOT Lens Design Software runs on a standard PC running Windows XP, Windows Vista, Windows 7, Windows 8 and 8.1, 32 and 64 bit, or Windows Server 2003, 2008 & 2012
- Minimum processor Intel Core 2 Duo or higher
- Minimum RAM 1 GB
- Recommended processor Intel Core i5
- Recommended RAM 2 GB



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