

# THE CLAREON® COLLECTION



Give Your Patients Continued Confidence in Dim Light.  
Benefit from Minimized Visual Disturbances.

A large, stylized graphic of a human eye in shades of blue and green, with a black outline of the eye shape. The text 'MORE THAN MEETS THE EYE' is overlaid on the eye graphic.

**MORE**  
THAN MEETS THE EYE

**Alcon**

# BEYOND COST: NIGHTTIME VISUAL QUALITY AND CONTRAST LOSS REMAIN KEY BARRIERS TO PCIOL ADOPTION



Top 3 reasons from the 2024 ESCRS Clinical Trends Survey\* (n = 3,300)<sup>1</sup>



1

67%

Patient out-of-pocket cost

2

55%

Nighttime visual quality concerns

3

37%

Loss of contrast sensitivity

\*What do you consider to be your biggest concerns against performing more presbyopia-correcting IOL procedures in your practice?  
1. ESCRS Clinical Trends Survey 204 Results, EUROTIMES, Supl. Sept/Oct 2025. Responders: 3300 ophthalmologists

# FROM NIGHT DRIVING TO HOME SAFETY: THE IMPORTANCE OF DIM-LIGHT VISION



1

**Night driving issues** are one of the most commonly reported age-related visual complaints<sup>1</sup>



2

**Dim-light problems predict falls** and increased fear of falling in adults  $\geq 60$ <sup>2</sup>



3

**Impact beyond disease:** Older adults have serious difficulty seeing under low illumination affecting quality of life<sup>2</sup>



1. Nighttime Glare and Driving Performance, Report to Congress 2007, National Highway Traffic Safety Administration, accessed 05.12.2025  
2. Terheyden JH et al. Patient-reported vision impairment in low luminance predicts multiple falls, et al. BMC Geriatrics (2023) 23:583

**NOT ALL IOLS ARE CREATED EQUAL.  
IMPORTANT FACTORS IMPACT IOL PERFORMANCE**



**1**

# Platform Properties



**2**

**Optical  
Design**



 **Clareon. Vivity.**  
Extended Vision IOL &  
Toric Extended Vision IOL

**Optical  
Design**



 **Clareon. PanOptix.**  
Trifocal IOL &  
Toric Trifocal IOL

**Alcon**

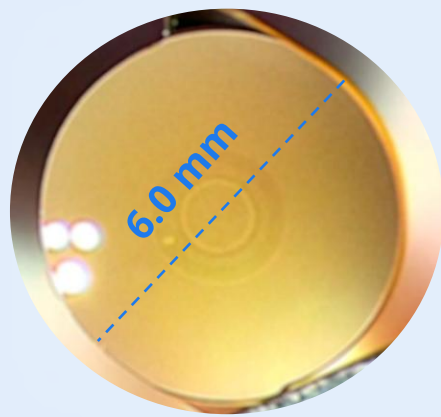
# CLAREON® IOL – HIGHER REFRACTIVE INDEX ENABLES 50% MORE USABLE OPTIC SURFACE THAN TECNIS\* IOL<sup>4</sup>



## Why does the refractive index matter?

### HIGHER REFRACTIVE INDEX<sup>2</sup>

Fully usable optic 6.0 mm<sup>4</sup>



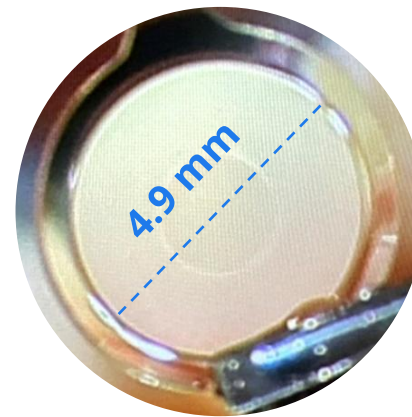
Clareon® Vivity®

1.55

### LOWER REFRACTIVE INDEX<sup>3</sup>

Thicker lens<sup>1</sup>

Reduced usable optic to 4.9mm<sup>4</sup>



TECNIS\* PureSee\*

1.47

\*Trademarks are the property of their respective owners

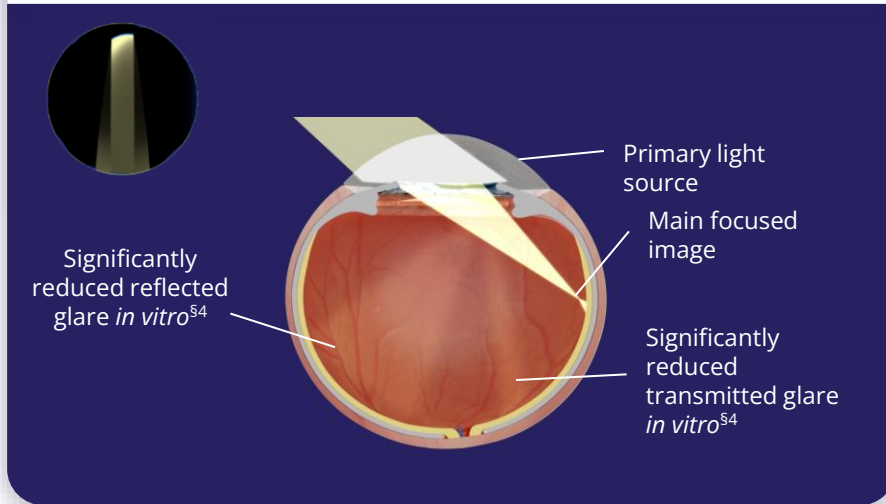
1. <https://www.quickguide.org/post/a-guide-optics-of-intra-ocular-lenses> accessed 28.11.2027 2. Clareon Vivity DFU 3. TECNIS PureSee IFU 4. Alcon Data on File, 2017. [REF-00720]

Alcon

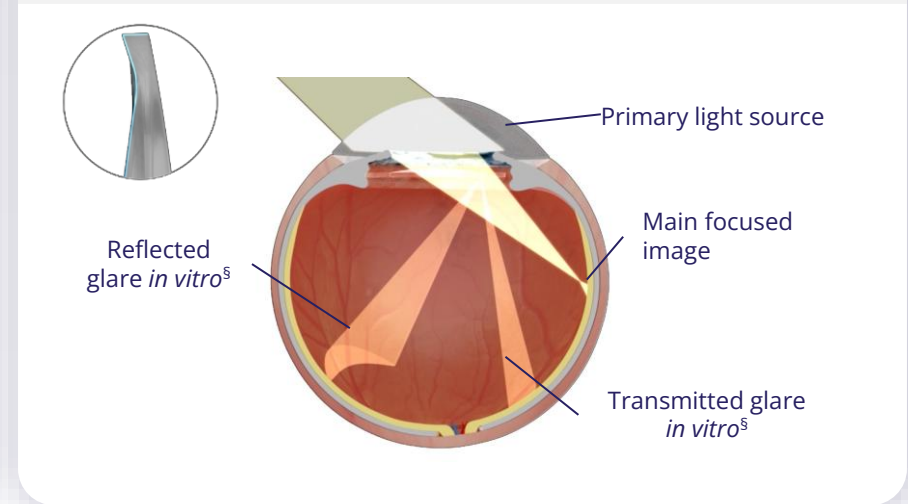
# REDUCED USABLE OPTIC MAY IMPACT PATIENT VISION AND CAUSE LIGHT SCATTER<sup>1</sup>



## Clareon® IOL

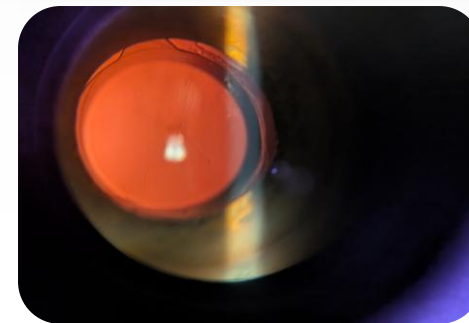


## TECNIS\* IOL



What happens when large pupils in dim light or decentred pupils expose the peripheral non-imaging zone?

[▶ Watch the video](#)



Do you know - **14%** of patients experienced considerable clinical effects due to pupil decentrations<sup>2</sup>

\*Trademarks are the property of their respective owners

<sup>5</sup> Evaluated in a schematic model eye and in vitro evaluation of positive dysphotopsia or glare types photic phenomena. Optical ray trace simulations of incoming light were generated based on a collimated light source with a wavelength of 550 nm for various off-axis angles of illumination (n=5 IOLs per group, +25.0 D). The simulation analyses were verified using a laboratory glare bench-top measurement system, whereby glare components formed from off-axis illumination of IOLs fitted into an artificial eye model were measured. Only clinical studies can confirm whether the differences observed between the IOLs in vitro are clinically significant.

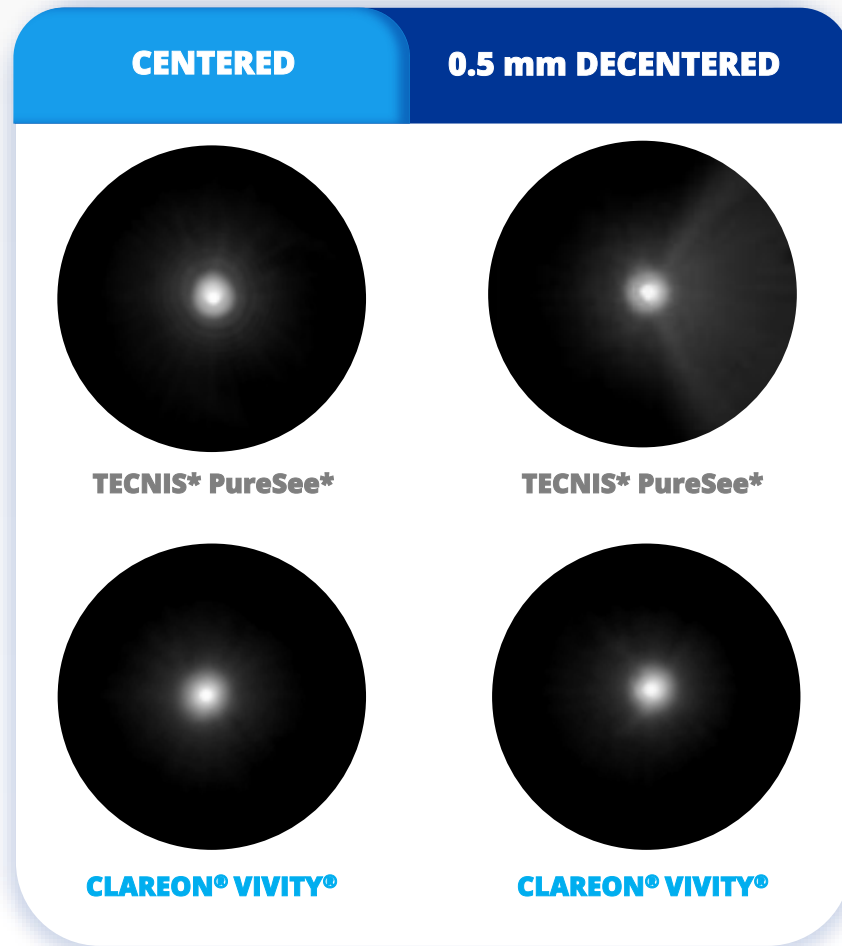
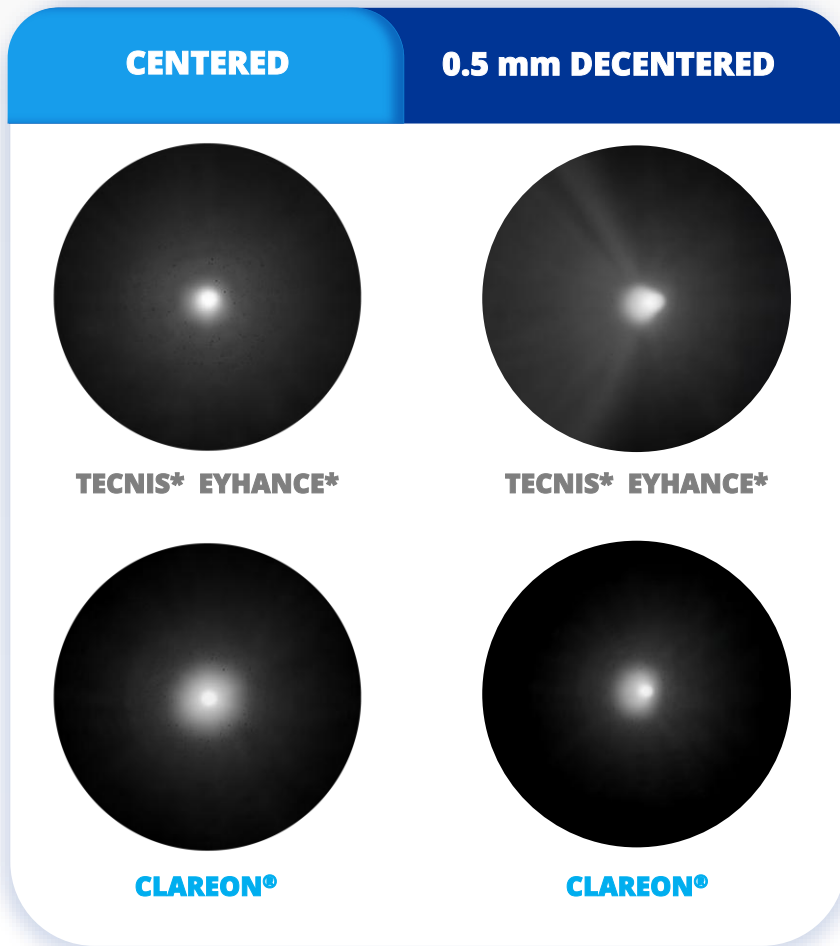
1. Das, KK, et al. In vitro and schematic model eye assessment of glare or positive dysphotopsia-type photic phenomena: Comparison of a new material IOL to other monofocal IOLs. J Cataract Refract Surg. 2019;425:219-227. 2. Atchison A. et al. Investigative Ophthalmology & Visual Science September 2014, Vol.55, 5862-5870.



# IMPACT OF EDGE TECNIS\* PLATFORM



Based on bench data, the edge of the TECNIS\* platform demonstrates an asymmetric halo image when decentered and might result in unwanted visual disturbances<sup>1-2</sup>



\*Trademarks are the property of their respective owners.  
1. Alcon data on file, 2024. [REF-27934] 2. Alcon data on file, 2025. [REF-28699]

# HOW MIGHT DIM-LIGHT CONDITIONS IMPACT PATIENTS?<sup>1</sup>



## CLAREON® PLATFORM



## TECNIS\* PLATFORM



### Constant center thickness (CCT) optic

Significantly more glare reflected from optic edge in vitro<sup>1^</sup>

## CLAREON® IOL PRECISION EDGE DESIGN

[▶ Watch the video](#)

1 STRAIGHT EDGE PROFILE

▶ Causing **reflective** glare (arc)

2 REDUCED USABLE OPTIC

▶ Causing **transmitted** glare

\*Trademarks are the property of their respective owners. ^Evaluated in a schematic model eye and in vitro evaluation of positive dysphotopsia or glare types photic phenomena. Optical ray trace simulations of incoming light were generated based on a collimated light source with a wavelength of 550 nm for various off-axis angles of illumination (n=5 IOLs per group, +25.0 D). The simulation analyses were verified using a laboratory glare bench-top measurement system, whereby glare components formed from off-axis illumination of IOLs fitted into an artificial eye model were measured.

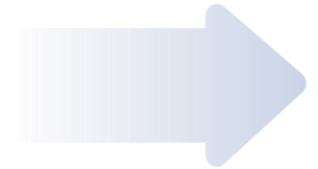
1. Das, KK, Werner L., Collins, S., Hong, X. In vitro and schematic model eye assessment of glare or positive dysphotopsia-type photic phenomena: Comparison of a new material IOL to other monofocal IOLs. J Cataract Refract Surg. 2019;425:219-227.

**Alcon**

# NOT ALL IOLS ARE CREATED EQUAL. IMPORTANT FACTORS IMPACT IOL PERFORMANCE

1

## Platform Properties



2

### Optical Design



Clareon. Vivity.  
Extended Vision IOL &  
Toric Extended Vision IOL

### Optical Design

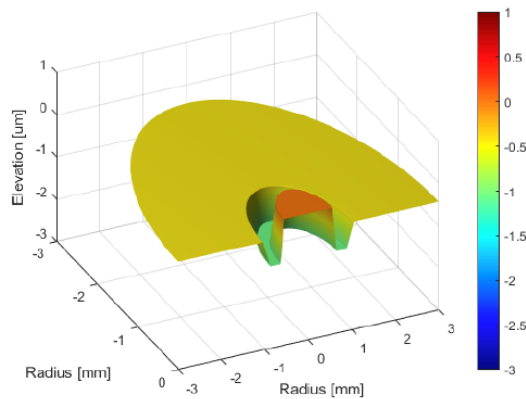


Clareon. PanOptix.  
Trifocal IOL &  
Toric Trifocal IOL

# VIVITY® HAS UNIQUE DESIGN WITH LOW OPTICAL PROFILE HEIGHT<sup>1</sup>

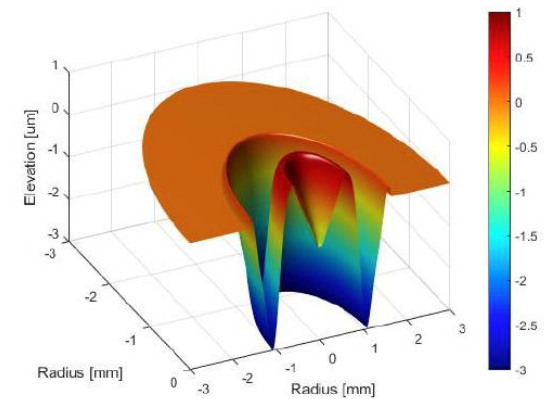
The height of TECNIS\* PureSee\*'s posterior zonal power element is ~2x greater than the surface transition elements in Vivity® — a significant difference in optic design<sup>2^</sup>

## Clareon® Vivity®



## TECNIS\* Puresee\*

2x 



<sup>^</sup>TECNIS PureSee\* change in sag height of ~4.5 µm relative to the outer zone vs. Clareon® Vivity® change in sag height of ~2.5 µm

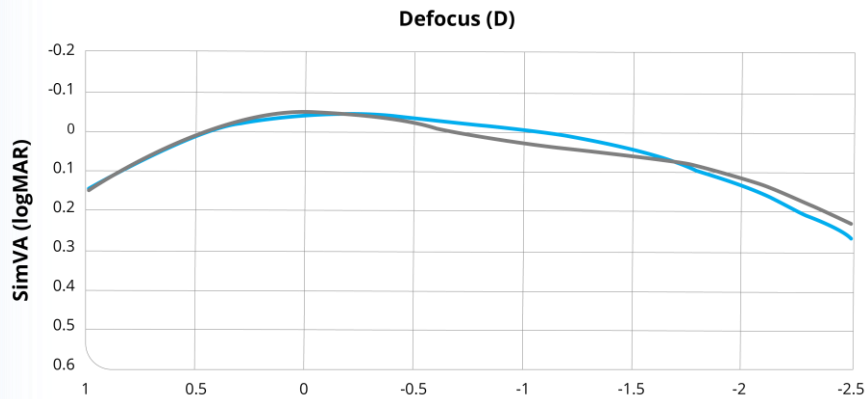
\*Trademarks are the property of their respective owners

1. Kohnen T, Berdahl JP, Hong X, Bala C. The Novel Optical Design and Clinical Classification of a Wavefront-Shaping Presbyopia-Correcting Intraocular Lens. Clin Ophthalmol. 2023;17:2449-2457. 2. Alcon data on file, 2024. [REF-25692]

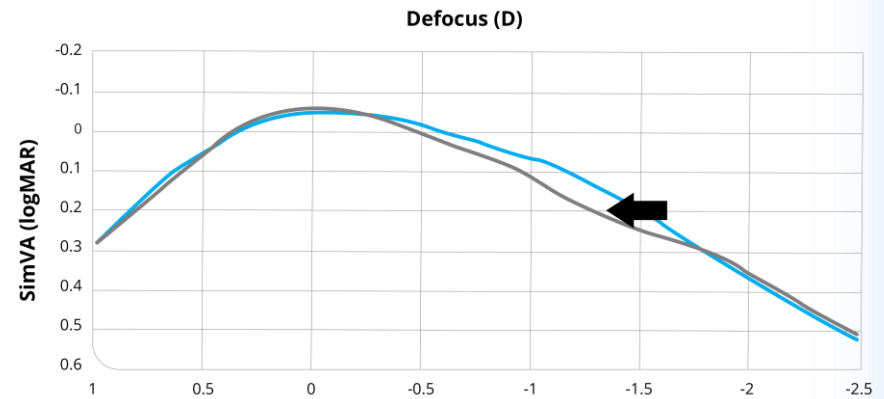
# IN A BENCH TEST, CLAREON® VIVITY® PERFORMED BETTER IN DIM LIGHT THAN TECNIS\* PURESEE<sup>1-2\*</sup>

Simulated visual acuity of Clareon® Vivity® and TECNIS\* PureSee\* from +1 D to -2.5 D

## Simulated Visual Acuity at 3 mm



## Simulated Visual Acuity at 4.5 mm



Clareon® Vivity® TECNIS\* PureSee\*

Clareon® Vivity® is **less pupil-dependent** than Tecnis\* Puresee\* for intermediate focus (-1.5D)<sup>1-2</sup>

\*Trademarks are the property of their respective owners

1. Niknahad A, Wu Z, Son HS, Auffarth GU, Khoramnia R, Łabuz G. Evaluation of Clareon Vivity and PureSee intraocular lenses: optical quality, depth of focus and misalignment effects. Sci Rep. 2025;15(1):26943. Published 2025 Jul 24. 2. Alcon data on file, 2025. [REF-28587]

# VIVITY® PROVIDES LOW-LIGHT CONFIDENCE: GOOD DISTANCE VISION AND LOW VISUAL DISTURBANCES<sup>1^</sup>

8 out of 10

Vivity patients experienced little to no difficulty when driving at dawn or dusk due to glare\*

## Pedestrian Recognition Distance



Vivity® Demonstrates  
Performance Comparable to  
Monofocal Control (126 m)

## Road-Sign Recognition Distance



Vivity® Performs Similarly to  
Monofocal Controls (84 m)

<sup>^</sup> Prospective, single-centre, closed-circuit night-driving study in licensed drivers aged 50–80 years with binocular BCDVA  $\geq 20/25$ . Participants included: 1) Vivity® IOL group: Bilaterally implanted with Vivity IOL (n = 25),  $\geq 4$  months post-op 2) Control group: • Bilaterally implanted with aspheric monofocal IOL (n = 11),  $\geq 4$  months post-op • Phakic presbyopes (n = 14)

\*Q5. Seeing because of glare when driving at dawn or dusk?

1. Alcon data on file, 2025. [REF-28449]

# LOW VISUAL DISTURBANCES, GOOD FAR AND INTERMEDIATE VISION ARE IMPORTANT IN DIM LIGHT

Clareon<sup>®</sup> Vivity<sup>™</sup>  
Extended Vision IOL &  
Toric Extended Vision IOL



**Alcon**

# NOT ALL IOLS ARE CREATED EQUAL. IMPORTANT FACTORS IMPACT IOL PERFORMANCE

1

## Platform Properties



2

Optical  
Design



Clareon® Vivity®  
Extended Vision IOL &  
Toric Extended Vision IOL

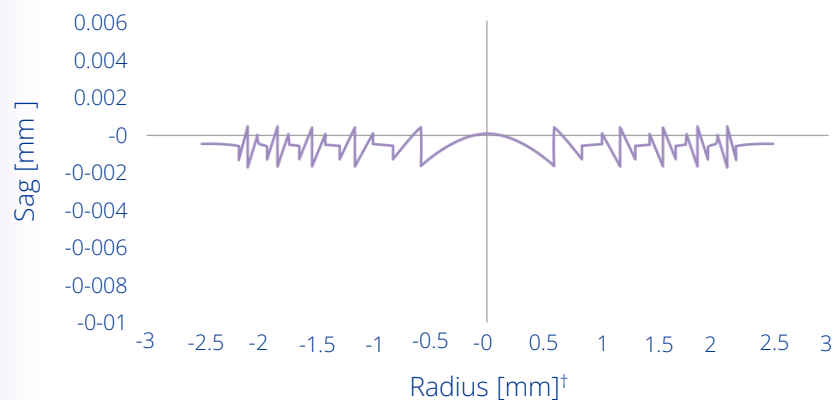
Optical  
Design



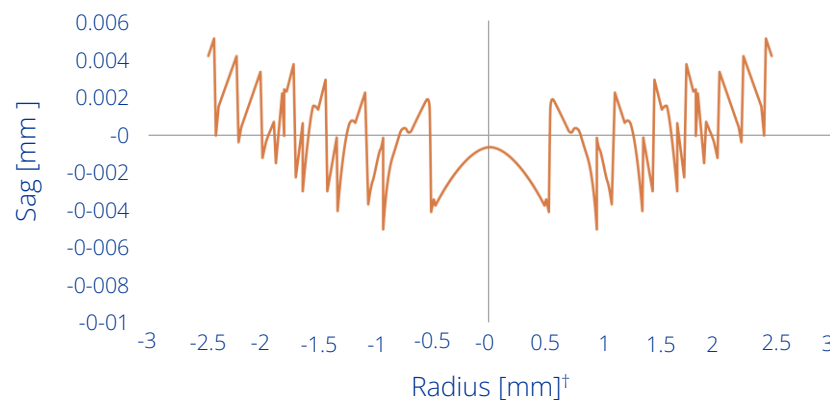
Clareon® PanOptix®  
Trifocal IOL &  
Toric Trifocal IOL

# PANOPTIX® HAS A UNIQUE DESIGN WITH LOW STEP-HEIGHTS TO HELP MINIMIZE LIGHT SCATTER<sup>2,3</sup>

## Clareon® PanOptix® optic profile<sup>†1</sup> Refractive index: 1.55



## TECNIS\* Odyssey\* optic profile<sup>†1</sup> Refractive index: 1.47



Odyssey\* with **3x higher**  
step heights vs PanOptix®

\*Trademarks are the property of their respective owners

†Sag diffractive profiles subtracting the base radius. All lenses were tested by the same equipment and following the same protocol.

1. Alcon Data on File 2024. [REF-25452] 2. Alcon Data on File, 2024. [REF-25441] 3. Alcon Data on File, 2025. [REF-27324]

# CLAREON® PANOPTIX® HAS A LOW VISUAL DISTURBANCE PROFILE<sup>1,2^</sup>

Based on a meta-analysis of 11 studies from 10 different countries and including more than 200 patients<sup>1†</sup>

## STARBURST



**ONLY  
2.6%**

of patients were  
bothered **very much**  
by starburst<sup>1†</sup> (n=220)

## HALO



**ONLY  
1.4%**

of patients were  
bothered **very much**  
by halo<sup>1†</sup>  
(n=222)

## GLARE



**ONLY  
0.8%**

of patients were  
bothered **very much**  
by glare<sup>1†</sup>  
(n=221)

†Based in a meta-analysis of 11 unique clinical studies with 580 patients in 10 different countries, including "very bothersome" and "severe" visual disturbances. Clinical studies were performed on the AcrySof® IQ PanOptix® IOL; AcrySof® IQ PanOptix® and Clareon® PanOptix® are optically equivalent. ^AcrySof® IQ PanOptix® was tested. AcrySof® IQ PanOptix® and Clareon® PanOptix® are optically equivalent. 1. Zhu D, Karki S, Dhariwal M, Soini E, Asseburg C. Patient-Reported Outcomes of Visual Disturbances with a Trifocal Intraocular Lens: A Meta-Analysis. Ophthalmol Ther. 2025 Feb;14(2):379-390. doi: 10.1007/s40123-024-01085-9. Epub 2024 Dec 24. PMID: 39718735; PMCID: PMC11754775. 2. Clareon® PanOptix® DFU

# ALMOST HALF OF ODYSSEY\* PATIENTS EXPERIENCE MODERATE TO SEVERE HALO<sup>1</sup>

Not at all Slight Mild Moderate Severe

**48%**

of Odyssey\* patients reported moderate to severe halo<sup>1</sup>

**12%**

**28%**

**36%**

**20%**

**4%**

\*Trademarks are the property of their respective owners

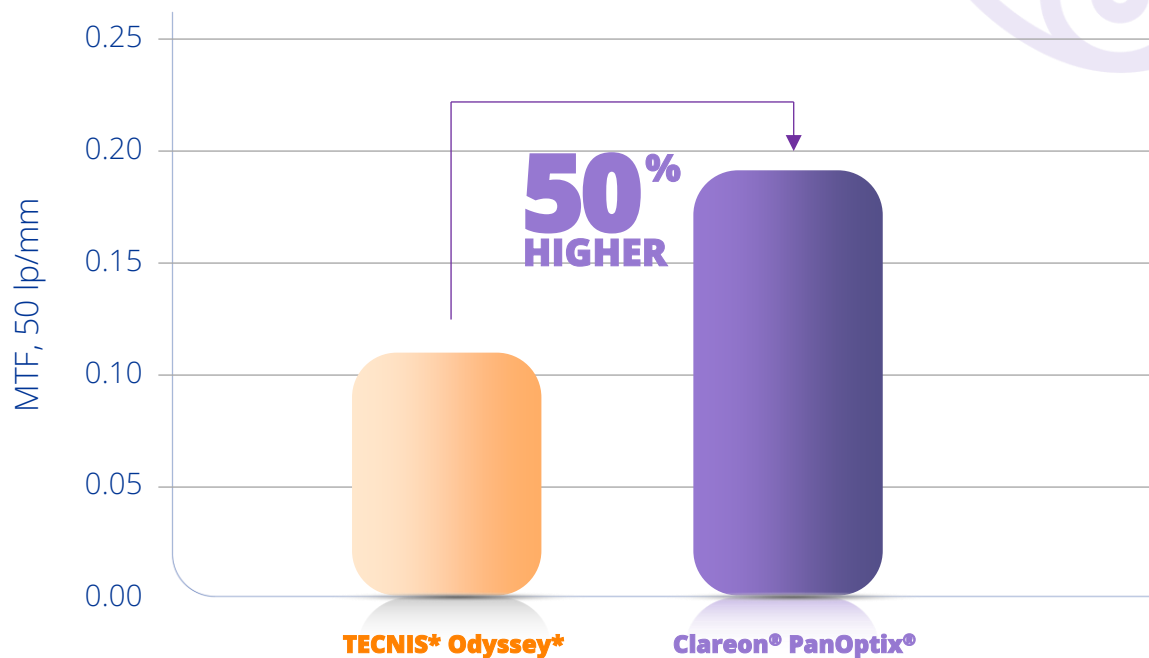
1. Bissen-Miyajima H, Midorikawa M, Fujisaki R, Ota Y, Minami K, Honda R. Early Clinical Results of a Newly Developed Continuous Range of Vision Intraocular Lens. Ophthalmol Ther. 2025 Aug 31.

# INTERMEDIATE IMAGE QUALITY FROM NEAR TO INTERMEDIATE

Intermediate image quality is **50% better** with Clareon® PanOptix® from near to intermediate vs. TECNIS\* Odyssey\*, based on optical bench data

# 50%

more image quality  
(MTF AUC\*\*) with  
PanOptix® in the  
**40 to 66 cm**  
**range**<sup>1</sup>



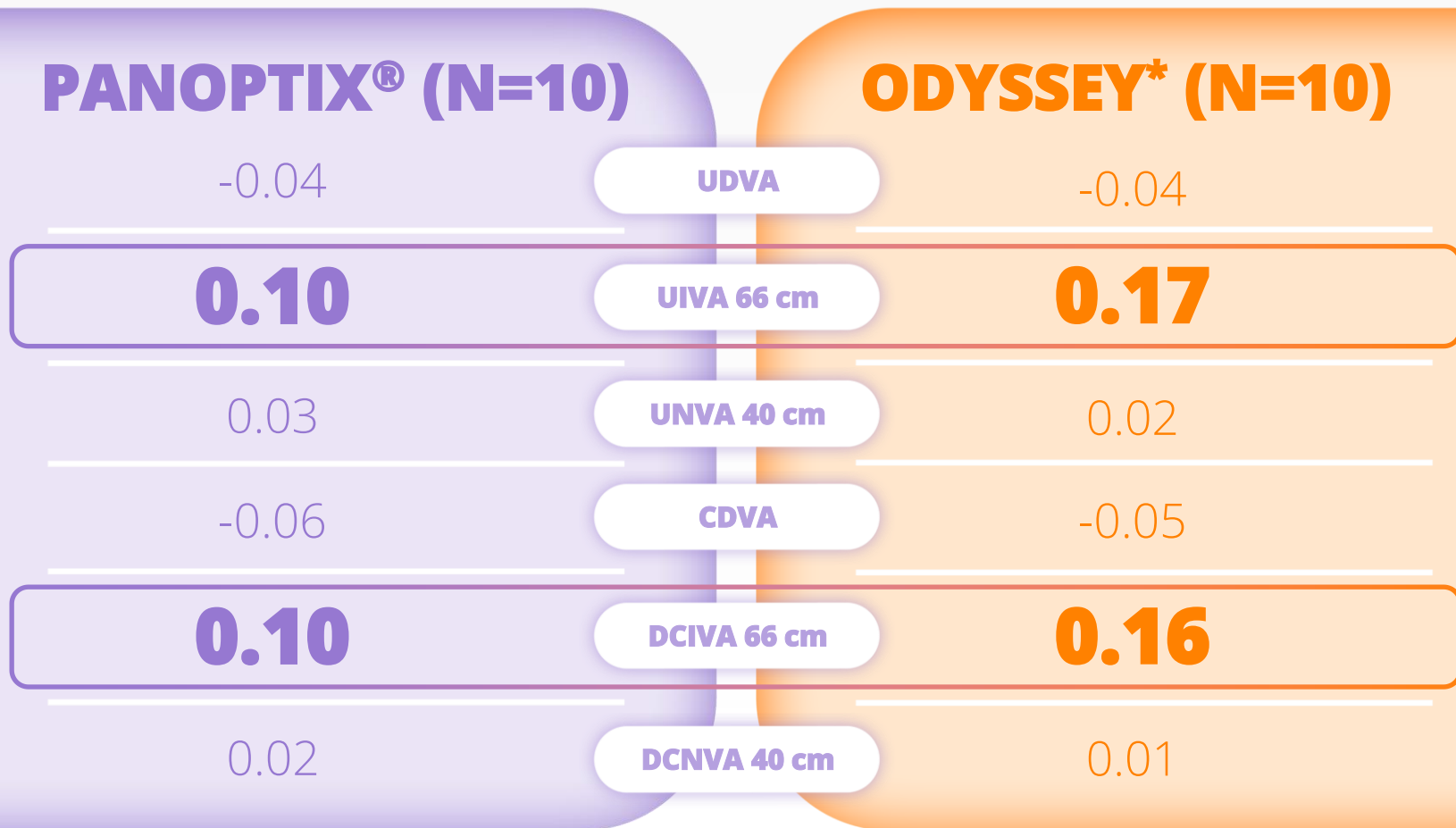
\*Trademarks are the property of their respective owners

\*\*AUC: Area under the curve.

1. Alcon Data on File 2024. [REF-25452]

# CLAREON® PANOPTIX® DELIVERS EXCELLENT INTERMEDIATE VA<sup>1</sup>

## Binocular LogMAR VAs 10 patients per group, ISBCS<sup>^</sup>



\*Trademarks are the property of their respective owners

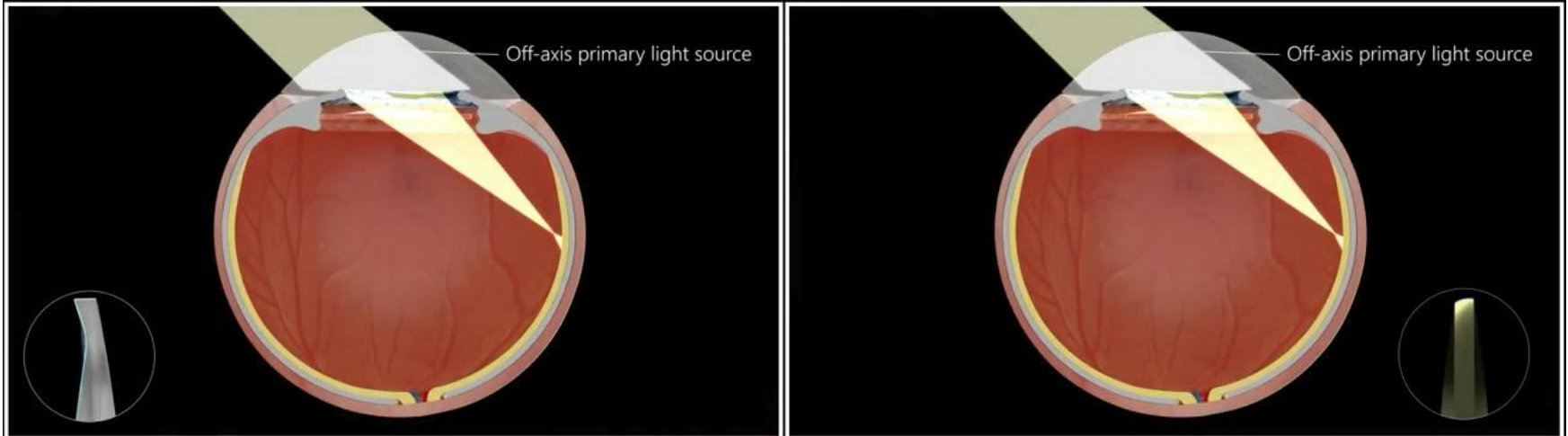
<sup>^</sup>Immediately Sequential Bilateral Cataract Surgery

1. Dmitriev A. et al, Visual Performance and Defocus Curves of 4 Leading Full Range of Vision IOLs (FROF) - Galaxy, Clareon PanOptix, Odyssey and PureSee presented at ESCRS 2025

# LOW VISUAL DISTURBANCES, GOOD FAR AND INTERMEDIATE VISION ARE IMPORTANT IN DIM LIGHT



Alcon medical device(s) comply with the current legislation for the medical devices. Please refer to relevant products' instructions for use for complete list of indications, contraindications and warnings



Off-axis primary light source

Off-axis primary light source

Constant center thickness (CCT) optic (e.g. Tecnis<sup>®</sup>, enVista<sup>®</sup>)

Clareon<sup>®</sup> IOL precision edge design

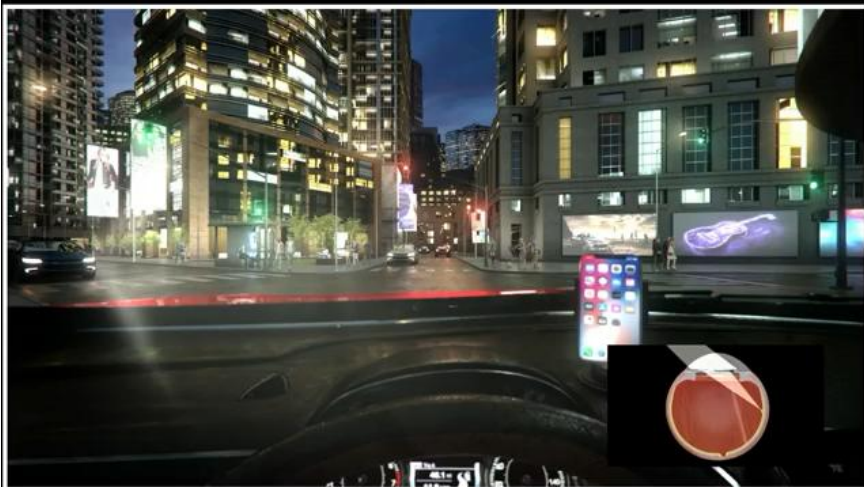
\*Example lens



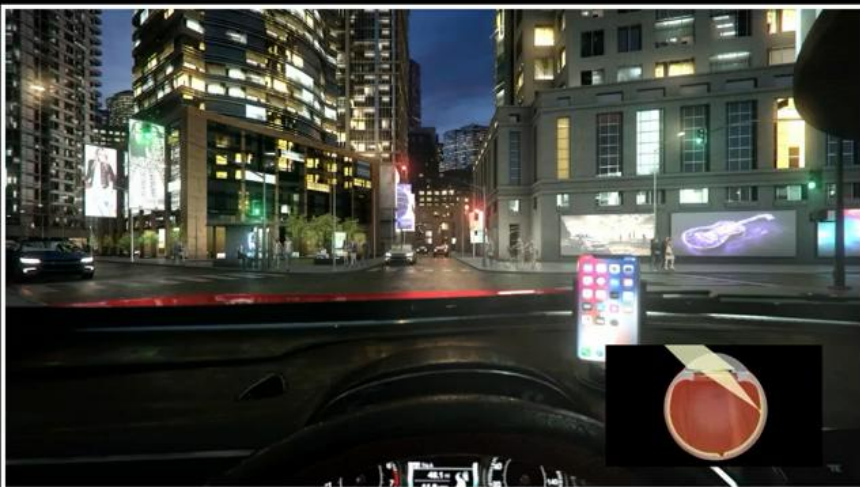
Night driving simulation

Significantly more glare transmitted by the peripheral non-optic ring *in vitro*<sup>1,55</sup>

Fully usable optic minimizes transmitted glare *in vitro*<sup>1,55</sup>



Constant center thickness (CCT) optic (e.g. Tecnis<sup>®</sup>, enVista<sup>®</sup>)



Clareon<sup>®</sup> IOL precision edge design

\*Example lens