

TRANSITIONS® GEN S™ - ULTRA-DYNAMIC LENS FOR IMPROVED VISION

Dynamic Light Modulation derives from the common goal that any eye care professionals pursues, that is to enhance vision. Light is essential for vision. Visual quality depends not only on vision correction but also on daily light exposure¹. The eyes require time and proper light conditions to continuously adjust and maintain sharp and stable vision^{2,3}. Effective light modulation necessitates highly responsive technology that can be synchronized with physiological needs. Transitions® GEN S™ is designed to complement the eye's natural ability, ensuring stable and consistent visual performance throughout the day for an enhanced vision experience for the wearer.

WHY RECOMMEND GEN S™ OVER CLEAR LENS ?

1

**Stable vision all day,
in any light conditions⁴**

2

**Faster vision recovery
for better vision^{5,6,7}**

3

**Effortless visual experience
for ultimate comfort⁷**

Transitions® GEN S™ is not just about performance in ideal viewing conditions – it's about providing patients with stable vision no matter who they are, where they are, what time of day it is, or what the weather is like. Transitions® GEN S™ is supported by three clinical trials and measured across more than 1,300 real-world lighting conditions, demonstrating consistent, science-based performance.

1

GEN S™ STABILIZES LIGHT DOSE THROUGHOUT THE DAY⁵

Transitions® GEN S™ lenses regulate the amount of light entering the eye, maintaining it within an ideal range for optimal vision (1,000–10,000 lux) in 90% of outdoor conditions, therefore far outperforming static clear lenses (30%).

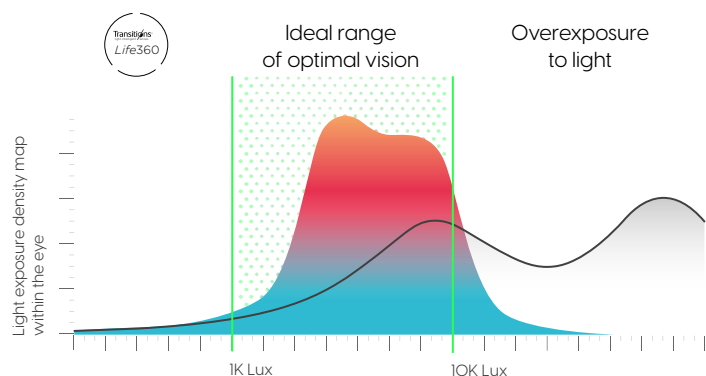
This performance was evaluated using our expanded Transitions® Life 360° real-world light database, capturing data from 1,300 outdoor scenarios across 12 countries, covering all four seasons, at different times of the day, orientations, and head inclinations.

↗ 90%

Light dose stabilization VS 30% with clear lens^{4,8}

— Clear lens — Transitions® GEN S™

With Transitions® GEN S™, patients do not need to adapt as much – the lenses do. Designed to perform beyond ideal conditions, Transitions GEN S™ dynamically responds to changes in light, enabling stable vision whether it's sunny, cloudy, indoors, or outdoors, at any time of day.



1. Wang, Shuxiao and Jianping Zhao. New perspectives on light adaptation of visual system research with the emerging knowledge on non-image-forming effect. *Frontiers in Built Environment* (2022).
2. Casado P, Ávila FJ, Collados MV, Ares J. A study on disability glare vision in young adult subjects. *Sci Rep.* 2023 Mar 2;13(1):3508.
3. Niemeyer JE, Paradiso MA. Contrast sensitivity, V1 neural activity, and natural vision. *J Neurophysiol.* 2017 Feb 1;117(2):492–508.
4. Coralie Barrau, Camille Prince, Camille Ehrishmann, Emmanuel Kobia-Acquah, Des Coughlan, Joshua Hazle, Chris Baldy; Ultra-Fast Light-Adaptive Lens stabilizes light exposure across a comprehensive real-world light database, Presented at the European Academy of Optometry and Optics 2025.
5. Better vision in challenging and varying light conditions, notably when moving from a bright to a darker environment (tested with Grey Transitions® GEN S™ lenses compared to Grey Transitions® Signature® GEN 8™ lenses and to static clear lenses) and in bright to very bright light situations (tested with Grey Transitions® GEN S™ lenses compared to static clear lenses).
6. Raul Duarte-Toledo, Juan Mompeán, Alba M. Paniagua-Díaz, Guillermo Perez, Emmanuel Kobia-Acquah, Nacer Lakhchaf, Daniel Parker, Coralie Barrau, Pablo Arta; Contrast Sensitivity with Photochromic Lenses When Transitioning from Bright to Dark Environments. *AAO 2024, P-11 Assessing Visual Function*, Thursday, November 7, 2024.
7. Harth JB, Hammond BR, Wysocki CJ, Renzi-Hammond LM. New photochromic spectacle lenses improve glare discomfort and photostress recovery. *Results in Optics.* 2025 Feb 1;18:100763.
8. Computational data measurement in real-world outdoor light with simulated Transitions® GEN S™ compared to static clear lens based on Spectral irradiance (mW/cm²) from 280 nm to 800 nm. Database of 1,300 real light exposure conditions across 11 countries, cloudy and sunny weather, time of day -Morning, Afternoon-, 4 seasons.

LIGHT CHANGES ALL DAY LONG, YOUR VISION SHOULDN'T

2

TRANSITIONS[®] GEN S™ SPEEDS UP VISUAL RECOVERY FOR BETTER VISION^{5,6,7}

Transitions[®] GEN S™ improves visual performance, especially in challenging light conditions—like bright light or changing light—by optimizing the eye's adaptation to light through an optimal modulation of the light that enters the eye. This ensures a more consistent and stable vision throughout the day, compared to traditional clear lenses.



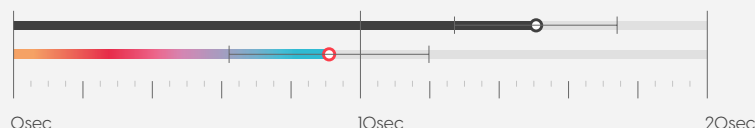
» **1.6X**
FASTER

full vision recovery time after
photostress compared to clear lens⁷

Clear lens : 15.4sec GEN S™ : 9.3sec

- ✓ Reduces photoreceptor bleaching, minimizing retinal adaptation needs.
- ✓ 6 sec faster recovery time in bright light conditions compared to clear lenses.

RECOVERY TIME IN BRIGHT LIGHT CONDITIONS



Subject-masked comparative randomized controlled trial. 30 healthy adults. Vision and discomfort measured after an intense (~15% bleach) 5-second exposure to a broadband emulated sunlight. Recovery time represented as mean +/- standard deviation.



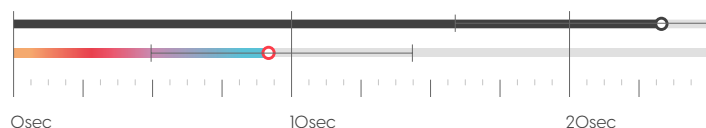
» **2.5X**
FASTER

vision recovery time from bright
to dim light compared to clear lens⁶

Clear lens : 23.2sec GEN S™ : 9sec

- ✓ Smoother eye adjustment during light variation.
- ✓ Better contrast sensitivity recovery, especially during the first seconds.

RECOVERY TIME FROM "BRIGHT TO DIM" LIGHT VARIATION



Double-blinded comparative randomized controlled trial. 10 pre-trained young healthy adults. 3 repeated measures per subject. Contrast sensitivity recovery dynamically assessed every 2 seconds over 100 seconds. Recovery time represented as mean +/- standard deviation.



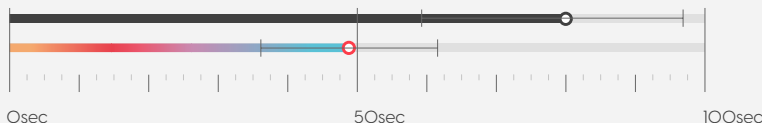
» **30 SEC**
LESS

to full vision recovery after going back indoors⁶

Clear lens : 80.3sec GEN S™ : 49.7sec

- ✓ Eye adapts faster to maintain optimal visual performance compared to clear lens.

RECOVERY TIME WHEN GOING BACK INDOORS



3

BETTER VISION EXPERIENCE⁷

Transitions[®] GEN S™ improves vision experience in bright light by reducing squinting by half when compared to standard clear lenses.



» **2X**

more comfort in bright light conditions⁷



GEN S™



50% less squinting
behavior with GEN S™
compared to clear lenses



Clear lens

LIGHT CHANGES ALL DAY LONG, YOUR VISION SHOULDN'T