

The moment greater clarity equals greater confidence. **ZEISS DriveSafe.**





Millions feel unsafe while driving because of visual challenges on the road.

Most drivers are exposed to difficult driving conditions that impact their vision, including driving in rain, snow or fog, and of course driving at night. For most, this can be a major source of stress — in fact, **over two thirds** of adults report difficulty driving in these challenging visual conditions.

While some of today's eyeglass lenses and coatings offer limited relief, none provide an all-day vision solution that addresses the specific challenges of driving.

Now there's ZEISS DriveSafe, an all-day lens and coating solution designed for patients who need the most help with vision while driving. **ZEISS DriveSafe's unique technology addresses the most stressful visual challenges drivers face today.**

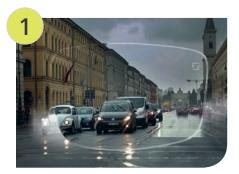




ZEISS DriveSafe meets the challenges.

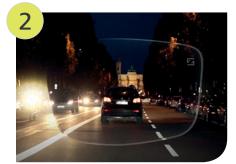
Driving presents multiple challenges to the eyes.

In recent studies, patients identified the three most acute vision challenges they face when driving. ZEISS took on these challenges and developed a unique solution, ZEISS DriveSafe.



Problem: Challenges with depth perception in low light conditions

Solution: Luminance Design® technology enables better vision in low light conditions



Problem: Challenges with glare from oncoming headlights or streetlights

Solution: DuraVision® DriveSafe coating offers dramatically reduced glare



Problem: Challenges refocusing when switching vision between the road, dashboard, and mirrors

Solution: The special **ZEISS DriveSafe design** optimizes for dynamic switching and the clearest fields of view where drivers need them most

Wearer trials demonstrate VERY HIGH patient SATISFACTION for both **driving** and **all-day use**:



97% WHEN DRIVING



ZEISS DriveSafe offers your patients a unique all-day lens with advanced design features fine-tuned for driving. Available for both **progressive** and **single vision** wearers.

1 Better vision in low-light conditions. Luminance Design Technology by ZEISS.

The challenge

For many drivers, the greatest visual problems come in low light situations (mesopic conditions like cloudy/rainy days and twilight). Eyeglasses have never been designed to account for the size of the pupil in these conditions. As a result, space perception and distance calculation can be especially difficult when driving.



ZEISS conducted intensive research into mesopic vision and lens design. Standard designs are calculated using single-ray tracing, with a single ray of light passing through the pupil center only; an infinitely small area. However, our eyes actually perceive images using bundles of light rays that pass across the entire pupil surface, which is several millimeters in diameter.

The ZEISS solution

To address this problem, ZEISS vision scientists determined the optimal pupil size in mesopic conditions, and developed Luminance Design Technology to calculate the ideal lens design. Wearer trials verified that our design delivers better performance. As a result, **wearers have better vision all day**, especially in low light conditions.

Pupils change in different light conditions.



Bright light = photopic vision with small pupil.

Large depth of focus, relaxed space perception



No light (darkness) = scotopic vision with large pupil.

Small depth of focus, little to no peripheral vision



Low light = mesopic vision with varying pupil size.

Challenging conditions due to variation in depth of focus and dimly lit peripheral vision

Reduced glare at night. ZEISS DuraVision DriveSafe Coating.

The challenge

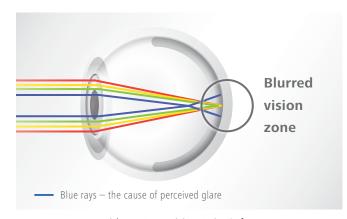
Glare is a major risk while driving, reducing visibility and contrast sensitivity. This is especially true in low light or at night, particularly with today's powerful Xenon and LED headlights. Up to now, anti-reflective coatings have not been designed specifically for this challenge.



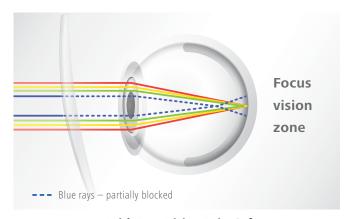
ZEISS vision scientists worked closely with HELLA, a leading headlight manufacturer, on research to determine the best coating to reduce glare from modern headlights.

The ZEISS solution

DuraVision DriveSafe coating reduces glare by reflecting the most harmful wavelengths from Xenon and LED headlights. ZEISS DriveSafe is preferred by patients for headlight glare reduction by more than **2 to 1**.



Without DuraVision DriveSafe



With DuraVision DriveSafe





Dramatically reduced glare and reflection

Accurate vision of road, dashboard and mirrors. ZEISS DriveSafe Lens Design.

The challenge

Driving demands a high level of attention. Drivers need a wide, clear view of the road in order to evaluate traffic conditions, but they also need to shift rapidly from the road to the dashboard and mirrors. This can be especially challenging for progressive lens wearers.



ZEISS conducted an eye-tracking study with automotive research institute FKFS* at Germany's University of Stuttgart. This study precisely mapped the actual visual behavior of drivers to determine what areas of vision were needed the most.



- * FKFS Research Institute of Automotive Engineering and Vehicle Engines Stuttgart is an independent foundation associated with the University of Stuttgart. Founded in 1930, FKFS is one of the largest and leading research institutes in the field of automotive engineering.
- ** Compared to ZEISS premium progressive lenses

The ZEISS solution

Using this data, ZEISS designed the DriveSafe Progressive with optimized distance and intermediate viewing zones, reducing the need for horizontal head movement.

- Dynamic vision for fast refocusing between the road, dashboard and mirrors
- Near vision suitable for all day wear
- Up to 43% larger midrange viewing area for easier focus switching between dashboard and mirrors. And up to 14% larger distance viewing area for a wider view of the road.**





ZEISS DriveSafe Progressive and Single Vision Lenses offer dynamic and comfortable all-day vision both on and off the road.

Recommend DriveSafe to your patients who need it most.

A few simple questions is all it takes - and your patients will thank you for it:

- "Is driving sometimes the most stressful activity for your eyes?"
- "Do you feel you can't detect objects quickly in low light conditions such as rain, cloudy days, twilight, or at night?"
- "Are you disturbed by glare from oncoming cars at night?"
- "Do you have problems quickly refocusing your eyes between the road, your dashboard and the mirrors?"

If your patient answers "YES" to any of the above questions, recommend ZEISS DriveSafe.

And here's what it will do for your practice:

Benefits to your patients

- More comfortable vision and reduced stress while driving
- Better depth perception in low light
- Reduced glare specific to driving conditions
- Improved fast focus between road, dashboard, and mirrors
- Comfortable for all-day use in virtually any choice of frame

Available with i.Scription® by ZEISS

Benefits to your practice

- Increased patient satisfaction
- Increased premium lens and coating sales
- Available to wide range of patients progressive and single vision
- Wide material & Rx range
- Variable corridor (progressive) allows sales of any frame

For any patient, **Single Vision or Progressive**, who has challenges with vision while driving, ZEISS has the solution – **ZEISS DriveSafe**.

Ask your ZEISS representative for more information today



The moment you see something you couldn't before.

This is the moment we work for.

How will doctors treat their patients in the future? What role will photos and videos play in the communications of tomorrow? Just how far can the miniaturization of semiconductor structures go? These and many other questions are what constantly propel ZEISS to new heights of excellence.

As a pioneer of innovative technology and one of the global leaders in the fields of optics and optoelectronics, ZEISS has always challenged the limits of human imagination. This passion for perfection is the driving force behind all the company's business groups. With this goal always in sight, ZEISS creates customer benefits and inspires the world to see things that were invisible before.









Optimize your patients' vision while boosting your revenue.

i.Scription by ZEISS.

Wavefront optimized refraction enhances your patients' vision and your bottom line.

- Maximize patient satisfaction and referrals
- Boost Rx retention and revenue
- Increase practice differentiation
- Earn rebates and tax deductions

Visit www.zeiss.com/equipment to learn more.



ZEISS DriveSafe.

Contact your ZEISS representative or visit www.zeiss.com/DriveSafe to learn more.

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We make it visible.

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