ZEISS ClearMind lenses

Research Digest from the European Conference on Visual Perception 2026

Scientifically proven: Reduced cognitive load and improved task performance with ZEISS ClearMind lenses.

At the 2026 Annual European Conference on Visual Perception (ECVP), researchers from the ZEISS Vision Science Lab presented data investigating task performance and cognitive load with ZEISS Progressive ClearMind lenses compared to ZEISS progressive standard lenses. Task performance was assessed via a pegboard task, which is a visuomotor near task requiring fine hand-eye coordination. Cognitive load was assessed subjectively via a validated questionnaire and objectively using blink rate.

With ZEISS Progressive ClearMind lenses, wearers showed significantly improved task performance and reduced subjective and objective cognitive load compared to ZEISS standard progressive lenses.

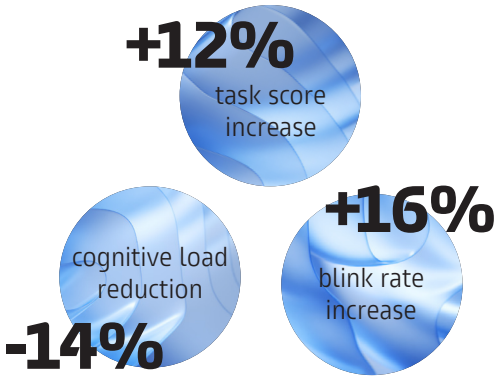
Background and Context

With increasing age, our eyes gradually lose the ability to focus on close objects. One of the most common solutions for this are so-called Progressive Addition Lenses (PALs). These are spectacle lenses with different areas for far, intermediate and near distances. As the correction power changes smoothly between the different distance areas, optical aberrations are unavoidable. This in turn causes peripheral blur that can impact wearer's performance and cognitive demand in everyday tasks. At the 2026 Annual European Conference on Visual Perception (ECVP) – a forum for new developments in the field of visual perception – held August 23-27, 2026 in Bournemouth, UK, ZEISS presented key findings showing that ZEISS Progressive ClearMind lenses can reduce cognitive load and improve task performance compared to ZEISS standard progressive lenses.

Key Results

In a controlled task study (n=32), task performance, subjective cognitive load (NASA task load index questionnaire) and eye tracking metrics including blink rate as objective markers for cognitive demand were evaluated. Participants completed a 3-minute pegboard task with each of two progressive lens designs: ZEISS ClearMind and a ZEISS standard lens (randomized, 3 repeats per condition).

- ZEISS Progressive ClearMind lenses led to significantly improved task performance and reduced cognitive load compared to ZEISS standard progressive lenses.
- Blink rate can support the evaluation of the cognitive impact of lens blur. Participants blinked significantly more often with ZEISS Progressive ClearMind lenses, indicating reduced cognitive demand and supporting the subjective assessment of cognitive load.



References

Sauer, Y., Agarwala, R., Witten, J.L., Gisbert Martinez, S., Michel, P., Ungewiss, J., Wahl, S. (2026, August 23-27). Eye tracking metrics for evaluating the cognitive impact of spectacle lens design. [Conference presentation abstract]. European Conference on Visual Perception, Bournemouth, United Kingdom.