

Wavefront Optimized Ablation Profiles ^[1]

Disclaimer:

Footnotes:

References

* As compared to conventional PRK.

+ The results presented in this section are from a prospective, non-randomized study of 230 eyes that had myopia with or without astigmatism and that were treated with topography-guided LASIK with the ALLEGRETTO WAVE[®] Eye-Q Excimer Laser System. Eyes had nearsightedness up to -9 D and astigmatism up to 6 D.

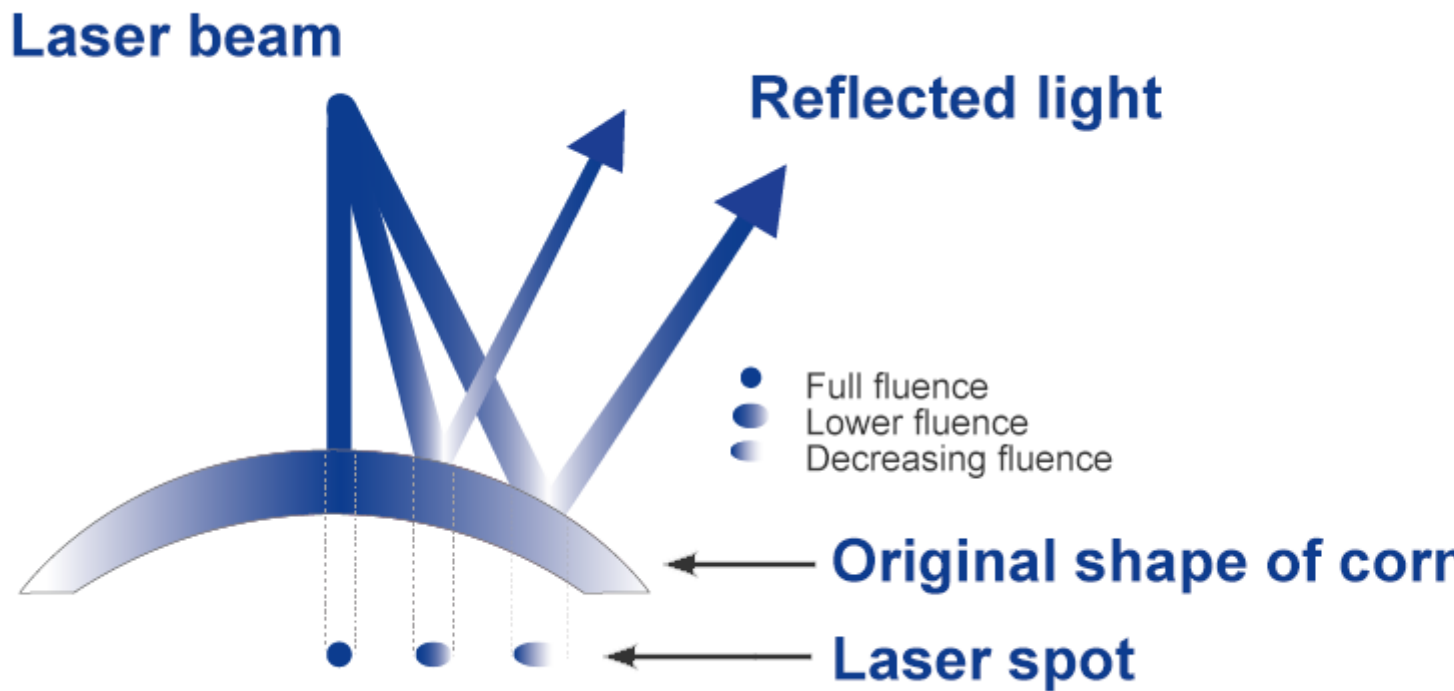
? Pentacam is a trademark of OCULUS Optikgeräte GmbH.

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3. Kanellopoulos AJ, Binder PS. Management of corneal ectasia after LASIK with combined, same-day, topography-guided partial transepithelial PRK and collagen cross-linking: the Athens Protocol. J Refract Surg. 2011;27(5):323-331.
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7. Data on File / WaveLight[®] FS200 Femtosecond Laser User Manual.
8. Stulting RD, Fant BS. Results of topography-guided laser in situ keratomileusis custom ablation treatment with a refractive excimer laser. J Cataract Refract Surg. 2016;42;11-18.
9. PERS - Declaration of Conformity for WaveLight EX500 (Nov 2017)
10. Procedure Manual EX500 (1016) rev04 2017-02-27
11. Analysis of ethanol effects on corneal epithelium PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/23674759> ^[2]
12. Epi-LASIK: comparative histological evaluation of mechanical and alcohol-assisted epithelial separation PubMed: <https://www.ncbi.nlm.nih.gov/pubmed/?term=Epi-LASIK%3A+comparative+histo...> ^[3]
13. Single-Step Transepithelial PRK vs Alcohol-Assisted PRK in Myopia and Compound Myopic Astigmatism Correction PubMed: [https://www.ncbi.nlm.nih.gov/pubmed/?term=3\(4\)%09Single-Step+Transepithelial+PRK+vs+Alcohol-Assisted+PRK+in+Myopia+and+Compound+Myopic+Astigmatism+Correction](https://www.ncbi.nlm.nih.gov/pubmed/?term=3(4)%09Single-Step+Transepithelial+PRK+vs+Alcohol-Assisted+PRK+in+Myopia+and+Compound+Myopic+Astigmatism+Correction)

Tab:

Laser Beam Fluence [5]

Designed to maintain the natural corneal shape to preserve asphericity^{2,5}

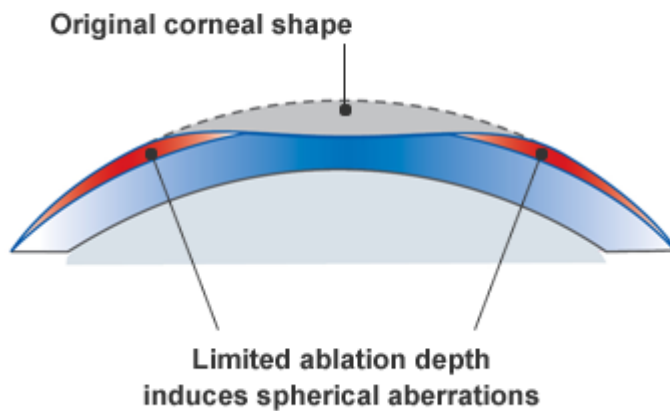


At the periphery, the angle of incidence causes more energy to be reflected²

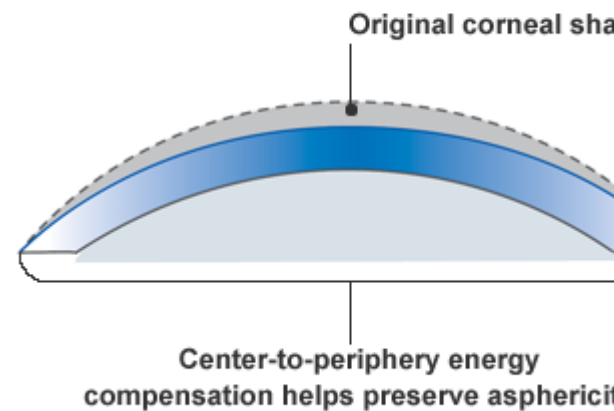
Ablation Profile Comparison [6]

Designed to maintain the natural corneal shape to preserve asphericity^{2,5}

Without Wavefront Optimized® ablation profile



WaveLight® Wavefront Optimized ablation profile



Designed to create true optical zones and minimal transition zones to help improve twilight and nighttime vision.⁶

Source URL: <https://www.wavelight.de/node/14541>

Links

[1] <https://www.wavelight.de/node/14541>

[2] <https://www.ncbi.nlm.nih.gov/pubmed/23674759>

[3] <https://www.ncbi.nlm.nih.gov/pubmed/?term=Epi-LASIK%3A+comparative+histological+evaluation+of+mechanical+and+alcohol-assisted+epithelial+separation>

[4] <https://www.ncbi.nlm.nih.gov/pubmed/?term=3>

[5] <https://www.wavelight.de/produkte-infos/wavelightr-ex500-excimer-laser/wavefront-optimizedtm-ablationsprofile#tab-1>

[6] <https://www.wavelight.de/produkte-infos/wavelightr-ex500-excimer-laser/wavefront-optimizedtm-ablationsprofile#tab-2>