Record Nr. UNINA9910813137703321 Autore Holladay Jack T Titolo Quality of vision: essential optics for the cataract and refractive surgeon / / Jack T. Holladay Pubbl/distr/stampa Thorofare, New Jersey:,: SLACK,, [2007] ©2007 **ISBN** 1-61711-667-X Descrizione fisica 1 online resource (141 p.) Disciplina 617 Soggetti Eye - Surgery Physiological optics Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Description based upon print version of record. Nota di bibliografia Includes bibliographical references. Understanding optics -- Astigmatism analysis: vector analysis to chart Nota di contenuto residual astigmatic error can improve the accuracy of refractive surgery -- Aspheric treatments reduce spherical abberation after cataract. refractive surgery: implanting an aspheric IOL or incorporating a prolate laser treatment into corneal refractive surgery helps reduce spherical abberation -- Vertex distance, refraction and intraocular lens power calculations: measuring vertex distance and performing overrefraction with a soft contact lens for higher prescriptions can reduce refractive surprises after IOL implantation -- Intraocular lens calculations after surgery: surgeons implanting intraocular lenses in patients who have undergone corneal refractive surgery must be precise in their measurements and calculations -- Surgical correction of presbyopia : some newer refractive surgical modalities take advantage of pupil size changes and other factors to provide good near and distance vision -- Optical improvements in excimer laser surgery: refinement of the radial compensation function and other optical

concepts have helped to improve LASIK outcomes -- Zernike and Fourier polynomials : describing surfaces -- Ocular and topographic

wavefront -- Understanding neural adaptation.