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Nota di contenuto	part PART I INTRODUCTION -- chapter 1 History of physiological optics in the twentieth century / Gerald Westheimer -- chapter 2 Possibilities in physiological optics / David R. Williams -- part PART II FUNDAMENTALS -- chapter 3 Geometrical optics / Jim Schwiegerling -- chapter 4 Wave optics / Daniel Malacara -- chapter 5 Aberrations in optical systems / Jos Sasin -- chapter 6 Photometry / Yoshi Ohno -- chapter 7 Characterization of visual stimuli using the standard display model / Joyce E. Farrell -- chapter 8 Basic ophthalmic instruments / Walter D. Furlan -- chapter 9 Instrumentation for adaptive optics / Chris Dainty -- chapter 10 Anatomy and embryology of the eye: An overview / Vivian Choh -- chapter 11 The retina / Michael A. Freed -- chapter 12 Visual system architecture / Jonathan Winawer -- chapter 13 Visual psychophysical methods / Denis G. Pelli -- part PART III OPTICAL PROPERTIES OF THE EYE -- chapter 14 The cornea / Michael Collins -- chapter 15 The lens / Fabrice Manns -- chapter 16 Schematic eyes / David A. Atchison -- chapter 17 Axes and angles of the eye / David A. Atchison -- chapter 18 The retina and the Stiles Crawford effects / Brian Vohnsen -- chapter 19 Refractive errors /

David A. Wilson -- chapter 20 Monochromatic aberrations / Susana Marcos -- chapter 21 Peripheral aberrations / Linda Lundstrm -- chapter 22 Customized eye models / Juan Tabernero -- chapter 23 Scattering, straylight, and glare / Thomas J.T.P. van den Berg -- chapter 24 Accommodation mechanisms / Shrikant R. Bharadwaj -- chapter 25 Accommodation dynamics / Lyle S. Gray -- chapter 26 Eye Movements / Andrew J. Anderson -- chapter 27 Aging and the eye's optics / W. Neil Charman -- chapter 28 Polarization properties / Juan M. Bueno.

Sommario/riassunto

Handbook of Visual Optics offers an authoritative overview of encyclopedic knowledge in the field of physiological optics. It builds from fundamental concepts to the science and technology of instruments and practical procedures of vision correction, integrating expert knowledge from physics, medicine, biology, psychology, and engineering. The chapters comprehensively cover all aspects of modern study and practice, from optical principles and optics of the eye and retina to novel ophthalmic tools for imaging and visual testing, devices and techniques for visual correction, and the relationship between ocular optics and visual perception.--Provided by publisher.
