

Assessment of imaging with extended depth-of-field by means of the light sword lens in terms of visual acuity scale

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Speech refers to outcomes of an imaging experiment using the refractive light sword lens (LSL) as a contact lens in an optical system that serves as a simplified model of the presbyopic eye. The results show that the LSL produces significant improvements in visual acuity of the simplified presbyopic eye model over a wide range of defocus. Therefore, this element can be an interesting alternative for the multifocal contact and intraocular lenses currently used in ophthalmology.