

ABSTRACT

OBJECTIVE MANIFEST REFRACTION

An method for providing an objective manifest refraction of a patient's eye includes obtaining at least fourth-order Zernike wavefront aberration information, fitting a second-order only polynomial to the at least fourth-order data, and using this information to predict the patient's manifest refraction with an accuracy approaching the patient's subjective manifest refraction. A method is also described for prescribing an accurate vision correction based upon the objective manifest refraction. A display according to the invention includes higher-order wavefront aberrations, lower order wavefront aberrations, numerical indicia of predicted manifest refraction, and images of qualitative assessments of a patient's vision quality. A device for obtaining an objective manifest refraction is described.

Fig. 1



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