

ISO/TS 6838:2024-07 (E)

Ophthalmic optics - Contact lenses - Tolerances and methods for measurement of multifocal contact lens addition power

Contents		Page
	Foreword	iv
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Tolerances	2
4.1	Tolerance limits.....	2
4.2	Conditioning of contact lenses prior to testing.....	2
4.3	Tolerances for rigid and soft contact lenses.....	3
5	Methods of measurement for multifocal add power	3
5.1	General.....	3
5.2	Wavefront sensor.....	3
5.2.1	Wavefront instrument specification.....	3
5.2.2	Wavefront calibration.....	3
5.2.3	Wavefront method of measurement.....	4
5.2.4	Power profile examples.....	4
5.2.5	Bifocal contact lens.....	6
5.3	Focimeter.....	7
5.3.1	Principle.....	7
5.3.2	Focimeter specification.....	8
5.3.3	Focimeter calibration.....	9
5.3.4	Measurement of most plus and least plus power.....	9
6	Ring test results	10
6.1	Ring test objectives.....	10
6.2	Ring test background.....	10
6.3	Ring test executive summary.....	11
6.3.1	WFS calibration verification using (13) certified low-power glass lenses.....	11
6.3.2	Focimeter calibration verification using (10) standard B+L calibration lenses.....	12
6.3.3	WFS gauge repeatability and reproducibility (GR&R) using PV2 MF HA lenses.....	12
6.3.4	Focimeter gauge repeatability and reproducibility (GR&R) using PV2 MF HA lenses.....	12
6.4	Calibration lens accuracy requirements.....	12
6.4.1	Focimeters.....	13
6.4.2	Wavefront sensor low-power lenses.....	13
7	Discussion	15
7.1	Ring test conclusions.....	15
7.2	Ring test recommendations.....	15
7.3	Multifocal add-power measurement challenges.....	15
7.3.1	Immersed wavefront sensor measurement challenges.....	15
7.3.2	In-air wavefront sensor measurement challenges.....	18
7.4	Questions to answer before the TS moves to become a standard.....	18
	Bibliography	20