

BIOMETER CONFIGURATION AND TIPS

Device configuration

Refractive index for keratometry: $n = 1.3375$

All third- and fourth-generation formulas were developed to adjust the effective lens position (ELP) and corneal power based on keratometry values measured using a refractive index of $n = 1.3375$. Therefore, using a different index may significantly alter the results.

Verify that the IOL constants used for the selected lens model are those recommended by the manufacturer.

Optical constants to be entered into the IOLMaster 700 for the Asqelio™ Monofocal, Asqelio Edof and Asqelio™Trifocal

	Asqelio™ MONOFOCAL	Asqelio™ EDOF	ASQELIO™TRIFOCAL
SRKT A	119,33		119,46
Hoffer Q (pACD)	5,75		5,87
Holladay 1 SF	1,99		2,1
Haigis a0	1,54		1,66
Barrett LF	2,09		2,15

*Adjust the IOL constant for each lens model at each surgical center after completing a series of cases, in order to improve refractive outcomes. The constants provided by the manufacturer or obtained from other optimized datasets are inherently influenced by the systematic errors present in those specific datasets.

General recommendation

Perform at least two measurements to verify repeatability, paying special attention to patient fixation and any discrepancies in axial length, anterior chamber depth, and keratometry readings. If variability is observed, repeat the measurements.

In the case of the IOLMaster 700, standard keratometry (K) should be used for the majority of patients without corneal pathology. The TK option combined with the Barrett formula is recommended for eyes with corneal irregularities, such as those with a history of refractive surgery.

Use the Barrett and Haigis formulas (if three-variable optimization has been performed) as references for achieving the most accurate results.

For increased precision, use the ESCRS online calculator and apply the Barrett, Kane, and EVO formulas to select the predicted refractive outcome closest to emmetropia.