



SPECIFICATIONS

MULTIFOCAL

Optic Design	Multifocal (hybrid with refractive and diffractive properties) aspheric biconvex*
Optic Material	Hydrophilic
Optic Diameter	6.0 mm
Overall Diameter	11.0 mm
AC Depth**	5.1 mm
A-Constant**	118.1 mm
Angulation	5°
Refraction Index	1.46
Minimum Incision Size	2.2 mm
Diopter Range	10.0 to 30.0 D (in 0.5 diopter increments)

* Multifocal surface is placed posteriorly. Refractive zone of progressive power occupies central 1.5 mm diameter and provides far and intermediate foci. Diffractive zone occupies area between 1.5 mm and 3.8 mm diameters and provides far and near foci. Bi-sign aspheric is formed by the base surface of the diffractive zone and the lens periphery outside 3.8 mm diameter.

** A-Constant and AC-Depth are estimated for mid-range diopter power, and not based on clinical data. Values are dependent on diopter and determined by formula.

Reduction of "Chair Time"

Predictable vision makes for more satisfied patients and a lessening of surgeons' concerns. Simplify lens choice for surgical operations (no mixing or matching needed), and enhance all-condition vision quality with OptiVis™ - a fully feature-integrated, benefit-balanced, easy-to-use, state-of-the-art multifocal IOL.



INSPIRED VISION.





A D V A N T A G E S

I N N O V A T I O N

Patented* RADIAM Optic

Refractive • Apodized • Diffractive • Integrated • Aspheric • Multifocal

A New Generation Diffractive-Refractive Multifocal IOL

The current generation of multifocal diffractive IOLs provides predictable vision for Far and Near ranges. However, these lenses lack a predictable solution for not only the Intermediate range, but for Contrast Sensitivity and Dysphotopsia (halos) at low light conditions. OptiVis™ represents the next generation of multifocal diffractive optic, and is designed to offer true vision predictability and pupil independence. This unsurpassed optic design, coupled with manufacturing precision delivers exceptional clarity in patient's daily lives.

An Innovative Design for All Distances, All Lighting Conditions

Light Distribution Table					
	Pupil Size	Near	Intermediate	Far	Outside range of vision
OptiVis™	2 mm	33%	38%	27%	2%
	5 mm	20%	6%	68%	6%
Competitor# 1	2 mm	40%	0%	40%	20%
	5 mm	10%	0%	84%	6%
Competitor# 2	2 mm	30%	0%	55%	15%
	5 mm	30%	0%	55%	15%
Competitor# 3	2 mm	40%	0%	40%	20%
	5 mm	40%	0%	40%	20%

Aaren Scientific's next generation pseudo-accommodative multifocal, OptiVis™, provides intrinsic powers for Near, Intermediate and Far at a full range of pupil sizes leading to predictable Intermediate vision, in addition to Far and Near.

*US Patent No 7,073,906

Superior Contrast Sensitivity in Low Light Conditions

Nominal eye with spherical monofocal IOL. Retinal Image corresponding to 20/40 at 5 mm pupil (best focus at 3 mm)



Nominal eye with OptiVis. Retinal Image corresponding to 20/40 at 5 mm pupil (best focus at 3 mm)

OptiVis™ offers the following features to help ensure predictable contrast sensitivity in low light conditions:

- The unique bi-sign aspherization of OptiVis™ creates positive and negative ocular aberrations at large pupil diameters to not only balance out corneal aberrations, but also to compensate for ocular aberrations within the lens itself. This leads to superior image quality even with lens decentration and tilt.
- OptiVis™ apodization increases Far image dominance with increasing pupil size to improve Far image contrast sensitivity in low light conditions.
- With OptiVis™, only a small percentage of light falls outside of the range of vision.

Reduction of Dysphotopsia (Halos)

Retinal Image of far bright object with halo at the eye with prior multifocal IOL design (simulation)



Retinal Image of far bright object at the eye with OptiVis™ results in minimized halo (simulation)



Several of OptiVis™ design features also reduce Dysphotopsia:

- Unique apodization to minimize halo size. (The area of the lens that passes most of the light to Near focus is located close to the center of the optic.)
- Bi-sign aspherization to maximize Far contrast, even with lens misalignment.
- Small percentage of light falls outside of the range of vision.