

International intraocular lens registry

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ABSTRACT

To ensure the highest quality of care for patients, surgeons must have the most up-to-date information on the intraocular lenses (IOLs) they implant. This registry presents the lens constants (A constant, anterior chamber depth, and surgeon factor) for all commercially available IOLs—869 lenses from 22 manufacturers. The constants will be updated every January. *J Cataract Refract Surg* 1999; 25:128-136

There are almost 869 intraocular lenses (IOLs) produced by 22 manufacturers available for use by surgeons as of January 1999. In addition to the standard anterior and posterior chamber lenses, there are occluder lenses, iris lenses, telescopic lenses, and other specialty lenses to accommodate any size eye in almost any situation. The surgeon is sometimes unaware of or overwhelmed by the choices. The only way to determine the properties of these lenses is to contact the manufacturer directly and request material describing the characteristics.

To complicate the problem, each lens must have an initial lens constant to be used the first time the surgeon implants the lens. After the surgeon has used the lens in several cases, a personalized constant that will take into account the surgeon's characteristics can be determined. A surgeon is unique as a result of his or her surgical technique, diagnostic equipment (keratometer, ultrasound), and preoperative and postoperative medications. All these factors influence the personalized lens constant.^{1,2}

For the past 2 years, IOL manufacturers, the United States Food and Drug Administration (FDA), and experts in the field of IOL calculations have been working to develop a set of standards for determining

initial lens constants. Everyone agrees that the system currently used in the U.S. is unsatisfactory. It requires the manufacturer to provide the lens constant at the beginning of the approval process before any clinical data are available. In short, the lens constant must be determined before any implantation has been performed. Most manufacturers ask their optical engineers to make a "best guess," using similar lenses and any theoretical differences that they think may be important. In the U.S., this theoretical best guess cannot be changed without recalling all the lenses, resubmitting a change, and relabeling the lenses.

This mechanism for change is obviously costly and has never been implemented by a company. When the initial theoretical lens constant is found to be incorrect, the manufacturer must disseminate this information by word of mouth through the lens representatives. The result has been to create a set of published lens constants that are often different from those recommended by the local representative. The company cannot officially support these revised lens constants without endangering their FDA approval.

The ideal method for determining the proper initial lens constant would be to have each lens personalized by several surgeons and to report the median value.^{3,4} This would require approximately 30 to 50 cases from between 10 and 20 surgeons. The exact number would vary depending on the variability of the data, but a standard error of the mean (SEM) of less than 0.10 diopter has been proposed to ensure the statistical accuracy.³

Dr. Holladay is a consultant to intraocular lens manufacturers that use the Holladay IOL Consultant® program or formulas.

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Once the "clinical lens constant" has been determined, the problem of disseminating the information to the surgeon is logistically difficult. If the company begins to put the new lens constant on the box or in the promotional literature, a surgeon may have 2 lens constants in the inventory. Which one is correct or the most current?

The International Intraocular Lens Registry is an attempt to solve this logistical problem. It provides the most current clinical lens constants (A constant, anterior chamber depth [ACD], and surgeon factor) for each lens. All lenses have been reviewed by the respective manufacturers, and the parameters listed are effective January 1999.

Every attempt was made to include all commercially available IOLs. Nevertheless, omissions and errors in 869 lenses with different lens constants are inevitable. If you have any corrections or additions,

please send them to me at the reprint request address, by fax (713/669-9153), or by e-mail (holladay@houstoneye.com).

The registry will be updated annually in the January issue of the journal.

References

- Holladay JT, Prager TC, Ruiz RS, et al. Improving the predictability of intraocular lens power calculations. *Arch Ophthalmol* 1986; 104:539-541
- Holladay JT, Musgrove KH, Prager TC, et al. A three-part system for refining intraocular lens power calculations. *J Cataract Refract Surg* 1988; 14:17-24
- Holladay JT. Standardizing constants for ultrasonic biometry, keratometry, and intraocular lens power calculations. *J Cataract Refract Surg* 1997; 23:1356-1370
- Holladay JT. Relationship of the actual thick intraocular lens optic to the thin lens equivalent. *Am J Ophthalmol* 1998; 126:339-347

Model Name	A Constant	ACD	Surgeon Factor
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Adatomed

23AL	115.3	3.39	-0.31
23Am	115.3	3.39	-0.31
23As	115.3	3.39	-0.31
42P	118.5	5.26	1.51
43NH	118.5	5.26	1.51
53P	116.6	4.15	0.43
66P	116.8	4.27	0.54
74NH	117.8	4.85	1.11
75ST-6	118.9	5.49	1.73
76NH	118.9	5.49	1.73
76P	118.9	5.49	1.73
82NH	118.9	5.49	1.73
88T1a	118	4.97	1.22
88T1b	118	4.97	1.22
89NH	118.9	5.49	1.73
90DUV	118.5	5.26	1.51

Alcon/Cilco

39XONB*	117.4	4.62	0.88
55XONB*	117.9	4.91	1.17
55XOBA*	117.9	4.91	1.17
ANISBU*	116.2	3.91	0.20

*Discontinued lens

Model Name	A Constant	ACD	Surgeon Factor
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Alcon/Cilco, con't

AR12UO	118.7	5.37	1.62
CF57BA*	118.7	5.37	1.62
CN50CM	116.5	4.09	0.37
CP5BUO*	118.9	5.49	1.73
CR3BUO*	119	5.55	1.79
CR5BUO*	119	5.55	1.79
CVC1UO	118.9	5.49	1.73
CZ20BD*	118.7	5.37	1.62
CZ60BD	118.7	5.37	1.62
CZ70BD	118.8	5.43	1.68
JF3BUO*	118.7	5.37	1.62
JF3LRU	116.5	4.09	0.37
JF3UOO	116.6	4.15	0.43
LC80BD	118.7	5.37	1.62
LX10BD	118.7	5.37	1.62
LX90BD	118.7	5.37	1.62
MA30BA	118.9	5.49	1.73
MA50BM	118.9	5.49	1.73
MA60BM	118.9	5.49	1.73
MC20BA	118.7	5.37	1.62
MC20C2*	116.2	3.91	0.20
MC20CM	116.6	4.15	0.43
MC30BA	118.7	5.37	1.62

Model Name	A Constant	ACD	Surgeon Factor
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Alcon/Cilco, con't

MC30CM	116.8	4.27	0.54
MC40BD	118.7	5.37	1.62
MC40C2*	116.2	3.91	0.20
MC50BD	118.7	5.37	1.62
MC50BM	118.7	5.37	1.62
MC50MM*	115.6	3.56	-0.14
MC50RM	116.5	4.09	0.37
MC51BM	118.7	5.37	1.62
MC51MM	115.6	3.56	-0.14
MC52BM	118.7	5.37	1.62
MC60BD	118.7	5.37	1.62
MC60BM	118.7	5.37	1.62
MC60CM	116.6	4.15	0.43
MC60CP*	116.6	4.15	0.43
MC61BM*	118.7	5.37	1.62
MC61CM	116.6	4.15	0.43
MC70CM	116.4	4.03	0.32
MC70CP*	116.4	4.03	0.32
MC71CM	116.4	4.03	0.32
MC71CP*	116.4	4.03	0.32
ME20BD*	118.7	5.37	1.62
ME60BD*	118.7	5.37	1.62
ML20BD*	118.7	5.37	1.62

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
Alcon/Cilco, con't				Allergan/Ioptex				Allergan/Ioptex, con't			
MN20BD	118.7	5.37	1.62	AC-21B(12)	115.1	3.27	-0.42	U360*	116.5	4.09	0.37
MN30BD	118.7	5.37	1.62	AC-21B(13)	115.1	3.27	-0.42	U370*	116.4	4.03	0.32
MN30BF*	118.7	5.37	1.62	AC-21B(14)	115.1	3.27	-0.42	UB320EFS*	118.2	5.08	1.34
MN40BD	118.7	5.37	1.62	AP961L*	114.5	2.92	-0.76	UPB260S*	117.9	4.91	1.17
MN60BD	118.7	5.37	1.62	AP961M*	114.5	2.92	-0.76	UPB300F*	117.5	4.67	0.94
MTA2UO	115.3	3.39	-0.31	AP961S*	114.5	2.92	-0.76	UPB300FNS*	117.5	4.67	0.94
MTA3UO	115.3	3.39	-0.31	AR-40	118.4	5.20	1.45	UPB320FS*	117.5	4.67	0.94
MTA4UO	115.3	3.39	-0.31	PC-11NB	116.5	4.09	0.37	UPB320GNS*	117.8	4.85	1.11
MTA5UO	115.3	3.39	-0.31	PC-12NB*	116.9	4.32	0.60	UPB320GS*	117.9	4.91	1.17
MTA6UO	115.3	3.39	-0.31	PC-15NB	116.8	4.27	0.54	UPB330GS*	117.9	4.91	1.17
MTA7UO	115.3	3.39	-0.31	PC-62CNB	117.7	4.79	1.05	UPB330VS*	117.8	4.85	1.11
MX20BD*	118.7	5.37	1.62	PC-62NJB	117.7	4.79	1.05	UPB350FNS*	117.5	4.67	0.94
MX30CD	116.5	4.09	0.37	PC-64CNB	118.3	5.14	1.39	UPB350GS*	117.8	4.85	1.11
MZ20BD	118.7	5.37	1.62	PC-64NJB	118.3	5.14	1.39	UPB350S*	117.9	4.91	1.17
MZ20CD	116.6	4.15	0.43	PS-101A	116.8	4.27	0.54	UPB360*	118.1	5.02	1.28
MZ30BD	118.7	5.37	1.62	PS-102A	116.7	4.21	0.49	UPB360GS*	117.8	4.85	1.11
MZ40BD	118.7	5.37	1.62	PS-25TB	117.2	4.50	0.77	UPB370*	117.9	4.91	1.17
MZ60BA	118.7	5.37	1.62	PS-26TB	117.1	4.44	0.71	UPB380*	118	4.97	1.22
MZ60BD	118.7	5.37	1.62	PS-38NB	117.3	4.56	0.83	UPB380C*	118.3	5.14	1.39
MZ60CD	116.6	4.15	0.43	PS-42ANB	117.7	4.79	1.05	UPB380S*	118.1	5.02	1.28
MZ60MD	118.7	5.37	1.62	PS-43NB	118.4	5.20	1.45	UPBR320GS*	117.9	4.91	1.17
MZ60PD	118.7	5.37	1.62	PS-44NB	118.4	5.20	1.45	UVB330-67E*	118.2	5.08	1.34
S2BUOO*	116.2	3.91	0.20	PS-45NB	118.4	5.20	1.45	UVB334-58*	118.1	5.02	1.28
SK21RU*	116.5	4.09	0.37	PS-52ANB	117.6	4.73	1.00	UVBN324-56*	117.4	4.62	0.88
SK21UO*	116.6	4.15	0.43	PS-53ANB	117.7	4.79	1.05				
SK22UO*	116.6	4.15	0.43	PS-54ANB	117.7	4.79	1.05	Chiron/Iolab/I.O.			
SK32UO*	116.6	4.15	0.43	PS-54ATB	117.7	4.79	1.05	2192L*	114.2	2.75	-0.93
SK51RM*	116.5	4.09	0.37	PS-57B	117.1	4.44	0.71	2192S	114.2	2.75	-0.93
SK60BM	118.7	5.37	1.62	PS-59NB	117.4	4.62	0.88	3066R	116.6	4.15	0.43
SK60CM	116.6	4.15	0.43	PS-60AJB	116.7	4.21	0.49	3161B	118.3	5.14	1.39
SK61BM	118.7	5.37	1.62	PS-60AMB	116.7	4.21	0.49	3161S	116.6	4.15	0.43
SK61CM	116.6	4.15	0.43	PS-60ANB	116.7	4.21	0.49	3236S*	116.2	3.91	0.20
SK62CP*	116.9	4.32	0.60	PS-60AZB	116.7	4.21	0.49	3241B	118.2	5.08	1.34
SK70CP*	116.4	4.03	0.32	PS-65ATB	116.6	4.15	0.43	3241S	117.3	4.56	0.83
SK71CP*	116.4	4.03	0.32	SA-40N	118	4.97	1.22	3260S	116.8	4.27	0.54
SZ20BD	118.7	5.37	1.62	SI-14PB*	119	5.55	1.79	3262L*	116.8	4.27	0.54
SZ30BD	118.7	5.37	1.62	SI-20NGB	117.4	4.62	0.88	3263S	116.8	4.27	0.54
SZ60BD*	118.7	5.37	1.62	SI-30NB	117.4	4.62	0.88	3266R	116.8	4.27	0.54
				SI-40NB	118	4.97	1.22	3266S	116.8	4.27	0.54
				SI55NB	118	4.97	1.22	3267B	118.2	5.08	1.34
				U250F*	116.3	3.97	0.26	3291B*	118.2	5.08	1.34

*Discontinued lens

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
<i>Chiron/Iolab/I.O., con't</i>				<i>Chiron/Iolab/I.O., con't</i>				<i>Chiron/Iolab/I.O., con't</i>			
3360S*	116.6	4.15	0.43	6793B	118.3	5.14	1.39	CM14UB*	118.2	5.08	1.34
3366R	116.6	4.15	0.43	6840B	118.4	5.20	1.45	CM14UBT*	118.2	5.08	1.34
3366S	116.6	4.15	0.43	6842B	118.4	5.20	1.45	CM15U*	116.9	4.32	0.60
3367B	118.4	5.20	1.45	6843B	118.4	5.20	1.45	CM16UB	118	4.97	1.22
3380S*	116.6	4.15	0.43	8091B	118.5	5.26	1.51	CM19UB*	118	4.97	1.22
3466R*	116.8	4.27	0.54	8093B	118.5	5.26	1.51	CM21U*	116.9	4.32	0.60
3466S	116.8	4.27	0.54	8095B	118.5	5.26	1.51	CM24UB*	118.2	5.08	1.34
3841L*	117.2	4.50	0.77	8190B	118.5	5.26	1.51	CM25UB*	118.2	5.08	1.34
3841S	117.2	4.50	0.77	8191B	118.5	5.26	1.51	JM17UB*	118.2	5.08	1.34
3991B*	118.5	5.26	1.51	8191M	118.5	5.26	1.51	LI41U	117.5	4.67	0.94
3991S*	117.3	4.56	0.83	8193B	118.2	5.08	1.34	LI61U	118	4.97	1.22
4141B	118.3	5.14	1.39	8195B	118.4	5.20	1.45	MC502	118	4.97	1.22
4141R*	116.6	4.15	0.43	8240R	116.8	4.27	0.54	MC550	118.5	5.26	1.51
4141S	116.6	4.15	0.43	8491B	118.5	5.26	1.51	Nuvita	115.8	3.68	-0.02
4240R*	116.8	4.27	0.54	8493B*	118.2	5.08	1.34	SAL1U*	116.2	3.91	0.20
4240S	116.8	4.27	0.54	8541B	119	5.55	1.79	SAL2UB*	118.4	5.20	1.45
4241B	118.2	5.08	1.34	8590B	119	5.55	1.79	SAL3UB*	118.4	5.20	1.45
4241S	116.6	4.15	0.43	8591B	119	5.55	1.79	SK11U*	116.9	4.32	0.60
4246R	116.8	4.27	0.54	8593B	119	5.55	1.79	SK14U*	116.9	4.32	0.60
4246S	116.8	4.27	0.54	8595B	119	5.55	1.79	SK15U*	116.9	4.32	0.60
4291B	118.2	5.08	1.34	8641B	119	5.55	1.79	SK18UB	118.2	5.08	1.34
4340B*	118.4	5.20	1.45	8741B	118.3	5.14	1.39	SP12UB*	118.5	5.26	1.51
4340R*	116.6	4.15	0.43	8991B*	118.5	5.26	1.51	SP13UB*	118.2	5.08	1.34
4340S	116.6	4.15	0.43	9010B	118.4	5.20	1.45	SP14UB*	118.3	5.14	1.39
4341B	118.4	5.20	1.45	9150B	118.2	5.08	1.34	SP15UB*	118.3	5.14	1.39
4346R	116.6	4.15	0.43	9210B	118.2	5.08	1.34	SP16UB*	118.5	5.26	1.51
4346S	116.6	4.15	0.43	9250S	116.9	4.32	0.60	SP18UB*	118.7	5.37	1.62
4347B*	118.4	5.20	1.45	9410B	118	4.97	1.22	SP24UB	118.5	5.26	1.51
4491B	118.5	5.26	1.51	9660S	116.9	4.32	0.60	SP25UB*	118.4	5.20	1.45
4495B	119.5	5.84	2.07	9831B	118.4	5.20	1.45	SP29UB*	118.4	5.20	1.45
4691B*	118.5	5.26	1.51	9890B	118.7	5.37	1.62	SP30UB*	118.2	5.08	1.34
4893B	118.4	5.20	1.45	C10B*	119	5.55	1.79	SP33UB	118.5	5.26	1.51
4897B	119	5.55	1.79	C10UB	119	5.55	1.79	SP37UB*	118	4.97	1.22
6190B	118.3	5.14	1.39	C11UB	119	5.55	1.79	SP38UB	118	4.97	1.22
6441B	118.3	5.14	1.39	C24B*	119	5.55	1.79	SP38UBN*	118	4.97	1.22
6669B	118.2	5.08	1.34	C31B*	119	5.55	1.79	SP40UB*	118.4	5.20	1.45
6693B	118.2	5.08	1.34	C31UB	119	5.55	1.79	SP513	120	6.13	2.36
6741B	118.3	5.14	1.39	CB20B	118.3	5.14	1.39	SU124	118	4.97	1.22
6791B*	117.4	4.62	0.88	CM11UB*	118.4	5.20	1.45	U85JL	114.9	3.16	-0.53
				CM12UB*	118.2	5.08	1.34	U85JM	114.9	3.16	-0.53
				CM14U*	116.9	4.32	0.60	U85JS	114.9	3.16	-0.53

*Discontinued lens

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
Corneal				Domilens, con't				Domilens, con't			
ACR6D	119	5.55	1.79	JB72*	119	5.55	1.79	Z-13.5	114.7	3.04	-0.65
QUATTRO	119	5.55	1.79	JM652*	116.4	4.03	0.32	ZB5MF12.5	114.2	2.75	-0.93
Domilens				JP-62*	117.4	4.62	0.88	ZB5MF13	114.2	2.75	-0.93
AL1*	118.9	5.49	1.73	JP64*	117.4	4.62	0.88	ZB5MF13.5	114.2	2.75	-0.93
AL3*	120	6.13	2.36	JP72*	116.9	4.32	0.60	ZB6MF-12.0*	114.7	3.04	-0.65
BOB 2T*	118.9	5.49	1.73	JUN 10F*	119	5.55	1.79	ZB6MF-12.5*	114.7	3.04	-0.65
C-FIX60*	118.2	5.08	1.34	JUN 11F*	119	5.55	1.79	ZB6MF-13.0*	114.7	3.04	-0.65
C2-12*	114.8	3.10	-0.59	L(2)B652*	118.6	5.32	1.56	ZB6MF-13.5*	114.7	3.04	-0.65
C2-12.5*	114.8	3.10	-0.59	L(2)B72*	118	4.97	1.22	ZF-12.5*	114.7	3.04	-0.65
C2-13*	114.8	3.10	-0.59	L(2)P72*	116.9	4.32	0.60	ZF-13*	114.7	3.04	-0.65
C2-13.5*	114.8	3.10	-0.59	L3-12.75*	115.3	3.39	-0.31	ZF-13.5*	114.7	3.04	-0.65
CENTRA50B12.5*	118.5	5.26	1.51	L3-13.25*	115.3	3.39	-0.31	EUROCRYSTAL			
CENTRA50B13.0*	118.5	5.26	1.51	L3-13.75*	115.3	3.39	-0.31	IF60115	119	5.55	1.79
CENTRA50F12.5*	118.5	5.26	1.51	LB70*	118	4.97	1.22	IFP1E6.00	118.2	5.08	1.34
CENTRA50F13.0*	118.5	5.26	1.51	LP652*	116.9	4.32	0.60	IFP3D6.00	117.5	4.67	0.94
CENTRA55B	118.5	5.26	1.51	LP70*	116.9	4.32	0.60	IPA601250	115.3	3.39	-0.31
CENTRA55F	118.5	5.26	1.51	MIC6*	118.4	5.20	1.45	IPP2C5.25	118.1	5.02	1.28
CENTRA60B	118.5	5.26	1.51	MIC6F*	118.4	5.20	1.45	IPP2C5.50	118	4.97	1.22
CENTRA60F	118.5	5.26	1.51	PERLENS1	119	5.55	1.79	IPP2C6.00	118.4	5.20	1.45
CHIP2*	118	4.97	1.22	PERLENS2	119	5.55	1.79	IPP2C6.50	118.4	5.20	1.45
CHIP3*	118.8	5.43	1.68	PERLENS3	119	5.55	1.79	IPP50120	118.2	5.08	1.34
CP-62*	117.4	4.62	0.88	PNC*	120	6.13	2.36	IPP551225	118.2	5.08	1.34
DELA2*	117.5	4.67	0.94	PROGRESS3*	117.5	4.67	0.94	IPP601350	118.3	5.14	1.39
FLEX60	119.3	5.72	1.96	PSM3*	118.5	5.26	1.51	IPP651350	118.3	5.14	1.39
FLEX60 12	118.9	5.49	1.73	PSM4*	116	3.80	0.09	Hanita			
FLEX60F	119.3	5.72	1.96	SIFLEX 1-13.0	119.8	6.02	2.24	BAL-15	118	4.97	1.22
FLEX65 12	119.2	5.67	1.90	SIFLEX1-12.5	119.8	6.02	2.24	BAL-4	118.5	5.26	1.51
FLEX65-12.5	119.2	5.67	1.90	SIFLEX1-13.25	119.8	6.02	2.24	BAL-55	118	4.97	1.22
FLEX65-13.5	118.4	5.20	1.45	SIFLEX2*	119.4	5.78	2.02	BAL-65	117.9	4.91	1.17
FLEX652	118.5	5.26	1.51	SIFLEX4	118.4	5.20	1.45	BALANCE	118.5	5.26	1.51
FLEX652F	118.4	5.20	1.45	SIFLEX5*	118.7	5.37	1.62	BLM	116.8	4.27	0.54
FLEX65F	119.2	5.67	1.90	SIFLEX6*	118.1	5.02	1.28	BLM-OP	116.8	4.27	0.54
FLEX65L	118.4	5.20	1.45	SIFLEX8	118.2	5.08	1.34	ECR-2	118.5	5.26	1.51
FLEX7	118.5	5.26	1.51	SILENS2	119	5.55	1.79	ECR-3	118.5	5.26	1.51
J(2)B62*	118.7	5.37	1.62	SILENS5	117.5	4.67	0.94	JPM-17	116.8	4.27	0.54
J(2)B72*	118.6	5.32	1.56	SILENS6	118.1	5.02	1.28	JPP-10	116.8	4.27	0.54
J(2)P62*	116.9	4.32	0.60	SILENSPH	119	5.55	1.79	OPAB-130	114.9	3.16	-0.53
JB-62*	118.7	5.37	1.62	SILENSPH2	119	5.55	1.79	OPAB-132	114.2	2.75	-0.93
JB-72*	118.6	5.32	1.56	SPI7T*	118.5	5.26	1.51	OPAB-135	114.9	3.16	-0.53
*Discontinued lens				Z-12.5	114.7	3.04	-0.65	OPAB-16	114.9	3.16	-0.53
				Z-13	114.7	3.04	-0.65				

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
Hanita, con't				Med. Dev. Res.				Mentor/ORC			
OPB-125	118.5	5.26	1.51	AC37B-0UV	115.1	3.27	-0.42	C410F	119	5.55	1.79
OPB-15	118	4.97	1.22	AC37C-0UV	115.1	3.27	-0.42	C410F5	119	5.55	1.79
OPB-150	118	4.97	1.22	CN55B-0UV	118.2	5.08	1.34	C420F	119	5.55	1.79
OPB-155	117	4.38	0.66	CS55A-0UV	118.2	5.08	1.34	C420F5	119	5.55	1.79
OPB-160	118.5	5.26	1.51	CS55B-0UV	118.2	5.08	1.34	C420P	119	5.55	1.79
OPB-165	118	4.97	1.22	CS65B-2UV	118.2	5.08	1.34	C421A5	119	5.55	1.79
OPB-22	118	4.97	1.22	GN55B-0UV	118	4.97	1.22	C421F	119	5.55	1.79
OPB-70	118	4.97	1.22	GS55A-0UV	118	4.97	1.22	C421F5	119	5.55	1.79
PCC-17	117.5	4.67	0.94	GS55B-0UV	118	4.97	1.22	C425F	119	5.55	1.79
IOLTECHnologie				LP50A-0UV	118.2	5.08	1.34	C425F5	119	5.55	1.79
HAPTIBAG	117.5	4.67	0.94	LP57L-0UV	118.2	5.08	1.34	C430M	119	5.55	1.79
HAPTIBAG ANGULE	118.2	5.08	1.34	PA11E-0UV	116.9	4.32	0.60	C430Z	119	5.55	1.79
OCTOBAG	117.9	4.91	1.17	PA11E-2UV	116.9	4.32	0.60	C440U	119	5.55	1.79
STABIBAG	118	4.97	1.22	PA17E-0UV	116.9	4.32	0.60	C440Z	119	5.55	1.79
TRIPODE	118.5	5.26	1.51	PA19E-2UV	116.9	4.32	0.60	C441M	119	5.55	1.79
VISION- MULTIFOCAL	117.9	4.91	1.17	PA21E-0UV	116.9	4.32	0.60	C441Z	118.6	5.32	1.56
LENSTEC				PA21E-2UV	116.9	4.32	0.60	C441Z5	118.6	5.32	1.56
LA-500	115.3	3.39	-0.31	PA36E-0UV	116.9	4.32	0.60	C445F*	119	5.55	1.79
LA-501	115.3	3.39	-0.31	PA51D-2UV	116.9	4.32	0.60	C450FC	118.5	5.26	1.51
LA-502	115.3	3.39	-0.31	PA51E-0UV	116.9	4.32	0.60	C451F	119	5.55	1.79
LF-1000	119	5.55	1.79	PA84B-0UV	116.6	4.15	0.43	C451F5	119	5.55	1.79
LF-3000	119	5.55	1.79	PB06B-0UV	118.3	5.14	1.39	C455A5	119	5.55	1.79
LN-201012.0	115.3	3.39	-0.31	PB07C-0UV	118.3	5.14	1.39	C455B	117	4.38	0.66
LN-202012.5	115.3	3.39	-0.31	PB19E-2UV	118.5	5.26	1.51	C455B5	117	4.38	0.66
LN-203013.0	115.3	3.39	-0.31	PB60B-0UV	118.3	5.14	1.39	C455F	119	5.55	1.79
LN-204013.5	115.3	3.39	-0.31	PB61B-0UV	118.3	5.14	1.39	C455L	119	5.55	1.79
LS-101	118	4.97	1.22	PBN7C-0UV	118.3	5.14	1.39	C455M	119	5.55	1.79
LS-102	118	4.97	1.22	PJ65D-2UV	118.2	5.08	1.34	C455Z5	119	5.55	1.79
LS-106	118.4	5.20	1.45	PL52B-0UV	118	4.97	1.22	C460A5	119	5.55	1.79
LS-109	118.2	5.08	1.34	PS40D-0UV	118.2	5.08	1.34	C530P	119	5.55	1.79
LS-111	118.4	5.20	1.45	PS50C-0UV	118.2	5.08	1.34	C540MC	119	5.55	1.79
LS-112	118.4	5.20	1.45	PS60C-0UV	118.2	5.08	1.34	C580F	119	5.55	1.79
LS-114	118.1	5.02	1.28	RM60D-2UV	118.5	5.26	1.51	C580F2	119	5.55	1.79
LS-117	118.4	5.20	1.45	SC60B-0UV	117.5	4.67	0.94	C581F2	119	5.55	1.79
				SD60F-4UV	119	5.55	1.79	C840U	119	5.55	1.79
				SH107-2UV	119	5.55	1.79	C840Z	119	5.55	1.79
				TC65B-SUV	118.2	5.08	1.34	C840Z2	119	5.55	1.79
				TLC7B-SUV	118.2	5.08	1.34	C840Z5	119	5.55	1.79
				MEDEVEC				C881M	119	5.55	1.79
				VS2uv-6	119	5.55	1.79	C881M2	119	5.55	1.79
								U210F	118.7	5.37	1.62

*Discontinued lens

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
Mentor/ORC, con't				Mentor/ORC, con't				Morcher, con't			
U210F5	118.7	5.37	1.62	UV71F2	117	4.38	0.66	50C	118.5	5.26	1.51
U211M	118.5	5.26	1.51	UV71F4	117	4.38	0.66	53*	118.1	5.02	1.28
U220F	119	5.55	1.79	UV71K	117	4.38	0.66	53E	118.1	5.02	1.28
U220F5	119	5.55	1.79	UV71K3	117	4.38	0.66	54	114.6	2.98	-0.70
U240Z	118.5	5.26	1.51	UV71K4	117	4.38	0.66	54A	114.6	2.98	-0.70
U240Z5	118.5	5.26	1.51	UV80F	117	4.38	0.66	54B	114.6	2.98	-0.70
U241Z	118.5	5.26	1.51	UV80F2	117	4.38	0.66	562D*	120	6.13	2.36
U251A5	118.5	5.26	1.51	UV81K	117	4.38	0.66	5S	115.9	3.74	0.03
U251F	118.5	5.26	1.51	UV81K3	117	4.38	0.66	61E4.5*	114.6	2.98	-0.70
U255F	119	5.55	1.79	UV81M	117	4.38	0.66	61E5.5	114.6	2.98	-0.70
U255F5	119	5.55	1.79	Morcher				61F4.5*	114.6	2.98	-0.70
U381F	118.5	5.26	1.51	14	118.5	5.26	1.51	61F5.5	114.6	2.98	-0.70
U381F2	118.5	5.26	1.51	14A	118.5	5.26	1.51	65B	118.1	5.02	1.28
U381K2	118.5	5.26	1.51	14C	118.5	5.26	1.51	65C	118.1	5.02	1.28
U610F	118.5	5.26	1.51	1E	118.5	5.26	1.51	65E*	118.1	5.02	1.28
U631F	118.5	5.26	1.51	1L	118.5	5.26	1.51	65F	118.1	5.02	1.28
U640F	118.5	5.26	1.51	21B	118.1	5.02	1.28	65S	118.1	5.02	1.28
U640F2	118.5	5.26	1.51	21L	117.7	4.79	1.05	66	118.1	5.02	1.28
U640F5	118.5	5.26	1.51	21S	117.1	4.44	0.71	67	118.1	5.02	1.28
U641M	118.5	5.26	1.51	22B	118.1	5.02	1.28	67A	118.1	5.02	1.28
U940A	119	5.55	1.79	22F	118.1	5.02	1.28	67F	118.1	5.02	1.28
UV31A	117	4.38	0.66	22L	118.1	5.02	1.28	67G	118.1	5.02	1.28
UV31A2	117	4.38	0.66	22S	118.1	5.02	1.28	67L	118.1	5.02	1.28
UV31F4	117	4.38	0.66	25	118.1	5.02	1.28	67S	118.1	5.02	1.28
UV31K4	117	4.38	0.66	25L	118.1	5.02	1.28	71A	118.1	5.02	1.28*
UV31KD	117	4.38	0.66	27A	118.1	5.02	1.28	71B	118.1	5.02	1.28
UV40A	117	4.38	0.66	27B*	118.1	5.02	1.28	71C*	118.1	5.02	1.28
UV40A2	117	4.38	0.66	27C	118.1	5.02	1.28	73A*	118.1	5.02	1.28
UV40F	117	4.38	0.66	27D	118.1	5.02	1.28	75A*	118.5	5.26	1.51
UV40J	117	4.38	0.66	27E*	118.1	5.02	1.28	76C	120	6.13	2.36
UV41F	117	4.38	0.66	27F*	119	5.55	1.79	7D	118.7	5.37	1.62
UV41F2	117	4.38	0.66	27G*	119	5.55	1.79	81	118.1	5.02	1.28
UV41K	117	4.38	0.66	28A*	118.1	5.02	1.28	81B	119	5.55	1.79
UV51K2	117	4.38	0.66	28C*	119	5.55	1.79	81D*	118.1	5.02	1.28
UV51K4	117	4.38	0.66	28D*	119	5.55	1.79	81E	119	5.55	1.79
UV60A	117	4.38	0.66	28G*	119	5.55	1.79	81L	118.1	5.02	1.28
UV61F	117	4.38	0.66	29A	118.1	5.02	1.28	83	118.1	5.02	1.28
UV61F4	117	4.38	0.66	29B	118.1	5.02	1.28	85E	118.1	5.02	1.28
UV61KN	117	4.38	0.66	2C	118.5	5.26	1.51	94	118.1	5.02	1.28
				2L	118.5	5.26	1.51	96G	118.5	5.26	1.51
								96L*	118.5	5.26	1.51

*Discontinued lens

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
O.I.I., Inc.				Pharmacia, con't				Staar Surgical, con't			
RS-50B	118.1	5.02	1.28	811A	117.7	4.79	1.05	AA-4203VF	118.5	5.26	1.51
RS-55B	118.4	5.20	1.45	812B	117.9	4.91	1.17	AQ-1016	119	5.55	1.79
RS-60B	118.3	5.14	1.39	813N	117.7	4.79	1.05	AQ-1016V	119	5.55	1.79
RS-65	118.4	5.20	1.45	814A*	117.8	4.85	1.11	AQ-2003	118.5	5.26	1.51
OPHTEC				815A	118.3	5.14	1.39	AQ-2003V	118.5	5.26	1.51
275	118	4.97	1.22	820A*	118.5	5.26	1.51	AQ-2010V	119	5.55	1.79
276	118	4.97	1.22	920	118.6	5.32	1.56	AQ-2013	119	5.55	1.79
AC260	114.2	2.75	-0.93	UV65A	114.6	2.98	-0.70	AQ-2013V	119	5.55	1.79
AC261	114.2	2.75	-0.93	UV65B	114.6	2.98	-0.70	AQ-2017V	119	5.55	1.79
Artisan 203	115.6	3.56	-0.14	UV65C	114.6	2.98	-0.70	CC4203VF	119	5.55	1.79
Artisan 204	115.6	3.56	-0.14	Rayner				Fyodorov1	116.5	4.09	0.37
Artisan 205	115.6	3.56	-0.14	150U	118	4.97	1.22	Storz			
Artisan 206	115.6	3.56	-0.14	208U	118	4.97	1.22	106UV*	118.5	5.26	1.51
PC215	116.8	4.27	0.54	230U	118	4.97	1.22	107UV*	118.5	5.26	1.51
PC242	118	4.97	1.22	235U	118	4.97	1.22	127UV	118	4.97	1.22
PC264	118	4.97	1.22	237U	118	4.97	1.22	207UV	118	4.97	1.22
PC265	118	4.97	1.22	270U	118	4.97	1.22	560CUV	118.5	5.26	1.51
PC267	118.5	5.26	1.51	272U	118	4.97	1.22	650CUV	118	4.97	1.22
PC279	118.5	5.26	1.51	274U	118	4.97	1.22	68BUV	118.5	5.26	1.51
PC283	118.5	5.26	1.51	320U	118	4.97	1.22	68RUV	117.3	4.56	0.83
PC284	118	4.97	1.22	510A	118	4.97	1.22	68UV	118.5	5.26	1.51
PC285	118.5	5.26	1.51	517A	117.5	4.67	0.94	71UV	119	5.55	1.79
PC287	118.5	5.26	1.51	552A	117.5	4.67	0.94	71UVNH	119	5.55	1.79
PC288	118.2	5.08	1.34	604A	118	4.97	1.22	73UV	118.5	5.26	1.51
PC289	118	4.97	1.22	645A	118	4.97	1.22	87NUV*	119	5.55	1.79
PC292	118.5	5.26	1.51	700U	118	4.97	1.22	95BUV	118	4.97	1.22
PC295	118.5	5.26	1.51	702U	118	4.97	1.22	95UV	118	4.97	1.22
PC410Y	117.5	4.67	0.94	752U	118	4.97	1.22	BV359	118	4.97	1.22
Pharmacia				755U	118	4.97	1.22	BV379	118.4	5.20	1.45
720	118.4	5.20	1.45	850U	118.7	5.37	1.62	BVR-150M	118.1	5.02	1.28
722D	118.4	5.20	1.45	870U12.0	116	3.80	0.09	BVR-150S	118.1	5.02	1.28
726A*	118.6	5.32	1.56	870U12.5	116	3.80	0.09	BVR-155M	118.1	5.02	1.28
727A	116.7	4.21	0.49	870U13.0	116	3.80	0.09	BVR-155S	118.1	5.02	1.28
730A	118.8	5.43	1.68	870U13.5	116	3.80	0.09	BVR-160M	118.1	5.02	1.28
734A	116.9	4.32	0.60	870U14.0	116	3.80	0.09	BVR-160S	118.1	5.02	1.28
777A	117.7	4.79	1.05	Staar Surgical				BVR-165L	118.1	5.02	1.28
809F	117.9	4.91	1.17	AA-4203	118.5	5.26	1.51	BVR-170L	118.1	5.02	1.28
810F	118.6	5.32	1.56	AA-4203T	118.5	5.26	1.51	EZE-150*	118.1	5.02	1.28
				AA-4203TF	118.5	5.26	1.51	EZE-150A*	118.1	5.02	1.28
				AA-4203V	118.5	5.26	1.51	EZE-155*	118.1	5.02	1.28

*Discontinued lens

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Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor	Model Name	A Constant	ACD	Surgeon Factor
Storz, con't				Storz, con't				Surgidev			
EZE-155A	118.1	5.02	1.28	P399UV	118	4.97	1.22	5.5BUV20-24	118.2	5.08	1.34
EZE-155N*	118.1	5.02	1.28	P408UV	118.1	5.02	1.28	5BNUV20-24	117.6	4.73	1.00
EZE-160*	118.1	5.02	1.28	P434UV	118	4.97	1.22	5BUV20-24	118.2	5.08	1.34
EZE-160A	118.1	5.02	1.28	P453UV*	118	4.97	1.22	6.5BUV20-24	118.1	5.02	1.28
EZE-160N*	118.1	5.02	1.28	P454UV	118	4.97	1.22	6BUV20-20	118.2	5.08	1.34
EZE-165*	118.1	5.02	1.28	P486UV	118.1	5.02	1.28	6BUV20-24	118.2	5.08	1.34
EZE-256L*	118.5	5.26	1.51	P492UV	118.1	5.02	1.28	7BUV20-24	118	4.97	1.22
EZE-50	118.1	5.02	1.28	P496UV	118.1	5.02	1.28	ACU44	114.6	2.98	-0.70
EZE-55	118.1	5.02	1.28	P497UV	118.1	5.02	1.28	BNUV20-20	118.2	5.08	1.34
EZE-55N*	118.1	5.02	1.28	P499UV	118.1	5.02	1.28	LMUV20-20	116.8	4.27	0.54
EZE-56	118.1	5.02	1.28	P501UV*	118	4.97	1.22	LMUV20-24	116.8	4.27	0.54
EZE-60	118.1	5.02	1.28	P502UV*	118	4.97	1.22	LRUV20-24	116.2	3.91	0.20
EZE-60N*	118.1	5.02	1.28	P504UV*	118.1	5.02	1.28	PCUB26	118	4.97	1.22
EZE-65	118.1	5.02	1.28	P506UV	118.5	5.26	1.51	SBUV2-23	118	4.97	1.22
H60M	118.3	5.14	1.39	P507UV*	118	4.97	1.22	UV20-20	116.8	4.27	0.54
L122UV	115.8	3.68	-0.02	P508UV*	118.1	5.02	1.28	UV20-24	116.8	4.27	0.54
MB10UV*	116.8	4.27	0.54	P512UV	118.1	5.02	1.28	US IOL			
P003UV	119	5.55	1.79	P513UV	118.4	5.20	1.45	101 UV2	116.4	4.03	0.32
P010UV	118	4.97	1.22	P517UV*	118	4.97	1.22	107 UV2	116.9	4.32	0.60
P011UV*	118.3	5.14	1.39	P518UV	118	4.97	1.22	201 UV2	116.4	4.03	0.32
P047UV*	118	4.97	1.22	P519UV	117.9	4.91	1.17	540 UV2	118.5	5.26	1.51
P325BUV	118	4.97	1.22	P524UV	117.9	4.91	1.17	601 UV	115.3	3.39	-0.31
P328UV	118.4	5.20	1.45	P525UV	118	4.97	1.22	618 UV	118.2	5.08	1.34
P329UV	118.4	5.20	1.45	P526UV	118.1	5.02	1.28	628 UV	118.2	5.08	1.34
P336UV	118.4	5.20	1.45	P530UV*	118	4.97	1.22	630 UV	118.4	5.20	1.45
P337UV	118.4	5.20	1.45	P534UV*	118.1	5.02	1.28	640 UV2	118.5	5.26	1.51
P356UV	118	4.97	1.22	P538UV*	117.9	4.91	1.17	649 UV2	118.5	5.26	1.51
P359TUV	118	4.97	1.22	P541UV	118.4	5.20	1.45	651 UV	117.5	4.67	0.94
P359UV	118	4.97	1.22	P574UV	118.1	5.02	1.28	660 UV	118	4.97	1.22
P366UV(12)	118.5	5.26	1.51	P762UV	118	4.97	1.22	679 UV2	118	4.97	1.22
P366UV(13.4)	118.5	5.26	1.51	PO13UV	118.5	5.26	1.51	830 UV	118.5	5.26	1.51
P379UV	118.4	5.20	1.45	PO19UV*	119	5.55	1.79	835 UV	118.5	5.26	1.51
P389UV	118	4.97	1.22	PO41UV*	118.5	5.26	1.51	B101 UV2	118.5	5.26	1.51
P390UV*	118	4.97	1.22	S122UV	115.8	3.68	-0.02	B107 UV2	117.5	4.67	0.94
P391UV	118	4.97	1.22					B201 UV2	118.5	5.26	1.51

*Discontinued lens