

X-Cel Optical 2014 Lens Technical Data

Please Note: C.T & E.T. subject to change depending on availability of raw materials

Glass SFSV Lenses

Glass SFSV Clear

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
65mm	4.25	4.34	2.586	5.7	7.3	-8.00	-2.25 to -4.00
65mm	6.25	6.31	3.807	7.7	7.5	-6.00	+2.00 to -2.00
66mm	8.25	8.18	5.017	9.8	7.3	-6.18	+2.25 to +5.00

Glass SFSV PGX®

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
65mm	4.25	4.15	2.471	7.5	9.3	-6.00	-2.25 to -4.00
65mm	6.25	6.20	3.737	6.0	5.8	-6.00	+2.00 to -2.00
66mm	8.25	8.18	5.017	9.8	7.3	-6.18	+2.25 to +5.00

Glass SFSV Clear

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
70mm	4.25	4.34	2.586	5.7	7.7	-8.00	-2.25 to -4.00
70mm	6.25	6.31	3.807	7.7	7.4	-6.00	+2.00 to -2.00

Glass SFSV Clear, Rose 1, 2 Green 1, 2, 3 Gray 1, 2, 3

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	10.8	18.4	-6.18	-7.25 to -9.00
71mm	1.25	1.00	0.589	10.5	16.0	-6.18	-5.50 to -7.00
71mm	2.25	2.19	1.295	11.5	16.5	-6.18	-4.50 to -5.50
71mm	3.25	3.00	1.780	12.2	13.0	-6.18	-3.25 to -4.25
71mm	4.25	4.16	2.477	8.4	11.0	-6.18	-2.25 to -4.00
71mm	5.25	5.20	3.114	8.4	9.0	-6.18	-1.25 to -1.75
71mm	6.25	6.20	3.737	8.4	8.5	-6.18	+1.00 to -1.00
71mm	7.25	7.15	4.343	10.0	7.0	-6.18	+1.25 to +3.00
71mm	8.25	8.18	5.017	10.4	7.4	-6.18	+3.25 to +4.25
71mm	10.25	10.09	6.331	10.4	4.2	-6.18	+4.50 to +7.50

Glass SFSV G-15

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	2.25	2.19	1.295	4.0	11.5	-8.25	-4.25 to -6.00
71mm	4.25	4.16	2.477	6.2	11.5	-8.25	-2.25 to -4.00
71mm	6.25	6.20	3.737	6.4	6.9	-6.75	+2.00 to -2.00
71mm	8.25	8.18	5.017	7.8	5.1	-6.00	+2.25 to +5.00

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Glass SFSV Lenses

Glass SFSV PGX®, PBX®, Autumn Gold™

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	10.8	17.0	- 6.18	-7.25 to -9.00
71mm	1.25	1.00	0.598	5.0	14.5	-9.00	-5.50 to -7.00
71mm	2.25	2.19	1.295	5.4	14.5	-9.00	-4.50 to -5.50
71mm	3.25	3.00	1.780	5.3	12.7	-9.00	-3.25 to -4.25
71mm	4.25	4.16	2.477	5.8	10.0	-8.00	-2.00 to -3.00
71mm	5.25	5.20	3.114	5.5	8.7	-8.00	-1.25 to -1.75
71mm	6.25	6.20	3.737	6.1	6.2	-6.18	+2.00 to -1.00
71mm	7.25	7.15	4.343	8.9	7.0	-6.18	+1.25 to +3.00
71mm	8.25	8.18	5.017	7.6	4.2	-6.18	+3.25 to +4.25
71mm	10.25	10.09	6.331	12.4	5.6	-6.18	+4.50 to +7.50

Glass SFSV Thin & Dark Gray

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	7.2	13.2	- 6.18	-7.00 to -9.00
71mm	2.25	2.19	1.295	9.5	14.5	-6.18	-4.50 to -6.75
71mm	3.25	3.17	1.780	9.5	13.0	-6.18	-3.25 to -4.25
71mm	4.25	4.16	2.477	6.5	9.1	-6.18	-2.00 to -3.00
71mm	5.25	5.20	3.114	6.5	7.6	-6.18	-1.25 to -1.75
71mm	6.25	6.20	3.737	6.1	6.0	-6.18	+2.00 to -1.00
71mm	7.25	7.15	4.343	10.0	7.0	-6.18	+1.25 to +3.00
71mm	8.25	8.18	5.017	10.4	7.4	-6.18	+3.25 to +5.50

Glass SFSV Minus Fronts, all colors and photochromics

Diam	Nominal	True	Sag.	C.T.	E.T.	Back
71mm	-0.50	-0.45	-0.260	11.0	11.5	- 6.18
71mm	-1.25	-1.29	-0.761	11.0	12.5	-6.18
71mm	-2.25	-2.29	-1.354	11.0	13.5	-6.18
71mm	-3.25	-3.29	-1.952	11.0	14.5	-6.18
71mm	-4.25	-4.29	-2.556	11.0	15.3	0.00
71mm	-5.25	-5.29	-3.169	11.0	16.5	0.00
71mm	-6.25	-6.29	-3.794	11.0	17.0	0.00

Glass SFSV Clear

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
76mm	0.00	0.00	0.000	8.6	12.6	- 6.18	-7.00 to -9.00
76mm	2.25	2.19	1.295	10.5	15.0	-6.18	-4.25 to -6.75
76mm	4.25	4.16	2.477	8.9	11.9	-6.18	-2.25 to -4.00
76mm	6.25	6.20	3.737	7.5	7.4	-6.18	+2.00 to -2.00
76mm	8.25	8.18	5.017	11.9	8.4	-6.18	+2.25 to +5.50

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Glass SFSV Lenses

Glass SFSV PGX®, PBX®

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
76mm	0.00	0.00	0.000	7.2	14.2	-6.18	-7.00 to -9.00
76mm	2.25	2.19	1.295	9.4	14.2	-6.18	-4.25 to -6.75
76mm	4.25	4.16	2.477	7.3	10.3	-6.18	-2.25 to -4.00
76mm	6.25	6.20	3.737	7.0	6.9	-6.18	+2.00 to -2.00
76mm	8.25	8.18	5.017	9.8	5.3	-6.00	+2.25 to +5.00

Glass SFSV Rose 1, Gray 3

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
76mm	4.25	4.16	2.477	8.9	11.9	-6.18	-2.25 to -4.00
76mm	6.25	6.20	3.737	7.5	7.4	-6.18	+2.00 to -2.00
76mm	8.25	8.18	5.017	11.9	8.4	-6.18	+2.25 to +5.00

Glass SFSV Tan C

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	6.25	6.20	3.737	5.8	6.0	-6.70	+2.00 to -2.00

Multifocal Glass Lenses

Glass Freedom ID Clear

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	3.25	3.25	1.928	8.5	9.3	-4.00	-2.25 to -4.00
71mm	5.25	5.25	3.144	7.5	7.0	-4.90	+2.00 to -2.00
71mm	7.25	7.20	4.375	9.3	7.8	-8.17	+2.25 to +5.00

Fitting Cross is 2.5 In/4.0 Up Recommended Fitting Height is 17mm

Glass Freedom ID PGX®, PBX®, Thin & Dark™ Gray, Autumn Gold™

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	3.25	3.25	1.928	8.0	8.8	-4.00	-2.25 to -4.00
71mm	5.25	5.25	3.144	6.9	6.4	-4.90	+2.00 to -2.00
71mm	7.25	7.20	4.375	8.7	7.3	-8.17	+2.25 to +5.00

Fitting Cross is 2.5 In/4.0 Up Recommended Fitting Height is 17mm

Glass All Multifocal Clear, PGX®

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
65mm	4.25	4.15	2.471	7.5	9.5	-6.00	-2.25 to -4.00
65mm	6.25	6.20	3.737	6.0	5.8	-6.00	+2.00 to -2.00
66mm	8.25	8.18	5.017	7.5	4.8	-6.18	+2.25 to +5.00

Seg locations: 65mm Flat Tops 5.5 In/4.0 Dn Trifocals 5.5 in/1.5 Dn
66mm Flat Tops 5 In/5 Dn Rd-22 6.0 Dn Trifocals 5 In/1 Dn

Glass All Multifocal Clear, PGX®, PBX®

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
70mm	4.25	4.15	2.471	7.5	9.8	-6.00	-2.25 to -4.00
70mm	6.25	6.20	3.737	6.0	6.7	-6.00	+2.00 to -2.00

Seg locations: 70mm Flat Tops 5.5 In/4.0 Dn Trifocals 5.5 in/1.5 Dn

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Glass Multifocal Lenses

Glass Multifocals, Clear, Fixed Tints

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	8.6	15.6	-6.18	-7.00 to -9.00
71mm	2.25	2.19	1.295	10.6	15.6	-6.18	-4.25 to -6.75
71mm	4.25	4.16	2.477	7.6	10.2	-6.18	-2.00 to -4.00
71mm	6.25	6.20	3.737	7.6	7.5	-6.18	+2.00 to -2.00
71mm	8.25	8.18	5.017	9.6	6.6	-6.18	+2.25 to +4.25
71mm	10.25	10.09	6.331	10.4	4.2	-6.18	+4.50 to +7.50

Seg locations: Flat-Tops & Ribbon Segs 5 In/5 Dn Trifocals 5 In/2 Dn

Round Seg: Rd 22 7.0 Dn DD's 5 In/8 Up & 5 Dn Quad's 5 In/11 Up & 2 Dn

Glass Multifocals, PGX®, PBX®, Autumn Gold™

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	9.2	16.2	-6.18	-7.00 to -9.00
71mm	2.25	2.19	1.295	10.6	15.6	-6.18	-4.25 to -6.75
71mm	4.25	4.16	2.477	7.6	10.2	-6.18	-2.00 to -4.00
71mm	6.25	6.20	3.737	6.2	6.1	-6.18	+2.00 to -2.00
71mm	8.25	8.18	5.017	9.6	6.6	-6.18	+2.25 to +4.25
71mm	10.25	10.09	6.331	10.4	4.2	-6.18	+4.50 to +7.50

Seg locations: Flat-Tops & Ribbon Segs 5 In/5 Dn Trifocals 5 In/2 Dn

Round Seg: Rd 22 7.0 Dn DD's 5 In/8 up & 5 Dn Quad's 5 In/11 Up & 2 Dn

Glass Multifocals, Thin & Dark™ Gray

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	6.0	12.4	-6.18	-7.00 to -9.00
71mm	2.25	2.19	1.295	8.0	12.0	-6.18	-4.25 to -6.75
71mm	4.25	4.16	2.477	7.6	10.2	-6.18	-2.00 to -4.00
71mm	6.25	6.20	3.737	7.0	6.9	-6.18	+2.00 to -2.00
71mm	8.25	8.18	5.017	8.6	5.6	-6.18	+2.25 to +5.00

Seg locations: Flat-Tops 5 In/5 Dn Trifocals 5 In/2 Dn Round Seg: Rd 22 7.0 Dn

Glass Multifocals, Clear, Fixed Tints, PGX®, PBX®, Autumn Gold™

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
76mm	**0.00	0.00	0.000	7.6	11.6	-6.18	-7.00 to -9.00
76mm	*2.25	2.19	1.295	8.8	13.9	-6.18	-4.25 to -6.75
76mm	4.25	4.16	2.477	7.6	10.6	-6.18	-2.00 to -4.00
76mm	6.25	6.20	3.737	7.5	7.4	-6.18	+2.00 to -2.00
76mm	8.25	8.18	5.017	9.6	6.1	-6.18	+2.25 to +5.00

Seg locations: Flat-Tops 6 In/5 Dn Trifocals 6 In/2 Dn Round Seg: Rd 22 8.0 Dn

Double Segs 6.0 In/8.0 up & 5.0 Dn Quad's 6.0 In/11 Up & 2.0 Dn

**Available In Clear Only

*Available In Clear, PGX® Only

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Glass High Index Lenses

Glass SFSV Corning Clear 1.6™

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	6.0	15.7	- 8.57	-7.00 to -9.00
71mm	1.25	1.00	0.589	6.7	15.7	-8.57	-5.50 to -6.75
71mm	2.25	2.19	1.295	6.5	14.3	-8.57	-4.50 to -5.25
71mm	3.25	3.00	1.780	6.5	13.3	-8.57	-3.25 to -4.25
71mm	4.25	4.16	2.477	5.8	8.8	-6.97	-2.00 to -3.00
71mm	5.25	5.20	3.114	5.8	7.8	-6.97	-0.25 to -1.75
71mm	6.25	6.20	3.737	7.1	6.9	-6.00	+1.00 to -0.00
71mm	7.25	7.15	4.343	7.7	4.0	-4.98	+1.25 to +3.00
71mm	8.25	8.18	5.017	8.3	3.6	-4.98	+3.25 to +5.50

Designed to be surfaced to 1.5mm CT. Must be chemically tempered.

Glass D-28 Corning Clear 1.6™

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	2.25	2.19	1.295	9.8	14.1	-6.18	-4.25 to -6.75
71mm	4.25	4.16	2.477	7.6	10.2	-6.18	-2.25 to -4.00
71mm	6.25	6.20	3.737	7.6	7.5	-6.18	+2.00 to -2.00
71mm	8.25	8.18	5.017	9.6	6.6	-6.18	+2.25 to +5.50

Seg location: Flat-Tops 5 In/5 Dn

Glass SFSV 1.80 Leaded X-Ray Filter

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	4.25	4.16	2.477	7.6	10.2	-6.18	-2.75 to -6.00
71mm	6.25	6.20	3.737	7.6	7.5	-6.18	+2.50 to -2.50

Recommended Minimum CT is 2.8mm for full X-Ray Protection

Glass SFSV 1.563 A.C.E

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	4.25	4.16	2.477	5.1	10.1	-8.00	-2.25 to -5.00
71mm	6.25	6.20	3.737	7.6	7.4	-6.00	+2.00 to -2.00

Glass SFSV 1.597 UVSG

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	4.25	4.16	2.477	5.6	9.6	-7.75	-2.25 to -5.00
71mm	6.25	6.20	3.737	6.0	6.4	-6.75	+2.00 to -2.00

Glass Laminated Multifocal 1.60, all colors, photochromics

Diam	Nominal	True	Sag.	C.T.	E.T.	Back	Rx Range
71mm	0.00	0.00	0.000	7.8	17.5	-8.57	-7.00 to -9.00
71mm	2.25	2.19	1.295	8.3	16.5	-8.57	-4.25 to -6.75
71mm	4.25	4.16	2.477	7.5	10.6	-8.57	-2.25 to -4.00
71mm	6.25	6.20	3.737	8.6	8.7	-6.18	+2.00 to -2.00
71mm	8.25	8.18	5.017	10.1	5.4	-6.18	+2.25 to +5.50

Seg location: Flat-Tops 5 In/5 Dn