

# X-CEL Optical Technical Data 2012

## Glass Polarized Lenses

### 71mm FSV Polarized Glass

	Nom	True	Sag	CT	ET	Back	Rx Range
True Gray 1 & 3, Brown 1 & 3	6.25	6.19	3.731	2.1	2.1	-6.20	Plano
Thin & Dark Gray, PBX & Autumn Gold	8.25	8.05	4.931	2.2	2.4	-8.06	Plano

### 71mm SFSV Polarized Glass

	Nom	True	Sag	CT	ET	Back	Rx Range
True Gray 1 & 3, Brown 1 & 3 & G-15	3.25	3.00	1.780	7.8	11.2	-6.00	-3.25 to -6.00
Thin & Dark Gray, PBX & Autumn Gold	4.25	4.16	2.477	7.8	10.2	-6.00	-2.00 to -3.00
	5.25	5.19	3.107	7.8	9.0	-6.00	-1.25 to -1.75
	6.25	6.20	3.737	7.8	7.4	-6.00	+2.00 to -1.00
	7.25	7.13	4.330	9.2	7.7	-6.00	+1.25 to +3.00
	8.25	8.16	5.004	10.5	7.3	-6.00	+3.25 to +5.50

### 71mm Multifocals Polarized Glass

	Nom	True	Sag	CT	ET	Back	Rx Range
True Gray 1 & 3, Brown 1 & 3	4.25	4.15	2.470	7.6	10.2	-6.00	-2.25 to -5.00
Thin & Dark Gray, PBX & Autumn Gold	6.25	6.20	3.737	7.7	7.2	-6.00	+2.00 to -2.00
<b>Seg Locations:</b>	8.25	8.16	5.004	10.5	7.3	-6.00	+2.25 to +5.50
Flat Tops 5.0 in / 5.0 down							
7X28 5.0 in / 2.0 down							

### 76mm SFSV & Multifocals Polarized Glass

	Nom	True	Sag	CT	ET	Back	Rx Range
True Gray 1 & 3, Brown 1	4.25	4.15	2.470	7.8	10.0	-6.00	-2.25 to -5.00
Thin & Dark Gray, PBX & Autumn Gold	6.25	6.20	3.737	7.8	7.4	-6.00	+2.00 to -2.00
<b>Seg Locations:</b>	8.25	8.16	5.004	10.5	7.0	-6.00	+2.25 to +5.50
Flat Tops 6.0 in / 5.0 down							
7X28 6.0 in / 2.0 down							

### 71mm Freedom ID Progressives 1.60 Index

	Nom	True	Sag	CT	ET	Back	Rx Range
True Gray 1 & 3, Brown 1	3.25	3.34	1.982	8.0	10.0	-6.25	-2.25 to -5.00
Thin & Dark Gray, PBX & Autumn Gold	5.25	5.34	3.200	7.8	7.5	-6.25	+2.00 to -2.00
<b>Seg Locations:</b> Fitting Cross 2.5 in / 4.0 up	7.25	7.23	4.395	9.6	5.6	-6.25	+2.25 to +5.00
Recommended Fitting Height is 17mm							

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## Glass Polarized Lenses

Actual Front Cover Plate Thicknesses, Add 0.4 mm To All For Finished Thickness.

Polarized Glass Front Curves and Film Curves

	Nom	True	Film Curve	Front Cover Thickness		
				FSV CT. & ET	SFSV CT	SFSV ET
For flat top front cover thicknesses, use chart below.	3.25	3.36	3.76		1.8	2.7
	4.25	4.16	4.09		1.8	1.8
	5.25	5.34	5.69		1.8	2.3
	6.25	6.20	5.96	1.1	1.8	1.8
	7.25	7.20	7.52		1.8	2.4
	8.25	8.16	7.99	1.1	1.8	1.8

Polarized Glass D-28 & 7X28

Gray, Brown 1 & 3 and Thin & Dark gray

Front Cover Thickness

Add	All Gray & Brown 1 & 3 Flat Tops			All Photo Thin & Dark Gray Flat Tops		
	Base	Base	Base	Base	Base	Base
	4.25	6.25	8.25	4.25	6.25	8.25
1.00	1.8	1.8	2.0	1.8	1.8	1.8
1.25	1.8	2.2	2.2	1.8	1.8	2.2
1.50	1.8	1.8	2.6	1.8	1.8	2.6
1.75	1.8	1.8	2.0	1.8	1.8	1.8
2.00	1.8	1.8	2.0	1.8	1.8	1.8
2.25	1.8	2.0	2.0	1.8	1.8	2.0
2.50	1.8	1.8	2.3	1.8	1.8	2.3
2.75	1.8	1.8	2.5	1.8	1.8	2.5
3.00	2.0	2.0	2.7	1.8	1.8	2.7

All film curves match the front true curves.

Polarized Glass D-28, 7X28 & Freedom ID

All Progressive Freedom ID

All PBX & Autumn Gold D-28 & 7X28

Front Cover Thickness

Add	All Freedom ID In All Colors			All PBX and Autumn Gold Flat Tops		
	Base	Base	Base	Base	Base	Base
	3.25	5.25	7.25	4.25	6.25	8.25
1.00	1.9	1.9	2.0	2.0	2.0	2.0
1.25	1.9	1.9	2.0	2.0	2.2	2.0
1.50	1.9	1.9	2.0	2.0	2.0	2.6
1.75	1.9	1.9	2.0	2.0	2.0	2.0
2.00	1.9	1.9	2.1	2.0	2.0	2.0
2.25	1.9	1.9	2.1	2.0	2.0	2.0
2.50	1.9	1.9	2.3	2.0	2.0	2.3
2.75	1.9	2.0	2.3	2.0	2.0	2.5
3.00	1.9	2.1	2.4	2.2	2.2	2.7

All film curves match the front true curves.