



# LoE-180

Keep Out the Cold & Welcome the Sun's Warmth

Cardinal LoE-180™ delivers outstanding cold weather performance – its insulation value is excellent with a low 0.26 U-Factor and with an SHGC of 0.69, it lets the winter sun's heat pass into the home. It does all that while blocking 71% of the sun's harmful UV rays. So go ahead and welcome the sun's warmth and light and keep out the cold with this ideal passive solar gain glass.

<p><b>79%</b> Vis Trans</p>	<p><b>0.69</b> SHGC</p>	<p>Coating Position:</p> <p>2 Pane: 1 (EXT), 2 or 3, 4 (INT)</p> <p>3 Pane: 1 (EXT), 2, 3, 4* or 5, 6 (INT)</p> <p>* Only if #6 room-side and #2 coatings are present.</p>
<p><b>0.26</b> U-Factor</p>	<p><b>29%</b> UV Transmission</p>	

Data is produced using LBNL Window 7.8. 2-pane IG units have 13mm airspace and filled to 90% argon.

## Benefits of LoE-180

<p><b>Highest Visible Light Transmittance</b></p>	<p><b>Effective for Passive Solar Design</b></p>	<p><b>Excellent Insulating Capabilities</b></p>	<p><b>Great for South Facing Windows</b></p>
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While blocking out the cold and harmful sun rays, LoE-180 lets in more the warmth than ordinary low-e glass. The LoE-180 coating is applied between layers or anti-reflective metal oxide coatings along with a protective layer to ensure the durability and long life of your glass unit.

Laminated options	Custom shapes & sizes	Thicknesses: 2.2 to 6mm
Max dimensions: 96" x 144"		

**Note:** LoE-180 is available as annealed, heat-strengthened or tempered glass.

## ENERGY STAR 7.0

ENERGY STAR® is a program run by the U.S. Environmental Protection Agency (EPA) that promotes energy efficiency in consumer products, including windows. ENERGY STAR 7.0 is the latest version of the ENERGY STAR program's requirements for windows.

LoE-180 can be used to meet the criteria for the **Northern** climate zone.

### Whole-Window Performance Criteria

	U-Factor	SHGC	
▶ Northern	≤0.22	≥0.17	Prescriptive
	=0.23	≥0.35	Equivalent Energy Performance
	=0.24		
	=0.25	≥0.40	
	=0.26		
▶ North-Central	≤0.25	≤0.40	
▶ South-Central	≤0.28	≤0.23	
▶ Southern	≤0.32	≤0.23	



3/4" Dual Pane with 3mm Glass • 1" Triple Pane with 3mm Glass • 90% Argon

### Center-of-Glass Performance

	VISIBLE LIGHT		FADING			U-FACTOR	
	Transmission	Exterior	UV	ISO	SHGC	Air Fill	Argon Fill
						IP / SI	IP / SI
Dual Pane							
▶ Clear / LoE-180	79%	15%	29%	63%	0.69	0.31 / 1.74	0.26 / 1.49
▶ LoE-180 / LoE-i89	77%	15%	27%	61%	0.62	0.24 / 1.37	0.21 / 1.19
Triple Pane							
▶ LoE-180 / Clear / LoE-180	70%	20%	13%	50%	0.56	0.17 / 0.94	0.13 / 0.75
▶ LoE-180 / LoE-180 / LoE-i89	68%	21%	13%	49%	0.53	0.14 / 0.81	0.12 / 0.66

LBNL Window 7 per NFRC100 conditions. LoE-180 is intended for the 3rd surface on a 2-pane insulating glass unit.



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Contact Cardinal CG to learn more about LoE-180 and other Cardinal glass products.

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