



CASE STUDY: Multiple benefits for a private home

Building

Private Residence

Location

Atlanta, Georgia, USA

Window Film

DR-25 SR CDF

DR-35 SR CDF

Type

Solar Control Film



SITUATION

The owners of this beautiful, 11,000 square-foot (1022 square meters), custom home in Atlanta had been struggling to find a solution to reduce the glare and heat buildup. In an effort to keep the home cool, they were regularly running six air conditioners, but their efforts could not eliminate the presence of numerous hot and cold spots throughout the living space.

SOLUTION

Wanting to preserve a beautiful view of their pool and landscaping, the homeowners looked for a solution that would reduce energy costs and improve comfort without obstructing their panorama. With assistance from their LLumar installer, they chose the LLumar Dual Reflective Series for its high solar performance, warm color and low interior reflectance.

RESULT

LLumar films DR-25 SR CDF and DR-35 SR CDF were installed to block 99% of ultraviolet radiation and reject up to 65% of total solar energy, which minimized heat buildup, increased comfort, and substantially reduced energy costs. The optical clarity of the window films also kept the beautiful outdoor view intact. So pleased were the homeowners, they now protect their vehicles, home and business with LLumar.

Performance Data

	% Total Solar Transmittance	% Total Solar Reflectance	% Total Solar Absorbance	% Visible Light Transmittance	% Visible Reflectance (exterior)	% Visible Reflectance (interior)	Winter U-value	Shading Coefficient	% Ultraviolet Ray Protection (wavelengths 280-380nm)	Emissivity	Solar Heat Gain Coefficient	% Total Solar Energy Rejected	Light-to-Solar Heat Gain Ratio (LSG)	% Summer Solar Heat Gain Reduction	% Winter Heat Loss Reduction	% Glare Reduction
Clear Glass	83	8	9	90	8	8	1.03	1.00	29	0.84	0.86	14	1.05	0	0	0
Dual Reflective Series	Dual-reflective films are reflective on the exterior; less reflective on the interior, which helps provide clear day and night views. Traditionally specified on commercial buildings, dual-reflective films are also popular for residential installations in warmer locations. They are scratch-resistant, shields 99% of ultraviolet rays, and provide substantial heat rejection.															
DR-25 SR CDF	25	26	49	22	27	13	0.92	0.41	99	0.61	0.35	65	0.63	59	11	76
DR-35 SR CDF	35	19	46	36	19	13	0.93	0.52	99	0.61	0.44	56	0.82	48	10	60

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The solar performance data reported for LLumar architectural window films was captured using the National Fenestration Rating Council's (NFRC) standard guidelines for window film solar performance measurement as measured on single pane, 1/8 inch (3mm), clear glass. All values averaged from routinely accumulated quality control data.

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