

**Site**

Private Residence

**Location**

New York, New York

**Window Film**

Nuance V48

Ultima V14

**Product Series**

Dual-Reflective Series



**SITUATION**

This Manhattan penthouse in a luxury apartment building provides panoramic cityscape views, including a spectacular look at the Empire State Building. Massive windows and skylights make the unique skyscraper views possible.

A city lover basks in the nighttime views, but the midday sun is practically unbearable, as the sun's damaging rays stream in. Furthermore, besides allowing uncomfortable heat and glare in, ultraviolet sun rays contributes to fading of furnishings and woodwork.

**SOLUTION**

"How to enjoy the views, protect the interiors, and live in comfort?" becomes the question of the day. And the answer is "tactical use of solar control window film". Vista™ by LLumar®, Ultima Film fitted on the 40 sixteen square-foot skylights, reduces solar heat within the area by 77 percent and the sun's glare by 89 percent. And the Vista by LLumar Nuance film, installed on the more than 50 window panels, cuts the heat and glare by approximately half while maintaining the unique city views.

**RESULT**

Both solar control window films block more than 99 percent of ultraviolet rays, helping protect against premature fading.\* The sun's ultraviolet rays are primarily responsible for the fading of furnishings, carpets, wallpaper, wood and artwork.

In addition to heat and glare reduction and ultraviolet ray protection, the installed films provide the corollary benefit of lower utility costs for air conditioning and wintertime home heat.

**Performance Data**

	% Total Solar Transmittance	% Total Solar Reflectance	% Total Solar Absorptance	% 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	-	-	-
Dual-Reflective Series																
Nuance V48 SR CDF	39	15	46	46	16	11	1.04	0.60	>99	0.84	0.53	47	0.87	38	0	49
Ultima V14 SR CDF	7	51	42	10	55	24	1.02	0.23	>99	0.80	0.20	80	0.50	77	2	89

**EASTMAN**

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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 (3 mm), clear glass. Reported values are taken from representative product samples and are subject to normal manufacturing variances. Actual performance will vary based on a number of factors, including glass type and properties. \*Films do not eliminate fading—they reduce it. UV rays and heat are contributing factors to fading but other factors exist. For further information, see LLumar.com/download-library. © 2016 Eastman Chemical Company. VISTA™, the VISTA® logo, LLumar®, the LLumar® logo and Enerlogic® are trademarks of Eastman Chemical Company or one of its wholly owned subsidiaries. As used herein, © denotes registered trademark status in the U.S. only. (12/16) SP1110