

**Site**

Private Residence

**Location**

Denver, Colorado

**Window Film**

Ambiance VE35 SR CDF

**Product Series**

Low-E Series



**SITUATION**

At an elevation of more than 8,000 feet sits a majestic mansion that seamlessly renders the divide between the built and the natural worlds. Oversized glass windows, (which in this home become glass walls) dramatize the relationship between the house and its spectacular mountain surroundings. At such a high altitude, the sun's glare, in tandem with destructive ultraviolet light, became an environmental impediment to the point that the interior living areas were decidedly uncomfortable.

This was a particular challenge for the interior designer since the home abounds in valuable art, costly furnishings and an expanse of custom wide-board pine flooring, all of which are particularly sensitive to ultraviolet light, which is a contributing factor to fading.

**SOLUTION**

Working with a local window film professional, the designer elected to install Vista™ by LLumar® Ambiance VE35, a low-e solar control film to tame the ultraviolet ravages and combat glare. The high-tech invisible film blocks more than 99 percent of ultraviolet rays, helping protect against premature fading\* and helps reduce glare providing visually comfortable surroundings.

**RESULT**

In commenting on the film's installation, the designer said, "Glare-free views can be enjoyed throughout the year and the fading of the furnishings, precious art and expansive wood floors are no longer a matter of concern. What's more, the owners are quite oblivious to the presence of the film."

**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                                 | -                                  | -                            | -                 |
| Low-E Series         |                             |                           |                          |                               |                                  |                                  |                |                     |  |            |                             |                               |                                      |                                    |                              |                   |
| Ambiance VE35 SR CDF | 20                          | 43                        | 37                       | 29                            | 36                               | 39                               | 0.71           | 0.32                | >99  | 0.29       | 0.28                        | 72                            | 1.04                                 | 67                                 | 32                           | 68                |

**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. ©2008, revised 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. (11/16) SP1125