

Site

Embassy Vacation Resort

Location

Maui, Hawaii

Window Film

Luminance V28

Product Series

Dual-Reflective Series



SITUATION

The solar problem faced by the management of the Embassy Suites Resort on Kaanapali Beach in Maui was underscored by the discomfort experienced by guests in the Presidential Sky-Top suite; although many of guests in the complimentary luxury suites were similarly afflicted. The Presidential Sky-Top suite, as its name implies, is positioned atop a spectacular high-rise building located on Maui's most famous beach, where the sun shines all day long and the temperature averages 85°F year round. The suite features oversized glass wrap-around windows which allow the sun's heat and destructive rays to pour in all day, creating intolerable conditions. It was hot, air conditioning bills were excessive, glare impeded breathtaking views, and the fine colors of the suite's furnishings, draperies, and floors quickly faded away.

SOLUTION

What to do? Working with the area Vista™ by LLumar® dealer, a solar control specialist, management decided the solution lay in window film. To be specific, Vista™ by LLumar® Luminance V28, a complex laminate of polyester, metallic particles, and ultraviolet-absorbing adhesives, installed on the inside of window glass, was chosen. This film, which is virtually invisible and in no way interferes with the view, is expressly engineered to block ultraviolet light and reduce the amount of the sun's heat and glare that passes through untreated glass. The film comes with a clear distortion-free scratch-resistant finish that is easily cleaned with common cleaning products, including those that contain ammonia. Vista Luminance solar control specifications yield a 64 percent reduction in total solar energy, blocks more than 99 percent of ultraviolet rays, helping protect against premature fading*, with a 67 percent glare reduction, and 58 percent heat rejection.

RESULT

Management chose to film all the sunlit windows of the luxury suites. Thirty six thousand square feet of film was installed without interference with the daily activities of the resort so that all the guests now enjoy their suites in comfort and free of the sun's glare. The Embassy resort benefits from the protected furnishings that are safe from fading for years and can look forward to recouping costs from energy savings generated by reduced air-conditioning demands.



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 Reflected	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																
Luminance V28 SR CDF	23	33	44	30	33	21	1.01	0.41	>99	0.77	0.36	64	0.83	58	3	67

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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. (06/16) SP1082