

## CASE STUDY: A vital upgrade during renovations

### Building

Kahala Mandarin Oriental  
Hawaii Hotel

### Location

Honolulu, Hawaii, USA

### Window Film

N-1065 SR CDF (Neutral)

### Type

Solar Control Film



## SITUATION

When the management of the Kahala Mandarin Oriental luxury hotel embarked upon a total renovation of the hotel's interior, they looked for a way to better protect their new interior furnishings and pristine wood floors from the sun's damaging ultraviolet rays. The hotel was also looking for a way to upgrade their existing plate glass windows to provide safety protection from the hazards of broken glass.

## SOLUTION

The hotel installed 30,000 square feet of LLumar solar control window film N-1065 SR CDF. The solar control film blocks 99% of harmful ultraviolet rays, helping to preserve the color brilliance of furnishings and fabrics, as well as protecting the fine wood floors from fading. The window film also reduced glare, eliminated hot spots and lowered energy consumption by cutting heat gain through glass in addition to providing an added layer of protection against broken glass.

## RESULT

In commenting on the finished project, a Mandarin Oriental Hotel Group representative said, "We were delighted that the installation of LLumar window film went so smoothly and did not interrupt our daily operations or inconvenience our patrons. We already feel the benefit of the glare protection and heat reduction in all areas of the resort." LLumar window film will help to preserve the beauty of the hotel from the inside out.

## 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	-	-	-
Neutral Series																
Neutral films reduce glare, provide good heat rejection and are specified where a soft, neutral appearance is desired. These films are made with sputtered technology. Neutral films are scratch-resistant and shield 99% of UV rays.																
N-1065 SR CDF (Neutral)	64	9	27	69	10	8	1.07	0.83	99	0.90	0.72	28	0.96	16	-3	23