

CASE STUDY: State-of-the-art solar control

Building

Indiana Downs

Location

Shelbyville, Indiana

Window Film

N-1040 SR CDF (Neutral)

Type

Solar Control Film



SITUATION

Indiana Downs is a state-of-the-art parimutuel racetrack that features live thoroughbred and standard-bred horse racing. Its facilities accommodate up to 3,500 racing fans, simulcast patrons and special-event attendees. Though spacious windows throughout the complex offer magnificent views of all the activities, on bright sunny days, patrons in the luxurious dining and reception areas were often overcome by heat and glare.

SOLUTION

Recognizing that the excessive glare was interfering with customers' enjoyment of the track and its amenities, racetrack management immediately sought ways to minimize its impact. They contacted the local LLumar dealer for consultation on solar control window film. A plan was developed to install LLumar solar control window film N-1040 SR CDF on all 10,000 square feet (929 square meters) of the building's window glass.

RESULT

LLumar solar control window film reduced the visible light transmitted through the glass to 40% — cutting the glare by more than half! The film also blocked half of the solar energy previously transmitted through the window, reducing summer heat gain by 41%. On bright, sunny days at the racetrack, patrons are now able to enjoy the view through LLumar window 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	0	0	0
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-1040 SR CDF (Neutral)	36	16	48	40	18	15	1.00	0.59	99	0.81	0.50	50	0.80	41	3	56

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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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