

**CASE STUDY** LLumar® security film adds an extra layer of defense to help protect students, teachers and staff during emergencies.



**Building**

St. Mary's School

**Location**

Johnson City, Tennessee

**Window Film**

N-1020 SR PS8 (Neutral)

**Type**

Safety and Security Film



**SITUATION**

Recent security events have prompted heightened safety awareness for schools of all sizes, with administrators focused on ways to protect students, staff and faculty. At St. Mary's School in Johnson City, Tennessee, building security is a top priority. "We wanted to make sure we had safety measures in place to help prevent or deter an emergency situation," explains Randi McKee, principal at St. Mary's School.

**SOLUTION**

St. Mary's formed a committee to evaluate security options. "We evaluated access control, video surveillance and other tools, because we wanted to understand all of our options," says Caroline Preston, a St. Mary's School parent. "We saw a LLumar security film video demonstration, and wanted to learn more," McKee explains. The security film acts as a barrier to help hold glass in place upon impact reducing possible injuries; helps deter intruders and may slow attempts to break windows.

**RESULT**

The faculty and staff feel more secure. Other benefits include improved classroom light quality and lower heating and cooling costs. "Energy savings provided by the window film will be very beneficial to our bottom line, says McKee, "but the primary driver for us was security and the safety of our children."

**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 290-380nm)	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-1020 SR PS8 (Neutral)	23	22	55	24	26	27	1.06	0.47	>99	0.88	0.41	59	0.59	52	-2	73

**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. LLumar® and the LLumar® logo 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) L2274