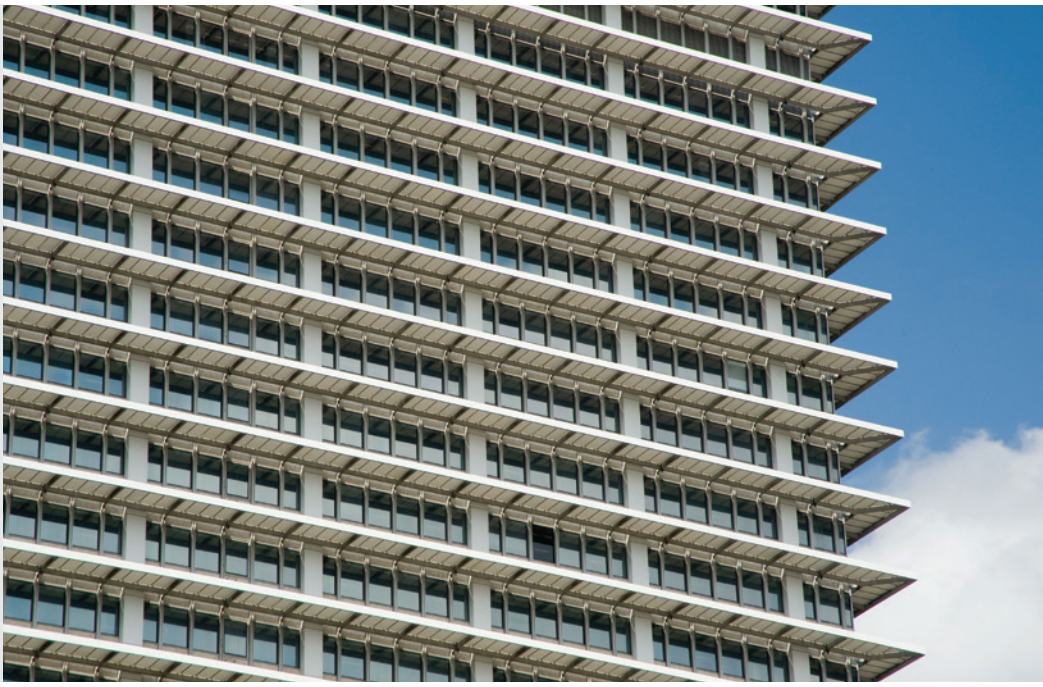
CASE STUDY: Energy producer is also energy conserver

Building
Exxon USA Headquarters

Location
Houston, Texas, USA

Window Film
N-1020 SR CDF (Neutral)

Type
Solar Control Film



SITUATION

Exxon USA headquarters in Houston, Texas is a 30-year-old, 43-story building with 6,200 windows. The expansive amount of glass provide a stylish appearance, but made it difficult to control interior temperature in the older building. Exxon was looking for a cost-effective solution to provide energy savings while preserving exterior aesthetics.

SOLUTION

A detailed analysis of the building's environmental characteristics led to the professional installation of LLumar solar control window film N-1020 Neutral. The high-tech solar control window film provided energy savings and improved exterior aesthetics, exceeding Exxon's expectations.

RESULT

LLumar blocks >99% of the damaging UV rays that fade office interiors. It also deflects harsh, uncomfortable glare, thereby improving comfort for office occupants. The installation is expected to create sufficient energy savings to pay for itself in three years, and the appearance of the building is improved by its modern, uniform, gunmetal, shining exterior.

Performance Data

	% Total Solar Transmittance	% Total Solar Reflectance	% Total Solar Absorptance	% 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	–	–	–
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 CDF (Neutral)	21	27	52	23	30	27	1.03	0.42	>99	0.82	0.37	63	0.62	57	1	74

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