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EXPLANATION OF NFRC 2001 STANDARD TERMS

Visible Light = radiant energy in the wavelength range

% Transmittance = percentage of visible light at normal incidence (90° to surface) directly transmitted through the glass (The higher the number, the more visible light is transmitted)

% Reflectance Indoors = percentage of visible light at normal incidence directly reflected from the glass back indoors (The higher the number, the more light is reflected in)

% Reflectance Outdoors = percentage of visible light at normal incidence directly reflected from the glass back outdoors (the higher the number, the more light is reflected out)

Solar Energy (Direct) = radiant energy from the sun that is transmitted directly thru the glass.

% Transmittance = percentage of solar energy at normal incidence (90° to surface) directly transmitted through the glass (the higher the number, the more heat is transmitted inside)

Reflect % Out = percentage of solar energy at normal incidence directly reflected from the glass back outdoors (the higher the number, the more heat is reflected back outside)

U-Factor = (also called U-Value) air-to-air thermal conductance of 39" high glazing and associated air films. Units are Btu/hr.ft².F. (the higher the number, the poorer the insulator)

Winter-night = 12.3 mph wind at -0.4°F & 69.8°F indoors. Summer = 0 sun, 6.15 mph wind at 89.6°F & 75.2°F still indoor air.

Relative Heat Gain = (RHG) total net heat gain to the indoors due to both the air-to-air thermal conductance and the solar heat gain. The units are Btu/hr.ft². $RHG = [(Summer\ U-Value)(89.6°F - 75.2°F) + (Shading\ Coef.)(200\ Btu/hr.ft^2)]$ (the higher the number, the more the inside heat gain)

Shading Coef. = (SC) fraction of solar heat, direct plus indirect, transferred indoors through the glass. For reference, 1/8" (3.1 mm) clear glass has a value of 1.00 (SC is an older term being replaced by the SHGC). (the higher the number, more inside heat gain)

SHGC = (Solar Heat Gain Coefficient) fraction of solar energy incident on the glazing that is transferred indoors both directly and indirectly through the glazing. The direct gain portion equals the direct solar transmittance, while the indirect is the fraction of the solar energy absorbed to the energy reradiated & convected indoors. No heat gain from warmer outdoor air is included. (the higher the number, the more inside heat gain).

Light to Solar Gain = (LSG) the ratio of visible light gain to solar gain (the higher the number, the more visible light enters the room compared to the heat gain)