

# LLUMAR® SAFETY AND SECURITY WINDOW FILM 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 Rejection	Emissivity	Solar Heat Gain Coefficient	% Total Solar Energy Rejected	Light-to-Solar Heat Gain Ratio	% Summer Solar Heat Gain Reduction	% Winter Heat Loss Reduction	% Glare Reduction
Window without film applied (1/8" clear single pane)	83	8	9	90	8	8	1.03	1.00	29	0.84	0.86	14	1.05	-	-	-
<b>SAFETY AND SECURITY</b>		Safety and Security products are durable films available in a variety of clear, neutral, and reflective offerings with a range of solar control options. Clear films can be applied over tinted glass to improve aesthetics, solar performance and glare. These thicker films meet the most stringent standards for burglary resistance, blast mitigation, windborne debris, and basic safety glazing.														
SCL SR PS4	81	9	10	89	10	10	1.03	0.97	95	0.84	0.84	16	1.06	3	0	1
SCL SR PS6	79	9	12	88	10	10	1.03	0.94	99	0.84	0.82	18	1.07	6	0	2
SCL SR PS7	81	9	10	88	10	10	1.03	0.96	95	0.84	0.84	16	1.05	4	0	2
SCL SR PS8	78	9	13	88	11	11	1.03	0.94	99	0.84	0.82	18	1.07	6	0	2
SCL SR PS11	78	9	13	85	11	11	1.03	0.93	99	0.84	0.81	19	1.05	7	0	6
SCL SR PS15	76	10	14	83	11	11	1.03	0.92	99	0.84	0.80	20	1.04	8	0	8
R-20 SR PS4	12	54	34	16	62	62	0.94	0.25	99	0.71	0.21	79	0.76	75	9	82
R-20 SR PS8	12	54	34	16	62	62	0.94	0.25	99	0.71	0.21	79	0.76	75	9	82
N-1020 SR PS4	21	26	53	24	29	28	1.03	0.44	99	0.84	0.37	63	0.65	56	0	73
N-1020 SR PS8	21	26	53	24	29	28	1.03	0.44	99	0.84	0.37	63	0.65	56	0	73
N-1040 SR PS4	36	16	48	40	18	15	1.00	0.59	99	0.84	0.50	50	0.80	41	3	56
N-1040 SR PS8	36	16	48	40	18	15	1.00	0.59	99	0.84	0.50	50	0.80	41	3	56
N-1050 SR PS4	44	13	43	49	14	12	1.03	0.67	99	0.84	0.58	42	0.84	33	0	46
N-1050 SR PS8	44	13	43	49	14	12	1.03	0.67	99	0.84	0.58	42	0.84	33	0	46
NUV-65 SR PS4	63	9	28	70	11	10	1.02	0.71	99.9	0.84	0.71	29	0.99	18	1	22
<b>GRAFFITI</b>		Graffiti Series films are optically clear, enhanced with ultraviolet inhibiting agents that reject up to 99% of UV rays, and are made to resist common graffiti, chemicals, paints, and tools, and are made with special adhesives for ease of removal and replacement.														
GCL SR PS4	81	9	10	89	10	10	1.02	0.97	95	0.84	0.84	16	1.06	3	1	1
GCL SR PS6	79	8	13	89	10	10	1.02	0.95	99	0.84	0.83	17	1.07	5	1	1

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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