

AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

UNITED STATES ALUMINUM

SERIES/MODEL: 7500 Projected Window

TYPE: Projecting (Awning - Single)

Report No: A2572.01-116-45
Report Date: 08/09/10



AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

UNITED STATES ALUMINUM
200 Singleton Drive
Wacahachie, Texas 75165

Report No: A2572.01-116-45
Report Date: 08/09/10
Simulation Date: 08/09/10

Project Summary:

Architectural Testing, Inc. was contracted by United States Aluminum to provide U-Factor and Solar Heat Gain Coefficient thermal performance ratings on the 7500 Projected Window - Projecting (Awning - Single). The thermal performance ratings were determined in accordance with AAMA 507-07, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Building.

Reference Documents:

AAMA 507-07, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Buildings

NFRC 100-2010, Procedure for Determining Fenestration Product U-Factors

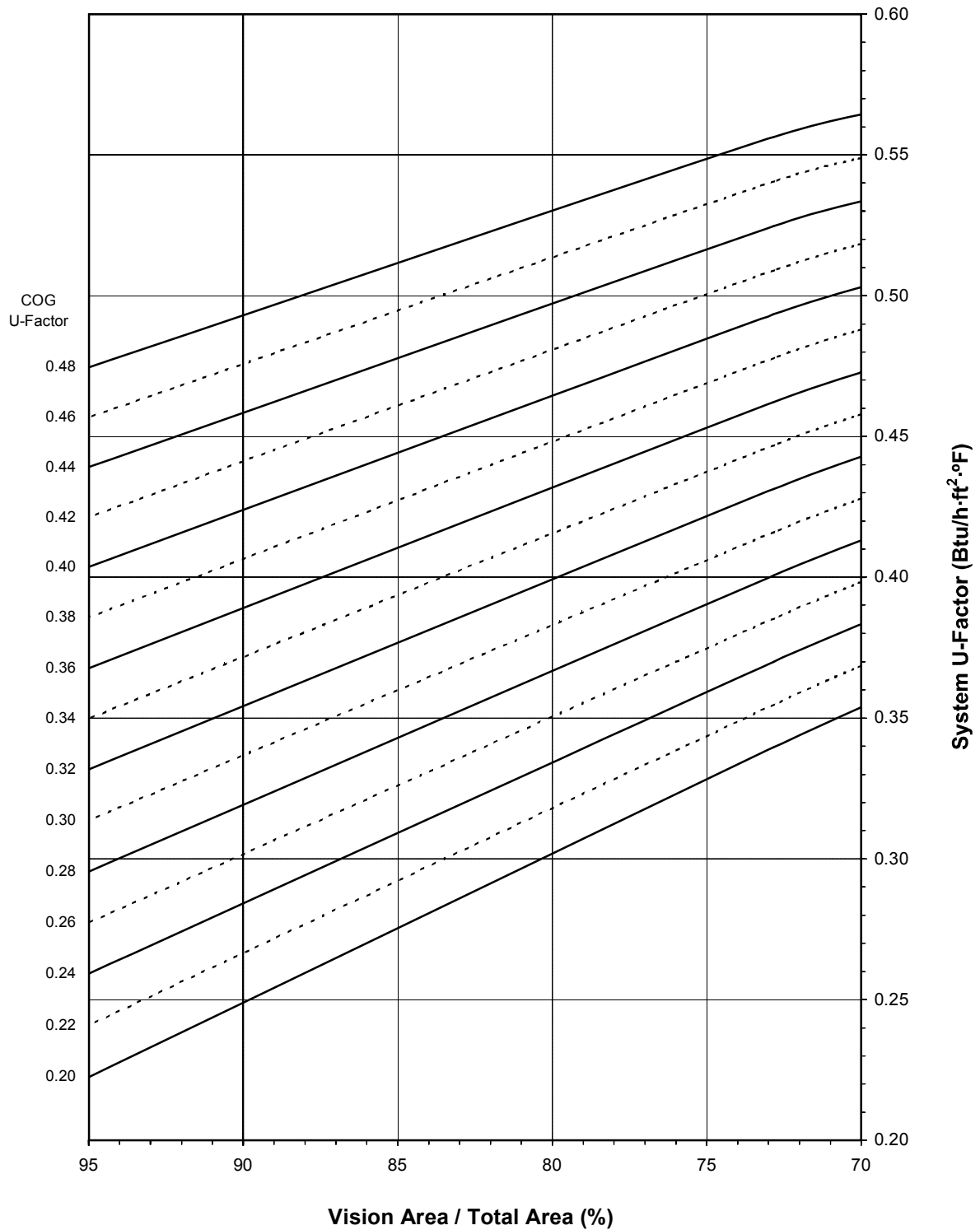
NFRC 200-2010, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence

Simulation Specimen Description:

Series/Model:	7500 Projected Window
Type:	Projecting (Awning - Single)
Frame Material:	Painted Aluminum
Specimen Size:	1500mm wide by 600mm high (59-1/16" by 23-5/8")
Configuration:	Single Vision Lite
Drawing Reference:	United States Aluminum Drawing: 7500 Projecting

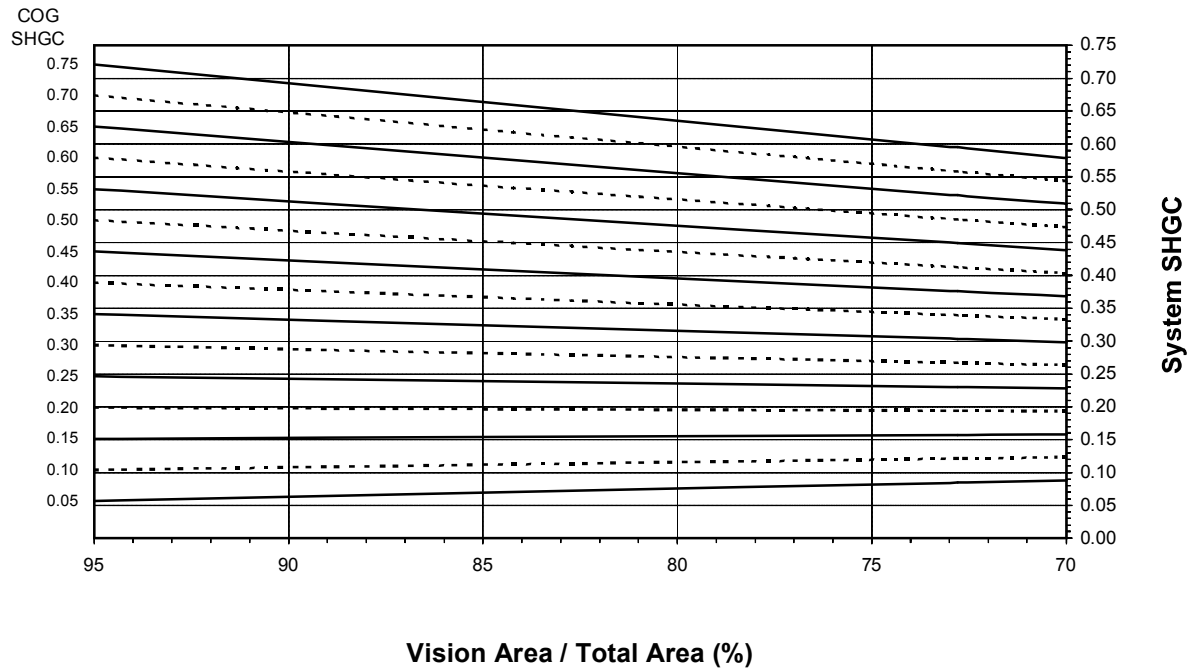
United States Aluminum
7500 Projected Window - Projecting (Awning - Single)

System U-Factor vs. Percentage of Vision Area

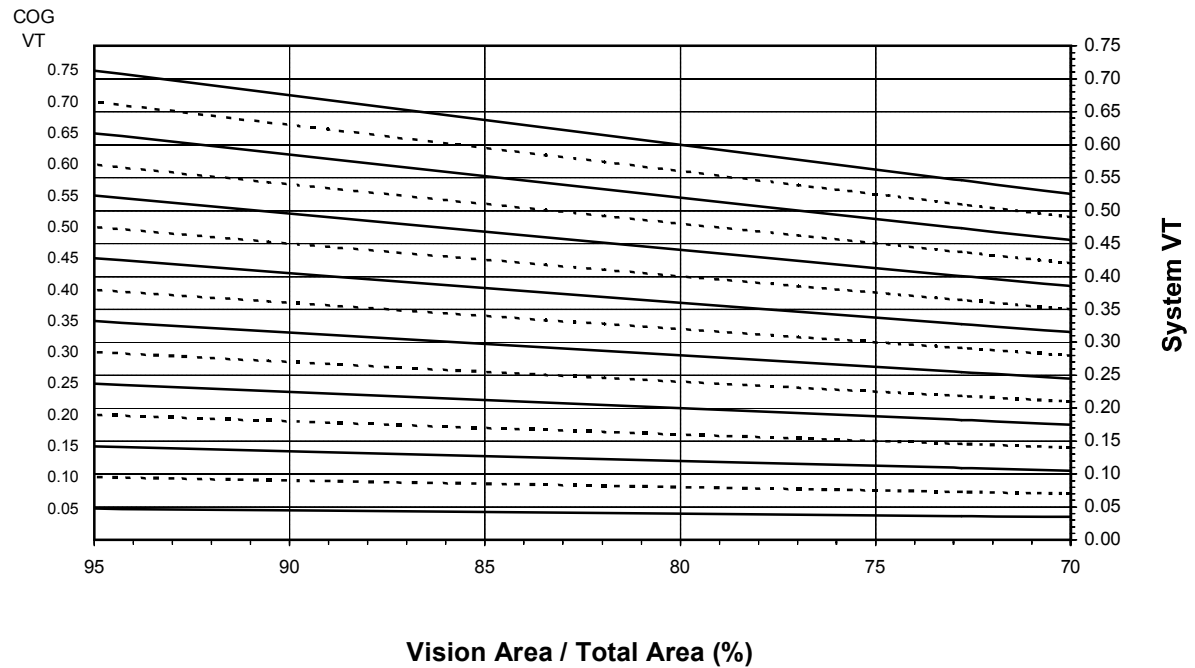


**United States Aluminum
7500 Projected Window - Projecting (Awning - Single)**

System SHGC vs. Percentage of Vision Area



System VT vs. Percentage of Vision Area



**United States Aluminum
7500 Projected Window - Projecting (Awning - Single)**

Size Specific U-Factor Matrix*

Glazing Option	Center of Glass U-Factor	Overall U-Factor
1	0.48	0.56
2	0.46	0.54
3	0.44	0.52
4	0.42	0.51
5	0.40	0.49
6	0.38	0.48
7	0.36	0.46
8	0.34	0.45
9	0.32	0.43
10	0.30	0.42
11	0.28	0.40
12	0.26	0.39
13	0.24	0.37
14	0.22	0.35
15	0.20	0.34

Size Specific SHGC Matrix*

Center of Glass SHGC	Overall SHGC
0.75	0.59
0.70	0.56
0.65	0.52
0.60	0.49
0.55	0.45
0.50	0.41
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.27
0.25	0.23
0.20	0.19
0.15	0.16
0.10	0.12
0.05	0.08

Size Specific VT Matrix*

Center of Glass VT	Overall VT
0.75	0.55
0.70	0.51
0.65	0.47
0.60	0.44
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.07
0.05	0.04

*Size Specific U-Factor, SHGC, and VT Matrices are based on the standard Projecting (Awning - Single) specimen size of 1500mm wide by 600mm high (59-1/16" by 23-5/8"). This represents 72.8% Vision Area / Total Area.

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	NFRC 100-2010	95% Vision Area
							53.13" by 21.25"	59.06" by 23.62"	337.40" by 134.96"
1	0.48	43.7	Head	2.4362	0.7489	0.4670	0.5643	0.5564	0.4746
			L Jamb	2.4362	0.7794	0.4668			
			R Jamb	2.4362	0.7794	0.4668			
			Sill	2.4362	0.7455	0.4668			
2	0.46	44.8	Head	2.4362	0.7426	0.4503	0.5489	0.5405	0.4569
			L Jamb	2.4362	0.7729	0.4501			
			R Jamb	2.4362	0.7729	0.4501			
			Sill	2.4362	0.7391	0.4501			
3	0.44	45.8	Head	2.4362	0.7366	0.4336	0.5336	0.5248	0.4391
			L Jamb	2.4362	0.7669	0.4334			
			R Jamb	2.4362	0.7669	0.4334			
			Sill	2.4362	0.7331	0.4333			
4	0.42	46.8	Head	2.4362	0.7306	0.4170	0.5183	0.5091	0.4214
			L Jamb	2.4362	0.7609	0.4169			
			R Jamb	2.4362	0.7609	0.4169			
			Sill	2.4362	0.7270	0.4167			
5	0.40	47.9	Head	2.4362	0.7247	0.4004	0.5031	0.4934	0.4036
			L Jamb	2.4362	0.7551	0.4004			
			R Jamb	2.4362	0.7551	0.4004			
			Sill	2.4362	0.7211	0.4002			
6	0.38	48.9	Head	2.4362	0.7190	0.3841	0.4880	0.4779	0.3857
			L Jamb	2.4362	0.7494	0.3840			
			R Jamb	2.4362	0.7494	0.3840			
			Sill	2.4362	0.7153	0.3838			
7	0.36	50.0	Head	2.4362	0.7132	0.3676	0.4728	0.4623	0.3678
			L Jamb	2.4362	0.7437	0.3676			
			R Jamb	2.4362	0.7437	0.3676			
			Sill	2.4362	0.7096	0.3673			
8	0.34	51.0	Head	2.4362	0.7076	0.3514	0.4579	0.4469	0.3498
			L Jamb	2.4362	0.7381	0.3514			
			R Jamb	2.4362	0.7381	0.3514			
			Sill	2.4362	0.7039	0.3511			
9	0.32	52.0	Head	2.4362	0.7020	0.3349	0.4428	0.4314	0.3317
			L Jamb	2.4362	0.7325	0.3350			
			R Jamb	2.4362	0.7325	0.3350			
			Sill	2.4362	0.6983	0.3346			
10	0.30	53.1	Head	2.4362	0.6965	0.3188	0.4280	0.4161	0.3136
			L Jamb	2.4362	0.7271	0.3189			
			R Jamb	2.4362	0.7271	0.3189			
			Sill	2.4362	0.6928	0.3185			
11	0.28	54.2	Head	2.4362	0.6911	0.3025	0.4131	0.4007	0.2955
			L Jamb	2.4362	0.7217	0.3026			
			R Jamb	2.4362	0.7217	0.3026			
			Sill	2.4362	0.6873	0.3022			



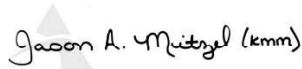
Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							70% Vision Area	NFRC 100-2010	95% Vision Area
							53.13" by 21.25"	59.06" by 23.62"	337.40" by 134.96"
12	0.26	55.2	Head	2.4362	0.6857	0.2864	0.3982	0.3854	0.2772
			L Jamb	2.4362	0.7164	0.2865			
			R Jamb	2.4362	0.7164	0.2865			
			Sill	2.4362	0.6819	0.2860			
13	0.24	56.3	Head	2.4362	0.6801	0.2703	0.3833	0.3700	0.2591
			L Jamb	2.4362	0.7105	0.2705			
			R Jamb	2.4362	0.7105	0.2705			
			Sill	2.4362	0.6762	0.2699			
14	0.22	57.3	Head	2.4362	0.6748	0.2543	0.3685	0.3547	0.2409
			L Jamb	2.4362	0.7053	0.2545			
			R Jamb	2.4362	0.7053	0.2545			
			Sill	2.4362	0.6709	0.2539			
15	0.20	58.4	Head	2.4362	0.6696	0.2383	0.3539	0.3396	0.2226
			L Jamb	2.4362	0.7002	0.2386			
			R Jamb	2.4362	0.7002	0.2386			
			Sill	2.4362	0.6657	0.2379			

Detailed drawings, datasheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period such materials shall be discarded without notice and the service life of this report by Architectural Testing will expire. Results obtained are simulated values and were secured by using the designated test methods. This report does not constitute certification of this product nor an opinion or endorsement by this laboratory. It is the exclusive property of the client named herein and relates only to the specimen(s) simulated. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.:

SIMULATED BY:



Digitally Signed for: Jason A. Mitzel by Kirby M. May

Jason A. Mitzel
Simulation Technician

REVIEWED BY:



Digitally Signed by: Kevin Louder

Kevin S. Louder
Project Engineer

JAM:jam

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Attachments (pages): This report is complete only when all attachments listed are included.

Appendix A: Drawings and Bills of Material (9)

Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01 R0	8/9/2010	All	Original Report Issue

All drawings and Bills of Material used in simulating this product are enclosed in this Appendix.

