



AAMA 507-03 THERMAL PERFORMANCE REPORT

Rendered to:

TUBELITE, INC.

SERIES/MODEL: 200 Series Curtainwall (E1025)

TYPE: Glazed Wall System

Report No: 73647.01-116-45
Report Date: 05/23/07

AAMA 507-03 THERMAL PERFORMANCE REPORT

Rendered to:

TUBELITE, INC.
4878 Mackinaw Trail
Reed City, Michigan 49677

Report No: 73647.01-116-45
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Project Summary:

Architectural Testing, Inc. (ATI) was contracted by Tubelite, Inc. to provide U-Factor and Solar Heat Gain Coefficient thermal performance ratings on the 200 Series Curtainwall (E1025) Glazed Wall System. The thermal performance ratings were determined in accordance with AAMA 507-03, *Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Building*.

Reference Documents:

AAMA 507-03, Standard Practice for Determining the Thermal Performance Characteristics of Fenestration Systems Installed in Commercial Buildings

NFRC 100-2001, Procedure for Determining Fenestration Product U-Factors

NFRC 200-2001, Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence

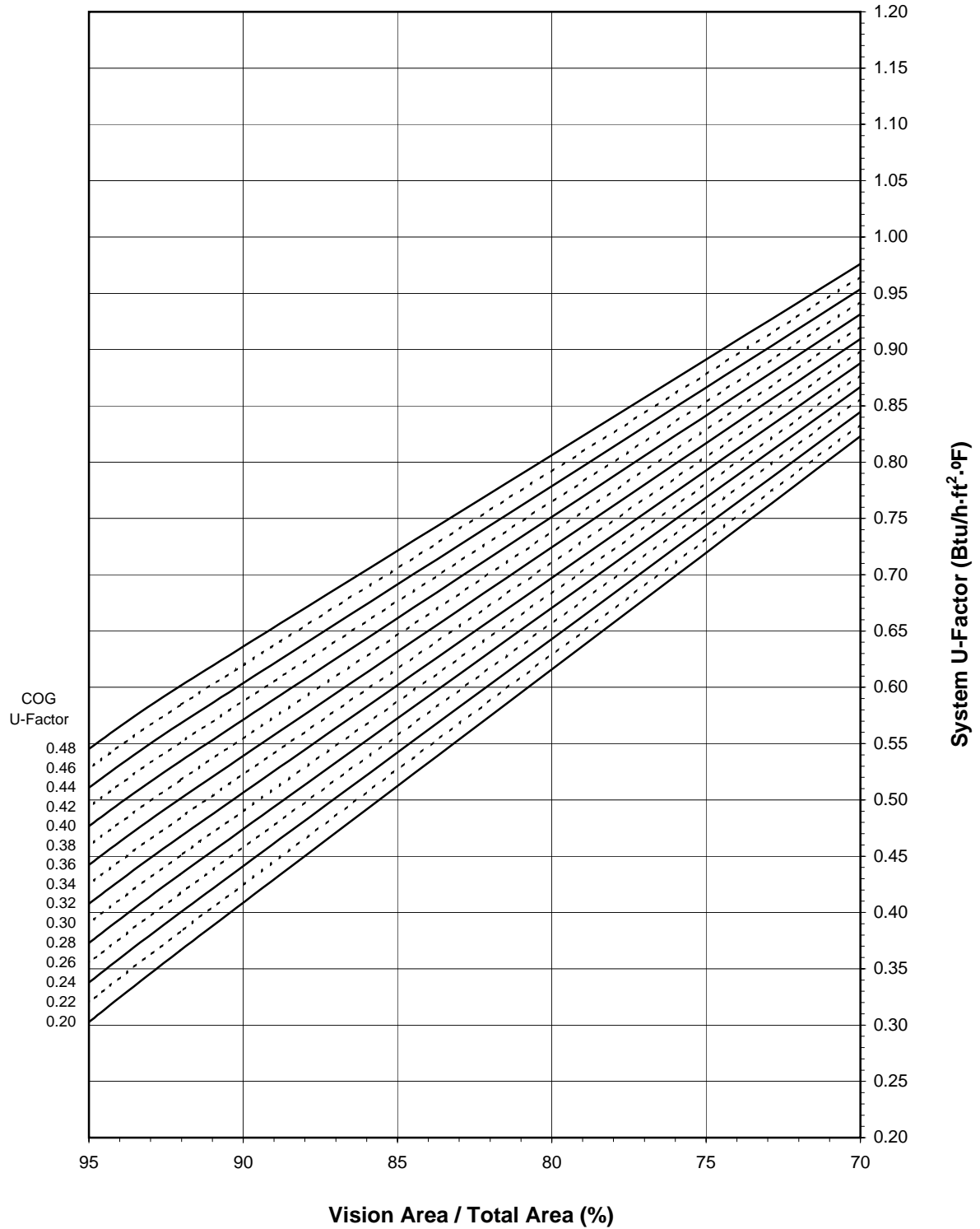
NFRC Technical Interpretation TI-2003-12, Curtain Wall Simulation

Simulation Specimen Description:

Series/Model:	200 Series Curtainwall (E1025)
Type:	Glazed Wall System
Frame Material:	Aluminum Framing System
Specimen Size:	2000mm wide by 2000mm high (78-3/4" by 78-3/4")
Configuration:	Two vision lites separated by one intermediate vertical
Drawing Reference:	Tubelite Drawing 200 cw (E1025)

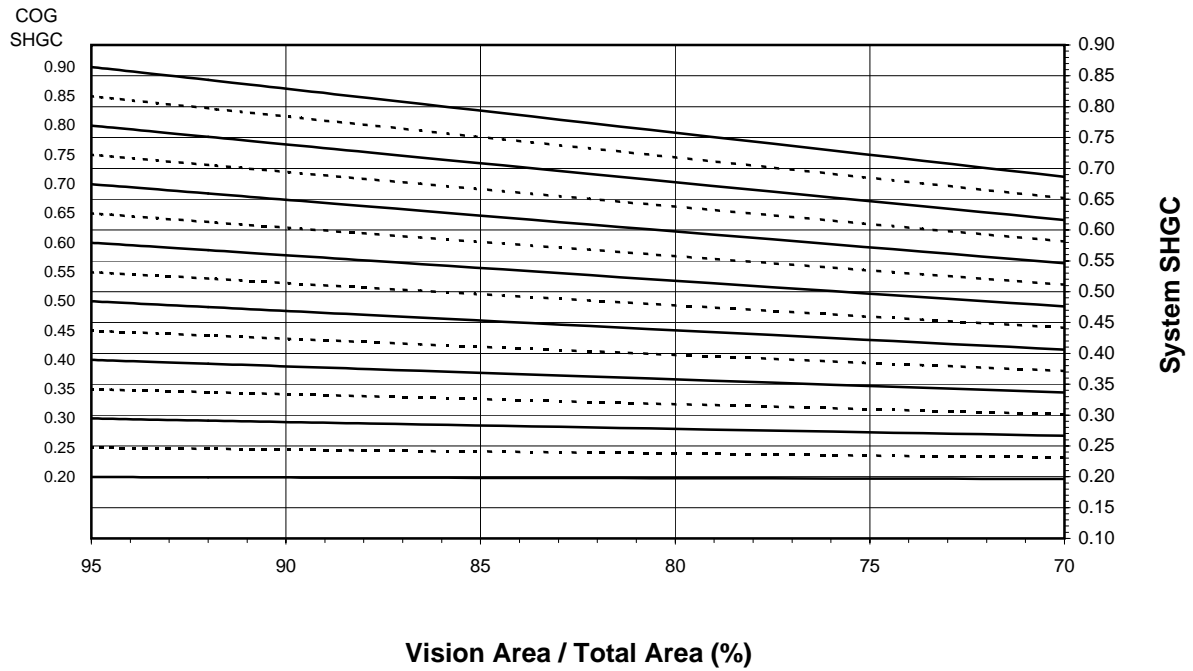
Tubelite, Inc.
200 Series Curtainwall (E1025) Glazed Wall System

System U-Factor vs. Percentage of Vision Area

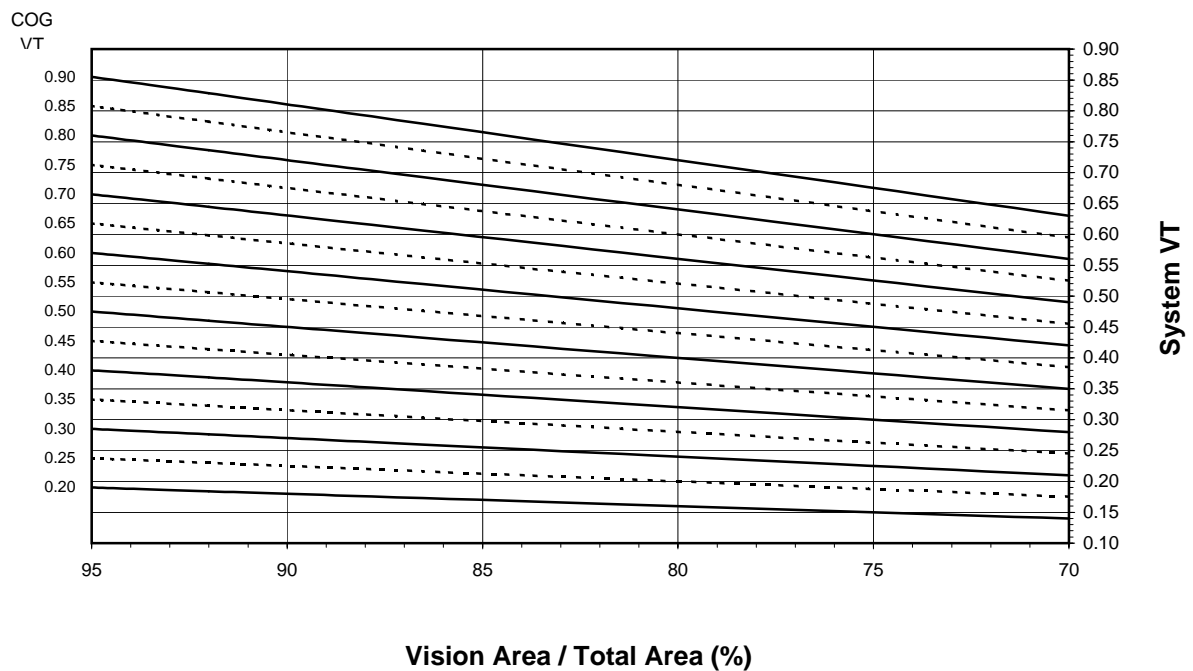


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200 Series Curtainwall (E1025) Glazed Wall System

System SHGC vs. Percentage of Vision Area



System VT vs. Percentage of Vision Area



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200 Series Curtainwall (E1025) Glazed Wall System

Size Specific U-Factor Matrix*

Glazing Option	Center of Glass U-Factor	Overall U-Factor
1	0.48	0.60
2	0.46	0.58
3	0.44	0.57
4	0.42	0.55
5	0.40	0.53
6	0.38	0.52
7	0.36	0.50
8	0.34	0.48
9	0.32	0.47
10	0.30	0.45
11	0.28	0.43
12	0.26	0.42
13	0.24	0.40
14	0.22	0.38
15	0.20	0.37

Size Specific SHGC Matrix*

Center of Glass SHGC	Overall SHGC
0.90	0.84
0.85	0.80
0.80	0.75
0.75	0.71
0.70	0.66
0.65	0.61
0.60	0.57
0.55	0.52
0.50	0.48
0.45	0.43
0.40	0.38
0.35	0.34
0.30	0.29
0.25	0.25
0.20	0.20

Size Specific VT Matrix*

Center of Glass VT	Overall VT
0.90	0.83
0.85	0.78
0.80	0.74
0.75	0.69
0.70	0.64
0.65	0.60
0.60	0.55
0.55	0.51
0.50	0.46
0.45	0.41
0.40	0.37
0.35	0.32
0.30	0.28
0.25	0.23
0.20	0.18

*Size Specific U-Factor, SHGC, and VT Matrices are based on the standard Glazed Wall System specimen size of 2000mm wide by 2000mm high (78-3/4" by 78-3/4"). This represents 92% 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 100-2001	95% Vision Area
							19.73" by 19.73"	78.74" by 78.74"	126.18" by 126.18"
1	0.48	43.7	Head	1.0629	2.0642	0.4559	0.9760	0.6011	0.5453
			Vertical	2.1258	2.2268	0.4524			
			Sill	1.0629	2.0641	0.4560			
2	0.46	44.8	Head	1.0629	2.0625	0.4422	0.9647	0.5843	0.5281
			Vertical	2.1258	2.2254	0.4388			
			Sill	1.0629	2.0624	0.4423			
3	0.44	45.8	Head	1.0629	2.0609	0.4287	0.9535	0.5676	0.5109
			Vertical	2.1258	2.2242	0.4253			
			Sill	1.0629	2.0608	0.4288			
4	0.42	46.8	Head	1.0629	2.0594	0.4152	0.9424	0.5509	0.4940
			Vertical	2.1258	2.2231	0.4119			
			Sill	1.0629	2.0594	0.4154			
5	0.40	47.9	Head	1.0629	2.0581	0.4017	0.9313	0.5342	0.4768
			Vertical	2.1258	2.2220	0.3985			
			Sill	1.0629	2.0580	0.4018			
6	0.38	48.9	Head	1.0629	2.0569	0.3884	0.9204	0.5175	0.4596
			Vertical	2.1258	2.2211	0.3853			
			Sill	1.0629	2.0567	0.3885			
7	0.36	50.0	Head	1.0629	2.0557	0.3751	0.9095	0.5008	0.4423
			Vertical	2.1258	2.2204	0.3720			
			Sill	1.0629	2.0557	0.3753			
8	0.34	51.0	Head	1.0629	2.0547	0.3618	0.8986	0.4840	0.4250
			Vertical	2.1258	2.2197	0.3588			
			Sill	1.0629	2.0546	0.3620			
9	0.32	52.0	Head	1.0629	2.0538	0.3488	0.8880	0.4673	0.4077
			Vertical	2.1258	2.2191	0.3458			
			Sill	1.0629	2.0537	0.3489			
10	0.30	53.6	Head	1.0629	2.0529	0.3357	0.8773	0.4505	0.3904
			Vertical	2.1258	2.2186	0.3328			
			Sill	1.0629	2.0529	0.3358			
11	0.28	54.1	Head	1.0629	2.0522	0.3227	0.8667	0.4338	0.3729
			Vertical	2.1258	2.2182	0.3199			
			Sill	1.0629	2.0522	0.3228			
12	0.26	55.2	Head	1.0629	2.0515	0.3097	0.8562	0.4169	0.3554
			Vertical	2.1258	2.2179	0.3069			
			Sill	1.0629	2.0515	0.3098			
13	0.24	56.3	Head	1.0629	2.0510	0.2968	0.8445	0.3999	0.3378
			Vertical	2.1258	2.2121	0.2938			
			Sill	1.0629	2.0509	0.2969			
14	0.22	57.3	Head	1.0629	2.0442	0.2837	0.8334	0.3829	0.3202
			Vertical	2.1258	2.2120	0.2810			
			Sill	1.0629	2.0441	0.2837			
15	0.20	58.4	Head	1.0629	2.0438	0.2708	0.8230	0.3661	0.3027
			Vertical	2.1258	2.2119	0.2682			
			Sill	1.0629	2.0438	0.2709			

Detailed drawings, simulation data disks, and a copy of this report will be retained by ATI for a period of four years. The above results are the exclusive property of the client so named herein and are applicable to the sample simulated. This report does not constitute an opinion or endorsement by this laboratory. This report may not be reproduced except in full without the approval of ATI.

For ARCHITECTURAL TESTING, INC.:

SIMULATED BY:

REVIEWED BY:

Kevin S. Louder
Project Engineer

Michael J. Thoman
Director - Simulations and Thermal Testing
Simulator In Responsible Charge

KSL:ksl
73647.01-116-45

Attachments (pages):

Appendix A: Drawings and Bills of Material (1)

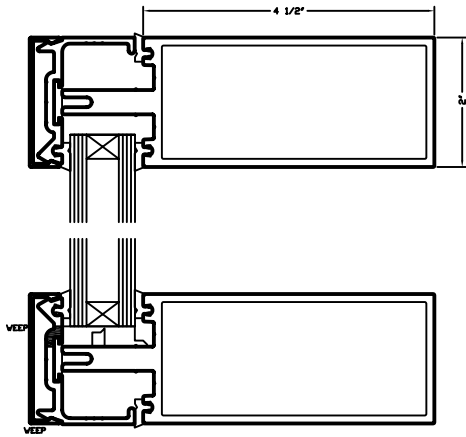
Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
.01 R0	5/23/2007	All	Original Report Issue

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

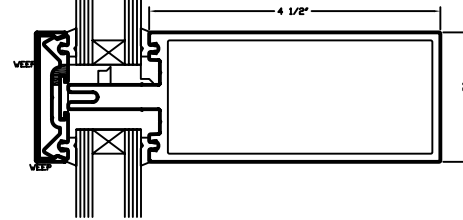
Appendix A

200 Series Curtainwall
Head/Sill Detail using E1025



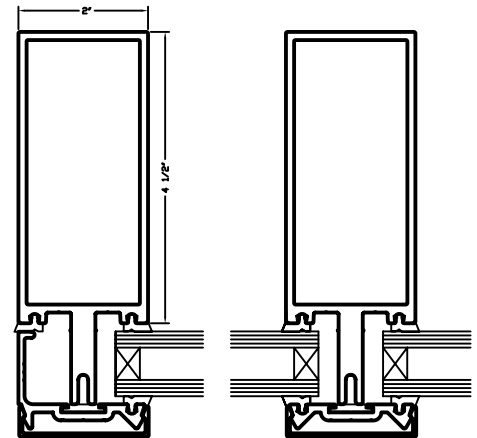
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200 Series Curtainwall
Intermediate Horizontal Detail using E1025



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200 Series Curtainwall
Jamb/Intermediate Vertical Detail using E1025



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ATI

Report # 73647

Date 5/23/07

Simulator *Ken Lamb*