

AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

US ALUMINUM INC., DIVISION OF CR LAURANCE CO., INC.

SERIES/MODEL: 400T Thermal Door

TYPE: Swinging Door - Single

Report No: C3011.05-201-45
Report Date: 11/01/12



AAMA 507-07 THERMAL PERFORMANCE REPORT

Rendered to:

US ALUMINUM INC., DIVISION OF CR LAURANCE CO., INC.
200 Singleton Drive
Waxahachie, Texas 75165

Report No: C3011.05-201-45
Report Date: 11/01/12
Simulation Date: 11/01/12

Project Summary:

Architectural Testing, Inc. was contracted by US Aluminum Inc., Division of CR Laurance Co., Inc. to provide U-Factor and Solar Heat Gain Coefficient thermal performance ratings on the 400T Thermal Door Swinging Door - 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*

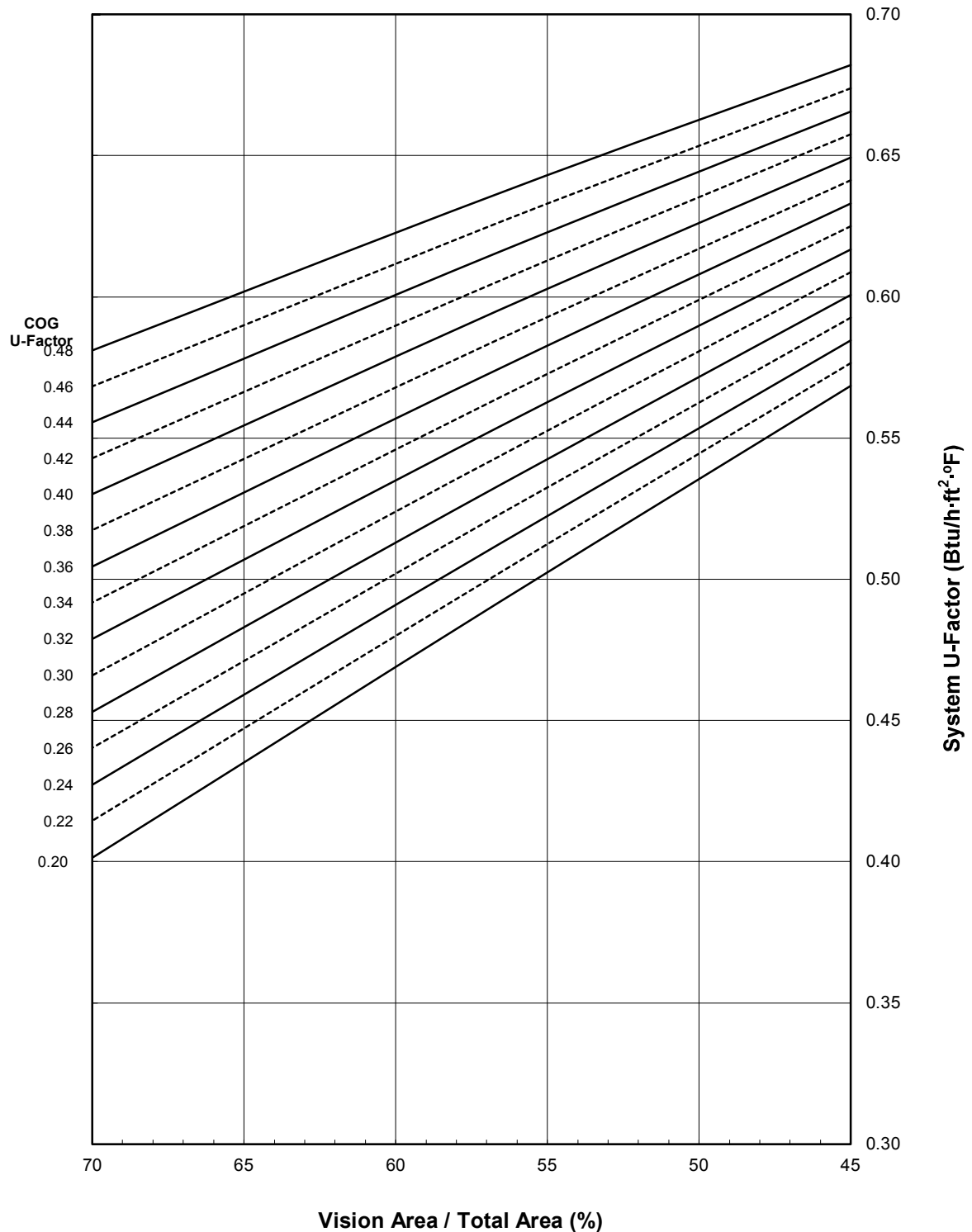
NFRC 200-2010, *Procedure for Determining Fenestration Product Solar Heat Gain Coefficient and Visible Transmittance at Normal Incidence*

Simulation Specimen Description:

Series/Model:	400T Thermal Door
Bottom Rail:	10"
Frame:	1" Thermally Broken Aluminum
Type:	Swinging Door - Single
Frame Material:	Aluminum Thermally Broken Framing System
Material Finish:	Painted Aluminum
Specimen Size:	960mm wide by 2090mm high (37-3/4" by 82-3/8")
Configuration:	Single vision lite

US Aluminum Inc., Division of CR Lurance Co., Inc.
400T Thermal Door - Swinging Door - Single

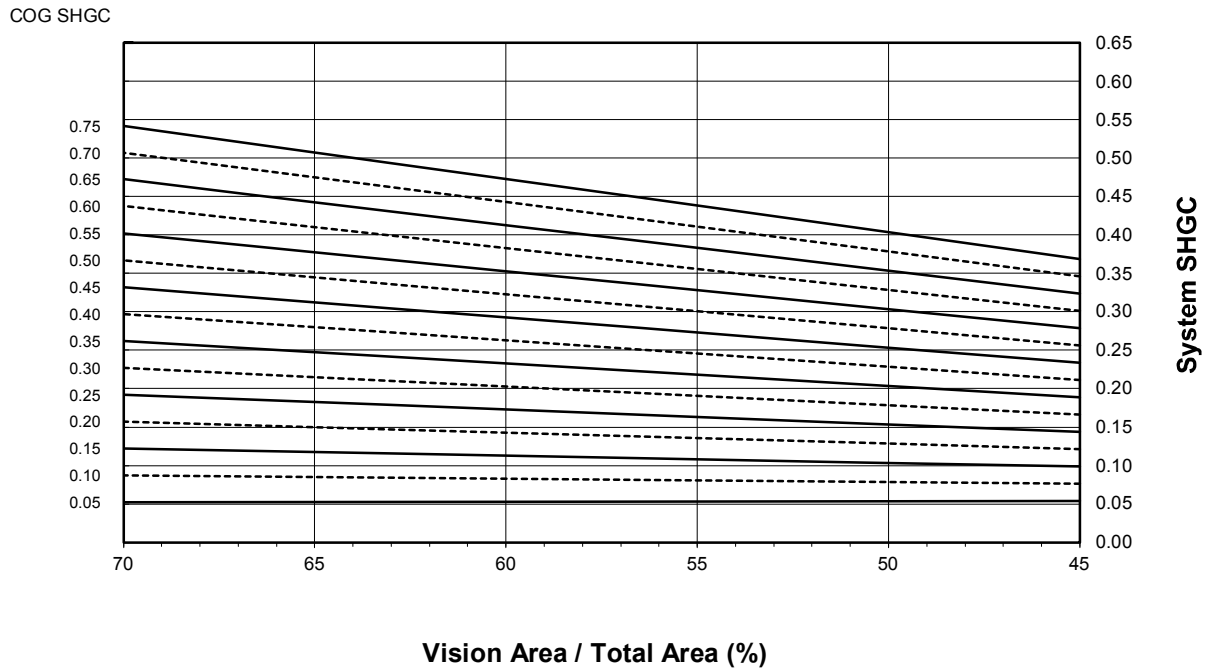
System U-Factor vs. Percentage of Vision Area



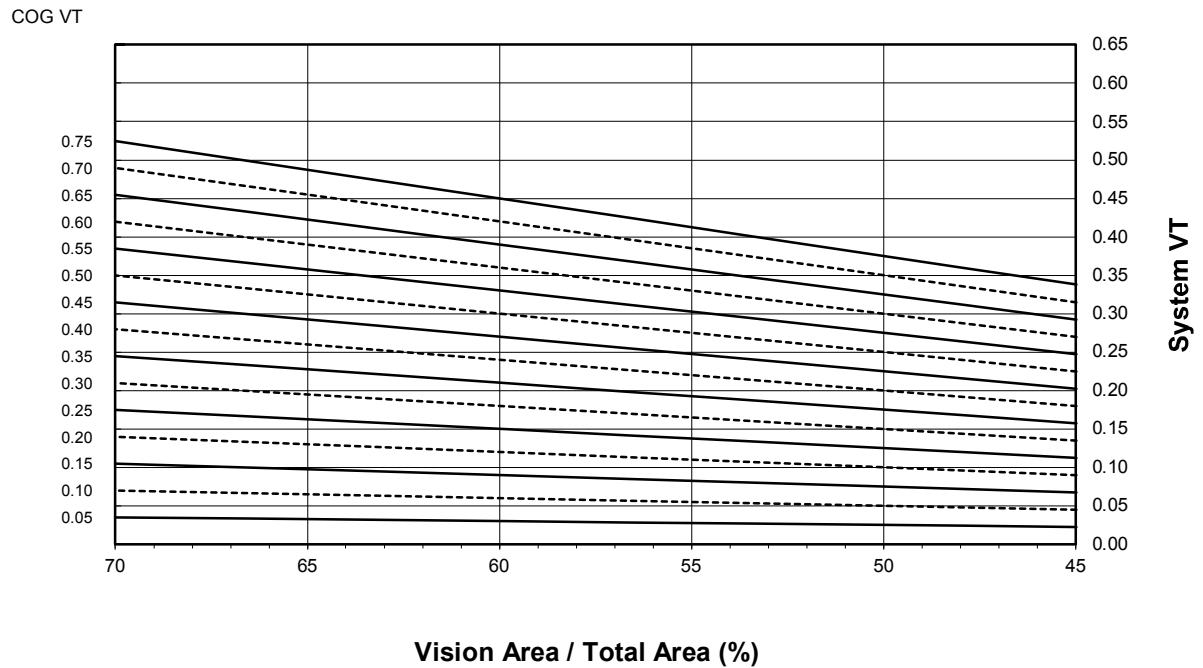
Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer

US Aluminum Inc., Division of CR Lurance Co., Inc.
400T Thermal Door - Swinging Door - Single

System SHGC vs. Percentage of Vision Area



System VT vs. Percentage of Vision Area



**US Aluminum Inc., Division of CR Laurance Co., Inc.
400T Thermal Door - Swinging Door - Single**

Size Specific U-Factor Matrix*

Glazing Option	Center of Glass U-Factor	Overall U-Factor
1	0.48	0.64
2	0.46	0.63
3	0.44	0.62
4	0.42	0.61
5	0.40	0.60
6	0.38	0.58
7	0.36	0.57
8	0.34	0.56
9	0.32	0.55
10	0.30	0.54
11	0.28	0.53
12	0.26	0.52
13	0.24	0.51
14	0.22	0.50
15	0.20	0.49

Note: 1 inch Overall - Dual Glazed Glass (0.48-0.20 COG) with Aluminum Spacer

Size Specific SHGC Matrix*

Center of Glass SHGC	Overall SHGC
0.75	0.45
0.70	0.42
0.65	0.39
0.60	0.36
0.55	0.34
0.50	0.31
0.45	0.28
0.40	0.25
0.35	0.22
0.30	0.19
0.25	0.17
0.20	0.14
0.15	0.11
0.10	0.08
0.05	0.05

Size Specific VT Matrix*

Center of Glass VT	Overall VT
0.75	0.42
0.70	0.40
0.65	0.37
0.60	0.34
0.55	0.31
0.50	0.28
0.45	0.25
0.40	0.23
0.35	0.20
0.30	0.17
0.25	0.14
0.20	0.11
0.15	0.08
0.10	0.06
0.05	0.03

*Size Specific U-Factor, SHGC, and VT Matrices are based on the standard Swinging Door - Single specimen size of 960mm wide by 2090mm high (37-3/4" by 82-3/8"). This represents 56.6% 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		
							45% Vision Area	NFRC 100-2010	70% Vision Area
							28.52" by 62.07"	37.80" by 82.28"	57.18" by 124.46"
1	0.48	43.7	Head	5.6161	0.8714	0.5416	0.6821	0.6366	0.5809
			L. Jamb	5.5224	0.8256	0.5416			
			R. Jamb	5.5224	0.8256	0.5416			
			Sill	10.8661	0.8406	0.5416			
2	0.46	44.8	Head	5.6161	0.8709	0.5269	0.6739	0.6262	0.5682
			L. Jamb	5.5224	0.8250	0.5269			
			R. Jamb	5.5224	0.8250	0.5269			
			Sill	10.8661	0.8403	0.5269			
3	0.44	45.8	Head	5.6161	0.8704	0.5126	0.6657	0.6159	0.5555
			L. Jamb	5.5224	0.8244	0.5126			
			R. Jamb	5.5224	0.8244	0.5126			
			Sill	10.8661	0.8399	0.5126			
4	0.42	46.8	Head	5.6161	0.8699	0.4984	0.6575	0.6055	0.5428
			L. Jamb	5.5224	0.8238	0.4984			
			R. Jamb	5.5224	0.8238	0.4984			
			Sill	10.8661	0.8395	0.4984			
5	0.40	47.9	Head	5.6161	0.8695	0.4843	0.6493	0.5952	0.5301
			L. Jamb	5.5224	0.8232	0.4843			
			R. Jamb	5.5224	0.8232	0.4843			
			Sill	10.8661	0.8392	0.4843			
6	0.38	48.9	Head	5.6161	0.8690	0.4704	0.6412	0.5849	0.5173
			L. Jamb	5.5224	0.8226	0.4704			
			R. Jamb	5.5224	0.8226	0.4704			
			Sill	10.8661	0.8389	0.4704			
7	0.36	50.0	Head	5.6161	0.8686	0.4564	0.6331	0.5745	0.5045
			L. Jamb	5.5224	0.8221	0.4564			
			R. Jamb	5.5224	0.8221	0.4564			
			Sill	10.8661	0.8385	0.4564			
8	0.34	51.0	Head	5.6161	0.8682	0.4426	0.6250	0.5642	0.4917
			L. Jamb	5.5224	0.8216	0.4426			
			R. Jamb	5.5224	0.8216	0.4426			
			Sill	10.8661	0.8382	0.4426			
9	0.32	52.0	Head	5.6161	0.8678	0.4288	0.6168	0.5538	0.4789
			L. Jamb	5.5224	0.8210	0.4288			
			R. Jamb	5.5224	0.8210	0.4288			
			Sill	10.8661	0.8379	0.4288			
10	0.30	53.1	Head	5.6161	0.8674	0.4152	0.6087	0.5435	0.4660
			L. Jamb	5.5224	0.8205	0.4152			
			R. Jamb	5.5224	0.8205	0.4152			
			Sill	10.8661	0.8376	0.4152			

Vision Area Data

Option No.	COG U-Factor	COG Temperature	Cross Section	Frame Height	Frame U-Factor	Edge U-Factor	Total Product U-Factor		
							45% Vision Area	NFRC 100-2010	70% Vision Area
							28.52" by 62.07"	37.80" by 82.28"	57.18" by 124.46"
11	0.28	54.2	Head	5.6161	0.8670	0.4014	0.6006	0.5331	0.4531
			L. Jamb	5.5224	0.8200	0.4014			
			R. Jamb	5.5224	0.8200	0.4014			
			Sill	10.8661	0.8373	0.4014			
12	0.26	55.2	Head	5.6161	0.8666	0.3879	0.5926	0.5228	0.4402
			L. Jamb	5.5224	0.8196	0.3879			
			R. Jamb	5.5224	0.8196	0.3879			
			Sill	10.8661	0.8370	0.3879			
13	0.24	56.3	Head	5.6161	0.8662	0.3743	0.5845	0.5124	0.4273
			L. Jamb	5.5224	0.8191	0.3743			
			R. Jamb	5.5224	0.8191	0.3743			
			Sill	10.8661	0.8367	0.3743			
14	0.22	57.3	Head	5.6161	0.8659	0.3610	0.5765	0.5021	0.4144
			L. Jamb	5.5224	0.8186	0.3610			
			R. Jamb	5.5224	0.8186	0.3610			
			Sill	10.8661	0.8364	0.3610			
15	0.20	58.4	Head	5.6161	0.8655	0.3475	0.5684	0.4918	0.4014
			L. Jamb	5.5224	0.8182	0.3475			
			R. Jamb	5.5224	0.8182	0.3475			
			Sill	10.8661	0.8361	0.3475			

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.:

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Simulation Technician

REVIEWED BY:



Digitally Signed by: Michael Resech

Michael P. Resech
Senior Project Manager

MDT: mdt

C3011.05-201-45

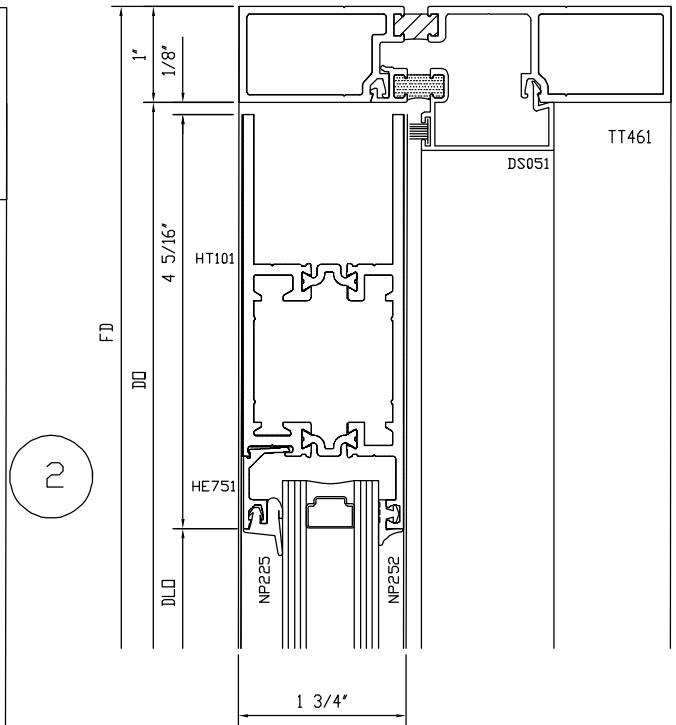
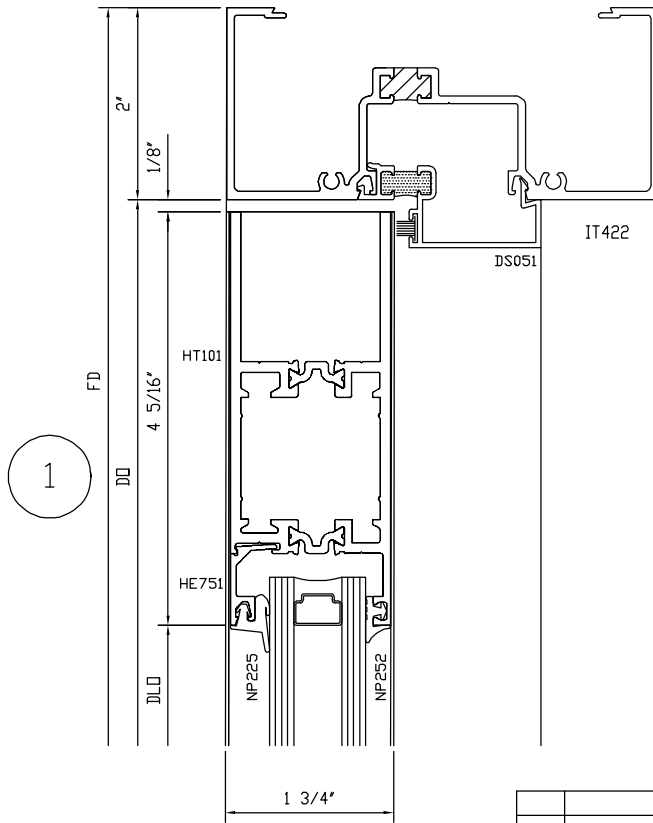
Attachments (pages): This report is complete only when all attachments listed are included.

Appendix A: Drawings and Bills of Material (14)

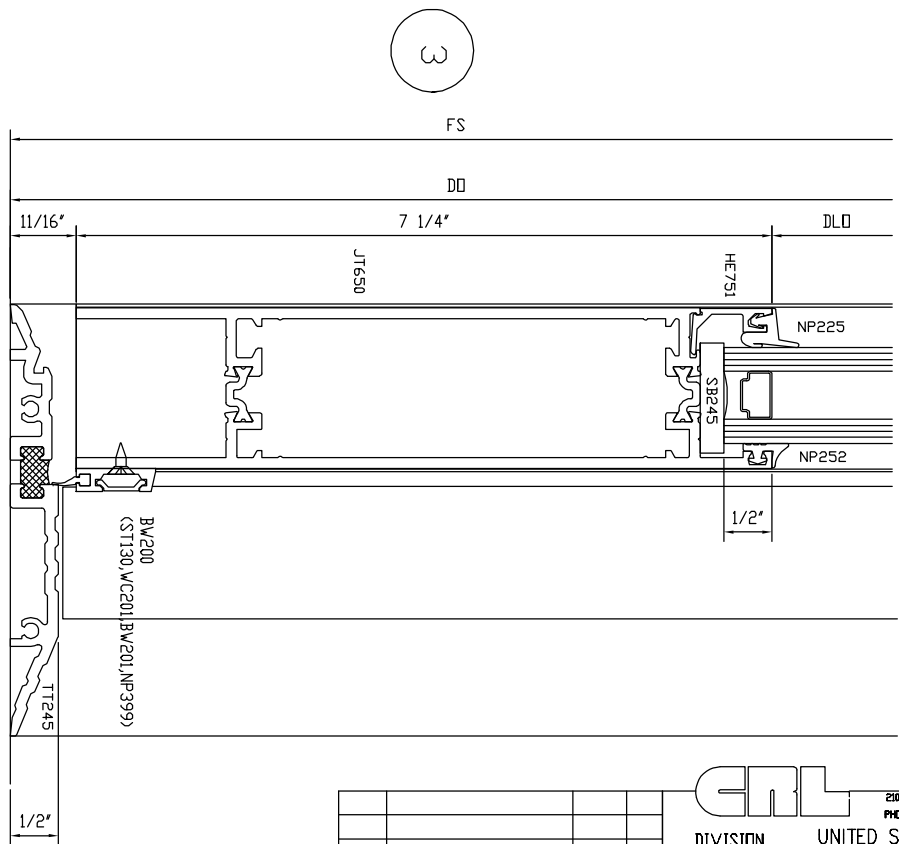
Revision Log

Rev. #	Date	Page(s)	Revision(s)
05-R0	11/1/2012	All	Original Report Issue

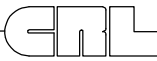
All drawings and Bills of Material used in simulating this product are enclosed in this Appendix.



							
				2100 E. 38TH STREET VERNON, CA 91068			
				PHONE: (323) 580-1281 FAX: (323) 232-2523			
				DIVISION UNITED STATES ALUMINUM			
REV	REV_DESCRIPTION	DATE	XXX	DATE	THERMAL_TEST_NFRC_AAMA_1503		DWG NO.
SYM	REVISION	DATE	BY	SCALE	SERIES: 400T THERMAL DOOR		MU2012-012-02
				DCW			
				08.31.12			
				FULL			



REV	REV_DESCRIPTION	DATE	XXX	DATE	08.31.12
SYM	REVISION	DATE	BY	SCALE	FULL



2100 E. 38TH STREET VERNON, CA 91058
PHONE: (323) 588-1281 FAX: (323) 232-2523

DIVISION UNITED STATES ALUMINUM

THERMAL_TEST_NFRC_AAMA_1503
SERIES: 400T THERMAL DOOR

DWG NO.
MU2012-012-03

TT461

NOTE:
USE FRAMING TYPICAL TO ELEVATION

1. 2' @ IT442
2. 1' @ TT461

DS051

BP188

DH009

JT500

 $1/2^n$

3/32"

1

4 1/4"

P252

 $1\frac{3}{4}''$

P225

NP2:

NP2:

JT502

 $4 \frac{1}{4}''$

D

FD

DS051

IT442

E

						2100 E. 36TH STREET PHOENIX, AZ 85018		VERNON, CA 90058 FAX: (323) 232-2523		
				DIVISION		UNITED STATES ALUMINUM				
				DCW		THERMAL_TEST_NFRC_AAMA_1503			DWG NO.	
REV	REV_DESCRIPTION			DATE	XXX	SERIES: 400T THERMAL DOOR			MU2012-012-05	
SYM	REVISION			DATE	BY					

THERMAL DOOR EXTRUSIONS

