



TEST REPORT

Report No.: F4987.01-301-44

Rendered to:

SUNOPTICS PRISMATIC SKYLIGHTS
AN ACUITY BRANDS COMPANY
Sacramento, California

PRODUCT TYPE: 800SD Double Hip Muller
SERIES/MODEL: Plastic Glazed Skylight with Integral Mullion

SPECIFICATION(S): AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights.*

CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

Title	Summary of Results
AAMA/WDMA/CSA 101/I.S.2/A440-11	SKP – PG45: Size tested 99 x 101 in – SKP
AAMA/WDMA/CSA 101/I.S.2/A440-08	Class CW – PG45: Size tested 2515 x 2565 mm (99 x 101) – Type SKP
AAMA/WDMA/CSA 101/I.S.2/A440-05	SKP – CW45 2515 x 2565 mm (99 x 101)
Negative Design Pressure	-2880 Pa (-60.15 psf)
Design Pressure	+2160 Pa (+45.11 psf)
Air Infiltration	0.9 L/s/m ² (0.18 cfm/ft ²)
Canadian Air Infiltration/Exfiltration	Level: Fixed
Water Penetration Resistance	Test Pressure 580 Pa (12.11 psf)

Test Completion Date: 03/18/16

Reference must be made to Report No. F4987.01-301-44, dated 03/28/16 for complete test specimen description and detailed test results.

1.0 Report Issued To: Sunoptics Prismatic Skylights
An Acuity Brands Company
6201 27th Street
Sacramento, California 95822

2.0 Test Laboratory: Architectural Testing, Inc., an Intertek company (Intertek-ATI)
2524 East Jensen Avenue
Fresno, California 93706
559.233.8705

3.0 Project Summary:

3.1 Product Type: Plastic Glazed Skylight with Integral Mullion

3.2 Series/Model: 800SD Double Hip Mullied

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test methods. The specimens tested successfully met the performance requirements for the following ratings:

Standard	Primary Designator
AAMA/WDMA/CSA 101/I.S.2/A440-11	SKP – PG45: Size tested 99 x 101 in – SKP
AAMA/WDMA/CSA 101/I.S.2/A440-08	Class CW – PG45: Size tested 2515 x 2565 mm (99 x 101) – Type SKP
AAMA/WDMA/CSA 101/I.S.2/A440-05	SKP – CW45 2515 x 2565 mm (99 x 101)

3.4 Test Dates: 03/18/2016

3.5 Test Record Retention End Date: All test records for this report will be retained until March 18, 2020.

3.6 Test Location: Intertek – ATI test facility in Fresno, California.

3.7 Test Specimen Source: The test specimen(s) were provided by the client. Representative samples of the test specimen(s) will be retained by Intertek – ATI for a minimum of four years from the test completion date.

3.8 Drawing Reference: Test specimen construction was verified by Intertek – ATI per the drawings located in Appendix C. The test specimen drawings have been reviewed by Intertek – ATI and are representative of the test specimen(s) reported herein. Any deviations are documented herein or on the drawings.

3.0 Project Summary: (Continued)

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Dennis Janzen	Intertek-ATI
Tyler Westerling, P.E.	Intertek-ATI

4.0 Test Specifications:

AAMA/WDMA/CSA 101/I.S.2/A440-11, *NAFS 2011 - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-08, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

AAMA/WDMA/CSA 101/I.S.2/A440-05, *Standard/Specification for Windows, Doors, and Unit Skylights.*

CSA A440S1-09, Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440, *NAFS - North American Fenestration Standard/Specification for Windows, Doors, and Skylights*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 6.5m ² (69.4 ft ²)	Width		Height	
	millimeters	inches	millimeters	inches
Overall Size	2521	99-1/4	2562	100-7/8

5.0 Test Specimen Description: (Continued)

5.2 Frame Construction:

Frame Member	Material	Description
Frame & Retainer	Aluminum	Extruded aluminum
Thermal Break	PVC	Extruded PVC with foam insert
Mullion	Aluminum	With snap in mullion cover sealed

	Joinery Type	Detail
Frame	Mitered	Fully welded
Glazing Retainer	Mitered	Fastened to the frame using one #8 x 1/2" hex washer head self-drilling screw at each end
Thermal Break	Butted	Snap fitted to frame; sealed at each corner with sealant
Mullion	Coped	Held in place during assembly with two #10 by 1-1/2" sheet metal screws and sealed with silicone. Once assembled the corner screws are removed and holes sealed

5.3 Weatherstripping:

Description	Quantity	Location
Leaf Gasket	1 row	Inner perimeter of frame

5.0 Test Specimen Description: (Continued)

5.4 Glazing: *No conclusions of any kind regarding the adequacy or inadequacy of the glass in any glazed test specimen(s) can be made.*

Glass Type	Glazing	Glazing Method
Interior Dome	0.120" thick acrylic, white prismatic (preformed thickness)	Interior dome set onto bead of adhesive sealant against frame.
Exterior Dome	0.230" thick acrylic, clear prismatic (preformed thickness)	Exterior dome set onto bead of adhesive sealant against interior dome; aluminum retainer set onto a bead of sealant against exterior dome and snap fitted into place. Mullion cap between domes silicone and secured with #10 x 1-1/4" flat head self-drilling screws approximately 12" on center.

Location	Quantity	Daylight Opening		Glass Bite
		millimeters	inches	
Frame	2	1181 x 2460	46-1/2 x 96-7/8	5/8

5.5 Drainage:

Drainage Method	Size	Quantity	Location
Weep hole	1/4"	4	Through two legs of frame under glazing bead at the mullion intersection

5.6 Hardware: No hardware was utilized.

5.7 Reinforcement: No reinforcement was utilized.

6.0 Installation:

The specimen was installed into a Fir wood buck. The rough opening allowed for a 1/2" shim space. The exterior perimeter of the skylight was sealed with an adhesive backed foam tape applied to the frame.

Location	Anchor Description	Anchor Location
Frame	#12 x 1-1/2" hex washer head with rubber coated stainless steel washer	8" from each corner and 12" on center, through pre-punched holes in frame into side of curb

7.0 Test Results: The temperature during testing was 21°C (70°F). The results are tabulated as follows:

Title of Test	Results	Allowed	Note
Air Leakage, Infiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.90 L/s/m ² (0.18 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Air Leakage, Exfiltration per ASTM E 283 at 75 Pa (1.57 psf)	0.8 L/s/m ² (0.15 cfm/ft ²)	1.5 L/s/m ² (0.3 cfm/ft ²) max.	1
Canadian Air Infiltration/Exfiltration Level	Fixed	N/A	
Water Penetration, per ASTM E 547 and ASTM E 331 at 580 Pa (12.11 psf)	Pass	No leakage	1
Uniform Load Deflection, per ASTM E 330 <u>Mullion</u> +2160 Pa (+45.11 psf) -2880 Pa (-60.15 psf)	<u>Deflections</u> 2.3 mm (0.11") 7.1 mm (0.28")	9.7 mm (0.38") max. 9.7 mm (0.38") max.	2, 3
Uniform Load Structural, per ASTM E 330 <u>Mullion</u> +4320 Pa (+90.23 psf) -5760 Pa (-120.3 psf)	<u>Permanent sets</u> 0.8 mm (0.03") 1.8 mm (0.07")	1.2 mm (0.05") max. 1.2 mm (0.05") max.	2, 3

7.0 Test Results: (Continued)

Note 1: The tested specimen meets (or exceeds) the performance levels specified in AAMA/WDMA/CSA 101/I.S.2/A440 for air leakage resistance.

Note 2: Loads were held for 60 seconds.

Note 3: Tape and film were used to seal against air leakage during structural testing. In our opinion, the tape and film did not influence the results of the test.

Intertek-ATI will service this report for the entire test record retention period. Test records such as detailed drawings, datasheets, representative samples of test specimens, or other pertinent project documentation, will be retained by Intertek-ATI for the entire test record retention period.

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 so named herein and relates only to the specimen(s) tested. This report may not be reproduced, except in full, without the written approval of Intertek-ATI

For Intertek-ATI

Dennis Janzen
Technician

Tyler Westerling, P.E.
Senior Project Engineer

DD:ss

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

Appendix-A: Alteration Addendum (1)

Appendix-B: Drawings (6)

This report produced from controlled document template ATI 00438, revised 06/27/14.

Revision Log

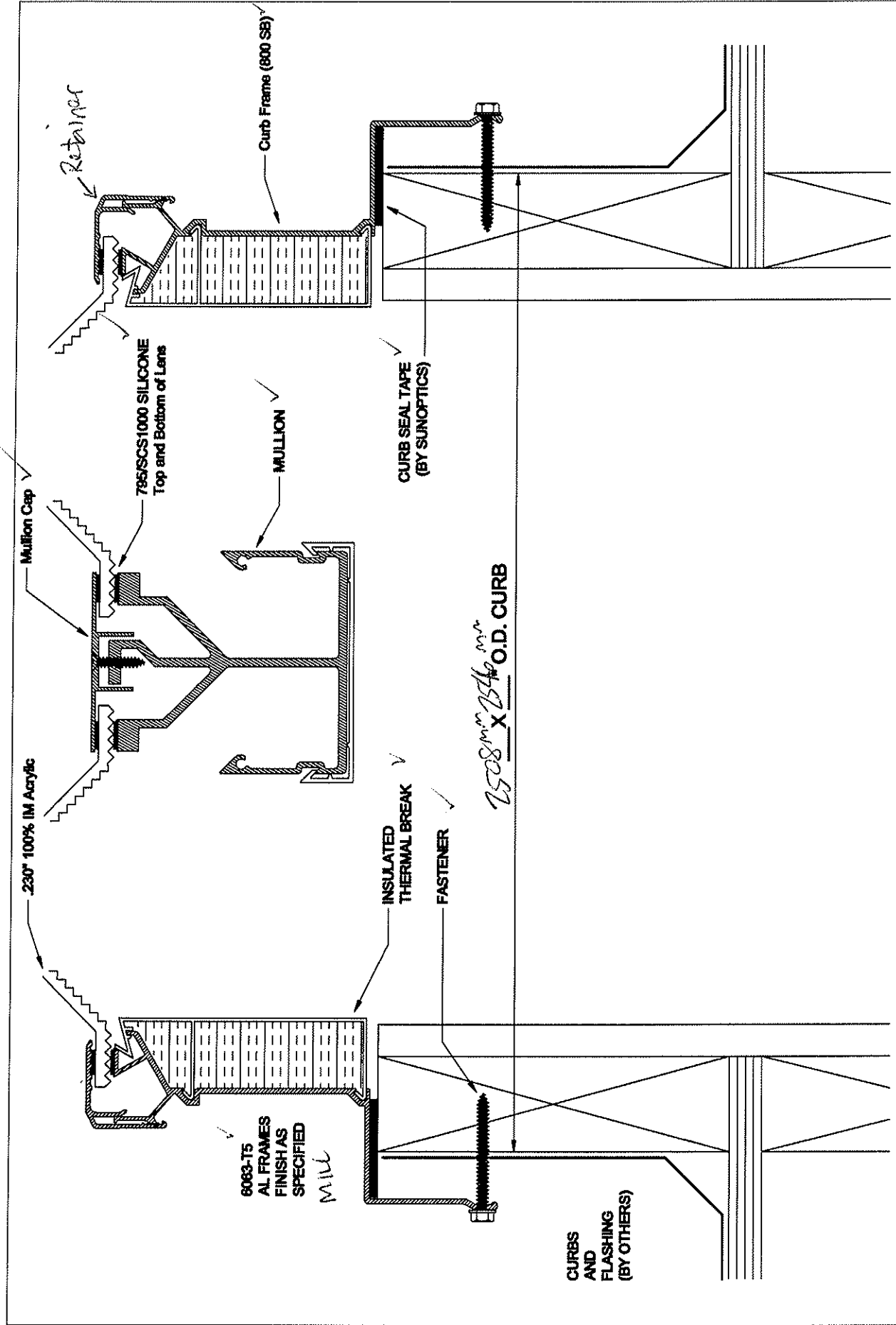
<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	03/21/16	N/A	Original Report Issue.
1	03/28/16	Cover, 2 and 4	Corrected dome dimensions.

Appendix A
Alteration Addendum

Note: No alterations were required.

Appendix B

Drawings



1508mm x 1546mm O.D. CURB


 Report #: F4987-301-44
 Date: 03/21/16
 Verified by: *[Signature]*

Drawing title	Date	Sheet
	Scale	1
800SB MULT-LITE		1/2" = 1"
SG. DHP. DETAILS		

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 Date: 03/21/16
 Verified by: *[Signature]*



sapa:
 7933 NE 21st Ave
 Portland, OR 97211-0263
 (800) 547-0790

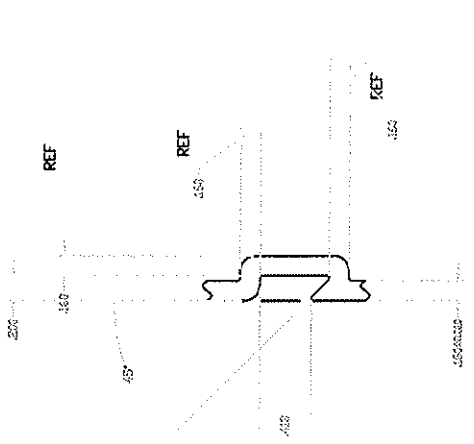
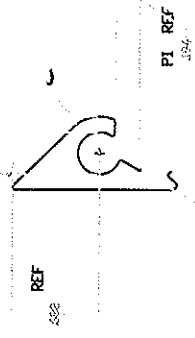
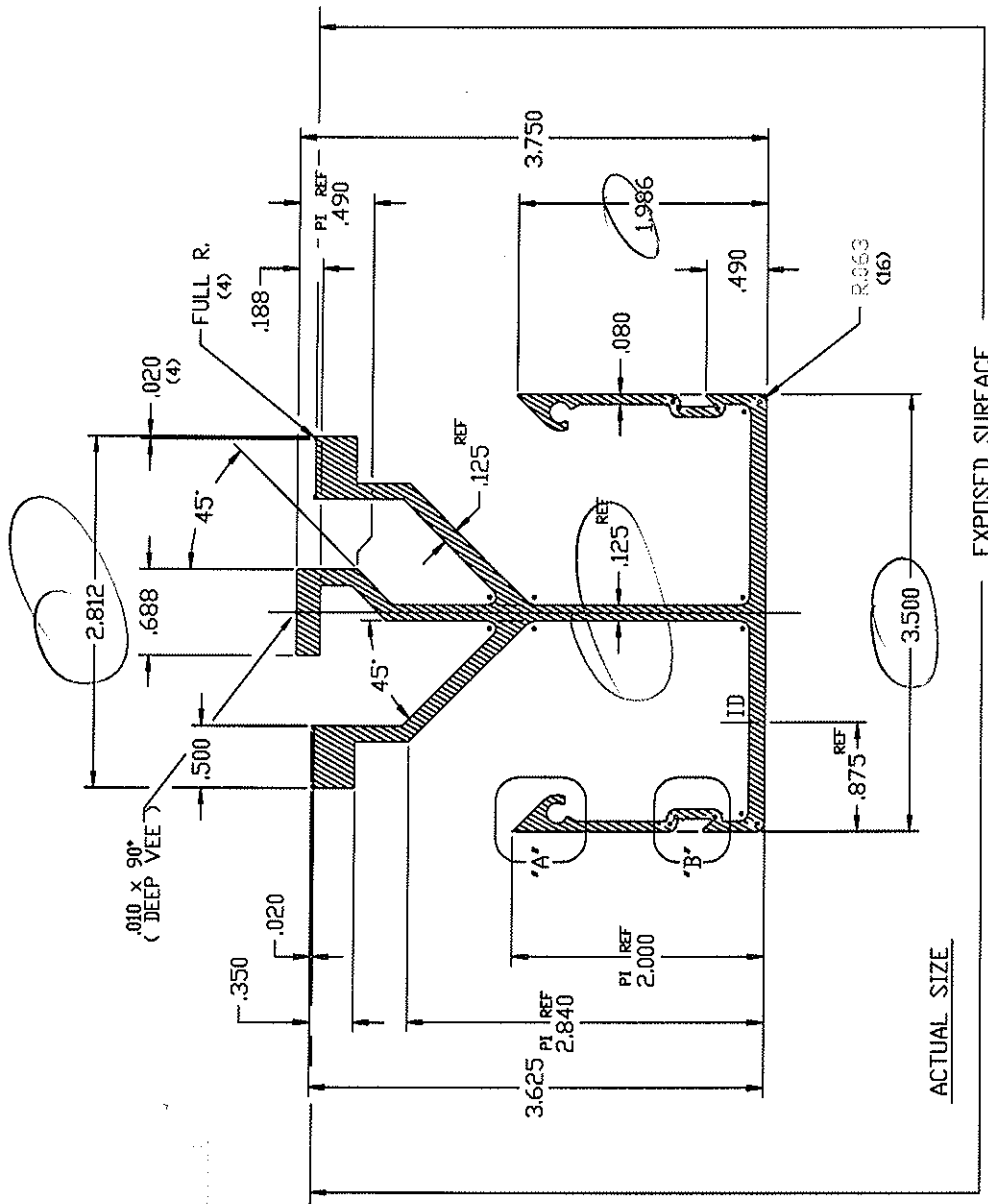
SUNOPTICS SKYLIGHTS
 CUSTOMER NAME: B
 PART NAME: STRUCTURAL GLAZING MULLION
 PART NO: 4-079C DATE: 5-23-97

DIE NUMBER: 18525
 DRAWING NUMBER: B-24203


* DENOTES CRITICAL DIMENSION OR TOLERANCE
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 ID = Sapa Profiles, Inc. I.D. MARK: .015 R x .015 DEEP UNLESS OTHERWISE SPECIFIED. TYP WALL THICKNESS: .010

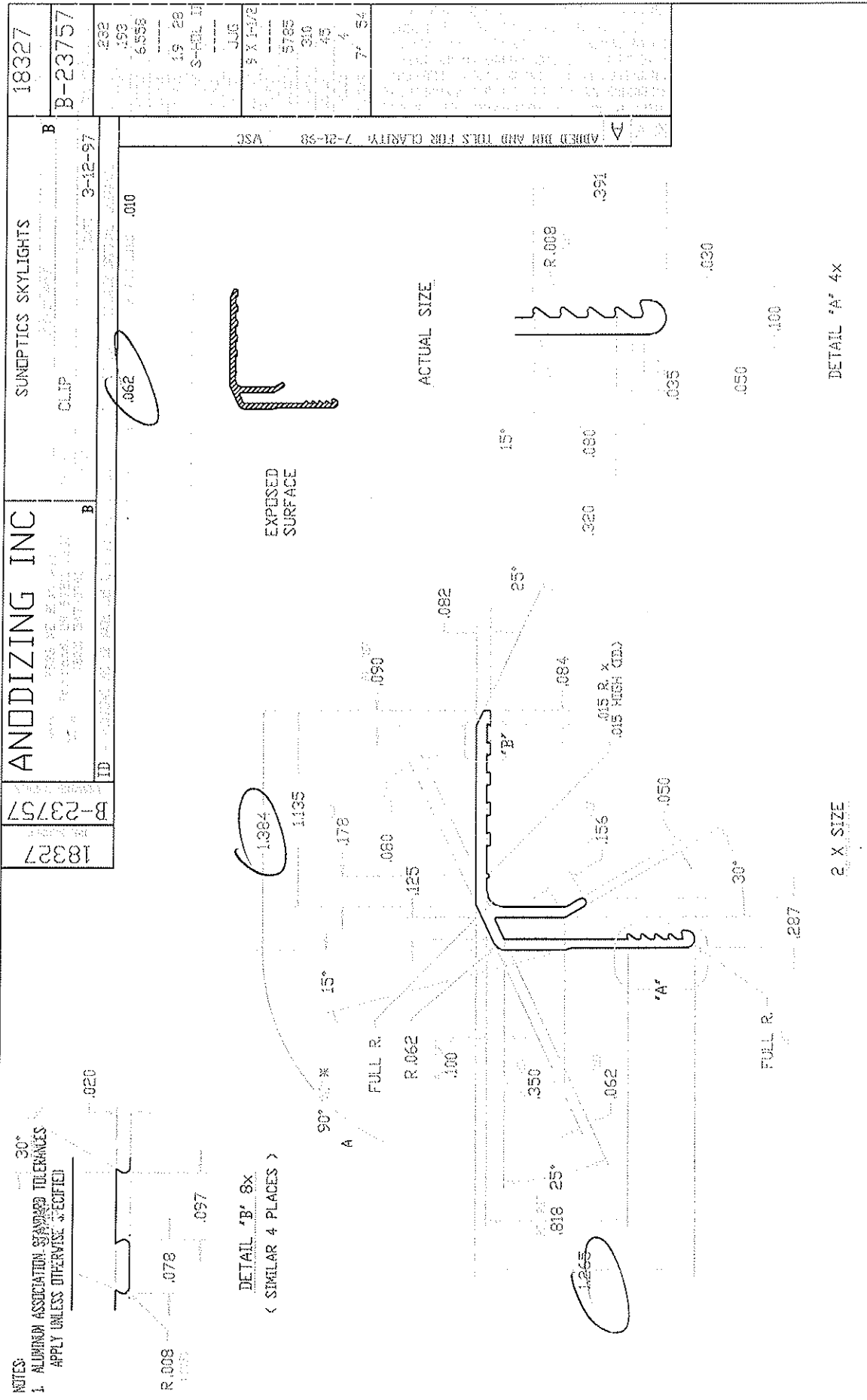
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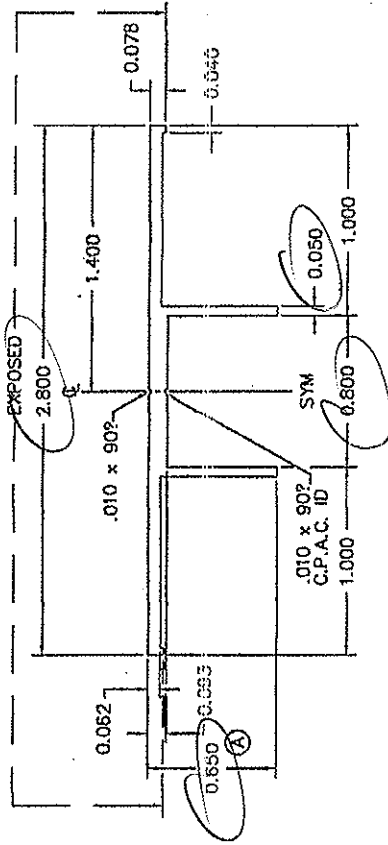
REV -


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 Date: 03/21/16
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File #603



Mullion Cap

