



TEST REPORT

Report No.: G2787.01-109-44

Rendered to:

VELUX America LLC
Greenwood, South Carolina

PRODUCT TYPE: Skylight with Curb

SERIES/MODEL: "Specials Dome Skylight Acrylic (5' x 8')(0.150/0.118 thickness) with CCAM

SPECIFICATION(S): Occupational Safety and Health Administration/U.S. Department of Labor Regulations (Standards- 29 CFR) - 1910.23(e) (8)

California Code of Regulations, Title 8, Section 3212

Test Date(s): 10/18/16

Report Date: 11/04/16

Test Record Retention End Date: 10/18/20

1.0 Report Issued To: VELUX America LLC
1418 Evans Pond Road
P.O. Box 5001
Greenwood, South Carolina 29648-5001

2.0 Test Laboratory: Architectural Testing, Inc., an Intertek company ("Intertek-ATI")
130 Derry Court
York, Pennsylvania 17406-8405
717-764-7700

3.0 Project Summary:

3.1 Product Type: Skylight with Curb

3.2 Series/Model: "Specials Dome Skylight Acrylic (5' x 8')(0.150/0.118 thickness) with CCAM.

3.3 Compliance Statement: Results obtained are tested values and were secured by using the designated test method(s).

3.4 Test Date(s): 10/18/16

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

3.6 Test Location: Intertek-ATI test facility in York, Pennsylvania.

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

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

3.9 List of Official Observers:

<u>Name</u>	<u>Company</u>
Timothy J. McGill	Intertek-ATI
Richard E. Hartman III	Intertek-ATI

4.0 Test Specification(s):

Occupational Safety and Health Administration/U.S. Department of Labor Regulations (Standards- 29 CFR) - 1910.23(e) (8)

California Code of Regulations, Title 8, Section 3212

A 400 lb. weight, fabricated from a bag filled with lead shot, was placed on the center of the dome for a minimum of 60 seconds. The bag was removed and the test unit was inspected for any signs of damage or failure.

Additional Loading:

The specimen was taken to failure using sandbags placed on the center of the dome for a minimum of 60 seconds. The highest load causing penetration or damage was recorded.

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 46.8 ft ²	Width (inches)	Length (inches)
Overall size	66	102

Curb Dimensions	Width (inches)	Length (inches)	Height (inches)
CCAM	63-1/4	99-1/4	9

5.0 Test Specimen Description: (Continued)

5.2 Frame Construction:

Frame Member	Material	Description
Inner frame	Aluminum	Extruded
Dome clamp cover	Aluminum	Extruded
CCAM	Aluminum	Formed aluminum sheet metal

	Joinery Type	Detail
Skylight corners	Mitered	Miter cut and welded
CCAM corners	Coped	Aluminum was wrapped around the interior of the insulation and overlapped itself with one continuous sheet. Aluminum was wrapped around the exterior of the insulation with one continuous sheet, butted, and welded at one corner. The aluminum at the top of the curb was secured by staples located 2-1/2" from the corners and 15" on center and the bottom of the curb was secured by the interior and exterior sheet being crimped together located 2-1/2" from the corners and 10" on center.

5.3 Reinforcement: No reinforcement was utilized

5.4 Weatherstripping:

Description	Quantity	Location
Custom-shaped gasket	1 row	Located around the interior perimeter of the inner frame
Gasket wick	4	One wick was located at each corner inside the custom gasket.

5.0 Test Specimen Description: (Continued)

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

Glazing Type	Interior Glaze	Spacer Type	Exterior Glaze	Glazing Method
3/8" Spacing	1/8" acrylic smooth	Foam spacer	5/32" acrylic smooth	The glazing was set from the exterior onto a custom-shaped gasket against the extruded aluminum frame. The glazing was secured using an aluminum extruded dome clamp cover with a bead of sealant on the glazing. The dome clamp cover was secured using spring clips and #10 x 5/8" self-tapping screws located 2" from corners and one at the midspan of the length sides.

Location	Quantity	Daylight Opening (inches)	Glass Bite
Dome	1	60 x 96	1"

6.0 Installation:

The specimen was installed into an aluminum CCAM curb. The rough opening allowed for a 1/2" shim space.

Location	Anchor Description	Anchor Location
Aluminum frame	#8x 1-1/2" pan head screw	8" from corners, 12" on center

7.0 Test Results: The results are tabulated as follows:

7.1 California (and OSHA) minimum loading:

Test Load	Load Location	Results
400 lb.	Center of dome	No visible damage

Note: The 400 lb. weight was gently applied perpendicular to the center of the dome. After 60 seconds of rest time, there was no visible damage to the glazing.

7.2 Additional loading (applied on the same unit in the listed order):

Test Load	Load Location	Results
500 lb. at rest	Center of dome	No visible damage
600 lb. at rest	Center of dome	No visible damage
700 lb. at rest	Center of dome	No visible damage
800 lb. at rest	Center of dome	No visible damage
900 lb. at rest	Center of dome	See Note #1

Note #1: *At 900 lbs., the glazing shattered causing an opening larger than one square foot.*

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 ARCHITECTURAL TESTING, Inc.

Richard E. Hartman III
Technician

Timothy J. McGill
Manager – Product Testing

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

Appendix-A: Photograph(s) (1)

Appendix-B: Drawing(s) (0) Complete drawings packet on file with Intertek-ATI.

Appendix A
Photograph(s)

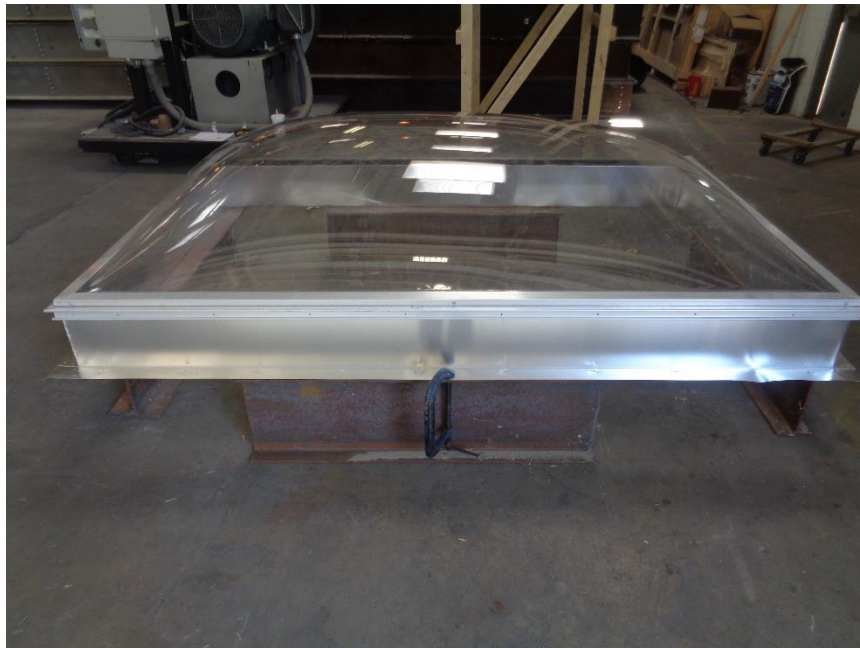


Photo No. 1
View of Tested Specimen

Appendix B

Drawing(s)

Note: Complete drawings packet on file with Intertek-ATI.