Intertek | Architectural Testing

TEST REPORT

Report No.: F8965.01-109-44

Rendered to:

VELUX America LLC
Greenwood, South Carolina

PRODUCT TYPE: Skylight
SERIES/MODEL: Dynamic Double Dome Skylight 100% IMA Smooth/50% IMA Smooth (6' x 6') (0.150/0.118 thickness)

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):	07/28/16
Report Date:	08/17/16
Test Record Retention End Date:	07/28/20

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

3.2 Series/Model: Dynamic Double Dome Skylight 100% IMA Smooth/50% IMA Smooth (6' x 6') (0.150/0.118 thickness) (IMA = Impact-Modified Acrylic)

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

3.4 Test Date(s): 07/28/16

3.5 Test Record Retention End Date: All test records for this report will be retained until July 28, 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 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:

Name	Company
Timothy J. McGill	Intertek-ATI
Richard E. Hartman III	Intertek-ATI

4.0 Test Method (intended to address listed 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 glazing 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 and placed on the center of the glazing for a minimum of 60 seconds. The highest load causing penetration or damage resulting in a one square foot opening was recorded.

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 42.0 ft^2	**Width (inches)**	**Height (inches)**
Overall size	77-3/4	77-3/4

5.2 Frame Construction:

Frame Member	**Material**	**Description**
Inner frame	Aluminum	Extruded
Dome clamp cover	Aluminum	Extruded

	Joinery Type	**Detail**
All corners	Mitered	Miter cut and welded

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

5.0 Test Specimen Description: (Continued)

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

Glazing Type	Interior Glaze	Spacer Type	Exterior Glaze	Glazing Method
1/2" wide gap	5/32" smooth IMA	Double sided adhesive foam spacer	1/8" smooth IMA	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 #10 x 5/8" screws located 2" from the corners on two sides and one screw at each midspan.

Location	Quantity	Daylight Opening (inches)	Glazing Bite (inches)
Dome	1	71-3/4 x 71-3/4	7/8

6.0 Test Results: The results are tabulated as follows:

6.1 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 each dome. After 60 seconds of rest time, there was no visible damage to the skylight.*

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

Test Load	Load Location	Results
509 lb. at rest	Center of dome	No visible damage
616 lb. at rest	Center of dome	No visible damage
723 lb. at rest	Center of dome	No visible damage
837 lb. at rest	Center of dome	No visible damage
949 lb. at rest	Center of dome	No visible damage
1057 lb. at rest	Center of dome	See Note #1

***General note:** A platform weighing 15 lbs. was utilized for the load to be applied to one square foot of the specimen.*

***Note #1**: At 1057 lbs., the load created on 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.

Digitally Signed by: Richard Hartman III

Richard E. Hartman III
Technician

Digitally Signed by: Timothy J. McGill

Timothy J. McGill
Manager – Product Testing

REH:asm

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)

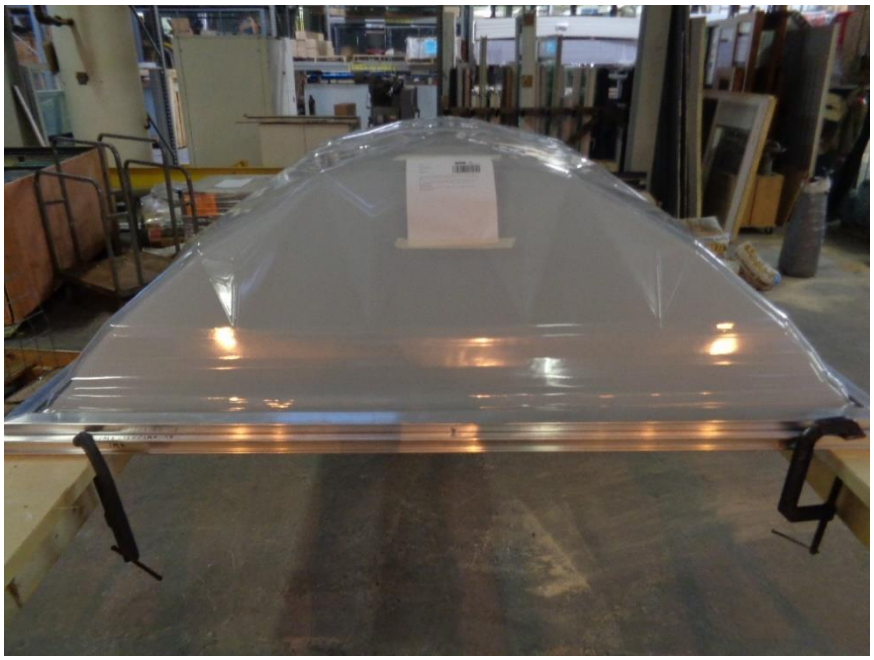

Photo No. 1
View of Tested Specimen

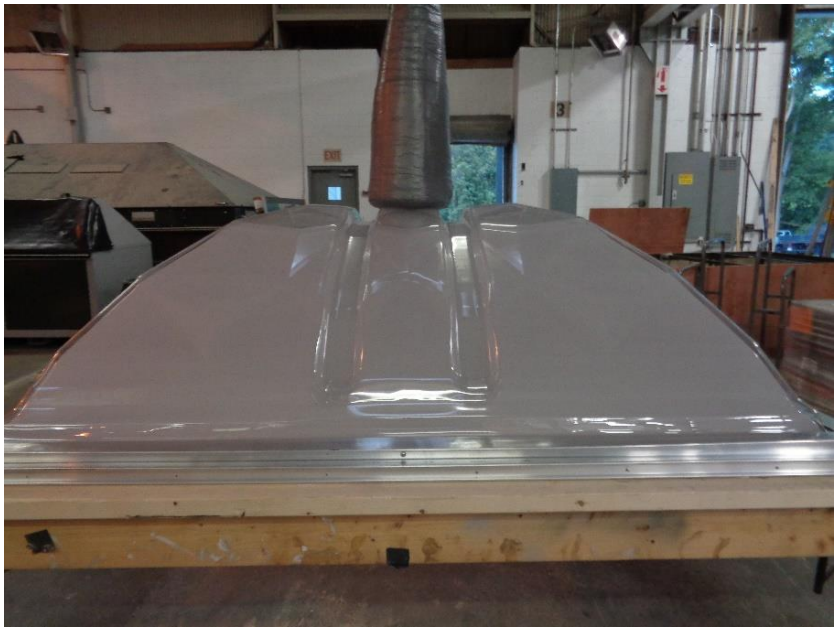

Photo No. 2
Test Specimen During 400 lb. Load

Appendix B

Drawing(s)

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