TEST REPORT

Report No.: G2785.01-109-44

Rendered to:

VELUX America LLC
Greenwood, South Carolina

PRODUCT TYPE: Fixed Curb Mount Skylight
SERIES/MODEL: "Specials" Single Dome Skylight 100% IMA Smooth (5' x 8') (0.150 thickness)
[IMA=Impact-Modified Acrylic]

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):	09/20/16
Report Date:	10/03/16
Test Record Retention Date:	09/20/20

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: Fixed Curb Mount Skylight

3.2 Series/Model: "Specials" Single Dome Skylight 100% IMA Smooth (5' x 8') (0.150 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): 09/20/16

3.5 Test Record Retention End Date: All test records for this report will be retained until September 20, 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:

Name	Company
Timothy J. McGill	Intertek-ATI
Joel Chronister	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 a load of 3,447 lbs without signs of failure using sandbags placed on the center of the glazing for a minimum of 60 seconds. All loadings were recorded.

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 47.4 ft^2	**Width (inches)**	**Length (inches)**
Overall size	65	105-1/16

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
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 glass in any glazed test specimen(s) can be made.*

Glazing Type	Glazing Method
0.150" 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 and midspan on the 105-1/16" length side.

Location	Quantity	Daylight Opening (inches)	Glazing Bite (inches)
Dome	1	60-5/8 x 96-5/8	7/8

6.0 Installation: The specimen was installed into a Spruce-Pine-Fir wood buck.

Location	Anchor Description	Anchor Location
Aluminum frame	#10 x 1-1/2" pan head screw	9" from corners and 12" on center, along the width side. 10" and 19" from the corners and 12" on center, along the length side

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 applied perpendicular to the center of each dome. After 60 seconds of rest time, there was no visible damage to the exterior glazing. The interior glazing was cracked.*

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

Test Load	Load Location	Results
503 lb. at rest	Center of dome	No visible damage
604 lb. at rest	Center of dome	No visible damage
706 lb. at rest	Center of dome	No visible damage
807 lb. at rest	Center of dome	No visible damage
910 lb. at rest	Center of dome	No visible damage
1012 lb. at rest	Center of dome	No visible damage
1114 lb. at rest	Center of dome	No visible damage
1216 lb. at rest	Center of dome	No visible damage
1318 lb. at rest	Center of dome	No visible damage
1420 lb. at rest	Center of dome	No visible damage
1521 lb. at rest	Center of dome	No visible damage
1623 lb. at rest	Center of dome	No visible damage
1724 lb. at rest	Center of dome	No visible damage
1826 lb. at rest	Center of dome	No visible damage
1928 lb. at rest	Center of dome	No visible damage
2028 lb. at rest	Center of dome	No visible damage
2130 lb. at rest	Center of dome	No visible damage
2230 lb. at rest	Center of dome	No visible damage
2332 lb. at rest	Center of dome	No visible damage
2433 lb. at rest	Center of dome	No visible damage
2535 lb. at rest	Center of dome	No visible damage

7.0 Test Results: (Continued)

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

Test Load	Load Location	Results
2635 lb. at rest	Center of dome	No visible damage
2736 lb. at rest	Center of dome	No visible damage
2838 lb. at rest	Center of dome	No visible damage
2938 lb. at rest	Center of dome	No visible damage
3040 lb. at rest	Center of dome	No visible damage
3141 lb. at rest	Center of dome	No visible damage
3244 lb. at rest	Center of dome	No visible damage
3345 lb. at rest	Center of dome	No visible damage
3447 lb. at rest	Center of dome	No visible damage, Note #1

***Note #1**: After 3447 lbs., test was stopped.*

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: Joel Chronister

Joel Chronister
Technician

Digitally Signed by: Timothy J. McGill

Timothy J. McGill
Manager – Product Testing

JC:asm/cmd

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 Test Specimen

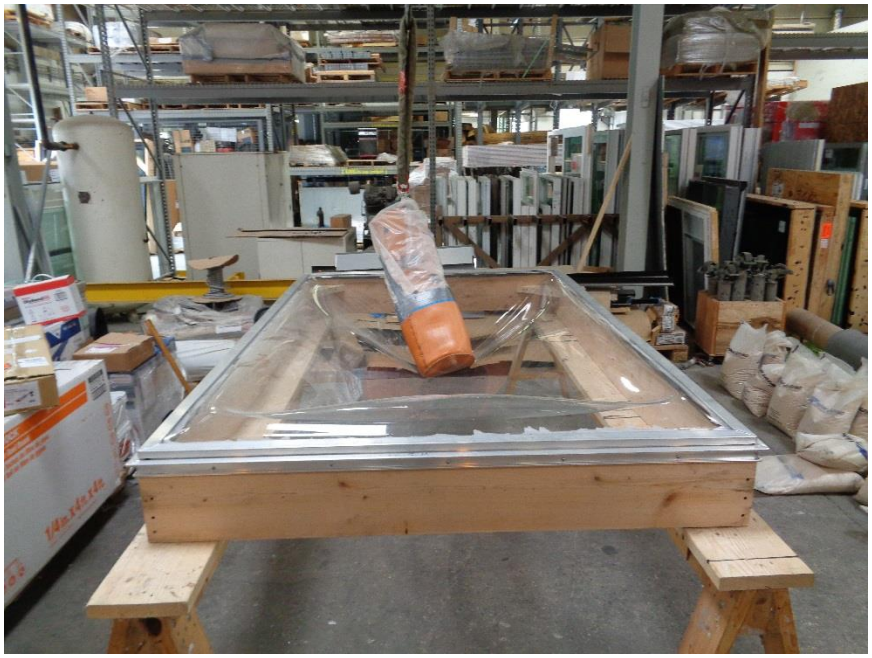

Photo No. 2
Test Specimen with 400 lb. Weight Applied

Appendix B

Drawing(s)

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