TEST REPORT

Report No.: H0140.02-109-44

Rendered to:

VELUX America LLC
Greenwood, South Carolina

PRODUCT TYPE: Curb Mounted Skylight
SERIES/MODEL: Specials Dome Skylight 0.118 Thickness PC Smooth/0.118 Thickness Prismatic

SPECIFICATION: NFRC 400-2014,
Procedure for Determining Fenestration Product Air Leakage

Title	Summary of Results
Air Leakage Resistance Test	<0.1 L/s/m^2 (<0.01 cfm/ft^2)

Reference must be made to Report No. H0140.02-109-44, dated 05/26/17 for complete test specimen description and detailed test results.

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: Curb Mounted Skylight

3.2 Series/Model: Specials Dome Skylight 0.118 Thickness PC Smooth/0.118 Thickness Prismatic

3.3 Compliance Statement: Results obtained are tested values and were conducted in full compliance with NFRC requirements by using the NFRC 400-2014 test method. Test specimen description and results are reported herein.

3.4 Test Date(s): 05/15/17

3.5 Test Record Retention End Date: All test records for this report will be retained until May 15, 2021.

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

3.7 Test Specimen Source: The test specimen 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
Richard E. Hartman III	Intertek-ATI

4.0 Test Specification(s):

NFRC 400-2014, *Procedure for Determining Fenestration Product Air Leakage*

5.0 Test Specimen Description:

5.1 Product Sizes:

Overall Area: 4.0 m² (42.7 ft²)	**Width**		**Height**	
	millimeters	**inches**	**millimeters**	**inches**
Overall size	1534	60-3/8	2584	101-3/4

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**
Low profile, 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 glazing in any glazed test specimen(s) can be made.*

Glass Type	Interior Lite	Spacer Type	Exterior Lite	Glazing Method
3/8" wide gap	1/8" polycarbonate clear prismatic	Double-sided adhesive foam spacer	1/8" polycarbonate clear smooth	The glazing was set from the exterior onto a low profile custom-shaped gasket against the extruded aluminum frame. The glazing was secured using an extruded aluminum dome clamp cover with a bead of sealant on the glazing. The dome clamp cover was secured using #10 x 5/8" self-tapping pan head screws spaced 4-7/8" from member ends and at the midspan of the length sides.

Location	Quantity	Daylight Opening		Glazing Bite
		millimeters	inches	
Dome	1	1391 x 2445	54-3/4 x 96-1/4"	1-1/8"

5.6 Drainage:

Drainage Method	Size	Quantity	Location
Weepslot with wick	1" wide by 1/4" high	1 per corner	Located in each corner of the low profile, custom-shaped gasket

5.7 Hardware:

Description	Quantity	Location
Spring clip	26	Pressed into the shoulder of the inner frame extrusion above each predrilled installation hole

6.0 Installation:

The specimen was installed into a Spruce-Pine-Fir wood buck. The rough opening allowed for a 1/4" shim space.

Location	Anchor Description	Anchor Location
Inner frame	#8 x 1-3/4" pan head screws	6-1/4" from the corners of the length sides and 12" on center, 5-5/8" from the corners of the width sides and 12" on center

7.0 Test Results: The results are tabulated as follows:

Title of Test	Results	Table
Air Leakage, Infiltration per ASTM E 283 (qA) at 75 Pa (1.57 psf)	<0.1 L/s/m^2 (<0.01 cfm/ft^2)	1

Table #1:

Air temperature: 67°F Barometric pressure: 29.40 in. of Hg Relative humidity: 34%

Total Airflow (Qt)	Tare (Qe)	Net (Qs)	Corrected Net Airflow (Qst)
4.0 l/s (8.53 cfm)	3.9 l/s (8.33 cfm)	0.1 l/s (0.20 cfm)	0.1 l/s (0.20 cfm)

A calibration was performed on the Intertek-ATI Structural Control Panel, Serial #5644, on 03/10/2017. The calibration procedure is fully described in Intertek-ATI Standard Calibration Procedure 31-12. The basic procedure requires calibrating the pressure transducers and then measuring flow rates through calibrated orifice plates.

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.

Ratings included in this report are for submittal to an NFRC-licensed IA for certification purposes and are not meant to be used for labeling purposes. Only those values identified on a valid Certification Authorization Report (CAR) are to be used for labeling purposes.

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.

Tested by:

Digitally Signed by: Richard Hartman III

Richard E. Hartman III
Technician

Reviewed by:

Digitally Signed by: Timothy J. McGill

Timothy J. McGill
Manager – Product Testing
Individual-in-Responsible-Charge

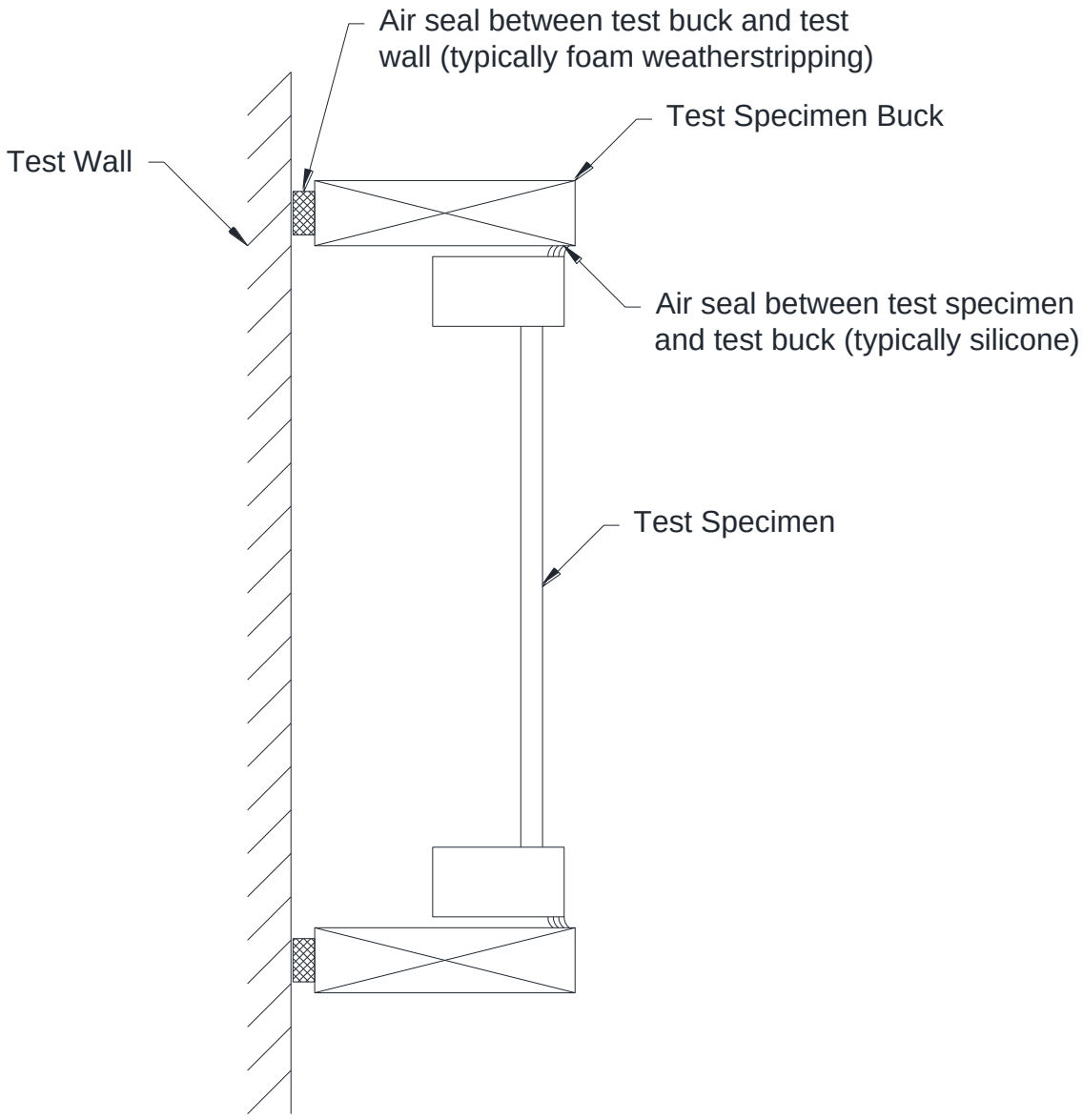
REH:cmd

Attachments (pages): This report is complete only when all attachments listed are included.
Appendix A: Location of Air Seal (1)
Appendix B: Photograph(s) (1)
Appendix C: Drawing(s (0) Complete drawings packet on file with Intertek-ATI.

This report produced from controlled document template ATI 00172, revised 06/19/15.

Appendix A

Location of Air Seal: The air seal between the test specimen and the test wall is detailed below. The seal is made of foam weatherstripping and is attached to the edge of the test specimen buck. The test specimen buck is placed against the test wall and clamped in place, compressing the weatherstripping and creating a seal.



Appendix B

Photograph(s)

Photo No. 1
View of Tested Specimen

Appendix C

Drawing(s)

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