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03/09/2020

## ASTM AIR LEAKAGE RESISTANCE AND WATER RESISTANCE TEST REPORT SUMMARY

#### RENDERED TO:

CRYSTALITE SKYLITES 3307 CEDAR STREET EVERETT, WA 98201

MODEL/TYPE: 30258 SERIES 6 LITE SKYLIGHT

| TITLE                                                                               | SUMMARY OF RESULTS  |  |
|-------------------------------------------------------------------------------------|---------------------|--|
| Air Infiltration 0.27 L/s/m <sup>2</sup> (0.05 cfm/ft <sup>2</sup> ) @ 300 pa (6.2) |                     |  |
| Water Penetration Resistance                                                        | 1440 pa (30.00 psf) |  |

Test Completion Date: 09/09/2009

Reference must be made to QTI Report Number  $S2009-430_{E0A0}$  dated 09/11/2009 for complete test sample description and data.

For Quality Testing, Inc:

Jim Clarke

Structural Performance Technician



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# ASTM AIR LEAKAGE RESISTANCE AND WATER RESISTANCE TEST REPORT

 $S2009-430_{E0A0}$ 

REPORT TO: CRYSTALITE SKYLITES 3307 CEDAR STREET EVERETT, WA 98201

ORIGINAL REPORT NUMBER: S2009-430 ORIGINAL REPORT DATE: 09/11/2009

MODEL/TYPE: 30258 SERIES 1283 X 1892 (51 X 75) 6 LITE SKYLIGHT

REPORT TO: Crystalite Skylites

3307 Cedar Street Everett, WA 98201

STARTING TEST DATE: 09/09/2009 ENDING TEST DATE: 09/09/2009

TEST METHOD: ASTM E283-04

Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls and Doors Under Specified Pressure Differences Across

the Specimen.

ASTM E331-00

Standard Test Method for Water Penetration of Exterior Windows, Skylights,

Doors and Curtain Walls by Uniform Static Air Pressure Difference.

TEST PURPOSE: To achieve requirements for Air Leakage Resistance at 300 pa (6.24 psf) and

Water Resistance at 1440 pa (30.00 psf).

DESCRIPTION OF SAMPLE TESTED

MODEL/TYPE: 30258 Series 6 Lite Skylight.

CONFIGURATION: OOO/OOO

FRAME SIZE: 1283 mm (50 1/2") wide by 1892 (74 1/2") high.

FRAME TYPE: Extruded aluminum.

JOINT CONSTRUCTION: All corners were mitered, welded and sealed. The top cap was spliced and sealed

on the interior at each intermediate vertical member on the long dimensions.

GLAZING COMPONENTS:

OVERALL: 25 mm (1") nominal.

GLASS THICKNESS: Two panes of 3.0 mm nominal tempered.

SPACER TYPE/SIZE: 19 mm (3/4") nominal aluminum.

GLAZING SYSTEM: All glass was set against a double sided foam glazing tape on the upper leg of the

interior frame and retained with a double sided foam glazing tape and a rivet

connected cap on the exterior side.

ADDITIONAL DESCRIPTION: Weep hole covers were utilized over each weep hole. These covers were inserted

under the top cap and sealed on the top and sides with silicone sealant and left

open at the bottom to allow water drainage. See drawing for details.

MOUNTING DESCRIPTION: The test sample was mounted on a test curb made from 51 mm (2") wide by

152 mm (6") wood. Curb tape was applied to the top face of the curb. The skylight was attached to the curb around the perimeter using four 38 mm (1 1/2") long screws per long dimension and two 38 mm (1 1/2") long screws per short dimension at approximately 635 mm (25") on center, for a total of twelve. All

testing was performed at a 2/12 pitch.

TEST PROCEDURE:

All pressures were applied from the interior side of the test chamber, acting inward for Positive Pressures (Downloading). The Water Spray Rack consisted of four water spray nozzles positioned 1219 mm (48") above the exterior face of the skylight. These nozzles were spaced 1219 mm (48") apart and each nozzle supplied a 1219 mm (48") cone matching the required calibrated water spray application of 5 gallons per square foot per hour. All testing was performed with the skylight set at a 2/12 pitch.

Note:

No further descriptions are possible due to the unavailability of the test sample for cut up.

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#### **TEST RESULTS**

### AIR LEAKAGE RESISTANCE AT 300 PA (6.24 PSF).

ASTM E283-04

Maximum Allowable. 1.5 L/s/m<sup>2</sup> 0.3 CFM/ft<sup>2</sup>

Optional Information.

Total L/S (CFM) 0.66 L/S 1.39 CFM Infiltration Rate 0.27  $L/s/m^2$  0.05 CFM/ft<sup>2</sup>

#### WATER RESISTANCE TEST.

ASTM E 331-00

No Leakage after 1 cycle of 15 minutes at 1440 pa 30.00 psf

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The results were secured by using the designated test methods and they indicate compliance with the performance requirements of the referenced specification.

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Jeffrey M. Douglas

Structural & Field Manager

Jim Clarke

Structural Performance Technician

#### REVISION SUMMARY

| Revision No.             | Date       | Page No. | Description/Example |
|--------------------------|------------|----------|---------------------|
| Released Original Report | 09/17/2009 |          |                     |
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