



**TEST REPORT**

**Rendered to:**

Solatube International, Inc.  
Vista, California

**PRODUCT TYPE:** Tubular Daylighting Device  
**SERIES/MODEL:** M74 DS

**SPECIFICATION:** ASTM F2912, *Standard Specification for Glazing and Glazing Systems Subject to Airblast Loading*  
AND

GSA-TS01-2003, *US General Services Administration Standard Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings*  
AND

Unified Facilities Criteria (UFC) 4-010-01, Change October 2013, *DoD Minimum Antiterrorism Standards for Buildings*

Title	Summary of Results		
Specimen	Test Specimen #1	Test Specimen #2	Test Specimen #3
ASTM Hazard Rating	No Break	No Break	No Break
GSA Performance Condition	1	1	1
UFC Level of Protection	High	High	High

**This report contains in its entirety:**

- Cover Page:** 1 page
- Report Body:** 9 pages
- Test Facility:** 2 pages
- Pressure-Time Plots:** 4 pages
- Photographs:** 2 pages
- Drawings:** 2 pages



Texas Firm F-11869

*John H. Waskow P.E.*

Digitally Signed by: John H. Waskow

2016.01.18 15:08:33 -06'00'

Report No.: E7184.03-801-12

Test Date: 10/14/15

Report Date: 10/22/15

Test Record Retention Date: 10/14/19

Reference must be made to Report No. E7184.03-801-12, dated 10/22/15 for complete test specimen description and detailed test results.



## TEST REPORT

Rendered to:

Solatube International, Inc.  
2210 Oak Ridge Way  
Vista, California 92081

Report No.: E7184.03-801-12  
Test Date: 10/14/15  
Report Date: 10/22/15  
Test Record Retention Date: 10/14/19

### 1.0 Project Summary:

**1.1 Product Type:** Tubular Daylighting Device

**1.2 Series/Model:** M74 DS

**1.3 Compliance Statement:** Results obtained are tested values and were secured by using the designated test method(s). 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 specimens tested. This report may not be reproduced, except in full, without the written approval of Architectural Testing, Inc., an Intertek company ("Intertek-ATI").

**1.4 Test Date(s):** 10/14/2015

**1.5 Test Facility:** Intertek-ATI's blast reaction chamber construction consisted of wide flange steel beams, steel tubes, and steel skin that enclosed the chamber. The overall dimensions of the blast reaction chamber are thirteen (13) feet wide, nine (9) feet tall, and ten (10) feet deep. The blast reaction chamber enclosed a volume that houses witness panels and structural members. The sealed surfaces of the blast reaction chamber prevent air blast pressure from wrapping around the test specimens so that the blast pressure loads only one side of the test specimens. Photographs of the arena arrangement are provided in Appendix A.

**1.6 Test Sample Source:** The test specimens were provided by the client. Representative samples of the test specimens will be retained by Intertek-ATI for a minimum of four years from the test completion date.

**1.7 Drawing Reference:** The test specimen drawings have been reviewed by Intertek-ATI and are representative of the test specimens reported herein. Test specimen construction was verified by Intertek-ATI per the drawings located in Appendix D. Any deviations are documented herein or on the drawings.



**1.8 Data Acquisition:** In accordance with ASTM F1642 and GSA TS01, three reflective and two incident pressure transducers are utilized to record data at a 100 kHz sample rate. Three reflective pressure transducers were located on the horizontal centerline of the front face of the test chamber. Two incident pressure transducers are located on the top to the chamber at the centerline and left third point when viewed from the front. A pressure transducer is also located in the witness area, to the interior of the reaction chamber face. Two free field pressure transducers were placed at the corresponding standoff for the blast. A sketch of the specimen holder and corresponding reflective pressure sensor locations are provided in Figure #2 of Appendix A.

**1.9 List of Official Observers:**

<u>Name</u>	<u>Company</u>
Jordan Danner	Intertek-ATI
Bart Masters	Intertek-ATI

**2.0 Test Specifications:**

*ASTM F1642, Standard Test Method for Glazing and Glazing Systems Subject to Airblast Loading*

*ASTM F2912, Standard Specification for Glazing and Glazing Systems Subject to Airblast Loading*

*GSA-TS01-2003, US General Services Administration Standard Test Method for Glazing and Window Systems Subject to Dynamic Overpressure Loadings*

*Unified Facilities Criteria (UFC) 4-010-01, Change October 2013, DoD Minimum Antiterrorism Standards for Buildings*