

PERFORMANCE TEST REPORT

Rendered to:

ENTECH SOLAR, INC.

SERIES/MODEL: ESC900

PRODUCT TYPE: Unit Skylight

	Summary of Results
Title	Test Specimen #1
OSHA Standards- 29 CFR	200 lbs.
Impact Test	1,000 ft. lbs.

Reference should be made to Architectural Testing, Inc. Report No. B1051.02-801-44 for complete test specimen description and data.

PERFORMANCE TEST REPORT

Rendered to:

ENTECH SOLAR, INC.
13301 Park Vista Boulevard, Suite 100
Fort Worth, Texas 76177

Report No.: B1051.02-801-44

Test Date: 06/27/11

Report Date: 06/30/11

Test Report Retention Date: 06/27/15

Project Summary: Architectural Testing, Inc. was contracted by Entech Solar, Inc. to perform testing on one Series ECS900, unit skylight. Test specimen description and results are reported herein. The sample was provided by the client.

Test Method: The test specimens were evaluated with a static load test specified by the following OSHA regulation and an impact test.

Occupational Safety and Health Administration/ U.S. Department of Labor Regulations
(Standards - 29 CFR 1910.23(e)(8))

Test Specimen Description:

Series/Model: ECS900

Product Type: Unit skylight

Overall Size: 45.1" wide by 45.1" long

Curb Size: 37.13" wide by 37.13" long

Daylight Opening Size: 27.14" wide by 32.94" long

Overall Area: 7.2 ft²

Frame Finish: Bare aluminum sheet metal

Installation: The test unit was secured to a 2 x 6 S-P-F curb using both screws and sealant. Screws used were #8 x 1-5/8" flat head Phillips located at 2" from each corner and 8" on center spacing thereafter and were located 1" from the edge of the mounting flange. Sealant was applied full perimeter along curb top face and side faces beneath frame.

Test Specimen Description: (Continued)

Glazing Details: The unit was glazed with a trapezoidal sheet of patterned acrylic measuring 0.236" thick. The acrylic bite on the glazing surface was 1".

Test Results: The temperature during testing was 85°F. The results are tabulated as follows:

Test Specimen:

200 lb Load Test (29 CFR 1910.23(e) (8))

<u>Test Load</u>	<u>Location</u>	<u>Results</u>	<u>Allowed</u>
200 lbs for 60 sec.	Center of diffuser panel	No Fracture	No Fracture

Impact Test (200lb dropped 5' 0")

<u>Test Load</u>	<u>Location</u>	<u>Results</u>	<u>Allowed</u>
1,000 ft-lb	Center of diffuser panel	No Penetration	No Penetration

Note: Tests conducted on the acrylic/polycarbonate glazed skylight were conducted on a new, un-aged, un-weathered skylight.

Drawing Reference: The test specimen drawings have been reviewed by Architectural Testing, Inc. and are representative of the test specimen reported herein.

Detailed drawings, data sheets, representative samples of test specimens, a copy of this report, or other pertinent project documentation will be retained by Architectural Testing, Inc. for a period of four years from the original test date. At the end of this retention period, such materials shall be discarded without notice and the service life of this report will expire.

Results obtained are tested values and were secured by using the designated test methods. 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.

For ARCHITECTURAL TESTING, INC:

Tony Brown
Technician

Andy Cost
Laboratory Manager

DR:hd

Attachments (pages): This report is complete only when all attachments listed are included.
Appendix-A: Drawings (3)

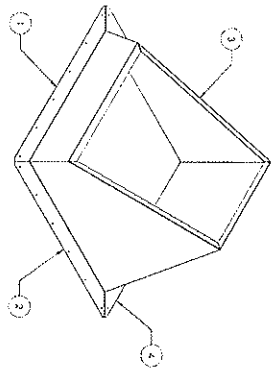
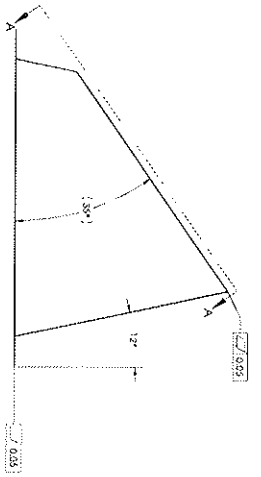
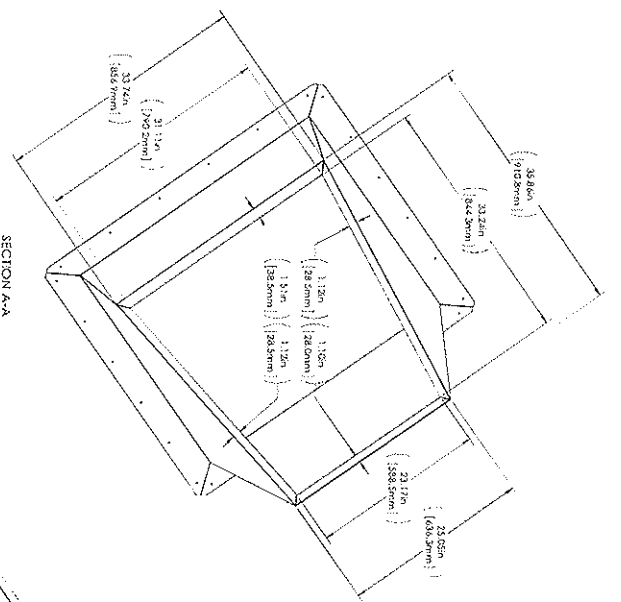
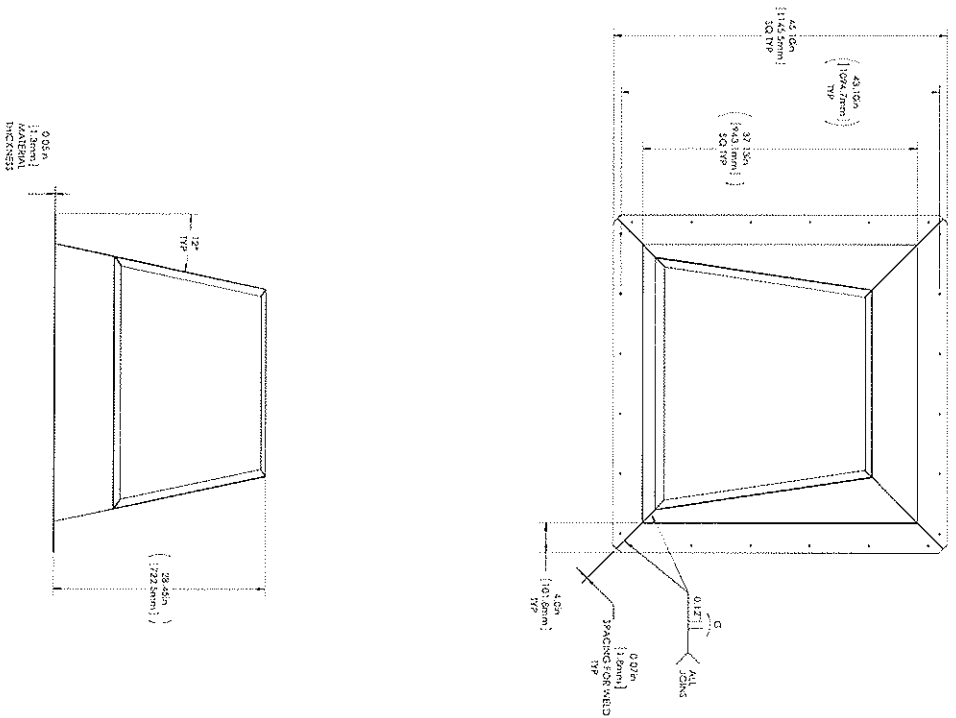
Revision Log

<u>Rev. #</u>	<u>Date</u>	<u>Page(s)</u>	<u>Revision(s)</u>
0	06/30/11	N/A	Original report issue

Appendix A

Drawings

REV. NO.	DRAWING NUMBER	DESCRIPTION	DATE
1	ECS1-20000	SCHEMATIC FRONT PANEL SKYLIGHT SHELL	05/22/11
2	ECS1-20000	SCHEMATIC FRONT PANEL SKYLIGHT SHELL	06/22/11
3	ECS1-20000	SCHEMATIC FRONT PANEL SKYLIGHT SHELL	06/22/11
4	ECS1-20000	SCHEMATIC FRONT PANEL SKYLIGHT SHELL	06/22/11



Architectural Testing
 Test sample complies with these details.
 Deviations are noted.

Report# B1051-02
 Date 7/23/11 Tech HTC

NOTES
 1. TOLERANCE ON LINEAR DIMENSIONS IS ± 0.05 "
 2. TOLERANCE ON ANGULAR DIMENSIONS IS ± 1 "
 3. WEIGHT IS 80 GS

REV.	DESCRIPTION	DATE	DES.	ENG.	CHK.	APP.
-	INITIAL RELEASE	-	-	-	-	-

DESIGNER	ADAMSON	DATE	05/22/11
ENGINEER	JOHN HENNING	DATE	05/22/11
CHECKER	JOHN HENNING	DATE	06/22/11
APPROVER	A.J. HENNING	DATE	06/22/11

UNLESS OTHERWISE SPECIFIED
 TOLERANCES ON:
 DIMENSIONS - ± 0.05 in
 HOLE DIA. - ± 0.05 in
 HOLE POSITION - ± 0.05 in
 HOLE DRILL DIA. - ± 0.05 in
 HOLE DRILL POSITION - ± 0.05 in
 HOLE DRILL DIA. - ± 0.05 in
 HOLE DRILL POSITION - ± 0.05 in

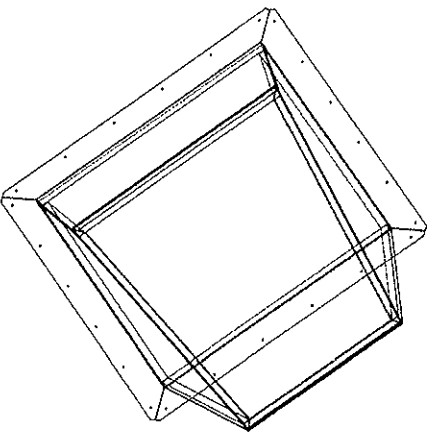
SCALE: 1/8" = 1"

MATERIAL: ALUMINUM ALLOY 5052-H32

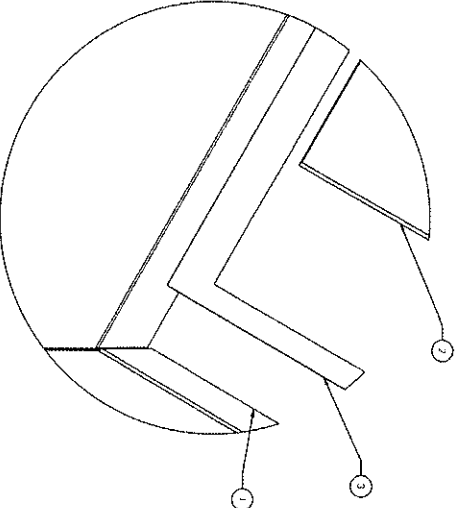
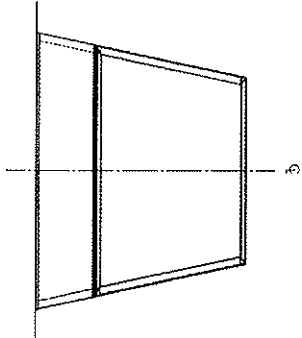
WEIGHT: 80 GS

ALL DIMENSIONS ARE IN INCHES (mm)

ITEM NO.	DESCRIPTION	QTY
1	EC990 SKYLIGHT SHELL WELDMENT WITH FILLED INSULATION & WEIPIPET	1
2	EC990 UPPER ARCHIT. FLAT LENS	1
3	EDGE COMPRESS Silicone BUILDING SEALANT	1/48

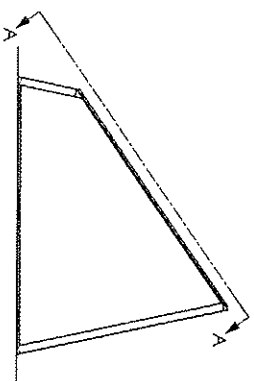


SECTION A-A



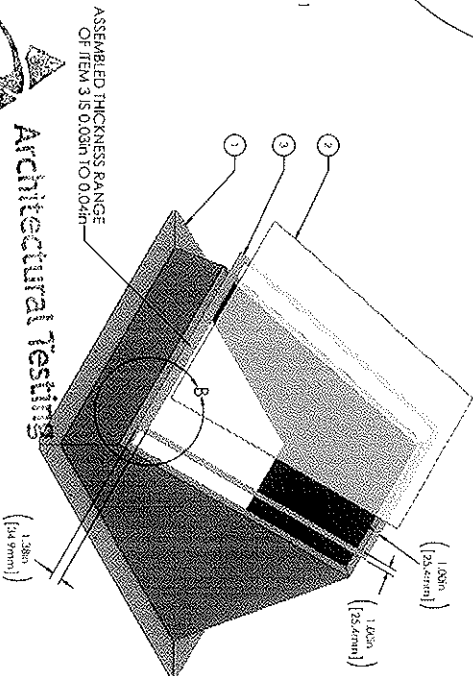
APPLY ITEM 3 TO UPPER FLANGE SURFACE OF ITEM 1 FOR BONDING OF ITEM 2 TO ITEM 1

DETAIL B
SCALE 1 : 2



NOTES
1. APPROX WEIGHT 29 lbs

REV.	DESCRIPTION	DATE	DES.	ENG.	CHK.	APP.
	INITIAL RELEASE					



DESIGNER	VEN MOSS	08/26/11
ENGINEER	DAVID WILSON	08/26/11
DRAWN	DAVID WILSON	08/26/11
CHECKED	DAVID WILSON	08/26/11
DATE	08/26/11	

THIRD ANGLE PROJECTION

SCALE: 1" = 1'-0"

ANGLES: 30° 15'

FINISH: RACHISED SURFACE FINISH

ALL DIMENSIONS ARE IN INCHES (FR)

SHEET 1 OF 1

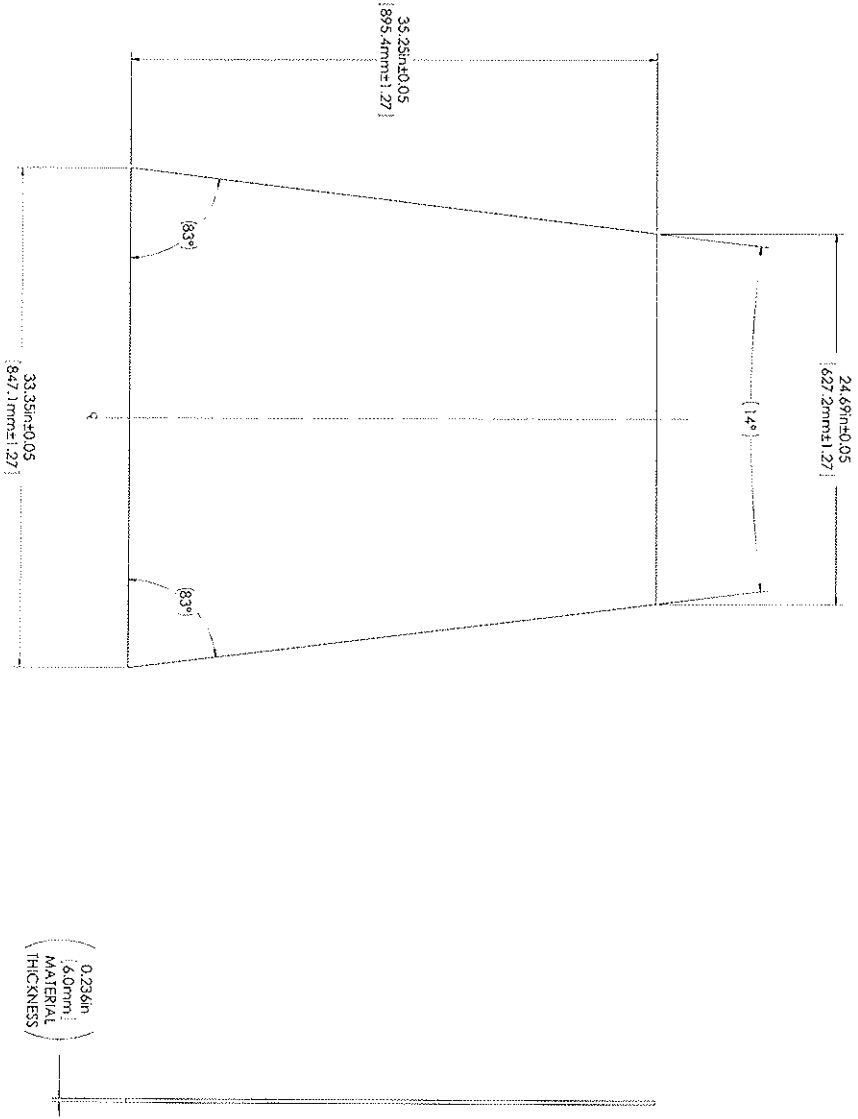
ENTECH SOLAR

1320 PARK VISTA BLVD
SUITE 400
FORT WORTH, TX 76177

EC990 SKYLIGHT SHELL WELDMENT, INSULATION & WEIPIPET, UPPER DIFFUSER

SIZE: DWG. NO. ECSI-20002

REVISIONS				
REV.	DESCRIPTION	DATE	DES.	ENG.
-	INITIAL RELEASE	-	-	-



Architectural Testing

Test sample complies with these details.
Deviations are noted.

Report# B105102
Date 7/22/11 Tech THO

- NOTES
1. MATERIAL: ACRYLIC DP-30 (ACRYLIC FX) STIPPLED SHEET.
 2. WEIGHT: 10.47lbs

DESIGNER: K&S DESIGN	DATE: 06/22/11
ENGINEER: DAN O'NEILL	DATE: 06/22/11
CHECKER: DAN O'NEILL	DATE: 06/22/11
PROJECT: N. WISCONSIN	DATE: 06/22/11
UNLESS OTHERWISE SPECIFIED	
TOLERANCES OR FINISHES FOR:	
1. DIM. ±.005	
2. HOLE ±.005	
3. POSITION ±.005	
4. SURFACE FINISH: ✓	22
MACHINED SURFACE FINISH: ✓	
ALL DIMENSIONS ARE IN INCHES (mm)	
SHEET 1 of 1	



ECS900, UPPER ACRYLIC,
FLAT LENS

SIZE: D
DWG NO: ECS1-21012

PRELIMINARY