Architectural Testing

VISIBLE LIGHT TRANSMITTANCE
NFRC 202
TEST REPORT

Rendered to:

Gallina USA, LLC
Janesville, WI

SERIES/MODEL: Arco Plus 547-Opal With IR
PRODUCT TYPE: Multi-Cell Panel

Summary of Results*		
Specimen		
VL COG		0.26

* These values do not include the effects of edge or frame members

Test Completion Date: 04/18/13

Reference must be made to Report No. C5538.02-301-41, dated 05/08/13 for complete test specimen description and data.

1.0 Report Issued To: Gallina USA, LLC
4335 Capital Circle
Janesville, WI 53546

2.0 Test Laboratory: Architectural Testing, Inc.
2524 East Jensen Avenue
Fresno, California 93706
(559) 233-8705

3.0 Project Summary:

3.1 Product Type: Multi-Cellular Panel

3.2 Series/Model: Arco Plus 547-Opal With IR

3.3 Test Date: 04/18/13

3.4 Test Sample Submitted by: Manufacturer

3.5 Test Sample Submitted for: Validation for Initial Certification (Prototype Unit)

4.0 Test Specification(s):

NFRC 202-2012: *Procedure for Determining Translucent Fenestration Product Visible Transmittance at Normal Incidence*

"This test method is affected by the differences in altitude, latitude, and atmospheric wator vapor aerosol levels. Differences of transmittance values obtained at an arid, high altitude site may vary from a marine location. Caution should be used in applying the results to specific

5.0 Test Specimen Description:

5.1 Overall Size: 940 mm x 1000 mm

5.2 Construction: Two extruded multi-cellular panels, orientated vertically.**

** Clear tape was used at the center seam to structurally support the panel

6.0 Test Results:

6.1 Test Data

Angle of Incidence	Normal (90º)
Solar Illuminence	68,933 Lux
Solar Irradiance	321 btu/hrft²
Number of Measurements	11
Time of the beginning of test period	11:45:00 AM
Time of the end of test period	12:45:00 PM
Ambient Air Temperature	75F
Relative Humidity	29%
Atomospheric Visibility	Clear

6.2 mV Readings

Covered	1	2	3	4	5	6	7	8	9	10	11
mV	3.20	3.16	3.24	3.38	3.35	3.15	3.20	3.36	3.20	3.21	3.22
Exposed	1	2	3	4	5	6	7	8	9	10	11
mV	12.53	12.52	12.48	12.5	12.5	12.52	12.5	12.5	12.52	12.52	12.55
Within 5% varience in exposed readings?											
	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

6.3 Statistics

Specimen	40 mm
Standard Deviation	0.08
Uncertainty	4.69%
Avg. mV Covered	3.24
Avg. mV Exposed	12.53

The photometric sensor is a LiCor visible light sensor Architectural Testing, Inc. ICN 63027.

The accuracy of the test apparatus was last verified 09/06/2012

Testing was conducted in full complience with NFRC 202 requirements
The visible light transmittance apparatus is located at 2524 East Jensen in Fresno, California on a 50' x 50' cement pad on the eastern side of the lot at ground level. The foreground is desert, the background is industrial buildings.
The uncertainty was determined using ANSI/NCSL Z540-2-1997 type A evaluation as described in secgtion 4.2 of this specification. For assumptions used for this calculation or for a description of the procedure please contact the individual signing this report.
"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."

Representative samples of the test specimen(s), and a copy of this report will be retained by Architectural Testing for a period of four years from the original test date. This report is the exclusive property of the client so named herein and is applicable to the sample tested. Results obtained are tested values and do not constitute an opinion or endorsement by this laboratory. This report may not be reproduced, except in full, without approval of Architectural Testing, Inc.

For ARCHITECTURAL TESTING, INC.

Testing performed by:

Jerry Bontilao Technician	Tyler Westerling, P.E. Project Engineer Individual in Responsible Charge

TW: ms

Attachments (pages): This report is complete only when all attachments listed are included.

Appendix-A: Photo (1)

Architectural Testing

Test Report No.: C5538.02-301-41
Report Date: 05/08/13
Test Record Retention Date: 05/08/17

Revision Log

Rev. #	Date	Page(s)	Revision(s)
0	05/08/13	All	Original Report Issue. Work requested by Mr. Dan Hale of Gallina USA, LLC

Appendix A
Photo