

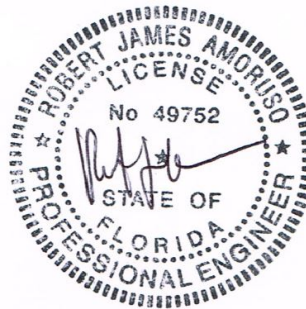


Equivalency Evaluation Report

Date:	August 2, 2023
PTC Report No.:	2398-EER
Report Revision No.:	3
PTC Project No.:	422-0615
Product Mfg.:	Solatube International, Inc. 2210 Oak Ridge Way Vista, CA 92081
Product Name:	M74 DS Collector Raybender HD with Curb Flashing
Product Category:	Sky Lights
Product Sub-Category:	Products Introduced as a Result of New Technology
Compliance Method:	Product Approval Rule 61G20-3.015 – Equivalency of Standards
Prepared By:	Robert J. Amoruso, P.E. Florida P.E. License Number 49752 PTC Product Design Group, LLC FBPE Certification of Authorization No. 25935

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by Robert J
Amoruso
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Evaluated by:
Robert J. Amoruso, P.E.
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Project Scope

Evaluate equivalency of testing standards used for the performance testing of Solatube M74 DS Collector Raybender HD with Curb Flashing for conformance to the 8th Edition (2023) Florida Building Code – Building and Residential Volumes including the High Velocity Hurricane Zone (HVHZ).

Description of Product – Installation Requirements

See Reference 1 for a description of the product, its installation and other pertinent data related to its approved use.

Performance and Testing Standards

Reference 2.a conducted testing to the following. See Reference 3.b for Code Conformance Evaluation to the 8th Edition (2023) FBC for these testing methods as applicable.

- Test Plan prepared by Tyler Westerling, P.E. in accordance with Section 1715.3 of the 2010 Florida Building Code titled "ATI Load Test Procedure for Wind Load Testing on a Solar Collecting Turret" signed and sealed under cover and located in Appendix A of ATI test report D8292.01-301-44

Reference 2.b conducted plastics testing to the following standard(s) in which Plaskolite, LLC TUFFAK NOA (Ref. 2.b) confirms that plastic testing meets the 8th Edition (2023) FBC/FRC based upon this evaluator's review of currently issued NOA.

1. ASTM D638, Standard Test Method for Tensile Properties of Plastics
2. ASTM D1929, Standard Test Method for Determining Ignition Temperature of Plastics.
3. ASTM D2843, Standard Test Method for Density of Smoke from the Burning or Decomposition of Plastics.

References and Supporting Documents

1) Drawings

- a. M74 DS-O-C-FC-REG, signed and sealed by Robert J. Amoruso, P.E. on 10/19/15, *Solatube M74 DS Collector Raybender HD w/Curb Flashing*

2) Testing

a. Performance Testing

- i. Architectural Testing Inc. (Fresno, CA) Test Report No. D8292.01-301-44, dated 7/17/14, *Solatube HD Daylight Collection Device, M74 DS-O-C-FC*, signed and sealed by Tyler Westerling, P.E.

b. Plastics Testing

i. Miami-Dade Product Control Notice of Acceptance (NOA)

1. Plaskolite, LLC TUFFAK Polycarbonate Sheet (formally Covestro MAKROLON Polycarbonate Sheet) NOA can be found [here](http://www.miamidade.gov/building/pc-result_detail_app.asp?app_alias=100477). (http://www.miamidade.gov/building/pc-result_detail_app.asp?app_alias=100477).

3) Reports

- a. PTC Report No. 2398-PER, Rev. 3, *Solatube M74 DS Collector Raybender HD w/Curb Flashing – Product Evaluation to the 8th Edition (2023) FBC*, signed and sealed by Robert J. Amoruso, P.E.

Equivalency Evaluation – Performance Testing

Reference 2.a documented static lateral wind load resistance testing to the following:

- 2010 Florida Building Code, Section 1715.3.
- 2012 International Building Code, Section 1710.3

The 8th Edition (2023) Florida Building Code, Section 1709.3 basically contains the same requirements as those in the sections listed above in the 2010 FBC and 2018 IBC that are referenced in Ref. 2.a. Therefore, the requirements of 8th Edition (2023) Florida Building Code are met.

Equivalency Evaluation – Plastics Testing

The changes in revision level of the ASTM Standard Test Methods and Practices as part of the 8th Edition (2023) FBC and 8th Edition (2023) FRC have been reviewed and found not to affect the method of testing, acceptance criteria, or reporting criteria in such a manner as to result in any change in the performance of the product. As such, test results obtained from testing to these standards are valid for demonstrating compliance to the 8th Edition (2023) FBC/FRC. The following table compares the revision levels of the Standards used in testing vs. those required by the 8th Edition (2023) FBC/FRC. It has been determined that Standards used in testing are

equivalent to those in the 8th Edition (2023) FBC/FRC in accordance with Product Approval Rule 61G20-3.015(5)(d) – Equivalence of Standards.

Solatube TDD Plastics Testing				Florida Building Code	
ITEM NO.	MATERIAL	ASTM Standard	Standard Revision Level	8th Edition (2023) FBC	8th Edition (2023) FRC
1 and 17	Plaskolite, LLC TUFFAK	ASTM G155	05a **	13	n/a
		ASTM D638	03 **	03	03
		ASTM D635	06 **	14	n/a
		ASTM D1929	96(2001)e1 **	16	n/a
		ASTM D2843	99(2004)e01 **	16	n/a
** Plaskolite, LLC TUFFAK NOA (Ref. 2.b) confirms testing meets 8th Edition (2023) FBC based on this evaluator’s review of the currently issued NOA.					