

# Product Evaluation Report

Rule 61G20-3 F.A.C. | Project No. ACE-2023-130 | Report No. PER-ACE-1023, Rev. 3 | 8/31/23 | Page 1 of 2

## Product Manufacturer

Natural Light Energy Systems  
10821 N. 23<sup>rd</sup> Ave.  
Phoenix, AZ 85029

## Product Name, Model, Series and/or Description

Solar Attic Fan Powered by Photo Voltaic Panel

**Code:** Current Edition of the Florida Building Code including the 8th Edition (2023) Florida Building Code

**Compliance Method:** 61G20-3.005(1)(d) – Product Evaluation Report by a Licensed Professional Engineer

### Product Testing:

- Architectural Testing Inc. Test Report No. A8071.01-301-18, dated 3/21/11, ASTM E330-02 tested, Self-Flashing Roof Mounted Attic Ventilation Fan, Series/Model: Solar Attic Fan with 40-Watt Solar Panel for Natural Light Energy Systems.
- Architectural Testing Inc. Test Report No. A8071.02-301-18, dated 8/24/11, TAS 202 tested, Self-Flashing Roof Mounted Attic Ventilation Fan, Series/Model: Solar Attic Fan with 40-Watt Solar Panel for Natural Light Energy Systems. Signed and sealed by Tyler L. Westerling, P.E., Florida PE License No. 72012.
- PRI Construction Materials Technologies Test Report No. NLES-001-02-02, dated 12/30/09, Performance Test Report; Natural Light Systems – Solar Attic Fan for Asphalt Shingle Roofs – TAS 100(A)-95. Signed and sealed by Duc T. Nguyen, P.E., Florida PE License No. 65034.
- PRI Construction Materials Technologies Test Report No. NLES-002-02-01, dated 06/26/17 (8/03/17), Performance Test Report; Natural Light Systems – Solar Attic Fan for Corrugated Tile Roofs – TAS 100(A)-95. Signed and sealed by Duc T. Nguyen, P.E., Florida PE License No. 65034.

### Product Installation Instructions:

- Drawing No. NLES-100, Rev. B, dated 8/31/23, signed and sealed by Robert J. Amoruso, P.E., FL No. 49752

**Engineering Analysis:** The following engineering and/or rational analysis/calculations have been performed.

- Anchorage has been verified by calculation prepared by Robert J. Amoruso, P.E. in accordance with the current edition of the Florida Building Code.

### Performance Testing:

- ASTM E330-02
- TAS 202-94, 2010 FBC
- TAS 100(A)-95, 2007 FBC
- TAS-100(A)-95, 2014/2017 FBC

### Code Conformance and Design Pressure Limitations:

- Requirements for roof ventilators contained in Chapter 15 of the FBC have been met. This includes:
  - Testing to TAS 100(A).
  - Safety Factor of 2 applied to Structural Test Results to arrive at final Design Pressure.
- Miami-Dade Product Control Division checklists for HVHZ conformance have been reviewed and met where applicable. They include:
  - Checklist No. 0463 Rooftop Mechanical Equipment (Exhaust Fans & Ventilators)
  - Checklist No. 0155 Roof Ventilators, Turbines and Ridge Vents

# Product Evaluation Report

## Limitations & Conditions of Use:

- Solar Attic Fan shown on NLES-100
  - This product has been evaluated for use inside the HVHZ (High Velocity Hurricane Zone)
  - This product has not been evaluated for Impact Resistance.
- Refer to Product Installation Instructions noted above for:
  - Maximum allowable wind loads at related maximum allowable size(s).
  - Overall dimensions and material/grade of main product components, accessories, etc.
  - Illustrated diagrams of the attachment of the product to the structure.
  - Anchor type(s), size(s), substrate(s), embedment, edge distance, and spacing/locations.
- Site wind pressures shall be determined by a licensed professional engineer in accordance with the current edition of the Florida Building Code (and/or ASCE 7 as referenced in the current edition of the Florida Building Code) for components and cladding based on allowable stress design.
- Site conditions not covered in this product evaluation document are subject to additional engineering analysis by a licensed professional engineer or registered architect as required by the authority having jurisdiction.
- Adequacy of the existing structural substrates as a main wind force resisting system capable of withstanding and transferring applied product loads to the foundation is the responsibility of the licensed professional engineer or registered architect acting as the design professional of record for the project of installation.

## Certificate of Independence per Product Approval Rule 61G20-3.009

Robert J. Amoruso, P.E. does not have, nor will acquire, any financial interest in the company manufacturing or distributing product(s) covered by this Product Evaluation Report.

Robert J. Amoruso, P.E. does not have, nor will acquire any financial interest in any other entity involved in the approval process or testing of the product(s) covered by this Product Evaluation Report.

Evaluated by:  
Robert J. Amoruso, P.E.  
FL P.E. License No. 49752