

## **Lighting Global Solar Home System Kit Testing Policy: Outdoor-rated cables**

**Version 1  
December 2015**

### **Background**

The Lighting Global Quality Standards for Solar Home System Kits include a requirement that “Any outdoor cables must be outdoor-rated and UV-resistant.” This requirement goes beyond the Quality Standards for Pico-products and is based on the assumption that larger solar home system kits are expected to last for a longer period of time (10-20 years). Outdoor cables are defined as any cables intended to be used outdoors, such as the cable to the PV module or cables connecting components that are installed outdoors.

### **Policy**

Lighting Global assesses whether a cable is suited for outdoor use based on manufacturer declarations and documentation provided by the manufacturer.

As part of the testing process, manufacturers are required to sign a declaration form that includes the following statement:

- All cables intended to be used outdoors, such as cables connecting the PV module, are appropriately protected against UV radiation and water ingress.

Manufacturers are also required to provide supporting documentation. Approved documentation includes:

- Certifications indicating that the cable meets relevant PV cable standards, such as UL 4703, TÜV 2 PfG 1169/08.2007, UL 854, or similar standards, OR
- Proof that cables have been found to be resistant to sunlight and water. Acceptable certifications include:
  - For sunlight resistance: UL 44 Section 5.15.2, ISO 4892-2 Method A, UL 1581 Section 1200 (XenoTest), HD 605/A1, or similar,
  - For water resistance: some form of wet / damp heat testing, such as that described in IEC 60068-2-78, UL 493, or similar

Market check testing of cable compliance may be used to verify manufacturer claims at the discretion of Lighting Global.

### **Timeline for policy implementation:**

Products are required to comply with the policy above by December 2016.