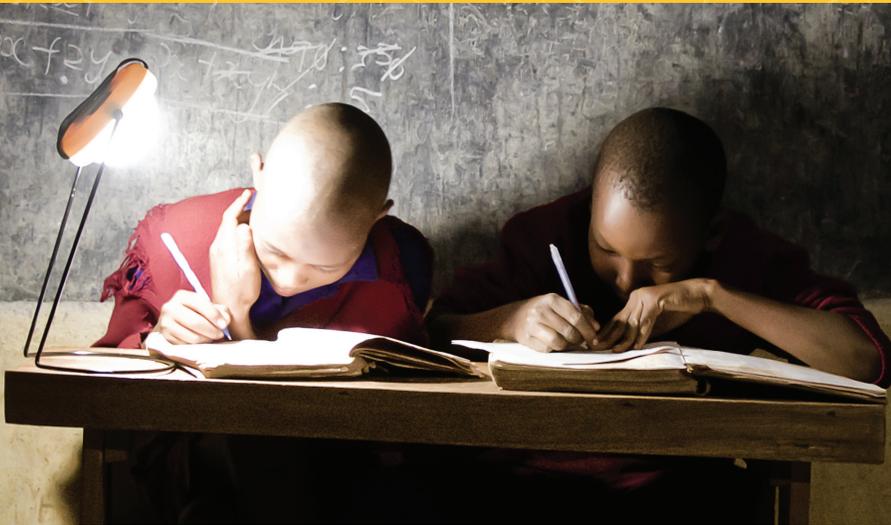


# LIGHTING GLOBAL QUALITY STANDARDS:

*A Guide to Complying with Consumer-facing  
Information Requirements*



## Questions and Comments

Please email us at [qa@lightingglobal.org](mailto:qa@lightingglobal.org) with any questions or comments. We are happy to review consumer-facing documentation at any time to determine whether it meets the Lighting Global Quality Standards. We welcome your feedback!

This guide details the consumer-facing information that pico-solar and solar home system kit manufacturers must include in order to meet the Lighting Global Quality Standards. Since your company has committed to marketing products that meet these standards, it is important that you understand what is required to comply with them. This document may be used as a resource to help your company abide by the truth-in-advertising, performance reporting, minimum warranty terms, and other consumer-facing information requirements of the Lighting Global Quality Standards.



**Lighting Global Quality Standards** are the most widely accepted set of standards for product quality, safety, durability, and performance of pico-solar products and solar home system (SHS) kits up to 350 Watts peak. Lighting Global Standards ensure confidence in life-enhancing, new generation of off-grid solar products, inspiring innovation and protecting buyers. Many governments, institutions and programs around the world are now looking for products that meet our Quality Standards. As of 2018, Lighting Global maintains two sets of standards, one for pico-solar products with power ratings up to and including 10 W, and one for SHS kits with power ratings between 11 and 350 W.

## Consumer-facing Information Requirements



### TRUTH IN ADVERTISING

Consumer-facing claims about the product's performance and other characteristics must be accurate, whether on the package or user manual, in online advertising, sales collateral, or elsewhere. We call this **truth in advertising**.



### MINIMUM WARRANTY TERMS

The product must be backed by a consumer-facing warranty of a certain minimum duration from date of purchase by the end user. Our **minimum warranty terms** contain additional requirements.



### PERFORMANCE REPORTING REQUIREMENTS

Product packaging must accurately report certain key product features and performance metrics. We call this **performance reporting requirements**.



### OTHER CONSUMER-FACING INFORMATION REQUIREMENTS

Other pieces of information are also required on consumer-facing materials like the product packaging and user manual. These are listed under **other consumer-facing information requirements**.



**Please note** that adequate consumer-facing information is just one component of our Quality Standards. Products must also meet a number of requirements for the product's technical parameters. For further detail on these requirements, please refer to the most recent versions of the Quality Standards for [pico-solar products](#) and [SHS kits](#) on the Lighting Global website.



# TRUTH IN ADVERTISING

Claims about the product's performance and other characteristics must be accurate, whether on the package or user manual, online advertising, sales collateral, or elsewhere. Consumer-facing statements should not mislead buyers about the features or utility of the product. All advertised numerical aspects must not deviate more than 15% from tested values. (Special rules apply for port voltage and current specifications.)

## Characteristics subject to this requirement include, but are not limited to:

- Manufacturer or Brand Name
- Product Name
- Model Number
- Light Output
- Solar Run Time
- Lamp Type
- PV Power
- Battery Capacity
- Charger Rating
- Appliance Power Consumption
- Port Voltage and Current Specifications
- Physical and Water Protection (Ingress Protection)



**Please note** that companies should pay close attention to the solar run time advertisement requirement and Ingress Protection requirements, as they are commonly cited reasons for non-compliance.

### Run time advertisements:

Any advertisement of run time will be considered the solar run time on the highest or brightest setting unless otherwise specified. For example, if the package says "50 hours of light", to meet the truth-in-advertising requirements the product must provide 50 hours of light on the brightest setting after one day of solar charging. If the product provides 50 hours of light on a setting other than the brightest setting the advertisement must include the setting name. For example, "50 hours of light on low setting".

### Ingress Protection (IP):

A product's IP rating measures the tested degree of protection against water and physical damage. In order to make any advertising claims about water protection or physical protection, the product must meet a corresponding minimum IP rating (e.g., a product that tests to meet IPX3 may brand itself as either rainproof or water resistant, but not splashproof). The table below outlines commonly advertised claims and their corresponding minimum IP rating.

Advertised Claim	Minimum IP Rating
Water resistant, splash resistant, rated for outdoor use, or similar	IPX1
Rainproof, protected from heavy rain, or similar	IPX3
Splashproof, or similar	IPX4
Waterproof	IPX7
Dustproof, protected from dust, or similar	IP5X
Permanent Outdoor Exposure	IP55
Weatherproof	IP64



# PERFORMANCE REPORTING REQUIREMENTS

You must accurately report the following on the package:



## For Pico-Solar Products

- Light Output (lm) on the brightest setting
- Solar Run Time (hours) on best setting
- Impact of mobile phone charging or other auxiliary appliances on product performance



## For Solar Home System Kits

- PV module peak power (W)



**Please note** that you may also reference our full policy on [Performance Reporting Requirements](#) for further details.



# MINIMUM WARRANTY TERMS



**The product must be backed by a consumer-facing warranty that meets the following requirements:**



## Pico-Solar Products

Minimum duration: **1 year for the entire product**, including the battery



## Solar Home System Kits

Minimum duration: **2 years for the main system** (PV module, control box, cables and lights, system battery); **1 year for everything else**

## And Must:

- ◆ Cover manufacturing defects that prevent operation under normal use and protection from early component failure.
- ◆ Explain how the consumer can access the warranty, how the warranty will be executed (repair, replacement, etc.), and should advise the customer to inquire about the warranty terms prior to purchase.
- ◆ Allow the end-user to verify the warranty and understand the terms prior to purchase. The information should also be in a regionally appropriate language.
- ◆ Begin on the **date of purchase by the end-user** and cannot have a fixed end date.
- ◆ Be included on either the product box, user agreement, or warranty card in an easily accessible way.





# OTHER CONSUMER-FACING INFORMATION REQUIREMENTS

## Water Protection Warning Label Requirements

If there is adequate labeling, the level of water protection can be increased by one level in order to meet the Lighting Global Quality Standards (e.g., from “no protection” to “occasional rain”). This option is not applicable to levels above “frequent rain.” To meet the requirements, warning labels must be appropriately designed and include certain information as outlined in the [Integrated Water Protection Assessment](#) under “Consumer Labels and/or Instructions details.”



**Please note** that many labels fail to include language that the product must be kept dry and information about how to care for the product in case it gets wet, both of which are required by Lighting Global.

## Additional Requirements for SHS Kits

### User Manual Requirements

SHS kits must be sold with a user manual that includes instructions on installation, use, and troubleshooting. At a minimum, the manual must contain graphical and/or written guidance on:

- How to connect the PV module to the unit for charging
- Instruction not to shade the PV module
- Instruction to face the PV module surface toward sun
- How to make all required permanent connections and connect all advertised appliances
- How to interpret the battery state-of-charge indicator (if present)
- If applicable, how to conduct any required pre-use steps for the product to function properly (for example: fully charge the battery before initial use, how to operate the pay-as-you-go (PAYG) system)

If a product is always installed by trained technicians, installation instructions may be provided to the technicians in lieu of including them in the user manual. The product must still include a user manual covering basic operation instructions for the consumer.



**Please note** that there are additional requirements for SHS kits with non-plug-and-play connections. See the [Quality Standards for SHS kits](#) for more detail.



## Component Specifications & Replacement Requirements

SHS kits must include consumer-facing information that provides either:

1. Specifications for components that may require replacement and instructions for replacement;
2. Directions as to how the consumer can get the components, including the battery, replaced at service centers, both during and post warranty; or
3. A clear consumer-facing statement on the product packaging or user agreement that the batteries and other components are not replaceable.

They must also include detailed instructions or descriptions regarding replacing components. This information may be included in the user manual, but a clear statement regarding battery replacement must be included on the consumer-facing packaging or user agreement. Acceptable statements include:

- A. Battery is field replaceable
- B. Battery may be serviced by manufacturer
- C. Battery is not replaceable



**Please note** that additional details on component specifications and replacement requirements are on the last page of the [Quality Standards for SHS kits](#).



## Advertising Quality Verified Products

If you wish to advertise that your product is Quality Verified, you may not suggest that the product is endorsed or certified by Lighting Global or its affiliates. For more information, refer to the [Communications and Branding Guidelines](#).

# REFERENCES

## **Quality Standards for Pico-Solar Products**

<https://www.lightingglobal.org/resource/lighting-global-quality-standards/>

## **Quality Standards for Solar Home System Kits**

<https://www.lightingglobal.org/resource/solar-home-system-kit-quality-standards/>

## **Lighting Global website**

<https://www.lightingglobal.org/quality-assurance-program/our-standards/>

## **Performance Reporting Requirements**

<https://www.lightingglobal.org/resource/performance-reporting-requirements/>

## **Integrated Water Protection Assessment**

<https://www.lightingglobal.org/resource/integrated-water-protection-assessment/>

## **Communications and Branding Guidelines**

<https://www.lightingglobal.org/resource/communications-and-branding-guidelines/>





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