

Solar Home System Test Methods and Quality Standards Feedback

1. Respondent Information

This survey asks for your comments and questions regarding the draft Test Methods and revised Quality Standards for Solar Home System Kits. Prior to completing this survey, please review the draft Test Methods and revised Quality Standards posted on the Lighting Global stakeholder page: <https://www.lightingglobal.org/ga/stakeholder-engagement/>

These draft documents are key elements in the expansion of the Lighting Global QA framework to cover larger solar home system kits (10 W to 100 W). Both the Quality Standards and Test Methods were developed by a team of researchers from Lighting Global QA and Fraunhofer ISE with funding from the World Bank and Global LEAP. We have used lessons learned from pilot testing, feedback from the respective participating companies, along with input from our initial stakeholder process to inform the development of the draft Test Methods and revised Quality Standards. We are now interested in your feedback on both documents.

We intend to submit the draft Test Methods to the International Electrotechnical Commission (IEC) in November. Comments must be received by Tuesday September 15, 2015 to be considered for inclusion in our initial submission to the IEC. Please note that it will take time for the document to move through the IEC process. Comments received after September 15 may still be considered, but it is unlikely that they will be incorporated into the initial draft of the methods that are submitted to the IEC.

We ask you to be honest and open in your feedback. All identifying information will be kept confidential within the Lighting Global Quality Assurance team, but we may decide to publicly release aggregated answers or comments in a way that does not disclose the identity of the person or organization.

Providing your personal information is optional, but will help us in clarifying and providing responses to your comments. Entering your email address will also sign you up for stakeholder updates.

If you wish to compose your comments in advance of completing the survey, please download the pdf document version of the survey found at this link: XXXXX . After composing your comments off line, you may copy and paste them in to this online survey form. All comments must be submitted through this online form.

We thank you for your time and look forward to your feedback.

1. Name

2. Company or Organization

3. Job Title or Position

4. Email Address

* 5. What is your primary connection to off-grid lighting?

- Manufacturer/Assembler (final products)
- Manufacturer (components)
- Distributor
- Retail Vendor
- Government
- NGO
- Academic Institution/University
- Financial Institution
- Development Agency
- Testing Lab/Lighting Research Facility
- End User

6. Country you are most often located (this will help us schedule the timing for future webinars).

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2. Form Organization

This form is organized as follows:

- You will first have the opportunity to provide feedback on the draft Test Methods.
- The next page will ask for feedback on the revised Quality Standards.
- The last page asks for overall comments about the Quality Assurance Framework for Solar Home

System Kits.

* 7. Do you want to provide feedback on the draft Test Methods?

[If you want to provide feedback on the revised Quality Standards, you will still have an opportunity to do so regardless of your answer to this question.]

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3. Comments on Draft Test Methods

Please review the draft Test Methods and provide your feedback below. The draft document may be downloaded at: <https://www.lightingglobal.org/qa/stakeholder-engagement/>

Please note, these methods are similar to those for pico products (IEC Technical Specification 62257-9-5), but include some modifications to accommodate larger systems, as well as new methods, such as the assessment DC ports. Once finalized, we intend to submit the Test Methods for Solar Home System Kits to the IEC for publication as well.

8. Please provide any overall comments you have about the draft Test Methods.

9. Are there any additional aspects you feel should be included in the Test Methods?

In the following boxes, please provide any specific comments, corrections or questions you have about the draft Test Methods.

Please place your comments in the appropriate box, which are organized by document section.

If your comment refers to a specific item in the Test Methods, please include the page number and the number of the clause, figure, calculation or table (for example: "On page 113 in section H.5.3, I think a longer stabilization period of 3 hours should be used because...").

If you have no comments on a given section, feel free to leave the box blank.

If you have no specific comments, scroll to the bottom of the page and click "Next".

10. Section 1: Scope

11. Section 2: Normative references

12. Section 3: Definitions

13. Section 4: System description

14. Section 5: Product specification

15. Section 6: Quality test method

16. Section 7: Market check method

17. Section 8: Initial screening method

18. Section 9: Standardized specification sheets

19. Annex A: Recommended quality standards and performance criteria for off-grid lighting market support programme qualification

20. Annex B: Example quality standards, warranty requirements, and performance criteria for bulk procurement qualification (“sample tender”)

21. Annex C: Recommended SSS guidelines

22. Annex D: Manufacturer self-reported information

23. Annex E: Product sampling

24. Annex F: Visual screening

25. Annex G: Sample preparation

26. Annex H: Power supply setup procedure

27. Annex I: Photovoltaic module I V characteristics test

28. Annex J: Battery test

29. Annex K: Battery testing recommended practices

30. Annex L: Charge controller behaviour test

31. Annex M: Full-battery run time test

32. Annex N: Full discharge preparation

33. Annex O: Solar Charge Test

34. Annex P: Protection Tests

35. Annex Q: Assessment of DC ports

36. Annex R: Appliance power consumption

37. Annex S: Energy service calculations

38. Annex T: Battery durability test

39. Annex U: Lumen maintenance test

40. Annex V: Light output test

41. Annex W: Light distribution test

42. Annex X: Mechanical durability test

43. Annex Y: Physical and water ingress protection test

44. Annex Z: Level of water protection

NOTE: Annex AA and BB are reserved for the inclusion of methods for testing AC systems. These systems would not be eligible for testing under the Lighting Global program, but other programs may be interested in methods for testing AC systems. We have not yet developed these methods, but intend to largely reference existing test methods.

45. Annex CC: Equipment requirements

46. Annex DD: Generic appliances

47. Bibliography

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4. Comment on Revised Quality Standards

* 48. Do you want to provide feedback on the revised Quality Standards?

Solar Home System Test Methods and Quality Standards Feedback

5. Comments on Revised Quality Standards

Please review the revised Quality Standards and provide your feedback below. The draft document may be downloaded at: <https://www.lightingglobal.org/qa/stakeholder-engagement/>

Note, as with the Lighting Global Quality Standards for pico-products, these Quality Standards will not be submitted to the IEC at this time and will continue to be maintained by the Lighting Global program.

49. Do you agree with the revised eligibility criteria for solar home system kits to be covered under these Standards?

50. Please provide your comments about the eligibility criteria.

51. Do you agree with the proposed Truth in Advertising standards?

52. Please provide your comments about the Truth in Advertising standards.

53. Do you agree with the proposed Lumen Maintenance standards?

54. Please provide your comments about the Lumen Maintenance standards.

55. Do you agree with the proposed Health and Safety standards?

56. Please provide your comments about the Health and Safety standards.

57. Do you agree with the proposed Battery standards?

58. Please provide your comments about the Battery standards.

59. Do you agree with the proposed Quality and Durability standards?

60. Please provide your comments about the Quality and Durability standards.

61. Do you agree with the proposed Consumer Information standards?

62. Please provide your comments about the Consumer Information standards.

63. Do you have any other comments about the Lighting Global Solar Home System Quality Standards?

Solar Home System Test Methods and Quality Standards Feedback

6. Overall Comments

Share any comments about the overall framework here. If you have specific comments on either the

Test Methods or Quality Standards, please include them in your responses on previous pages.

64. Do you have any other overall comments or questions about the Lighting Global Quality Assurance Framework for Solar Home System Kits?

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7. Stakeholder Process

65. Please rate your satisfaction with this stakeholder process.

66. Please share any suggestions you have on ways we can improve our stakeholder outreach.