Lighting Global Product Testing and Laboratory Eligibility Policy (version 3.1)

Last updated: December 2018

This document explains how manufacturers can obtain valid test results for use by Lighting Global from a qualified test lab, as well as how a test laboratory can become approved to produce test results that will be accepted by the Lighting Global Quality Assurance (QA) program.

Product Testing Process

1) **Random Sampling (Quality Test Method - QTM[1] testing only):** Samples of the product are selected from warehouses and other locations according to the guidelines described in the latest version of Lighting Global's product sampling policy.[2] ***This process will continue to be coordinated through Lighting Global with our network of sampling agents.***
   Lighting Global will pay for the random sampling, but the manufacturer is responsible for shipping the product samples to the test laboratory (this responsibility includes all costs associated with the shipping process, including any import duties, taxes, and other fees).

   Note: Random sampling is not a requirement for Initial Screening Method (ISM) testing.

2) **Laboratory Testing:** Products are tested according to the latest version of IEC/TS 62257-9-5. To coordinate laboratory testing, the manufacturer will first contact Lighting Global personnel to coordinate the sampling and confirm the required test plan. Prior to the start of testing, the manufacturer will also contract with Lighting Global to pay fees to cover product sampling, reporting and support services.

   Note: For ISM testing, if a manufacturer prefers to have Lighting Global personnel review the test report and issue a cover letter explaining the results, then the test plan must be confirmed with Lighting Global and the manufacturer must pay Lighting Global fees to

[1] Lighting Global utilizes four different test methods to evaluate products. These include the Quality Test Method (QTM), the Accelerated Verification Method (AVM), the Initial Screening Method (ISM), and the Market Check Test Method (MCM). All three test methods are included in IEC Technical Specification 62257-9-5. The QTM is used to determine whether products meet the program's quality standards. For eligible manufacturers with a history of producing good quality products, the AVM may be used in place of the QTM; the AVM pathway allows manufacturers to complete initial evaluations of products using pre-production samples, thereby enabling products to be launched with quality verification in place. The ISM is used to generate rapid feedback for manufacturers, but is for informative purposes only. For a product to meet the Lighting Global Quality Standards and receive program support, it must undergo the more rigorous QTM or AVM testing. The MCM is used to determine whether the manufacturer of a product that has met the Lighting Global Quality Standards continues to maintain the same level of quality and performance for the units that it delivers to market over time.

[2] Lighting Global's product sampling policy is available for download at www.lightingglobal.org/resource/product-sampling-policy/

cover the cost of reporting and support services. Otherwise, if a manufacturer does not want these additional services and only needs the ISM test results, they may coordinate directly with the test labs for ISM testing without involving Lighting Global personnel.

Following initial engagement, if needed, Lighting Global will provide the manufacturer with contact information for one or more appropriate test labs to conduct the testing. Manufacturers are welcome to coordinate with a test lab of their choosing, though the lab and test plan must be approved by Lighting Global prior to testing commencing. The manufacturer will contract directly with the test lab, including negotiating the price of testing. Additionally, both the manufacturer and the test laboratory need to sign documents confirming that no conflicts of interest (financial or otherwise) or the appearance thereof exist between the manufacturer and the test laboratory.

Approved test labs are listed on the Lighting Global Lab Network webpage as approved for conducting tests according to the required test method.[3] If a test lab is interested in conducting testing for Lighting Global, they must meet the requirements in Table 1 and apply for approval. Test results will only be approved after the laboratory has completed the Test Laboratory application process, and the Lighting Global Quality Assurance team has confirmed that the lab meets the requirements to conduct tests that will be accepted by the Lighting Global Quality Assurance Program.

3) **Feedback and Support from Lighting Global:** At the completion of testing, to qualify for feedback and/or support from Lighting Global and its affiliate programs, *the test laboratory* must submit the test results to Lighting Global (test reports provided directly by the manufacturer will not be considered valid). Based on the test results, Lighting Global offers feedback and support to clients ranging from aid in interpreting test reports to issuing Standardized Specifications Sheets.

[3] https://www.lightingglobal.org/quality-assurance-program/test-laboratory-network/

Table 1. Criteria for test labs to produce valid test results for use by Lighting Global.

	Quality Test Method (QTM) and/or Accelerated Verification Method (AVM) [IEC/TS 62257-9-5]	Initial Screening Method (ISM) and / or Market Check Method (MCM): Primary Check Tests
Laboratory accreditation requirements	ISO 17025 accreditation to conduct tests according to the latest edition of IEC/TS 62257-9-5	Laboratory meets QTM requirement OR Laboratory is currently participating in the Lighting Global round robin testing framework and producing accurate results
Sampling requirements	Random sampling must be conducted by an agent of Lighting Global. The sampling procedure is described in the latest version of Lighting Global's product sampling policy. To coordinate sampling events, please contact Lighting Global quality assurance at testing@lightingglobal.org for pico-products (products 10 W and smaller) and shs@lightingglobal.org for SHS kits (products between 11 – 350 W).	No requirement for ISM testing Products are randomly sampled from the market by Lighting Global personnel or affiliates for MCM testing.
Additional requirements	Laboratories may also be required to have key personnel participate in training and/or to otherwise demonstrate competence with the test methods specified in IEC TS 62257-9-5.	

For Test Laboratories: How to Qualify to Produce Results for Lighting Global

With the QTM, AVM, MCM and ISM test procedures published in IEC/TS 62257-9-5, qualified test laboratories now have the ability to produce valid test results for use by Lighting Global. However, whether or not a particular test laboratory qualifies to produce valid test results for Lighting Global according to the procedures in the latest edition of IEC 62257-9-5 is dependent on the criteria listed in Table 1.

Test laboratories that are interested to perform QTM, AVM, or MCM testing (possibly in addition to ISM testing) must contact the Lighting Global QA team (testing@lightingglobal.org) to obtain the Lighting Global Test Laboratory application. This application will require the interested test laboratory to submit the following, at a minimum, for consideration:

- **Curricula vitae for all laboratory personnel** that will be involved in testing, as well as a description of the particular tests each person will be involved in;
- A **list of all equipment** that will be used in testing, and the associated specifications sheets for each unique piece of equipment; *and*
- Documentation proving the lab holds the **appropriate accreditation(s)** to conduct the tests (see Table 1).

Once the application is submitted, the Lighting Global QA team will review the application materials and determine if the test laboratory (i.e., applicant) is eligible to conduct tests according to the latest edition of IEC 62257-9-5 for use by the Lighting Global program. Laboratories may also be required to have key personnel participate in training and/or to otherwise demonstrate competence with the test methods specified in IEC TS 62257-9-5. If the test laboratory is approved, Lighting Global will expect the test laboratory to:

- Sign a cooperation agreement with the Lighting Global program that specifies the terms of the relationship between the laboratory and the Lighting Global program and includes a requirement to disclose any conflicts of interest;
- Submit the product test result(s) to the Lighting Global QA team in the format specified by Lighting Global after testing is completed (in cases where manufacturers want their product's test results to be considered by the Lighting Global Quality Assurance program). Test reports must be professionally written in English and be of consistently high quality, requiring at most only minor revisions by the Lighting Global QA team;
- Answer any questions related to the test report for the product and provide supporting raw test data to the Lighting Global QA team, as necessary;
- Participate in the Lighting Global round robin testing framework (the laboratory will not need to conduct more than nine (9) individual round robin tests in a calendar year); *and*
- Submit updated materials related to laboratory qualifications on request on a periodic basis (e.g. every two years).

If it is determined that the laboratory does not meet the necessary requirements, the lab will receive a letter that includes an explanation of the decision and a summary of the deficiencies that need to be addressed if the lab wishes to achieve approved status. Labs would be free to reapply once they have addressed any issues raised in the response letter.

Test laboratories that intend to conduct ISM only for off-grid lighting manufacturers must either meet the QTM qualifications (see Table 1) or be a part of the Lighting Global round robin testing framework. Test laboratories that do not hold a current ISO 17025 accreditation but are hoping to participate in the Lighting Global round robin testing framework should send inquiries to the Lighting Global QA team.