

## Lighting Global Quality Testing: Product Sampling

Last updated: December 2014

### Goals and Rationale

The Quality Testing Methodology (QTM) institutionalized through IEC/TS 62257-9-5 ed 2.0 provides valuable third party information on product performance and quality to stakeholders across the value and decision chain in the off-grid lighting market. Proper sample procurement – the first step in the testing process – is critical for maintaining the fairness and credibility of the QTM.

The goals of product sample procurement for the QTM are:

- To randomly select 18 product samples that are representative of those entering the retail market.
- To ensure the samples are representative of a commercial production run.
- To ensure no bias is introduced from preferential pre-selection (“cherry-picking”) on the part of manufacturers, warehouses, or distributors.
- To efficiently ship the samples from the procurement location to the test lab(s) to minimize time in transit and to avoid delays in the testing process.

To meet those goals, Lighting Global and approved third party sampling agents will use one of two random methods for sampling: (i) retail sampling or (ii) warehouse sampling. Retail sampling is the preferred sampling method because it provides the most representative view of product performance and quality from the perspective of end-users. Warehouse sampling is also acceptable in cases where retail sampling is infeasible.

### Retail Sampling

In the case of retail sampling, agents will select and purchase samples from a variety of retail outlets in the market. No more than six samples should be purchased at a given location and it is preferable to procure samples from a geographically diverse set of outlets. Lighting Global may require manufacturers or distributors to provide a list of no fewer than 10 outlets where at least 15 samples each are available for sale; sampling locations may be chosen from a subset of those outlets or from others that are independently identified.

Retail sampling is often cost-prohibitive, so it is acceptable to use warehouse sampling instead; this can be true even when retail sampling would be feasible. The choice of retail or warehouse sampling is left to Lighting Global’s discretion.

## Warehouse Sampling

Warehouse sampling can be described as a process in which agents select representative products from among those that are stored at a warehouse, distributorship, factory, or other bulk storage location. The agent will make email or telephone contact with representatives at the sampling location at least 24 hours before sampling takes place. The following general criteria must be satisfied for warehouse sampling to take place:

- The actual **sampling location should be the main bulk storage location in the region**, and must be clearly specified prior to undertaking – unless the sampling agent specifically asks for an alternative arrangement.
- Every relevant product (i.e., those that are the model being sampled) at the location must be made available to the sampling agent.
- Stock available for sampling must meet **minimum allowable stock** requirements. Lighting Global accepts samples selected from two different scenarios: “typical stock quantity” and “limited stock quantity”.
  - Typical Stock Quantity – for companies that have at least 500 units available in stock. The samples collected must not exceed more than 3.5% of the total available products, or, **there should be no less than 500 units of stock available to sample from**. This option is subject to Lighting Global’s normal random sampling fee.
  - Limited Stock Quantity – for companies that do not have at least 500 units in stock. **There should be no less than 200 units of stock available to sample from**. This option is subject to Lighting Global’s normal random sampling fee **AND** the client is required to pay an additional US\$1,500, which covers a portion of the cost of a **Market Check Test** that would occur after QTM testing has been completed. The Market Check Test would typically occur within 12 months of QTM testing, but the timing is at the discretion of Lighting Global and companies will not receive advance notice.
- **The samples to choose from should not be isolated from the general stocks of the warehouse (e.g., stacked in the front office)**. While it is acceptable and welcome for personnel at the warehouse to facilitate the sampling process, the agent should have sufficient access to the facility to ensure that the sampling criteria are being met.
- The following practices are NOT ACCEPTABLE:
  - Setting aside or isolating the minimum number of stock (500) required for sampling.
    - *The sampling agent needs access to all the stock present.*
  - Requesting the agent to sample from a specified location or subset of the stock in the warehouse, such as from the latest production run.
  - Moving a subset of stock to an alternative site (e.g., the sales office) for sampling.
    - *The sampling location should be the typical bulk storage location in the region.*

Once the agent is satisfied the sampling criteria is met, they will use random selection procedures to pick samples from among those that are available. The procedures generally require that multiple cartons or boxes be opened with a subset of the contents chosen as samples. This ensures the goals of product sampling are met.

**Confidentiality**

Lighting Global personnel and those representing Lighting Global through third party sampling agents will ensure information gleaned during product sampling remains confidential, with the exception of information that is required for record keeping about the sampling process by Lighting Global and the necessary information provided to the testing laboratory for the purpose of conducting testing.

A copy of the form that is filled out by the agent who conducts the warehouse sampling is attached. Once sampling and delivery has taken place, a copy of the form will be provided to the testing client as their receipt and confirmation of testing.

**Sampling Preparation Tips**

Proper sample procurement is an essential component of the Quality Test Method (QTM). One of the goals of product sample procurement is to procure and efficiently ship the samples from the procurement location to the test lab(s). **Some tips to ensure sampling goes well and testing can get underway quickly are:**

**1) Ensure the sampling location has at least 500 products available for sampling.**

In the case of random warehouse sampling, agents select representative products from among those stored at a warehouse, distributorship, factory, or other bulk storage locations. For QTM testing we require the sampling location to have at least 500 product units available for sampling, out of which 18 samples will be selected to be sent to the test laboratory(-ies).

**2) Notify the procurement warehouse's manager of the product sampling.**

Lighting Global personnel have direct contact with one or more representatives in your company who may not be located at the warehouse or sampling location. Communications issues can then arise because the warehouse (sampling location's) personnel are unaware that a sampling agent will be contacting them to schedule a random sampling of a particular product for Lighting Global testing. This generally results in delayed sample procurement and shipping, which leads to a later start date for the testing. To avoid this issue, please provide Lighting Global with the sampling location's representative's (person who will accompany sampling agent) contact information and notify them and their manager that the sampling agent should be in contact with them soon to schedule the sampling.

**3) Be ready to ship the products to the designated test laboratory(-ies) on the same day the products are sampled.**

It is the manufacturer's responsibility to ship the product samples to the laboratory(-ies) that will conduct the sampling. This means that all of the shipping costs (including duties, fees, etc.) are the responsibility of the manufacturer. Once the sampling agent has selected the 18 units, he/she will record the serial numbers of the samples (if available), ensure the samples are packaged for shipping, and then sign across the packaging tape to ensure no further tampering occurs with the samples before they are shipped. After this, the manufacturer should plan to get the package(s) shipped out to the test laboratory(-ies) on the same day.

**Example Lighting Global Random Sampling Form**

(The manufacturer is expected to fill out only the fields highlighted green)

SAMPLING ORGANIZATION INFORMATION

Sampling Org. Name	
Contact	
Sampling Agent Name	

PRODUCT INFORMATION

	Sampling Request ID #	
Company Name*		
Contact Person*		
Contact Person Phone Number*		
Physical Address of Preferred Sampling Location*  (include factory or warehouse name if different from		
Product to Sample (Name & Model #)*		
Sampling Instructions*		
Requested Sampling Date (provide range)*		
Actual Sampling Date		
Notes on Sampling		

SHIPPING INFORMATION

Shipping Destination	
Shipping Date	
Tracking/Ref Number	
Notes on Shipping	