Surveillance Testing Policy

Objective

The Surveillance Testing Policy outlines a process for targeted random sampling of the DLC® SSL QPL. This policy represents an effort by DLC to monitor the validity of data submitted to the DLC SSL QPL pre- and post-qualification. DLC may seek to implement additional efforts toward this objective in future policy development cycles.

Surveillance Testing Process

a. Surveillance Testing Selection

I. In order to maximize the use of limited resources, surveillance will focus on identifying products with higher than average risk of non-compliance. In order to identify these products, the following criteria will be considered during the selection process

- Products whose performance is close to meeting the tolerance of the Technical Requirements under which they were qualified (E.g. Standard or Premium).
- Products whose performance greatly exceeds the Technical Requirements.
- Products listed with past application issues including, but not limited to, test reports with reporting issues that question the validity of the test data, supplemental documentation with issues that question the validity of the documentation, and product misrepresentation.
- Complaints from industry, including members. Complaints from non-members will require documentation before being considered as valid selection criteria.
- Products of manufacturers that have chosen not to participate in the Surveillance Testing investigation after being selected in previous Surveillance Testing rounds (see section B.II.2.).
- Products of manufacturers that have had a history of failing results from previous Surveillance Testing rounds.
II. It will be at the sole discretion of the DLC how frequently, and how many products are selected through the Surveillance Testing process. Selection of products may focus on only one of the criteria above or several. Regardless of the selection criteria, the metrics reported in the testing will remain constant, depending on the type of test ordered (integrating sphere/goniophotometer), and all tested metrics will be evaluated against the data on the QPL.

III. As always, manufacturers may voluntarily de-list their products from the QPL at any time without penalty. With the Surveillance Testing program, this must occur prior to being selected for testing in order to avoid potential consequences. Please e-mail applications@designlights.org for more information on de-listing any of your organization’s products. If a product is not available for procurement at the time of selection (i.e. it is no longer for sale/manufactured), it will be considered a declination to participate. Exceptions will be made for made-to-order products.

IV. Products cannot be subject to “double jeopardy”. If a product has been tested through the Surveillance Testing program and has not been updated in any manner, it is immune from being selected again.

b. Notification to Selected Manufacturer

DLC will notify the selected manufacturer by email using the contact information available from the Manufacturer Portal. If a given manufacturer account has multiple users, all users registered to the account will be notified. The selected manufacturer will have 10 business days from the date of notification to respond to the selection. Selected manufacturers have two options in responding: accept the selection and continue with the Surveillance Testing process, or decline the selection which will result in the selected product, and associated products (additional family members and private labels), being removed from the QPL. If no response is received within 10 business days, or there is no anticipated action being made on behalf of the manufacturer as determined by the DLC, the product(s) will be removed from the QPL. Selected manufacturers can seek additional information about the selection during this 10 day period, however, action will be taken on the 10th day of the period.

I. Accepting the Selection

1. If the selected manufacturer agrees to move forward, the investigation will begin.

2. The selected manufacturer will be required to provide a list of as many locations as possible (minimum of 7) where the selected product can be purchased, including lot numbers, within 5 business days of agreeing to continue with the Surveillance Testing process. If required, a Non-
Disclosure Agreement can be signed by the DLC. Regardless, this information, or its closest equivalent, must be made available to the DLC. If the selected manufacturer indicates the product is only available at one location, sufficient documentation will need to be provided to support the claim of limited availability.

II. Declining the Selection

1. The selected manufacturer will have the option to decline the selection which will result in the product, and all associated products, being removed from the QPL.

2. Declined selections will be tracked by DLC and DLC reserves the right to implement the following when a selection is declined.

   - First time declining: Increased likelihood of another product from the manufacturer being chosen for Surveillance Testing.
   - Second time declining: Increased likelihood of another product from the manufacturer being chosen for Surveillance Testing. Manufacturer may be suspended from the DLC program for a period of up to 12 months, including de-listing of all products currently listed on the QPL.

c. Investigation

Products undergoing investigation will be remain confidential between the selected manufacturer and the DLC. Outside parties including members, other manufacturers, end users, etc. will not have access to investigation information until results are final (if at all).

I. Product Procurement

1. The amount of samples procured through DLC designated procurement agent will be equivalent to the number needed in the original qualification, unless otherwise stated. Procurement agents reserve the right to procure products from locations not provided by the manufacturer. Once the product is procured, the procurement agent will work with a Surveillance Testing approved lab to ship products to the lab location.

2. Once procurement arrangements are made, DLC will invoice the manufacturer for the cost of the product(s), procurement, and testing. If not paid within 5 business days, the product(s) will be removed from the QPL and the manufacturer will be considered to have declined participation.
3. The procurement process is expected to be complete within 8 weeks.

II. Product Testing

1. Testing will be conducted only by pre-approved contracted labs. Approved laboratories were determined by responding to a Request for Proposal (RFP) issued by the DLC. Specific lab locations will be chosen for any individual investigation at DLC’s discretion.

2. The metrics to be tested will be dependent on the type of test (integrating sphere or goniophotometer) being used, as described in the notification process.

III. Review of Testing Results

1. DLC will review the results of the testing upon completion. Established tolerances will be applied to the test data dependent on the outcome of the testing. The tolerances tables below will be used for each of the following situations:

   a. Table 1 will be used to evaluate test results that do not meet the DLC Technical Requirements under which they were qualified (E.g. Standard or Premium).

   b. Table 2 will be used to evaluate test results that do meet the DLC Technical Requirements, but are substantially (as determined by the tolerances) different than the results originally listed with the product.

Table 1: For test results that do not meet the DLC Technical Requirements

<table>
<thead>
<tr>
<th>Metric</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light output</td>
<td>- 10%</td>
</tr>
<tr>
<td>Efficacy</td>
<td>- 3%</td>
</tr>
<tr>
<td>Allowable CCT</td>
<td>Defined by ANSI C78.377-2015*</td>
</tr>
<tr>
<td>CRI</td>
<td>- 2 points</td>
</tr>
<tr>
<td>Power Factor</td>
<td>- 3%</td>
</tr>
<tr>
<td>THD</td>
<td>+ 5%</td>
</tr>
<tr>
<td>Zonal Lumens</td>
<td>Refer to Table 4 of the Technical Requirements Table</td>
</tr>
<tr>
<td>NEMA Classification</td>
<td>No tolerance</td>
</tr>
</tbody>
</table>

*ANSI C78.377-2015 also referred to for D_{uv} and (x,y) chromaticity coordinates tolerances for indoor categories.
Table 2: For test results that meet the DLC Technical Requirements, but are substantially different than the original listing

<table>
<thead>
<tr>
<th>Metric</th>
<th>Limit Type*</th>
<th>Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light output</td>
<td>LCV</td>
<td>- 9.6%</td>
</tr>
<tr>
<td>System Wattage</td>
<td>UCV</td>
<td>+ 12.7%</td>
</tr>
<tr>
<td>Allowable CCT</td>
<td>UCV &amp; LCV</td>
<td>+/- 8.1%</td>
</tr>
<tr>
<td>CRI</td>
<td>LCV</td>
<td>- 5.9%</td>
</tr>
<tr>
<td>Power Factor</td>
<td>LCV</td>
<td>- 5%</td>
</tr>
<tr>
<td>THD</td>
<td>UCV</td>
<td>+ 10%</td>
</tr>
<tr>
<td>Zonal Lumens</td>
<td>UCV &amp; LCV</td>
<td>+/- 9.6%</td>
</tr>
<tr>
<td>NEMA Classification</td>
<td>UCV &amp; LCV</td>
<td>+/- 1 Type</td>
</tr>
</tbody>
</table>

*These tolerances use limits (LCV = lower critical value, UCV = upper critical value), which are expressed as a percentage below and above the listed values on the DLC QPL.

**LCV and UCV values are limited based on DLC requirements; i.e. an UCV CCT value cannot exceed maximum CCT requirements.

1. Upon review of the test results, DLC will notify the manufacturer of the results with a final ruling on the outcome of the testing. The outcomes are as follows:
   a. The sample procured failed to meet DLC Technical Requirements when using Table 1 tolerances: the product is considered non-compliant.
   b. The sample procured meets DLC Technical Requirements, but falls outside Table 2 tolerances: the product is considered non-compliant.
   c. The sample procured meets the DLC Technical Requirements and tests within Table 2 tolerances: the product is considered compliant.
   d. The sample procured meets the DLC Technical Requirements and outperforms current listing: the product is considered compliant.

IV. Appeals Process

1. The selected manufacturer will have the option to dispute the results within 5 business days of receiving the results from the DLC. Any fees required to investigate the appeal will be at the sole responsibility of the manufacturer requesting the appeal. Appeals are only applicable to the results of testing; there is no appeals process for the consequence enforced. The product(s) will
be removed from the QPL during the appeals process (per section V.). If the original ruling is overturned, the product(s) will return to the QPL with the original date of qualification at the conclusion of the appeal.

2. The appeal must include:
   a. Sufficient detail that addresses the reason for questioning the validity of the test results, and a remedy to the situation.
   b. Agreement to pay the fees associated with the appeal. Fees will be based on administrative cost of the appeal and the fees associated with any additional required testing or product procurement to resolve appeal.

3. DLC will review the appeal, and reserves the right to ask for additional information or reject the appeal if sufficient information to explain the situation cannot be provided. Appeals will either be:
   a. Accepted: An accepted appeal may require additional product testing. If so, the procedures listed above (for procurement and testing) will be repeated. Any new test results will be used to make a final determination of the tested product’s performance.
   b. Rejected: If an appeal is rejected, the original failure ruling will stand and the product(s) will remain delisted from QPL.

4. The manufacturer will be notified at the end of the appeals process as to the final results of the appeal. Appeal results are final.

V. Consequences

The following consequences can occur based upon the final determination of the investigation. DLC reserves the right to enforce additional consequences at any level of offense.

1. The product fails to meet DLC Technical Requirements using Table 1 tolerances:
   a. First offense: A product that fails Surveillance Testing for the first time will be removed from the QPL. Products associated with the failed product will also be removed; this includes family members and private labels. DLC members will have access to generalized information regarding failed products.
   b. Second offense: A product from the same manufacturer that fails Surveillance Testing for the second time will be removed from the QPL. Products associated with the selected product will also be removed; this includes family members and private labels. DLC members will have access to generalized information regarding failed products. The
manufacturer may be suspended from the DLC program for a period of up to 12 months.

c. **Third offense:** A product from the same manufacturer that fails verification testing for the third time will be removed from the QPL. Products associated with the product will also be removed; this includes family members and private labels. DLC members will have access to generalized information regarding failed products. The manufacturer may be suspended from the DLC program for a period of up to 12 months, including the de-listing of all products currently listed on the QPL.

2. Selected product falls outside tolerances, but still meets DLC Technical Requirements using Table 2 tolerances:

   a. **First offense:** The manufacturer is required to update the product listing, at the full application fee, or opt to have the product de-listed.

   b. **Second offense:** The manufacturer is required to update the product listing, at the full application fee, or opt to have the product de-listed. Selected manufacturer may be suspended from the DLC program for a period of up to 12 months.

   c. **Third offense:** The manufacturer is required to update product listing, at the full application fee, or opt to have the product de-listed. Selected manufacturer may be suspended from the DLC program for a period of up to 12 months, including the de-listing of all products currently listed on the QPL.

3. Selected product meets DLC requirements, and tests within tolerances listed in Table 2 above: No action taken.

4. Selected product meets DLC requirements, and outperforms current listing by tolerances listed in Table 2: The manufacturer has the option to update the specific listing to better performing data from the Surveillance Testing results at no additional fee. Outperforming the current listing will be determined by evaluating being above/below the LCV and UCV specified in Table 2, whichever value indicates better performance for the specified metric. If both a LCV and UCV are specified in tolerance Table 2, the product must test between these percentages.