DesignLights Consortium®

Draft Product Verification Performance Testing Policy

For Product Challenges

Objectives:

1) Develop a process to verify validity of data listed on the DesignLights Consortium (DLC) Qualified Products List (QPL).
2) Provide transparent, equitable process for manufacturers of qualified products, manufacturers of competing products, and DLC members to submit challenges to products listed on the QPL.

Challenge Process:

a. What Can Be Challenged

Challenges can be made to the tested or rated information associated with any product (parent or child) listed on the DLC QPL. In keeping with the recent announcement for reporting dimming information, challenges can be made to whether or not a product is dimmable, but at this time, challenges cannot be made to the dimming type or performance. Additionally, challenges cannot be made to logo usage, or marketing/branding claims outside of those listed on the QPL through this draft policy.

b. Review of Challenges

Challenges submitted by manufacturers will be reviewed by NEEP, within established timelines, in the order they are received, and on a rolling basis. Challenges submitted by DLC Members will be reviewed by NEEP and the DLC Technical Committee. Challenges that do not include all necessary documentation and information will not be reviewed until they are complete.

c. Challenge Initiation

A manufacturer or DLC member wishing to challenge a currently qualified product must provide the following documentation:

I. Detailed information on the challenged product, including model number, where the sample was procured, when the sample was procured, and what factors initiated the challenge.
II. Test data conducted in accordance with the appropriate test standard(s) that demonstrates the challenged product does not perform as stated on the QPL. If the metric being challenged does not have an established test standard (i.e. warranty), sufficient information will need to be provided to demonstrate the product is not fulfilling the requirement. Note: DLC Members may provide field-collected or customer-reported information in lieu of test data.
III. Agreement that the challenger will abide by the DLC PVPT Challenge Process and cover any fees associated with the challenge. A challenge initiation form will be developed in the next iteration of the program rules.
IV. NEEP will review the challenge initiation and reserves the right to request additional information or decline the challenge at its discretion.

d. Notification to Challenged Manufacturer

Upon review and acceptance of a challenge, NEEP will notify the challenged manufacturer. The challenged manufacturer will have 10 business days from the date of notification to respond to the
challenge. Challenged manufacturers have two options in responding to a challenge: accept the challenge and sign the challenge agreement, or decline the challenge which will result in the challenged product, and associated products, being removed from the QPL. If no response is received within 10 business days the product will automatically be removed from the QPL. Challenged manufacturers can seek additional information about the challenge during this 10 day period.

I. Accepting the Challenge
   1. If the challenged manufacturer accepts the challenge, the challenge investigation will begin. Both parties (challenger and challenged) will sign the Challenge Agreement. The Challenge Agreement will be developed in the next iteration of program rules.
   2. The challenged manufacturer will be required to provide a list of all locations where the challenged product can be purchased, including lot numbers, within 5 business days of accepting the challenge. Procurement information will be required with the signed agreement.
   3. The challenger will be informed that the challenge is proceeding.

II. Declining the Challenge
   1. The challenged manufacturer will have the option to decline the challenge which will result in the product, and associated products (if applicable) being removed from the QPL with designation.
   2. Declined challenges will be tracked and NEEP reserves the right to implement additional consequences (see Consequences) any time a challenge is declined.
   3. The challenger will be notified that the challenge was upheld.

e. Challenge Investigation
   I. Collection of Fees From Challenger
      The challenger will be required to pay established fees associated with the challenge. The fee schedule will be based on administrative time necessary to process the challenge, procurement costs, and the cost of the test procedures necessary to evaluate the challenge. Note: A separate funding mechanism will be established for DLC-Member-submitted challenges.

   II. Product Procurement
      1. Three samples will be procured through DLC designated procurement agents. Samples will be procured from geographically diverse locations and from different lot numbers whenever possible. If the challenged manufacturer indicates the product is only available at one location, or from one lot, sufficient documentation will need to be provided to support the claim of limited availability.
      2. Once products are procured, the procurement agent will work with an approved lab to ship products to the lab location. Procurement timelines and lab testing will be determined during the procurement and lab selection process.

   III. Product Testing
      1. Testing will be conducted only by pre-approved labs. Approved laboratories will be determined by issuing a Request for Proposal (RFP) with specified guidelines including but not limited to laboratory accreditations, competitive prices, competency, and ability to adhere to timelines. Laboratories chosen through the RFP process will be contracted for a specified period of time. New RFPs will be
2. The metrics to be tested will be dependent on each individual challenge. For example, if the challenge is to a product’s CCT, Section 12 color measurements of the LM-79 standard will be required. If the challenge is to the product’s zonal lumen distribution, Section 10 of the LM-79 standard will be required. The specific testing required will be determined after the initial challenge is reviewed.

IV. Review of Testing Results

1. NEEP will review results of challenge testing upon completion. Established tolerances will be applied to the test data dependent on the outcome of the testing. The tolerances will be as follows:

**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>-9.6%</td>
</tr>
<tr>
<td>Efficacy</td>
<td>-3%</td>
</tr>
<tr>
<td>Allowable CCT</td>
<td>Defined by ANSI C78.377-2011*</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 5</td>
</tr>
<tr>
<td>NEMA Classification</td>
<td>No tolerance</td>
</tr>
<tr>
<td>Lumen maintenance</td>
<td>No tolerance**</td>
</tr>
</tbody>
</table>

*ANSI C78.377-2011 also referred to for Duv and (x,y) chromaticity coordinates tolerances for indoor categories.

**Lumen maintenance will be evaluated by whether or not the product meets the lumen maintenance requirements with the challenge testing results.

**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>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>
<tr>
<td>Lumen maintenance</td>
<td>N/A**</td>
<td>N/A**</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.

**Lumen maintenance will only be evaluated by whether or not the product meets the lumen maintenance requirements with the challenge testing results.

2. Upon review of the test results, NEEP will notify the challenged manufacturer and challenger of the results with a final ruling on the outcome of the testing:
a. One or more of the three samples procured fail to meet DLC Technical Requirements: Product is considered a failure (challenge upheld).

b. One or more of the three samples procured fall outside tolerances, but still meet DLC Technical Requirements: Product is considered a failure (challenge upheld).

c. All three samples procured test within tolerances: Product passes (failed challenge).

d. All three samples procured outperform current listing: Product passes (failed challenge).

V. Appeals Process

1. The challenged manufacturer and challenger will have the option to dispute the results of the challenge testing once notified of the results within 5 business days. If the challenged manufacturer chooses to dispute the results, the challenger will be notified, but is no longer involved in the process. If the challenger chooses to dispute the results, the challenged manufacturer will be notified, but is no longer directly involved in the process. Any fees required to investigate the appeal will be at the sole responsibility of the party requesting the appeal. Appeals are only applicable to the results of testing; there is no appeals process for the punishment enforced.

2. The appeal must provide:
   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. NEEP 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 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 be removed from the QPL.

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

VI. Consequences

The following consequences will be enforced at the end of the challenge investigation. NEEP reserves the right to enforce additional consequences at their discretion.

1. Challenged product fails to meet DLC Technical Requirements using the tolerances listed in table 1 above:
   a. First offense: A challenged product that fails verification testing for the first time will be removed from the QPL. Products associated with the challenged product will also be removed. An indicator will be available on
the QPL that demonstrates the product(s) were removed due to failing verification testing.

b. Second offense: A second challenged product from the same manufacturer that fails verification testing for the second time will be removed from the QPL. Products associated with the challenged product will also be removed. An indicator will be available on the QPL that demonstrates the product(s) were removed due to failing verification testing. Challenged manufacturer loses family grouping privileges for a period of up to 18 months.

c. Third offense: A third challenged product from the same manufacturer that fails verification testing for the third time will be removed from the QPL. Products associated with the challenged product will also be removed. An indicator will be available on the QPL that demonstrates the product(s) were removed due to failing verification testing. Challenged manufacturer loses family grouping privileges, and is subject to suspension from the DLC program for a period of up to 18 months.

2. Challenged product falls outside tolerances, but still meets DLC Technical Requirements using the tolerances listed in table 2 above:

   a. First offense: The challenged manufacturer is required to update the product listing, at the full application fee.

   b. Second offense: The challenged manufacturer is required to update the product listing, at the full application fee. Family grouping privileges will be suspended for a period of up to 18 months.

   c. Third offense: The challenged manufacturer is required to update product listing, at the full application fee. Family grouping privileges will be suspended, and manufacturer is subject to suspension from the DLC program for a period of up to 18 months.

3. Challenged product tests within tolerances listed in table 2 above: Product receives special designation on QPL that indicates product’s performance was verified.

4. Challenged product outperforms current listing by tolerances listed in table 2 above: Product receives special designation on QPL that indicates product’s performance was verified, manufacturer has option to update listing to better performing data from the challenge testing. To clarify, outperforming 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; there is no option for outperforming the tolerance for certain metrics (i.e. CCT).

VII. Verification Results Tracking

NEEP will track the number of challenges initiated by a given manufacturer as well as the number of times a manufacturer is challenged.