

# DLC® Horticultural Lighting Application Documentation Checklist

This checklist should be used to ensure that you have gathered the appropriate documentation, test reports, and forms to complete the DLC's horticultural lighting application.

- Application Excel Form**  
This Excel form details out information and performance for the products within the application. Templates and examples are available on the [Level 1](#), [Level 2](#), or [Product Update](#) application pages.
- Specification Sheet**  
The most current version of the product's specification sheet.
- Marketing Brochure**  
A marketing brochure for the product being submitted.
- Tested Driver Benchtop Report**  
A document that lists all drivers that are available in your product, and the results of "benchtop" testing (i.e., measurements that may be done by a manufacturer and not from a certified test lab) of these drivers at the product's maximum rated power load at the minimum and maximum input voltages for each of these drivers. This test report must show, at each input voltage condition, the following values: consumed "wall plug" power, power factor, and total harmonic distortion (current). See [this file](#) for a suggested format.
- Warranty Documentation**  
A copy of the product's warranty terms and conditions. The DLC's warranty requirements necessitate a duration of at least five years and disallow the exclusion of key components from the warranty, such as lenses, drivers, and LEDs.
- Safety Documentation**  
Evidence of safety certification to a horticultural-specific standard. This can be a Certificate of Compliance, ATM, NoA, or other document provided by your safety organization. It must include reference to the safety organization, and File or Record identifier. Please refer to the safety organization requirements in the Technical Requirements.
- "All-on" Photon Flux Test Report**  
A report (PDF) from the third-party test lab with all required photon flux and power values for verification. For dimmable or tunable products, this is the test report of the product at its maximum power state.
- Spectral Quantum Distribution (SQD) Image**  
A static, 300x300 pixel summary image in PNG format of the product's spectral quantum distribution that was collected in the test report. This will be available for users of the QPL as a basic visual summary of the available spectrum. Images must be generated from TM-33 .xml files using the DLC Hort Pre-submission Tool, accessible from your MyDLC dashboard under "Application Pre-submission Tools" in the left-hand navigation.

- Photosynthetic Photon Intensity Distribution (PPID) Image**

A static, 300x300 pixel summary image in PNG format of the product's photosynthetic photon intensity distribution that was collected in the test report. This will be available for users of the QPL as a basic visual summary of the light distribution by angle in the 400-700nm range. Images must be generated from TM-33 .xml files using the DLC Hort Pre-submission Tool, accessible from your MyDLC dashboard under "Application Pre-submission Tools" in the left-hand navigation.
- LED Specification Sheet(s)**

A specification sheet for each specific LED device type used in the product.
- LM-80 Report(s)**

The LM-80 report (PDF) showing the flux maintenance of the LED device in the PPF band. *(Individual reports may be required for each LED device type used in the product.)* An LM-80 report showing the flux maintenance of an LED in the Far Red (700-800 nm) band may be required as noted in the Flux Maintenance section of [Horticultural Technical Requirements V3.0](#), under "For fixtures using multiple types of LEDs".
- ISTMT Report(s)**

The In-Situ Temperature Measurement Test (ISTMT) report (PDF) must measure the thermally worst-case conditions for each LED (i.e., at the maximum drive current it will experience when the fixture is at its maximum rated ambient temperature at the temperature measurement point indicated in the LM-80). Similarly, ISTMTs must be provided for the thermally worst-case conditions for each non-relatable driver measured at the temperature measurement point indicated by the driver manufacturer on the driver specification sheet.
- TM-21 Report(s)**

The completed TM-21 report for the PPF-based LM-80 and ISTMT. *(Individual reports are required for each LED device type used in the product.)* A completed TM-21 report for the Far Red band may be required, as noted in the Flux Maintenance section of [Horticultural Technical Requirements V3.0](#) under "For fixtures using multiple types of LEDs".
- Driver Specification Sheet(s)**

The specification sheet for the driver(s) used in the fixture. These specification sheets should include documentation of the driver's expected lifetime, in hours, as it varies with Temperature Measurement Point (TMP) temperature. *(Specification sheets are required for each driver used in the product.)*
- Fan Specification Sheet(s)**

The specification sheet for the fan(s) used in the fixture. These spec sheets should include documentation of the fan's expected lifetime, in hours, as it varies with ambient temperature. *(Individual specification sheets are required for each fan used in the product.)*
- Spectral Channel Test Report(s)**

The test report (PDF) showing the flux output in the required ranges. The product should be in a state that maximizes the output of the channel in question, while minimizing all other channels. Directional (PPID) data is not required as a part of this test report. *(Individual reports are required for each spectral control channel in the product.)*
- Product Image**

An image of the product is required to qualify fixtures to V3.0. For [Level 1](#) applications, this must be an image of the submitted product. For [Level 2](#) applications, it can be a representative image for all products within the family or a different image for each product. Image requirements can be found in the [Guidance for Submitting Product Images](#) document.