



# Testing & Reporting Requirements for Retrofit Kits

DLC accepts QPL applications for Solid-State Lighting Retrofit Kits. Manufacturers have two options for testing retrofit kits, defined below as Option A, testing in approved or pre-approved equivalent housings or Option B, testing in a manufacturer-selected housing.

In order for DLC reviewers to verify that the retrofit kit or replacement lamp was tested in an Approved Housing, the housing used for testing must be clearly documented in the LM-79 and ISTMT reports submitted with the application. If the housing used for testing is not clearly documented in the test reports, and the test reports cannot be updated with this information, DLC will require confirmation of the housing used for testing from the laboratory(ies) that conducted the testing.

[Please review the FAQs page](#) for additional policy clarifications.

## Supporting Documentation Requirements

Applications for Retrofit Kits must provide the following supporting documentation in addition to the standard test data required for all applications.

- **Installation Instructions**

Installation instruction sheets must be submitted with the application to indicate how the retrofit kit will be installed in an existing fixture in the field. These installation instructions must be the same ones provided to customers and installers in the market.

- **Safety Certification Documentation**

All products are required to submit a compliance certificate from an approved safety certification organization relevant in the United States or Canada. This compliance document shall bear the manufacturers name and will be proof that the products listed have been investigated by the safety organization and found to be in compliance with the standards listed on the certificate. The name of this document varies by safety organization; however, it is commonly referred to as a Certificate of Compliance or Authorization to Mark.

## Testing Requirements

Manufacturers have two options for testing retrofit kits.

- **Option A:** testing in Approved or Pre-approved Equivalent Housings



- **Option B:** testing in a manufacturer-selected housing

### **Option A: Testing in Pre-approved Equivalent Housings (General Purpose)**

Option A is intended for retrofit kits that are designed to retrofit typical incumbent luminaires. The testing and reporting requirements described below are intended to subject retrofit kits to conditions in typical fixtures in order to assure confidence in performance.

For this option, DLC specifies typical fixture housings for the testing of retrofit products, referred to as Approved Housings. This is done to provide test results under common conditions in which the retrofit kits may be installed. In providing this list of typical fixture housings, DLC does not endorse or exclude any particular make or model frame for use in energy efficiency programs. Note that for each set of housings, "Pre-approved Equivalent" is also listed as an option. In selecting a fixture for testing, the manufacturer shall consider the purpose of subjecting the tested kit to typical confinement for thermal endurance.

Retrofit kits tested in an approved or pre-approved equivalent housing are considered qualified when installed in any housing of the same end-use. For example, a shoe-box style retrofit kit tested in the Lithonia KAD Contour Series approved housing, would be considered qualified (should it meet all Technical Requirements) when installed in any application applicable to the "Retrofit Kits for Outdoor Pole/Arm-Mounted Area and Roadway Luminaires" Primary Use designation. If a retrofit kit can be used in multiple Primary Uses, manufacturers will need to provide testing in a housing applicable to each Primary Use in order to be considered qualified in those end-uses. Products tested according to Option A will be designated as "General Purpose" on the QPL.

Manufacturers shall test and report fixture performance under the following restrictions and conditions:

- **Notation in the Application Form**  
Manufacturers must designate "Option A" in the cell A28 of the Application Form in addition to noting the housing model number used during testing.
- **Required Tests and Reports**  
All DLC QPL testing and reporting requirements that apply to new fixtures shall also apply to any retrofit kit application e.g.: LM-79, ISTMT, IES file, TM-21 projection etc. (Note that for lumen maintenance testing, the source manufacturer is responsible for the LM-80 test of the LED package, array, or module. A report resulting from this test must be passed on to the DLC by the applicant, as specified in the application instructions.)
- **Fixture Level Tests**  
Retrofit kits must be tested (LM-79, ISTMT, LM-80, LM-84) in a fully functional manufacturer-selected reference fixture from the approved list below, with the kit properly installed per manufacturer's instructions.
- **Reported Data**  
Reported data on the Application Form must be representative of the same tested configuration (i.e. Reported data based on performance in the reference housing).

As noted, DLC does not endorse or exclude any particular make or model of reference fixture. Options listed are intended to illustrate common fixtures of that type. Manufacturers may test in alternative fixtures to those listed, with pre-approval from the DLC.



Applicants shall test and report fixture performance under the following restrictions and conditions:

- Alternative fixtures must be commonly used in the application category intended to be applied for. Documentation may be required to demonstrate fixtures appropriate use if questions arise.
- Alternative fixtures must provide similar thermal environments to those listed under each category below. Particularly, alternative fixtures may not be significantly different in internal volume or construction materials. Note: pre-approved equivalent requests will only be evaluated against the approved fixtures listed below. Evaluation will not be made against the list of pre-approved equivalents.

\*A list of pre-approved equivalents for each category will be maintained throughout each “Pre-approved Equivalent” section of each retrofit kit category.

To request that a fixture be considered as a pre-approved equal for testing purposes, please send the spec sheet for the fixture to [applications@designlights.org](mailto:applications@designlights.org), along with a spec sheet for your retrofit kit. DLC review staff may need additional details, depending on the request and details available in the spec sheet.

### **Option B: Testing in a Manufacturer-Selected Housing (Luminaire Specific)**

DLC understands that not all retrofit kits are designed for the typical housings described above in Option A testing. If a retrofit kit is designed for a specific housing that is not represented by the approved housings listed above, and does not meet the conditions of the pre-approved equivalent process, manufacturers may select a different housing that is appropriate and representative of the housing the retrofit kit would be installed in the field.

Products tested via Option B are only considered qualified when installed in the specific housing used for testing. Additional testing in each housing will be required if manufacturers would like to have a retrofit kit considered qualified when installed in multiple housings under Option B. If a housing has multiple variations (e.g. lenses), testing must be conducted with the variation that results in the worst-case condition. The spec sheet for the housing used for testing will be reviewed during the Initial Review process to ensure the housing is still within the intended use of the currently available retrofit kit Primary Use designations listed under the current Technical Requirements Table.

DLC will determine if a retrofit kit is designed for a specific housing by reviewing the marketing material (i.e. product specification sheet) associated with the retrofit kit. Product specification sheets must clearly indicate for which specific housing the retrofit kit is intended. DLC reviewers may check web listing and other marketing materials, and reserve the right to request additional information to demonstrate the retrofit kit is only designed for a specific housing if product specification sheets are not sufficient.

Products tested according to Option B will be designated as “Luminaire Specific” on the QPL, with the housing used for testing listed in the Notes field.



Manufacturers shall test and report fixture performance under the following restrictions and conditions:

- **Notation in the Application Form**  
Manufacturers must designate “Option B” in the cell A28 of the Application Form in addition to noting the housing model number used during testing.
- **Required Tests and Reports**  
All DLC QPL testing and reporting requirements that apply to new fixtures shall also apply to any retrofit kit application e.g.: LM-79, ISTMT, IES file, TM-21 projection etc. (Note that for lumen maintenance testing, the source manufacturer is responsible for the LM-80 test of the LED package, array, or module. A report resulting from this test must be passed on to the DLC by the applicant, as specified in the application instructions.)
- **Fixture Level Tests**  
Retrofit kits must be tested (LM-79, ISTMT, LM-80, LM-84) in a fully functional manufacturer-selected reference fixture with the kit properly installed per manufacturer’s instructions.
- **Reported Data**  
Reported data on the Application Form must be representative of the same tested configuration (i.e. Reported data based on performance in the reference housing).