

ROAM DCM Qualification Test FAQ's

Why do we need to have our outdoor lighting fixture tested to be ROAM enabled?

Answer: At the most basic level, testing indicates general electrical compatibility between the ROAM DCM and the driver type that you have selected for your fixture. Qualification testing ensures that the wireless ROAM control can communicate with the remainder of the ROAM mesh network and it provides DCM configuration information critical to the proper diagnosis of your fixture once ROAM enabled. The ROAM DCM relies upon wireless communication to enable its full functionality. Metal fixtures often block RF signals. The qualification testing ensures that the DCM installation guidelines have been properly executed by verifying the ability of the DCM to communicate with devices external to the fixture at acceptable signal strengths. Additionally, ROAM allows our mutual customers to monitor and control power used by the fixture to maximize their investment in dimmable fixtures. In order to fulfill expectations of our customers – ROAM requires information related to power consumption of the fixture at full power and at various dim levels. It is important for you to recognize this and provide the information necessary for EACH unique model fixture that has different construction methods that may affect RF performance, or have different wattage performance (for example a 20 LED fixture and a 30 LED fixture will each have different maximum wattages, minimum wattages, and possibly different dimming-wattage profiles. As such – the test will be necessary for every wattage combination.

Why do we have to pay to have our outdoor lighting fixture ROAM enable tested?

Answer: ROAM has recognized that some fixture OEMs are concerned about our association with Acuity Brands (fixtures). In order to mitigate that concern – ROAM has chosen, trained, and qualified an external testing laboratory to perform this testing independent of any Acuity facility. No Acuity personnel will see the fixtures submitted for testing in this way – thus preserving your confidential information. ROAM has negotiated a standard cost for the independent laboratory to perform this testing. This payment is entirely provided to CTL directly by you. No portion of this payment ever goes to Acuity.

Will I have to pay again if I modify the construction and/or wattage of the fixture?

Answer: Yes. If you have multiple versions of the same fixture model – and the only change is the number of LEDs (and thus wattage), please consult with CTL engineering. They may be able to provide a “bundled” quote for this situation. It is important to recognize, however, that simple changes within the electronics compartment – such as adding a bracket and/or a second driver – change the RF characteristics of the fixture. At that point, a complete re-test is required.

Can I fill out one ROAM DCM Qualification Test Form for a family of fixtures that is constructed the same – and only changes the number of LEDs?

Answer: No. You must fill out a form for EACH unique fixture model.

Do I have to test every one of our lighting fixtures?

Answer: Yes. Each catalog number (sku), which embodies a different mechanical setup should be evaluated for DCM RF performance. Each catalog number (sku), which embodies a different minimum/maximum Wattage and Wattage curve vs. 0-10V dimming control voltage should be evaluated. Examples of variations in fixture construction that could cause these curves to vary include; changing driver(s), driver taps, LED count, LED configuration or LED voltage). Once a

fixture design is qualified, there is no need to re-qualify additional units of the same model number unless changes are made that affect the fixture minimum/maximum Wattage or Wattage curve vs. 0-10V dimming control voltage.

Can I perform the testing myself?

Answer: No. The testing requires specialized equipment and trained resources to ensure compliance with guidelines. Please consult with CTL if you have a large number of fixture variants that require testing.

Why can't I send a prototype for ROAM testing?

Answer: Prototypes often utilize "rough-in" parts that differ from final production in size, shape and fastening methods, as well as construction using alternate materials and wiring methods that are not refined/optimized yet for a production environment. To properly verify the RF behavior of the DCM once installed into a fixture, these variations should be eliminated by supplying tooled, production process equipment.

Can I have a copy of the quotation?

Answer: Yes. Contact CTL Engineering at 614-276-8123 to obtain a copy of the quote for testing.

ROAM is owned by Acuity Brands. Will Acuity Brands Lighting have access to my fixture or test results?

Answer: The intent of the third party test lab is to eliminate the need to ship your fixture to an Acuity Brands facility. Only ROAM personnel will have access to the pass/fail report and the DCM-specific data generated during the course of the qualification testing which is required to properly configure the ROAM DCM for your fixture. The ROAM business unit of Acuity Brands understands the sensitivity you may have about shipping new products to an Acuity company. We treat all information as confidential, and under no circumstances do we share information with any fixture groups within Acuity.

Why do you take pictures of the fixture being tested?

Answer: Pictures are taken of the DCM mounting method and location relative to the NEMA receptacle for documentation purposes to ensure compliance with DCM Installation Guideline requirements. Additionally, the label(s) are photographed to verify and have records of model numbers and serial numbers of fixtures provided for the testing. These documents are ONLY reviewed by ROAM employees.

What do I need to do to get our outdoor lighting fixture ROAM enabled?

Answer: See the following steps:

1. Integrate the ROAM DCM into your fixture per the ROAM DCM Installation Guide.
2. Make sure your fixture has a NEMA receptacle.
3. Submit a sample of your fixture along with the "ROAM DCM Qualification Test Request Form" to CTL Engineering to ensure fixture compatibility with ROAM DCM.
4. Contact the ROAM OEM sales agency – OEM Lighting Sales, Inc 718-321-0002 to obtain quotes on DCMs and order product.
5. Sell, sell, sell 😊

What is a “low dimming limit/dead band” requested on the ROAM DCM Qualification Test Request Form?

Answer: Most dimming drivers have features that control the relationship between the 0 to 10 V input to the driver and the output (current/wattage) of the fixture. Typically, there are “dead bands” at the low end and high end of the 0 to 10 volts input where the output response of the driver does not change. For example, a 0.5 volt dimming input and a 1.0 volt dimming input will result in the same current/power output. When the dimming input voltage reaches a certain threshold (say 1.2 volts) the current/wattage output will start changing. This voltage range where output does not change is called a dead band. The “low dimming limit/dead band” is the threshold where voltage input results in a change in output current/power. By knowing the dead band limits, ROAM can issue commands that are only in the “active” area of voltage input to the driver, ensuring a resultant (desired) change in power/illumination.

Who does the ROAM Enabled Qualification Testing?

Answer: We use a third party engineering lab – CTL Engineering based in Columbus, Ohio 614-276-8123. Acuity has no ownership, or other association with this company – other than choosing them to perform the testing.

Can I get a copy of the information that CTL provides to ROAM?

Answer: Yes. CTL Engineering will provide that to you in pdf format.

Can I pay by methods other than a paper check?

Answer: Please contact CTL Engineering at 614-276-8123 to discuss payment options.