

THE ILLINOIS STATE TOLL HIGHWAY AUTHORITY

September 10, 2018

CONSTRUCTION BULLETIN No. 18-02

SUBJECT: LED Luminaire Testing

The 2018 Illinois Tollway Supplemental Specifications section 1067.09(o) has been revised to allow manufacturer testing of LED luminaires in the presence of an independent witness.

As an option to an independent laboratory, the contractor may select an accredited laboratory operated by the luminaire manufacturer provided that the contractor selects and pays the expenses for an independent witness. The witness, being familiar with the testing processes, will provide independent assurance of the integrity of the testing.

The 2018 Illinois Tollway Supplemental Specifications section 1067.09(k) has been revised to clarify requirements on the visibility of external bubble levels.

Paul Kovacs

Paul D. Kovacs, P.E.
Chief Engineering Officer

09/10/2018

Date

Revisions:

Replace the last paragraph of Article 1067.09(k) with the following:

The luminaire shall be provided with integral luminaire leveling bubble levels both internal and external of the luminaire housing. The internal bubble level shall be positioned in the rear of the luminaire within the driver housing and be visible with the removable door removed. The external bubble level shall be positioned to enable a viewer, from ground level to verify a level installation. The bubble levels shall be sufficient in size (minimum 2 inch diameter) to be clearly seen at a 50 foot mounting height, and shall verify both tilt and roll relative to the horizontal plane.

Replace the first three paragraphs of Article 1067.09(o) with the following:

(o) Testing. Testing of luminaires shall be required whenever the quantity of luminaires of a given type is 30 or more. For each luminaire types to be so tested, one (1) luminaire plus one (1) luminaire for each additional 50 luminaires shall be tested, i.e., no test is required if luminaire quantity is 1 to 29; test two (2) luminaires if quantity is 30-79; test three (3) luminaires if quantity is 80-129, etc. Testing is not required for temporary lighting luminaires.

The Contractor shall coordinate the luminaire testing, propose a properly accredited laboratory. If the proposed laboratory is not independent of the manufacturer, distributor, and Contractor, then the contractor shall propose an independent witness, submit their qualifications for approval prior to any testing, and pay all associated costs including travel expenses for the independent witness.

The independent witness shall be present when tests are performed by the luminaire manufacturer. A laboratory independent of the luminaire manufacturer, distributor, and Contractor may self-certify the test results, in which case an independent witness is not required.

After all qualifications have been approved, the luminaires for testing shall be randomly selected from the project luminaires by the independent witness at the Manufacturer's facility, or by the Engineer if no independent witness is required. In all cases, the selection of luminaires shall be a random selection from the entire completed lot of luminaires required for the contract. Selections from partial lots will not be allowed. The shipping carton of each luminaire selected for testing shall be marked with the Illinois Tollway contract number and a unique sample identifier.

Replace the eleventh paragraph of 1067.09(o) with the following:

The summary test report shall consist of a narrative documenting the test processes, highlight any deficiencies and corrective actions, and clearly state which luminaires have met or exceeded all test requirements and may be released for delivery to the jobsite. Photographs shall also be used as applicable to document luminaire deficiencies and shall be included in the test report. The summary test report shall include photometric and electrical test reports, and

point-by-point photometric calculations performed in AGi32 sorted by luminaire type, wattage, and distribution. All test reports shall be certified by the independent test laboratory's authorized representative or the independent witness, as applicable, by a dated signature on the first page of each report. The summary test report and the test reports shall be delivered to the Engineer, Contractor and Illinois Tollway as an electronic submittal. Hard copy reports shall be sent by certified mail directly to the Engineer for record retention.

Replace the last paragraph of 1067.09(o) with the following:

The process of retesting corrected or replacement luminaires shall be repeated until luminaires for each type are approved for the project. Corrections and re-testing shall not be grounds for additional compensation or extension of time. No luminaires shall be shipped from the Manufacturer to the jobsite until all luminaire testing is completed and approved in writing. Submittal information shall include a statement of intent to provide the testing as well as a request for approval by the Engineer of the chosen accredited laboratory. The qualifications of the independent witness shall be submitted to the Illinois Tollway for approval.