



## **I. INSTRUCTIONS**

1. Any person or company submitting a solid-state (LED or Plasma) Roadway or High Mast Luminaire product to the NCDOT for possible inclusion on the NCDOT Approved Products List ([APL](#)) shall follow the instructions and requirements outlined below as well as send a completed Product Evaluation Program (PEP) [Application](#) to [productevaluation@ncdot.gov](mailto:productevaluation@ncdot.gov).
2. One Product Evaluation Program Application may be submitted for each solid-state Roadway or High Mast Luminaire product line or series. However, in the product description portion of the application, please list all luminaire product (models) being evaluated in the product line.
3. Once the PEP Application has been processed, a Letter of Acknowledgment will be sent. Details regarding a field evaluation of at least two roadway light fixtures and/or six high mast light fixtures per application will be included in the letter as well as the product's NCDOT tracking number. If required by the Department, the field evaluation requires at least one year of testing after the applicant successfully coordinates and installs the test fixtures in the NCDOT provided test location. Materials, equipment, installation, maintenance, and removal expenses of the sample luminaire product used in the field evaluation are solely the responsibility of the applicant. Unless modified in the Supplemental Requirements below, the applicant is required to install the test lights in accordance with Articles 1400-1, 1400-2, 1403-1, 1403-2, 1403-3, 1406-1, 1406-2 and 1406-3 of the NCDOT 2012 [Standard Specifications](#) and at no cost to the Department.
4. Questions regarding the evaluation process should be directed to [productevaluation@ncdot.gov](mailto:productevaluation@ncdot.gov).

## **II. SUPPLEMENTAL REQUIREMENTS**

In order for any solid-state Roadway or High Mast Luminaire to be evaluated for possible inclusion on the APL, the following minimum criteria **must** be met. Check each box and complete the fields below to acknowledge that the product meets all the requirements for product review.

- Photometric files for all Roadway or High Mast Luminaires have been included with the PEP Application.
- Summary of reliability testing showing the luminaires have a minimum L70 rating of 100,000 hrs at 25°C.
- Luminaire electrical components (driver and surge protection) meet the dust and moisture requirements of ingress protection (IP) of at least IP65 and IP66 for the optical compartments as specified in ANSI C136.25. **IP Rating:** \_\_\_\_\_.
- Data has been provided which shows the luminaires are rated for continuous service at an ambient temperature of 40°C.
- The Effective Projected Area (EPA) and weight of the luminaires shall not exceed 1.2 ft<sup>2</sup> and 55 lbs for roadway luminaires and 2.5 ft<sup>2</sup> and 65 lbs for high mast luminaires. **EPA:** \_\_\_\_\_ ft<sup>2</sup> **Weight:** \_\_\_\_\_ lbs.
- The luminaire manufacturer shall have no less than five (5) years of experience in manufacturing solid-state roadway lighting products. **Years of Experience:** \_\_\_\_\_.
- The manufacturer facility is ISO 9001 compliant.
- The luminaire shall be rated for 120VAC at 50/60 Hz and shall operate normally for input voltage fluctuations of ± 10%. **Note:** this voltage requirement is for the test facility only. If product is approved for use, voltage requirements may vary on a per project basis. **Rated for:** \_\_\_\_\_ VAC at \_\_\_\_\_ Hz.
- Luminaires are listed for wet locations, and Luminaires are UL listed and labeled.
- Mechanical design of protruding external surfaces (heat sink fins) on roadway luminaires facilitate hose-down cleaning and discourage debris accumulation.
- The luminaire must have a minimum Color Rendering Index (CRI) of 60 with a Correlated Color Temperature (CCT) of 3500K to 4500K. **CRI:** \_\_\_\_\_ **CCT:** \_\_\_\_\_ K.
- Liquids and/or moving parts are not used for thermal management.
- A minimum ten (10) year warranty is provided which begins at project acceptance and covers maintained integrity and functionality of the luminaire housing, wiring and connections, light source(s) and driver. For LED luminaires, negligible light output from more than 10% of the LED packages constitutes luminaire failure. **Warranty:** \_\_\_\_\_ Years.