

NXT™ SERIES

PERFORMANCE SPECIFICATIONS

1. LUMINAIRE DESIGN AND PERFORMANCE

- 1.1 cULus, NOM, C-Tick, CE listed.
- 1.2 Capable of $\pm 5^\circ$ of vertical tilt, with a built-in step mount with increments of 2.5° .
- 1.3 Surge protection of 10kV, 10kA as per ANSI C62.41.
- 1.4 Tool-less entry is required. The driver and surge protection shall be mounted internally and be easily replaceable.
- 1.5 3G vibration testing as per ANSI C136.31 Roadway Luminaire Vibration. Required documentation: Independent 3rd party laboratory report.
- 1.6 Single piece die cast unit constructed of premium aluminum alloy with $<0.6\%$ copper content or better (such as A360, LM6, or ALSi12). Housing shall not contain extruded aluminum, nor consist of multiple pieces fastened using bolts, screws, or other mechanical fastening devices.
- 1.7 NXT-S & NXT-M: Minimum Efficacy (Luminaire) of 110 Lm/W (350mA drive current, at $25^\circ\text{C}/77^\circ\text{F}$ ambient temperature). NXT-C: Minimum Efficacy (Luminaire) of 100 Lm/W (525mA drive current, at $25^\circ\text{C}/77^\circ\text{F}$ ambient temperature).
- 1.8 Lighting module (light engine and optics) shall be a single unit that is field-upgradeable without the use of a single tool, with a touch-time of less than 2 minutes.
- 1.9 Lighting distribution pattern shall be field changeable without the use of a single tool.
- 1.10 Optics shall be covered by a flat, IK09 rated glass lens.
- 1.11 Power supply chamber shall be ingress protection rated IP66. Sealed power supplies in an IP54 or other non-IP66 rated chamber shall not be acceptable.
- 1.12 Luminaire's IP66 chamber shall be fitted with a filter to accommodate pressure differences between sealed fixture internal chambers and the outside environment.
- 1.13 Area between heat sink fins shall be angled at a minimum of 5° to promote drainage, ice/snow removal, and shedding of other debris.
- 1.14 Shall have no exposed screws beyond those in the terminal block area, ground lug, and the door latch.
- 1.15 Painted luminaires shall be tested in accordance with ASTM B117 to 1,000 hours.
- 1.16 Independent 3rd party IES LM-79-08 report shall be provided for all luminaires submitted.
- 1.17 Luminaire shall be equipped with 7 pin receptacle as per ANSI C136.41
- 1.18 Luminaire shall be available with optional Long-life photocell with a minimum 10-year warranty.
- 1.19 Shall be suitable for secure mounting on a 42-60mm (1.625" - 2.375") outside diameter horizontal tenon and have optional vertical mount (post-top mount) capable of accepting 76mm (2.99") and 60mm (2.36") tenons.
- 1.20 The luminaire shall have an option for shielding to reduce light trespass which the end user can install in the field, without the use of tools.
- 1.21 Field switchable drive current system available, with manual rotary switch that can be adjusted to 4 or greater positions without the requirement of a single tool. Switch shall be installed in an IP66 chamber to protect it from the elements.
- 1.22 Long-term environmental impact should be considered in the design. Product should have a field service life of 25 years or greater with field replaceable components which can be used to upgrade the unit over time to remain up to date with current market LED efficiency and energy savings over the life of the product, without having to replace the complete luminaire.

2. LED SPECIFICATIONS

- 2.1 At 10,000 hours, LM-80 data shall demonstrate lumen maintenance of 97% or better at $85^\circ\text{C}/185^\circ\text{F}$ Junction Temperature and an operating current of 700mA.
- 2.2 LM-80 data shall demonstrate reported L70 of 347,000 hours or higher at $85^\circ\text{C}/185^\circ\text{F}$ Junction Temperature based on minimum of 10,000 hours data at 700mA.
- 2.3 Correlated Color Temperature (CCT) shall be 4000K $\pm 300\text{K}$, with a minimum CRI of 70 (Optional 3000K $\pm 300\text{K}$).

3. POWER SUPPLY (DRIVER) SPECIFICATIONS(120 - 240V STANDARD POWER SUPPLY)

- 3.1 Power supply shall be a high reliability system with design features and components that provide for a minimum of 20 years life expectancy at $20^\circ\text{C}/68^\circ\text{F}$ ambient temperature.
- 3.2 Power supply shall be upgradeable in the field without the use of a single tool, with a touch-time of less than 2 minutes.
- 3.3 The power supply drive current shall be less than or equal to 700mA unless it can be demonstrated that power supplies with higher drive currents can meet the Mean-Time-Between-Failure (MTBF) requirements defined by user.
- 3.4 Power supply shall contain no tar or urethane-based potting materials. Required documentation: Written confirmation of compliance from power supply manufacturer.

4. MANUFACTURING

- 4.1 Manufacturer shall have no less than ten (10) years of LED street light manufacturing experience and a minimum of 1,000,000 LED street/roadway luminaires installed. Required documentation: Written confirmation from luminaire manufacturer.
- 4.2 ISO 9001 certification for power supply and light engine assembly facilities.
- 4.3 Power supply and LED light engine assembly shall take place in a RoHS compliant facility for quality and process control purposes.
- 4.4 Nitrogen shall be used in the soldering process. Required documentation: Compliance letter from the electronics facility utilized.

5. WARRANTY

- 5.1 Manufacturer shall provide at a minimum a 5-year luminaire warranty, which shall include housing, power supply and LED light engine. Other warranty options may be available