

June 1, 2023

WSDOT Rescinded Approval of AEL ATB0 Series LED Luminaires

To whom it may concern:

As of April 10, 2023, the Washington State Department of Transportation (WSDOT) rescinded approval of the American Electric Lighting (AEL) Autobahn ATB0 series LED roadway luminaires that had been listed on the WSDOT pre-approved LED luminaire list (available at <https://wsdot.wa.gov/engineering-standards/construction-materials/electrical-materials#luminaires>). It was determined at that time that the ATB0 series luminaires listed were not available with a 4-bolt slip-fitter connection (clamp) as was originally thought.

WSDOT Standard Specification 9-29.10(1) requires a 4-bolt slip-fitter connection as a standard practice. This is required as a form of added protection from issues which could result in a luminaire coming loose and/or falling that are beyond what ANSI C136.31 3G vibration testing can evaluate for. These issues are generally unique to the freeway environment, where a combination of high speeds and large truck volumes result in greater repetitive stresses, particularly on structures (bridges), and where thrown or flung objects (such as part of an unsecured load or a vehicle part as a result of a collision) would normally be moving at much higher speed if they hit a pole. These issues are less likely to occur on most conventional roadways, where speeds and/or traffic volumes are generally lower.

As such, WSDOT wants to be clear that a 2-bolt slip-fitter connection is not inherently unsafe, and that 3G vibration testing and certification is a robust and effective method of testing the security of a luminaire mounting connection. WSDOT has chosen to require a 4-bolt connection to go above and beyond regarding the security of the luminaire mounting connection. The 4-bolt connection also provides WSDOT with some leeway on frequency of regular maintenance checks on the connection, particularly since many freeway locations are difficult to access and cannot be evaluated as frequently as most surface street locations. Due to system standardization, WSDOT uses this mounting type on all installations regardless of roadway type or classification. WSDOT considers this no different than having a backup power supply for an electronic device or similar redundant system – the basic system is not necessarily inadequate on its own, but the added feature provides additional protection should something have an unexpected and unpredictable issue.

If there are any questions regarding this rescinded approval, please feel free to contact me.

Sincerely,



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References:

- WSDOT Standard Specifications: <https://wsdot.wa.gov/engineering-standards/all-manuals-and-standards/manuals/standard-specifications-road-bridge-and-municipal-construction>
- ANSI C136.31, American National Standard for Roadway and Area Lighting Equipment – Luminaire Vibration: <https://www.nema.org/standards/view/american-national-standard-for-roadway-and-area-lighting-equipment-luminaire-vibration>