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Title:	Light-Emitting Diodes (LED) for Highway Lighting Installations
Division:	Transportation Infrastructure Management (TIM)
Branch:	Design and Engineering Branch (DEB)
Office:	Traffic and Electrical Engineering Delivery Office
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Memo Number:	DEB-EED-2025-01
Approved by:	
Becca Lane Director Design and Engineering Branch	Eric Yao Head, Electrical Engineering Delivery Office

Implementation

This memorandum is effective as of the date of issue.

This memorandum replaces previous policy:
 Directive B-027, Highway Illumination – High Pressure Sodium Luminaires

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The ministry implemented Directive B-27 Highway Illumination – High Pressure Sodium Luminaires in 1979, to formally accept HPS as the primary light source for highway lighting installations. HPS has been widely utilized for over 40 years in the lighting industry.

Between early 2000s and 2016, the ministry conducted several trial projects to apply technologies to reduce the energy consumption of highway lighting.

By 2016, with developments in LED technology, the Electrical Engineering Delivery Office accepted and applied LED for new highway lighting projects, including the replacement of HPS systems where they approached end of their service life. HPS lighting was no longer specified.

Current LED highway lighting projects specify a correlated colour temperature (CCT) of 3000K or 4000K. Initially, a 4500K +/- 500K CCT limit was set during the early LED trials, but this was adjusted based on LED advancements, industry research and standardization, and experiences gained from other jurisdictions to minimize discomfort for the public while ensuring traffic safety.

With the ongoing technological advancements, the lighting industry has transitioned to LED, rendering Directive B-027 to become obsolete. As a result of the industry transition, HPS lamps and replacement parts have become difficult to procure.

Policy

The ministry shall formally adopt LED as the primary light source for all highway lighting installations.

The correlated colour temperature of all new LED highway lighting installations shall be less than or equal to 4000K.

Existing HPS systems are to be maintained until end of their service life, or until replacement parts are no longer available to be sourced.

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