

Light-Emitting Diode (LED) Highway Lighting

Illuminating the Road Ahead

LED highway lighting luminaires are being installed on highways and bridges across Pennsylvania in place of traditional High-Pressure Sodium (HPS) luminaires. This provides highway lighting designers with another option when scoping their projects for efficiencies, motorist safety and community needs.

What are the benefits?

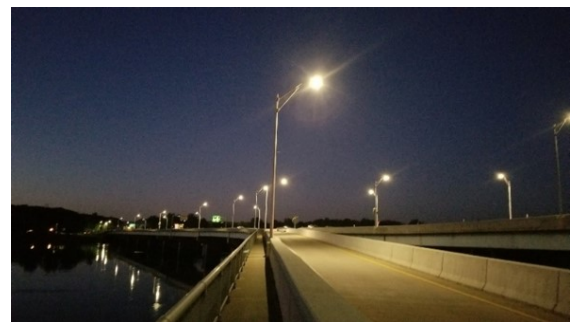
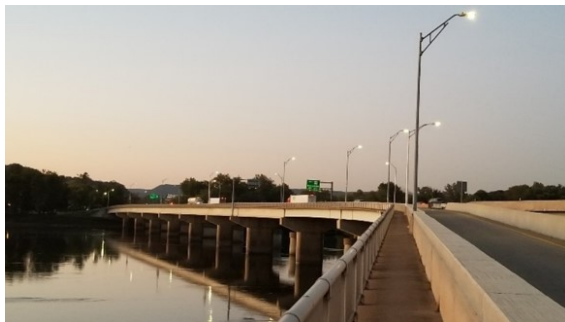
- Overall **cost efficiency** of LED luminaires is **about 30 percent greater** than traditional HPS luminaires
- LED luminaires **require less maintenance** and no cyclical replacement
- LED luminaires **cast a white light** that **appears brighter** to motorists than the orange light cast by HPS luminaires
- LED luminaires **better penetrate fog**



How does it work?

Lighting on Pennsylvania roadways is transitioning from HPS to LED luminaires to make them brighter and safer for motorists and pedestrians alike. LED luminaires have an estimated 20-year life with a 10-year manufacturer guarantee, which is a requirement for [PennDOT Bulletin 15](#) approval. They require less maintenance and are about 30 percent more energy cost efficient than HPS lights.

LED lighting specifications were added to [PennDOT's Publication 408](#) in 2016. Installing LED luminaires on traffic signals is also part of the [Green Light-Go](#) reimbursement grant program provided to local municipalities in Pennsylvania.



How do I learn more?

To learn more about this innovation, visit www.penndot.pa.gov/stic or email penndotstic@pa.gov.