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Common Misconceptions of SSL Technology in Area/Roadway Lighting



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Technology Misconceptions Overview


Common Misconceptions of SSL Technology in Area/Roadway Lighting

1. Glare will be greater from luminaires with many small point sources and/or LED spectrum will increase glare
2. Standard warranties will be sufficient
3. Maintenance will not be an issue

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Technology Misconception: Glare

Glare is an increased concern with SSL



I-35W St. Anthony Falls Bridge

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Technology Misconception: Glare

Glare Less of an Issue than Anticipated

St. Anthony Falls (I35) Bridge, Minneapolis, MN

"The new bridge lighting creates _____ glare than other roadway lights."

Response	Chart	Frequency	Count
Much less		21.7%	97
Somewhat less		33.3%	149
No noticeable diff in		38.5%	172
Somewhat more		5.6%	25
Much more		0.9%	4
		Valid Responses	447
(Respondents could only choose a single response)		Total Responses	447

Only **6.5%** of respondents perceived that the new (LED) bridge lighting created more glare than other roadway lights.

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**Technology Misconception:
Glare**

Glare Less of an Issue than Anticipated




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**Technology Misconception:
Warranty**

Warranties have become a major issue


Typical HID Warranties	Typical LED Warranties
<ul style="list-style-type: none"> • 5-year for the luminaire <ul style="list-style-type: none"> ◦ 20-year expected life • 2-years for the ballast <ul style="list-style-type: none"> ◦ 12+year expected life • 1-year for the lamp <ul style="list-style-type: none"> ◦ 2-6year expected life 	<ul style="list-style-type: none"> • 3-year for the luminaire <ul style="list-style-type: none"> ◦ 20-year expected life • 2-years for the PSU <ul style="list-style-type: none"> ◦ 10-year expected life



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**Technology Misconception:
Warranty**


Current required warranties for DOE-related programs



CHANGE FOR THE BETTER WITH ENERGY STAR

DOE SSL Energy Star®

- 3-year manufacturer warranty including luminaire, light source, and power supplies



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Single and commercial buildings
Energy Alliance

DOE Commercial Energy Building Alliance
LED Parking Lot Specification – Procurement Project

- 10-year manufacturer warranty including luminaire, light source, and power supplies

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**Technology Misconception:
Maintenance**

Maintenance will not be an issue




I-35W St. Anthony Falls Bridge – Longitudinal Study

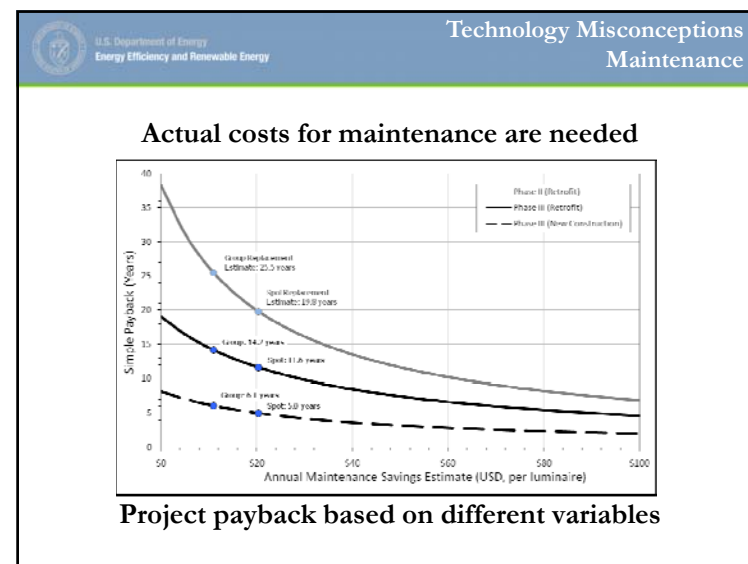
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Technology Misconception: Maintenance

Actual costs for maintenance are needed



LED luminaire on Oakland, CA street



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Technology Misconceptions DOE References & Resources

Resources & References for Projects Shown

DOE GATEWAY Technology Demonstration (*I-35W*)

- <http://www.netl.doe.gov/ssl/techdemos.htm>

DOE SSL Energy Star® (*Warranty Slide*)

- http://www.netl.doe.gov/ssl/energy_star.html

DOE Commercial Building Energy Alliance (*Warranty Slide*)

- <http://www1.eere.energy.gov/buildings/alliances.html>

Oakland Street Lighting-Phase III (*Maintenance Slide*)

- <http://www.etc-ca.com/database/summary.php?id=475>