



City of Goleta
DEPARTMENT OF PUBLIC WORKS

LED Street Lighting Project – Town Hall

June 22, 2021

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LED Street Lighting Project - Project Background

➤ Scope

- Acquire Streetlights from SCE
- Streetlight Fixture Design and Public Outreach/Pilot Study
- Convert HPS Fixtures with LED Streetlight Fixtures

➤ Purpose

- Reduce Energy Consumption
 - 50% Reduction in energy consumption
- Reduced Electricity/Maintenance Costs
 - Over \$100,000 in energy savings
- City Ownership/Control of Citywide Streetlights

➤ Funding

- SCE On-Bill Financing Program and Rebates

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LED Street Lighting Project - Public Outreach

➤ Public Outreach

- City Council Meetings (3)
- Pilot Study
- Multiple Press Releases and Pilot Study Survey
- Green Committee Meeting
- Monarch Press Articles
- Online FAQ
- Informational Video
- Design Maps on Website

➤ Ongoing Streetlight Maintenance

- <https://www.tankolighting.com/goleta>
- Include name, issue, location, and any other details

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LED Street Lighting Project – Design Considerations

➤ Design Considerations

- Based on:
 - Public Input and Pilot Study Feedback
 - Design Consultant Firm Experience and Expertise
 - LED Installation History
- City Specific Design Considerations
 - Ensure Dark Sky Compliance
 - Low LED Color Temperature
 - Reduce Light Pollution/Trespass

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LED Street Lighting Project – Dark Sky Compliance and Shields

➤ Dark Sky Compliance

- Fixtures with less than 2% upright considered dark sky compliant
- Existing HPS lights do not meet this criteria
- All Piloted LED fixtures do meet this criteria
 - LED fixtures are designed to focus light onto the roadway

➤ Shields

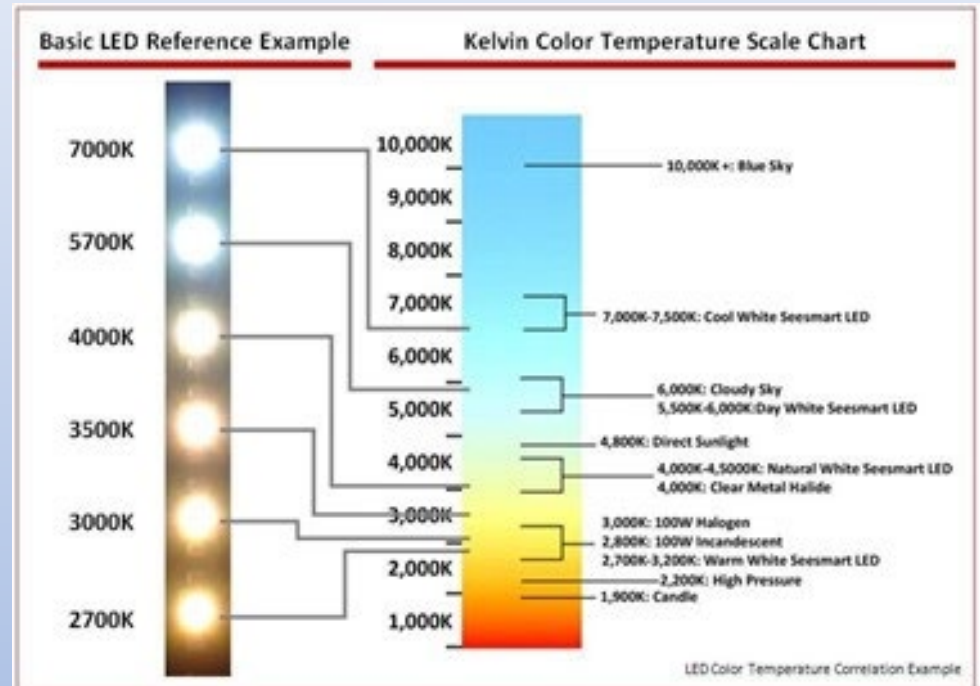
- Automatic consideration criteria
 - T-intersections
 - Abutting backyards
 - Curved road segments
- Retrofitting options

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LED Street Lighting Project – Color Temperature

➤ Color Temperature

- Measured on a scale of Kelvin
- Existing HPS lights at ~2,200K
- Lights in pilot were 3,000K
- Fixtures recommended for installation will be 2,700K
 - Warmer, more yellow glow



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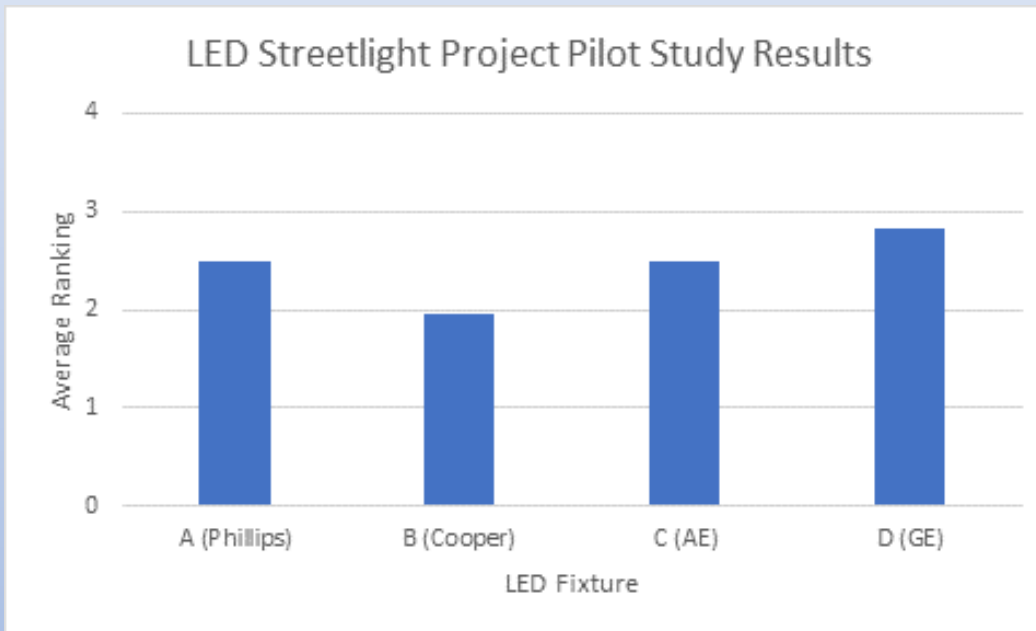
LED Street Lighting Project – LED Design Maps

- LED Design Maps
 - Located on Streetlight Web Page
 - cityofgoleta.org/ledstreetlights

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LED Street Lighting Project - Pilot Study

Pilot Study Results and Feedback



Concern	Dark Sky Compliance	Color Temperature	Shielding	Brightness	Environmental
Percentage of Comments	21%	28%	12%	36%	3%

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LED Street Lighting Project - Recommendation

➤ LED Fixture Selection

- Public Outreach and Pilot Study Feedback
- LED Fixture Manufacturer History and Experience
- Municipality and SCE Installation
- LED Fixture Performance
- Consultant Experience

➤ Recommendation

- Recommending the City approve 2,700K General Electric (GE) for the Project and as the City's Streetlight Fixture Design Standard, and implement the LED Street Light Design Map Book

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LED Street Lighting Project – Next Steps

- City Council
 - July 20, 2021

- Procurement of fixtures
 - Takes anywhere between 6-8 weeks
 - Order will be placed as soon as City Council approves

- Schedule for installation
 - A schedule for installation will begin development after ordering fixtures

- Installation
 - Set to begin as soon as fixtures arrive

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LED Street Lighting Project Questions and Comments

Questions and/or Comments?