

KCP&L LED Initiatives

Pilot Programs in Progress

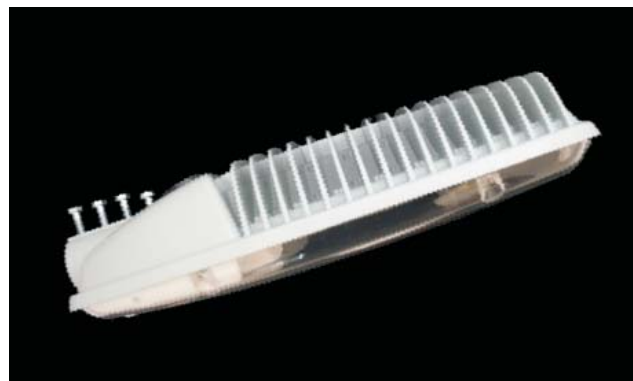
2012

Current Environment

- KCP&L has a majority of High Pressure Sodium (HPS) streetlights. These lights are affordable, meet standards and provide efficient lighting solutions for our local communities.
- (LED) streetlights provide a better quality of light, and technologies have advanced enough to allow for general usage.
- Local communities are interested in learning more about LED lighting and have received pressure from residents to install energy efficient lighting that lowers cost and is saves on the environment.



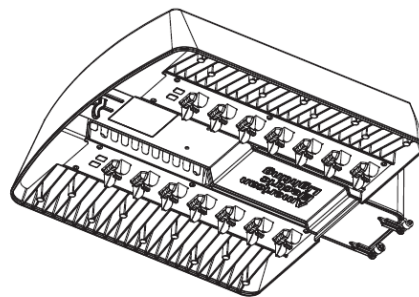
General Electric Evolve



Sylvania LED Folio



Howard USC



American Lighting LEDR



Cooper Ventus



Ecofit Durastreet

LED Roadway Evaluation Fixtures



Cooper OVHA

Pilot Programs in Progress

- KCP&L Pilot
 - Install LED test fixtures in
 - 5 Communities
 - 6 vendors Selected
 - Lab Testing to verify Fixture Data
 - 44 Fixtures Installed
 - Installation Completed 11/2010
 - Field Evaluation 5/2011
 - Web Survey at KCPL.COM
- KCMO City Pilot
 - 120 fixtures in KCMO
 - Testing and Field Measurement of Light Effectiveness
 - KCP&L and City Sharing Data and Results
- Other Cities with Municipal Street Lights have Pilot Installations

Pilot Programs in Progress

- MARC Grant
 - Smart Lights for Smart Cities
 - ARRA Grant
 - Install 4000 high efficiency Street Lights
 - Involves 26 Cities, KCP&L, Westar, Platte/Clay REC
 - 16 Vendors Evaluated
 - 3 LED, 2 Induction Vendors Selected
 - 2002 LED Fixtures installed to date
 - Pilot Rates Approved by Kansas and Missouri Commissions
 - MARC collecting Customer Response
 - Installation scheduled for completion 12/2012
 - Evaluation through 2013

Results to date

- General response to installations has been positive
- Some fixtures have been removed due to Customer complaints
- Energy saving are generally obtained by reduction in lighting levels.
- Pilot Rates similar to HPS equivalent fixtures
- Products continue to evolve at a rapid rate.
Model lifespan still 1 year or less