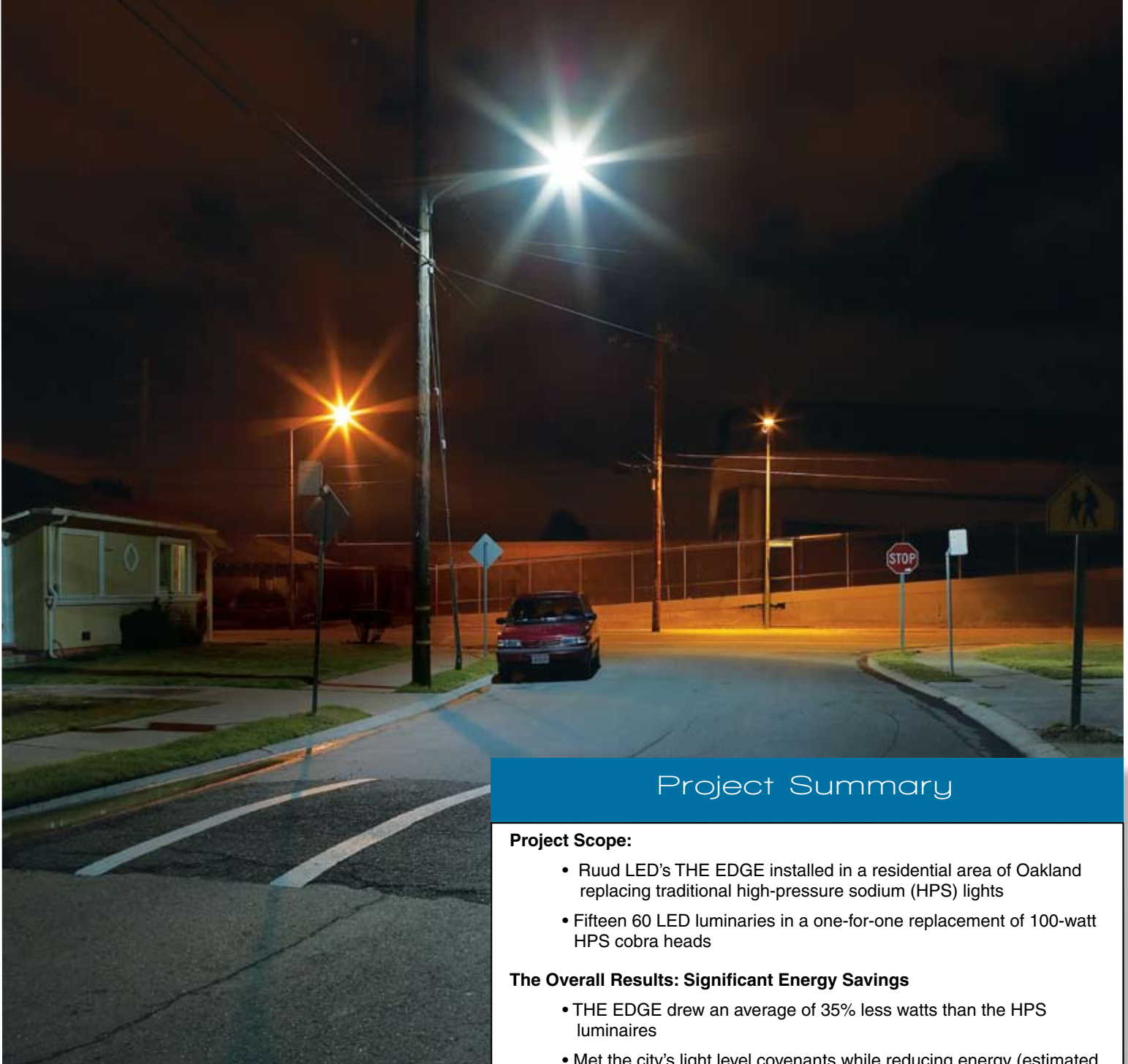


RUUD LED PROJECT OVERVIEW

City of Oakland, California



LED STREETLIGHTS PAVE THE WAY
FOR HUGE SAVINGS

THE EDGE™ provides Oakland, CA energy savings
and better light. Foreground: LED, Background: HPS



Project Summary

Project Scope:

- Ruud LED's THE EDGE installed in a residential area of Oakland replacing traditional high-pressure sodium (HPS) lights
- Fifteen 60 LED luminaires in a one-for-one replacement of 100-watt HPS cobra heads

The Overall Results: Significant Energy Savings

- THE EDGE drew an average of 35% less watts than the HPS luminaires
- Met the city's light level covenants while reducing energy (estimated annual electrical savings of 178 kWh per luminaire)

...and Better Performance

- Improved uniformity with equal or higher minimum light levels across all spacings
- The need for over-lighting greatly reduced since THE EDGE has a much lower lifetime lumen depreciation curve
- Consistently positive comments from residents about THE EDGE

RUUD LED PROJECT OVERVIEW

City of Oakland, California



Ruud LED's THE EDGE Reduces the City of Oakland's Energy by 35%

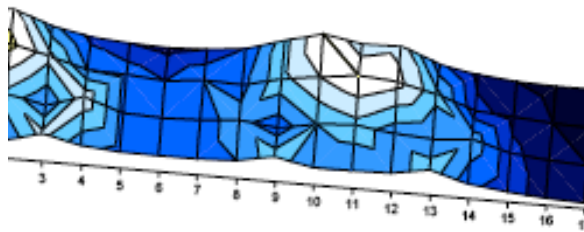
Motivated by escalating energy costs, substantial rebates for using high efficiency products and meeting the local utility's goals for energy reduction, the City of Oakland, CA teamed up with Pacific Gas and Electric (PG&E) Emerging Technologies (ET) program to find solutions to help curb the city's annual \$4 million energy and maintenance bill for streetlights. Project leaders approached the U.S. Department of Energy (DOE) to work with the Solid State Lighting Program, a national initiative to implement energy efficient commercial lighting projects in local communities.

These entities collaborated and selected a three-block area to test LED benefits. The LED Street Lighting Assessment project studied the applicability of LED luminaires on existing street light poles by replacing HPS luminaires with Ruud LED's THE EDGE.

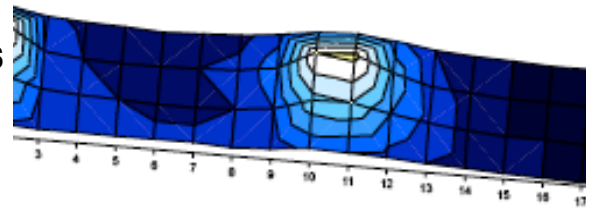


IES Surface Plots

THE EDGE™ LED



HPS



Achieve Incredible Results With THE EDGE!

SAVE ENERGY

You can expect a minimum of 35% savings and as much as 75%.

ZERO MAINTENANCE

THE EDGE requires no maintenance, eliminating costly re-lamping and replacement from vandalism.

FAST PAYBACK

Combine energy savings and maintenance, and realize payback in as little as three years.

CALL RUUD LED: 39 055 343 081

Our experts will design a solution for your specific application and calculate the advantage of choosing THE EDGE.



HPS

LED

