



## LED CEILING AND EXHAUST FANS

The objective of this project is to develop and commercialize LED-based lighting kits for ceiling and exhaust fans in residential applications. Additionally, the project explores the integration of control systems to the LED fan systems to determine if additional energy savings can be achieved in a cost-effective manner.

The LED ceiling fan is designed to serve as a replacement for ordinary incandescent ceiling fans. The LED ceiling fan is fully dimmable and the LED optical design reduces glare usually associated with LEDs. The LED light kit will be designed to have an output of 40 lm/W (approximately 800 lumens at 20 watts). Typical incandescent kit systems usually produce less than 15 lm/W.

<b>Lumen Output</b>	800 lumens*
<b>System Efficacy (lm/W)</b>	40 lm/W*
<b>CRI</b>	75–80
<b>CCT</b>	3000K
<b>Life Hours (L70) Rating</b>	35,000+*
<b>ENERGY STAR Compliant</b>	Yes
<b>Cost Range</b>	\$200 per stand-alone unit
<b>Annual Cost Savings</b>	\$58 per year

### Applications:

Residential retrofit, commercial retrofit, and new construction opportunities

### Collaborators:

Architectural Energy Corporation  
California Lighting Technology Center  
Hunter Fans

### Current Status:

A higher performance LED light kit is under development to provide both standard and specialty fans with improved specifications.

### CONTACT:

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\* The numbers listed here are projected specifications for this technology and based on current demonstrations. Specifications may change upon further development of this product.

Lighting California's Future is a \$3.7 million California Energy Commission Public Interest Energy Research (PIER) Program focused on lighting technologies for buildings. The program, which is managed by Architectural Energy Corporation, includes nine technical projects with a cross-cutting market connection program.

The goal of LCF is to meet California's growing needs for energy efficiency and demand response by creating and introducing energy-efficient, advanced lighting technologies.

