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**Recent Work** 

Title

The Berkeley Lamp - Energy-efficient lighting for the 21st century

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#### THE BERKELEY LAMP

THE BERKELEY LAMP PROVIDES EXCELLENT TASK-AMBIENT ILLUMINATION WHILE USING LESS ENERGY THAN CONVENTIONAL LIGHTING APPROACHES.



DEVELOPED BY LIGHTING RESEARCHERS AT LAWRENCE BERKELEY NATIONAL LABORATORY (BERKELEY LAB), THE BERKELEY LAMP'S UNIQUE DESIGN SUPPLIES A HIGH QUALITY AND EFFICIENT LIGHT FOR OFFICE AND HOME USE.



The research, development, and market transformation activities for the Berkeley Lamp were undertaken by Lawrence Berkeley National Laboratory in partnership with the U.S. Department of Energy (US DOE) and the California Energy Commission (CEC) Public Interest Research (PIER) program. Development of the Berkeley Lamp was funded by US DOE and followed from earlier research funded by the CEC PIER

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### For pricing, availability and product orders, please contact:

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Ernest Orlando Lawrence Berkeley National Laboratory is a multiprogram national laboratory managed by the University of California for the U.S. Department of Energy. The oldest of the nine laboratories, Berkeley Lab is located in the hills above the campus of the University of California, Berkeley.









### THE BERKELEY LAMP



## USER CONTROLLED LIGHTING TO SUIT EVERY ENVIRONMENT

The new lamp uses two independently controllable and fully dimmable compact fluorescent lamps (CFLs). One lamp's light is directed downward, illuminating the table or desk. The other directs light up toward the ceiling, providing high-quality indirect lighting. An optical "septum" separates the two lamps, allowing three modes of lighting: downward lighting only, upward only, or up and down together. The relationships between the lamps, the septum and the lamp shade have been designed to maximize the efficient distribution of light as well as to provide soft and even shade brightness.

Lamp features were designed to enhance lighting quality and user visibility particularly in office applications with computer tasks. These features include providing a level of flux that is significantly greater than traditional task lights.

At full power, this two-lamp fluorescent system matches the combined luminous output of a 300watt halogen lamp and a 150-watt, incandescent table lamp while using only a quarter of the energy.

#### THE BERKELEY LAMP



The Berkeley Lamp is a clear energy saver in homes, and a great energy-efficient alternative in office spaces. Substantial savings can be had by turning off overhead room lighting altogether and using this lamp instead. The "down" light gives the

# BETTER LIGHTING THAT SAVES MONEY AND ENERGY

flux (light output) for most tasks, while the "up" light provides a low-glare ambient light that is ideal for computer environments.

The fully dimmable and controllable lights allow for maximum flexibility by enabling the user to adjust the lighting system to changing needs. The dimming option increases energy savings by allowing users to reduce power when they need less light. The lamp also produces a more uniform light, reducing the harsh "hot spot" effect produced by halogen lights and some CFL designs.

The table lamp shown is manufactured by Light Corporation of Grand Haven, MI in support of state-wide field demonstration in California sponsored by the Department of Energy, Sacramento Municipal Utility District, Southern California Edison and Pacific Gas and Electric.

