



GCLF Project #100-34

Faculty of Arts and Sciences

T12 to T8 lighting conversion at FAS Mather House

Project Completion Date: Summer, 2005

Project Overview

The objective of this project was to perform a lighting retrofit in the entire Mather House complex, replacing the older T-12 lamps and ballasts with a new high-efficiency super T-8 technology. 1,447 existing T-12 fixtures were replaced with new super T-8 lamps and electronic ballasts.

Pre-Project Considerations

- Numerous other FAS buildings had already exchanged their T-12 lamps for T-8 lamps. Savings are large and well documented.
- Lights in common spaces are on much more often than lights in individual rooms. Increasing the efficiency of common space lights would greatly reduce energy consumption.

The Project Process

- Jay Phillips contacted Bluestone Energy to perform a lighting audit of Mather House. Bluestone had performed similar audits for FAS in the past.
- Jay scheduled the work to take place in the summer to minimize inconvenience to students.
- Bluestone performed the installation and applied for the NStar rebates.

Lessons Learned

- Jay Phillips required that Bluestone give him a 3-year warranty on lights and a 5-year warranty on ballasts. These warranties are offered through the manufacturer, but by requiring Bluestone to give the warranty, FAS minimized their exposure to the time and effort that can be consumed by exchanging lamps and ballasts.
- The contractor who installed the ballasts did not put in one of the necessary screws. An FMO electrician found the error and corrected it.

For More Information

Contact: Jay Phillips, Director of Building and Maintenance Operations. (617) 496-5595.

jay_phillips@harvard.edu

PROJECT SNAPSHOT

Description: Older lamps and ballasts in the Mather House were upgraded.

Departments: Faculty of Arts and Sciences

Project Executive: Jay M. Phillips

Finances

- Total Project Cost: \$70,832
- Rebate: \$ 24,791
- **Annual Savings: \$15,409**
- Payback: 3.0 years

Environmental Impact Reduction

- 268,830 lbs CO₂ / yr

Lessons Learned

- Require the installer to give a warranty all equipment.
- Review work for completeness before the installer leaves.