

Case study

Boston University

Location
Philips Lighting

Massachusetts, USA
Philips Dynalite Controls



Background

Installing energy-efficient LED light fixtures and Philips Dynalite lighting controls in the George Sherman auditorium at Boston University is the first step in helping the University to reduce its energy consumption.

With around 30,000 undergraduate and graduate students from more than 140 countries and 10,000 faculty and staff, Boston University consumes a lot of energy. During its 2008/2009 academic year it consumed 209,000,000kWh of electricity, which is equivalent to leaving 400,000 60-watt light bulbs burning for one year.

While the University incorporates sustainable building practices into its renovations and large construction projects and green building strategies, one of the simplest and most cost effective ways to reduce energy consumption is to have an effective lighting management system.

A modest investment in a lighting management system in the auditorium is already saving the University \$15,000(USD) each year in electricity and maintenance costs and these savings will increase dramatically as lighting upgrades are progressively rolled out across the University.

The challenge

The brief was to develop and implement a new energy-efficient lighting and dimming control system for the multi-use auditorium that would provide appropriate lighting for all events – from a lecture to a full theatrical production – with a touch of a button.

The system also needed to interface with other systems such as AV and portable theatrical equipment as well as maintain the aesthetics of the room.

The solution

Flexibility and control

The solution was to install an energy-efficient lighting control system that would give the University flexibility and control over the environment while ensuring that energy was not being used unnecessarily.

The aim was to make the auditorium responsive and productive and to ensure the lighting control system would maintain the most comfortable lighting levels for a range of tasks and events.

The Philips Controls team also calculated the potential savings from the changes in the auditorium, which included the reduction of the annual energy consumption by 46,620 kilowatts in total, nearly \$8,000(USD) saved in electricity costs as well as an additional \$10,000 (USD) shaved off the maintenance costs. visual comfort.

Daylight sensors dim the lights when there is enough natural daylight and presence detectors turn the lights off when the classroom is empty, which helps to trim energy costs dramatically.

The modular design of the system allows components to easily be added or adjusted as requirements change.

The remote access feature of the Dynalite software allows a user to control or configure system parameters from anywhere that has Internet access.

Products and technology used

The team replaced a range of lamp types including incandescent, metal halide and standard fluorescent. Most fixtures were replaced with highly energy-efficient LEDs and LED track heads as well as modern compact fluorescents.

Over 400-watt metal halide house lights with 20 new LED high bays and the 600-watt halogen uplights were replaced with LED equivalents.

The Philips Dynalite control system was configured to complement the new energy efficient fixtures installed in the ceiling and to deliver appropriate lighting for every scenario.

A standard DMX gateway device was installed to ensure the lighting system works in conjunction with other systems such as audio/visual and theatrical equipment.



Our networked controls allow the University to have more control over energy costs, make real time changes and in effect have the lighting system talk back to them.



Fast facts

Customer

Boston University

Location

Boston, Massachusetts, USA

Products

DR2P Revolution Series Control Panels, DTP Color Touchscreens, DTC602-NA Timer Clock, DNG100BT-NA Ethernet Network Gateways, DUS804C Multifunction Sensors, Philips Optio Load Controller.

Lighting Solutions

Energy efficiency and lighting controls for universities, education facilities, auditoriums.

Benefits

Philips Controls provided the University with more efficient lighting, integrated control and significant energy savings all in the one intuitive and easy to operate system.

The versatile lighting control system can be tailored to address the varying demands of the auditorium and has complete flexibility for future expansion.

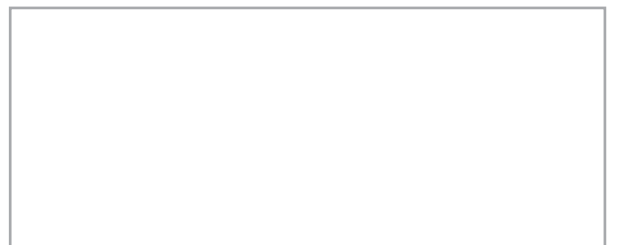
Philips Controls is continuing to work with the University on other lighting projects to improve its environmental performance and reduce energy consumption.

Daylight responsive lighting controls are being introduced in a number of buildings throughout the University. The controls use photo sensors to automatically adjust light levels based on the amount of daylight in the space ensuring appropriate light levels are maintained and electric lighting is dimmed when necessary.



www.philips.com/dynalite

For more information, please contact



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