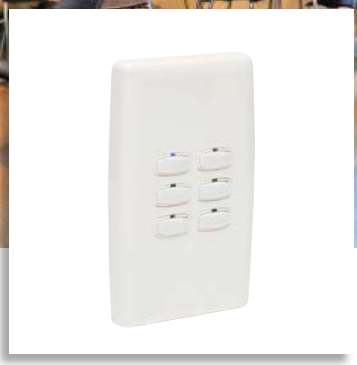


Case study

Gilliam Collegiate Academy

Location	Texas, USA
Philips Lighting	Philips Dynalite Controls

PHILIPS

dynalite

Background

A new school in Dallas, Texas is enjoying lower energy bills, better classroom lighting and a more productive learning environment after the installation of a Philips Dynalite customized and simple lighting control solution.

The Kathlyn Joy Gilliam Collegiate Academy high school was purpose built in 2010 to incorporate a number of environmentally sustainable features and is the first gold-certified Leadership in Energy and Environmental Design (LEED) public building in Texas.

The Philips Dynalite lighting control system was instrumental in helping the school to achieve its green credentials and has also been given top marks for its energy efficiency, flexibility and ease of operation.

The challenge

The major focus of the project was to incorporate the most advanced lighting control system to save energy, cut costs and improve the learning environment.

Another requirement was for theater stage lighting to be integrated into the networked system.

The solution

Philips Controls, using a Dynalite control solution, was able to demonstrate the energy and cost saving potential of an advanced lighting control system that would also maintain appropriate levels of lighting for the learning environment.

The fully integrated lighting management system controls the lights in every classroom and hallway as well as exterior public areas. The incorporation of daylight harvesting and occupancy sensors ensures lighting is provided when and where it is needed while optimizing 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 lighting control for the classrooms consists of a Philips Dynalite two-button DLP entry station (wall panel) and a six-button DLP teacher's station behind the front desk.

More than simple on/off control

Control of the lights incorporates DALI addressable ballasts along with ceiling mounted universal sensors that combine motion detection (PIR), infra-red remote control reception (IR) and ambient light level detection (Photo sensor) in the one device to provide daylight harvesting and occupancy sensing, incorporating six levels of scene control.

The lighting in the hallways and all exterior luminaires are controlled using five Philips Lyteswitch Centralized Relay Panels controlled through the Dynalite software via a six-button DLP override station, time clock and DTP170 touchscreen panel.

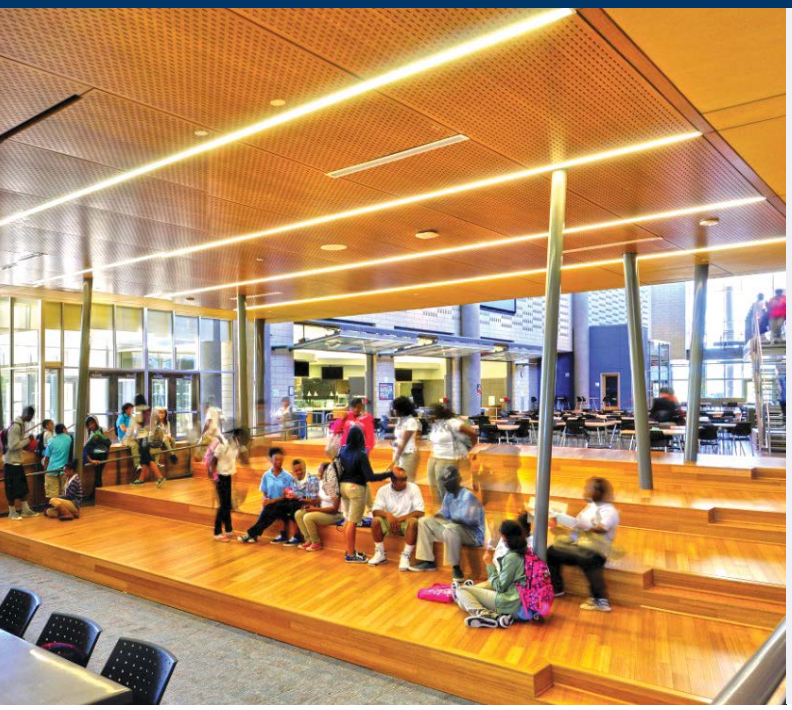
In the theater, the 'house' lights are controlled with an Optio Centralized Dimming Panel and Philips Advance Mark 7 ballasts in each of the fixtures. Stage lighting control is through a Philips Intelligent Raceway distributed dimming system. The stage and house lighting is integrated into the network and controlled via Dynalite commands, except during a performance when the interfaced DMX512 Theatrical Console takes over.

One unusual feature of the theatre is that the rear wall of the auditorium opens to expose the stage to an open-air amphitheater. The Dynalite and theatrical control systems automatically adjust so that the stage positions are reversed and lighting for the seating area switches to the outdoor luminaires.

Easy interface with other fixtures

While the majority of lighting fixtures and controllers are from Philips, the flexibility of the Dynalite system allows it to easily interface with luminaires from other manufacturers.

A BACnet gateway has been installed to integrate lighting control with the heating and air conditioning systems.



Fast facts

Customer

Kathlyn Joy Gilliam Collegiate Academy

Location

Dallas, Texas, USA

Products

DMBC320-DALI-NA Dali Dimmer Controllers, DLP Standard Series Control Panels, DTP Color Touchscreens, DUS804C Multifunction Sensors, Philips LyteSwitch Relay Cabinets, Philips Optio Lighting Controllers, Philips Intelligent Raceway.

Lighting Solutions

Energy efficiency and lighting control solutions for schools, education facilities, theatre / staging, classroom, corridor, exterior public areas.

Philips Controls has helped the Gilliam Collegiate Academy to become the first gold-certified LEED public building in Texas.

Benefits

The sophisticated lighting control system has helped to significantly reduce the school's energy consumption and costs while delivering lighting that has improved the ambience and comfort levels in the classrooms.

With dimming capabilities and presence detection to switch off lighting when it's not needed, the Philips Dynalite solution effectively controls lighting levels in classrooms, hallways and outdoor while still saving energy.

Using natural and higher-quality indoor lighting is a win-win situation for the students and the teachers as well as the learning environment has been improved.

www.philips.com/dynalite

For more information, please contact

All images of the academy by Luis Ayala

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