PHILIPS

dynalite

Application notes

University

Until recently, lighting control systems for universities have usually been based on mechanical timeclocks and switched lighting. Typically for this type of application, manual controls are provided for each separate building, with no means of achieving central control or automated behaviour.

Unsurprisingly, these legacy lighting infrastructures have a number of inherent drawbacks. They are unable to cater to all the unique lighting requirements in different areas, such as lecture theaters, staff facilities, sporting arenas, libraries, laboratories and general areas.
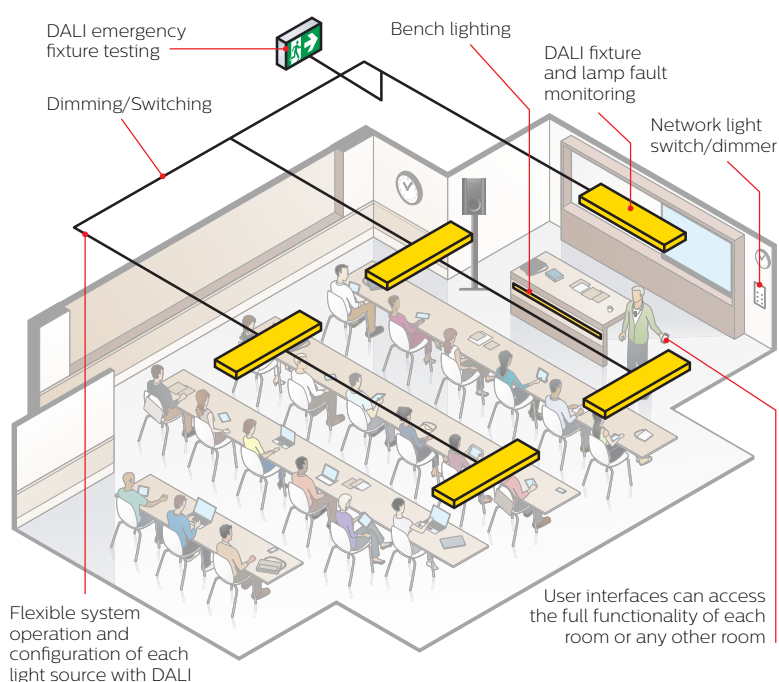
- Portfolio of user interfaces – including hardware button panels and software control
- Simple cost-effective installation
- Centralized system operation/ configuration through a graphical interface
- Ability to easily and inexpensively adapt the system to the usage of each space
- Reliability through distributed system intelligence
- Flexibility for system expansion without affecting existing operation
- Robust easy to clean button panels
- Automatic as-built system documentation

Typical layout

A typical Dynalite solution for a university application makes use of the extensive range of smart devices from its portfolio. These include configurable protocol load controllers, multifunction sensors — with photoelectric, passive infrared and ultrasonic capabilities — and intelligent user interfaces, all of which can be programmed to deliver lighting effects tailored to the exact requirements of the space. Digital Addressable Lighting Interface (DALI) technology offers unprecedented levels of monitoring and control in a university setting, and Dynalite has a proven ability to control DALI systems over many universes.

As an example of what can be achieved through the selection of a Dynalite solution, lecturers are able to control auditorium lighting and AV systems along with bench lighting and microphones that respond to the question status — facilitating question and answer interaction between the lecturer and students. The Dynalite system also includes dynamic observation lighting for automated library storage and retrieval systems and preset scenes for instantly changing the illumination of any space.

The purpose of these clever solutions is to streamline the learning process and enable a high degree of student/teacher interaction. The quality of lighting control delivered by Dynalite enhances ambiance and safety by facilitating the coordination of services, including: task lighting; egress pathways; maintaining illumination levels and emergency lighting.

DALI emergency fixture testing

Dimming/Switching

Bench lighting

DALI fixture and lamp fault monitoring

Network light switch/dimmer

Flexible system operation and configuration of each light source with DALI

User interfaces can access the full functionality of each room or any other room

Intelligent Interfaces

Dynalite's legendary EnvisionManager head-end software is a key element of the system, enabling the facility manager to take global control via the intuitive graphical lighting management interface. The lighting control system also includes button panels and touchscreens with simplified operation for students, many of whom will not have English as their first language, while allowing lecturers to use mobile apps to precisely control their lecture theater environment.

Each user interface can be programmed to seamlessly control multiple systems, such as HVAC, blinds, theatrical lighting and AV, with automated behaviour resuming after a designated time has elapsed since the last manual override. Similarly, corridor hold-on functionality allows sensors to maintain illuminated egress pathways along corridors and lift lobbies to building exits to provide safety for after-hours occupants.

System outline

The Dynalite system provides seamless multi-universe control across all DALI devices within the system. Components are selected to meet or exceed the design requirements, to comply with building codes and to support energy-management strategies.

DALI lighting and MultiMaster devices radically reduce the wiring required — thereby minimizing installation costs — and actively promoting the flexibility to reconfigure spaces. Moreover, DALI facilitates communication and monitoring of the lighting status. Integration to the BMS enables multiple systems to work together synergistically to optimize usability, comfort and energy efficiency throughout the building.

User interfaces are designed to easily access the full service functionality of rooms in a way that is fast, reliable and intuitive

College Accomodation

Lab Rooms

– Classrooms
– Lecture Rooms
– Workshops

Flexible system operation and configuration of each light source with DALI User interfaces, can access the full functionality of each room or any other room

Sports Facility, Gym and Auditoriun

The powerful DyNet network supports communication between all devices

Medical Research Labs

Manager's Office
· BMS intergration
· Scheduling
· Complete site control
· Emergency lighting testing
· DALI ballast maintenance
· Fixture usage visibility and reporting
· Reliable automated and manual controls
· Ongoing cost-effective and energy-efficient operation

Central monitoring, control and management via EnvisionManager graphical interface

Offices and Function Centre

Portfolio of quality engineered network devices and user interfaces assists specifiers to ensure the best value and best fit to reflect the requirements

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