Lighting the Way to Better Health

Monday, 09 August 2004

According to Health Facilities Management, new options for hospital lighting control systems are readily available, and one option that lets patients dim lights in the entire room or at the bedside involves the installation of standard dimming ballasts.

Lighting why to Better Health

Meanwhile, the digital addressable lighting interface (DALI) is a "smart" ballast system, involving a centrally located processor that receives signals from ballasts located within each light fixture. The processor can be alerted to a ballast's settings or need for service, depending on the software used. Each piece of operating equipment with a DALI interface is capable of individual communication, while a DALI only needs two wires to relay the communication signal to all devices on a single network.

When considering a transition to a DALI system, health facilities professionals should assess the desirability of changing light levels within the user's own space while limiting the effect on others, the generation of automatic problem reports by the lighting system, the logging of the system's energy consumption, changing the zoning of light fixtures without rewiring, and circuiting the light fixtures as efficiently as possible without considering which fixtures are connected together.

Other emergent technologies whose deployment in the hospital environment is considered inevitable include LED lighting, which promises more efficiency than compact fluorescent lights; radio frequency identification (RFID) technology, which could be employed to store a patient's lighting preferences as well as track patients in the hospital; and colored lights, which may help in the healing process and could work in conjunction with RFID technology to adjust to patients with specific ailments.

Reasons why hospitals are not universally adopting advancements, such as the DALI ballast system, include the need to install a facility-wide network to connect individual lighting fixtures to a centrally located processor and high initial costs.