

HOSPITALS

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*Patient safety,
comfort and
convenience
are all
enhanced by a
digital lighting
control system.*

The idea that the hospital environment plays a role in healing has become more mainstream in the past few years. A growing body of research indicates that health facility design has a significant positive impact not just on subjective measures like patient satisfaction and staff morale but on objective measures such as medical error rates, infection rates, staff turnover, patient length-of-stay and, ultimately, financial performance. Lighting is consistently listed as one of a handful of environmental factors that contribute to a well-designed hospital facility, and a digital lighting control system is the most effective, efficient way to achieve optimal lighting.

Digital lighting control enhances the hospital experience for patients by giving them some control over their environment. They can dim the lights when they want to sleep, turn them up when they have visitors, and adjust them to a comfortable level for reading, watching

TV or resting. This creates a more soothing and homelike patient room, which decreases patient anxiety and increases patient satisfaction. For staff members, digital lighting control provides flexibility from high brightness for patient exams and medication distribution to more comfortable light levels for routine medical and housekeeping tasks.

In common areas, digital lighting control enables hospitals to take advantage of exterior daylight for both energy savings and patient/staff satisfaction by bringing in natural daylight and supplementing it with appropriate and standardized levels of electric light.

Working together with other facility design elements such as noise reduction and outdoor views, digital lighting control contributes to a hospital environment that attracts patients, retains staff and increases both the quality of care and the hospital's bottom line.

Project Example



Surgical Recovery Center Silver Cross Hospital, Joliet, IL

Silver Cross Hospital in Joliet, Illinois, is a 304-bed acute care hospital that has twice been recognized as one of the top 100 hospitals in the nation. Silver Cross attracts patients by offering a premium hospital experience, and in 2006 it added a state-of-the-art 35-bed surgical recovery center. The goal was to create an environment that was more conducive to healing, safer for patients, and more ergonomically friendly to caregivers than traditional patient rooms.

The new center includes private, 250-square-foot rooms with a flat screen TV, Internet access and a sofa/sleeper for guests. With Starfield's lighting control system, nurses control the lighting using wall controls, and patients control the lighting via a hand-held remote control or by using a button on their pillow speaker. The system features full-range dimming as well as pre-set options for multiple situations, including special nighttime floor lighting for patient safety. Even with these advanced features, the system required no special wiring and nurses report that it is easy and intuitive for patients to learn and use.



Digital Lighting Control Provides Many Benefits in Hospital Facilities

For patients, it's...

- ◆ Comforting
- ◆ Empowering
- ◆ Easy to use

- ◆ Patients can dim their lights to a level that is comfortable and appropriate for their current activity
- ◆ Studies show that giving patients control over their environment increases their satisfaction and reduces their anxiety
- ◆ Nurses report that patients learn how to use the controls (pillow handsets or infrared remote control units) quickly and easily

For hospital staff, it's...

- ◆ Convenient
- ◆ Flexible
- ◆ Comfortable

- ◆ Hospital staff can override patient-set lighting levels via convenient wall controls at the door and near the bed
- ◆ Lighting can be set to different levels in different parts of the room depending on the staff member's needs
- ◆ Studies have shown that proper lighting increases staff comfort and improves both morale and job performance

For hospital facility managers, it's...

- ◆ Code-compliant
- ◆ Automated
- ◆ Centrally manageable
- ◆ Energy-saving
- ◆ Safety enhancing

- ◆ Starfield's control system is compliant with California's Title 24 energy code, including expected 2008 revisions such as peak demand energy management and real-time utilities billing
- ◆ Digital lighting control is computerized like other building automation systems (HVAC, security, etc.), enabling systems integration and central management
- ◆ The system can be centrally managed for one building or an entire campus using a web interface that helps manage costs and optimize operations and maintenance efficiency
- ◆ In appropriate hospital areas, the system can reduce energy costs by up to 40% by automatically dimming lights in response to changing daylight levels coming through windows
- ◆ Lighting can be designed to enhance patient safety (for example, lighting a path for night-time trips to the bathroom)

For maintenance crews, it's...

- ◆ Simple
- ◆ Time-saving

- ◆ The system consists of a small number of standardized parts, simplifying maintenance and spare parts inventory management
- ◆ Automated reports tell maintenance crews what needs fixing (down to the type of lamp or ballast that is required) – often before a patient or staff member has noticed the problem and filed a complaint

Rev. 10-06