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centralized lighting control | integrated solutions

A complete solution for any lighting application from one global manufacturer

Centralized lighting control systems provide switching, dimming, energy management and shade control in a single space or an entire campus, from multiple control locations.

- Dim or switch electric lights, control window shades, and measure or monitor system energy use.

- Integrate light and shade control easily with customizable, Web-based PictureIT™ software.

- Manage the whole system including scheduling maintenance, system diagnostics and system status reporting.

- Integrate with other building management and automation systems.

- Access the system easily, from anywhere, via building networks, or via Ethernet/Internet.

- Customize functionality to any application with flexible conditional logic, button-by-button wallstation programming, partitioning and real-time and astronomical scheduling.

A full line of centralized lighting control systems for projects of any size

GRAFIK 5000™ lighting control system
Designed for projects with up to 128 zones.

GRAFIK 6000™ lighting control system
Designed for projects with up to 512 zones.

GRAFIK 7000™ lighting control system
Designed for projects with up to 16,384 zones.

GRAFIK 7000™ processor
and customized PictureIT™
software screen

Switching, dimming, energy management and shade control in one seamless integrated system

Ease of use
Users can control the systems via software or wallstations from multiple locations. They can also access the system from anywhere at any time through a secure Ethernet/Internet connection.

Scalability
The systems can scale from small to very large and can be easily expanded at any time.

Interoperability
The systems integrate with other systems, including audiovisual equipment, security, BAS, BACnet/LonWorks, DMX512, Ethernet and more, for convenient, seamless total-building integration.

Enhanced system performance and integrity
The system management function keeps system operation in its optimum state for desired performance. Customized user interface software protects from unauthorized access.

Backward compatibility
New systems work with existing Lutron centralized lighting control systems, and allows seamless upgrade of these systems quickly and easily.

Reliability
Lutron design, quality control and performance are unsurpassed in the industry. In an emergency, the multiple redundant systems ensure uninterrupted normal operation.

Outstanding service
Lutron representatives and project management teams are ready to help design and specify the right lighting control system for your project, and to commission the installation.

Photograph © Timothy Hursley. Architect: Kohn Pedersen Fox Associates. Lighting design: Fisher Marantz Renfrew Stone.

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Lighting control systems for projects with up to 128 zones

GRAFIK 5000 lighting control systems are ideal for the following applications:

▪ Presentation spaces

▪ Retail stores/spaces

▪ Restaurants
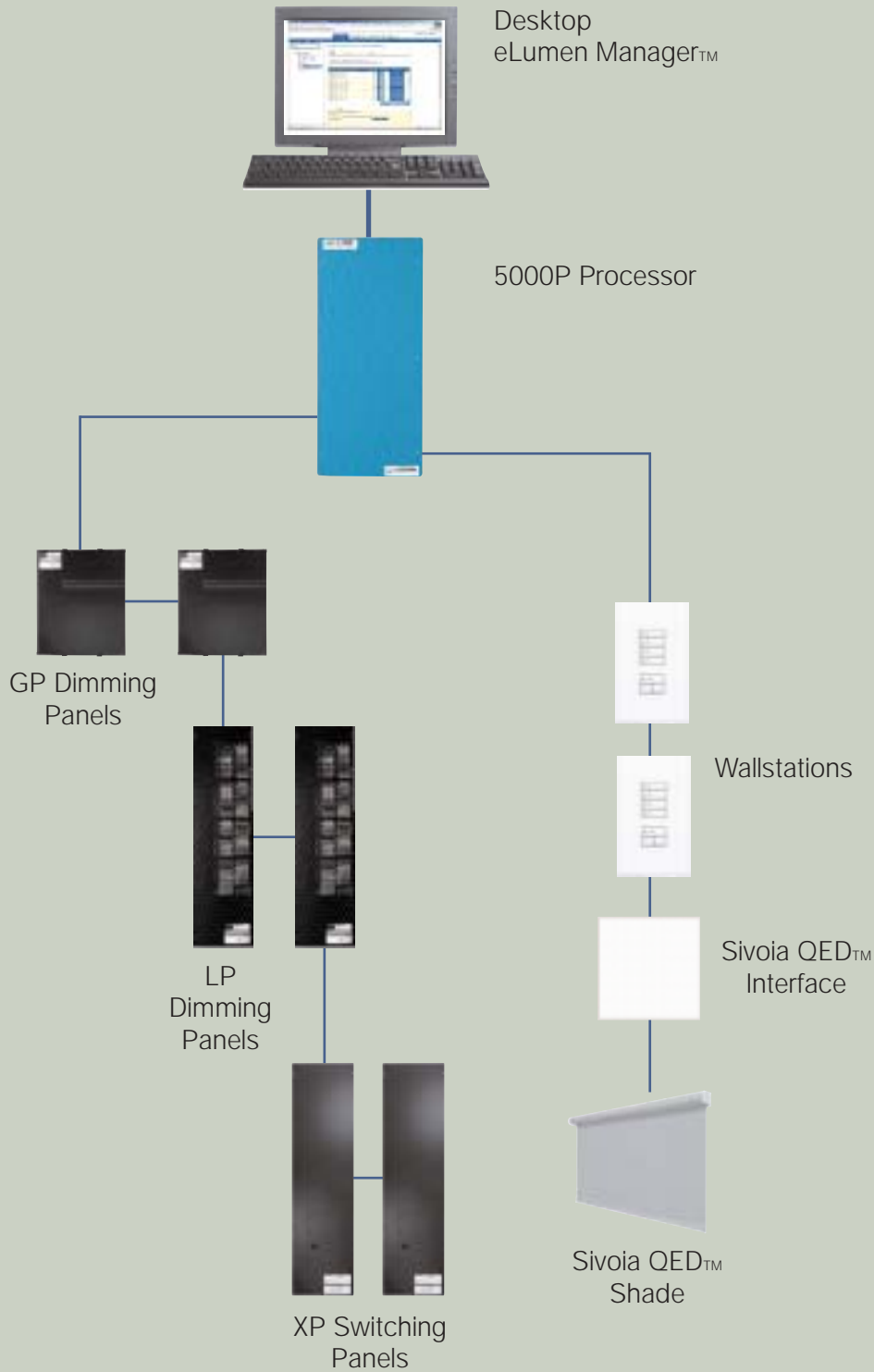
▪ Ballrooms

▪ Churches

▪ Schools

▪ Lobbies

Typical System
▪ GRAFIK 5000P processor for centralized lighting control of the system.

▪ GP and/or LP dimming panels with RTISS™ (Real-Time Illumination Stability System) technology provide full-range dimming.

▪ XP switching panels with Softswitch™ technology.

▪ PC-based DesignIT™ software for lighting modeling and control strategies.

▪ Web-based, real-time ControlIT™ software to operate the system.

▪ Low-voltage wallstations for local control.

Options
▪ Contact closure input/output devices to integrate with occupancy sensors, daylight sensors and window shades/projection screens.

▪ BACnet, LonWorks, RS232 interfaces for integration with other building systems.

▪ Sivoia QED™ (Quiet Electric Drive) shading system for daylight control.

▪ DMX512 integration.

Photograph © arcphoto Eduard Hueber; Architect: Bentel & Bentel

System map

Desktop
eLumen Manager™

5000P Processor

GP Dimming
Panels

LP
Dimming
Panels

XP Switching
Panels

Wallstations

Sivoia QED™
Interface

Sivoia QED™
Shade

Photograph © James F. Wilson.
Architect: Hill Glazier Architects.
Lighting design: Bouyea & Associates.

System Maximums
- 1 GRAFIK 5000P
  processor

- 128 zones

- 2,048 circuits

- 64 dimming and/or
  switching panels

- 32 wallstations and/or
  interfaces

- 1 seat license for the
  ControlIT™ software

Lighting control systems for projects with up to 512 zones

GRAFIK 6000 lighting control systems manage the lighting for an entire facility with up to 512 zones, including:

- Office buildings

- Shopping centers/malls/larger retail spaces

- Museums

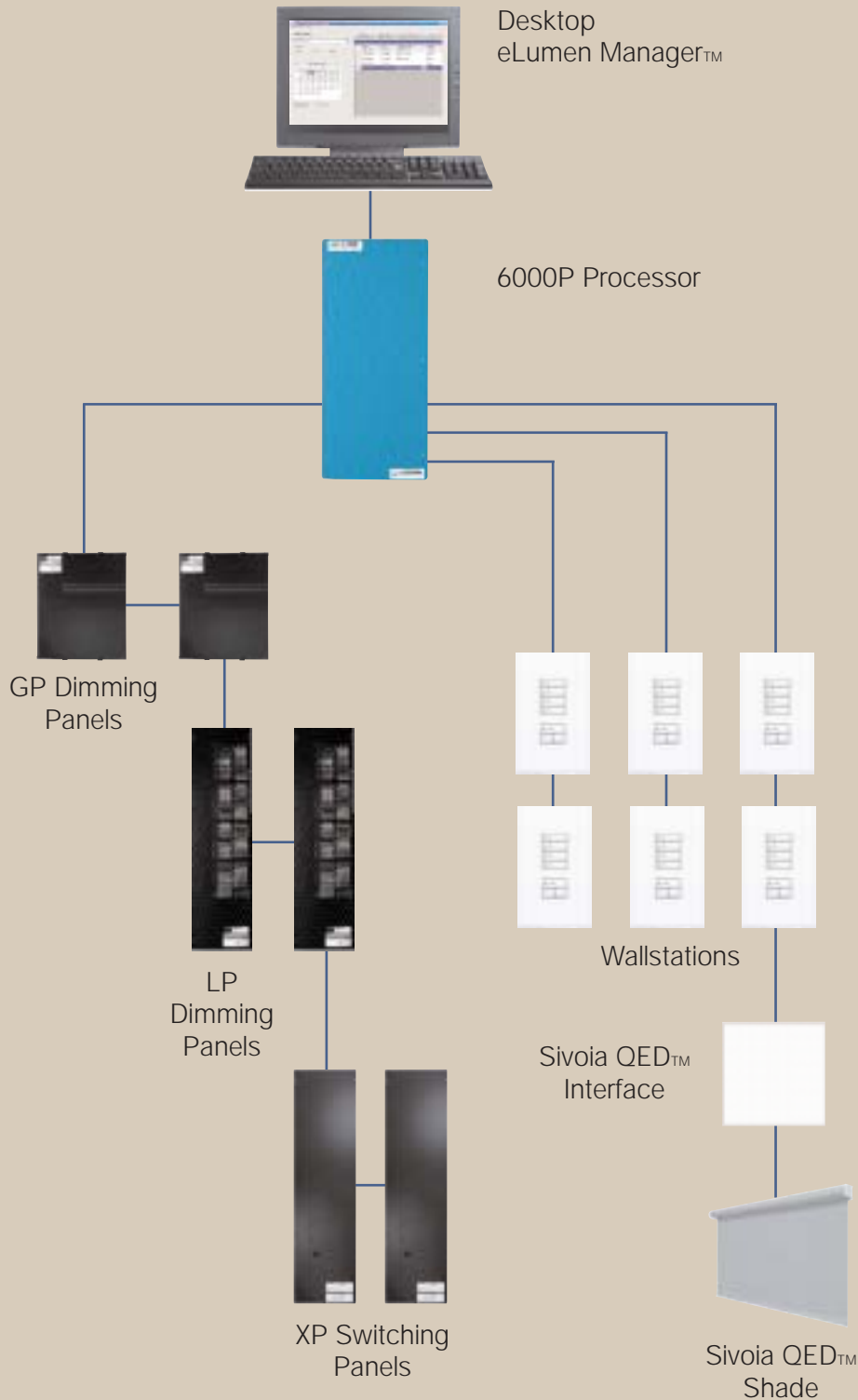- Auditoriums

- Conference centers

Typical System
- GRAFIK 6000P processor for centralized lighting control of the system.

- GP and/or LP dimming panels with RTISS™ (Real-Time Illumination Stability System) technology provide full-range dimming.

- XP switching panels with Softswitch™ technology.

- PC-based DesignIT™ software for lighting modeling and control strategies.

- Web-based, real-time ControlIT™ software to operate the system.

- Low-voltage wallstations for local control.

Options
- Contact closure input/output devices to integrate with occupancy sensors, daylight sensors and window shades/projection screens.

- BACnet, LonWorks, RS232 interfaces for integration with other building systems.

- Sivoia QED™ (Quiet Electric Drive) shading system for daylight control.

- DMX512 integration.

Photograph © Timothy Hursley. Architect: Kohn Pedersen Fox Associates. Lighting design: Fisher Marantz Renfrew Stone.

System map

Desktop
eLumen Manager™

6000P Processor

GP Dimming
Panels

LP
Dimming
Panels

XP Switching
Panels

Wallstations

Sivoia QED™
Interface

Sivoia QED™
Shade

Photograph © Timothy Hursley.
Architect: Tadao Ando Architect and
Associates. Lighting design: George
Sexton Associates.

System Maximums
- 1 GRAFIK 6000P
  processor

- 512 zones

- 4,000 circuits

- 125 dimming and/or
  switching panels

- 96 wallstations and/or
  interfaces

- 1 seat license for the
  ControlIT™ software

Lighting control systems for projects with up to 16,384 zones

The Lutron GRAFIK 7000 lighting control systems are designed to provide switching, dimming and shade control for large projects with up to 16,384 zones. Typical applications include:

- Stadiums and arenas
- Universities/hospitals/institutions
- Theme parks and cruise ships
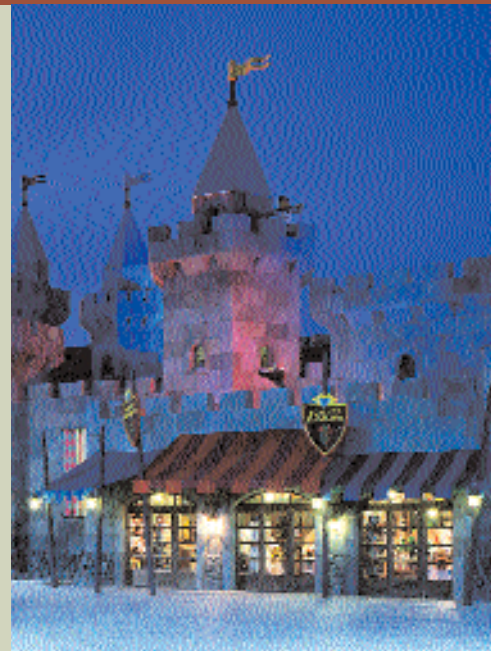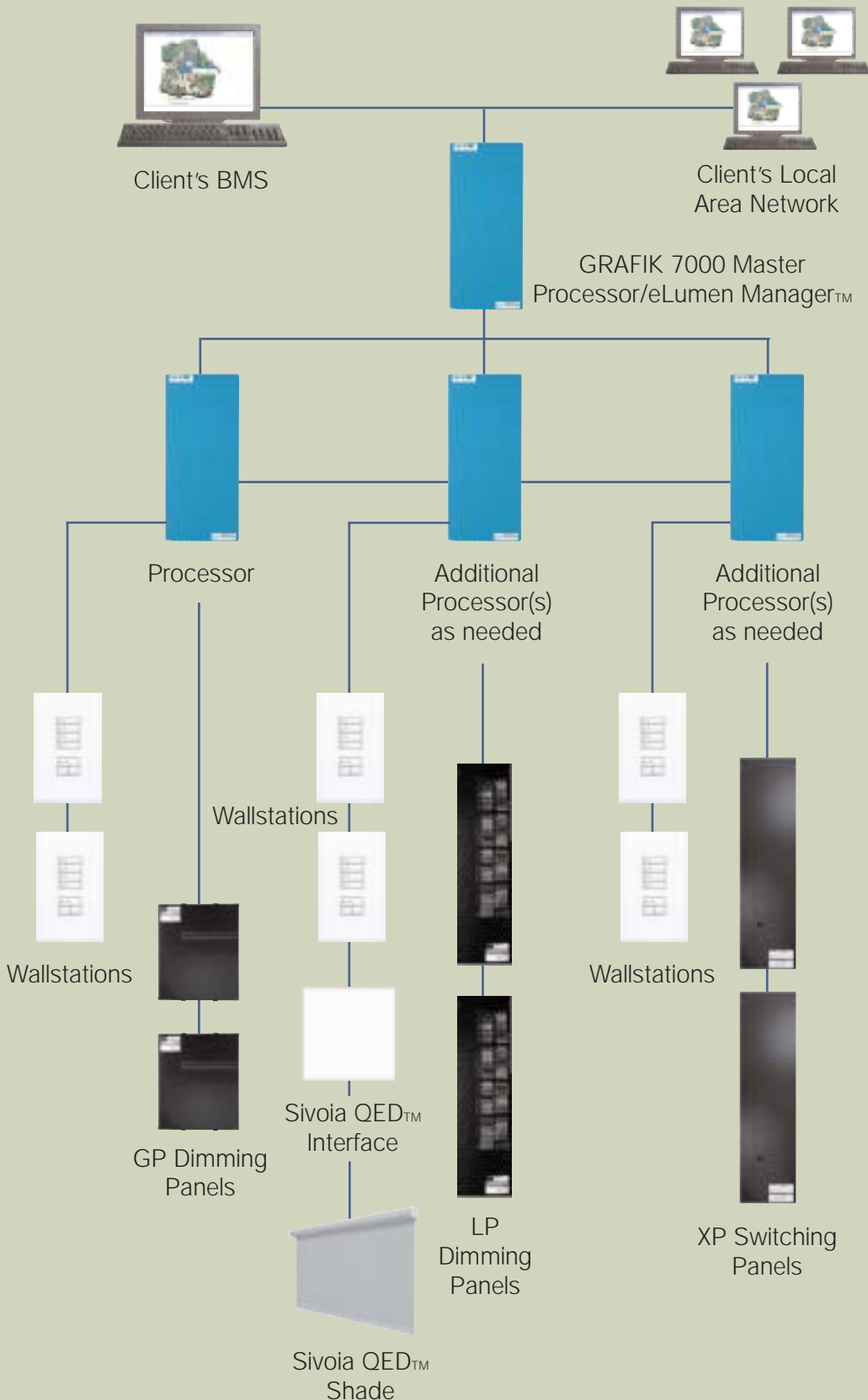- Convention centers
- Business campuses

Typical System
- Network-based eLumen Manager™.
- GRAFIK 7000P processor for centralized lighting control of the system.
- GP and/or LP dimming panels with RTISS™ (Real-Time Illumination Stability System) technology provide full-range dimming.
- XP switching panels with Softswitch™ technology.
- Intuitive PictureIT™ software for easy navigation of the system.
- Low-voltage wallstations for local control.

Options
- PC-based DesignIT™ software for lighting modeling and control strategies.
- Web-based, real-time ControlIT™ software to operate the system.
- Contact closure input/output devices to integrate with occupancy sensors, daylight sensors and window shades/projection screens.
- Digital microWATT™ controller for energy management.
- BACnet, LonWorks, RS232 interfaces for integration with other building systems.
- Sivoia QED™ (Quiet Electric Drive) shading system for daylight control.
- DMX512 integration.
- ScheduleIT™ software for simple time-clock event editing.
- SecureIT™ software for setting up users and user rights.

System map

Client's BMS

GRAFIK 7000 Master
Processor/eLumen Manager™

Client's Local
Area Network

Processor

Additional
Processor(s)
as needed

Additional
Processor(s)
as needed

Wallstations

Wallstations

Wallstations

Wallstations

GP Dimming
Panels

Sivoia QED™
Interface

LP
Dimming
Panels

XP Switching
Panels

Sivoia QED™
Shade

Photograph © Tim Rice Photography.
Architect: Forrec Ltd.
Lighting design: Gallegos Lighting Design.

System Maximums
- 32 GRAFIK 7000P processors
- 16,384 zones
- 128,000 circuits
- 4,000 Lutron dimming and/or switching panels
- 6,144 wallstations and/or interfaces
- 1 eLumen Manager™ with RAID (Redundant Array Independent Disks)
- 50 seat licenses for the Web-based ControlIT™ and PictureIT™ software
- 50 client computers

Please visit www.lutron.com for detailed specifications.

Lutron® | eLumen™ Software Suite

Software features

- eLumen™ Software Suite is Web-based, real-time, easy-to-learn and operate, and obsolescence-immune.

- You can choose any software combination to suit your needs.

- Software capacity grows with lighting control system without being upgraded.

- Secure, remote access (monitoring, control and diagnostics) from anywhere at anytime via Internet/Ethernet or from a telephone.

- Personalized access and control in language of choice for all software.

eLumen™ Software Suite

- **PictureIT™ software**
  Operate the GRAFIK 7000™ lighting control system through customized, intuitive graphics.

- **DesignIT™ software**
  Create, modify and expand the model of the controlled spaces and implement the desired control strategies.

- **ControlIT™ software**
  Manage lighting and shades within the system.

- **ScheduleIT™ software**
  Create and implement temporary schedules for special events, without changing the basic schedules in the system.

- **SecureIT™ software**
  Create multiple levels of personalized access and control, in the language of choice, and protect the system from unauthorized access.
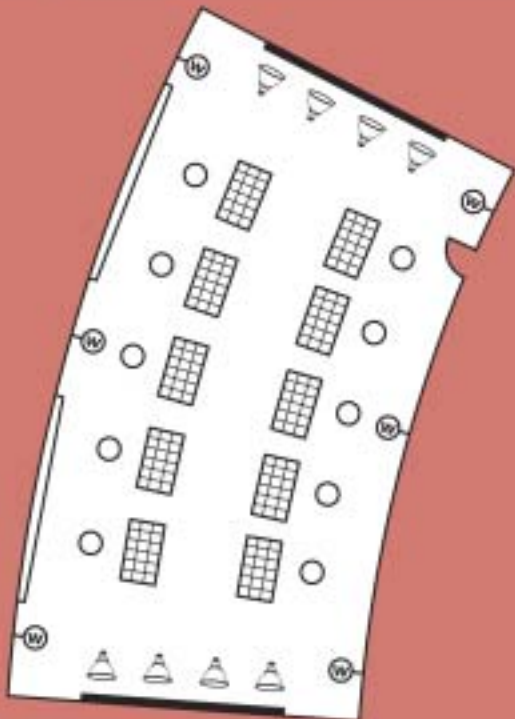
IR International

Area Navigation
- PR Dept.
- Finance Dept.
- Marketing Dept.

Lutron — PictureIT™ software

< Back | Forward > | Refresh | Home | 100% | Fit | Hide | About Help

LIGHTS

SHADES

AV

OPEN

MEETING

SPECIAL

PRESET

CLEAN

CLOSE

OFF

Lutron® | software design service

Customized software graphics for easy navigation and control

Lutron values your vision. Our design services use your images to create a graphical user interface that is intuitive to operate.

There are three levels of graphical user interfaces. Specify the level that suites your needs.

- **Level One graphics**
  Simple buttons to control the lights in a selected area. Graphics are static.
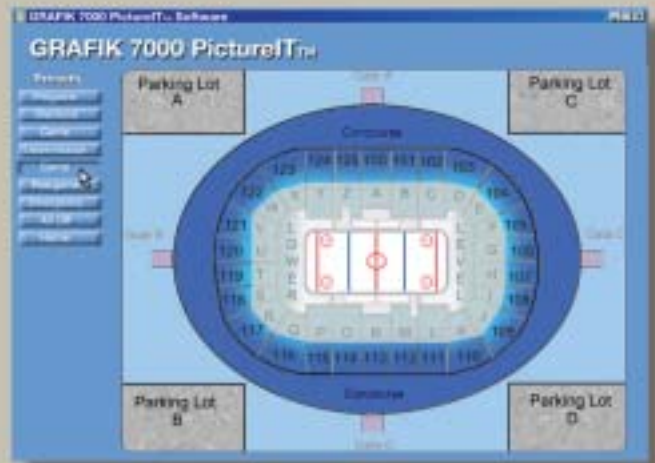
- **Level Two graphics**
  Simple buttons to control the lights in a selected area. Clicking on that area provides additional scene buttons for that space.
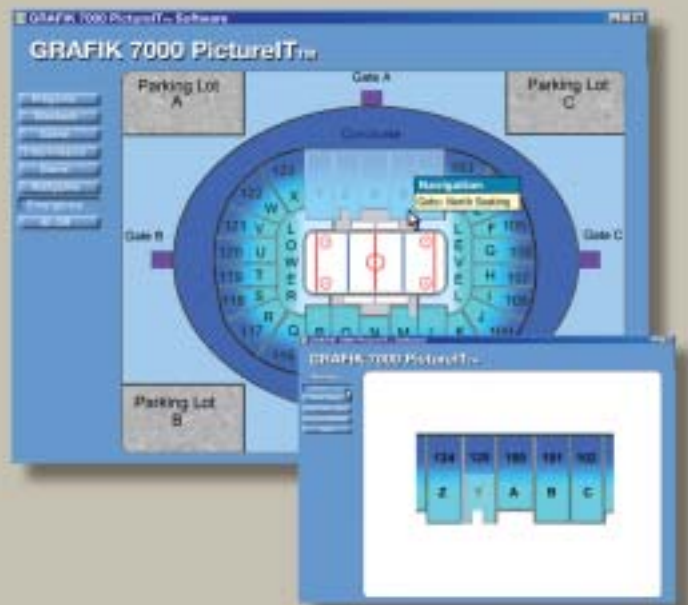
- **Level Three graphics**
  In addition to Level One and Level Two graphics, view feedback from the lighting control system for a selected area. Control lights and select scenes via virtual wallstations.
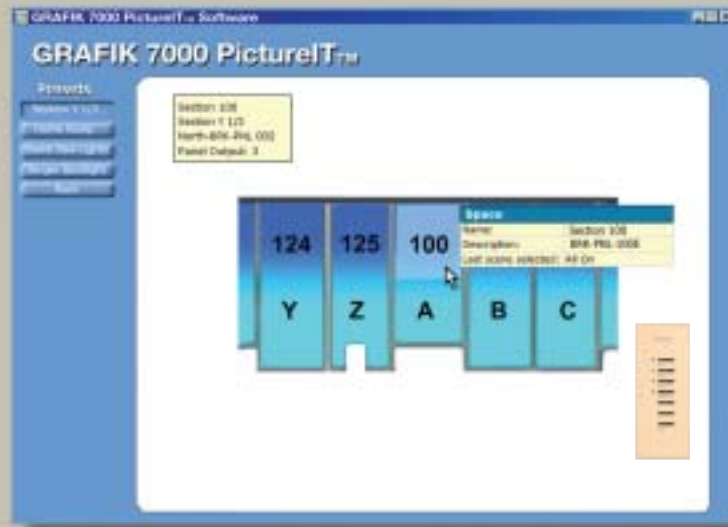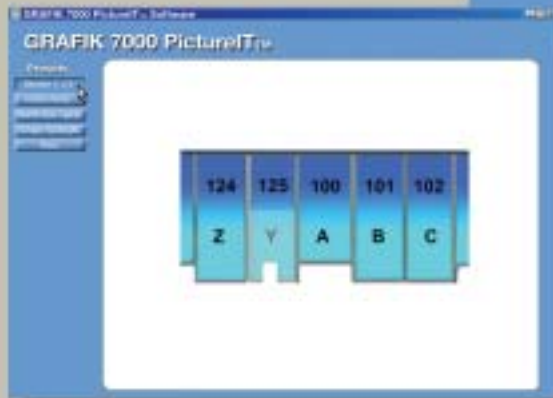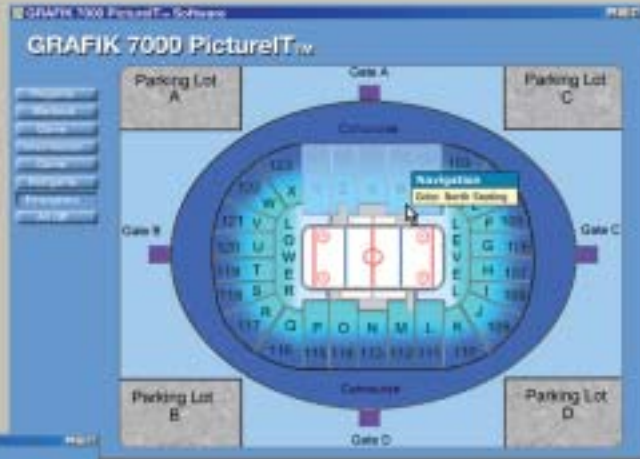
seeTouch™ wallstations

seeTouch 2-button wallstation.
Shown actual size in white.
(Model SO-2BN-WH)

seeTouch 5-button wallstation with
raise/lower. Shown actual size in
Satin Colors Midnight.
(Model SO-4SN-MN)

seeTouch wallstations can be easily programmed to perform a variety of functions in one or more areas.

- Available with 1 button to 7 buttons.

- Large, rounded buttons are easy to use.

- Optional engraving that is angled up to the eye for easy reading.

- On-button engraving and backlit buttons for improved clarity of control functions in low-light conditions.

- User-changeable button and faceplate assemblies make customization easy.

- Standard green LED status lights.

- Available in six standard matte, two gloss, seventeen Satin Colors™ matte and eleven metal finishes. Available in standard and custom engraving options.

Architrave™ wallstations
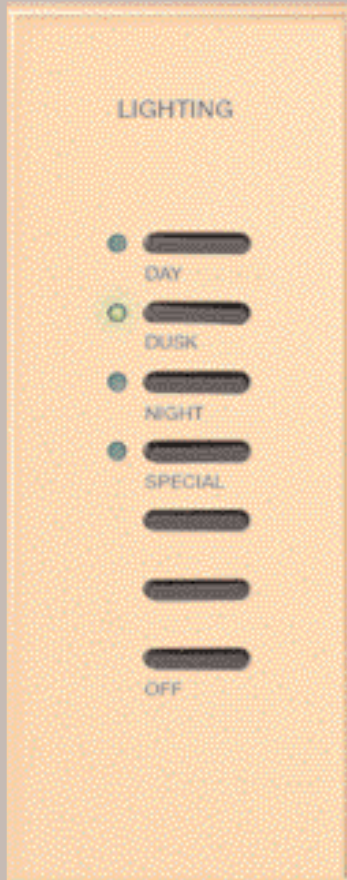
Slim button Architrave wallstation.
Shown in bright brass.
(Model OMX-7B-DW-BB)
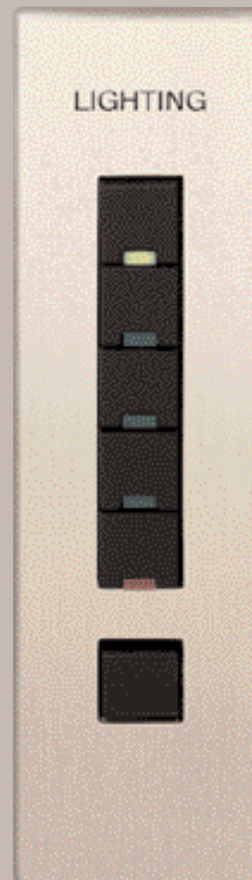
Large button Architrave wallstation.
Shown in satin nickel.
(Model OMX-4SLB-DW-SN)

Architrave wallstations can perform local control of the system with a contemporary look.

- Programmed through software to perform a variety of functions of the system.

- Available with slim buttons (2 or 7 buttons) and large buttons.

- Simple and sleek design.

- Standard green LED status lights.

- Available in standard bright brass (BB) and white (WH) finishes. Available in custom designs and finishes. Available in custom engraving options.
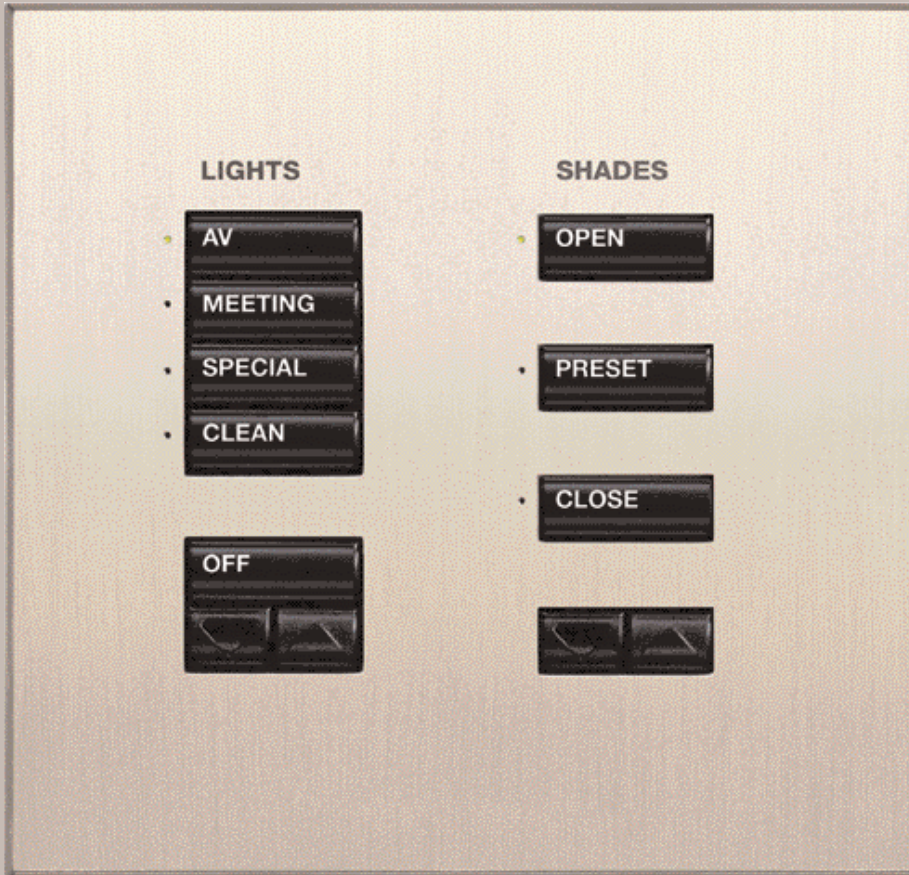
Viseo™ wallstations

Viseo wallstation. Shown in white. (Model OMX-VDC-LB)

Viseo wallstations provide local access to the lighting control system to program, monitor and operate lighting zones and scenes for any single processor.

- Enables a single view of the lighting and timeclock status of all the areas on the connected processor.

- Allows control of any zone or group of zones in any area on the connected processor; fine tune in 1% increments with graphic and numeric feedback.

- Restrict setup and programming configuration options via numeric passcode.

- Field upgradeable software: future enhancements without hardware changes.

- Menus and help screens can be displayed in language of choice.

- Available in six standard matte and eleven metal finishes. Available in custom engraving options. Available in two screen options.

Please visit www.lutron.com/viseo for detailed specifications.

seeTouch™ wallstation for light and shade control

seeTouch 2-gang wallstation for lights and shades.
Shown actual size in black with a custom 2-gang satin nickel wallplate.
(seeTouch Models SO-4SN-BL and SVQ-3WRL-BL)

Ideal for public and presentation spaces where first-time users require immediate understanding of how to control both lighting and shading systems.

- Can be programmed through software to perform a variety of functions of local control of the system (button by button function).

- Separates control of lighting from control of shades for intuitive use.

- Backlit, custom engraved ergonomic button design.

- Available in six standard matte, two gloss, seventeen Satin Colors™ matte and eleven metal finishes. Available in standard and custom engraving options.

Every Lutron dimming panel is equipped with Real-Time Illumination Stability System (RTISS™) technology

Poor power quality: the cause of flickering light
Poor quality power can cause lights to change rapidly, resulting in the "typical" flicker as power source quality changes.

The Lutron solution
Lutron's exclusive patented RTISS technology was designed to filter out line noise to the dimmer to ensure consistent, quality dimming performance. The result is smooth flicker-free dimming under any poor power quality conditions.
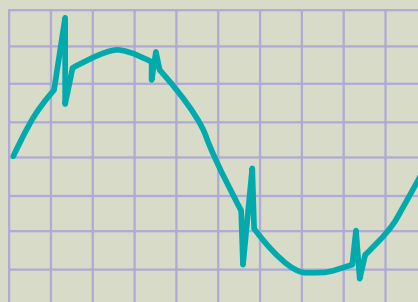
RTISS
EQUIPPED

Zero cross location
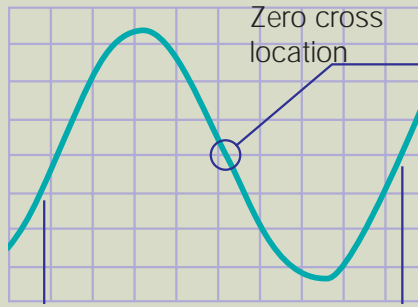
Zero-crossing
A dimmer controls the power to the load through a solid state switch or triac. The triac is synchronized to the AC line through signals obtained at zero crossings.
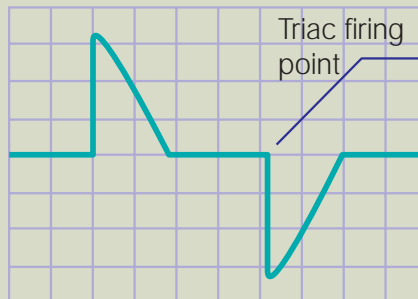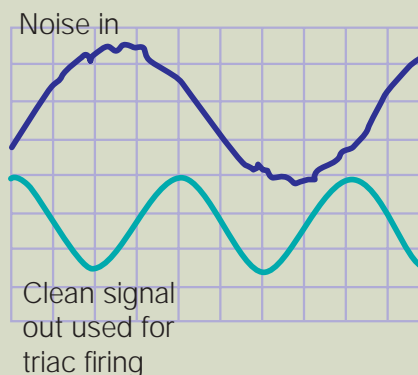
Triac firing point

Triac-firing
The zero crossing signals are then used to fire the triac to give the correct dimmed waveform.

Impulse noise
Poor power quality (noise) can result in the dimmer mis-firing of the triac because of failure to calculate the correct zero crossing. One of the typical anomalies of power lines is impulse noise caused by switch arcing, as shown on the figure at left.

Noise in

Clean signal out used for triac firing

RTISS filter
Lutron's patented RTISS eliminates any frequency content that has the potential to corrupt the triac firing circuit. The top wave form shows an unstable, distorted input voltage. The bottom waveform shows the result of the RTISS circuit — the clean signal is then used to fire the triac at the correct point. The result is stable, flicker-free dimming.

Lutron® | comparison guide

	GRAFIK 5000™	GRAFIK 6000™	GRAFIK 7000™
Processor type	5000P	6000P	7000P
Maximum number of processors	1	1	up to 32
Maximum number of zones	128	512	16,384*
Maximum number of circuits	2,048	4,000	128,000*
Maximum number of wallstations and/or interfaces	32	96	6,144*
Maximum number of dimming and/or switching panels	64	125	4,000*
Astronomical timeclock	Yes	Yes	Yes
Maximum number of timeclock events	500	2,000	10,000
Master Processor/ eLumen Manager™	–	–	Optional
DesignIT™ software	Standard	Standard	Optional
ControlIT™ software	Standard	Standard	Optional
Partitioning, sequencing and conditional logic	Standard	Standard	Standard
PictureIT™ software	–	–	Optional[x]
Number of seat licenses for Web-based software	1 for ControlIT software	1 for ControlIT software	up to 50 for ControlIT and PictureIT software
SecureIT™ and ScheduleIT™ software	–	–	Included with Master Processor/eLumen Manager
BMS, BACnet and LonWorks integration	Optional	Optional	Optional
Processor Modem/RS232	Standard[†]	Standard[†]	Standard[‡]
Telephone interface	–	–	Optional
Standard warranty[§]	2 years, 8 years limited	2 years, 8 years limited	2 years, 8 years limited
Field commissioning	Included	Included	Included

*   Increased zone, circuit, wallstation and interfaces and switching panel capabilities are available by linking multiple GRAFIK 7000P processors.
[†]   Will have simple touch-tone telephone interface.
[‡]   Will be supplied on at least one processor.
[§]   Software and computers are covered by a one-year warranty. Additional service programs available.
[x]   At least one GRAFIK 7000P master processor/eLumen Manager is required.

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Virtus Life,
Control de Iluminación Natural y Artificial.

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LUTRON

Lutron controls your light.™

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