Appendix

Lighting can be your greatest opportunity for energy savings
Page 01

1 California energy study http://www.energy.ca.gov/efficiency/lighting/VOLUME01.PDF.
2 IESNA 2000 Proceedings, Paper #43: An analysis of the energy and cost savings potential of occupancy sensors for commercial lighting systems. “Occupancy sensor savings range from 17% to 60% depending upon space type and time delay settings.” When scheduling is used without occupancy sensing or vacancy sensing, 15% energy savings can be expected.
3 IESNA 2000 Proceedings, Paper #34: Occupant Use of Manual Lighting Controls in Private Offices. “Giving the occupant manual switching and dimming provided a total of 15% added savings above the 43% achieved by motion sensors.”
4 US Department of Energy. How to Select Lighting Controls for Offices and Public Buildings. Claim: 27% potential savings using daylight harvesting.
5 Lutron-commissioned simulation by T.C. Chan Center for Building Simulation and Energy Studies, University of Pennsylvania, September 2008.
6 Department for Business Enterprise & Regulatory Reform. Energy Consumption in the United Kingdom, 2008 Update. Pub URN 08/456
7 Light Row Consortium Research on the effects of lighting control on office workers, www.lightright.org/research/index.

save energy with Lutron™

www.lutron.com/europe
FREEPHONE (UK) 0800 282 107
Customer Service +44 (0)20 7702 0657
Technical Support Center +44 (0)20 7680 4481
lutronlondon@lutron.com

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GRAFIK Eye® QS Wireless CE design guide

Customisable preset light and blind control system with Lutron Clear Connect™ RF Technology

LUTRON®

save energy with Lutron™

What is GRAFIK Eye® QS Wireless?

GRAFIK Eye QS Wireless is a customisable preset lighting control system that allows you to adjust lights and blinds for any task or activity. GRAFIK Eye QS Wireless helps you save energy, as well as meet the aesthetic, functional, and regulatory needs of any project or space.

What's new?

Lutron's reliable **Clear Connect™ RF Technology** provides wireless connectivity to blinds, sensors, and keypads. RF capability adds flexibility, saves time and costs during the design and installation process, and provides convenient light control from anywhere in the space.

GRAFIK Eye QS Wireless is now available to **directly control** and program DALI ballasts and devices.

What are the benefits?

Improve comfort and productivity
- Ensure the right visual environment for any activity through simple, preset lighting scenes

Save energy and comply with codes
- Reduce lighting energy use up to 60% with integral astronomic time clock, occupancy/vacancy sensing, and after-hours mode
- Lutron blinds can cut cooling and heating and costs by up to 10%

Simplify design and integration
- Connect directly to Sivoia® QS wired or wireless blinds, occupancy/vacancy sensors, keypads, and DALI ballasts.
- Integrate with A/V, HVAC, and other systems

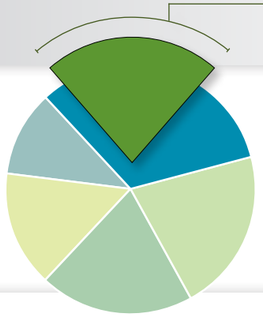
Enhance flexibility and scalability
- Reconfigure easily to meet the changing needs of a project or space
- Add components to grow the capabilities of the system

Lighting can be your greatest opportunity for energy savings

How does GRAFIK Eye® QS Wireless save energy?

Energy-saving strategy	Estimated energy savings
Dimming [1]	20% Lighting
Occupancy/vacancy sensing or scheduling [2]	15% Lighting
Personal light control [3]	10% Lighting
Daylight harvesting [4]	15% Lighting
Controllable window blinds [5]	10% HVAC
Typical energy savings	**60% Lighting 10% HVAC**

Lighting accounts for 33% of the annual electricity used in office buildings.[6] Lutron® solutions can **save 60% or more** of your lighting energy costs.



Benefits of Lutron light management solutions

- **Save electricity and protect the environment**
  Reduce greenhouse gases by eliminating unnecessary energy use.
- **Save money**
  Lower electricity bills, maintenance costs, and peak demand charges.
- **Increase productivity and comfort**
  Research indicates that people can be 5-10% more productive when working in their preferred light level.[7]

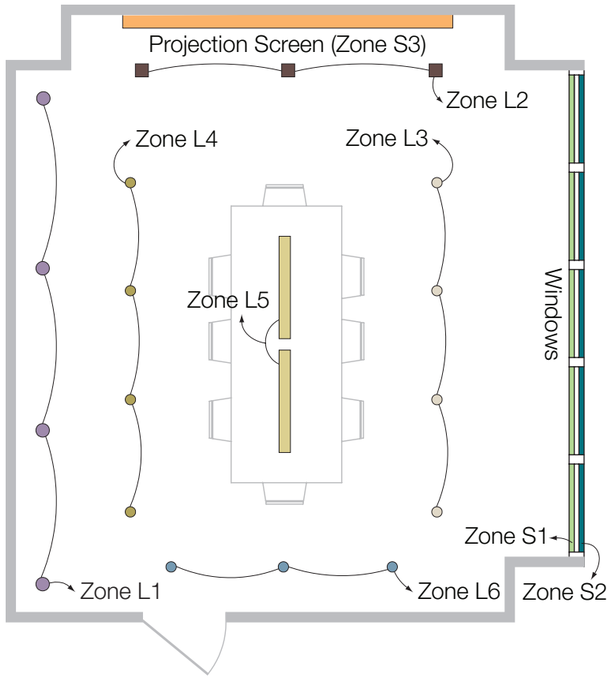
1, 2, 3, 4, 5, 6, 7 Please refer to Appendix on back cover for a list of references.

Table of contents

The basics of preset lighting

Zones

A **zone** is a single light, blind, or grouping of lights or blinds traditionally controlled by one switch or dimmer. GRAFIK Eye® QS Wireless allows you to design each scene by adjusting the light and blinds in a series of zones.

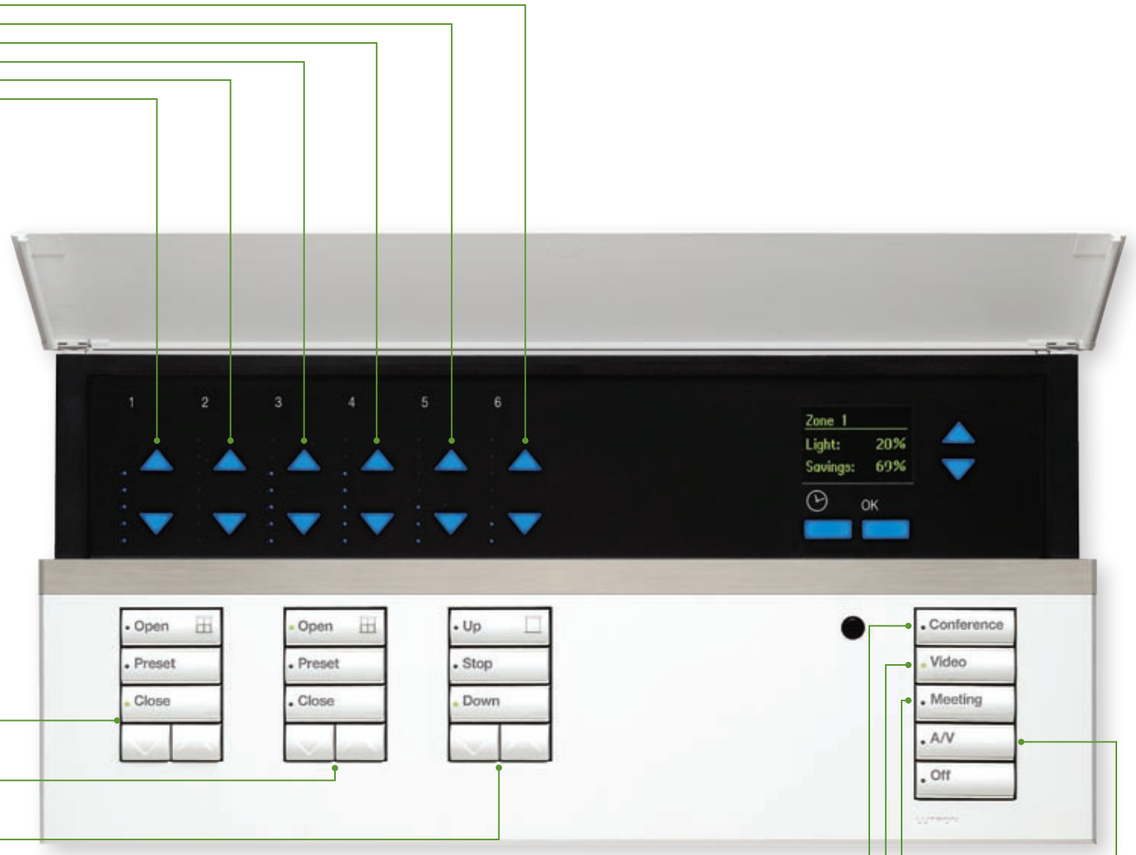


Lighting zones

- **Zone L6: entrance downlights**
- **Zone L5: table pendants**
- **Zone L4: left downlights**
- **Zone L3: right downlights**
- **Zone L2: projection downlights**
- **Zone L1: wall wash**

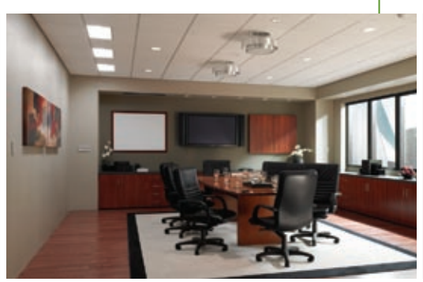
Blind zones

- **Zone S1: sheer blinds**
- **Zone S2: blackout blinds**
- **Zone S3: projection screen**

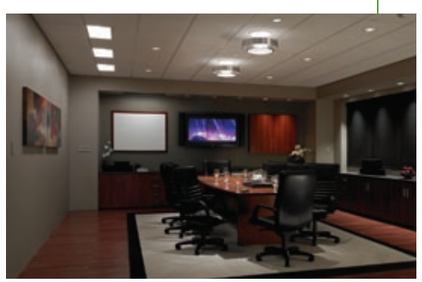


Scenes

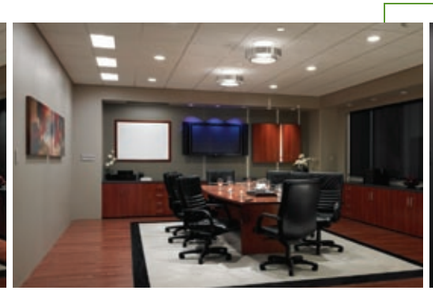
A **scene** is created by controlling the light level of any single light, blind or any grouping of lighting and/or blinds to create a desired setting for functionality or ambience. In this example we use a conference room to explain how scenes are created to support various tasks throughout the day. Recall the setting with a touch of a button.



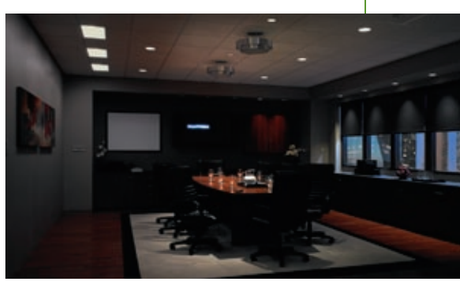
Scene 1: conference
During a morning conference, open blinds to allow daylight in and dim lights to conserve energy.



Scene 2: video training
Blackout blinds are lowered to avoid screen glare and lighting levels are lowered to provide enough light for note-taking.



Scene 3: general meeting
The lighting is focused on the conference table and sheer blinds are lowered to reduce direct daylight.



Scene 4: A/V presentation
The room is darkened for a late afternoon A/V presentation without sacrificing task lighting on the table.

Model comparison

GRAFIK Eye® QS Wireless

Now available with Clear Connect™ RF Technology, GRAFIK Eye QS Wireless enables reliable communication with Lutron light and blind control products in a space.

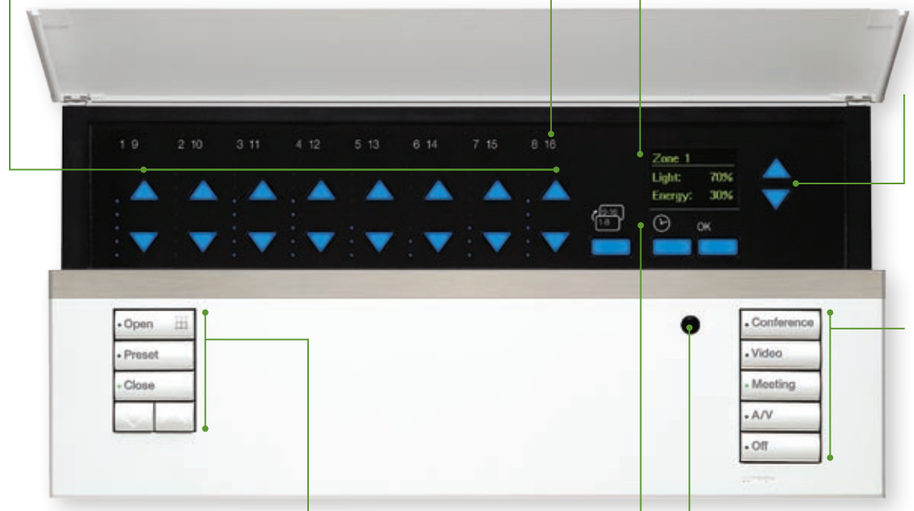
- Eliminates the need to run communication wiring to blinds, sensors and additional GRAFIK Eye QS Wireless units
- Available in 3-, 4-, and 6-zone configurations

GRAFIK Eye QS Wireless with DALI

The GRAFIK Eye QS Wireless with DALI combines the flexibility and scalability of the wireless model with the additional benefit of an integral DALI bus supply.

- Direct connection to DALI output devices
- Available in 6-, 8-, and 16-zone configurations
- No line-voltage outputs

Key features



Backlit zone buttons
Raise or lower each group of lights. LEDs indicate current light level for each zone.

Multiple zones
Control up to 16 individual zones.

Information display
Easily read energy savings, lighting levels, and time clock information.

Backlit master override buttons
Temporarily raise and lower light levels of a complete scene.

Control your lights
Backlit engravable buttons for selecting scenes, with or without blinds. (changeable in the field)

Control your blinds
Backlit engravable blind control buttons. (changeable in the field)

Time clock
Provides scheduling to meet energy code requirements. Includes after-hours mode option.

Infrared remote control
Provides handheld control with a wireless remote.

Wireless connections to:

- Sivoia® QS Wireless blinds and curtain tracks
- Radio Powr Savr™ occupancy/vacancy sensors
- Pico™ wireless controls
- Daylight sensors (Available Q1 2010)

Wired connections to:

- Occupancy/vacancy sensors
- QS interfaces
- seeTouch® QS keypads
- Sivoia QS blinds
- Daylight sensors (Available Q1 2010)

DALI Bus[1]:

- Up to 64 DALI compliant addressable devices

1 Features available on GRAFIK Eye® QS Wireless with DALI models only.

Specifications

Available models

Aesthetics
Available in over 40 colours and finishes. The fully customisable backlit buttons make the unit easy to operate. Scene and blind buttons are large, engravable, seeTouch® buttons.

Information screen
Displays energy savings, lighting levels, and time clock information. The intuitive display also allows for easy programming.

Astronomic time clock
Add up to 25 events per day, 7 days per week. Add up to 25 holiday schedules. Automatically adjusts for daylight savings time. Includes after-hours capability.

Scene control
Up to 16 scenes, with direct control of scenes 1-4 and Off from the unit. 12 additional scenes are accessible via seeTouch QS keypads. Available scene fade times of 0-59 seconds or 1-60 minutes.

Zone control
Each zone has dedicated raise/lower buttons and can be programmed for high-end and low-end trim. Information screen displays standard or customized zone labels.

Zone configurations
Standard models available with 3, 4, or 6 zones. Models with DALI bus supply available with 6, 8, or 16 zones.

Blind control
Direct control of up to 3 blind groups.

Line-voltage load types[1]
Direct control of incandescent, halogen, magnetic low-voltage, Lutron Tu-Wire®, neon and cold cathode or non-dimmed lighting loads.

Digital addressable load types
Direct control of DALI ballasts and devices.

1 Power modules are required for exceeding zone capacity or control of electronic low-voltage or switching non-lighting loads.

Available models

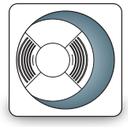
Power rating
3 zone: 1500 watt unit capacity, 500 watt zone capacity.
4 zone: 2000 watt unit capacity, 500 watt zone capacity.
6 zone: 2300 watt unit capacity, 500 watt zone capacity.

QS link
The QS link is auto-addressing and supports up to 100 QS devices, 100 zones and up to 600 m wire length.

RF capability
Compatible with Sivoia® QS Wireless blinds, Radio Powr Savr™ occupancy/vacancy sensors, Pico™ wireless controls, and additional GRAFIK Eye® QS Wireless units. The RF transceiver has a 10 m. range and connects with up to 30 Lutron wireless devices.

Contact closure input
Dry contact closure input, typically used for direct connection to occupancy/vacancy sensors.

Daylight harvesting (Available Q1 2010)
Daylight sensors can be used to maximize energy savings by dimming electric light in response to available daylight.



Occupancy/vacancy sensors
GRAFIK Eye QS Wireless provides connection to occupancy/vacancy sensors via wireless communication and/or a contact closure input.

Real-Time Illumination Stability System (RTISS™)
Real-time compensation for incoming line-voltage variations to reduce or eliminate flickering.

Standards and listings
VDE, CE

Warranty
1 year limited

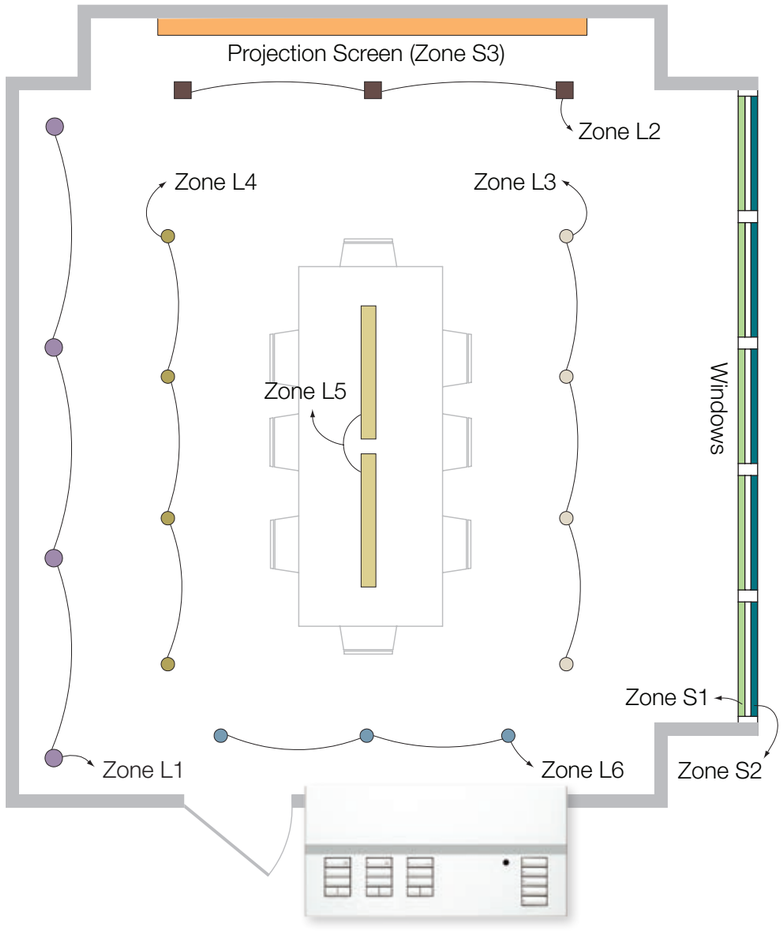
Available models
- GRAFIK Eye QS Wireless
- GRAFIK Eye QS Wireless with DALI

Steps to follow when designing your system


GRAFIK Eye QS Wireless design guide worksheet

Use the GRAFIK Eye® QS Wireless design guide worksheet to follow along with steps 1-5 when designing your system. Available to download at **www.lutron.com/grafikeyeqs**

Step 1 selecting a GRAFIK Eye® QS Wireless unit



In this example we are using a 6-zone model with 3 groups of blinds.

A. Identify the number of lighting and blind zones in the space

Rules

- GRAFIK Eye QS Wireless is available with 3, 4, or 6 zones of lighting control and up to 3 zones of blinds
- GRAFIK Eye QS Wireless with DALI is available with 6, 8, or 16 zones of lighting control and up to 3 zones of blinds

In this system example:

Conference room

Zone L1: Wall wash
Zone L2: Projection downlights
Zone L3: Right downlights
Zone L4: Left downlights
Zone L5: Table pendants
Zone L6: Entrance downlights
Zone S1: Sheer blinds
Zone S2: Blackout blinds
Zone S3: Projection screen

B. Identify the load types in the space

Rules

- For GRAFIK Eye QS Wireless unit without a DALI bus supply, power modules are required for exceeding zone capacity (500 Watts), control of electronic low-voltage zones, or switching non-dimmed lighting loads (see pg. 25)
- On GRAFIK Eye QS Wireless with DALI, all zones control digital loads only

In this system example:

Digital control zones

Zone L1: 4 DALI ballasts
Zone L2: 3 DALI ballasts
Zone L3: 4 DALI LED drivers
Zone L4: 4 DALI LED drivers
Zone L5: 2 DALI ballasts
Zone L6: 3 DALI ballasts

Blind zones

Zone S1: Sivoia® QS, 5 sheer blinds
Zone S2: Sivoia QS, 5 blackout blinds
Zone S3: Projection screen

Step 1 selecting a GRAFIK Eye® QS Wireless unit

C. Build a **STANDARD** GRAFIK Eye QS Wireless model number

QSGRK– 6 D – 1 T WH

Top Door Colour
Omit = same as unit
T = translucent

Number of Blind Zones
Omit = none
1 = 1 zone

Unit Type
PCE = Phase Control Triac
D = DALI Control

Number of Zones

Phase Control Triac	DALI Control
3 = 3 zones	6 = 6 zones
4 = 4 zones	8 = 8 zones
6 = 6 zones	16 = 16 zones

Standard model numbers

Wireless
QSGRK-3PCE-WH
QSGRK-3PCE-TWH
QSGRK-3PCE-1WH
QSGRK-3PCE-1TWH
QSGRK-4PCE-WH
QSGRK-4PCE-TWH
QSGRK-4PCE-1WH
QSGRK-4PCE-1TWH
QSGRK-6PCE-WH
QSGRK-6PCE-TWH
QSGRK-6PCE-1WH
QSGRK-6PCE-1TWH

Wireless with DALI
QSGRK-6D-WH
QSGRK-6D-TWH
QSGRK-6D-1WH
QSGRK-6D-1TWH
QSGRK-8D-WH
QSGRK-8D-TWH
QSGRK-8D-1WH
QSGRK-8D-1TWH
QSGRK-16D-WH
QSGRK-16D-TWH
QSGRK-16D-1WH
QSGRK-16D-1TWH

C. Build a **CUSTOM** GRAFIK Eye® QS Wireless model number

Rules
For any custom units, you must order **BOTH** a base unit and a faceplate kit.

Base unit

QSGRK– 6 D

Unit Type
PCE = Phase Control Triac
D = DALI Control

Number of Zones

Phase Control Triac	DALI Control
3 = 3 zones	6 = 6 zones
4 = 4 zones	8 = 8 zones
6 = 6 zones	16 = 16 zones

Faceplate kit (includes coordinating stripe and buttons)

QSGFP– 3 [ ] WH – S G N

Engraving
See right for details

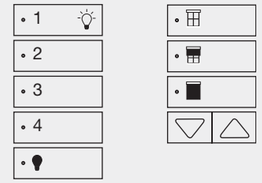
Unit Colour/Finish
See pg. 34 for colour/finish codes

Top Door Colour
Omit = same as unit
T = translucent

Number of Blind Zones
Omit = none
1 = 1 zone
2 = 2 zones
3 = 3 zones

Engraving codes
Omit = unengraved (ships with engraving certificate that customer can redeem at no charge)

SGN = symbol-based engraving



lighting column | blind column

NST = non-standard text engraving. Please visit **www.lutron.com/grafikeyeqs** for custom engraving forms. Submit completed form with order, and unit will ship engraved as specified by customer.

Step 2 selecting seeTouch® QS keypads

A. Select keypad style and button configurations

2B
2-button

3B
3-button

4B
4-button

5BRLIR
5-button with IR receiver and raise/lower

5BRL
5-button with raise/lower

6BRL
6-button with raise/lower

7BRL
7-button with raise/lower

8BRLIR
8-button with IR receiver and raise/lower

8BRL
8-button with raise/lower

10BRL
10-button with raise/lower

International seeTouch QS keypads

- 10 models available with 1- to 10-scene preset, zone, partition, or blind control buttons
- Available with or without raise/lower buttons and an IR sensor
- Available as frameless non-insert or framed insert style (see pg. 14)
- Control blinds, lights, or a combination of both
- Each keypad includes two built-in contact closures

1B
1-button

2B
2-button

3B
3-button

5B
5-button

7B
7-button

2BRL
2-button with raise/lower

3BRL
3-button with raise/lower

5BRL
5-button with raise/lower

2BRLIR
2-button with IR receiver and raise/lower

3BRLIR
3-button with IR receiver and raise/lower

5BRLIR
5-button with IR receiver and raise/lower

1RLD
Dual with 3-button and 2-button with raise/lower

2RLD
Dual 2-button with raise/lower

3BD
Dual 3-button

seeTouch QS keypads

- 14 models available with 1- to 7-scene preset, zone, partition, or blind control buttons
- Available with or without raise/lower buttons and an IR sensor
- Available as non-insert or insert style (see pg. 14)
- Control blinds, lights, or a combination of both
- Each keypad includes two built-in contact closures

Rules

The GRAFIK Eye QS Wireless can power up to 3 keypads. For additional keypads, a QS link power supply is required. (see pg. 25)

Step 2 selecting seeTouch® QS keypads

B. Build a seeTouch QS keypad model number

QSWE– 8BRLIR N– AW– NST

Button Configuration
see previous page

Insert Style
N = Frameless non-insert
I = Framed insert

Colour/Finish
See pg. 34 for colour/finish codes

Engraving
See pg. 15 for details

Frameless non-insert style

Framed insert style

QSWS2– 3 B D N– WH– NST

Button Configuration
see previous page

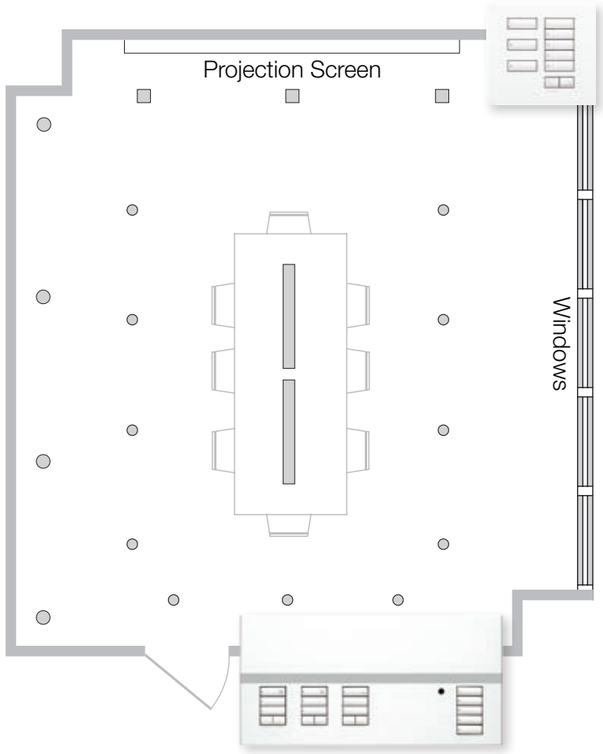
Insert Style
N = Non-insert
I = Insert

Colour/Finish
See pg. 34 for colour/finish codes

Engraving
See pg. 15 for details

Non-insert style

Insert style



Engraving codes
Omit = unengraved (ships with engraving certificate that customer can redeem at no charge)
EGN = general engraving
E01 = standard engraving for blind keypads
NST = non-standard text engraving
(Please visit **www.lutron.com/grafikeyeqs** for custom engraving forms. Submit completed form with order, and unit will ship engraved as specified by customer.)

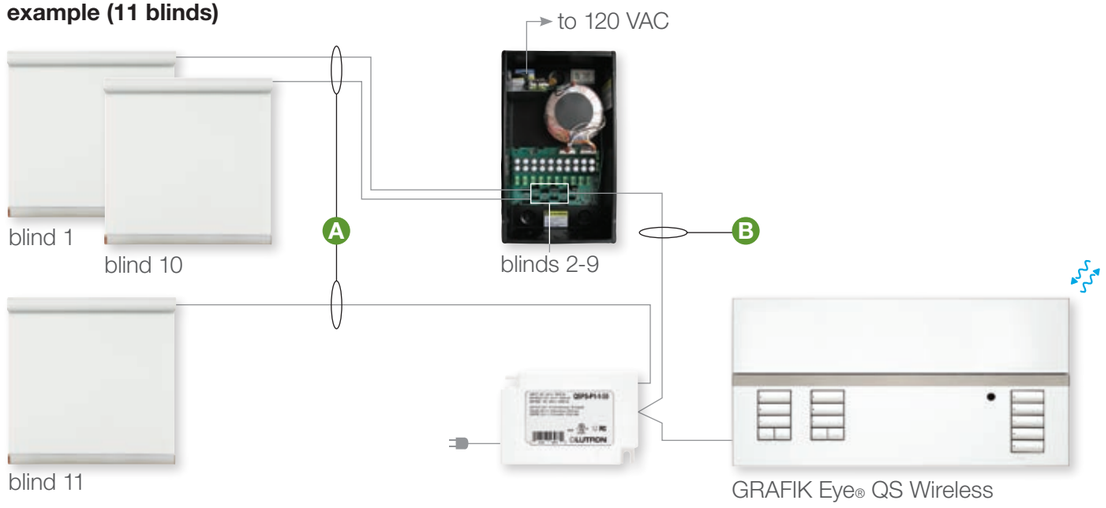
Step 3 selecting blind components

A. Select power components for Sivoia® QS **WIRED** system

Sivoia QS smart panel power supply
(powers up to 10 wired blinds/curtains)
QSPS-P2-10-60

QS link power supply
(powers 1 wired blind/curtain)
QSPS-P2-1-50 (Continental Europe)
QSPS-P3-1-50 (United Kingdom)

Powering blinds on a WIRED system example (11 blinds)



Blind zones are programmed through the GRAFIK Eye QS Wireless without the need for rewiring.

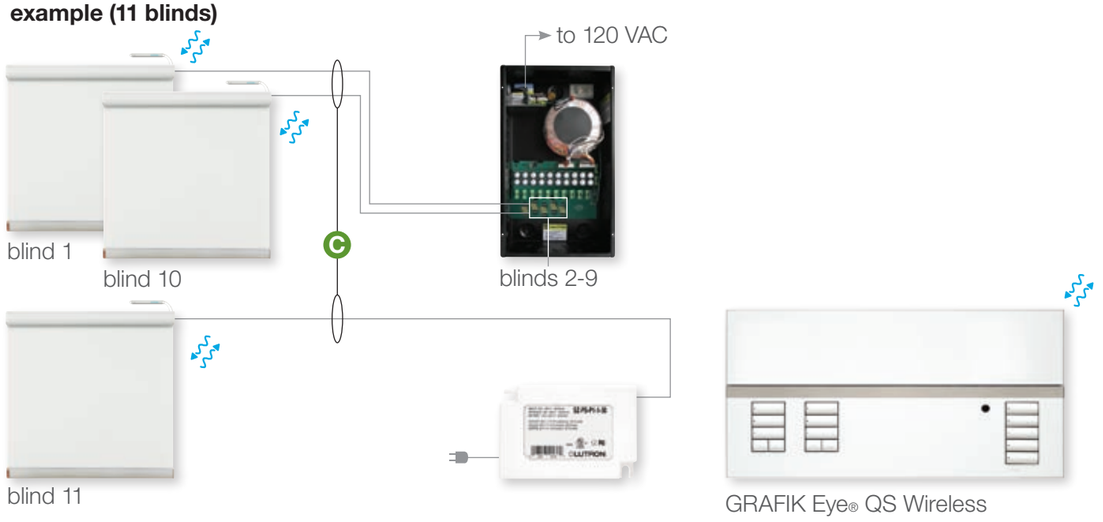
A Power and communications (4-conductor)
B Communications (3-conductor)

A. Select power components for Sivoia® QS **WIRELESS** system

Sivoia QS smart panel power supply
(powers up to 10 wireless blinds/curtains)
QSPS-P2-10-60

QS link power supply
(powers 1 wireless blind/curtain)
QSPS-P2-1-50 (Continental Europe)
QSPS-P3-1-50 (United Kingdom)

Powering blinds on a WIRELESS system example (11 blinds)



Blind zones are programmed through wireless communication with the GRAFIK Eye QS Wireless.

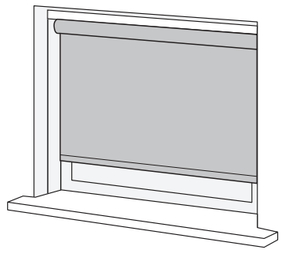
C Power (2-conductor)

Step 3 selecting blind components

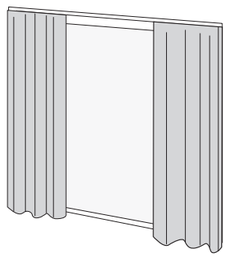
B. Select appropriate window treatments

Roller blind
Sivoia® QS roller blinds are the ideal solution for ultra-quiet precision control of daylight. Blinds start, move, and stop in unison, maintaining perfect alignment with each other (within .125 in. [3.17mm]).

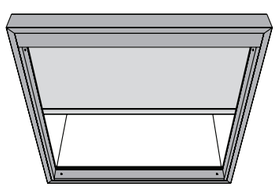
Select from the following fabric categories for your application:
Sheer: Block glare and heat gain while preserving the view.
Dim-out: Let light in while limiting the view to shapes and shadows.
Blackout: Block all light from passing through the material.
Combine with side channels and sill angle for complete light seal.

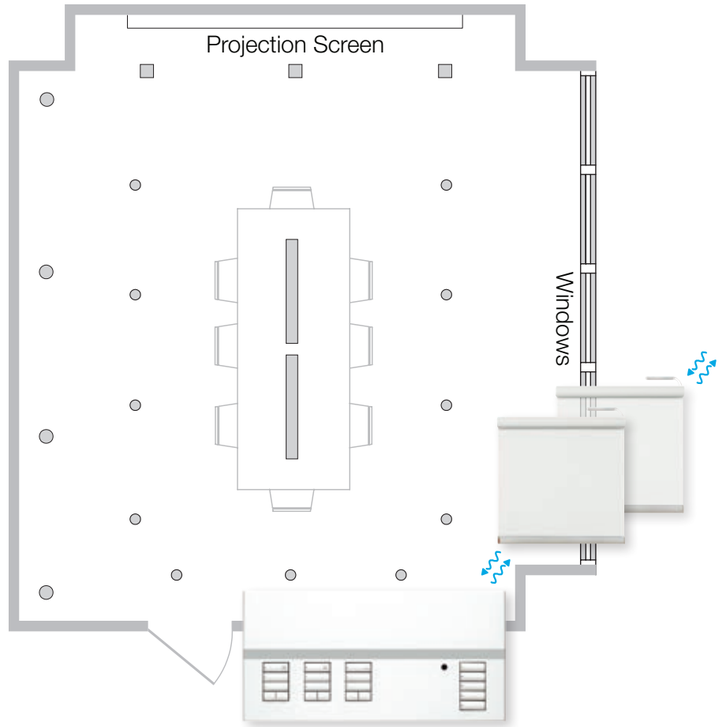


Curtain track
Sivoia QS curtain track systems are the perfect solution for controlling customer-supplied curtains that respond to the touch of a button. Operate pinch pleat or ripplefold curtains for quiet, elegant control of daylight.



Skylight blind
Reliably control daylight through skylights to enhance the visual environment and save energy by reducing solar heat gain.





To create a complete bill of materials and obtain quotes, please refer to the blind configuration tool (SCT) or contact customer service at +44.207.702.0657 or at intlshadinginfo@lutron.com.

www.lutron.com/shadingsolutions

Step 4 selecting energy-saving devices

A. Select appropriate occupancy/vacancy sensors

Occupancy/vacancy sensors (wired)
- Self-adaptive technology updates time and sensitivity settings to ensure that the sensors have the greatest accuracy

Wall mount[1]

LOS-WDT-WH	Dual tech, 480 sq. m.
LOS-WDT-R-WH	Dual tech, 480 sq. m., with dry contact relay
LOS-WIR-WH	Infrared, 480 sq. m.

Ceiling mount[1]

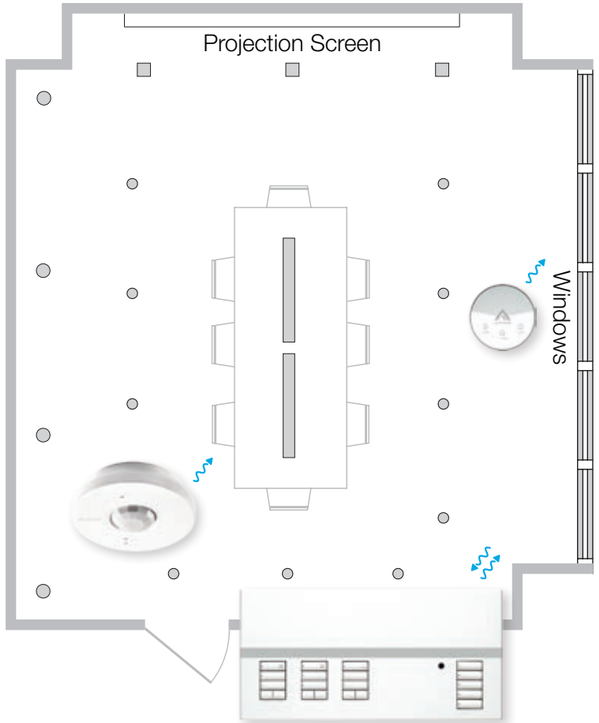
LOS-CDT-500-WH	Dual tech, 150 sq. m.
LOS-CDT-500R-WH	Dual tech, 150 sq. m. with dry contact relay
LOS-CDT-1000-WH	Dual tech, 300 sq. m.
LOS-CDT-1000R-WH	Dual tech, 300 sq. m., with dry contact relay
LOS-CDT-2000-WH	Dual tech, 480 sq. m.
LOS-CDT-2000R-WH	Dual tech, 480 sq. m. with dry contact relay
LOS-CUS-500-WH	Ultrasonic, 150 sq. m.,
LOS-CUS-1000-WH	Ultrasonic, 300 sq. m.,
LOS-CUS-2000-WH	Ultrasonic, 480 sq. m.,
LOS-CIR-450-WH	Infrared, 180 sq. m.,
LOS-CIR-1500-WH	Infrared, 450 sq. m.,

NEW Radio Powr Savr™ wireless occupancy/vacancy sensor
- Installs in minutes—requires no wiring
- Front accessible setup buttons
- Cutting-edge, Lutron XCT™ sensing technology
- 10-year battery life

LRF3-OCRB-P-WH Occupancy/vacancy sensor

B. Select daylight sensors

Available Q1 2010 Wired and wireless daylight sensor
- Gradually dims lights in response to the amount of available daylight



1 All LOS series sensors are active high, 20-24 VDC, white

Step 5 selecting integration devices

A. Determine the type of integration needed

QS RS-232/Ethernet interface
- Provides integration with third-party touch screens, A/V equipment, HVAC, building management systems and other digital equipment
- Supports RS-232 serial communication or communications via Ethernet

QSE-CI-NWK-E

QS contact closure interface
- Provides integration with third-party equipment requiring contact closure input/output including projection screens, security systems, movable walls, time clocks and others
- Five inputs and five dry contact closure outputs
- Control for A/C motors (motor group controller also required)

QSE-IO

QS DMX interface
- Provides integration with third-party theatrical equipment including light machines, strobes, fog machines, animated characters, motorized fixtures and others
- Allows for mapping of DMX and RGB/CMY fixtures to zones on the GRAFIK Eye® QS Wireless

QSE-CI-DMX

A/V mounting rack and wall-mount
- For use with QSE-CI-NWK-E, QSE-IO, and QSE-CI-DMX

LUT-19AV-1U A/V Mounting rack
LUT-5X10-ENC Wall-mount enclosure

Additional components

NEW Pico™ wireless controls

- No wires—take control of lights and blinds from anywhere
- Can function as a stylish tabletop control on a pedestal, or a lightweight handheld remote
- Available in a variety of colours
  QSR8P-3R-WH-I01

QS link power supply
(powers 1 wired blind/curtain)

- Provides power to QS blinds, keypads, and accessories
- Plugs in to a standard receptacle
- Universal input voltage
  QSPS-P2-1-50 (Continental Europe)
  QSPS-P3-1-50 (United Kingdom)

Power module
(increases single GRAFIK Eye® QS Wireless zone wattage capacity)

- Dims incandescent, magnetic low voltage, and neon/cold cathode loads
  NGRX-PB-CE-WH

- Allows dimming of electronic transformer-supplied low-voltage lighting requiring reverse phase-control dimming
  NGRX-ELVI-CE-WH

- Switching relay (non-dim) ratings for all voltages 16A: Incandescent, low voltage, neon/cold cathode, fluorescent
  GRX-TVI

Key components system diagram

incandescent/halogen loads

magnetic low-voltage loads

electronic low-voltage loads

phase adaptive power module

NEW GRAFIK Eye® QS Wireless
includes wired and wireless connections to control lights, blinds, and energy usage automatically or with the touch of a button

A Power and communications (4-conductor)
B Communications (2-conductor digital bus)
C Wireless RF Communication

QS link

Additional QS devices

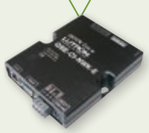
Quantum®
provides total light management for an entire building

Sivoia QS smart panel power supply

Sivoia® QS blinds
reduce glare and solar heat gain for increased comfort, productivity, and energy savings, while preserving exterior views

seeTouch® QS keypads
control lights and blinds at the touch of a button

Third-party devices

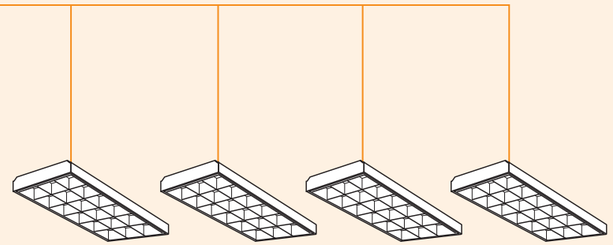


QS RS-232/Ethernet interface
allows for seamless integration with A/V, HVAC, and building management systems

QS contact closure interface
provides integration with third-party equipment requiring contact closure input/output

QS DMX interface
provides integration with LEDs and theatrical equipment

DALI



DALI compliant output devices
digital addressable loads work individually or part of a group to manage electric light

Wireless RF communication

NEW Radio Powr Savr™ wireless occupancy/vacancy sensor
automatically turns lights on/off or dims based on room occupancy/vacancy

NEW Pico™ wireless control
handheld and tabletop versions available to control lights and blinds from anywhere in the space

Sivoia QS smart panel power supply

NEW Sivoia® QS wireless blinds
reduce glare and solar heat gain for increased comfort, productivity, and energy savings, while preserving exterior views

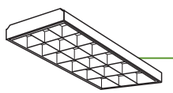
Note: Direct control of DALI devices only available on GRAFIK Eye QS Wireless with integral DALI bus supply.

Typical application: **conference room**

Available Q1 2010 Wired daylight sensor
adjusts electric light levels in response to the amount of available daylight

NEW Sivoia® QS wireless blinds
quietly move precision-controlled blinds at the touch of a button to reduce sun glare and solar heat gain

NEW Radio Powr Savr™ wireless occupancy/vacancy sensor
retrofits easily and ensures energy savings by turning on lights only when you need them



DALI ballasts
save energy and increase productivity by managing daylight and electric light with DALI ballasts

seeTouch® QS keypad
adjusts lights and blinds to achieve the optimal light level for any task—all at the touch of a button

NEW Pico™ wireless control
functions as a stylish tabletop control or a lightweight handheld remote

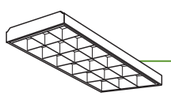
QS RS-232/Ethernet interface
integrates with building management systems so you can easily control lights, blinds, video and temperature from one device

NEW GRAFIK Eye® QS Wireless with DALI
includes wired and wireless connections to control lights, blinds, and energy usage automatically or with the touch of a button

Typical application: **classroom**

Available Q1 2010 Wired daylight sensor
adjusts electric light levels in response to the amount of available daylight

Sivoia® QS blinds
quietly move precision-controlled blinds at the touch of a button to reduce sun glare and solar heat gain



DALI ballasts
save energy and increase productivity by managing daylight and electric light with DALI ballasts

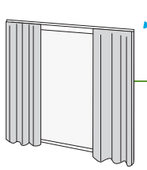
NEW Radio Powr Savr™ wireless occupancy/vacancy sensor
retrofits easily and ensures energy savings by turning on lights only when you need them

NEW Pico™ wireless control
functions as a stylish tabletop control or a lightweight handheld remote.

QS RS-232/Ethernet interface
integrates with A/V equipment so you can easily control lights, blinds, video and temperature from one device

NEW GRAFIK Eye® QS Wireless with DALI
includes wired and wireless connections to control lights, blinds, and energy usage automatically or with the touch of a button

Typical application: **home theater**

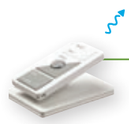


NEW Sivoia® QS wireless roller blinds and curtain tracks
quietly move precision-control blinds and curtains at the touch of a button to reduce sun glare and solar heat gain

seeTouch® QS keypad
adjusts lights and blinds to achieve the optimal light level for any task—all at the touch of a button

NEW Radio Powr Savr™ wireless occupancy/vacancy sensor
retrofits easily and ensures energy savings by turning on lights only when you need them

QS RS-232/Ethernet interface
integrates with A/V equipment so you can easily control lights, blinds, and video from one device



NEW Pico™ wireless control
functions as a stylish tabletop control, or a lightweight handheld remote.

NEW GRAFIK Eye® QS Wireless
includes wired and wireless connections to control lights, blinds, and energy usage automatically or with the touch of a button

Available colours to coordinate with any décor

Architectural matte finishes [1]

White (WH) **f**, **s**, **b**
Ivory (IV) **f**, **s**, **b**
Beige (BE) **f**, **s**, **b**
Almond (AL) **f**, **s**, **b**
Lt. Almond (LA) **f**, **s**, **b**
Gray (GR) **f**, **s**, **b**
Brown (BR) **f**, **s**, **b**
Black (BL) **f**, **s**, **b**

Architectural metal finishes

Bright Brass (BB) **f**, **s**
Bright Chrome (BC) **f**, **s**
Bright Nickel (BN) **f**, **s**
Satin Brass (SB) **f**, **s**
Satin Chrome (SC) **f**, **s**
Satin Nickel (SN) **f**, **s**
Antique Brass (QB) **f**, **s**
Antique Bronze (QZ) **f**, **s**

Anodized aluminium finishes [1]

Clear (CLA) **f**, **s**
Black (BLA) **f**, **s**
Brass (BRA) **f**, **s**

Satin Color® matte finishes [1]

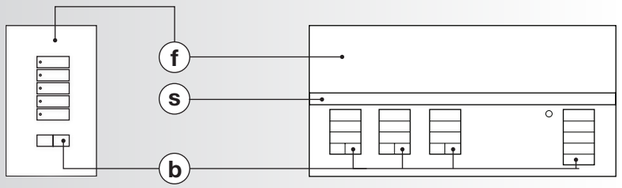
Hot (HT) **f**, **s**
Merlot (MR) **f**, **s**
Plum (PL) **f**, **s**
Turquoise (TQ) **f**, **s**
Terracotta (TC) **f**, **s**
Greenbriar (GB) **f**, **s**
Bluestone (BG) **f**, **s**
Mocha Stone (MS) **f**, **s**
Sea Glass (SG) **f**, **s**
Taupe (TP) **f**, **s**, **b**
Eggshell (ES) **f**, **s**, **b**
Biscuit (BI) **f**, **s**, **b**
Goldstone (GS) **f**, **s**
Desert Stone (DS) **f**, **s**
Stone (ST) **f**, **s**
Limestone (LS) **f**, **s**
Snow (SW) **f**, **s**, **b**
Palladium (PD) **f**, **s**
Midnight (MN) **f**, **s**
Sienna (SI) **f**, **s**

International finishes [2,3]

Argentum (AR) **f**, **s**
Mica (MC) **f**, **s**
Arctic White (AW) **f**, **s**, **b**

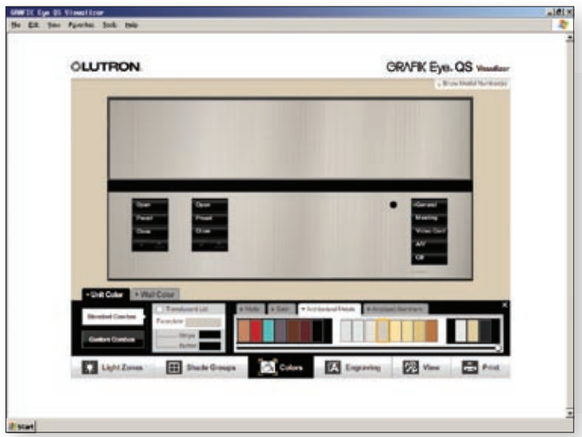
Note: black architectural matte buttons are available for international seeTouch® QS keypads.

Colour option guide



seeTouch® QS — GRAFIK Eye® QS Wireless

f faceplate colour option
s stripe colour option
b button colour option



Use the GRAFIK Eye® QS Visualiser to design a customized control unit and generate model numbers and order forms. View it on screen or print a copy to present to your design team or client.

www.lutron.com/grafikeyeqs

1 Not available for international seeTouch QS keypads.
2 Only available for international seeTouch QS keypads.
3 Not available for GRAFIK Eye® QS Wireless units or faceplates.

The Lutron difference

A history of sustainability, innovation, and quality

At Lutron, sustainability is not new to us. Lutron is a company built on a belief in taking care of people: customers, employees, and the community. Since 1961, we have been designing industry-leading technology that saves energy and reduces green house gas emissions.

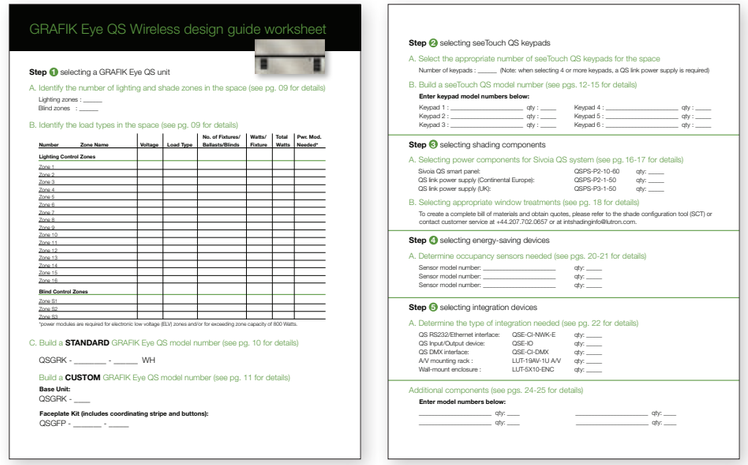
We innovate in advance of emerging market needs and continually improve our quality, our delivery, and our value.

Lutron holds over 1,700 patents and manufactures more than 15,000 products. For over 45 years, we have met and exceeded the highest standards of quality and service. Every one of our products is quality-tested before it leaves the factory.

Global service and support

You can count on a level of support unequaled anywhere in the industry and anywhere in the world. Lutron provides 24/7 technical phone support. Lutron Field Service, made up of a global network of customer-focused field service engineers, provides world-class services that begin before your building is commissioned and continue throughout the life of your building.

Resources



GRAFIK Eye QS Wireless design guide worksheet

Step 1 selecting a GRAFIK Eye QS unit

A. Identify the number of lighting and shade zones in the space (see pg. 09 for details)

Lighting zones : _____
Blind zones : _____

B. Identify the load types in the space (see pg. 09 for details)

Number	Zone Name	Voltage	Load Type	No. of Fixtures/ Ballasts/Blinds	Watts/ Fixture	Total Watts	Pwr. Mod. Needed*
Lighting Control Zones							
Zone 1							
Zone 2							
Zone 3							
Zone 4							
Zone 5							
Zone 6							
Zone 7							
Zone 8							
Zone 9							
Zone 10							
Zone 11							
Zone 12							
Zone 13							
Zone 14							
Zone 15							
Zone 16							
Blind Control Zones							
Zone 81							
Zone 82							
Zone 83							

*power modules are required for electronic low voltage (ELV) zones and/or for exceeding zone capacity of 800 Watts.

C. Build a **STANDARD** GRAFIK Eye QS model number (see pg. 10 for details)

QSGRK - _____ - _____ WH

Build a **CUSTOM** GRAFIK Eye QS model number (see pg. 11 for details)

Base Unit:
QSGRK - _____

Faceplate Kit (includes coordinating stripe and buttons):
QSGFP - _____ - _____

Step 2 selecting seeTouch QS keypads

A. Select the appropriate number of seeTouch QS keypads for the space

Number of keypads : _____ (Note: when selecting 4 or more keypads, a QS link power supply is required)

B. Build a seeTouch QS model number (see pgs. 12-15 for details)

Enter keypad model numbers below:

Keypad 1 : _____ qty : _____
Keypad 2 : _____ qty : _____
Keypad 3 : _____ qty : _____
Keypad 4 : _____ qty : _____
Keypad 5 : _____ qty : _____
Keypad 6 : _____ qty : _____

Step 3 selecting shading components

A. Selecting power components for Sivoia QS system (see pg. 16-17 for details)

Sivoia QS smart panel: QSPS-P2-10-60 qty: _____
QS link power supply (Continental Europe): QSPS-P2-1-50 qty: _____
QS link power supply (UK): QSPS-P3-1-50 qty: _____

B. Selecting appropriate window treatments (see pg. 18 for details)

To create a complete bill of materials and obtain quotes, please refer to the shade configuration tool (SCT) or contact customer service at +44.207.702.0657 or at intshadinginfo@lutron.com.

Step 4 selecting energy-saving devices

A. Determine occupancy sensors needed (see pgs. 20-21 for details)

Sensor model number: _____ qty: _____
Sensor model number: _____ qty: _____
Sensor model number: _____ qty: _____

Step 5 selecting integration devices

A. Determine the type of integration needed (see pg. 22 for details)

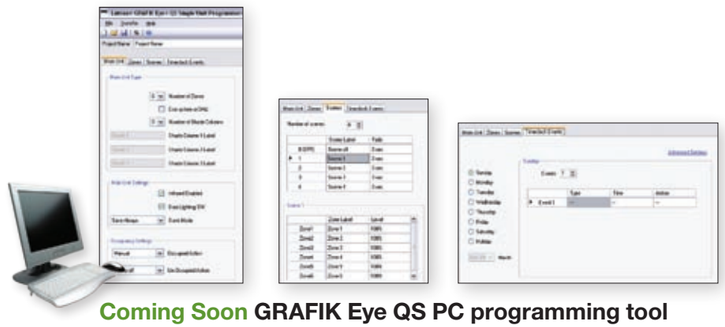
QS RS232/Ethernet interface: QSE-CI-NWK-E qty: _____
QS Input/Output device: QSE-IO qty: _____
QS DMX interface: QSE-CI-DMX qty: _____
A/V mounting rack : LUT-19AV-1U A/V qty: _____
Wall-mount enclosure : LUT-5X10-ENC qty: _____

Additional components (see pgs. 24-25 for details)

Enter model numbers below:

_____ qty: ____
_____ qty: ____
_____ qty: ____
_____ qty: ____

GRAFIK Eye® QS Wireless design guide worksheet
Use this step-by-step worksheet to complement the Design Guide when building your GRAFIK Eye QS Wireless system. Available to download at www.lutron.com/grafikeyeqs



Coming Soon GRAFIK Eye QS PC programming tool
Set up scenes, zones, events, and more right from your PC with this easy-to-use software. Transfer the settings to and from the unit via USB.