

WIRING LEGEND:

- Q QS CONTROL LINK (SEE WIRE DESCRIPTION BELOW)

(CONNECT WIRES 1, 3 AND 4. DO NOT CONNECT WIRE # 2)

QS WIRING AS REQUIRED BY CONTROL LINK LENGTH (REFER TO QS SMART PANEL POWER SUPPLY WIRING GUIDE FOR SHADE WIRING NOTES):

TOTAL CONTROL LINK LENGTH	WIRE GAUGE	AVAILABLE FROM LUTRON IN ONE CABLE:	
LESS THAN 500ft (152.4 m)	POWER (TERMINALS 1&2): 1 PAIR 18 AWG (1.0 mm²)	GRX-CBL-346S (NON-PLENUM) OR GRX-PCBL-346S (PLENUM)	
	DATA (TERMINALS 3&4): 1 PAIR 22 AWG (0.5 mm²), TWISTED AND SHIELDED*		
500ft (152.4 m) TO 2,000ft (610 m)**	POWER (TERMINALS 1&2): 1 PAIR 12 AWG (4.0 mm²)	GRX-CBL-46L (NON-PLENUM) OR GRX-PCBL-46L (PLENUM)	
	DATA (TERMINALS 3&4): 1 PAIR 22 AWG (0.5 mm²), TWISTED AND SHIELDED*		

*ALTERNATE DATA-ONLY CABLE: USE APPROVED DATA LINK CABLE (22 AWG [0.5 mm²] TWISTED/SHIELDED) FROM BELDEN (MODEL # 9461).

- ☑ INPUT POWER (NORMAL-EMERGENCY)
- 7 1-WAY RF COMMUNICATION ☐ INPUT POWER (NORMAL)

**TOTAL LENGTH OF THE QS LINK MUST NOT EXCEED 2,000 ft (600 m).

- 2 #12AWG (4 mm²)
- 3 #12AWG (4 mm²) • 0-10V SIGNAL: 2 #18AWG (1.0 mm²)
 - ∞ 3 #18AWG (1.0 mm²) LUTRON SENSOR CABLE C-CBL-522S

2-WAY RF COMMUNICATION

△ OTHERWISE USE 3 #22 AWG (1.0 mm²)

•• 2 #18AWG (1.0 mm²)

QS SMART PANEL POWER SUPPLY (QSPS-10PNL) QS WIRING GUIDE							
MAXIMUM DEVI	CES PER ONE OUTPUT	MAXIMUM DISTANCE PER ONE OUTPUT BASED ON WIRE GAUGE					
SHADES	+ CONTROLS	12 AWG (4 mm²) QSH-CBL-L-500 QSH-CBLP-L-500	16 AWG (1.5 mm²) QSH-CBL-M-500 QSH-CBLP-M-500	18 AWG (1.0 mm²) GRX-CBL-346S-500			
NONE	UP TO 8 POWER DRAW UNITS	2,000 ft (610 m)	1,000 ft (305 m)	600 ft (183 m)			
QS INDIVIDUAL POWER SUPPLY (QSPS-PX-1-35V OR QSPS-J-1-50) QS WIRING GUIDE							
MAXIMUM DEVI	CES PER ONE OUTPUT	MAXIMUM DISTANCE PER ONE OUTPUT BASED ON WIRE GAUG					
SHADES	+ CONTROLS	12 AWG (4 mm²) QSH-CBL-L-500 QSH-CBLP-L-500	16 AWG (1.5 mm²) QSH-CBL-M-500 QSH-CBLP-M-500	18 AWG (1.0 mm²) GRX-CBL-346S-500			
NONE	UP TO 8 POWER DRAW UNITS	2,000 ft	(600 m)	1,500 ft (450 m)			

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QS SMART PANEL POWER SUPPLY (QSPS-10PNL) SHADE WIRING GUIDE							
MAXIMUM DEVICES PE	R ONE OUTPUT	MAXIMUM DISTANCE PER ONE OUTPUT BASED ON WIRE GAUGE					
SHADES +	CONTROLS	12 AWG (4 mm²) QSH-CBL-L-500 QSH-CBLP-L-500	16 AWG (1.5 mm²) QSH-CBL-M-500 QSH-CBLP-M-500	18 AWG (1.0 mm²) GRX-CBL-346S-500			
1 SIVOIA QS SHADE OR DRAPERY DRIVE UNIT	UP TO 1 POWER DRAW UNIT	500 ft (150 m)	200 ft (60 m)	125 ft (35 m)			
2 SIVOIA QS ROLLER 64, ≤ 30 ft² (2.75 m²) EACH							
3 SIVOIA QS ROLLER 64, ≤ 20 ft² (1.8 m²) EACH		200 ft (60 m)	75 ft (20 m)	50 ft (15 m)			
2 SIVOIA QS ROLLER 100, ≤ 50 ft² (4.6 m²) EACH							
QS INDIVIDUAL POWER SUPPLY (QSPS-PX-1-35V OR QSPS-J-1-50) SHADE WIRING GUIDE							
MAXIMUM DEVICES PE	R ONE OUTPUT	MAXIMUM DISTANCE PER ONE OUTPUT BASED ON WIRE GAUGE					
SHADES +	CONTROLS	12 AWG (4,0 mm²) QSH-CBL-L-500 QSH-CBLP-L-500	16 AWG (1,5 mm²) QSH-CBL-M-500 QSH-CBLP-M-500	18 AWG (1,0 mm²) GRX-CBL-346S-500			
1 SIVOIA QS SHADE OR DRAPERY DRIVE UNIT	UP TO 1 POWER DRAW UNIT	250 ft (75 m)	100 ft (30 m)	50 ft (15 m)			

WIRING NOTES:

QS LINK RULES

THE USER'S DISCRETION.

THE FOLLOWING LINK RULES MUST BE OBSERVED FOR PROPER OPERATION:

QUANTUM PROCESSOR COUNTS AS 1 DEVICE PER LINK.

 THIS IS A TOPOLOGY-FREE LINK (T-TAP, HOME-RUN, ETC. IS OK); REFER TO TABLE BELOW FOR WIRE RUN LIMITS. IF WIRED DIFFERENTLY THAN WHAT IS SHOWN, POWER DRAW UNIT REQUIREMENTS NEED TO

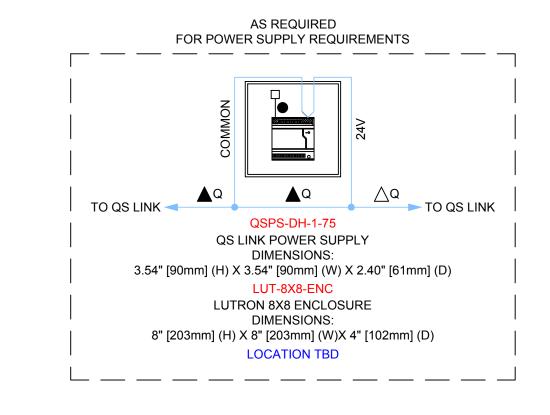
EACH (MODEL NUMBER)

- BE CONFIRMED; SEE POWER DRAW UNITS (PDUs) SPECIFICATION SHEET INCLUDED IN THIS SUBMITTAL. MAXIMUM OF 512 OUTPUTS (BALLASTS, SHADES, CONTACT CLOSURES, ETC).
- MAXIMUM OF 100 OCCUPANCY SENSORS, 100 DAYLIGHT SENSORS/RADIO SHADOW SENSORS AND 100 KEYPADS. MAXIMUM OF 100 QS DEVICES (SUCH AS A GRAFIK EYE® QS, SEETOUCH® QS KEYPAD, SMART PANEL POWER SUPPLY [QSPS-Px-10-60], ESN, OR SIVOIA® QS SHADE / DRAPERY DRIVE UNIT).
- MAXIMUM OF 100 ZONES SUCH AS A SIVOIA QS SHADE / DRAPERY DRIVE UNIT, OR A LIGHTING ZONE ON A GRAFIK EYE QS (DOES NOT APPLY TO QUANTUM SYSTEMS). • THE 10 OUTPUTS ON A QSPS-Px-10-60 CANNOT EXCEED A COMBINED LENGTH OF 2,000 ft (600 m).

CONCEPT DRAWING NOTES: CONTROL SYSTEM DRAWING IS PROVIDED FOR CONCEPTUAL PURPOSES ONLY AND IS NOT INTENDED FOR CONSTRUCTION. EXACT EQUIPMENT REQUIREMENTS, INCLUDING LOCATIONS AND QUANTITIES, SHOULD BE VERIFIED IN ACCORDANCE WITH THE MOST UP-TO-DATE LIGHTING/ELECTRICAL REFLECTED CEILING PLANS, LIGHTING FIXTURE SCHEDULES, PANEL SCHEDULES, CONTROL INTENT AND SPECIFICATIONS. SHADE EQUIPMENT SHOULD BE VERIFIED IN ACCORDANCE WITH ARCHITECTURAL PLANS, SPECIFICATIONS AND WINDOW SCHEDULES/DETAILS.

LED DIMMING REQUIRES AN EXACT MATCH BETWEEN THE LED ARRAY, DRIVER AND CONTROL. LUTRON CANNOT GUARANTEE COMPATIBILITY OR PERFORMANCE WITHOUT TESTING THIS TO CONFIRM WHAT PRODUCTS LUTRON HAS AVAILABLE OR WHAT INTERFACES MAY BE REQUIRED, CALL 1-877-DIM-LED8 OR CHECK LUTRON'S PRODUCT COMPATIBILITY MATRIX ON-LINE AT WWW.LUTRON.COM/LED. TO REQUEST THE TESTING OF AN LED PRODUCT BY LUTRON MANUFACTURERS CAN FILL OUT AN LED EVALUATION REQUEST FORM ON-LINE AT WWW.LUTRON.COM/LED OR CONTACT LEDS@LUTRON.COM. LUTRON CAN GUARANTEE COMPATIBILITY AND PERFORMANCE OF LUTRON HI-LUME A-SERIES LED DRIVERS USED WITH APPROPRIATE LUTRON CONTROLS. THE HI-LUME A-SERIES LED DRIVER CAN BE USED ON PRODUCTS UNDER 40 WATTS WITH SUITABLE MOUNTING LOCATIONS. PLEASE REFER TO THE SPECIFICATION SUBMITTAL SHEET FOR FURTHER INFORMATION.

IF USING UNTESTED, NON-LUTRON LED DRIVERS REQUIRING 0-10V CONTROL, PERFORMANCE AND COMPATIBILITY CANNOT BE GUARANTEED BY LUTRON. PRODUCTS FOLLOWING THE IEC STANDARD 60929 ARE MORE LIKELY TO PROVIDE ACCEPTABLE PERFORMANCE RESULTS. DETERMINATION OF RESULT ACCEPTABILITY IS UP TO THE USER'S DISCRETION. IF USING UNTESTED, NON-LUTRON LED DRIVERS REQUIRING PHASE CONTROL, PERFORMANCE AND COMPATIBILITY CANNOT BE GUARANTEED BY LUTRON. A-SERIES OR ELV PRODUCTS PROVIDING HIGH END AND LOW END TRIM ADJUSTMENTS ARE MORE LIKELY TO PROVIDE ACCEPTABLE PERFORMANCE RESULTS. DETERMINATION OF RESULT ACCEPTABILITY IS UP TO



5-SERIES OTHERWISE NOTED. E.E. TO CONFIRM ALL CIRCUITING REQUIREMENTS. ARCHITECT TO VERIFY QUANTITY, LOCATION & FINISH OF ALL CONTROLS.

ALL SYSTEMS INITIATES AN 2 YEAR LIMITED WARRANTY. THE ELECTRICAL CONTRACTOR MUST CONTACT LUTRON (1-844-588-7661) TO SET UP VISIT WITH 10 DAYS

LUTRON NOTES:

& CABLE/PHONE JACKS TO BE LUTRON NOVA T*

LUTRON FIELD SERVICE COMMISSIONING INCLUDED IN

ALL DIMMING BALLASTS TO BE LUTRON ECOSYSTEM, ECOSYSTEM H-SERIES, OR ALL DIMMING DRIVERS TO BE LUTRON ECOSYSTEM DRIVER: A-SERIES; H-SERIES; OR ALL FACEPLATES, DIMMERS, SWITCHES, RECEPTACLES

SPECIFIED PROJECT'S SCOPE OF WORK AND SPECIFIED INTO THE WRITTEN SPEC DOCUM PRE-STARTUP SERVICES ON-SITE
PRE-WIRE VISIT
(LSC-PREWIRE)

ONSITE VISIT WITH ELECTRICAL CONTRACTOR TO DISCUSS LOGISTIC
CONSTRUCTION CONSIDERATIONS INCLUDING WIRING & MOUNTING
SYSTEM DEVICES, CONSTRUCTION SCHEDULE, & LUTRON
DOCUMENTATION. QUANTITY DICTATES THE NUMBER OF VISITS SYSTEM & NETWORK
INTEGRATION
CONSULTATION
(LSC-INT-VISIT)

CONSULTATION
(LSC-INT-VISIT)

CONSULTATION
CONSULTATIVE VISIT WITH THIRD PARTY INTEGRATORS TO CONFIRM
SPECIFIC SEQUENCE OF OPERATION & DISCUSS INTEGRATION
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SPECIFIED SEQUENCE OF OPERATION & DISCUSS INTEGRATION
CONSULTATION
CONSU SENSOR LAYOUT

& TUNING

LUTRON WILL TAKE RESPONSIBILITY FOR LUTRON-PROVIDED SENSIPLACEMENT & PERFORMANCE BY CREATING SENSOR LAYOUTS,
COORDINATING SENSOR PLACEMENT PRIOR TO & AFTER INSTALLATION DURING STARTUP, ONCE THE BUILDING IS OCCUPIED, LUTRON W
RETURN UP TO TWO TIMES TO PERFORM SENSOR FINE-TUNING. STARTUP SUPPORT SERVICES STARTUP PROVIDED BETWEEN THE HOURS OF 5:00PM - 7:00AM, M
- FRIDAY. THIS SCOPE OF WORK DOES NOT INCLUDE HOLIDAY OR
WEEKEND WORK. ADDITIONAL FEES MAY APPLY FOR WORK TO BE
COMPLETED ON WEEKENDS (FRIDAY 5:00PM - MONDAY 7:00AM). AN ONSITE VISIT WITH THE SPECIFIER OR CUSTOMER REPRESEN & LEVEL TUNING
(LSC-AF-VISIT)

TO REVIEW DESIGN INTENT, FINE-TUNE SCENE LEVEL PROGRAMM
AND TIMECLOCK ADJUSTMENTS. ONSITE WALKTHROUGH WITH FACILITY REPRESENTATIVES OR PF COMMISSIONING AGENTS TO DEMONSTRATE THAT THE SYSTEM FUNCTIONALITY MEETS THE DESIGN INTENT. THIS MAY INCLUDE ANY THE FOLLOWING ONSITE ACTIVITIES - CONSULTATION/TRAINII FUNCTIONAL TESTING ASSISTANCE, & INVENTORY OF LUTRON (LSC-WALK) SYSTEM PERFORMANCE COMPLETION OF DOCUMENTATION WHICH PROVIDES PERFORMA VERIFICATION CERTIFYING THE LUTRON EQUIPMENT HAS BEEN THOROUGHLY TESTED. IT SUPPORTS THE DOCUMENTATION TITLE 24
ACCEPTANCE TESTING BY A LUTRON CERTIFIED LIGHTING CONTE ACCEPTANCE TEST VISIT ACCEPTANCE TEST TECHNICIAN (CLCATT) TO FULFILL THE REQUIR TITLE 24 INTERIOR LIGHTING CONTROL TESTS. POST-STARTUP SERVICES CUSTOMER-SITE
SOLUTION TRAINING
(LSC-TRAINING-SP)

A VISIT TO TEACH SYSTEM USERS HOW TO OPERATE AND MAINTAIN LIGHTING CONTROL SYSTEM. SYSTEM
OPTIMIZATION
(LSC-SYSOPT-SP)

ONSITE CONSULTATIVE VISIT TO IDENTIFY & IMPLEMENT LIGHTING
CONTROL ADJUSTMENTS TO SAVE ADDITIONAL ENERGY & CREATE
MORE PRODUCTIVE WORK ENVIRONMENT. MAINTENANCE & SUPPORT SERVICES PROVIDES COMPATIBILITY TESTING FOR OPERATING SYSTEMS F WEB-BROWSER UPDATES, AND QUANTUM SOFTWARE VERSIONS. INCLUDES AN ELECTIVE FREE SOFTWARE UPGRADE LICENSE. COMMERCIAL
SYSTEMS 2-YEAR
LIMITED WARRANTY
(LSC-B2)

COMMERCIAL SYSTEMS 2-YEAR LIMITED WARRANTY – A 2-YEAR
WARRANTY PROVIDING 100% REPLACEMENT PARTS AND 100%
LUTRON DIAGNOSTIC LABOR COVERAGE WITH A FIRST-AVAILABLE
RESPONSE TIME. YEARS 1 & 2: 100% REPLACEMENT PARTS & 100% LUTRON DIAGN ENHANCED SILVER
(LSC-E8S)

LABOR COVERAGE WITH A FIRST-AVAILABLE RESPONSE TIME (SILVE
(LSC-E8S)

PLAN); YEARS 3-5: 50% PARTS ONLY COVERAGE; YEARS 6-8: 25% PA ONLY COVERAGE. YEARS 1-2: 100% REPLACEMENT PARTS & 100% LUTRON LABOR COVERAGE WITH A 72-HOUR RESPONSE TIME AND AN ANNUAL (1-DAY) SCHEDULED PREVENTATIVE MAINTENANCE VISIT (GOLD P YEARS 3-5: 50% PARTS ONLY COVERAGE; YEARS 6-8: 25% PARTS YEARS 1-2: 100% REPLACEMENT PARTS & 100% LUTRON LABOR COVERAGE WITH A 24-HOUR RESPONSE TIME AND AN ANNUAL (1-DAY) SCHEDULED PREVENTATIVE MAINTENANCE VISIT (GOLD PLYEARS 3-5: 50% PARTS ONLY COVERAGE; YEARS 6-8: 25% PARTS C SILVER
TECHNOLOGY
AN ANNUAL SERVICE PLAN THAT COVERS 100% REPLACEMENT PA TECHNOLOGY
SUPPORT PLAN
(I SC-SII V-IW)

FIRST-AVAILABLE ONSITE OR REMOTE RESPONSE TIME. GOLD TECHNOLOGY SUPPORT PLAN (LSC-GOLD-IW)

AN ANNUAL SERVICE PLAN THAT COVERS 100% REPLACEMENT PAR AND 100% LUTRON LABOR WITH A 72-HOUR ONSITE OR REMOTE RESPONSE TIME. ALSO INCLUDES AN ANNUAL (1-DAY) SCHEDULED PREVENTATIVE MAINTENANCE VISIT EACH YEAR. PLATINUM AN ANNUAL SERVICE PLAN THAT COVERS 100% REPLACEMENT F
TECHNOLOGY AND 100% LUTRON DIAGNOSTIC LABOR WITH A 24-HOUR SUPPORT PLAN ONSITE OR REMOTE RESPONSE TIME. ALSO INCLUDES AN ANNUA (LSC-PLAT-IW) (1-DAY) SCHEDULED PREVENTATIVE MAINTENANCE VISIT EACH PREVENTIVE
MAINTENANCE
VISIT(S)
(LSC-SCH-MAINT)

WEARLY SCHEDULED MAINTENANCE VISIT TO PERFORM PREVENTI
MAINTENANCE, MINOR PROGRAMMING, AND CONDUCT SYSTEM
TRAININGS. QUANTITY IS IN ADDITION TO ANY YEARLY VISITS SPEC
WITH AN ENHANCED WARRANTY OR TECHNOLOGY SUPPORT PLAN PLEASE GO TO WWW.LUTRON.COM/SERVICES FOR FURTHER INFORMATION OF THE PROPERTY O

SERVICE DESCRIPTION

THE COUNTS OF SERVICES BELOW ARE TO BE INCLUDED AS PART OF THIS

TYPICAL GRAFIK EYE QS WITH SHADE CONTROL

CONCEPT DRAWING NOT FOR CONSTRUCTION

Project Number: ####### Drawn By: Drawing Revision: OCTOBER 2010 Drawing Date: Sheet:

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