

WIRING LEGEND:

- △ QS CONTROL LINK (SEE WIRE DESCRIPTION BELOW)
- ▲ 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 500 FT (152.4 m)	POWER (TERMINALS 1-162) 1 PAIR 18 AWG (1.5 mm²)	GRX-CBL-3463 (NON-PLENUM) OR GRX-CBL-3465 (PLENUM)
	DATA (TERMINALS 384) 1 PAIR 22 AWG (0.5 mm²), TWISTED AND SHIELDED*	GRX-CBL-405 (NON-PLENUM) OR GRX-CBL-406 (PLENUM)
500 FT (152.4 m) TO 2,000 FT (610 m)**	POWER (TERMINALS 1-162) 1 PAIR 18 AWG (1.5 mm²)	GRX-CBL-405 (NON-PLENUM) OR GRX-CBL-406 (PLENUM)
	DATA (TERMINALS 384) 1 PAIR 22 AWG (0.5 mm²), TWISTED AND SHIELDED*	GRX-CBL-405 (NON-PLENUM) OR GRX-CBL-406 (PLENUM)

*ALTERNATE DATA ONLY CABLE: USE APPROVED DATA LINK CABLE (22 AWG [0.5 mm²]) TWISTED/SHIELDED FROM BELDEN (MODEL # 8881).

**TOTAL LENGTH OF THE QS LINK MUST NOT EXCEED 2,000 FT (610 m).

- INPUT POWER (NORMAL-EMERGENCY)
- 2 #12AWG (4 mm²)
- 3 #12AWG (4 mm²)
- ◆ 0-10V SIGNAL: 2 #18AWG (1.0 mm²)
- ◇ ECOSYSTEM BUS LOOP
- 1-WAY RF COMMUNICATION
- 2-WAY RF COMMUNICATION
- 3 #18AWG (1.0 mm²)
- LUTRON SENSOR CABLE C-CBL-5225 (OTHERWISE USE 3 #22 AWG (1.5 mm²))

QS SMART PANEL POWER SUPPLY (QSPS-10PNL) QS WIRING GUIDE			
SHADES	CONTROLS	12 AWG (1.5 mm²) QSH-CBL-P1-600	18 AWG (1.0 mm²) QSH-CBL-P1-600
MAXIMUM DEVICES PER ONE OUTPUT	MAXIMUM DISTANCE PER ONE OUTPUT BASED ON WIRE GAUGE	18 AWG (1.0 mm²) QSH-CBL-P1-600	18 AWG (1.0 mm²) QSH-CBL-3465-500
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-1-3SV OR QSPS-J-1-50) QS WIRING GUIDE			
SHADES	CONTROLS	12 AWG (1.5 mm²) QSH-CBL-P1-600	18 AWG (1.0 mm²) QSH-CBL-P1-600
MAXIMUM DEVICES PER ONE OUTPUT	MAXIMUM DISTANCE PER ONE OUTPUT BASED ON WIRE GAUGE	18 AWG (1.0 mm²) QSH-CBL-P1-600	18 AWG (1.0 mm²) QSH-CBL-3465-500
UP TO 8 POWER DRAW UNITS	2,000 FT (610 m)	1,000 FT (305 m)	600 FT (183 m)

QS SMART PANEL POWER SUPPLY (QSPS-10PNL) SHADE WIRING GUIDE			
SHADES	CONTROLS	12 AWG (1.5 mm²) QSH-CBL-P1-600	18 AWG (1.0 mm²) QSH-CBL-P1-600
1 SIVQA QS SHADE OR DRAPERY DRIVE UNIT	500 FT (152 m)	200 FT (61 m)	125 FT (38 m)
2 SIVQA QS ROLLER BL. 6.50 FT (2.0 m) EACH	UP TO 1 POWER DRAW UNIT		
3 SIVQA QS ROLLER BL. 6.50 FT (2.0 m) EACH	200 FT (61 m)	75 FT (23 m)	50 FT (15 m)
2 SIVQA QS ROLLER 100.50 FT (30.6 m) EACH			

QS INDIVIDUAL POWER SUPPLY (QSPS-PX-1-3SV OR QSPS-J-1-50) SHADE WIRING GUIDE			
SHADES	CONTROLS	12 AWG (1.5 mm²) QSH-CBL-P1-600	18 AWG (1.0 mm²) QSH-CBL-P1-600
1 SIVQA QS SHADE OR DRAPERY DRIVE UNIT	UP TO 1 POWER DRAW UNIT	200 FT (61 m)	100 FT (30 m)
2 SIVQA QS ROLLER 100.50 FT (30.6 m) EACH			

WIRING NOTES:

- THIS IS A TOPOLOGY-FREE LINK (T-TAP, HOME-RUN, ETC. IS OK). REFER TO TABLE BELOW FOR WIRE LIMITS.
- IF WIRED DIFFERENTLY THAN WHAT IS SHOWN, POWER DRAW UNIT REQUIREMENTS NEED TO BE CONSIDERED. SEE POWER DRAW UNIT SPECIFICATION SHEET FOR ADDITIONAL INFO.
- MAXIMUM OF 512 OUTPUTS (BALLASTS, SHADES, CONTACT CLOSURES, ETC.).
- MAXIMUM OF 100 OCCUPANCY SENSORS, 100 DAYLIGHT SENSOR/RADIO SHADE AND 100 KEYPADS.
- MAXIMUM OF 100 QS DEVICES (SUCH AS A GRAFIK EYE QS, SEETOUGH QS KEYPAD, SMART PANEL POWER SUPPLY (QSPS-PX-1-3SV), ESN, OR SIVQA QS SHADE / DRAPERY DRIVE UNIT).
- MAXIMUM OF 100 ZONES - SUCH AS A SIVQA 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-1-3SV CANNOT EXCEED A COMBINED WEIGHT OF 2,000 FT (600 m).

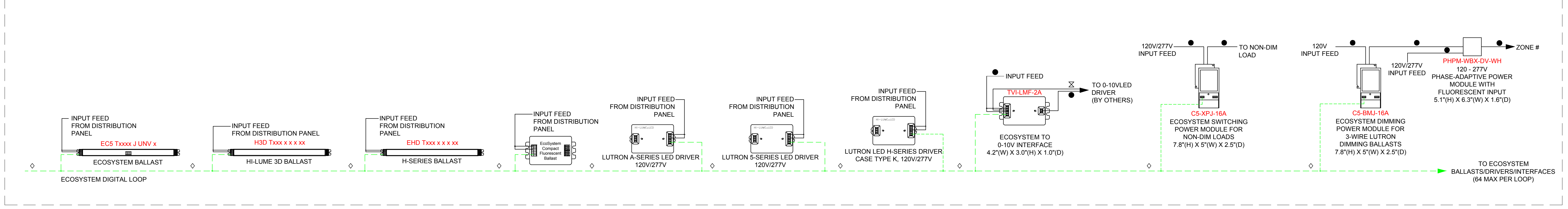
ECOSYSTEM BUS/LOOP RULES

- THIS IS A TOPOLOGY-FREE AND POLARITY-FREE WIRING (T-TAP, HOME-RUN, ETC. IS OK).
- KEEP ALL THE BALLASTS/MODULES IN ONE ROOM ON THE SAME LOOP WHENEVER POSSIBLE.
- WIRE DAYLIGHT SENSORS, OCCUPANCY SENSORS AND PERSONAL CONTROLS TO THE CLOSEST ECOSYSTEM BALLAST/DRIVER MODULE IN THE SAME ROOM.
- ECOSYSTEM LOOPS ARE SHOWN ON THE LIGHTING PLANS. IF THERE IS A DISCREPANCY, AND ROOMS ARE WIRED TO A DIFFERENT LOOP THAN THE ONE SHOWN, LUTRON NEEDS TO BE NOTIFIED. THIS INFORMATION IS IMPORTANT FOR PROGRAMMING THE SYSTEM.
- UP TO 16 BALLAST/DRIVER/MODULES PER ECOSYSTEM LOOP.
- UP TO 64 CONTROL PER LOOP.
- UP TO 16 DAYLIGHT SENSORS PER LOOP.
- UP TO 30 OCCUPANCY SENSORS PER LOOP.

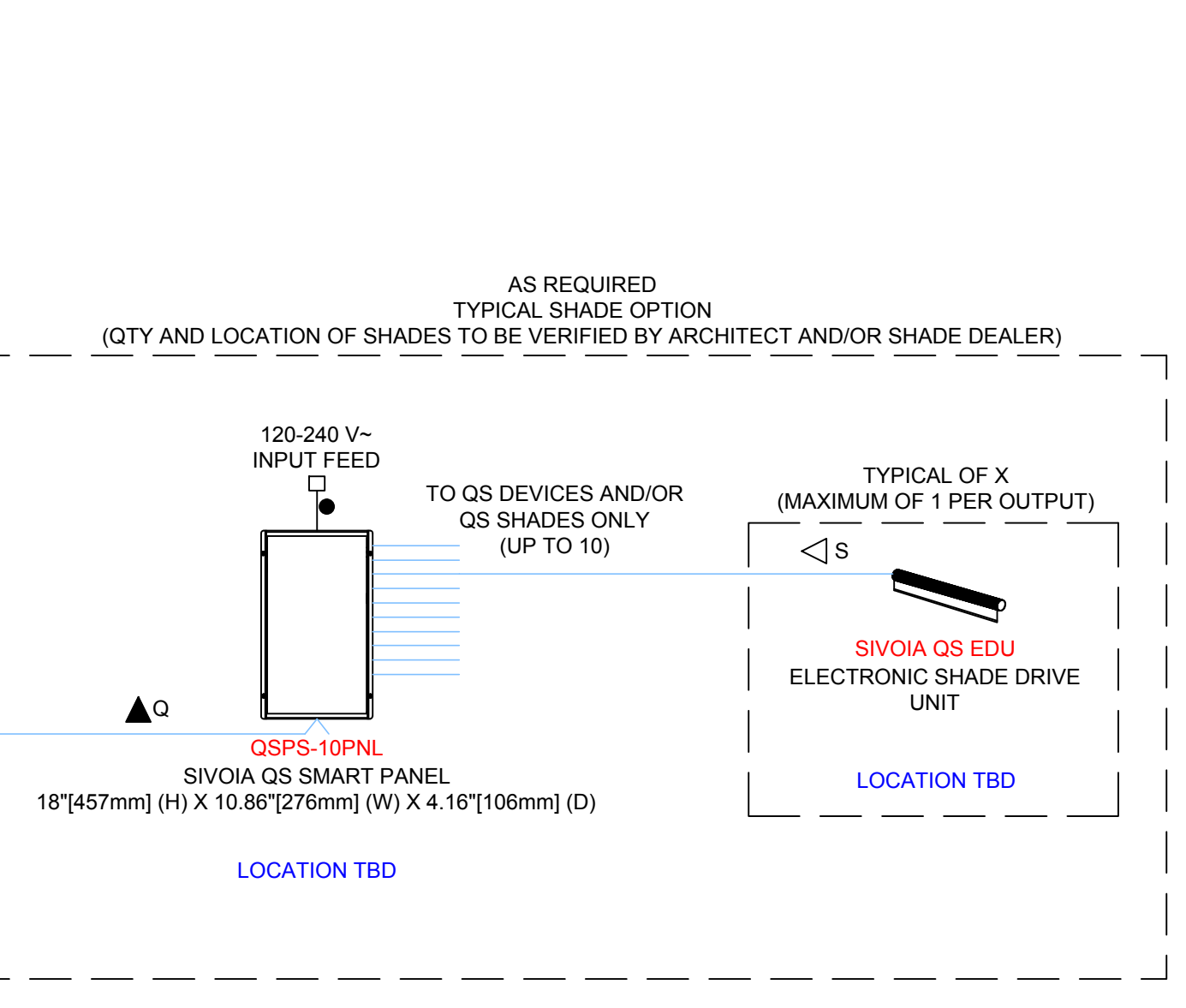
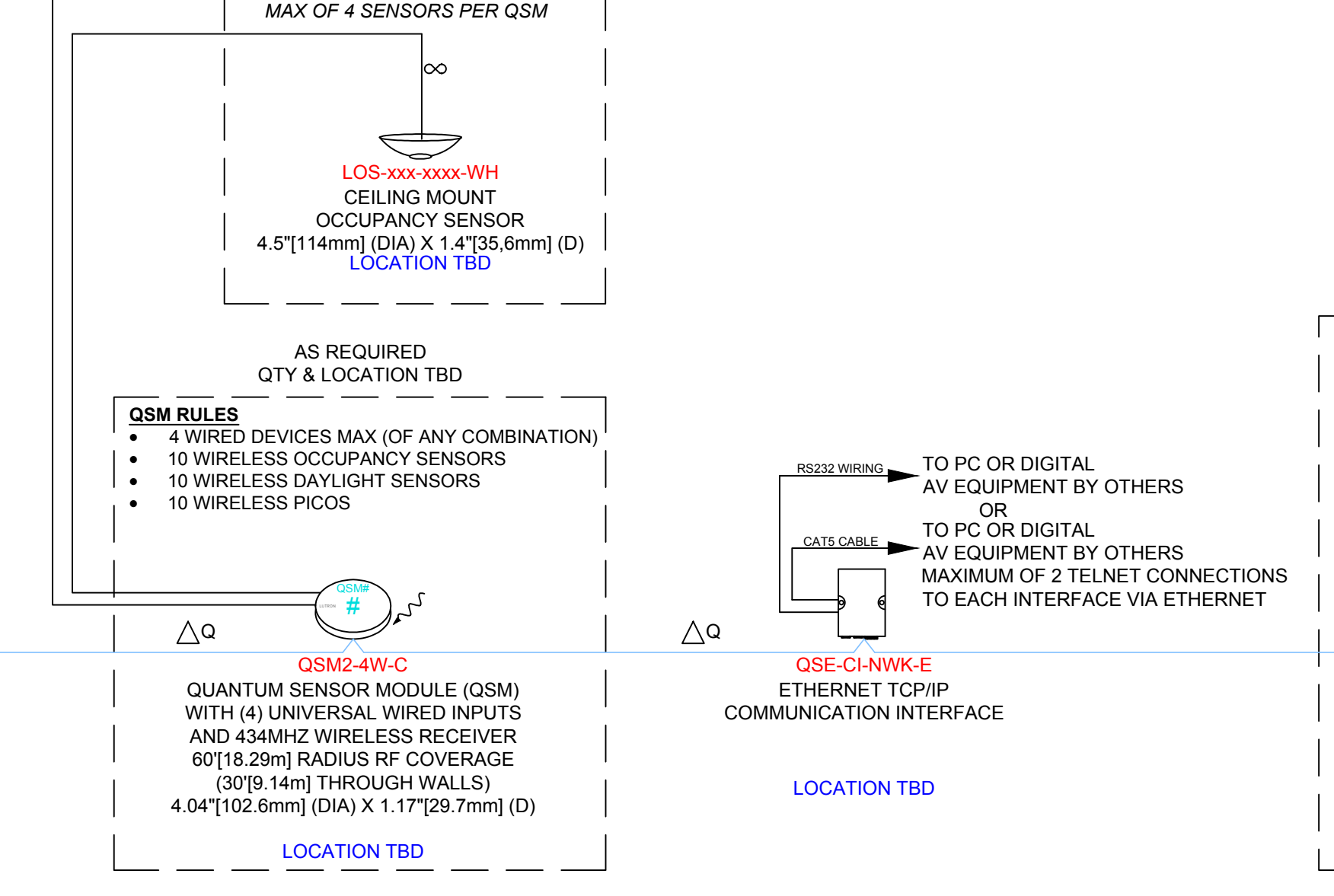
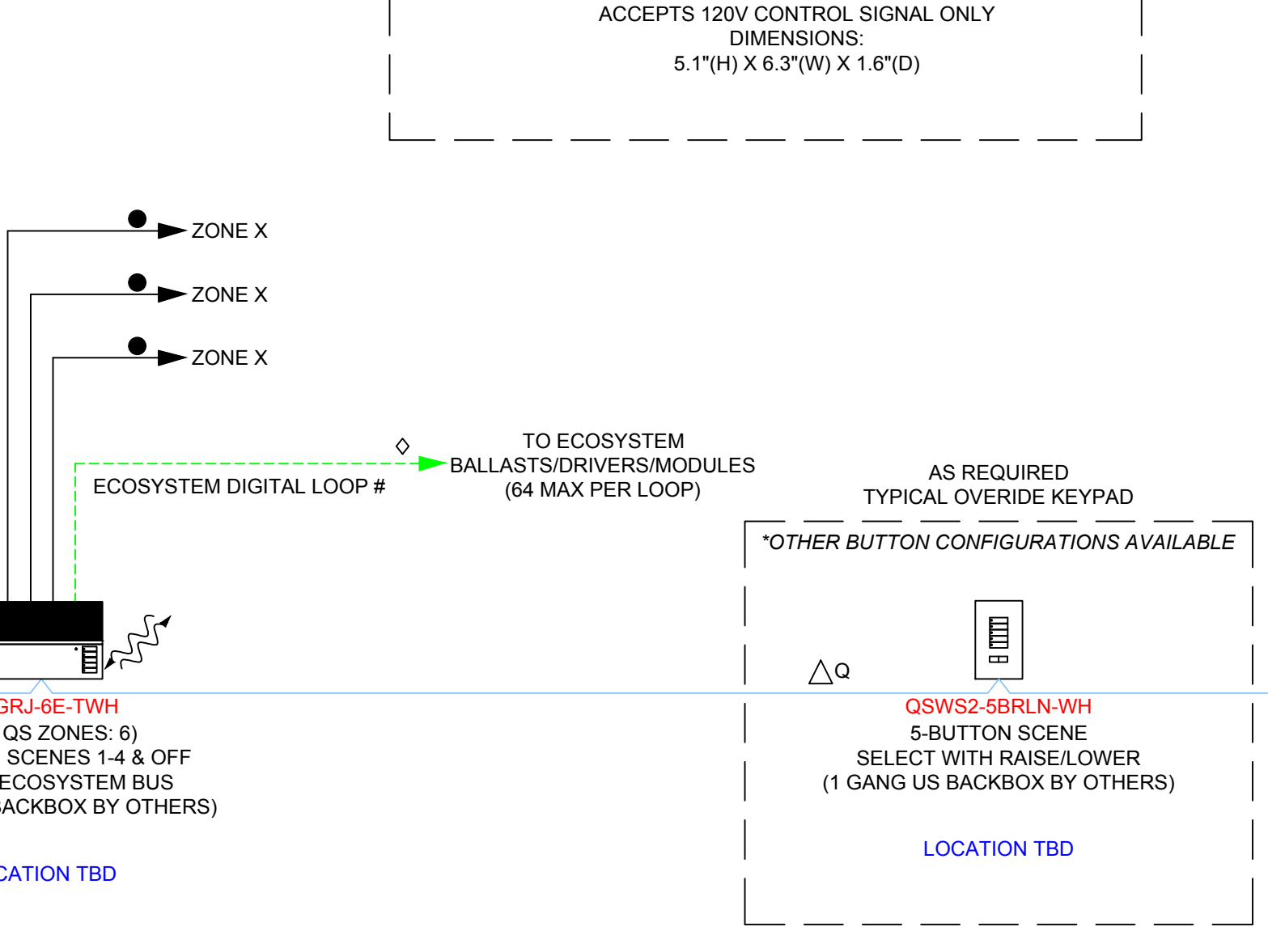
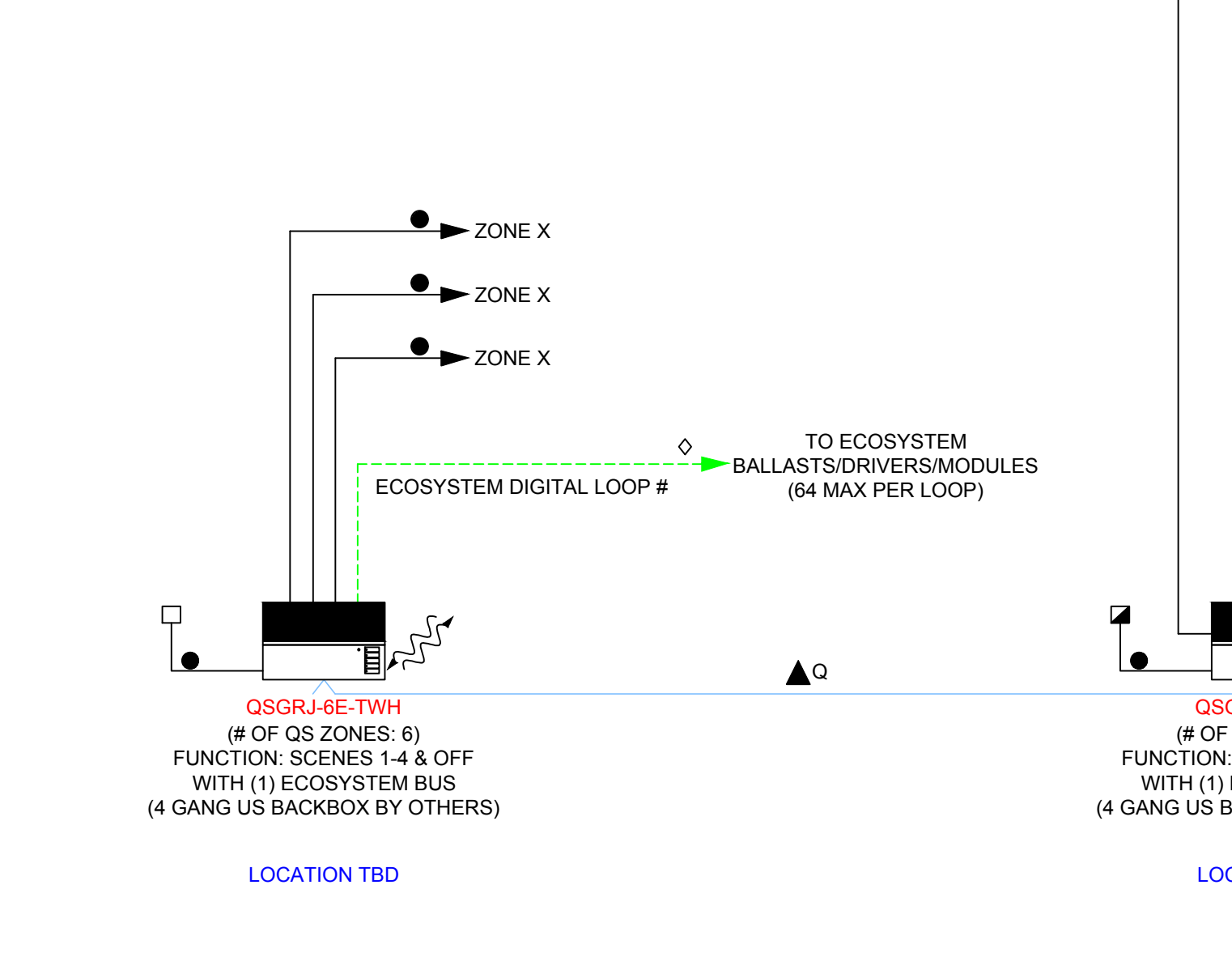
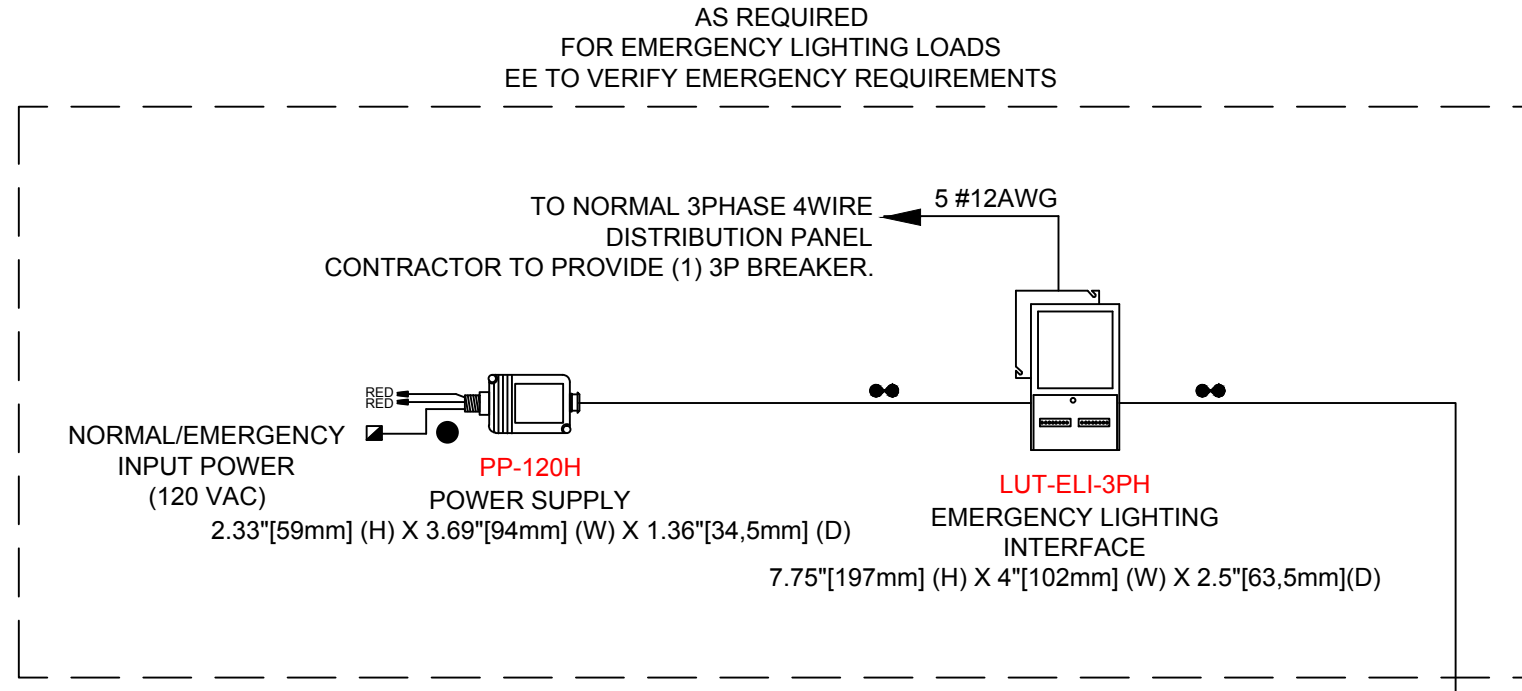
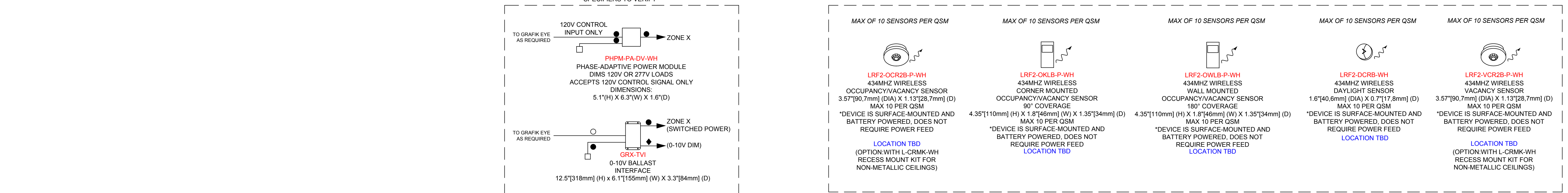
CONCEPT DRAWING NOTES:

- 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 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 COMBINATION.
- TO CONFIRM WHAT PRODUCTS LUTRON HAS AVAILABLE OR WHAT INTERFACES MAY BE REQUIRED, CALL 1-877-OM-LEDS OR CHECK LUTRON'S PRODUCT COMPATIBILITY MATRIX ONLINE AT WWW.LUTRON.COM.
- TO REQUEST THE TESTING OF AN LED PRODUCT BY LUTRON MANUFACTURERS CAN FILL OUT AN LED EVALUATION REQUEST FORM ONLINE AT WWW.LUTRON.COM/LED EVALUATION REQUEST FORM.
- LUTRON CAN GUARANTEE COMPATIBILITY AND PERFORMANCE OF LUTRON H-LLUME A-SERIES LED DRIVERS USED WITH APPROPRIATE LUTRON CONTROLS. THE H-LLUME 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 60928 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 AND LOW END TRIM ADJUSTMENTS ARE MORE LIKELY TO PROVIDE ACCEPTABLE PERFORMANCE. RESULTS DETERMINATION OF RESULT ACCEPTABILITY IS UP TO THE USER'S DISCRETION.

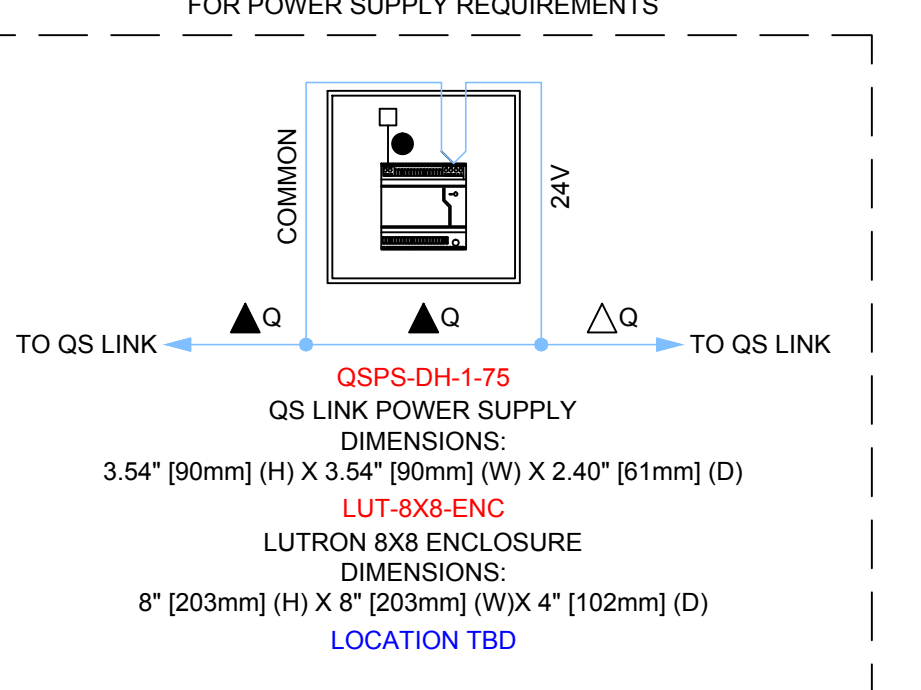
TYPICAL ECOSYSTEM LOOP BALLAST, DRIVER AND INTERFACE OPTIONS



ALTERNATIVE OCCUPANCY/VACANCY SENSORS FOR SPECIFIC APPLICATIONS



GRAFIK EYE MODEL NUMBER BASED ON QUANTITY, CONTROL TYPE & TOTAL WATTAGE OF ZONES. MODEL NUMBER SUBJECT TO CHANGE. ADDITIONAL INTERFACES MAY BE REQUIRED DEPENDING ON LOAD TYPES.



LUTRON NOTES:

ALL DIMMING BALLASTS TO BE LUTRON ECOSYSTEM, ECOSYSTEM H-SERIES OR H-LLUME 3D TYPE.
ALL DIMMING DRIVERS TO BE LUTRON ECOSYSTEM DRIVER A-SERIES, H-SERIES OR S-SERIES OTHERWISE NOTED.
E.E. TO CONFIRM ALL CIRCUITING REQUIREMENTS.
ARCHITECT TO VERIFY QUANTITY, LOCATION & FISH OF ALL CONTROLS.
ALL FACILITIES DIMMING SWITCHES RECEIPTABLE.
ALL FACILITIES DIMMING SWITCHES RECEIPTABLE & CABLE/FREE JACKS TO BE LUTRON NOVA T.
LUTRON FIELD SERVICE COMMISSIONS INCLUDED IN ALL SYSTEMS. INITIATES AN 8 YEAR LIMITED WARRANTY. THE ELECTRICAL CONTRACTOR MUST CONTACT LUTRON (1-844-988-7661) TO SET UP VISIT WITH 10 DAYS NOTICE.

LUTRON SERVICES

COUNT OF EACH SERVICE PROVIDED	SERVICE TITLE (MODEL NUMBER)	SERVICE DESCRIPTION
1	PRE-STARTUP SERVICES	ON-SITE VISIT WITH ELECTRICAL CONTRACTOR TO DISCUSS LOGICAL CONNECTIONS AND CONFIRMATION OF THE NUMBER OF WIRES PURCHASED. ON-SITE VISIT WITH THIRD PARTY INTEGRATORS TO CONFIRM THE PROCEDURES TO BE USED TO INTEGRATE WITH LUTRON EQUIPMENT. THIS MAY INCLUDE ANY OF THE FOLLOWING: THIRD PARTY SYSTEMS, BAC, LUTRON, RADIO SHADES, SAGNET, AV, OR ENERGY MANAGEMENT.
1	STARTUP SUPPORT SERVICES	STARTUP PROVIDED BETWEEN THE HOURS OF 8:00AM - 5:00PM MONDAY-FRIDAY. THIS SCOPE OF WORK DOES NOT INCLUDE HOURS OF WEEKEND WORK. ADDITIONAL FEES MAY APPLY FOR WORK TO BE COMPLETED ON WEEKENDS FROM 8:00AM - MONDAY MORNING. ON-SITE VISIT WITH THE SPECIFIC OR CUSTOMER REPRESENTATIVE TO REVIEW DESIGN, TEST THE TIME SCHEDULE, PROGRAMMING, AND TRIM-LOCK ADJUSTMENTS. ON-SITE VISIT WITH THE SPECIFIC OR CUSTOMER REPRESENTATIVE TO CONFIRM LOGIC AND PERFORMANCE OF PROJECT. COORDINATING AGENT TO DETERMINE THAT THE SYSTEM FUNCTIONING AS INTENDED. CONSULT WITH PROJECT MANAGER, FUNCTIONAL TESTING ASSISTANCE, A RATION OF LUTRON EQUIPMENT.
1	POST-STARTUP SERVICES	A VISIT TO THE SYSTEM USER'S WORK TO OBSERVE AND MAINTAIN THE LOGIC CONTROLS SYSTEM. QUALITY CHECKING WORK LEFT TO VERIFY A BALANCED LIGHTING CONTROL ADJUSTMENTS TO HAVE ADDITIONAL ENERGY AND CREATE A MORE PRECISE WORK ENVIRONMENT.
1	MAINTENANCE & SUPPORT SERVICES	PROVIDE COMPATIBILITY TESTING FOR OPERATING SYSTEM PATCHES AND SOFTWARE UPDATES. COMMERCIAL SYSTEMS: 1 YEAR LIMITED WARRANTY - 1 YEAR WARRANTY PROVIDED FOR NON-BEHALF OF LUTRON. THIS DOES NOT INCLUDE LABOR COVERAGE WITH A FIRST AVAILABLE RESPONSE TIME. RESIDENTIAL: 1 YEAR LIMITED WARRANTY - 1 YEAR WARRANTY PROVIDED FOR NON-BEHALF OF LUTRON. THIS DOES NOT INCLUDE LABOR COVERAGE WITH A FIRST AVAILABLE RESPONSE TIME. YEAR 1: 10% REPLACEMENT PARTS & 10% LABOR COVERAGE WITH A 2-HOUR RESPONSE TIME AND AN ANNUAL 15-DAY PREVENTATIVE MAINTENANCE VISIT (EVENING HOURS). YEARS 2-5: 5% PARTS ONLY COVERAGE, YEARS 6-20: PARTS ONLY COVERAGE. YEAR 1: 10% REPLACEMENT PARTS & 10% LABOR COVERAGE WITH A 2-HOUR RESPONSE TIME AND AN ANNUAL 15-DAY PREVENTATIVE MAINTENANCE VISIT (EVENING HOURS). YEARS 2-5: 5% PARTS ONLY COVERAGE, YEARS 6-20: PARTS ONLY COVERAGE. YEAR 1: 10% REPLACEMENT PARTS & 10% LABOR COVERAGE WITH A 2-HOUR RESPONSE TIME AND AN ANNUAL 15-DAY PREVENTATIVE MAINTENANCE VISIT (EVENING HOURS). YEARS 2-5: 5% PARTS ONLY COVERAGE, YEARS 6-20: PARTS ONLY COVERAGE.

PLEASE GO TO WWW.LUTRON.COM/SERVICES FOR FURTHER INFORMATION.

TYPICAL GRAFIK EYE WITH ECOSYSTEM

CONCEPT DRAWING NOT FOR CONSTRUCTION

Project Number: #####
 Drawn By: XXX
 Drawing Revision: 0
 Drawing Date: OCTOBER 2016
 Sheet: 1 OF 1

