DATE

XX/XX/2015 Scale: NOT TO SCALE Drawn By: Quote #:

TIME CLOCK WALL SWITCH DAYLIGHT SENSOR OTHER OCCUPANCY SENSOR

X X 100 7.5 10 10 | X | X X X 70 7.5 10 10 | X | X | | X | X 70 7.5 10 10 | X | X

ROOM TYPE BREAKROOMS/KITCHENS CLASSROOMS CONFERENCE ROOMS COPY ROOMS X X 70 7.5 10 10 XX CORRIDORS/STAIRWELLS 100 7.5 50 10* | X | X | X DUSK EXTERIOR 100 X 100 17.5 10 20 | X | X MULTIPURPOSE ROOMS X 70 7.5 10 10 | X | X OPEN OFFICE AREAS X | 100 | 7.5 | 10 | 10 | X | X PARKING GARAGE | X | X | 100 | 10 | 50 | 12.5

10

100 | 7.5 | 10 | 10

STORAGE ROOMS > 100 SQ FT WAREHOUSES

SMALL OFFICES < 250 SQ FT

RESTAURANTS/STORES

RESTROOMS

* DURING OPERATIONAL HOURS THE LIGHTING DIM LEVEL WILL GO TO 50% AFTER 7.5 MINUTES OF NO OCCUPANCY. OUTSIDE OF OPERATIONAL HOURS THE DIM LEVEL WILL GO TO 50% AFTER 7.5 MINUTES OF NO OCCUPANCY, AND THEN AFTER A TOTAL OF 10 MINUTES OF NO OCCUPANCY THE LIGHTS WILL TURN OFF. OWNER TO VERIFY TIME SCHEDULES. ** 5 MINUTES BEFORE THE LIGHTING IS SCHEDULED TO TURN OFF, THE LIGHTS WILL TURN OFF FOR 1 SECOND AND THEN GO BACK TO IT'S

100 | 10 | 50 | 12.5 | TBD | TBD

PREVIOUS DIMMING LEVEL. THIS BLINK WARNING PREVENTS FALSE OFFS AND GIVES AUTHORIZED PERSONNEL A WARNING TO PRESS WALL SWITCH TO ACTIVATE A 2-HOUR OVERRIDE. OWNER TO VERIFY TIME SCHEDULES. *** AUTOMATIC SCHEDULING CONTROLS SHALL BE CAPABLE OF REDUCING THE LIGHTING BETWEEN 50% AND 90% AND HAVE A MINIMUM OF TWO NIGHTTIME PERIODS. DIMMING CONTROLLED AT FIXTURE LEVEL, USING NLIGHT AIR WIRELESS LIGHTING COTNROLS WILL NOT

TBD

TBD

| X | X | X |

| X | X | X

| X | X

XX

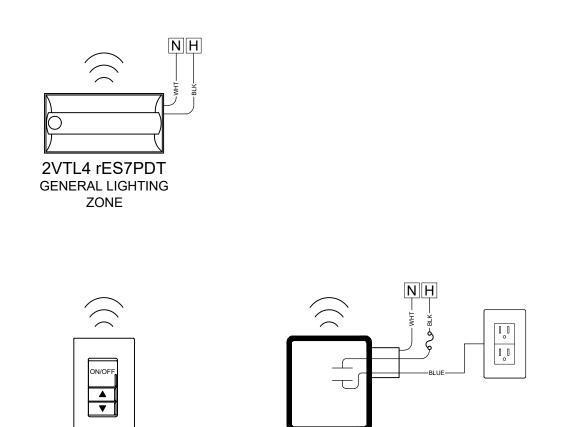
| X | X

REQUIRE 0-10V DIMMING WIRES TO BE PULLED THROUGH THE LCP, PER SECTION 130.2(c)2(A).

100

X 70 7.5 10 10

X X 70 7.5 10 10



rPP20 24V EFP G2

2VTL4 rES7PDT

SECONDARY

DAYLIGHT ZONE

rPP20 24V EFP G2

2VTL4 rES7PDT

GENERAL LIGHTING

ZONE

rPODB DX WH G2

2VTL4 rES7PDT

PRIMARY

DAYLIGHT ZONE

nECYD NLTAIR G2

nECY MVOLT ENC GFXK

nlight backbone network detail

CONNECTION TO LAN/WAN FOR

ADDITIONAL nECY CONTROLLERS \

SENSORVIEW SOFTWARE, ADR (

AND/OR BAS INTEGRATION ackslash

3 SMALL OFFICE DETAIL
N.T.S.

OPEN OFFICE DETAIL



NETWORK CONTROLLER INCLUDES THE FOLLOWING CAPABILITIES:

2. ASTRONOMICAL TIME CLOCK VIA SENSORVIEW SOFTWARE.

ACTIVATION OF CONFIGURABLE LOAD SHED DIMMING LEVELS

API SYSTEMS. BACnet TESTING LABORATORIES LISTED B-BC.

6. SECURITY FIPS PUBLICATION 140-2, LEVEL 1 INSIDE

4. AUTOMATIC DEMAND RESPONSE (ADR) CLIENT THAT ALLOWS

5. SOFTWARE INTEGRATION FOR BACNET IP/MSTP BAS OR REST

(VALIDATION CERTIFICATE PENDING); COMPLIES WITH CALIFORNIA

CIVIL CODE TITLE 1.81.26, SECURITY OF CONNECTED DEVICES,

7. FOLLOW SB-327 END-USER AUTHENTICATION PROCESS TO

3. ETHERNET PORT TO CONNECT TO LAN/WAN NETWORK.

1. STANDALONE AND NETWORKED nLIGHT SYSTEM

THROUGH AN OpenADR 2.0a VIRTUAL END NODE.

APPROVED UNDER SENATE BILL NO. 327 (2018).

PROVIDE A COMPLIANT SB-327 SYSTEM.

8. DEMAND RESPONSE READY DEVICE.

FUNCTIONALITY.

TO ADDITIONAL nLIGHT DEVICES

REQUIRED OR AS INDICATED ON

AND/OR ENABLED FIXTURES IF

FLOOR PLANS

OPTION FOR NETWORKED SYSTEM. WIRELESS COMMUNICATION TO NECYD ANTENNA SHOWN ON DETAIL (1)

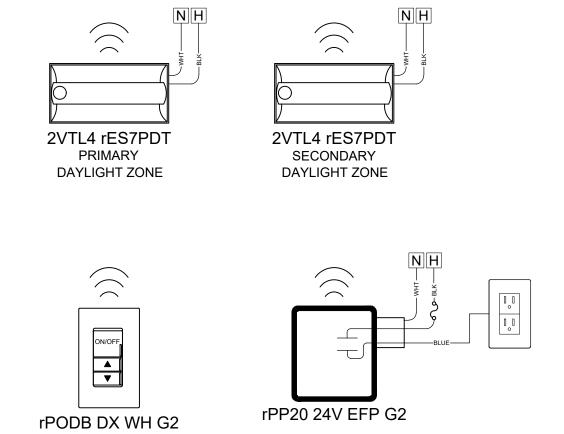
OPTION FOR NETWORKED

NECYD ANTENNA SHOWN

SYSTEM. WIRELESS

ON DETAIL 1

COMMUNICATION TO



OPTION FOR NETWORKED SYSTEM. WIRELESS COMMUNICATION TO

X

X

| X

| X



2VTL4 rES7PDT

SECONDARY

DAYLIGHT ZONE

rPP20 24V EFP G2

2VTL4 rES7PD1

GENERAL LIGHTING

ZONE

GENERAL NOTES:

3.4. DEVICE CUTSHEETS.

- 1. DETAILS AND DESIGN IS BASED ON AN nLIGHT LIGHTING CONTROLS SYSTEM.
- 2. DETAILS ARE DIAGRAMMATIC AND FOR REFERENCE OF SYSTEM AND ROOM TYPE REQUIREMENTS TO MEET BASIS OF DESIGN. REFER TO MANUFACTURERS SHOP DRAWINGS FOR QUANTITIES AND DEVICES USED FOR EACH SPACE AND NETWORK.
- 3. LIGHTING CONTROL SUBMITTALS FOR NETWORKED SYSTEM SHALL INCLUDE THE FOLLOWING DOCUMENTS (NOT LIMITED TO
- 3.1. SHOP DRAWINGS SHOWING QUANTITY AND LOCATION OF ALL DEVICES.
- 3.2. STANDALONE/NETWORK SINGLE LINE DIAGRAM. 3.3. BASIS OF DESIGN PROGRAMMING OPERATION FOR EACH ROOM TYPE
- 4. MANUFACTURER OR FACTORY REPRESENATIVE TO INCLUDE STARTUP AND COMMISSIONING OF THE LIGHTING CONTROL
- SYSTEM. MUST INCLUDE A SITE VISIT FOR THE FOLLOWING: 4.1. A PRE-CONSTRUCTION MEETING TO CONFIRM DESIGN AND FIELD INSTALLATION REQUIREMENTS. 4.2. PROGRAMMING AND COMMISSIONING OF THE LIGHTING
- CONTROL SYSTEM TO MEET THE BASIS OF DESIGN AND TITLE 24 REQUIREMENTS. 4.3. MAINTENANCE / OWNER WALK THROUGH FOR MAKING FINAL ADJUSTMENTS TO PROGRAMMING.
- 5. CONTRACTOR SHALL FURNISH AND INSTALL ALL LIGHTING CONTROL DEVICES, CABLES, ACCESSORIES AS REQUIRED BY MANUFACTURER'S RECOMMENDATION TO PROVIDE A COMPLETE AND FULLY FUNCTIONAL COMPLIANT TITLE 24
- 6. ALL DEVICES SHALL BE MOUNTED AND INSTALLED IN ACCESSIBLE CEILING LOCATIONS. CONTRACTOR WILL VERIFY
- BEST FIT LOCATIONS IN THE FIELD. 7. CONTRACTOR TO VERIFY COMPATIBILITY BETWEEN DIMMING
- 8. CONTACT SDLA FOR COMPLETE nLIGHT LIGHTING CONTROLS BOM, CONTROLS@SDLTG.COM - PHONE # 858-505-1055.

POWERPACKS AND INSTALLED FIXTURES.

TITLE 24 COMPLIANCE:

- 1. MANUAL AREA CONTROLS, SECTION 130.1(a).
- 2. MULTI-LEVEL LIGHTING CONTROLS, SECTION 130.1(b).
- 3. SHUT-OFF CONTROLS, SECTION 130.1(c). 4. AUTOMATIC DAYLIGHTING CONTROLS, **SECTION 130.1(d)**.
- 5. DEMAND RESPONSE CONTROLS, **SECTION 130.1(e)** AND **SECTION**
- 6. CONTROLS INTERACTIONS, SECTION 130.1(f). 7. CIRCUIT CONTROLS FOR 120-VOLT CONTROLLED RECEPTACLES
- 8. INDOOR LIGHTING CONTROLS BASIS OF DESIGN (SEE SDLA BASIS OF DESIGN TO COMPLY WITH T24), SECTION 120.8(c).
- 9. CONTACT SDLA FOR COMPLETE nLIGHT LIGHTING CONTROLS BOM, CONTROLS@SDLTG.COM - PHONE # 858-505-1055.

SYSTEM OPERATIONS TRAINING OPTIONS, PER SECTION

- 2-HOUR ONSITE OR REMOTE TRAINING.
- 2. 2-DAY IN PERSON OR REMOTE TRAINING @ SDLA, AT CUSTOMER LOCATION, OR VIDEOCONFERENCING SOFTWARE.
- 3. VIDEO TRAINING GIVEN TO EVERYONE WHO PARTICIPATES IN THE 2-DAY IN PERSON OR REMOTE TRAINING.
- 4. CONTACT SDLA FOR TRAINING, CONTROLS@SDLTG.COM -PHONE # 858-505-1055.

nLIGHT REST API SPECIFICATIONS:

- ACUITY BRANDS SYSTEM nLIGHT CONTROLLER SHALL BE COMPATIBLE WITH REST API OVER AN ENCRYPTED HTTPS CONNECTION. READ AND WRITE CONNECTION SHALL BE SECURABLE WITH A USERNAME/PASSWORD PAIR. PASSWORDS TO HAVE ADJUSTABLE COMPLEXITY TO COMPLY WITH CUSTOMER PASSWORD REQUIREMENTS
- 1. WRITE ACCESS OF END DEVICES CONNECTED TO THE SYSTEM CONTROLLER SHALL BE MADE AVAILABLE THROUGH:
- 1.1. WRITE ACCESS SHALL INCLUDE COMMAND OF DEVICE-RELAY-STATE, DEVICE-DIM-LEVEL,
- GROUP-RELAY-STATE, AND GROUP-DIM-LEVEL. 1.2. GROUPING OF DEVICES FOR GROUP-RELAY-STATE AND GROUP-DIM-LEVEL WRITE ACCESS SHALL BE AUTOMATICALLY GENERATED BY THE SYSTEM CONTROLLER AND SHALL NOT REQUIRE CREATION BY
- 1.3. GROUP-RELAY-STATE AND GROUP-DIM-LEVEL RESPONSE TO REST API SHALL BE AVAILABLE WITHOUT REQUIRING
- MULTIPLE POST COMMANDS. 2. READ ACCESS OF END DEVICES (EMBEDDED nLIGHT FIXTURES) CONNECTED TO THE SYSTEM CONTROLLER SHALL BE MADE

THIRD PARTY SYSTEMS.

AVAILABLE THROUGH:

- 2.1. READ ACCESS SHALL INCLUDE DEVICE-ONLINE/OFFLINE STATUS. DEVICE-OCCUPANCY-STATE. GROUP-OCCUPANCY-STATE, MEASURED-LIGHT-LEVEL, DEVICE-RELAY-STATE, DEVICE-DIM-LEVEL, GROUP-RELAY-STATE, AND GROUP-DIM-LEVEL
- 2.2. GROUP OF DEVICES FOR GROUP-OCCUPANCY-STATE, GROUP-RELAY-STATE, AND GROUP-DIM-LEVEL READ ACCESS SHALL BE AUTOMATICALLY GENERATED BY THE SYSTEM CONTROLLER AND SHALL NOT REQUIRE CREATION
- BY THIRD PARTY SYSTEMS. 3. CONTACT SDLA FOR SETUP OF RESPI CONTROLS@SDLTG.COM -PHONE # 858-505-1055.

LIGHTING CONTROLS LEGEND AND DESCRIPTIONS

- EXTENDED RANGE 360° SENSOR-CEILING MOUNT, LOW VOLTAGE, PASSIVE DUAL TECHNOLOGY (PDT) DETECTION TECHNOLOGY SHALL BE SELECTABLE AS FOLLOWS: PIR/MICROPHONICS/BOTH
- OS nCM PDT 10 RJB AUTOMATIC DIMMING CONTROL PHOTOCELL- CEILING MOUNT,
- DS nCM ADCX RJB 16 AMP (120/227V) POWER/RELAY PACK WITH 0-10V DIMMING
- CONTROL, CHASE NIPPLE MOUNTING DP - nPP16 D EFP SUBSCRIPT REFERENCES CIRCUIT/ZONE OF CONTROL
- 20 AMP (120V) RELAY PACK FOR PLUG LOAD CONTROL, CHASE NIPPLE MOUNTING PL - nPP20 PL SUBSCRIPT REFERENCES CIRCUIT/ZONE OF CONTROL
- 5 AMP (120/227V) POWER/RELAY PACK PHASE DIMMING CONTROL. CHASE NIPPLE MOUNTING (277V NOT AVAILABLE WITH ELV)
- PCD nSP5 PCD (2W, 3W, MLV, ELV 120) SUBSCRIPT REFERENCES CIRCUIT/ZONE OF CONTROL LOW VOLTAGE ON/OFF TOGGLE SWITCH WITH DIMMING
- 1-ZONE = S1 nPODM DX 2-ZONE = S2 - nPODM 2P DX 4-ZONE = S4 - nPODM 4P DX SUBSCRIPT REFERENCES ZONE OF CONTROL
- LOW VOLTAGE SCENE SELECTOR WITH DIMMING 2-SCENE = SS2 - nPODM 4S DX 4-SCENE = SS4 - nPODM 4S DX

GFXX - nPOD GFX

- SUBSCRIPT REFERENCES ZONE OF CONTROL LOW VOLTAGE GRAPHIC TOUCHSCREEN CONTROLLER, INCLUDES 16-ZONES AND 16-SCENES WITH DIMMING
- LOW VOLTAGE WALL SWITCH OCCUPANCY SENSOR WITH ON/OFF/RAISE/LOWER, PASSIVE DUAL TECHNOLOGY (PDT) WS - nWSX PDT LV DX

SUBSCRIPT REFERENCES ZONE OF CONTROL

SUBSCRIPT REFERENCES ZONE OF CONTROL

SB-327 SPECIFICATION REQUIREMENTS:

- 1. **SENATE BILL No. 327** LIHGTING CONTROLS MUST COMPLY WITH CALIFORNIA CIVIL CODE 1.81.26.
- 2. GENERATION OF AUTHENTICAION THE DEVICE MUST CONTAIN A SECURITY FEATURE THAT REQUIRES A USER TO GENERATE A NEW MEANS OF AUTHENTICATION BEFORE ACCESS IS GRANTED TO THE DEVICE FOR THE FIRST TIME.
- 3. AUTHENTICATION METHOD OF VERIFYING OF A USER. PROCESS, OR DEVICE TO ACCESS RESOURCES IN A INFORMATION SYSTEM.
- 4. SECURITY FEATURE A FEATURE OF A DEVICE DESIGNED TO PROVIDE SECURITY FOR THAT DEVICE. U.S. GOVERNMENT STANDARD OF FEDERAL INFORMATION PROCESSING STANDARD (FIPS) 140-2, LEVEL 1 COMPLIANT.

SB-327 AUTHENTICATION PROCESS:

- 1. REQUIRES 3 POINTS OF CONTACT FACILITIES DEPARTMENT, OWNER'S REP, AND IT DEPARTMENT (EMAIL AND CONTACT
- 2. REQUIRES 2 DATES FOR SCHEDULING. 3. INTEGRATION REQUIREMENTS (IP ADDRESS, SUBNET MASK, AND

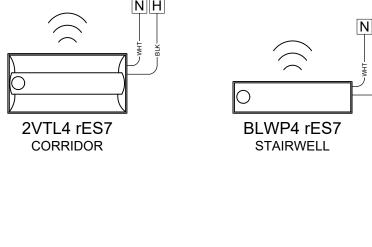
CONTROLS@SDLTG.COM - PHONE # 858-505-1055.

BUILDING MANAGEMENT SYSTEMS INTEGRATION

SPECIFICATIONS:

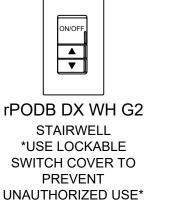
4. CONTACT SDLA FOR AUTHENTICATION SETUP,

- 1. BACnet TESTING LABORATORIES (BTL) LISTED AS A BACnet
- BUILDING CONTROLLER (B-BC). 2. OPTIONAL AUTOMATIC DEMAND RESPONSE CLIENT OPTION ALLOWS ACTIVATION OF CONFIGURABLE LOAD SHED DIMMING
- LEVELS THROUGH AN OpenADR 2.0a VIRTUAL END NODE. REQUIRES OUTBOUND IP CONNECTION TO UTILITY DRAS.
- 3. ENHANCED SECURITY PROVIDED BY BOTH: 3.1. HTTPS SERVER 3.2. U.S. GOVERNMENT SECURITY STANDARD OF FEDERAL INFORMATION PROCESSING STANDARD (FIPS) PUBLICATION
- 140-2, LEVEL 1, INSIDE (VALIDATION CERTIFICATE PENDING). 4. CONTACT SDLA FOR INTEGRATION WITH BMS, CONTROLS@SDLTG.COM - PHONE # 858-505-1055.



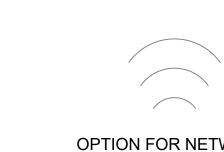


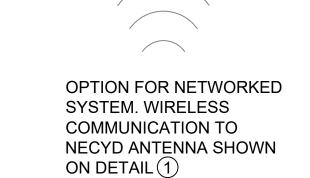






OPTION FOR NETWORKED SYSTEM. WIRELESS COMMUNICATION TO NECYD ANTENNA SHOWN ON DETAIL 1







2VTL4 rES7PDT

PRIMARY

DAYLIGHT ZONE

CONFERENCE DETAIL

CORRIDOR/STAIRWELL DETAIL

REV

DWG Ref:

