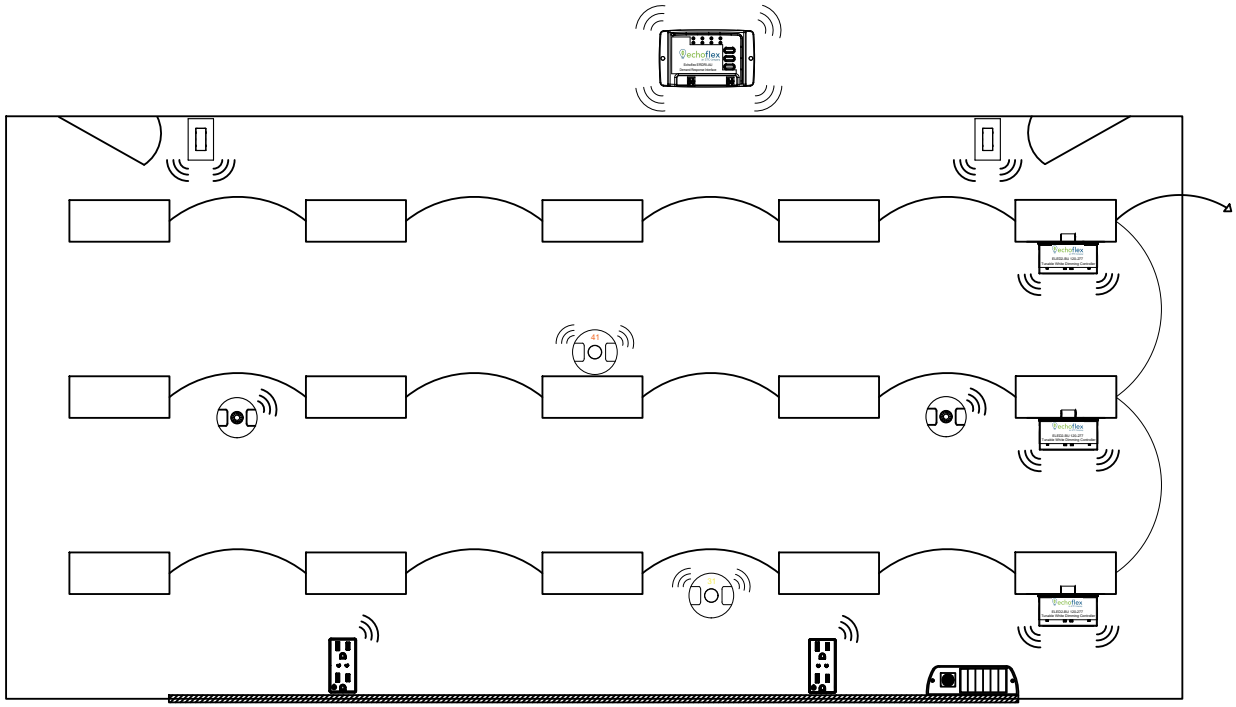

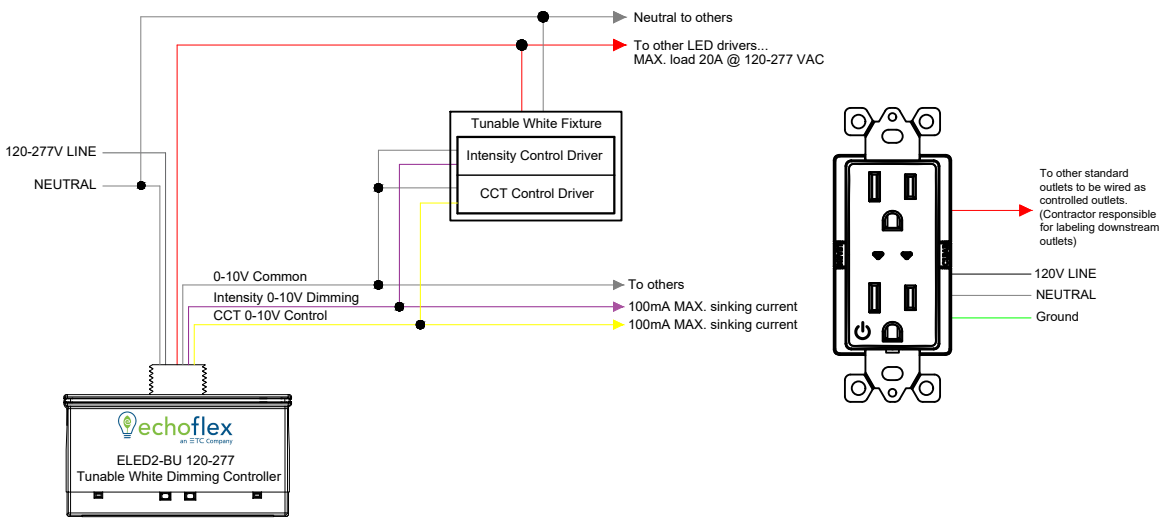

Typical Open Office w/Daylight Harvesting & CCT Tuning

Sequence of Operation

When the occupancy sensor in the space senses movement, receptacles and lighting will automatically turn on. The switch on the wall can be used to turn the lights on and off. A quick press up or down of the switch will turn the lights on or off. A press and hold up or down will dim the lights up or down. The daylight sensor(s) [TAP-31] in the room will determine the level of artificial and natural light in the space and dim the lights in the daylight zones to maintain a set point. The lowest dimming value between the daylight sensor and wall switch will be the dim level used. The CCT open loop sensor [FLS-41] will determine the color temperature of the exterior light. The CCT closed loop sensor [TAP-41] will determine the color temperature of the interior light. The tunable white controller [ELED2] will adjust the CCT levels to match the exterior light color temperature using the TAP-41 measurement reading. When the room becomes vacant, the lights and receptacles will turn off after a predetermined amount of time (default 15 minutes). When a Demand Response event is triggered the lights will dim down to a predetermined level.

Typical Material List

Qty	Part #	Description
3	ELED2-BUN	Tunable White Controller 120-277V
2	RCS-DT-UA RVS-DT-UA	Occupancy/Vacancy Sensor (1000 Sq. Ft.)
1	TAP-31U	Interior Photo Sensor
1	TAP-41U	Closed Loop CCT Sensor
1	FLS-41U	Open Loop CCT Sensor
2	ERNR-AU	Split Controlled Receptacle
2	PTM365UW	Decorator Style Switch
1	ERDRI-AU	Demand Response Interface

Title 24 Compliance

Section	Requirement	Device	Part #
130.1a/b	Local Switching Multi-Level Dimming		PTM365UW
130.1c	Fully Automatic Light shut Off		RCS-DT-UA
130.5d	Plug-Load Control		ERNR-AIU
130.1d	Multi-Level Daylight Control		TAP-31U
130.1e	Demand Response Ready		ERDRI-AU

SPECIFICATION:

1. LIGHTING CONTROL SYSTEM TO BE MANUFACTURED BY ECHOFLEX SOLUTIONS INC.

2. ECHOFLEX LIGHTING CONTROL SYSTEM SHALL HAVE THE ABILITY TO BE FACTORY PRE-LINKED AND PRE-CONFIGURED OR PROGRAMMED ON SITE USING SIMPLE TAP, SMART CLICK OR GARIBALDI SOFTWARE.

3. CONTROLLERS SHALL BE ABLE TO FUNCTION AS A STAND ALONE SYSTEM ALONG WITH THEIR OPTIONAL PERIPHERAL WIRELESS DEVICES INCLUDING A WALL SWITCH, SPLIT CONTROLLED RECEPTACLE, AND OCCUPANCY SENSOR.

4. CONTROLLERS SHALL BE ABLE TO BE NETWORKED TOGETHER TO FORM AN INTEGRATED BUILDING SOLUTION.

5. ECHOFLEX ELED2: TUNNABLE WHITE CONTROLLER SHALL BE ETL RECOGNIZED AND UL LISTED, CONFORMING TO UL60730, AND CERTIFIED TO CAN/CSA STANDARD E60730 AND UL924. ALL SYSTEM CONTROL ELECTRONICS SHALL STORE PROGRAMMING IN NON-VOLATILE MEMORY. THE CONTROLLER SHALL BE CAPABLE OF REPEATING SIGNALS AND TRANSMITTING STATUS.

6. OCCUPANCY SENSORS (OS): OCCUPANCY SENSOR SHALL BE SOLAR POWERED WIRELESS SENSOR WITH AN OPTIONAL BATTERY. SENSOR SHALL BE COMPATIBLE WITH OCCUPANCY AND VACANCY MODES WHEN USED IN CONJUNCTION WITH THE DIMMING ROOM CONTROLLER. SENSOR SHALL PROVIDE LED INDICATION FOR RF RANGE CONFIRMATION. SENSOR SHALL WIRELESSLY COMMUNICATE WITH THE SPLIT CONTROLLED RECEPTACLE.

7. PHOTO SENSORS (PS): PHOTO SENSOR SHALL BE SOLAR POWERED WIRELESS SENSOR WITH AN OPTIONAL BATTERY. SENSOR SHALL BE COMPATIBLE WITH OPEN AND CLOSED LOOP MODES WHEN USED IN CONJUNCTION WITH THE CONTROLLER. SENSOR SHALL PROVIDE LED INDICATION FOR RF RANGE. LIGHT SENSOR SHALL BE CAPABLE OF READING LUX LEVELS BETWEEN 0 & 65,500. CCT SENSOR SHALL BE CAPABLE OF READING COLOR TEMPERATURE LEVELS BETWEEN 1000K & 10000K.

8. RF SYSTEM SHALL NETWORK WIRELESSLY. INTEGRATION WITH BMS/DEMAND RESPONSE VIA THE USE OF GATEWAYS AND WIRELESS/WIRED I/O INTERFACES. VERIFY AND INSTALL ONLY THOSE INTERFACES INDICATED ON THE PLANS.

9. EC SHALL INSTALL ECHOFLEX SYSTEM AS INDICATED PER MANUFACTURER'S FINAL DRAWINGS AND INSTALLATION DOCUMENTS IN ACCORDANCE TO ALL LOCAL AND NATIONAL CODES. FACTORY ONSITE START UP AND TRAINING IS OPTIONAL. ECHOFLEX REQUIRES 3 WEEKS ADVANCED NOTICE TO SCHEDULE ONSITE START UP IF REQUESTED. ECHOFLEX WILL PROVIDE SYSTEM VERIFICATION AND ADJUST PROGRAMMING IF REQUIRED TO CUSTOMER REQUIREMENTS.

10. THIS DRAWING REPRESENTS DESIGN CONCEPT AND INTENT ONLY. WE DO NOT GUARANTEE THE INFORMATION IN THIS DOCUMENT IS SUITABLE FOR YOUR PARTICULAR APPLICATION, NOR DO WE ASSUME ANY RESPONSIBILITY FOR YOUR SYSTEM DESIGN, INSTALLATION OR OPERATION. WE RESERVE THE RIGHT TO MAKE CHANGES TO THE PRODUCTS DESCRIBED OR INFORMATION HEREIN AT ANY TIME WITHOUT NOTICE AND WITHOUT ANY OBLIGATION.

11. SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.

12. TELEPHONE FACTORY SUPPORT SHALL BE AVAILABLE AT NO ADDITIONAL COST TO THE EC OR OWNER.

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UNLESS OTHERWISE SPECIFIED - ALL DIMENSIONS IN MILLIMETERS - #9DC-9539