

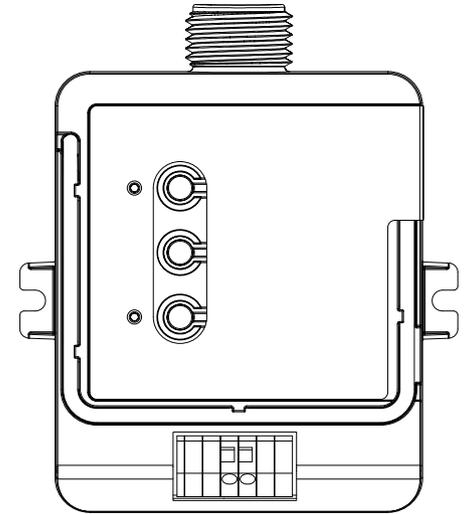
PowPak Dimming Module with EcoSystem

The PowPak Dimming Module with EcoSystem is a radio frequency (RF) control that operates up to 32 EcoSystem Ballasts/LED drivers based on input from Pico controls and Radio Powr Savr sensors. Configurable for multiple zones in a single area, the Dimming Module with EcoSystem is ideal for small areas such as classrooms, conference rooms, and private offices.

Communication with RF input devices, such as Pico controls and Radio Powr Savr sensors, is accomplished using Lutron Clear Connect RF Technology.

Features

- Controls up to 32 EcoSystem fluorescent dimming ballasts and LED drivers
- Various operating voltages available – refer to model number chart below for details on voltage requirements
- Receives input from up to nine Pico controls, six Radio Powr Savr occupancy/vacancy sensors, and one Radio Powr Savr daylight sensor
- Utilizes Lutron Clear Connect RF Technology – refer to model number chart below for frequency band data
- Mounts to a U.S. style junction box through a standard size knockout



RMJ-ECO32-DV-B model shown

Models Available

Model Number	Region	Operating Voltage	Frequency Band
RMJ-ECO32-DV-B	U.S.A., Canada, Mexico	120/277 V~	431.0 – 437.0 MHz
URMJ-ECO32-DVB	U.S.A. (BAA Compliant)	120/277 V~	431.0 – 437.0 MHz
RMQ-ECO32-DV-B	Hong Kong, Macau	220–240 V~	433.05 – 434.79 MHz
RMM-ECO32-DV-B	China, Singapore	220–240 V~	868.125 – 868.475 MHz
RMK-ECO32-DV-B	Europe, U.A.E.	220–240 V~	868.125 – 868.850 MHz
RMN-ECO32-DV-B	India	220–240 V~	865.5 – 866.5 MHz
RMP-ECO32-JA-B	Japan	100 V~	313.3 – 314.8 MHz
RMP-ECO32-200-JA	Japan	200 V~	313.3 – 314.8 MHz

NOTE: Contact Lutron for frequency band compatibility for your geographic region if it is not indicated above.

Job Name:	Model Numbers:
Job Number:	

Specifications

Regulatory Approvals

RMJ- & URMJ- models only

- UL Listed (U.S.A.)
- FCC approved. Complies with the limits for a Class B device, pursuant to Part 15 of the FCC rules. (U.S.A.)
- CSA or cUL and IC (Canada) (RMJ- Only)
- COFETEL (Mexico) (RMJ- Only)
- NOM (Mexico) (RMJ- Only)
- Complies with requirements for use in other spaces used for environmental air (plenums) per NEC 2014 300.22(C)(3)
- Classified in accordance with CAN/ULC-S142 as discrete product certified for installation in an air-handling space

RMN- Model

- WPC Type Approved (India)

RMK- Model

- CE (European Union)
- TRA Type Approved (United Arab Emirates)

Power

- Operating voltage:
RMJ-/URMJ- models 120/277 V~ 50/60 Hz 40 mA
RMQ-, RMM-, RMK-, RMN- models 220-240 V~ 50/60 Hz 40 mA
RMP- models 100 V~ 50/60 Hz 40 mA
- Typical system power consumption (12 ballasts): 2.0 W
- Full system power consumption (32 ballasts): 2.75 W

System Communication

- Operates using Clear Connect RF Technology for reliable wireless communication; refer to model number chart on page 1 for frequency band details
- RF range is 30 ft (9 m) for RMJ-, URMJ-, RMQ-, RMM-, RMK-, RMN- models
- RF range is 23 ft (7 m) for RMP- models
- Metal ceiling grids must have a ≥ 0.12 in (3 mm) gap of non-metal material which extends the entire length of the tile on at least one edge. This is often achieved by foam spacers that are used to prevent tile-to tile rattling.
- Metal ceiling grids which are continuous (with no gap) or those that are interlocked, must have a total surface area that is less than 30 ft² (81 m²) for each section. The overall space can be larger as long as there are non-metal sections bordering or intersecting the metal sections.

Default Operation

- Associated wireless input devices control all connected EcoSystem LED drivers
- Occupancy Sensors:
 – Occupied: 100%; Unoccupied: 0% (OFF)
- Pico Controls:
 – On: 100%; Favorite Level: 50%; Off: 0% (OFF)
- Daylight Sensor: Decreases electric light in response to additional available daylight

Environment

- Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C)
- 0 to 90% humidity, non-condensing
- For indoor use only

EcoSystem Link

- 18 V_{DC} 125 mA
 - Communicates with up to 32 EcoSystem dimming ballasts, LED drivers and interfaces such as CJ-BMJ-16A (U.S.A. only)
 - EcoSystem Digital Link can be wired Class 1 or Class 2 for maximum wiring flexibility (RMJ-, URMJ-, RMM-, RMN-, RMQ- models)
 - EcoSystem Digital Link carries basic isolation from line voltage wires (RMK- model)
 - Terminals accept 18 AWG to 16 AWG (0.75 mm² to 1.5 mm²) solid wire
- NOTE:** Must use Rapid Start sockets with EcoSystem ballasts.
NOTE: The PowPak Dimming Module with EcoSystem does NOT support the C5-XPJ-16A switching module.
NOTE: Wired sensors connected to EcoSystem devices are NOT supported.

<p>Job Name:</p> <p>Job Number:</p>	<p>Model Numbers:</p>
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Specifications *(continued)*

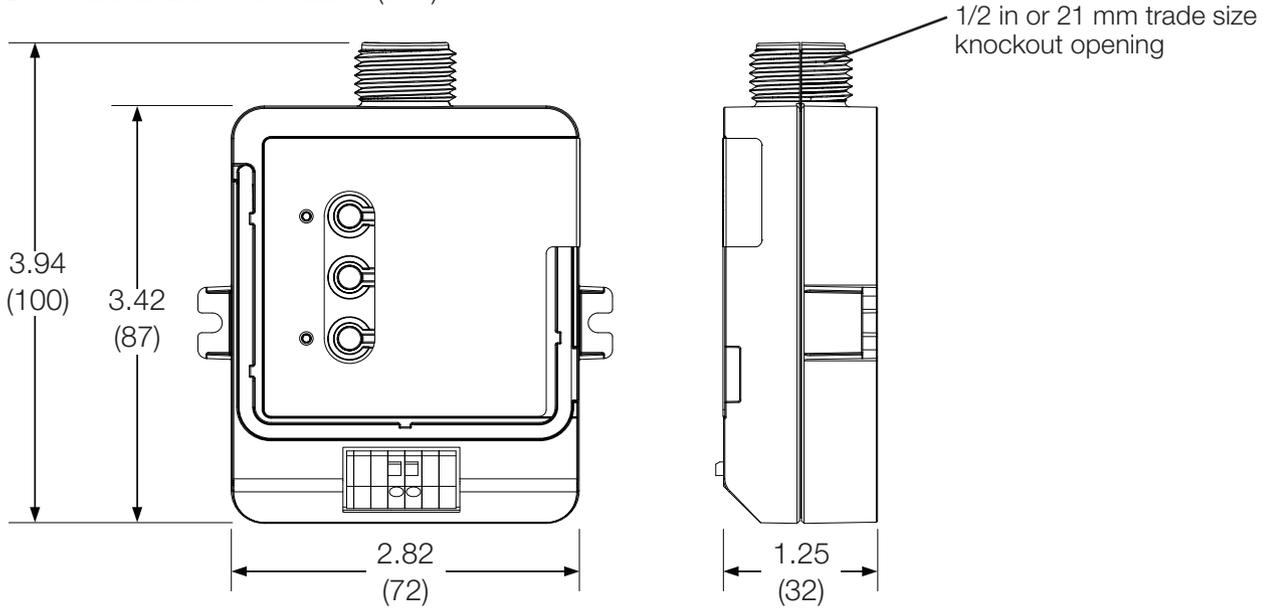
Key Design Features

- LED status indicators show communication status and provide programming feedback
 - Power failure memory: If power is interrupted, connected loads will return to the previous level prior to interruption
 - EcoSystem link miswire protection up to 347 V~
 - Daylight override: Pressing the raise button on an associated Pico control will temporarily override daylighting for the fixtures in that Pico group
 - Daylighting will be re-enabled for that Pico group when one of the following occurs:
 - Two hours have passed since the override.*
 - ON, OFF or Preset button has been pressed on a Pico control controlling that group.
 - All associated Occupancy Sensors have reported unoccupied.
- * Each time a daylighting override occurs for any Pico group, the two hour timer is reset.

Job Name: Job Number:	Model Numbers:
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Dimensions

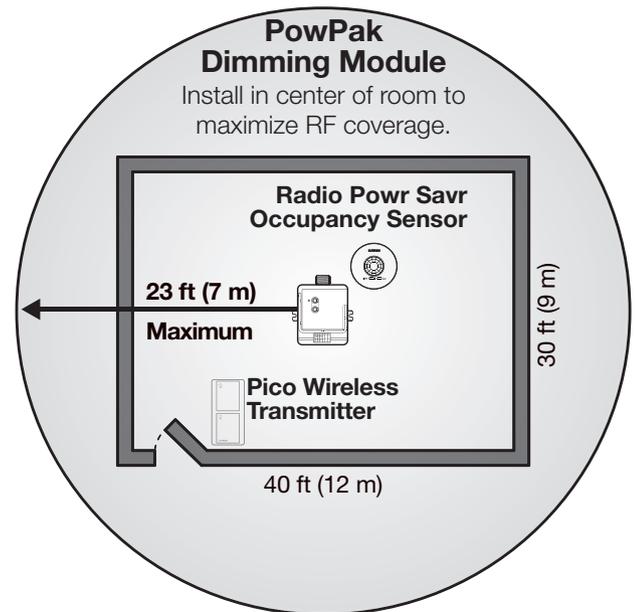
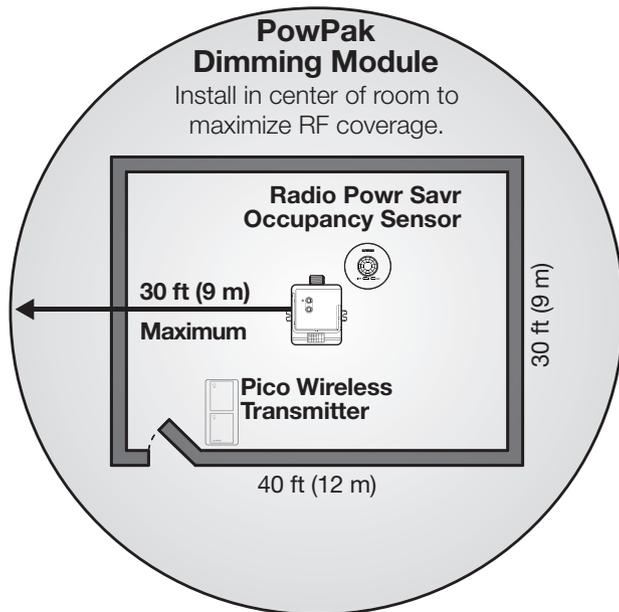
Dimensions are shown as: in (mm)



Range Diagrams

RMJ-, URMJ-, RMQ-, RMM-, RMK-, RMN- models

RMP- models



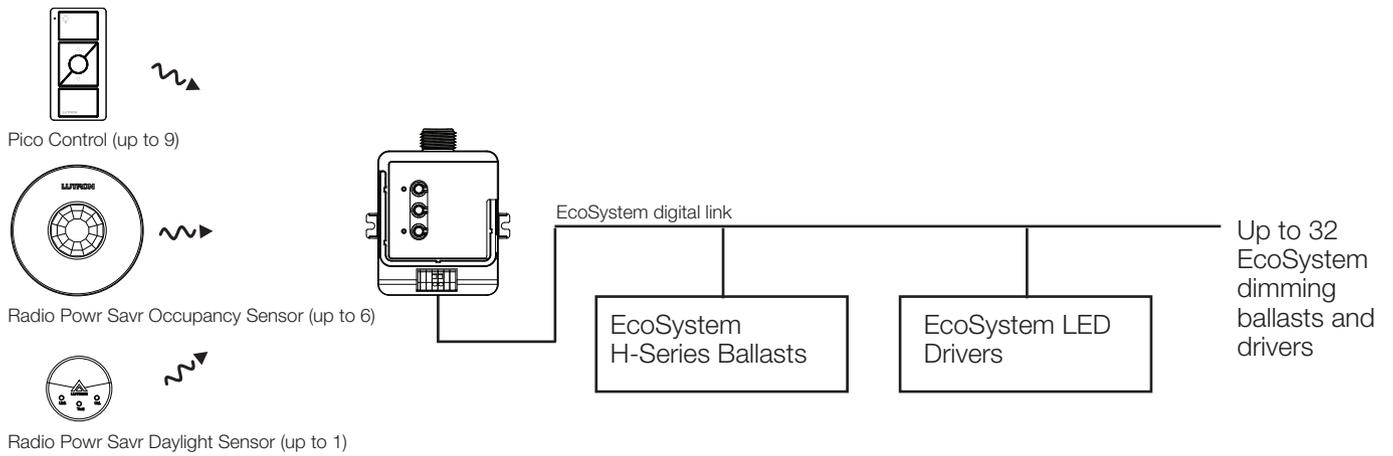
All Wireless Transmitters must be installed within 30 ft (9 m) of the PowPak Module.

All Wireless Transmitters must be installed within 23 ft (7 m) of the PowPak Module.

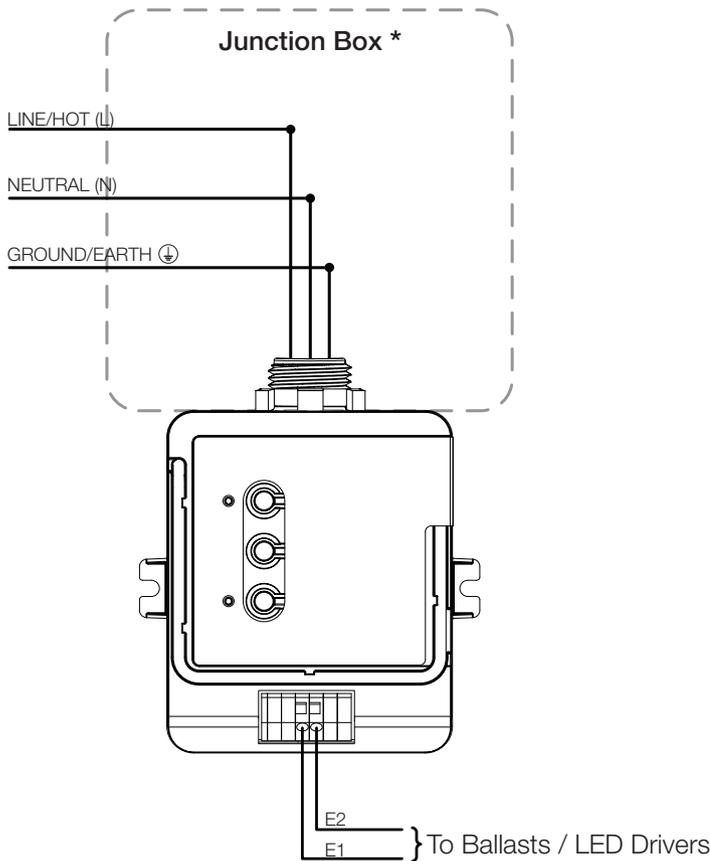
- Metal ceiling grids must have a ≥ 0.12 in (3 mm) gap of non-metal material which extends the entire length of the tile on at least one edge. This is often achieved by foam spacers that are used to prevent tile-to tile rattling.
- Metal ceiling grids which are continuous (with no gap) or those that are interlocked, must have a total surface area that is less than 30 ft² (81 m²) for each section. The overall space can be larger as long as there are non-metal sections bordering or intersecting the metal sections.

Job Name:	Model Numbers:
Job Number:	

System Diagram (RMJ-, URMJ-, RMQ-, RMM-, RMN- models)



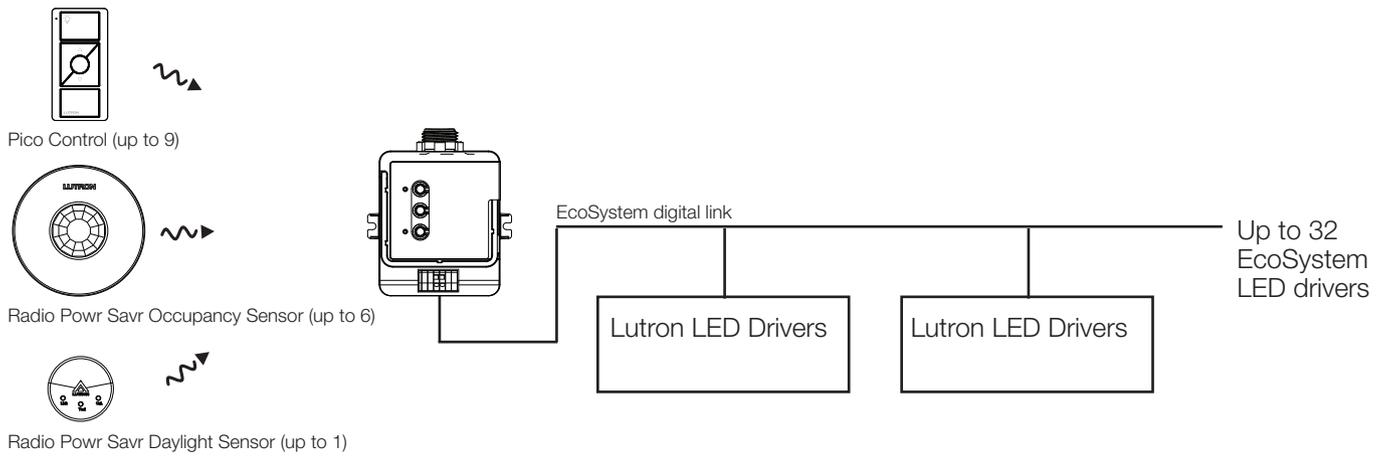
Wiring Diagram (RMJ-, URMJ-, RMQ-, RMM-, RMN- models)



* **NOTE:** Some applications (in USA) require the PowPak module to be installed inside an additional junction box. For information about how to perform this installation, please visit www.lutron.com, Application Note #423 (P/N 048423). Please consult all local and national electronic codes for proper installation methods.

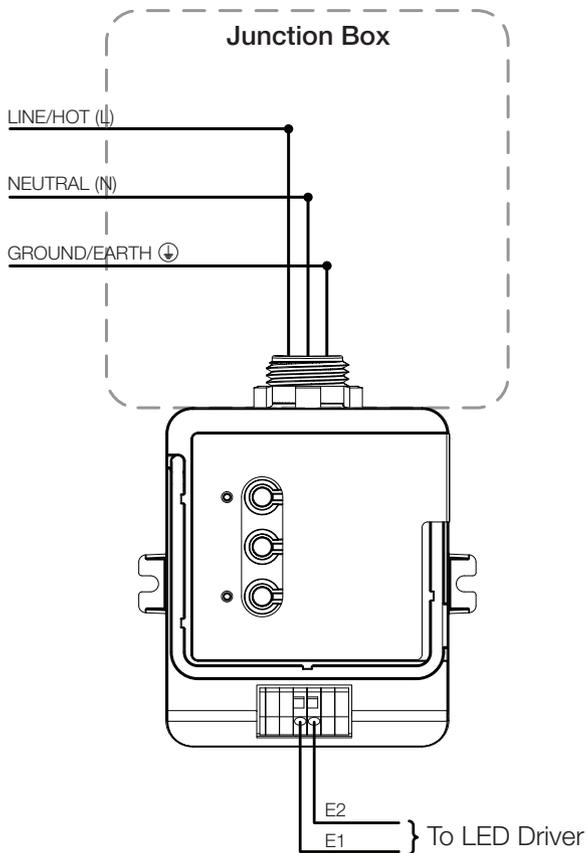
Job Name:	Model Numbers:
Job Number:	

System Diagram (RMP- models)

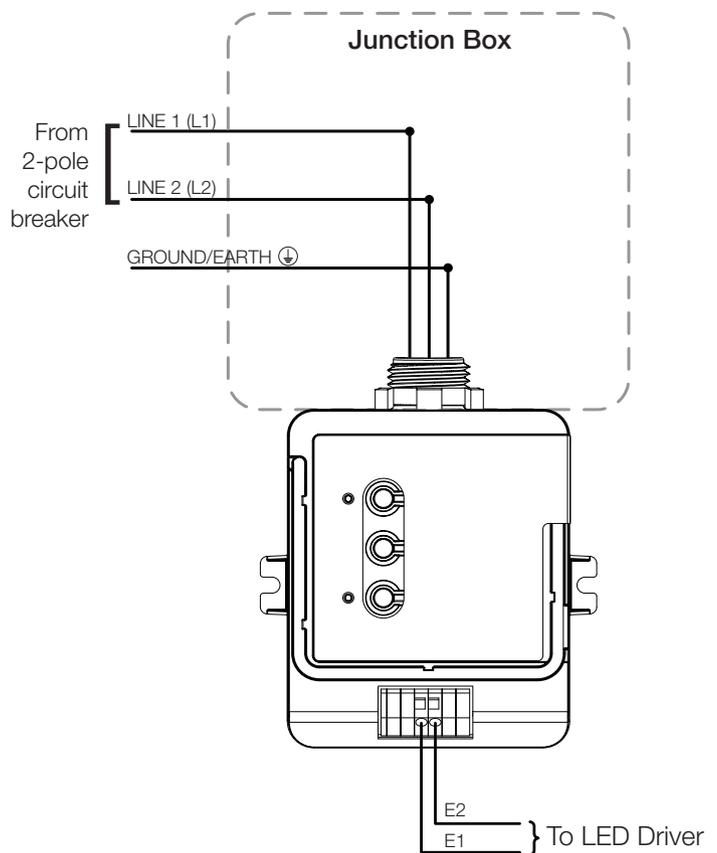


Wiring Diagram (RMP- models)

100 V~

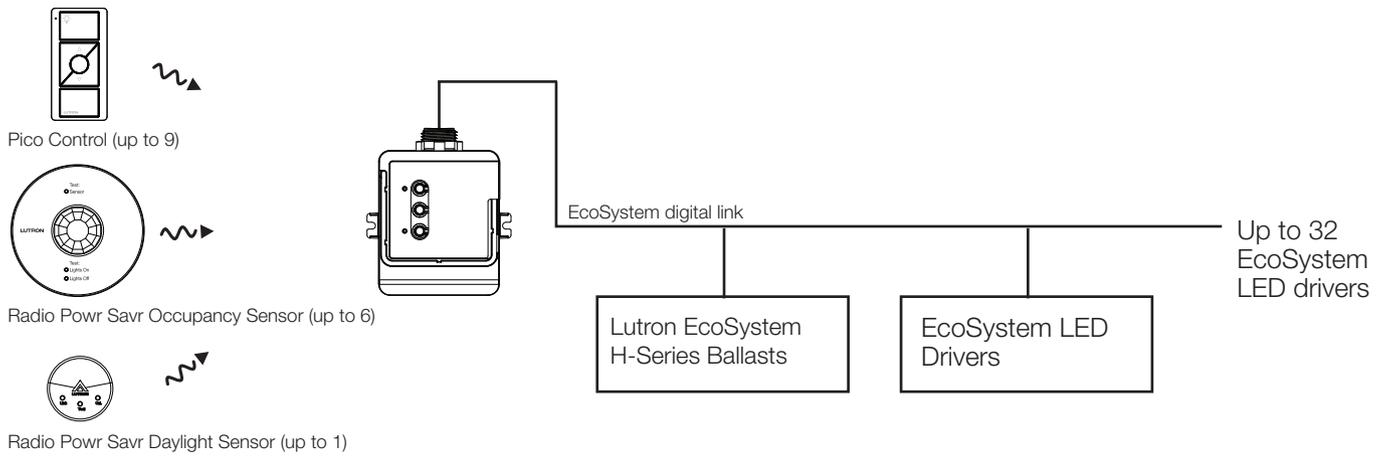


200 V~

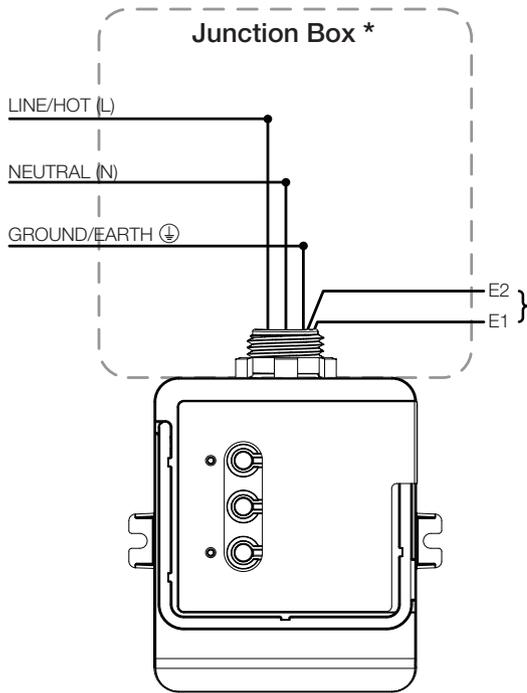


Job Name:	Model Numbers:
Job Number:	

System Diagram (RMK- model)



Wiring Diagram (RMK- model)



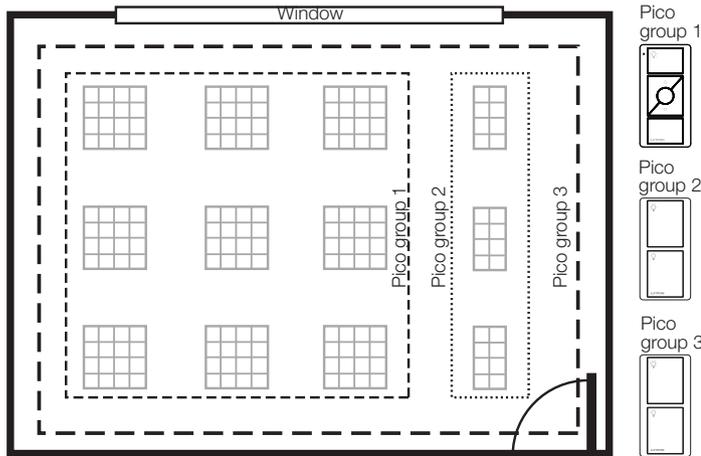
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Advanced Configurations

Pico Wireless Controls

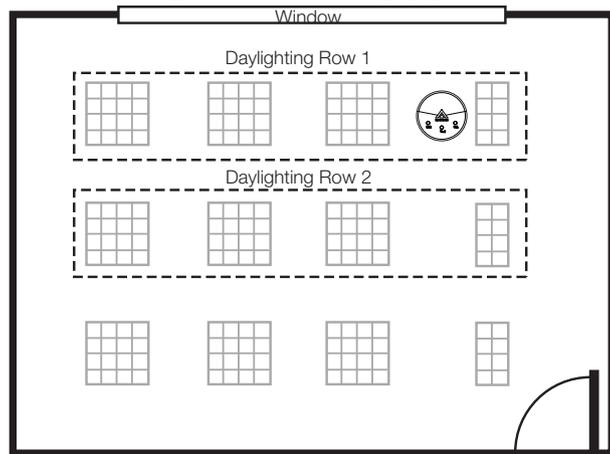
- Up to nine Pico controls, each with their own control group
- Each group can include any of the connected drivers
- Favorite levels can be set for each Pico wireless control



Radio Powr Savr Daylight Sensor

- Up to two daylighting rows can be configured
- The Radio Powr Savr daylight sensor group can include up to 32 drivers

Minimum Light Level Setting (optional)



- Certain applications, such as hallways, may require that the lights never turn off. For these areas, select the 10% minimum light level option.

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LUTRON SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

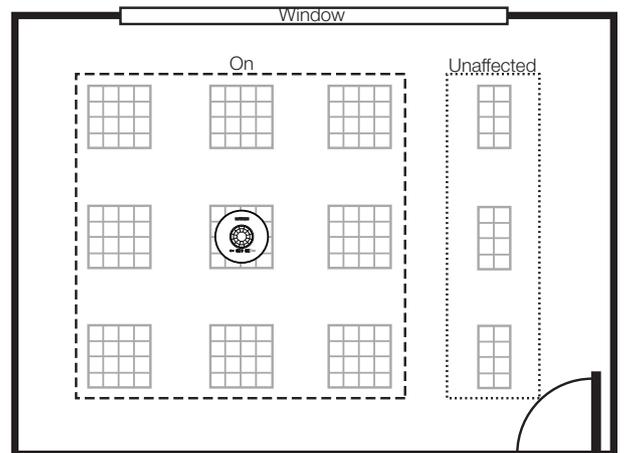
High-End Trim

- The maximum light output of connected drivers can be decreased by up to 50% for energy savings in over-lit spaces
- High-End Trim affects all connected drivers equally, and can be configured from the dimming module or from any associated Pico control

Radio Powr Savr Occupancy Sensors

- Radio Powr Savr occupancy and vacancy sensors control all connected drivers
- Grouped Pico controls can be used to adjust the Occupied levels of drivers that they control from 1 to 100% or can make them unaffected by Occupancy events
- Vacancy events (area becomes unoccupied) turn all drivers off or to 10%, if minimum light level is set

Occupied



Unoccupied

