

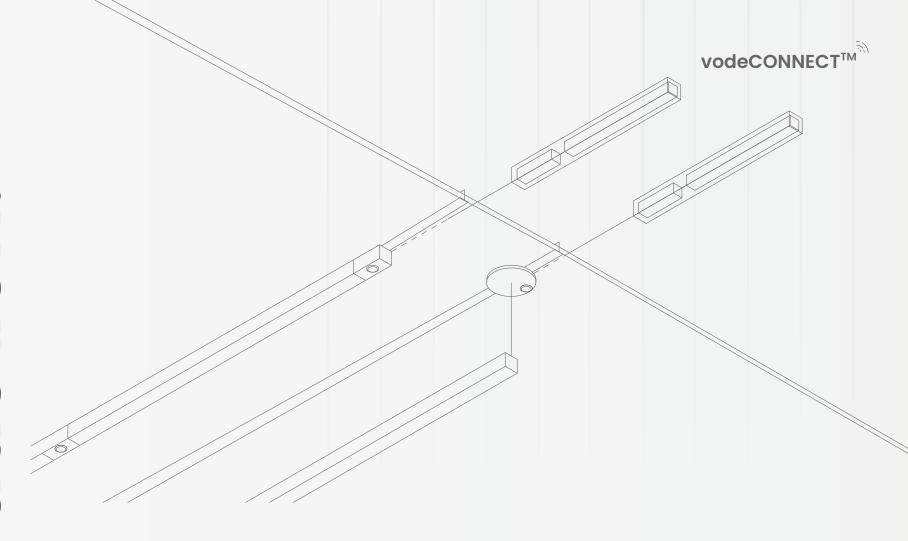
Responsive illumination through Luminaire Level Lighting Controls.

### **vodeCONNECT**<sup>TM</sup>

## Contents.

3	Introduction
4	Offering
5	About Luminaire Level Lighting Controls
6	Why vodeCONNECT™
7	Our Partners
8	Sensor Capabilities
11	Integration Compatibility
13	Product Compatibility
16	Ordering Specification
18	Driver Compatibility
19	Wiring Diagrams
29	Sensor Facts

## ntroduction



### What is vodeCONNECT™?

vodeCONNECT™ is a lighting controls integration solution that combines embedded sensor technology with compatibility and leading network control systems. vodeCONNECT™ offers the option for luminaire level lighting controls (LLLC),

which is a fixture-based sensor able to control based on occupancy, daylighting and timeclock control. This program brings together the possibility for a clean design aesthetic and smart building technology.





### Daylight Vacancy Occupancy



### **Luminaire Level Lighting Controls**

What and Why



### What?

As explained by the Lighting Controls Association of North America, Luminaire Level Lights Controls (LLC) are "...lighting control systems in which sensors and controllers are installed within luminaires to enable autonomous, individual luminaire control. By making each luminaire a control point, control is highly flexible, responsive, and therefore generally more energy-saving."

### Why?

Said simply - we want to save you energy, time, and cost!

Sensors ensure light is delivered precisely when and where it's needed, optimizing energy usage. For designers, our streamlined system means fewer devices to layout in the ceiling, saving you valuable time. Contractors benefit too, with fewer components to install, reducing overall costs.

### **vodeCONNECT**<sup>TN</sup>

### **vodeCONNECT™**

What and Why



### What?

Introducing a lighting controls solution, designed to connect you with your space while ensuring optimal ease of use and compatibility with leading smart building technologies.

Our system features embedded sensor technology and works seamlessly with the top network controls systems from our trusted partners in manufacturing.

### Why?

Our commitment to design excellence is showcased through every detail, as each compatible sensor is meticulously fitted to seamlessly integrate into our little but luminous lighting solutions.

Experience the perfect blend of sustainability and style with vodeCONNECT™ as we demonstrate that form and function can indeed walk hand in hand.



### artners.

When specifying vodeCONNECT™, you can be asssured that Vode fixtures are compatible with common sensors from the following industry leaders:







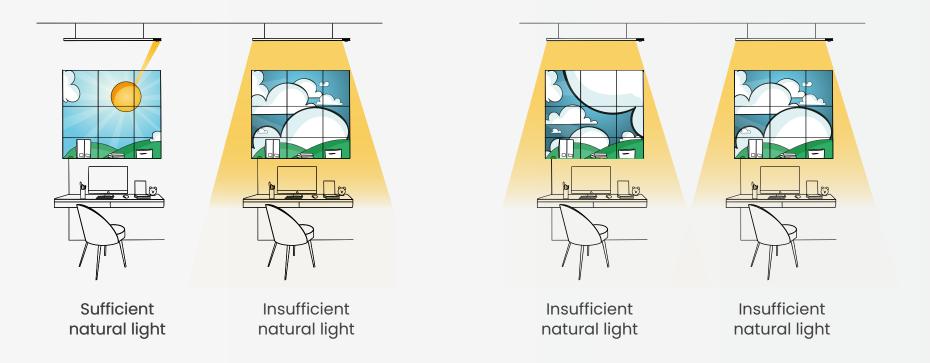


### **Types of Sensors**

### Sensor Capabilities

### **Daylight Sensors**

Luminaire level lighting control daylight sensors are devices used in lighting systems to detect natural light levels per fixture (versus per space) to adjust artificial lighting accordingly, optimizing energy efficiency indoors. By measuring ambient light, these sensors automatically control the lighting fixtures, dimming or brightening them as needed to maintain consistent illumination levels throughout the day.

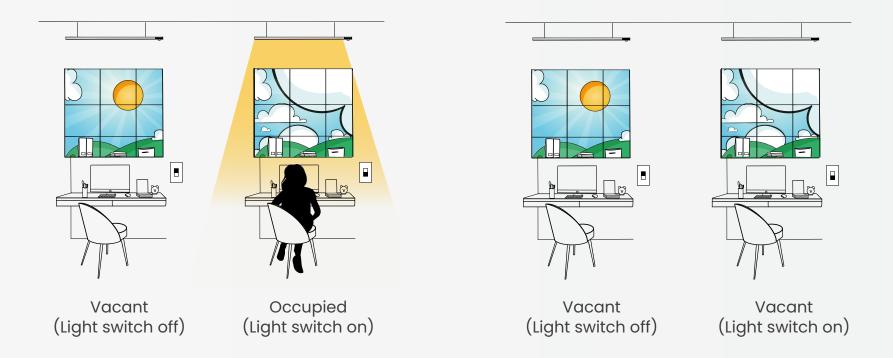


### **Types of Sensors**

### Sensor Capabilities

### **Vacancy Sensors**

Luminaire level lighting control vacancy sensors are integrated into lighting systems to save energy by automatically turning off lights in unoccupied spaces. They employ motion detection technology to detect movement within a specified area, prompting lights to dim or turn off. Occupants must manually switch the lights back on. This allows the user to determine if overhead lighting is needed or if ambient natural light is sufficient.



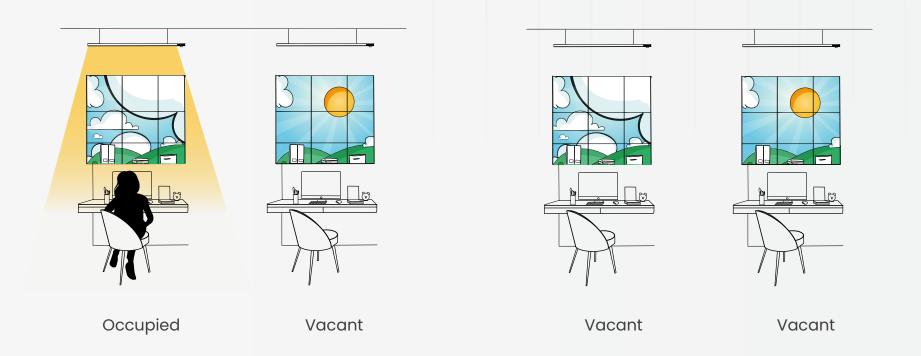


### **Types of Sensors**

### Sensor Capabilities

### **Occupancy Sensors**

Luminaire level lighting control occupancy sensors are devices integrated into lighting systems to automatically control light fixtures based on the presence or absence of people in a space. They use various technologies such as infrared, ultrasonic, or microwave to detect motion and occupancy, enabling energy savings by turning lights on or off as needed.





# Compatib

### Sensors Compatible with Fixture Integration









nLight Air

nLight Wired

Lutron Athena

Lutron Vive





Legrand Wattstopper

Encelium SensiLUM

### Products Compatible with Fixture Integration



ZipTwo | Square 3535 | 707



### atib duo

### Sensors Compatible with Canopy Integration







Legrand Wattstopper

### Products Compatible with Canopy Integration



ZipTwo | Micro 3508 | Ceiling Cable | 707



ZipTwo | Round 3515 | Ceiling Cable | 707



ZipTwo | Square 3520 | Ceiling Cable | 707



ZipTwo | Square 3535 | Ceiling Cable | 707



ZipTwo | Square 3535/30 | Ceiling Cable | 707



ZipTwo | Square 3570 | Ceiling Cable | 707



ZipTwo | Square 5020 | Ceiling Cable | 707



BoxRail | Ceiling Cable | 107



RaceRail | Ceiling Cable | 107



WingRail | Ceiling Cable | 107



BoxRail | 207

### **vodeCONNECT**<sup>TM</sup>

### **Sensor**Product Compatibility

Sensors, drivers and control units that are integrated into Vode fixtures are discrete components that communicate with network lighting controls.

For more information about each network lighting control system, visit the manufacturer's website for additional system information and technical data sheets.

Controls System	Controls System Sensing Co Functions L		Sensor Location	Power Location Options	Sensor Distance	Compatible Control Protocols
	<ul><li>Occupancy</li><li>Vacancy</li><li>Daylight</li></ul>	• ZipTwo   Square 3535   707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 1% Dimming
Legrand Wattstopper LMFS-601-W	<ul><li>Occupancy</li><li>Vacancy</li><li>Daylight</li></ul>	BoxRail   Ceiling Cable   107 RaceRail   Ceiling Cable   107 WingRail   Ceiling Cable   107 BoxRail   Ceiling Cable   207 ZipTwo   Ceiling Cable   707	• Canopy	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 1% Dimming
To compare the second s	Occupancy     Vacancy     Daylight	• ZipTwo   Square 3535   707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	<ul> <li>0-10V, 1% Dimming</li> <li>0-10V, 0.1% Dimming</li> <li>DALI, 0.1% Dimming</li> <li>DALI, 1% Dimming</li> <li>Lutron 1% EcoSystem</li> </ul>
Lutron Athena DFCSJ-OEM-OCC	<ul><li>Occupancy</li><li>Vacancy</li><li>Daylight</li></ul>	BoxRail   Ceiling Cable   107 RaceRail   Ceiling Cable   107 WingRail   Ceiling Cable   107 BoxRail   Ceiling Cable   207 ZipTwo   Ceiling Cable   707	• Canopy	• Remote • VodeNODE	• 100ft (30.5m)	O-10V, 1% Dimming O-10V, 0.1% Dimming DALI, 0.1% Dimming DALI, 1% Dimming Lutron 1% EcoSystem

### VODECONNECT™

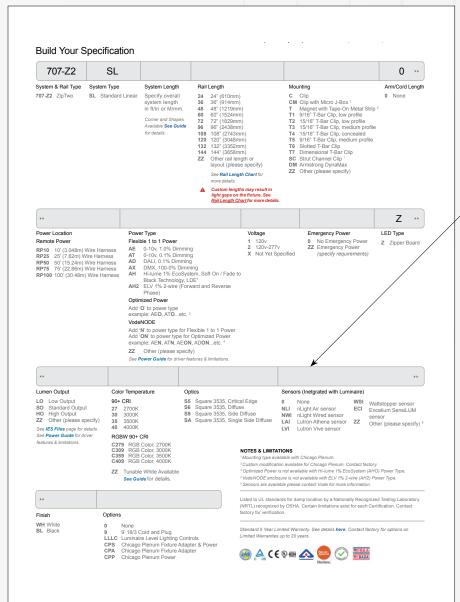
### **Sensor**Product Compatibility

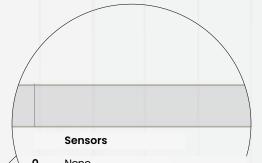
Controls System	rols System Sensing Compatible Functions Luminaire		Sensor Location	Power Location Options	Sensor Distance	Compatible Control Protocols
Lutron Vive A-WN-D01-OCC-WH	<ul><li>Occupancy</li><li>Vacancy</li><li>Daylight</li></ul>	• ZipTwo   Square 3535   707	• Luminaire	• Remote • VodeNODE	• 60ft (18.3m)	• DALI, 0.1% Dimming • DALI, 1% Dimming • Lutron 1% EcoSystem
nLight Air RES7 EXT900 ACWH 180D G2	Occupancy Vacancy Daylight Asset Tracking	• ZipTwo   Square 3535   707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 0.1% Dimming • DALI, 1% Dimming • LEDcode, 1% Dimming
nLight Wired nES PDT 7 ADCX	Occupancy Vacancy Daylight Asset Tracking	• ZipTwo   Square 3535   707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 0.1% Dimming • DALI, 1% Dimming • LEDcode, 1% Dimming
Encelium SensiLUM EN-CLM-PIR-DD-ZB	<ul><li>Occupancy</li><li>Vacancy</li><li>Daylight</li></ul>	• ZipTwo   Square 3535   707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 1% Dimming





### Specification of Products with Integrated Sensors





O None

ECI Luminaire w/ integrated Encelium SensiLUM sensor

WSI Luminaire w/ integrated Legrand Wattstopper sensor

LVI Luminaire w/ integrated Lutron Vive sensor

LAI Luminaire w/ integrated Lutron Athena sensor

NLI Luminaire w/ integrated nLight Air sensor

NWI Luminaire w/ integrated nLight Wired sensor

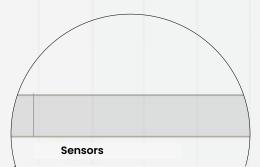
Cotton (plages apposite)





### Specification of Products with Sensor in Canopy

### **Build Your Specification** 107-BX 01 CC System & Rail Type Single/Double Rail System Length Rail Length Mounting Cable Length 107-BX BoxRail 01 Single Rail Specify overall 24 24" (610mm) CC Ceiling Cable Field adjustable. 36 36" (914mm) 48 48" (1219mm) 60 60" (1524mm) 72 72" (1829mm) 48 48" cable (1219mm) 96 96" cable (2438mm) ZZ Other (please specify) Corner and Shapes Available See Guide for details. ZZ Other rail length or layout (please specify) See Rail Length Chart for ▲ Custom lengths may result in light gaps on the fixture. See Rail Length Chart for more details. Power Location Power Type Voltage Emergency Power Integral Power Flexible 1 to 1 Power 1 120V 2 120V - 277V 0 No Emergency Power ZZ Emergency Power IP Integral Power AE 0-10v, 1.0% Dimming AT 0-10v, 0.1% Dimming X Not Yet Specified (specify requirements) Remote Power AD DALI, 0.1% Dimming AX DMX, 100-0% Dimming AH Hi-lume 1% EcoSystem, Soft On / Fade to Black Specify mounting and harness length code example: 2R25, 4R25...etc. Technology, LDE¹ AH2 ELV 1% 2-wire (Forward and Reverse Phase) Mounting Option 2R Small Round Canopy 4R Large Round Canopy 25 25' (7.62m) Wire Harness Optimized Power 50 50' (15.24m) Wire Harness 75 75' (22.86m) Wire Harness Add 'O' to power type example: AEO, ATO...etc. 1 100 100' (30.48m) Wire Harness VodeNODE Add 'N' to power type for Flexible 1 to 1 Power Add 'ON' to power type for Optimized Pow example: AEN, ATN, AEON, ADON...etc. 2 ZZ Other (please specify) See Power Guide for driver features & limitations Ζ LED Type Lumen Output Color Temperature Optics Z Zipper Board LO Low Output SO Standard Output 90+ CRI Zipper Board (Z) WSC Canopy with integrated Legrand Wattstopper sensor <sup>5</sup> LAC Canopy with integrated Lutron 27 2700K 30 3000K 35 3500K HO High Output ZZ Other (please specify) BB Black Baffle G1 120° Batwing G2 120° FlyWing S1 40° Symmetric S2 60° Symmetric A1 85° Asymmetric 40 4000K See IES Files page for details. ZZ Other (please specify) See Power Guide for driver ZZ Tunable White Available features & limitations mized Power is not available with Hi-lume 1% EcoSystem (AHO) Power Type. eNODE enclosure is not available with ELV 1% 2-wire (AH2) Power Type. 29' 18/3 Cord and Plug only available with Remote Power (RP). Chicago Plenum not applicable for wall arm mounting. Rotating fixture as an uplight will interfere with sensor operation <sup>6</sup> Sensors, drivers, and control units that are integrated into Vode fixtures are discr Finish components that communicate with network lighting controls. For more information about AL Clear Anodized WH White Powder Coat None 9' 18/3 Cord and Plug information and technical data sheets. CPP Chicago Plenum Powe BL Black Anodized For general information about network lighting controls, consult the DesignLights LLLC Luminaire Level Lighting Controls Consortium® (DLC) Networked Lighting Control Qualified Product List. Listed to UL standards for damp location by a Nationally Recognized Testing Laboratory Limited Warranties up to 20 years. ⊕ △ C € № △ ← ○ ○ □



0 None

WSC Canopy with integrated Legrand Wattstopper sensor

LAC Canopy with integrated Lutron Athena sensor

**ZZ** Other (please specify)



### **Driver Compatibility**

Matrix

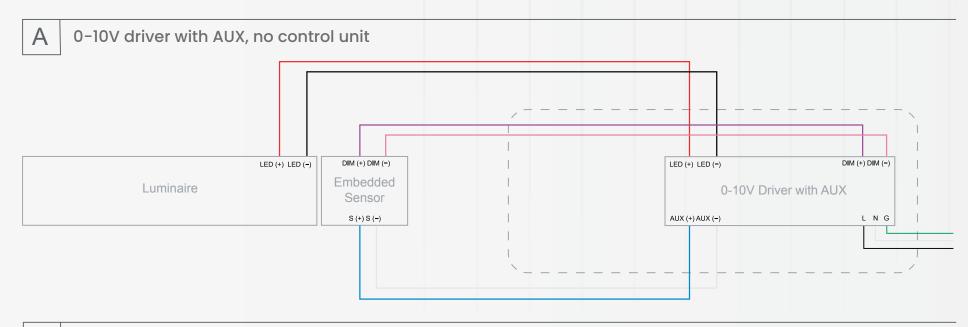
Туре	nLight Air	nLight Wired	Lutron Vive	Lutron Athena	Legrand Wattstopper	Encelium SensiLUM
AE	Yes	Yes <sup>1</sup>	X	Yes	Yes	Yes
AT	Yes <sup>2</sup>	Yes <sup>2</sup>	X	Yes <sup>2</sup>	Yes <sup>2</sup>	Yes <sup>2</sup>
AD	Yes	Yes	Yes	Yes	X	Х
АХ	X	X	X	X	X	Х
АН	X	X	Yes <sup>2</sup>	Yes	X	Х
AH2	X	X	X	X	X	Х
DALI 1%	Yes	Yes	Yes	Yes	Yes	Yes

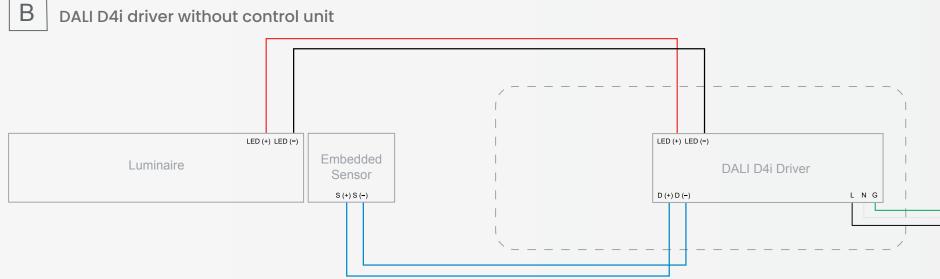
NOTES: 1. Standard drivers not available with 120" HO. 2. 120" HO not available.



### **Encelium SensiLUM**



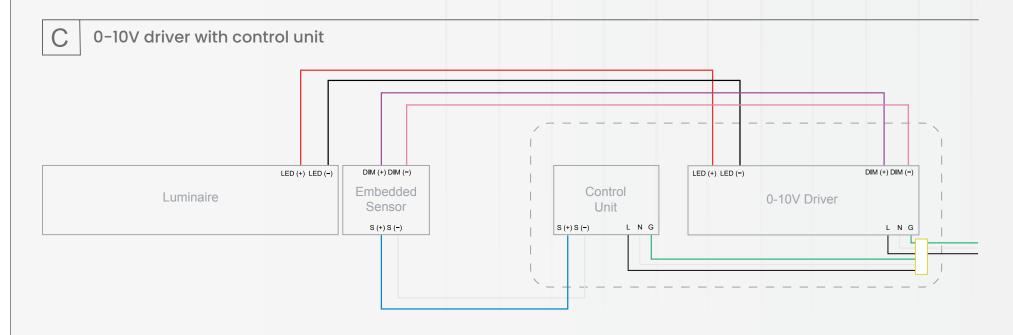






### **Encelium SensiLUM**

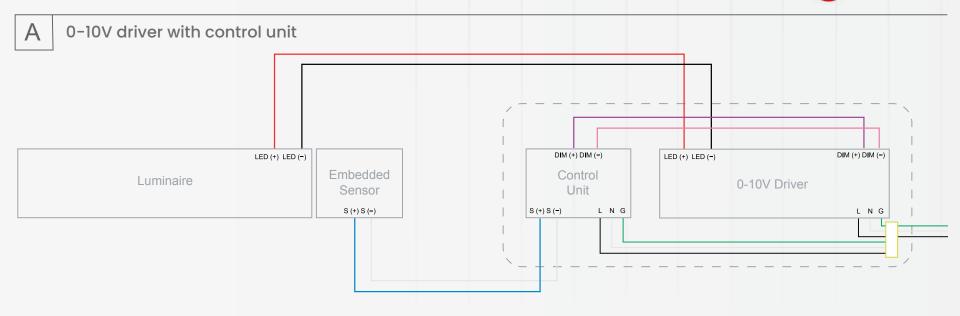


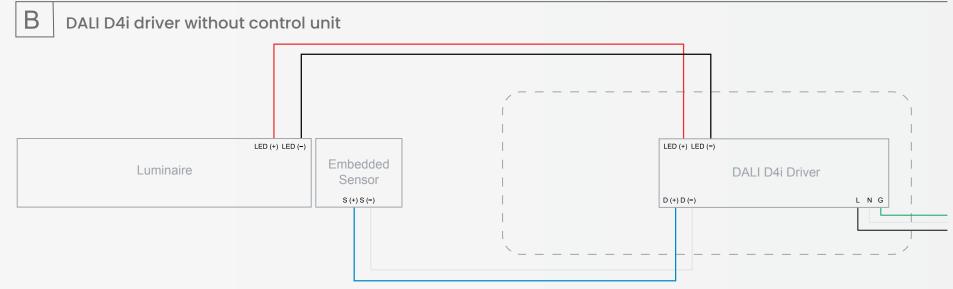


### **Legrand Wattstopper**





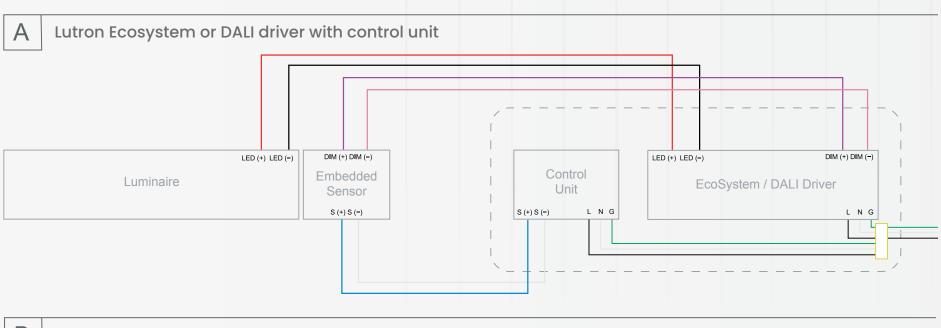


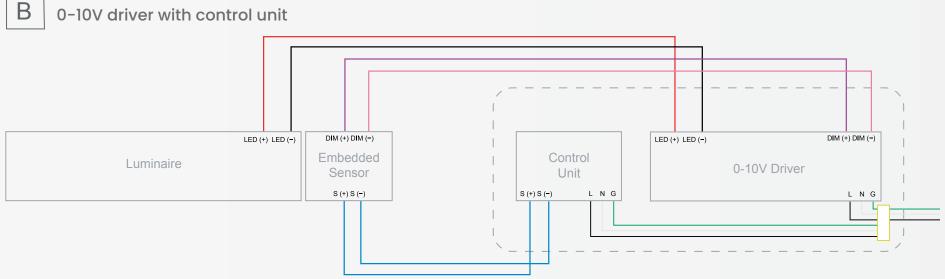




### **Lutron Athena**



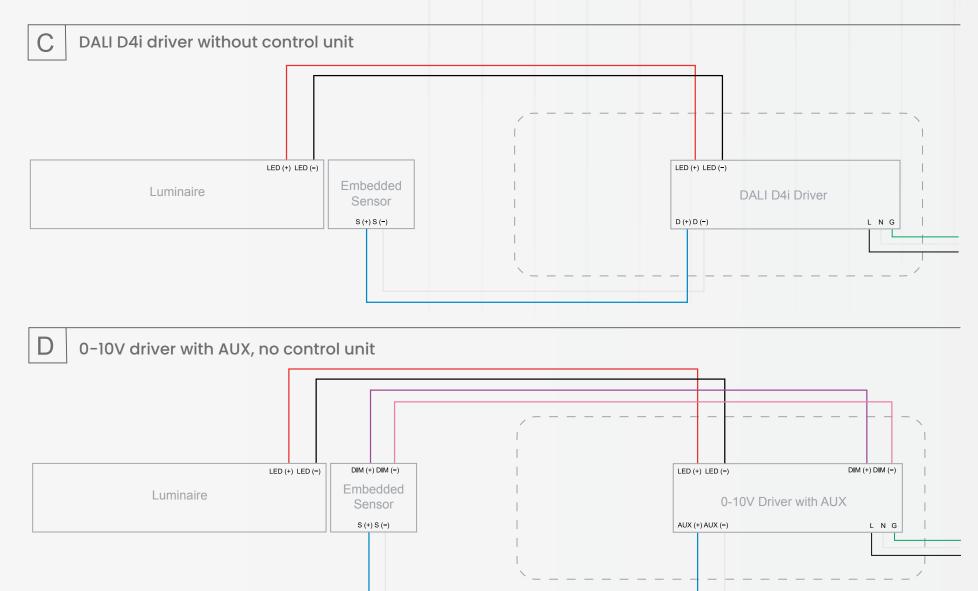






### **Lutron Athena**

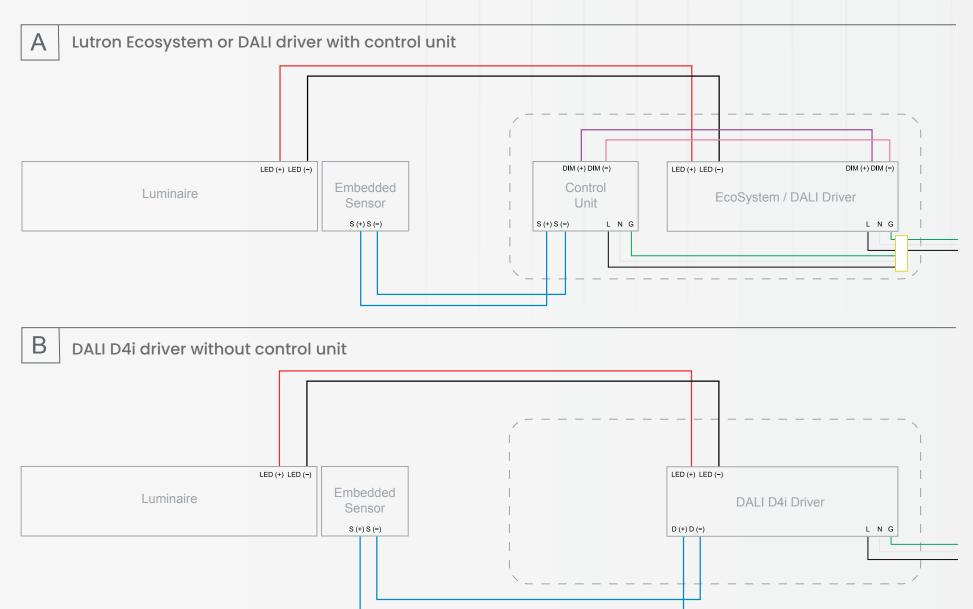




### **vodeCONNECT**<sup>TM</sup>

### **Lutron Vive**

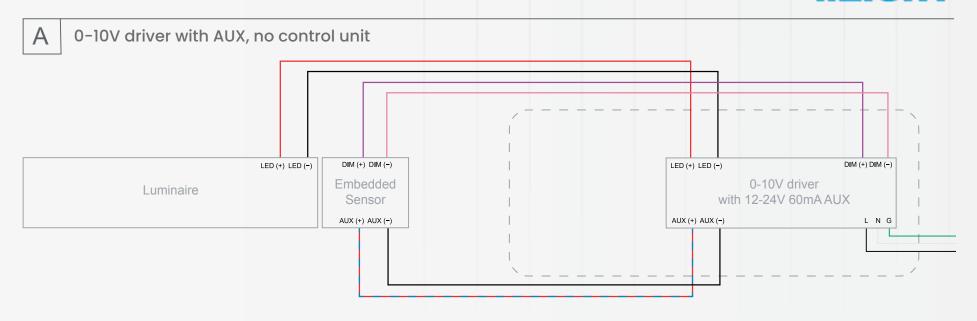




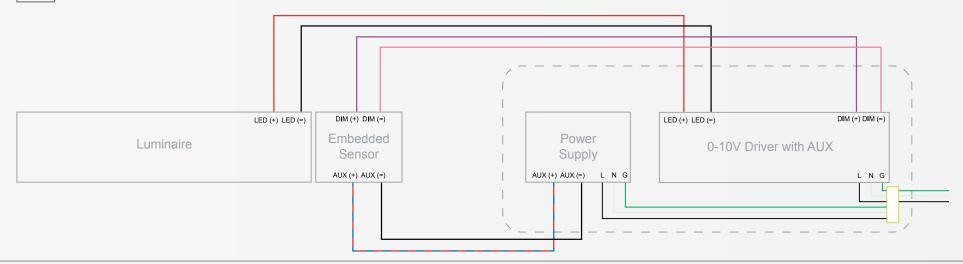
### nLight Air

### Wiring Diagrams





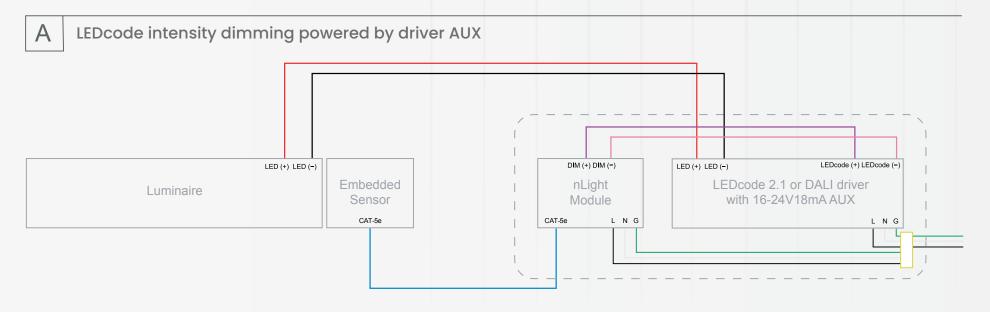
B 0-10V driver with power supply



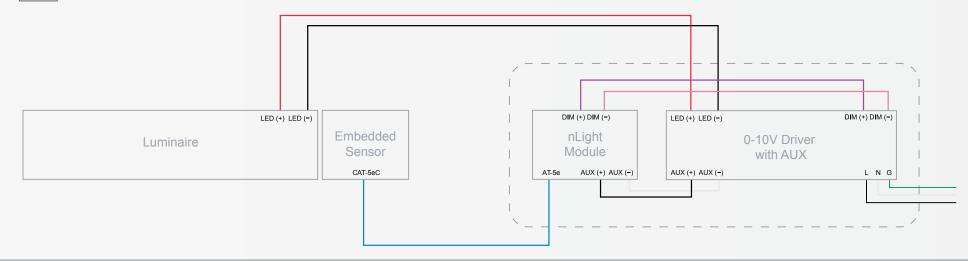
### nLight Wired

### Wiring Diagrams



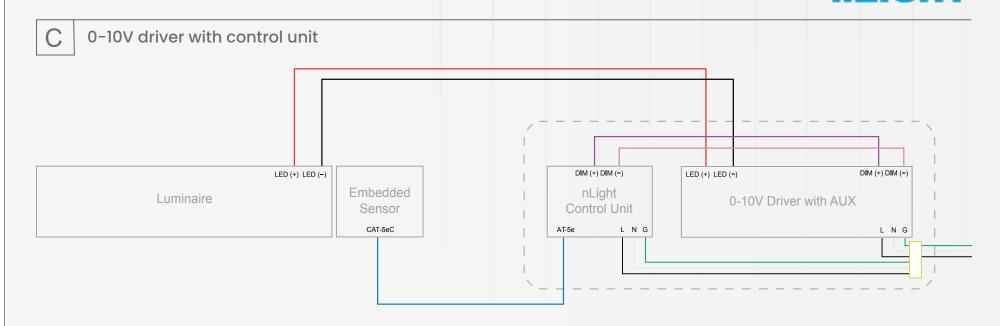


B 0-10V intensity dimming powered by driver AUX



### nLight Wired





### vodeCONNECT™

### **Sensor Facts**

### 1. Encelium SensiLUM

- Max remote mounting distance:
  - 100ft (30.5m) with 18 AWG wire
- Max drivers per sensor:
  - 10 with 0-10V
  - 4 with DALI D4i
- Max sensors per driver:
  - ]
- Sensor input power:
  - < ]\\\
- Cable connection:
  - 4 conductor wire harness

### 3. Lutron Athena

- Max remote mounting distance
  - 100ft (30.5m) with 18 AWG wire
- Max drivers per sensor
  - 5
- Max sensors per driver
  - 1
- Sensor input power
  - < 1W
- Cable connection
  - 4 conductor wire harness
- Notes:
  - Each Athena wireless node should be installed within 25ft (7.6m) of two or more Athena wireless nodes or other Clear Connect – Type X devices.

### 4. Lutron Vive

Max remote mounting distance:

2. Legrand Wattstopper

- 100ft (30.5m) with 18 AWG
- Max drivers per sensor:
  - 1 with DALI D4I
  - 8 with 0-10V
- Max sensors per driver:
  - ]
- Sensor input power:
  - < 1W
- Cable connection:
  - 2 conductor wire harness
- Notes:
- Stand-alone functionality

### • Max remote mounting distance:

- 60ft (18.3m) with 18 AWG wire
- Max drivers per sensor:
  - 2 with Optitronic selfpower
  - 4 with power pack
- Max sensors per driver:
  - 1
- Sensor input power:
  - < ]\\\
- Cable connection:
  - 2 conductor wire harness
- Notes:
  - Stand-alone functionality

### 5. nLight Air

- Max remote mounting distance
  - 9ft (2.7m) with LEDcode
  - 100ft (30.5m) with AUX
- Max drivers per sensor
  - 1
- Max sensors per driver
  - 1
- Sensor input power
  - -<1W
- Cable connection
  - 4 conductor wire harness
- Notes:
  - Does not support tunable white or dim-to-warm

### 6. nLight Wired

- Max remote mounting distance
  - 100ft (30.5m) with

### Cat 5e cable

- Max drivers per sensor
  - 1 with driver power
  - 37 with power pack
- Max sensors per driver
  - 1 with driver power
  - 13 with power pack
- Sensor input power
  - < ]\\\
- Cable connection
  - Cat 5e cable

