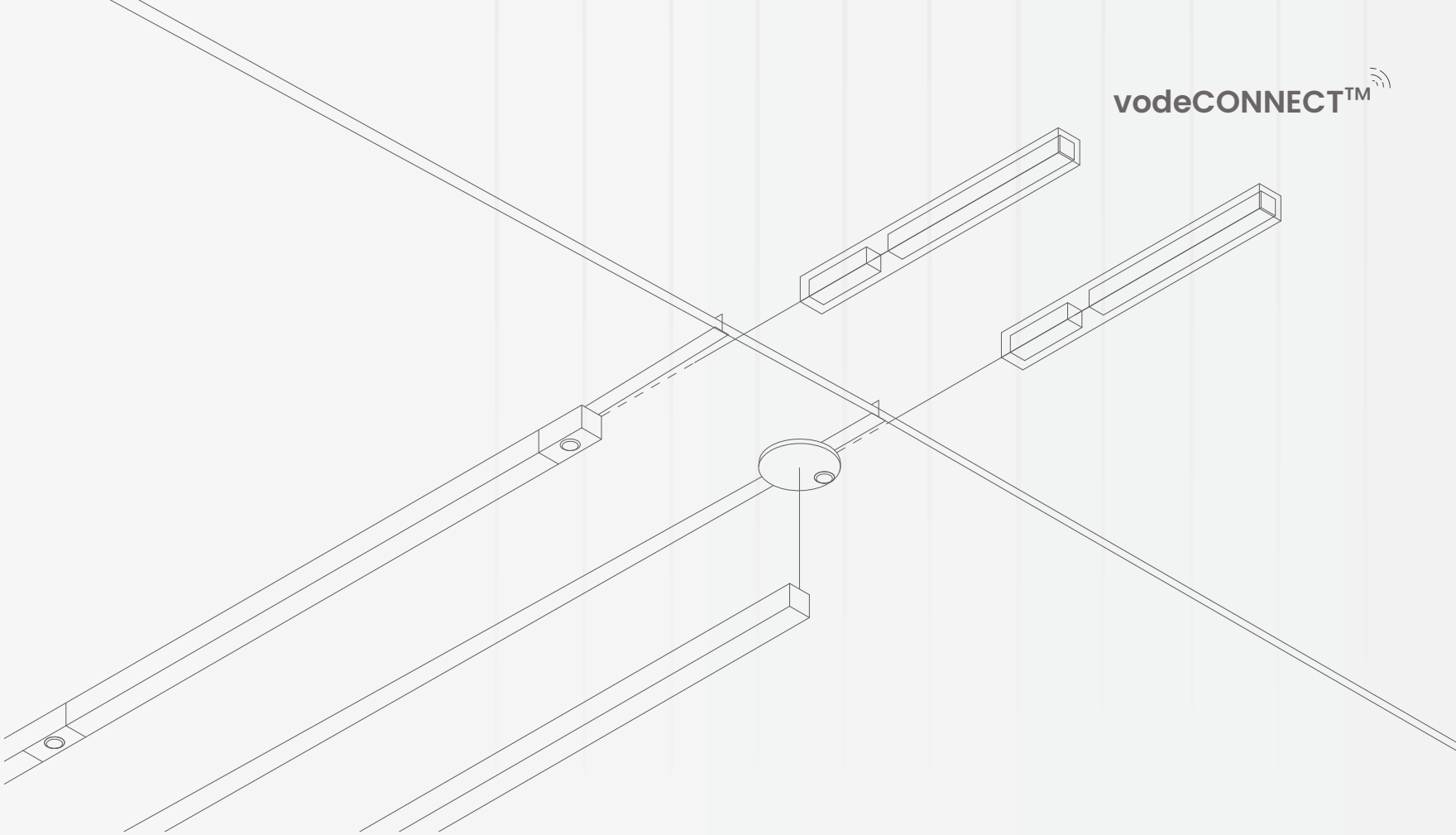
vodeCONNECT™

Responsive illumination through Luminaire Level Lighting Controls.

Contents.

Introduction.



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.

vodeCONNECT™ reliably offers

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 (LLLC) 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.**"

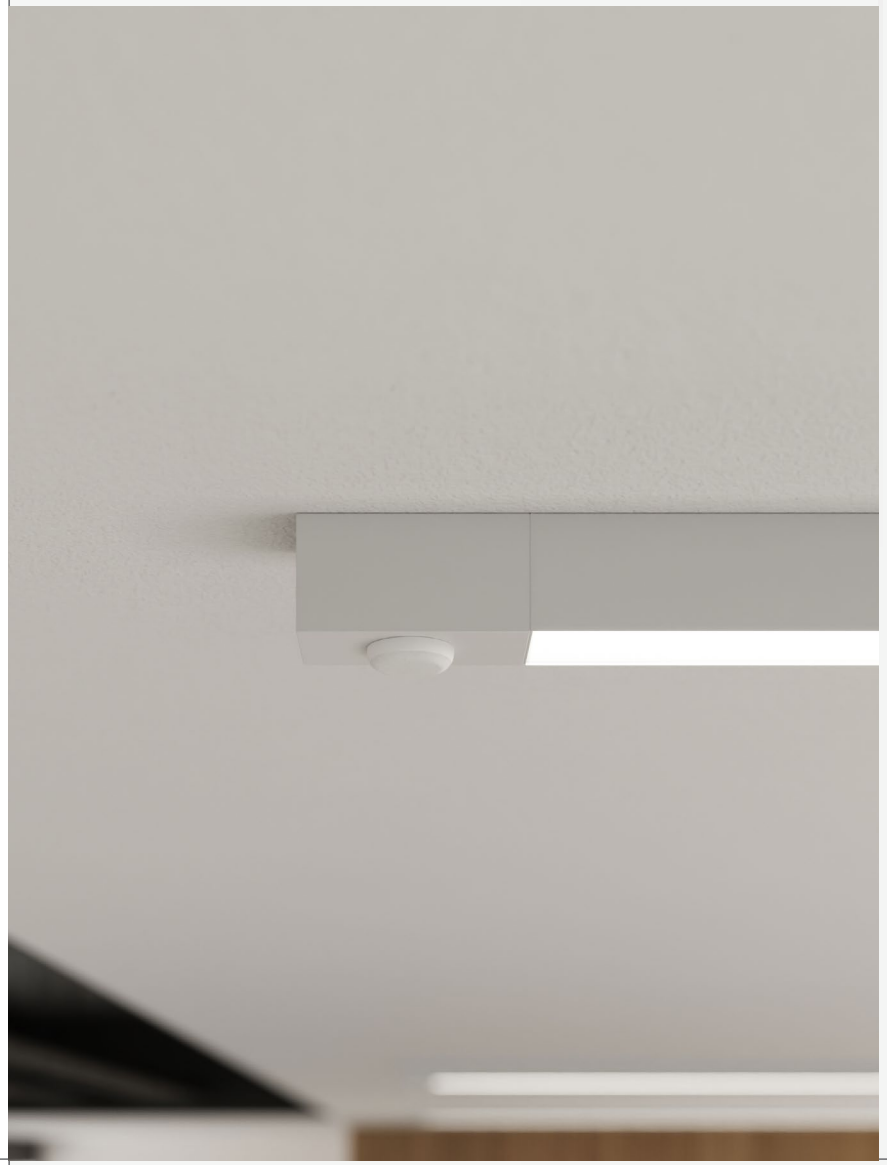
Why?

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™

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.

Our Partners.

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

nLIGHT

legrand®

ENCELIUM

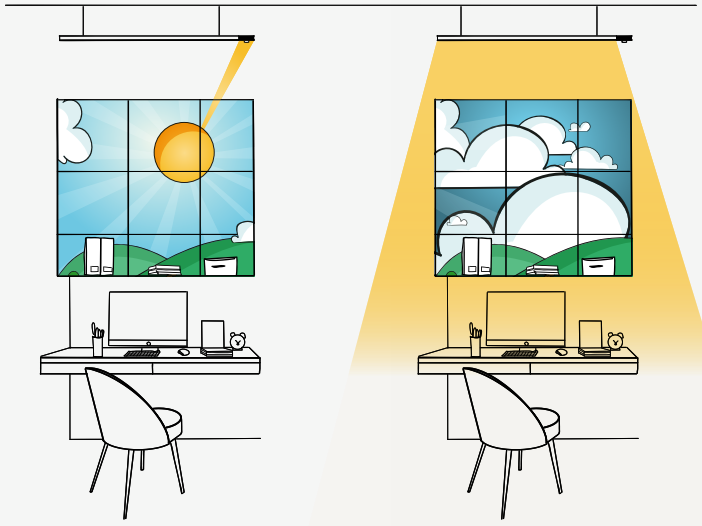
LUTRON®

Types of Sensors

Sensor Capabilities

Daylight Sensors

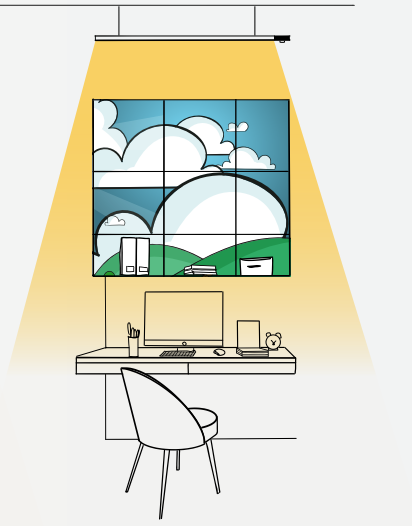
Luminaire level lighting control daylight sensors are devices used in lighting systems to detect natural light levels per fixture (versus per space) to adjust artificial lighting accordingly, optimizing energy efficiency indoors. By measuring ambient light, these sensors automatically control the lighting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



Sufficient natural light

Insufficient natural light

Insufficient natural light



Insufficient natural light

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.

Vacant
(Light switch off)

Occupied
(Light switch on)

Vacant
(Light switch off)

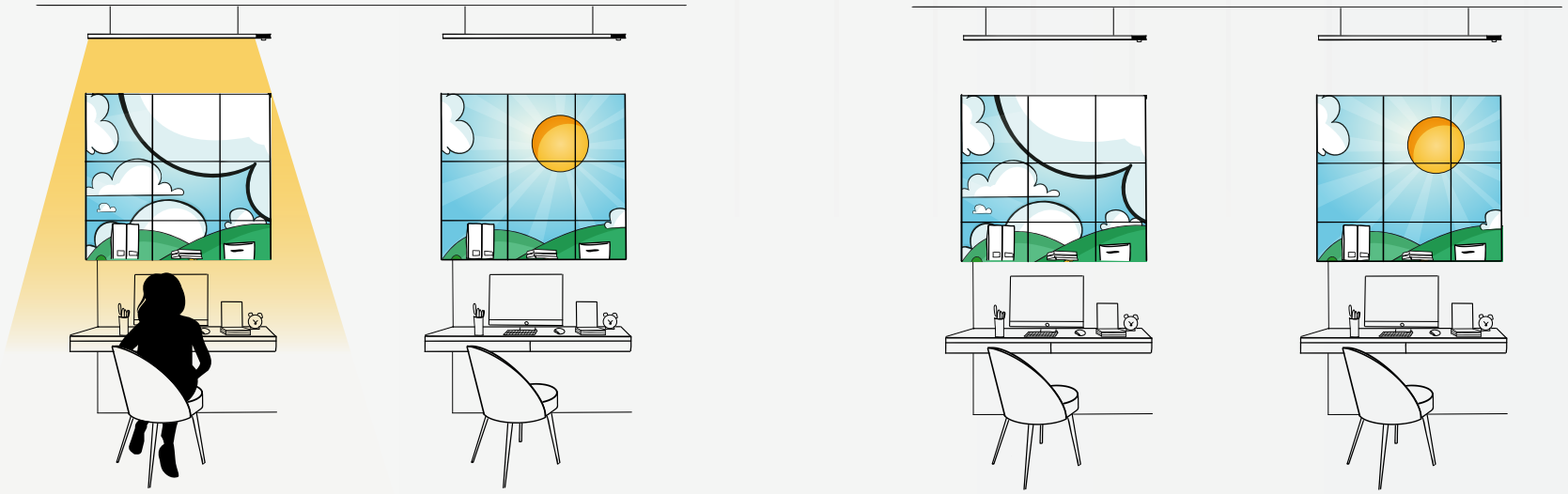
Vacant
(Light switch on)

Types of Sensors

Sensor Capabilities

Occupancy Sensors

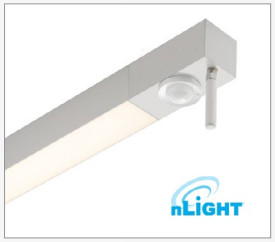
Luminaire level lighting control occupancy sensors are devices integrated into lighting systems to automatically control light fixtures based on the presence or absence of people in a space. They use various technologies such as infrared, ultrasonic, or microwave to detect motion and occupancy, enabling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



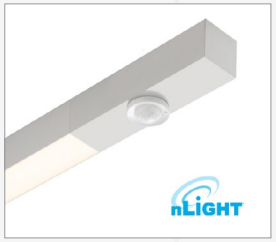
Occupied | Vacant | Vacant | Vacant

Compatibility.

Sensors Compatible with Fixture Integration



nLight Air

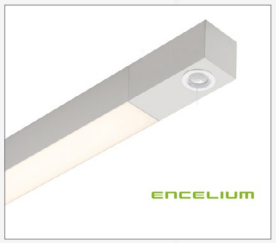


nLight Wired

Lutron Athena

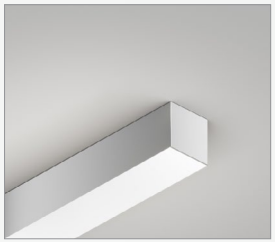
Lutron Vive

Legrand Wattstopper



Encelium SensiLUM

Products Compatible with Fixture Integration



ZipTwo | Square 3535 | 707

Compatibility.

Sensors Compatible with Canopy Integration

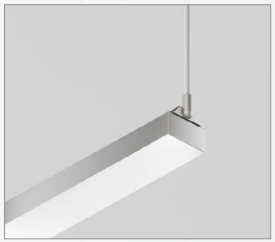
Lutron Athena

Legrand Wattstopper

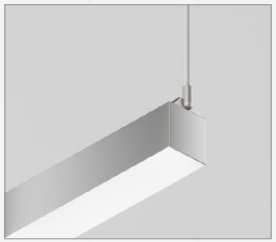
Products Compatible with Canopy Integration

ZipTwo | Micro 3508 | Ceiling Cable | 707

ZipTwo | Round 3515 | Ceiling Cable | 707

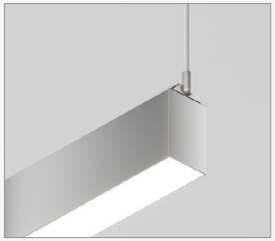


ZipTwo | Square 3520 | Ceiling Cable | 707

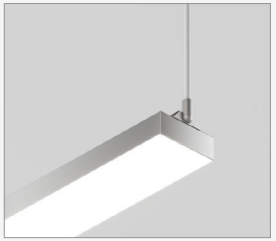


ZipTwo | Square 3535 | Ceiling Cable | 707

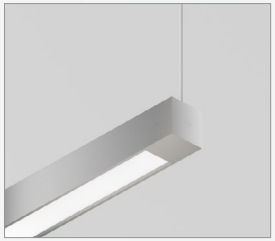
ZipTwo | Square 3535/30 | Ceiling Cable | 707



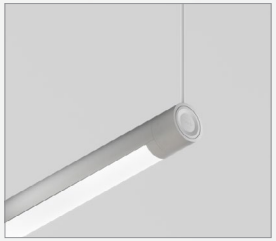
ZipTwo | Square 3570 | Ceiling Cable | 707



ZipTwo | Square 5020 | Ceiling Cable | 707



BoxRail | Ceiling Cable | 107



RaceRail | Ceiling Cable | 107

WingRail | Ceiling Cable | 107

BoxRail | 207

Sensor

Product Compatibility

vodeCONNECT™

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	Sensing Functions	Compatible Luminaire	Sensor Location	Power Location Options	Sensor Distance	Compatible Control Protocols
 **Legrand Wattstopper** LMFS-601-W	• Occupancy • Vacancy • Daylight	• ZipTwo | Square 3535 | 707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 1% Dimming
	• Occupancy • Vacancy • Daylight	• 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
 **Lutron Athena** A-WN-D01-OCC-WH	• Occupancy • Vacancy • Daylight	• 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 • Lutron 1% EcoSystem
	• Occupancy • Vacancy • Daylight	• 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, 0.1% Dimming • DALI, 1% Dimming • Lutron 1% EcoSystem

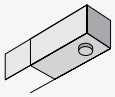
Sensor

Product Compatibility

vodeCONNECT™

Controls System	Sensing Functions	Compatible Luminaire	Sensor Location	Power Location Options	Sensor Distance	Compatible Control Protocols
 **Lutron Vive** DFCSJ-OEM-OCC	• Occupancy • Vacancy • Daylight	• 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	• Occupancy • Vacancy • Daylight	• ZipTwo | Square 3535 | 707	• Luminaire	• Remote • VodeNODE	• 100ft (30.5m)	• 0-10V, 1% Dimming • 0-10V, 0.1% Dimming • DALI, 1% Dimming

specification.



Specification of Products with Integrated Sensors

Build Your Specification

707-Z2	SL				0 ▸▸
System & Rail Type	System Type	System Length	Rail Length	Mounting	Arm/Cable Length

System & Rail Type
707-Z2 ZipTwo

System Type
SL Standard Linear

System Length
Specify overall system length in ft/in or M/mm.
*Corner and Shapes Available **See Guide** for details.*

Rail Length
24 24" (610mm)
36 36" (914mm)
48 48" (1219mm)
60 60" (1524mm)
72 72" (1829mm)
96 96" (2438mm)
108 108" (2743mm)
120 120" (3048mm)
132 132" (3352mm)
144 144" (3658mm)
ZZ Other rail length or layout (please specify)
*See **Rail Length Chart** for more details.*
⚠ ***Custom lengths may result in light gaps on the fixture. See Rail Length Chart for more details.***

Mounting
C Clip
CM Clip with Micro J-Box [1]
T Magnet with Tape-On Metal Strip [2]
T1 9/16" T-Bar Clip, low profile
T2 15/16" T-Bar Clip, low profile
T3 15/16" T-Bar Clip, medium profile
T4 15/16" T-Bar Clip, concealed
T5 9/16" T-Bar Clip, medium profile
T6 Slotted T-Bar Clip
T7 Dimensional T-Bar Clip
SC Strut Channel Clip [1]
DM Armstrong DynaMax
CC Ceiling Cable
ZZ Other (please specify)

Wood Ceiling
G1 Grille Tegular Vertical Slats 9/16"
G2 Grille Tegular Vertical Slats 15/16"
G3 Grille Tegular Horizontal Slats
G4 Grille 1-3/8" Slat
G5 Grille 2-1/4" Slat Height
G6 Grille 3-1/4" Slat Height

Armstrong Ceilings
Add an 'A' to the end of the mounting spec code
Examples: G1A, G6A, T1A

Arm/Cable Length
0 None

▸▸				Z ▸▸
Power Location Remote Power	Power Type Flexible 1 to 1 Power	Voltage	Emergency Power	LED Type

Power Location
Remote Power
RP10 10' (3.048m) Wire Harness
RP25 25' (7.62m) Wire Harness
RP50 50' (15.24m) Wire Harness
RP75 75' (22.86m) Wire Harness
RP100 100' (30.48m) Wire Harness

Power Type
Flexible 1 to 1 Power
AE 0-10v, 1.0% Dimming
AT 0-10v, 0.1% Dimming
AD DALI, 0.1% Dimming
AX DMX, 100-0% Dimming
AH Hi-lume 1% EcoSystem, Soft On / Fade to Black Technology, LDE[1]
AH2 ELV 1% 2-wire (Forward and Reverse Phase) [6]
Optimized Power
Add '**O**' to power type
example: AE**O**, AT**O**...etc. [3]
VodeNODE
Add '**N**' to power type for Flexible 1 to 1 Power
Add '**ON**' to power type for Optimized Power
example: AE**N**, AT**N**, AE**ON**, AD**ON**...etc. [4]
ZZ Other (please specify)
*See **Power Guide** for driver features & limitations.*

Voltage
1 120v
2 120v-277v
X Not Yet Specified

Emergency Power
0 No Emergency Power
ZZ Emergency Power *(specify requirements)*

LED Type
Z Zipper Board

▸▸			▸▸
Lumen Output	Color Temperature	Optics	Sensors (Integrated with Luminaire)

Lumen Output
LO Low Output
SO Standard Output
HO High Output
ZZ Other (please specify)
*See **IES Files** page for details.*
*See **Power Guide** for driver features & limitations.*

Color Temperature
90+ CRI
27 2700K
30 3000K
35 3500K
40 4000K
RGBW 90+ CRI [7]
C279 RGB Color, 2700K
C309 RGB Color, 3000K
C359 RGB Color, 3500K
C409 RGB Color, 4000K
ZZ Tunable White Available
***See Guide** for details.*

Optics
S5 Square 3535, Critical Edge
S6 Square 3535, Diffuse
S9 Square 3535, Side Diffuse
SA Square 3535, Single Side Diffuse

Sensors (Integrated with Luminaire)
0 None
NLI nLight Air sensor
NWI nLight Wired sensor
LAI Lutron Athena sensor
LVI Lutron Vive sensor
WSI Wattstopper sensor
ECI Encelium SensiLUM sensor
ZZ Other (please specify) [5]

▸▸	
Finish	Options

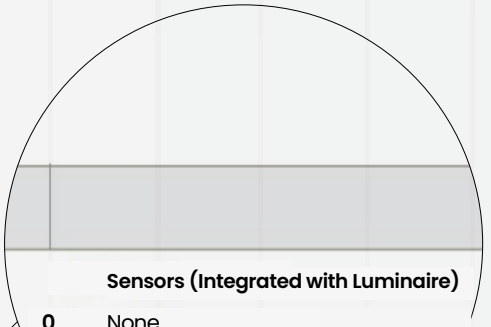
Finish
WH White
BL Black

Options
0 None
9 9' 18/3 Cord and Plug
LLLC Luminaire Level Lighting Controls
CPS Chicago Plenum Fixture Adapter & Power
CPA Chicago Plenum Fixture Adapter
CPP Chicago Plenum Power

NOTES & LIMITATIONS
[1] Mounting type available with Chicago Plenum.
[2] Custom modification available for Chicago Plenum. Contact factory.
[3] Optimized Power is not available with Hi-lume 1% EcoSystem (AHO) Power Type.
[4] VodeNODE enclosure is not available with ELV 1% 2-wire (AH2) Power Type.
[5] Sensors are available please contact Vode for more information.
[6] Lengths of 24" and shorter are not supported due to driver limitations. Daisy chaining multiple fixtures to achieve minimum load is permitted but may introduce installation complexity—consult factory for layout guidance.
[7] RGBW limited to a maximum of 60" for Standard and High Output.

Listed to UL standards for damp location by a Nationally Recognized Testing Laboratory (NRTL) recognized by OSHA. Certain limitations exist for each Certification. Contact factory for verification.

*Standard 5 Year Limited Warranty. See details **here**. Contact factory for options on Limited Warranties up to 20 years.*



Sensors (Integrated with Luminaire)

0 None
NLI Luminaire w/ integrated nLight Air sensor
NWI Luminaire w/ integrated nLight Wired sensor
LAI Luminaire w/ integrated Lutron Athena sensor
LVI Luminaire w/ integrated Lutron Vive sensor
WSI Luminaire w/ integrated Legrand Wattstopper sensor
ECI Luminaire w/ integrated Encelium SensiLUM sensor
ZZ Other (please specify)

Specification of Products with Sensor in Canopy

specification.

Build Your Specification

107-BX	01			CC	
System & Rail Type	Single/Double Rail	System Length	Rail Length	Mounting	Cable Length

System & Rail Type
107-BX BoxRail

Single/Double Rail
01 Single Rail

System Length
Specify overall system length in ft/in or M/mm.
Corner and Shapes Available ***See Guide*** *for details.*

Rail Length
24 24" (610mm)
36 36" (914mm)
48 48" (1219mm)
60 60" (1524mm)
72 72" (1829mm)
ZZ Other rail length or layout (please specify)
See ***Rail Length Chart*** *for more details.*
Custom lengths may result in light gaps on the fixture. See Rail Length Chart for more details.

Mounting
CC Ceiling Cable

Cable Length
Field adjustable.
48 48" cable (1219mm)
96 96" cable (2438mm)
ZZ Other (please specify)

Power Location	Power Type	Voltage	Emergency Power

Power Location
Integral Power
IP Integral Power
Remote Power
Specify mounting and harness length code example: **2R25, 4R25**...etc.

Mounting Option
2R Small Round Canopy
4R Large Round Canopy

Wire Harness
10 10' (3.048m) Wire Harness
25 25' (7.62m) Wire Harness
50 50' (15.24m) Wire Harness
75 75' (22.86m) Wire Harness
100 100' (30.48m) Wire Harness

Power Type
Flexible 1 to 1 Power
AE 0-10v, 1.0% Dimming
AT 0-10v, 0.1% Dimming
AD DALI, 0.1% Dimming
AX DMX, 100-0% Dimming
AH Hi-lume 1% EcoSystem, Soft On / Fade to Black Technology, LDE[1]
AH2 ELV 1% 2-wire (Forward and Reverse Phase)[7]

Optimized Power
Add '**O**' to power type example: AE**O**, AT**O**...etc. [1]

VodeNODE
Add '**N**' to power type for Flexible 1 to 1 Power
Add '**ON**' to power type for Optimized Power example: AE**N**, AT**N**, AE**ON**, AD**ON**...etc. [2]
ZZ Other (please specify)
See ***Power Guide*** *for driver features & limitations.*

Voltage
1 120V
2 120V - 277V
X Not Yet Specified

Emergency Power
0 No Emergency Power
ZZ Emergency Power *(specify requirements)*

Z				
LED Type	Lumen Output	Color Temperature	Optics	Sensors [6]

LED Type
Z Zipper Board

Lumen Output
LO Low Output
SO Standard Output
HO High Output
ZZ Other (please specify)
See ***IES Files*** *page for details.*
See ***Power Guide*** *for driver features & limitations.*

Color Temperature
90+ CRI
27 2700K
30 3000K
35 3500K
40 4000K
ZZ Tunable White Available ***See Guide*** for details.

Optics
Zipper Board (Z)
1 Diffuse
WB White Baffle
BB Black Baffle
G1 120° Batwing
G2 120° FlyWing
S1 40° Symmetric
S2 60° Symmetric
A1 85° Asymmetric

Sensors [6]
0 None
WSC Canopy with integrated Legrand Wattstopper sensor [5]
LAC Canopy with integrated Lutron Athena sensor [5]
ZZ Other (please specify)

Finish	Options

Finish
AL Clear Anodized
WH White Powder Coat
BL Black Anodized
ZZ Other (please specify)

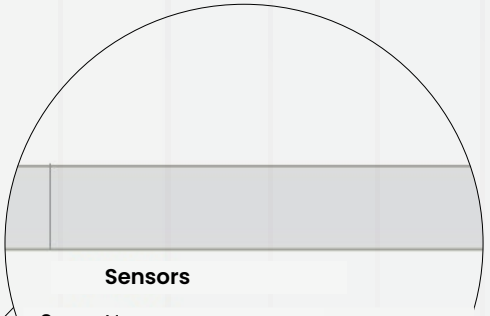
Options
0 None
9 9' 18/3 Cord and Plug
CPP Chicago Plenum Power
LLLC Luminaire Level Lighting Controls

Standard 5 Year Limited Warranty. See details ***here****. Contact factory for options on Limited Warranties up to 20 years.*

NOTES & LIMITATIONS

[1] *Optimized Power is not available with Hi-lume 1% EcoSystem (AHO) Power Type.*
[2] *VodeNODE enclosure is not available with ELV 1% 2-wire (AH2) Power Type.*
[3] *9' 18/3 Cord and Plug only available with Remote Power (RP).*
[4] *Chicago Plenum not applicable for wall arm mounting.*
[5] *Rotating fixture as an uplight will interfere with sensor operation.*
[6] *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. For general information about network lighting controls, consult the DesignLights Consortium® (DLC)* ***Networked Lighting Control Qualified Product List****.*
[7] *Lengths of 24" and shorter are not supported due to driver limitations. Daisy chaining multiple fixtures to achieve minimum load is permitted but may introduce installation complexity—consult factory for layout guidance.*

Listed to UL standards for damp location by a Nationally Recognized Testing Laboratory (NRTL) recognized by OSHA. Certain limitations exist for each Certification. Contact factory for verification.



Sensors

0 None
WSC Canopy with integrated Legrand Wattstopper sensor
LAC Canopy with integrated Lutron Athena sensor
ZZ Other (please specify)

Driver Compatibility

Matrix

Type	nLight Air	nLight Wired	Lutron Vive	Lutron Athena	Legrand Wattstopper	Encelium SensiLUM
AE	Yes	Yes [1]	X	Yes	Yes	Yes
AT	Yes [2]	Yes [2]	X	Yes [2]	Yes [2]	Yes [2]
AD	Yes	Yes	Yes	Yes	X	X
AX	X	X	X	X	X	X
AH	X	X	Yes [2]	Yes	X	X
AH2	X	X	X	X	X	X
DALI 1%	Yes	Yes	Yes	Yes	Yes	Yes

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

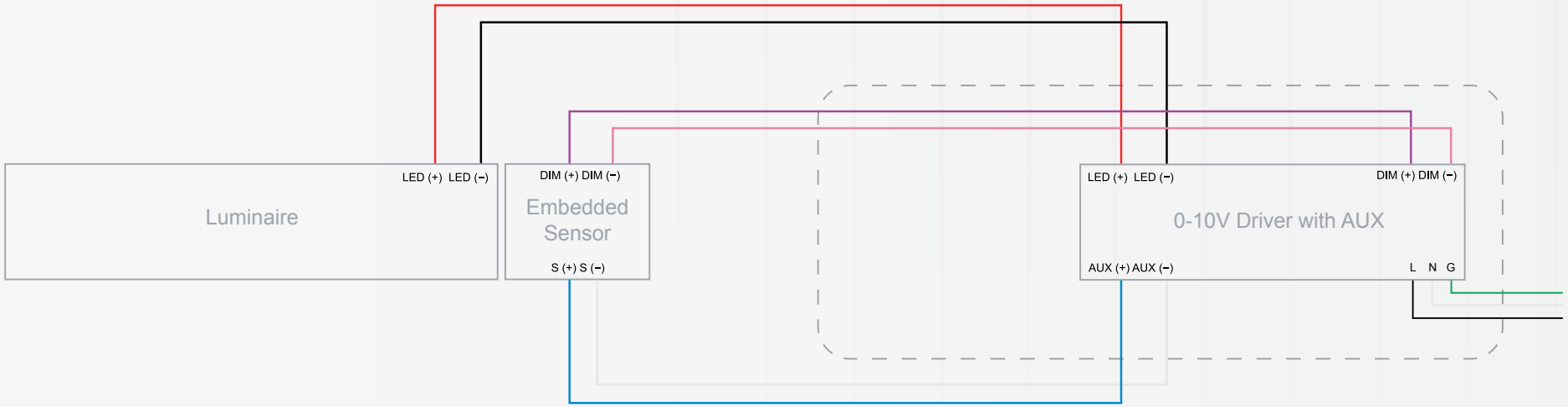
Encelium SensiLUM

Wiring Diagrams

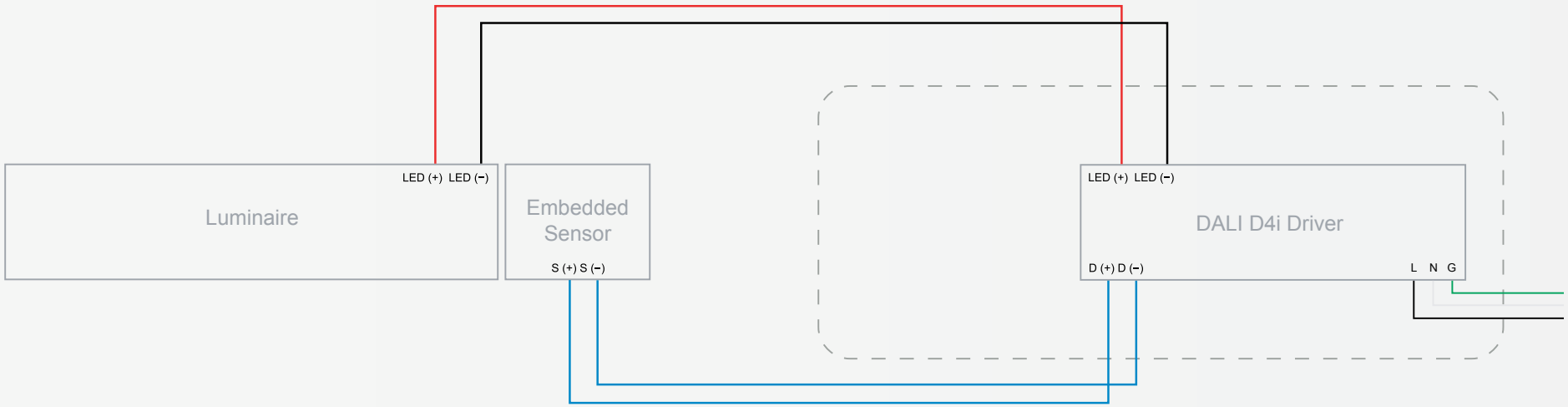
vodeCONNECT™

ENCELIUM

A 0-10V driver with AUX, no control unit



B DALI D4i driver without control unit



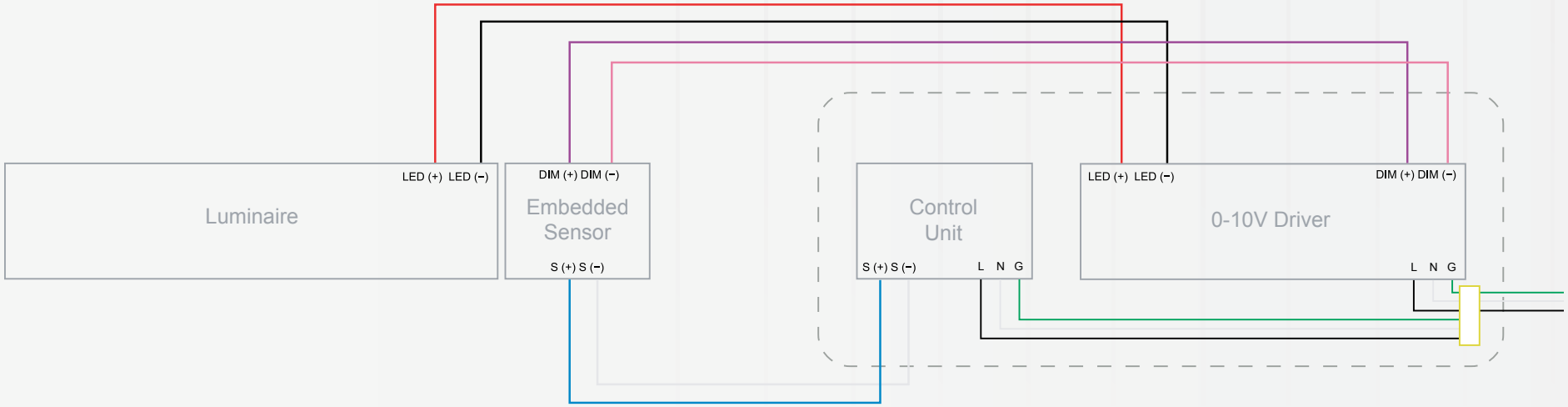
Encelium SensiLUM

Wiring Diagrams

vodeCONNECT™

ENCELIUM

C 0-10V driver with control unit



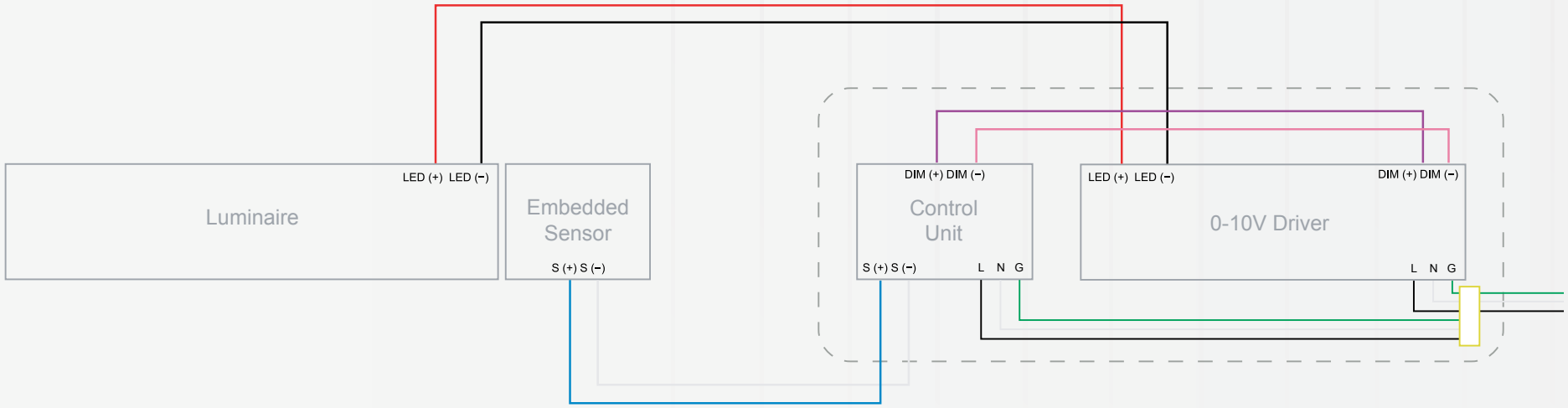
Legrand Wattstopper

Wiring Diagrams

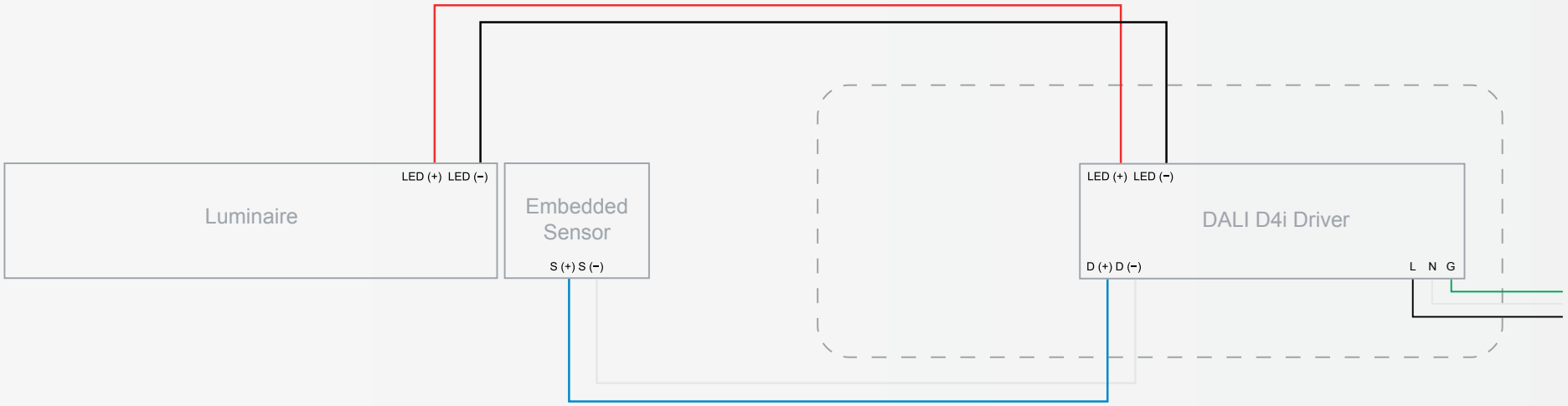
vodeCONNECT™

legrand®

A 0-10V driver with control unit



B DALI D4i driver without control unit

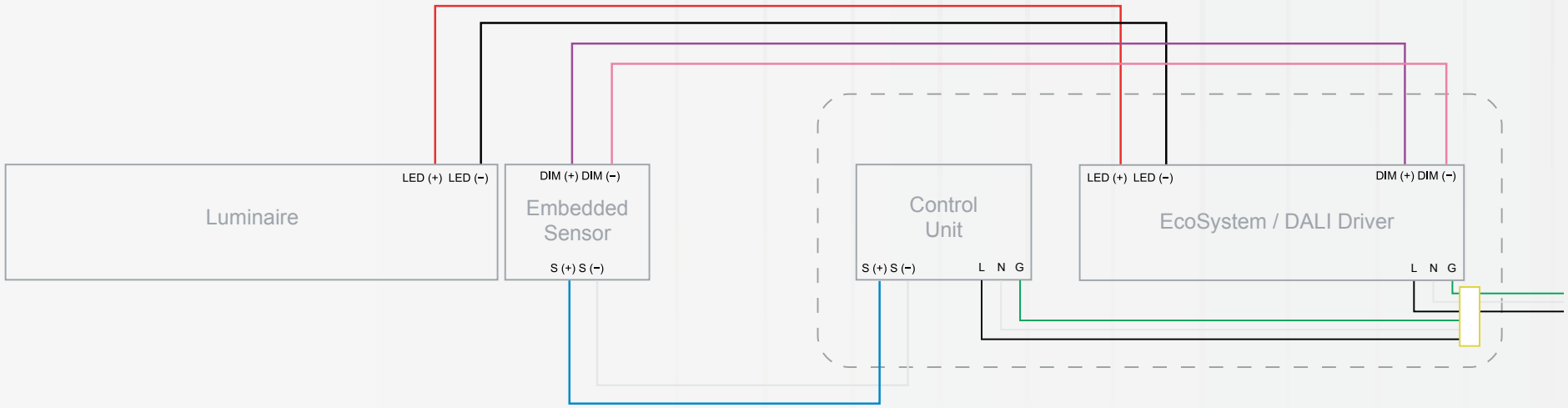


Lutron Athena

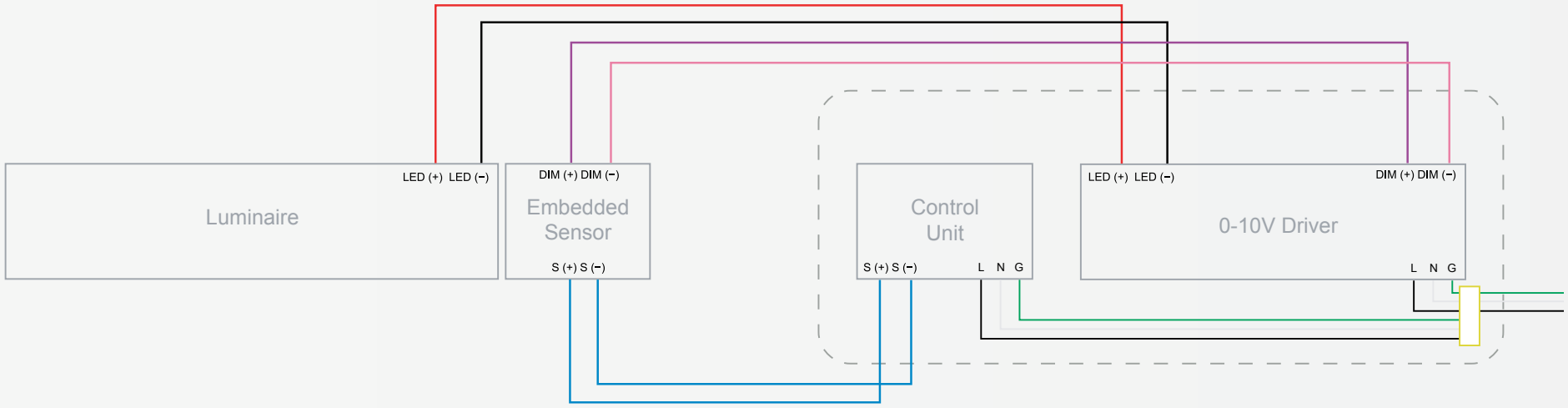
Wiring Diagram

LUTRON®

A Lutron Ecosystem or DALI driver with control unit



B 0-10V driver with control unit



Lutron Athena

Wiring Diagrams

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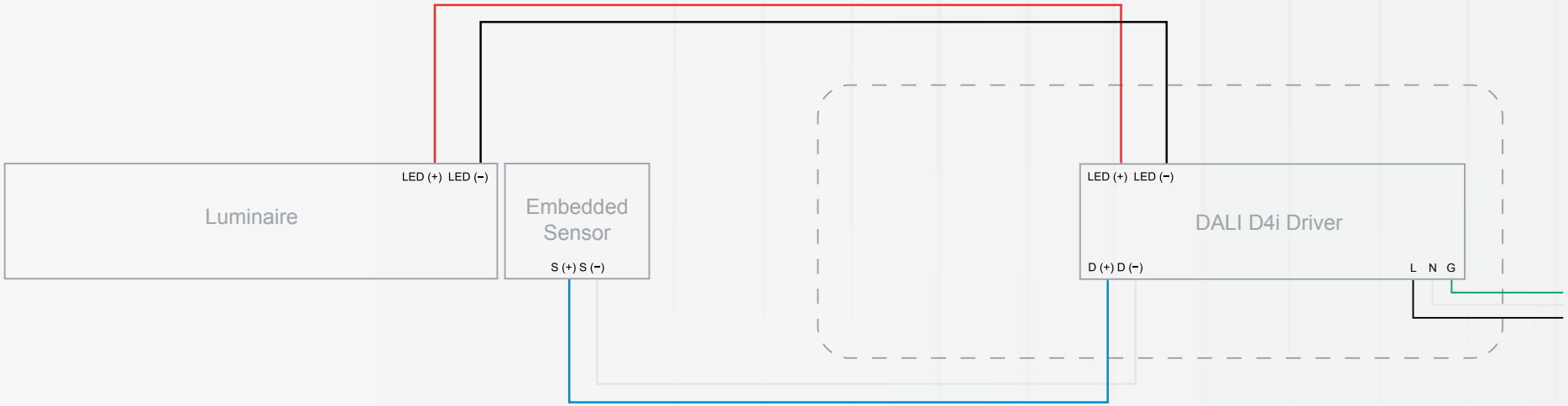
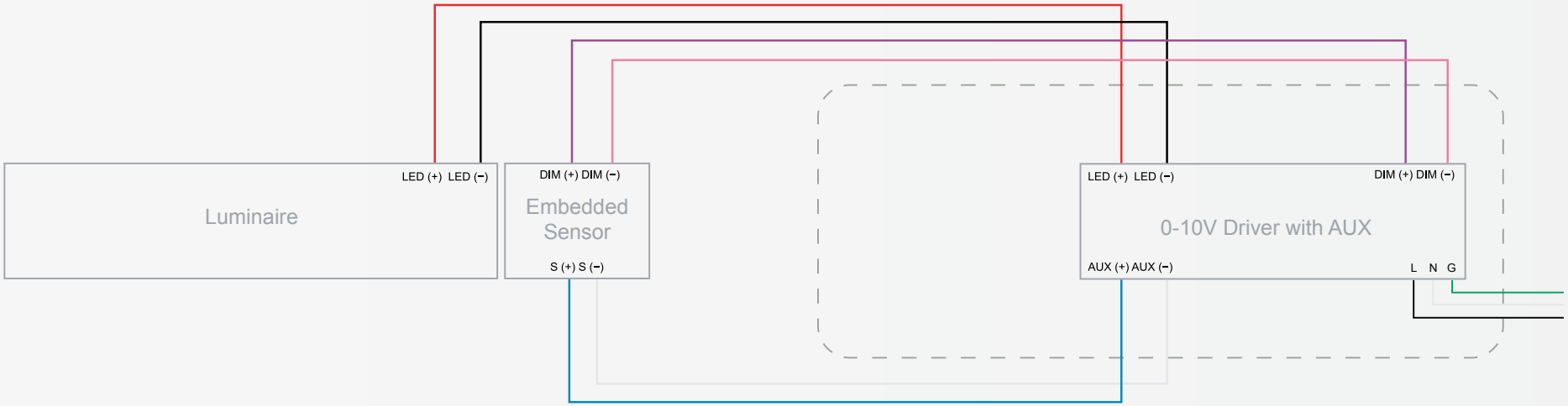
LUTRON®

C DALI D4i driver without control unit



D 0-10V driver with AUX, no control unit

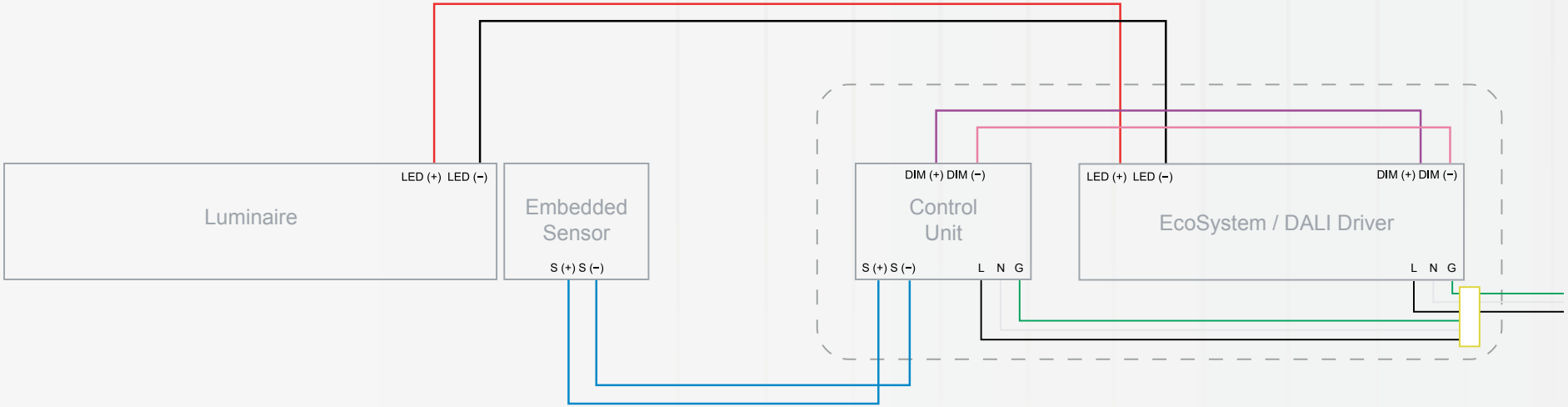


Lutron Vive

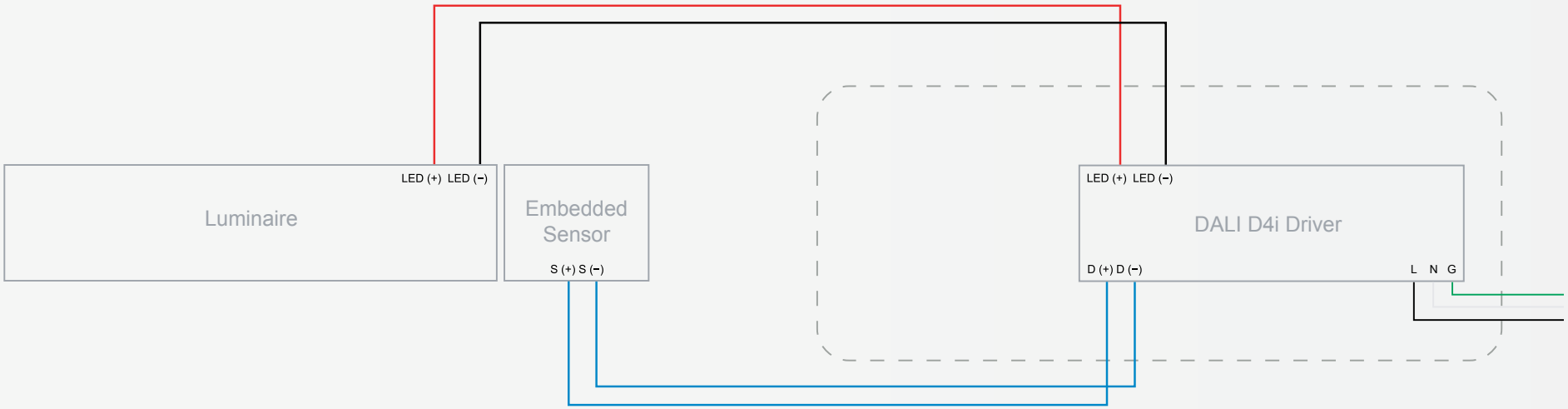
Wiring Diagram

LUTRON®

A Lutron Ecosystem or DALI driver with control unit



B DALI D4i driver without control unit



nLight Air

Wiring Diagrams

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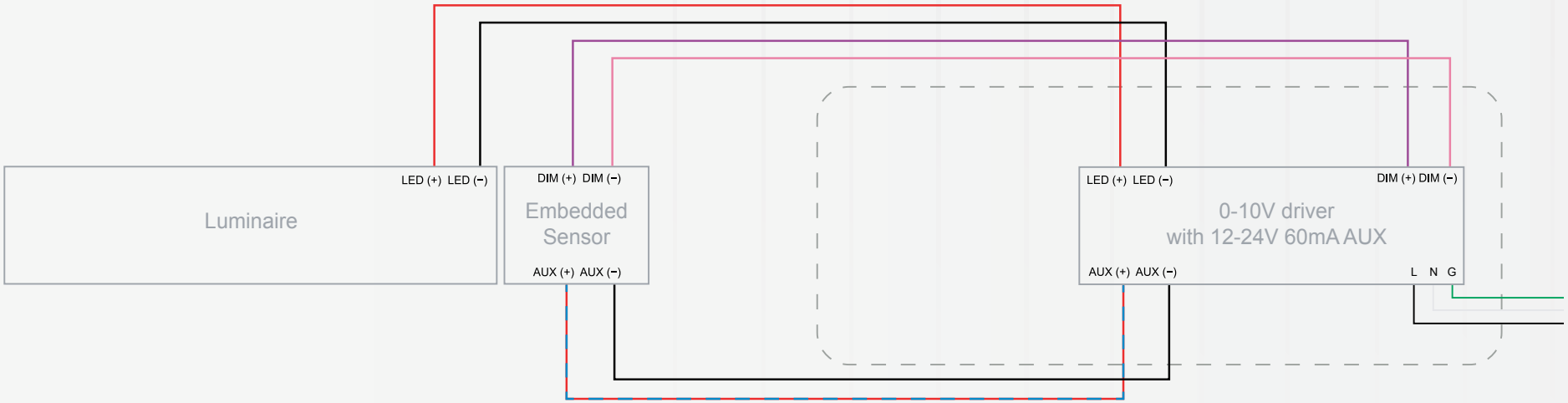
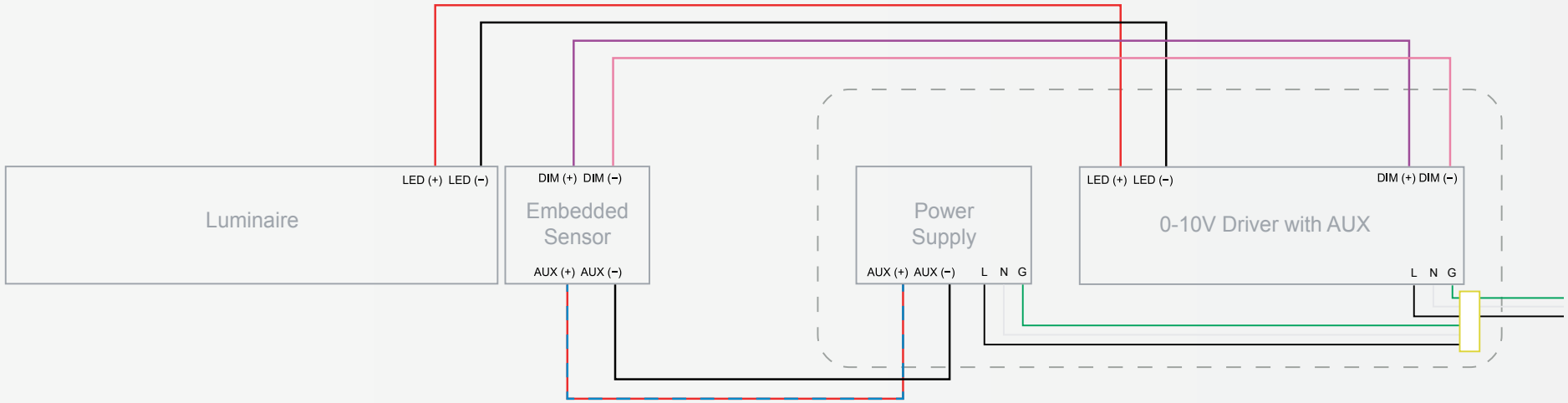
nLIGHT

A 0-10V driver with AUX, no control unit



B 0-10V driver with power supply



nLight Wired

Wiring Diagrams

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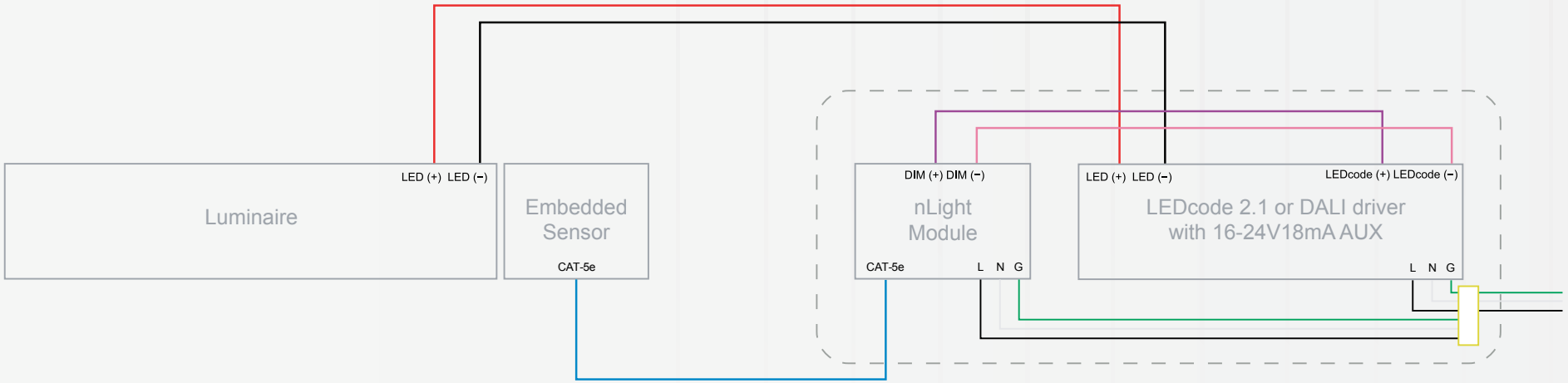
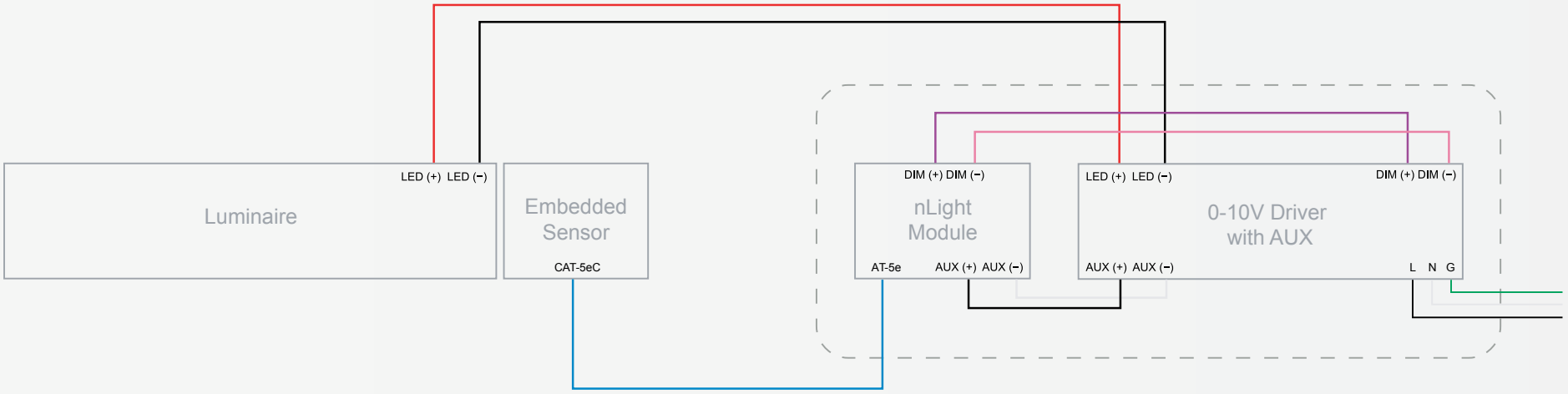
nLIGHT

A LEDcode intensity dimming powered by driver AUX



B 0-10V intensity dimming powered by driver AUX



nLight Wired

Wiring Diagrams

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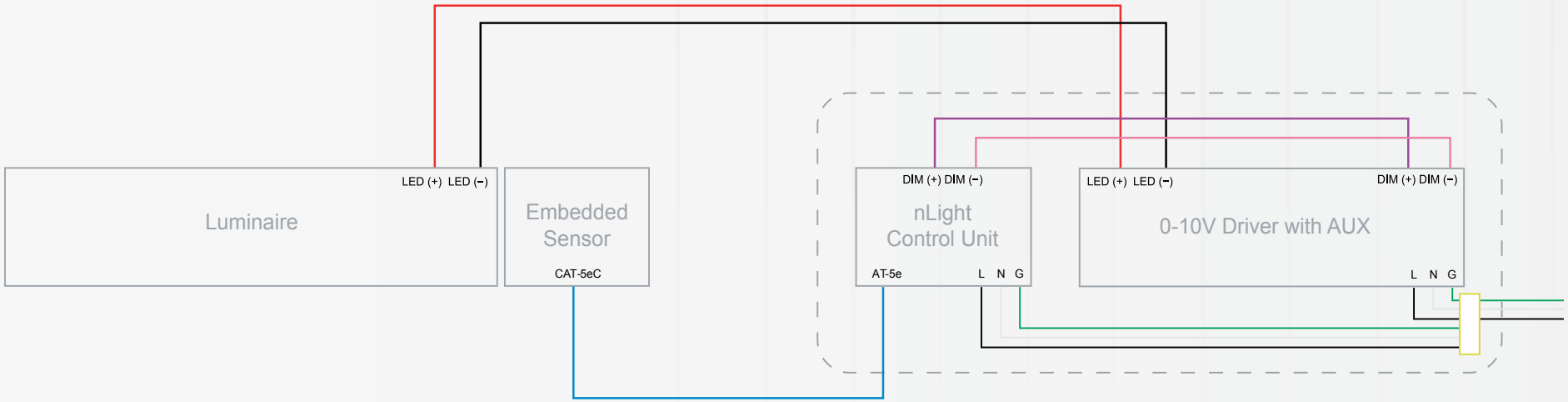
nLIGHT

C 0-10V driver with control unit



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:
  - 1
- Sensor input power:
  - < 1W
- Cable connection:
  - 4 conductor wire harness

2. Legrand Wattstopper

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

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:
  - 60ft (18.3m) with 18 AWG wire
- Max drivers per sensor:
  - 2 with Optitronic self-power
  - 4 with power pack
- Max sensors per driver:
  - 1
- Sensor input power:
  - < 1W
- 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
  - < 1W
- Cable connection
  - Cat 5e cable

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