DEM Solutions Guide OEM Sales

June 2021



nLight Wired Compatible OEM Program Overview



nLight Wired Compatible OEM Program Overview

- This program is designed to allow third party fixture manufactures to develop nLight "compatible" fixtures that can be integrated into an nLight control network.
- It supports the implementation of nLight Wired in applications where Acuity Brands lighting fixtures are not specified but the controls system is being managed by an Acuity Agent.





 Acuity OEM Sales supports the OEM Lighting Manufacturer with the limited product family and provides the Design/Validate/Produce (DVP) documentation as specified from nLight engineering support.

Validate



- nLight engineering support will provide Spec Sheets, Installation Guides and CAD documentation for OEM customers to Design-In and Validate the use of these devices in their fixtures.
- Validation and Production/End of Line testing will be done by using an nPODM wall control as specified in the DVP documentation.



- Field commissioning issues will be first checked against the DVP for compliance by the OEM Manufacturer of the Lighting Fixture.
- Fixtures in DVP compliance but still experiencing commissioning issues will be supported by Acuity Brands/ nLight engineering support.

Produce



Product Overview

- nIO EZDXA
- nIO EZDCL CCT
- nIO EZ PH
- nCMB
- nHMB 10
- nPS 80 EZ
- nPP16
- nEPS 60
- nES 7
- nES ADCX
- nPODMA
- Vertex





nLight Wired Solutions Document Overview



Solutions Guide Overview

- This document is designed to provide validated solutions of nLight Wired components along with the interoperable products that are available to provide the needed features in an OEM lighting fixture.
- It supports the implementation of nLight Wired nIO controls and Control Power Packs in conjunction with eldoLED Drivers, nLight and SensorSwitch Sensors and IOTA Emergency power supply devices.
- These solutions are designed to be implemented with the use of the OEM DVP documents for nLight Wired products along with Datasheets and Design Guides for the interoperable products within the solutions.
- Not every possible Solution can be defined, but this guide can provide examples which could be applied to other Driver and Sensor adaptations to achieve the needed features for your fixture.
- We encourage Product Managers and Engineers to follow up with our OEM Technical Sales Managers with questions and comments.



Interoperable Products

eldoLED Drivers

- Important Note: Check the latest eldoLED Product Reference Guide for available drivers in your application. Not every driver option is available for each solution.
- LEDcode 2 drivers
 - Used with nLight Digital nIO Controls, tuned for use with eldoLED/LEDcode
- LEDcode 2.1 drivers
 - Used when you need to have 2 devices on the LEDcode bus (nIO + Vertex Sensor)
- DALI 2 drivers
 - Used with nLight Digital nIO Controls and LEDcode Cross solutions
- 0-10V drivers
 - Used with nLight 0-10V output devices

Sensor Switch Vertex Sensors:

Used with Digital nIO Controls and LEDcode 2.1 Drivers

3rd Party DALI Power Supplies

- For use with LEDcode Cross. Recommended option:
 - *258T8S 704-00052-001 LUTRON DFC-OEM-DBI DALI

Emergency Devices:

IOTA Emergency Drivers, Inverters and Switchgear



eldol

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mastering light

LIGHT Wired OEM Solutions Guide

A note on nLight Bus Power

- The following nLight devices are a 3mA Sink on the nLight Bus.
- Specifications for the nLight Control System must include calculations to include enough bus power for the amount of fixtures using these devices.
- nIO EZDCL CCT
- nIO EZDCL CCT ER
- nIO EZDCL ER
- nIO EZ PH ER
- nCMB
- nHMB 10
- nES 7
- nES ADCX





nLight Wired Decision Tree and Solutions Matrix

Decision Tree: Which Control or Power Pack should I use?



How to use the Solution Matrix and navigate the pages



Solution Matrix for nIO



M







	<u>nIO EZDXA</u>	nIO EZDCL ER	<u>nIO EZDCL CCT</u>	nIO EZDCL CCT <u>ER</u>	<u>nlO</u> EZ PH	<u>nIO</u> EZ PH ER
Intensity Dimming – Standard up/down	X	X			<u>X</u>	<u>X</u>
Dynamic Dimming – Intensity & CCT	DTW	DTW	X	X	DTW	DTW
eldoLED LEDcode Drivers	X	X				
eldoLED DALI Drivers	X	X	X	X		
eldoLED 0-10V Drivers					X	X
Multi-Driver fixture (LEDcode Cross or 0-10V)	X	X	X	X	X	X
Multi-Fixture Solution (LEDcode Cross or 0-10V)	X		X			
IOTA CP Battery Backup EM Driver	X		X		X	
With nES7 Embedded Sensor	X	X	X	X	X	X
With nES ADCX Embedded Sensor	×	×	×	×	X	X
With Vertex Embedded Sensor	X	X				
With nCMB Integrated Sensor	X	X			X	X
With nHMB 10 Integrated Sensor	X	X			X	X

Solution Matrix for Power Pack Controls

		İ			
	<u>nPS 80 EZ</u>	<u>nPS 80 EZ ER</u>	<u>nPP16</u>	<u>nPP16 ER</u>	<u>nEPS 60</u>
Intensity Dimming – Standard up/down	X	X	<u>×</u>	<u>×</u>	X
Dynamic Dimming – Intensity & CCT	DTW	DTW	DTW	<u>DTW</u>	DTW
eldoLED 0-10V Drivers	X	X	X	X	X
With nES7 Embedded Sensor	X	X	X	X	X
With nES ADCX Embedded Sensor	X	×	X	X	×
With nCMB Integrated Sensor	X	×	X	X	×
With nHMB 10 Integrated Sensor	X	X	X	X	X



nIO EZDXA Solutions



nIO EZDXA

Solution: nIO EZDXA + LEDcode 2 Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/LEDcode 2 and AUX Power
- Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)

AUX DC +

AUX DC

LEDcode+

LEDcode-

LEDcode+

LEDcode-

Π

• Supplies 10mA of nLight bus power

nIO

EZDXA

CAT-5e CAT-5e IN OUT







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nIO EZDXA

Solution: nIO EZDXA + DALI Driver

- Dimming Type: Dynamic Dimming Dim to Warm
 - Requires two different CCT LED Light Engines
- Driver Type: eldoLED SOLOdrive w/DALI and AUX with DTW Dimming from LightShape
 - Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)

nIO

EZDXA

CAT-5e CAT-5e

OUT

Supplies 10mA of nLight bus pov



Industrial High Bay

Industrial Low Bay

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Industrial Wall Pack









We recommend using one Medium Aux driver spec for all drivers in the fixture. This simplifies assembly and inventory management.

If you cannot find a Secondary Driver with a Medium power AUX for your application – See the next page for an alternative Solution

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nIO EZDXA



Solution: nIO EZDXA + DALI Drivers on LEDcode Cross

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/DALI and AUX
 - Primary Driver: Requires a driver with AUX power for the nIO (16-24V, 18mA)
 - Secondary Driver(s): Do not require an AUX for the DALI bus power
- Up to 15 more secondary drivers can be added to the fixture
- DALI bus power provided by 3rd Party DALI Power Supply
- Supplies 10mA of nLight bus power









nIO EZDXA

Multi-Fixture Solution: nIO EZDXA + DALI Drivers on LEDcode Cross

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/DALI and AUX Power
 - Primary Driver: Requires a driver with minimum AUX power for the nIO (16-24V, 18mA)
 - First Secondary Driver: Requires driver with MED AUX power to drive the DALI bus (16V @ 100mA)
- Up to 15 more secondary fixtures can be added
- Secondary Drivers (after Fixture 2) do not require AUX power.
- Supplies 10mA of nLight bus power

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BACK

We recommend using one Medium Aux driver spec for drivers in all fixtures. This simplifies assembly and inventory management.

If you cannot find a Secondary Driver with a Medium power AUX for your application – See the next page for an alternative Solution





We recommend using one Fixed Aux (16-24V, 18mA) driver spec for all fixtures. This simplifies assembly and inventory management.

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Supplies 10mA of nLight bus power

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Solution: nIO EZDXA + DALI Driver + nES Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/DALI and AUX
 - Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)

AUX DC +

AUX DC -

LEDcode+

LEDcode-

LEDcode+

LEDcode-

nIO

EZDXA

CAT-50 CAT-50 IN OUT

- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture
- Supplies 7mA of nLight bus power
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to

provide two open CAT5 ports on the fixture



AUX +

AUX -

LEDcode/NTC +

LEDcode/NTC

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ECO/SOLOdrive

DALI

DALI

DALI +

DALI

w/AUX





Solution: nIO EZDXA + LEDcode 2.1 Driver + Vertex Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/LEDcode 2.1 and AUX Power
 - Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Sensor Type: SensorSwitch Vertex PIR/Photocell Sensor powered by LEDcode 2.1 bus
 - Panel mounts through fixture
- Supplies 10mA of nLight bus power









nIO EZDXA



Solution: nIO EZDXA + LEDcode 2 Driver + nCMB/nHMB Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/LEDcode 2 and AUX
 - Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- Supplies 7mA of nLight bus power



Industrial Wall Pack

CAT-5e CAT-5e

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nIO EZDCL ER Solutions





Solution: nIO EZDCL ER + LEDcode 2 Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/LEDcode 2
- nIO EZDCL ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled - fixture resumes at 100% output

nLight Bus is powered < by MAINS power

nIO

CAT-5e CAT-5e









Solution: nIO EZDCL ER + DALI Driver

- Dimming Type: Dynamic Dimming Dim to Warm
 - Requires two different CCT LED Light Engines
- Driver Type: eldoLED SOLOdrive DALI Driver with DTW Dimming from LightShape
- nIO EZDCL ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output









nIO EZDCL ER

Solution: nIO EZDCL ER + DALI Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive DALI Driver
- nIO EZDCL ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixtu



Do Not Use nIO Do Not Use EZDCL ER LEDcode+ LEDcode-DALI + LED output LEDcode+ eldoLED DALI -LED output -LEDcode-LEDcode/NTC ECO/SOLOdrive LEDcode/NTC CAT-5e CAT-5e DALI Ν EZDCL is powered by nLight Bus power **Scuity**Brands.**OEM**







Solution: nIO EZDCL ER + DALI Drivers on LEDcode Cross

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive DALI Driver
 - Primary Driver: Requires a driver with MED AUX power for the DALI Bus (16V, 100mA)
 - Secondary Driver: Does not require an AUX
- nIO EZDCL ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output

We recommend using one Medium Aux driver spec for all drivers in the fixture. This simplifies assembly and inventory management.







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Solution: nIO EZDCL ER + LEDcode 2.1 Driver + Vertex Sensor

by MAINS power

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/LEDcode 2.1
- Sensor Type: SensorSwitch Vertex PIR/Photocell Sensor powered by LEDcode 2.1 bus
 - Panel mounts through fixture
- nIO EZDCL ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output





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Solution: nIO EZDCL ER + LEDcode 2 Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/LEDcode 2
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- nIO EZDCL CCT and Sensor get power from the nLight Bus (6mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output

nLight Bus is powered







nIO EZDCL CCT Solutions



nIO EZDCL CCT

Solution: nIO EZDCL CCT + DALI Driver

- Dimming Type: Dynamic Dimming Tunable White
 - Requires 2 different CCT LED Light Engines
- Driver Type: eldoLED DUALdrive DALI Driver
- DUALdrive provides Tunable White with LightShape
- nIO EZDCL CCT gets power from the nLight Bus (3mA sink)

EZDCL is powered by nLight Bus power

 See COB Solutions for Recessed and Multi-Spot on Next Page





nIO EZDCL CCT 🔍

Solution: nIO EZDCL CCT + DALI Driver

- Continued from previous page
- COB Solutions for Recessed and Multi-Spot
- Requires a Tunable White COB with 2 circuits of different CCT LED










1

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Solution: nIO EZDCL CCT + DALI Driver + **IOTA ILB-CP EM Driver**

- Dimming Type: Dynamic Dimming Tunable White
 - Requires 2 different CCT LED Light Engines
- Driver Type: eldoLED DUALdrive DALI Driver
- DUALdrive provides Tunable White with LightShape
- nIO EZDCL CCT gets power from the nLight Bus (3mA sink)
- EM Battery Backup Driver: IOTA ILB-CP supplies constant power for 90 minutes
- Fixture is connected to MAINS power supply panel
- Solution is UL 924 compliant
- When power is lost, dimming commands are canceled - fixture resumes at 100% output

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nIO EZDCL CCT

Solution: nIO EZDCL CCT + DALI Drivers w/LEDcode Cross (Multi-Driver Fixture)

- Dimming Type: Dynamic Dimming
 Tunable White
 - Requires 2 different CCT LED Light Engines
- Driver Type: eldoLED DUALdrive DALI Drivers
- DUALdrive provides Tunable White with LightShape
- nIO EZDCL CCT gets power from the nLight Bus (3mA sink)
- Up to 15 more secondary drivers can be added to the fixture
- DALI bus power provided by 3rd Party DALI Power Supply





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nIO EZDCL CCT

Solution: nIO EZDCL CCT + DALI Driver + nES Sensor

- Dimming Type: Dynamic Dimming Tunable White
 - Requires two different CCT LED Light Engines
- Driver Type: eldoLED DUALdrive DALI Driver
 - DUALdrive provides Tunable White with LightShape

by nLight Bus power

- nIO EZDCL CCT and Sensor get power from the nLight Bus (6mA sink)
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture or canopy
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to provide two open CAT5 ports on the fixture







nIO EZDCL CCT ER Solutions

Commercial Commercial Commercial Troffer **nIO EZDCL CCT ER Commercial Linear** Recessed Multi Spot Solution: nIO EZDCL CCT ER + DALI Driver Architectural Sconce Dimming Type: Dynamic Dimming – Tunable Architectural Architectural Recessed Architectura Linear Multi Spot Requires two different CCT LED Light WID Driver Type: eldoLED – DUALdrive DALI Driver Architectural Pendant DUALdrive provides Tunable White with LightShape nIO EZDCL CCT ER gets power from the nLight Bus (3mA sink) Fixture is connected to EM power supply panel Solution is UL 924 compliant When nLight bus power is lost, dimming Do Not Use LED output 1 nIO eldoLED commands are canceled - fixture resumes at Do Not Use LED output 1 LEDcode-DUALdrive æ EZDCL LED output 2 + LEDcode-DALI DALI + LED output 2 -LEDcode CCT ER DALL I EDcode-Tunable White LEDcode/NTC -DALL LEDcode/NTC -🔆 LightShape See COB Solutions for Recessed and Multi-CAT-5e CAT-5e OUT Spot on the Next Page EZDCL is powered by

CuityBrands.OEM



100% output

nLight Bus power

White

Engines

nIO EZDCL CCT ER

Solution: nIO EZDCL CCT ER + DALI Driver

- Continued from previous page
- COB Solutions for Recessed, Multi-Spot and Wall fixtures
- Requires Tunable White COB with 2 different CCT LED circuits







nIO EZDCL CCT ER



nLight Bus power

Solution: nIO EZDCL CCT ER + DALI Drivers w/LEDcode Cross (Multi-Driver Fixture)

- Dimming Type: Dynamic Dimming Tunable White
 - Requires two different CCT LED Light Engines
- Driver Type: eldoLED DUALdrive DALI Drivers
 - DUALdrive provides Tunable White with LightShape
- nIO EZDCL CCT gets power from the nLight Bus (3mA sink)
- Up to 15 more secondary drivers can be added to the fixture
- DALI bus power provided by 3rd Party DALI Power Supply
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output











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nIO EZ PH Solutions



nIO EZ PH 🔍

Solution: nIO EZ PH + 0-10V Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming and AUX Power
- Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Supplies 10mA of nLight bus power
- See COB Solutions for Recessed and Multi-Spot on Next Page

nIO EZPH

CAT-5e CAT-5e

OUT

Earth Ground

0-10V

0-10V -AUX DC+







nIO EZ PH 📢

Solution: nIO EZ PH + 0-10V Driver

- Continued from previous page
- COB Solutions for Recessed, Multi-Spot and Wall Pack







nIO EZ PH 📢

Solution: nIO EZ PH + 0-10V Driver + IOTA ILB-CP EM Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming and AUX Power
- Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Supplies 10mA of nLight bus power
- EM Battery Backup Driver: IOTA ILB-CP supplies constant power for 90 minutes
- Fixture is connected to MAINS power supply panel
- Solution is UL 924 compliant
- When power is lost, dimming commands are canceled – fixture resumes at 100% output







nIO EZ PH 🔍

Solution: nIO EZ PH + eldoLED 0-10V Driver

- Dimming Type: Dynamic Dimming Dim to Warm
 - Requires two different CCT LED Light Engines
- Driver Type: eldoLED SOLOdrive w/0-10V DTW Dimming from LightShape and AUX Power
- Driver Aux: Requires AUX power for the nIO (16-24V, 18mA) from the eldoLED driver or a 3rd party driver.
- Supplies 10mA of nLight bus power









nIO EZ PH 📢

Solution: nIO EZ PH + 0-10V Multi-Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming and AUX Power
- Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Multi-Driver Fixture Secondary drivers do not require an AUX and communicate with Primary Driver on 0-10V Bus
- Supplies 10mA of nLight bus power

We recommend using one Fixed Aux (16-24V, 18mA) driver spec for all drivers in the fixture. This simplifies assembly and inventory management.

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Commercial Linear

Industrial High Bay

Industrial Low Bay

Commercial Troffer

nIO EZ PH 🔍

Solution: nIO EZ PH + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming and AUX Power
- Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture
- Supplies 7mA of nLight bus power
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to provide two open CAT5 ports on the fixture



Industrial Low Bay

Industrial High Bay

Industrial Wall Pack

AcuityBrands.OEM

Commercial Multi Spot





nIO EZ PH 📢

Solution: nIO EZ PH + 0-10V Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming and AUX Power
- Driver Aux: Requires a driver with AUX power for the nIO (16-24V, 18mA)
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- Supplies 7mA of nLight bus power









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nIO EZ PH ER Solutions





Solution: nIO EZ PH ER + 0-10V Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- nIO EZ PH ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output













Solution: nIO EZ PH ER + eldoLED 0-10V Driver

- Dimming Type: Dynamic Dimming Dim to Warm
 - Requires two different CCT LED Light Engines
- Driver Type: eldoLED SOLOdrive w/0-10V DTW Dimming from LightShape
- nIO EZ PH ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output



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Solution: nIO EZ PH ER + 0-10V Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- nIO EZ PH ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output











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Solution: nIO EZ PH ER + 0-10V Multi-Driver

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- nIO EZ PH ER gets power from the nLight Bus (3mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled - fixture resumes at 100% output









nIO EZ PH ER 📢

Solution: nIO EZ PH ER + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture or canopy
- nIO EZ PH ER and Sensor get power from the nLight Bus (6mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to

provide two open CAT5 ports on the fixture



















Solution: nIO EZ PH ER + 0-10V Driver + nCMB / HMB Sensor

- Dimming Type: Intensity Dimming
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- nIO EZ PH ER and Sensor get power from the nLight Bus (6mA sink)
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- nLight Bus is powered ← by MAINS power
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output















nPS 80 EZ Solutions

Solution: nPS 80 EZ Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPS 80 EZ Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

0-10V - GRY

0-10V + VIO

Neutral WHT

120VAC IN BLK Earth Ground GND nPS 80 EZ

277VAC IN

CAT-50 OUT

Driver Type: eldoLED – ECO/SOLOdrive w/0-10V Dimming

CAT-56

- Requires a Dim to Off driver
- Best solution when a nIO won't fit in fixture



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Solution: nPS 80 EZ Power Pack + eldoLED 0-10V **DTW Driver**

- Dimming Type: Dynamic Dimming Dim to Warm (DTW)
 - Requires a Tunable White COB with 2 circuits of different CCT LED
- nPS 80 EZ Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED SOLOdrive w/0-10V DTW Dimming with LightShape
- Best solution when a nIO won't fit in fixture











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Solution: nPS 80 EZ Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPS 80 EZ Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

CAT-5e

- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
 - Requires a Dim to Off driver
- Best solution when a nIO won't fit in fixture





Solution: nPS 80 EZ Power Pack + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- nPS 80 EZ Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

CAT5-Y-J1

- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
 - Requires a Dim to Off driver
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture or canopy
- Best solution when a nIO won't fit in fixture
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to

provide two open CAT5 ports on the fixture



Commercia

Recessed

Commercial Multi Spot

Commercial Linear

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Solution: nPS 80 EZ Power Pack + 0-10V Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- nPS 80 EZ Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated

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- Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
 - Requires a Dim to Off driver
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- Best solution when a nIO won't fit in fixture









nPS 80 EZ ER Solutions





Solution: nPS 80 EZ ER Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPS 80 EZ ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
 - Requires a Dim to Off driver
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output



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Solution: nPS 80 EZ ER Power Pack + eldoLED 0-10V DTW Driver

- Dimming Type: Dynamic Dimming DTW
 - Requires a Tunable White COB with 2 circuits of different CCT LED
- nPS 80 EZ ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED SOLOdrive w/0-10V DTW Dimming with LightShape
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant

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 When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output







Solution: nPS 80 EZ ER Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPS 80 EZ ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
 - Requires a Dim to Off driver
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output





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Solution: nPS 80 EZ ER Power Pack + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- nPS 80 EZ ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture or canopy
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost:
 - Dimming commands are canceled
 - Fixture resumes at 100% output
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to

Page 71 provide two open CAT5 ports on the fixture

BACK





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nPS 80 EZ ER

Solution: nPS 80 EZ ER Power Pack + 0-10V Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- nPS 80 EZ ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage powered
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output










nPP 16 Solutions

GHT Wired OEM Solutions Guide

nPP16

Solution: nPP16 Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPP16 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

 $C\Delta T-5$

Driver Type: eldoLED – ECO/SOLOdrive w/0-10V Dimming



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nPP16

Solution: nPP16 Power Pack + eldoLED 0-10V DTW Driver

- Dimming Type: Dynamic Dimming DTW
 - Requires a Tunable White COB with 2 circuits of different CCT LED
- nPP16 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED SOLOdrive w/0-10V DTW Dimming with LightShape



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GHT Wired OEM Solutions Guide

nPP16

Solution: nPP16 Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPP16 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming





nPP16

Solution: nPP16 Power Pack + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- nPP16 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

CAT5-Y-J1

Splitter

- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture or canopy
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to provide two open CAT5 ports on the fixture



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nPP16

Solution: nPP16 Power Pack + 0-10V Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- nPP16 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required







nPP 16 ER Solutions





Solution: nPP16 ER Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPP16 ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

nPP16 ER

- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output







Solution: nPP16 ER Power Pack + 0-10V Driver

- Dimming Type: Dynamic Dimming DTW
 - Requires a Tunable White COB with 2 circuits of different CCT LED
- nPP16 ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED SOLOdrive w/0-10V DTW Dimming with LightShape
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled fixture resumes at 100% output









Solution: nPP16 ER Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nPP16 ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

nPP16 ER

- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled – fixture resumes at 100% output









Solution: nPP16 ER Power Pack + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- nPP16 ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port

CAT5-Y-J1

Splitter

- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nES7 or nES ADCX
 - Panel mounts through fixture or canopy
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost:
 - Dimming commands are canceled Fixture resumes at 100% output
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to provide two open CAT5 ports on the fixture







Solution: nPP16 ER Power Pack + 0-10V Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- nPP16 ER Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Self-Contained Relay Switches Line Voltage Load
 - Plenum Rated
 - Supplies 40mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required
- Fixture is connected to EM power supply panel
- Solution is UL 924 compliant
- When nLight bus power is lost, dimming commands are canceled
- fixture resumes at 100% output Page 84

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nEPS 60 Solutions

LIGHT Wired OEM Solutions Guide

nEPS 60

Solution: nPP16 Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nEPS 60 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage power requires Dim to Off Driver
 - Embedded version mounts inside fixture on mounting studs
 - Attached version mounts to ¹/₂" knockout
 - Plenum Rated
 - RJ45 connections are on ends of the nEPS 60, not through mounting nipple.
 - Proper wire management is required
 - Supplies 30mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming





nEPS 60

Solution: nPP16 Power Pack + eldoLED 0-10V DTW Driver

- Dimming Type: Dynamic Dimming DTW
 - Requires two different CCT LED Light Engines
- nEPS 60 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage power requires Dim to Off Driver
 - Embedded version mounts inside fixture on mounting studs
 - Attached version mounts to ¹/₂" knockout
 - Plenum Rated
 - RJ45 connections are on ends of the nEPS 60, not through mounting nipple.
 - Proper wire management is required
 - Supplies 30mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED SOLOdrive w/0-10V Dimming with LightShape





LIGHT Wired OEM Solutions Guide

nEPS 60

Solution: nPP16 Power Pack + 0-10V Driver

- Dimming Type: Intensity Dimming
- nEPS 60 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage power requires Dim to Off Driver
 - Embedded version mounts inside fixture on mounting studs
 - Attached version mounts to ¹/₂" knockout
 - Plenum Rated
 - RJ45 connections are on ends of the nEPS 60, not through mounting nipple.
 - Proper wire management is required
 - Supplies 30mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming





nEPS 60

Solution: nPP16 Power Pack + 0-10V Driver + nES Sensor

- Dimming Type: Intensity Dimming
- nEPS 60 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage power requires Dim to Off Driver
 - Embedded version mounts inside fixture on mounting studs
 - Attached version mounts to ¹/₂" knockout
 - Plenum Rated
 - RJ45 connections are on ends of the nEPS 60, not through mounting nipple.
 - Proper wire management is required
 - Supplies 30mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nES7 or nES ADCX

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- Panel mounts through fixture or canopy
- Requires CAT5 cable Y splitter (CAT5-Y-J1) to provide two open CAT5 ports on the fixture



nEPS 60

Solution: nPP16 Power Pack + 0-10V Driver + nCMB / nHMB Sensor

- Dimming Type: Intensity Dimming
- nEPS 60 Power Pack supplies nLight Bus power and 0-10V dimming control to fixture.
 - Line Voltage power requires Dim to Off Driver
 - Embedded version mounts inside fixture on mounting studs
 - Attached version mounts to ½" knockout
 - Plenum Rated
 - RJ45 connections are on ends of the nEPS 60, not through mounting nipple.
 - Proper wire management is required
 - Supplies 30mA of nLight Network power per CAT-5e Port
- Driver Type: eldoLED ECO/SOLOdrive w/0-10V Dimming
- Sensor Type: nCMB or nHMB integrated sensor
 - RJ45 connections are on back of sensor, not through mounting nipple.
 - Proper wire management is required



Industrial Wall Pack



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Revisions: June 2021:

- Added CAT5 Y-Splitter images and information to solutions with nES Sensors (pp. 23, 31, 40, 45, 52, 59, 65, 71, 77, 83, 89)
- Added nIO EZDXA + LEDcode Cross Multi-Fixture Solution using MED AUX for DALI Bus power (page 21)
- Updated all 0-10V solution schematics with new Violet/Pink wiring colors required by NEC.

