

**OVERVIEW**

The nLight **nIO EZ PH** module is a low voltage control device integrated within Acuity Brands LED luminaires with eldoLED brand drivers. This smart device results in the luminaire being "nLight-enabled" - making it both addressable as well as capable of digitally communicating with other nLight controls such as occupancy sensors, photocells, and WallPods. This allows for advanced operation and design flexibility ranging from stand-alone rooms to building and campus-wide networks. The embedded **nIO EZ PH** device can provide energy saving lumen management. With lumen management the device manages the luminaires LED light source such that constant lumen output is maintained over system life, thus preventing the energy waste created by the traditional practice of over-lighting. The **nIO EZ PH** will adjust the control level of the luminaire from its full lumen output to its minimum controlled level. **nIO EZ PH** Series devices operate identically to **nEIO EZ** Series devices that utilize the embedded/linear pack enclosure.

**FEATURES**

- Provides lumen compensation (**N80** option)
- Communicates w/ nLight Network
- Supplies nLight bus power (non-**ER** version)
- Remotely configurable/upgradeable
- Push-button programmable
- Backwards compatible with legacy **nIO EZ** (non-**PH** versions)

**SPECIFICATIONS**

Size: 2.54" H x 1.98" W x 1.00" D (6.45 cm x 5.03 cm x 2.54 cm)  
 Weight: 2oz  
 Color: White (Red for **ER** version)  
 nLight Network Ports: 2 RJ-45  
 Bus Power: Passes power from driver to supply at least two additional nLight devices  
 Dimming Output: Controls one LED luminaire with 0-10VDC eldoLED dimming driver  
 Wires: 20 AWG (4) (**ER** version has 3)  
 Operating Temp: 14°-160°F (-10° to 71°C)  
 Storage Temp: -14° to 160° F (-26° to 71° C)  
 Relative Humidity: 20% to 90% non-condensing  
 RoHS Compliant, Title 24 System Component



nLight®

**nIO EZ PH**  
 eldoLED Dimming Device



**Warranty**

Five-year limited warranty. Complete warranty terms located at:  
[www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

**Note:** Actual performance may differ as a result of end-user environment and application.  
 Specifications subject to change without notice.

ORDERING INFORMATION

nIO EZ PH		Example: nIO EZ PH N80
<b>Series</b>	<b>Emergency</b>	<b>Lumen Compensation</b>
nIO EZ PH eldoLED Dimming Device	[blank] Standard ER Emergency	[blank] Lumen Compensation (disabled by default) N80 Lumen Compensation (enabled by default)

NOTE: All "PH" versions of nIO EZs are backwards compatible with legacy non-PH versions.

## OVERVIEW

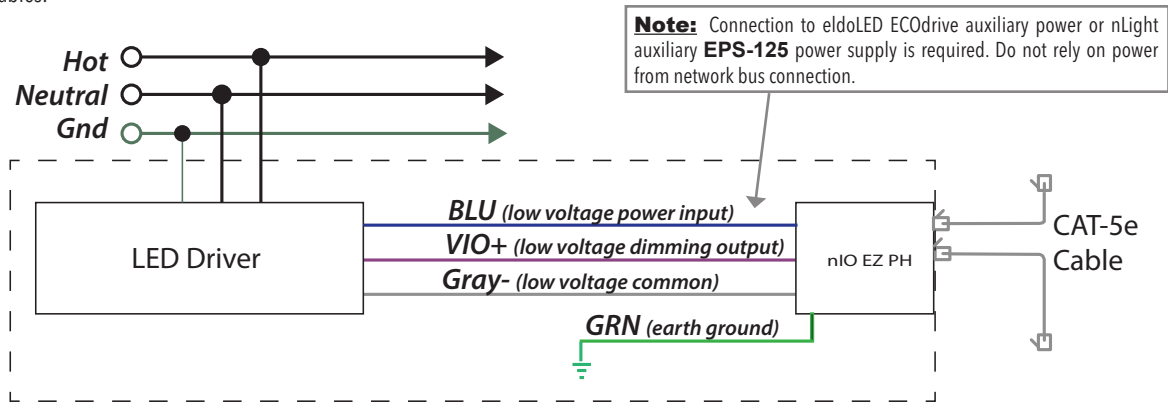
### END OF LIFE OPERATION

Once the accumulated hours value reaches 88K, when a fixture is turned on via the nLight system, the lights will blink once instead of going through its normal ramp-up sequence. It will also blink once instead of ramping down when turned off via the nLight system. After an additional 5K hours, the lights will similarly blink twice on every transition on or off. After another 5K hours, the lights blink three times on every transition on or off.

## WIRING

### Standard Operation

Power to a standard **nIO EZ PH** device is provided by a low voltage connection to the dimming driver. T568B pin/pair assignment is recommended for all CAT-5e cables.



### N80EMG/N100EMG vs. N80/N100 Versions

Some LED fixtures with the **N80EMG/N100EMG** option nomenclature and an eldoLED driver have an integrated **nIO EZ PH ER** device. This device is powered over the connected CAT-5e cable from one or more nLight devices capable of inserting power onto the CAT-5e bus. This is different from the standard **nIO EZ PH** device that is integrated into fixtures with just the standard **N80/N100** nomenclature, as those devices are powered directly from the LED driver (via the Blue wire) within the fixture.

### Intended Application of N80EMG/N100EMG Version

An **N80EMG/N100EMG** fixture is intended to be fed by Emergency power and connected via a CAT-5e cable to an nLight zone that has adequate bus power. All the connected nLight devices generating bus power should be fed with Normal power. If Normal power is removed, thus eliminating bus power, the **N80EMG/N100EMG** fixture will remain on (as it is fed by Emergency power) and will revert to 100% light output. This occurs because the **nIO EZ PH ER** will no longer be powered or capable of drawing down the LED driver's 0-10VDC control signal. If the fixture was off (i.e. in sleep mode) when normal power was lost, it will come on and go to 100%. If an **N80EMG/N100EMG** fixture is not connected to a powered nLight bus, the internal **nIO EZ PH ER** device will not function, lumen compensation (**ER N80** version) will not be active, and the connected lighting will remain at its full bright level.

**Note:** Power to the luminaire is never switched off by the **nIO EZ PH ER**, even in the "sleep/off" state. For this reason, even though operation complies with UL924 guidelines, the **nIO EZ PH ER** does not require a UL924 listing which dictates switching operation.

