

nLUMINAIRE

controller

Create an Innovative Data-Driven Intelligence with nController

The nController is a self-contained, internet of things (IoT)-enabled platform specifically designed for networked lighting control (NLC). It utilizes the latest power of ethernet (PoE) technology standard to intelligently power and control all lighting aspects.

Closely integrated with the nSensor and nManager, the nController improves occupant comfort and productivity, while simultaneously reducing energy consumption - thereby contributing to a dramatically more sustainable and greener environment.

In the event of a server connection failure, the nController can take over and manage all nLUMINAIRE devices and lighting fixtures in its designated area. Once the server connection is restored, it will then pass control back to the server.

Notably, the nController offers installers a quick and seamless connection and integration. Whether it's a constant current, white LED fixture or constant voltage, RGB strip, connection is simple with the built-in and dedicated ports available in RJ-45 and dry contact types.

Key Features & Benefits

- Features an intelligent, IoT device with self-configuration
- Compliant with PoE-PD IEEE 802.3bt standard, supporting up to 99W
- Incorporates plug-and-play integration with other nLUMINAIRE devices
- Utilizes PoE infrastructure for lighting power
- Offers remote configuration and management
- Stores lighting configuration locally
- Supports any third-party, PoE network switches
- Supports any third-party, LED lighting fixtures
- Collects real-time operational and status data
- Adjusts lighting dynamically to occupant needs and conditions
- Supports over-the-air (OTA) firmware update
- Does not require auxiliary power supply
- Includes dedicated RJ-45 ports for LED light fixture, nSensor and nSwitch
- Simple to install, configure and operate



Technical Specifications

Input

PSE Input Connection	RJ45 Cat5e or higher
PoE Interface	PoE-PD IEEE 802.3 at/bt standards compliant
Interface Type	Power and data
Input Voltage	50-60 VDC
Maximum Input Power Rating	Max. 71W at 100 meters from PSE to PD

Output - Constant Current

Type	Constant Current
Maximum Output Current	1.7 Amp.
Output Voltage Range	24-48 VDC
Maximum Output Power	60 W
Efficiency	92% efficiency at 60W output
Connection Type	RJ-45 enabled / 2 - position terminal block header
Protection	Thermal, short circuit and open circuit protection
Dimming	10 - 100 % dimming control with down to 1% increment

Output - Constant Voltage

Type	Constant Voltage
Maximum Output Voltage	12V
Maximum Output Current	2 Amp.
Connection Type	4 - position terminal block header
Protection	Thermal, short circuit and open circuit protection
Dimming	10 - 100 % dimming control with down to 1% increment

Output - nSensor

Connection	RJ45 Cat5e or higher (straight through cable only)
Interface Type	CAN, Serial
Input Voltage	12V

Technical Specifications

Output - nSwitch

Connection	RJ45 Cat5e or higher (straight through cable only)
Interface Type	CAN, Serial
Input Voltage	12V

Operating Environment

Temperature Range	0°C to 40°C
Humidity	10% to 90% non-condensing

Parts Included

Quantity	Component
1	nLUMINAIRE Controller
1	Quick installation Guide
1	Screw Kit

Standards

IEC 61347-2-11:2001 + A1:2017
IEC 61347 1:2015 + A1:2017
IEC 62368 - 1:2018
EN 55015:2019 + A11:2020
EN 61547:2009
RoHS

Certifications

Region	Regulatory Compliance
Europe	CE

Warranty

5 years warranty (conditions at www.cabsy.com)

Mechanical Interface



Efficiency vs Dimming Percentage

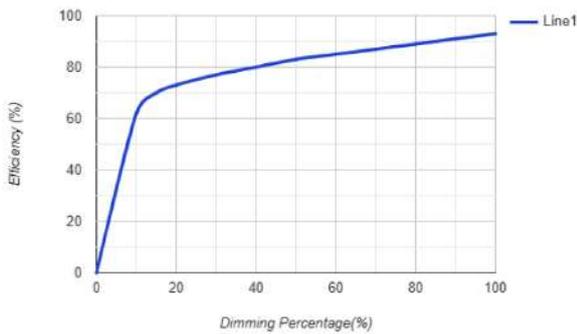


Fig 1:
nController at 60W (Conditions: Pin = 60W, Vout = 38V)

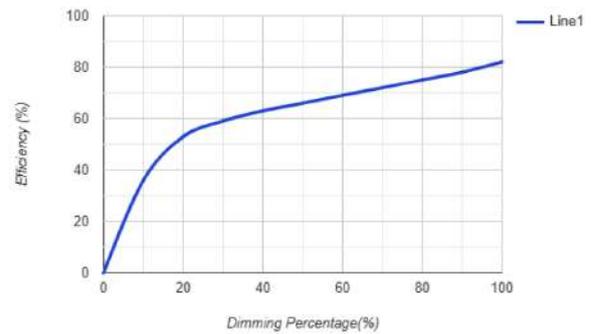
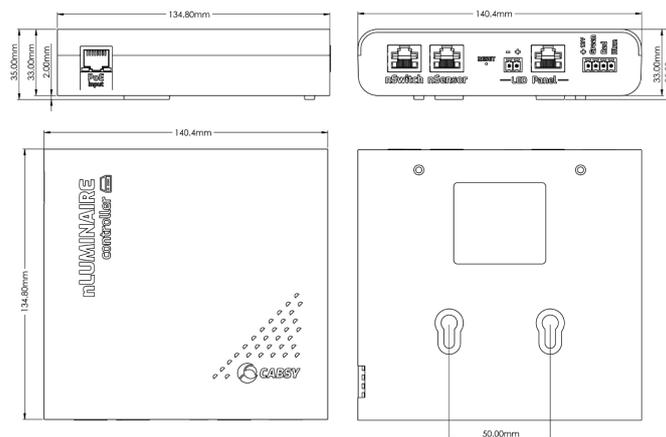


Fig 2:
nController at 40W (Conditions: Pin = 40W, Vout = 35V)

Dimensions in millimeter



Ordering Information

	Description	Model	Image
nLUMINAIRE controller	IP networked lighting controller, POE++ input port, multiple LED light outputs, nSensor and nSwitch dedicated output ports	CY-NL-CNR100	

Related Products

	Description	Model	Image
nLUMINAIRE sensor	Daylight harvesting, motion and static presence sensor, ceiling mounted, direct connection with nController via RJ-45 input port	CY-NL-NSR100	
nLUMINAIRE switch	Light wall switch, dual mode, full-glass touch panel, direct connection with nController via RJ-45 input port	CY-NL-SWT100	

[Learn More](#)

To learn more about nLUMINAIRE Controller, contact your CABSy account manager, CABSy authorized partner or visit cabsy.com



* CABSy reserves the right to make changes in specifications and other information contained in this document without prior notice

About nLUMINAIRE

nLUMINAIRE Control Suite is an intelligent, self-turning, power over ethernet (PoE), networked lighting control (NLC) solution. Incorporating smart devices and software, nLUMINAIRE powers, controls and monitors lighting that conforms to individual needs, while simultaneously enhancing utilization and lowering overall energy consumption.

Learn more at www.cabsy.com



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