

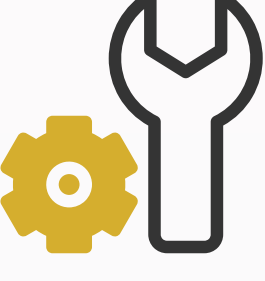




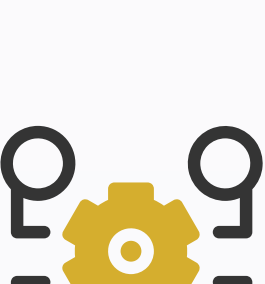
Create an Innovative Data-Driven Intelligence with nController

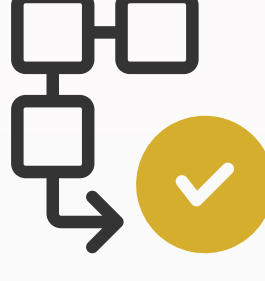

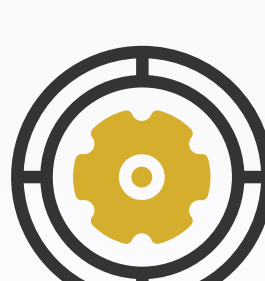

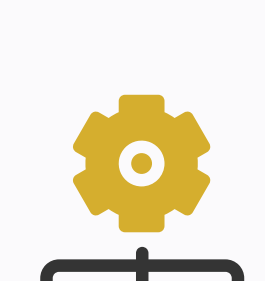

The nController is an internet of things (IoT)-enabled platform specifically designed to power, monitor, and control LED light fixtures as it utilizes the latest power of ethernet (PoE) technology standard.

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.

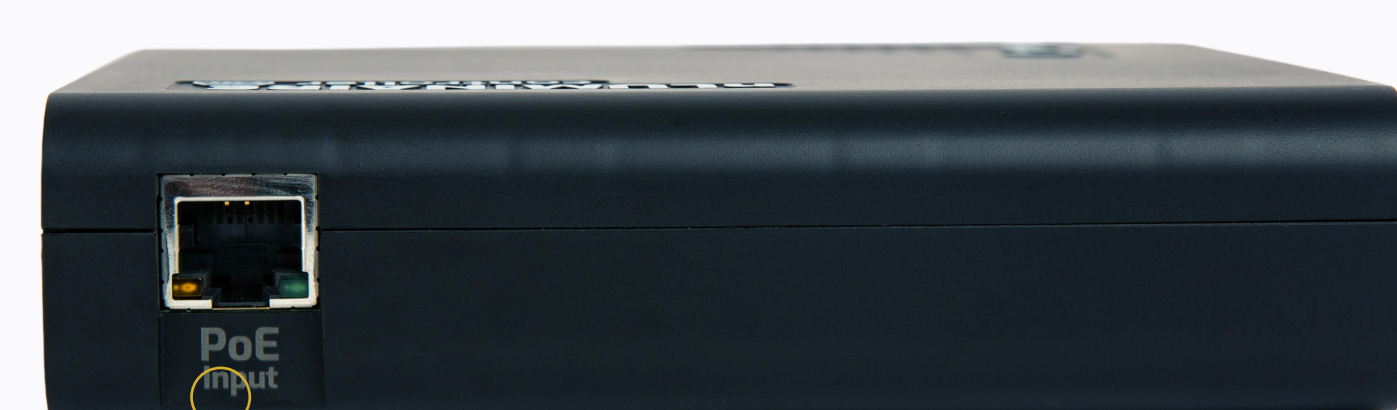
Notably, the nController offers installers a quick and seamless connection and integration. Whether it is a constant current, white LED fixture or constant voltage, RGB strip, connection is simple with the built-in and dedicated ports available in RJ45 and dry contact types.

Key Features & Benefits

-  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 and 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 RJ45 ports for LED light fixture, nSensor and nSwitch
-  Simple to install, configure and operate

Mechanical Interface



PoE switch input port



-  RGB light port (4-pole)
-  LED light port (RJ-45)
-  LED light port (2-pole)
-  Reset button
-  nSensor port
-  nSwitch port

Technical Specifications

Inputs

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	Maximum 71W at 100 meters from PSE to PD

Output – Constant Current

Type	Constant Current
Maximum Output Current	1.5 Amp
Output Voltage Range	24-48 VDC
Maximum Power Output	60W
Efficiency	93% efficiency at 60W output
Connection Type	RJ45 enabled / 2 – position terminal block header
Protection	Thermal, short-circuit and open-circuit protection
Dimming	10 - 100% dimming control with 1% increments available in mobile/web app

Output – Constant Voltage

Type	Constant Voltage
Maximum Output Voltage	12V
Maximum Output Current	2 Amp.
Connection Type	4 -positioned terminal block header
Protection	Thermal, short-circuit and open-circuit protection
Dimming	10 - 100% dimming control with 1% increments available in mobile/web app

Factory Reset

Reset Button	Push to reset system; long press (more than seven seconds)
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Operating Environment

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

Interface - nSensor

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

Interface - nSwitch

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

Parts Included

Quantity	Component
1	nLuminaire Controller
1	Quick Installation Guide
1	Screw Kit
1	RJ45 to LED connector (not ethernet standard, 1-4 negative, 5-8 positive)

Standards

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

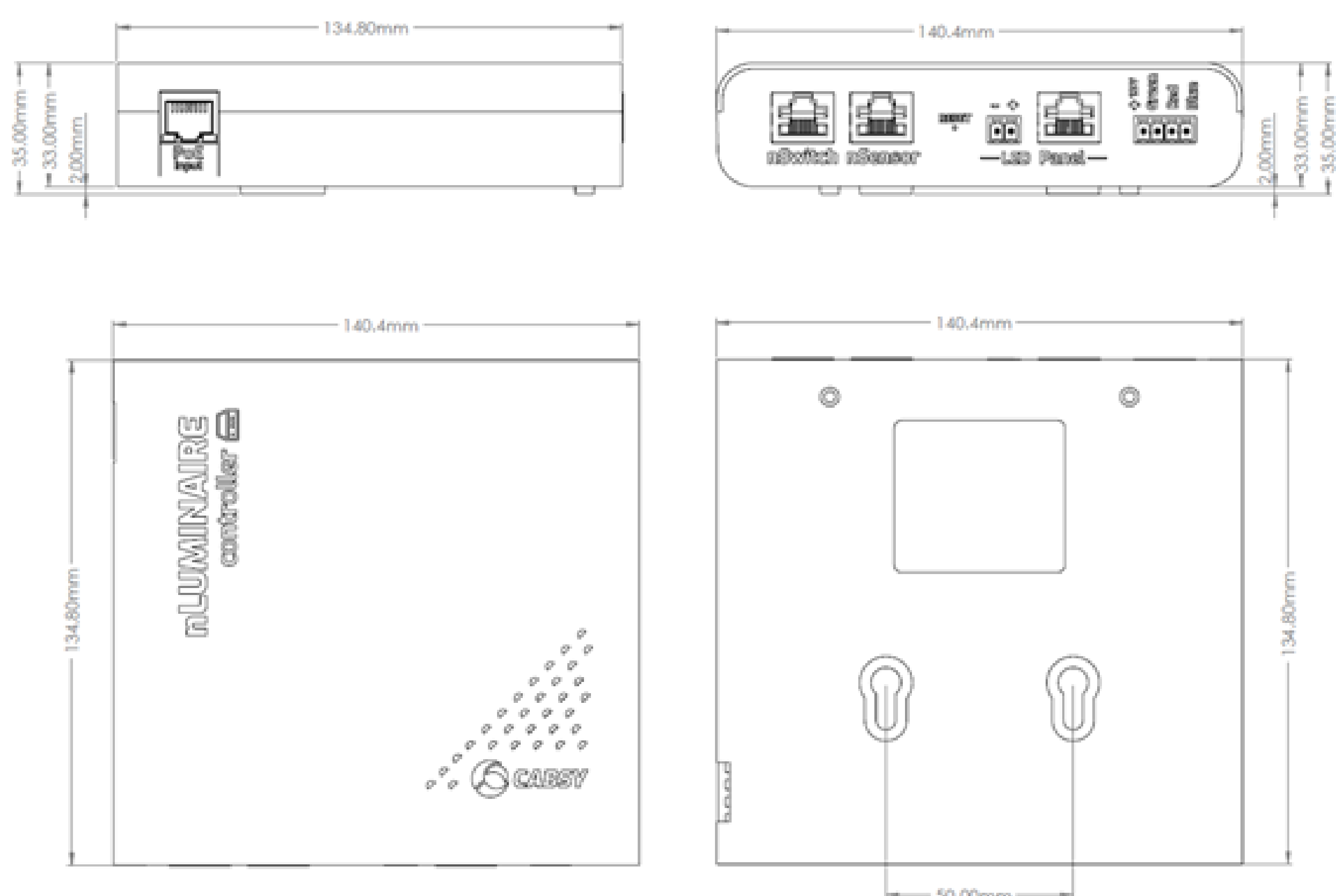
Warranty

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

Certifications

Region	Regulatory Compliance
Europe	CE

Dimensions in millimeters



Efficiency vs Dimming Percentage

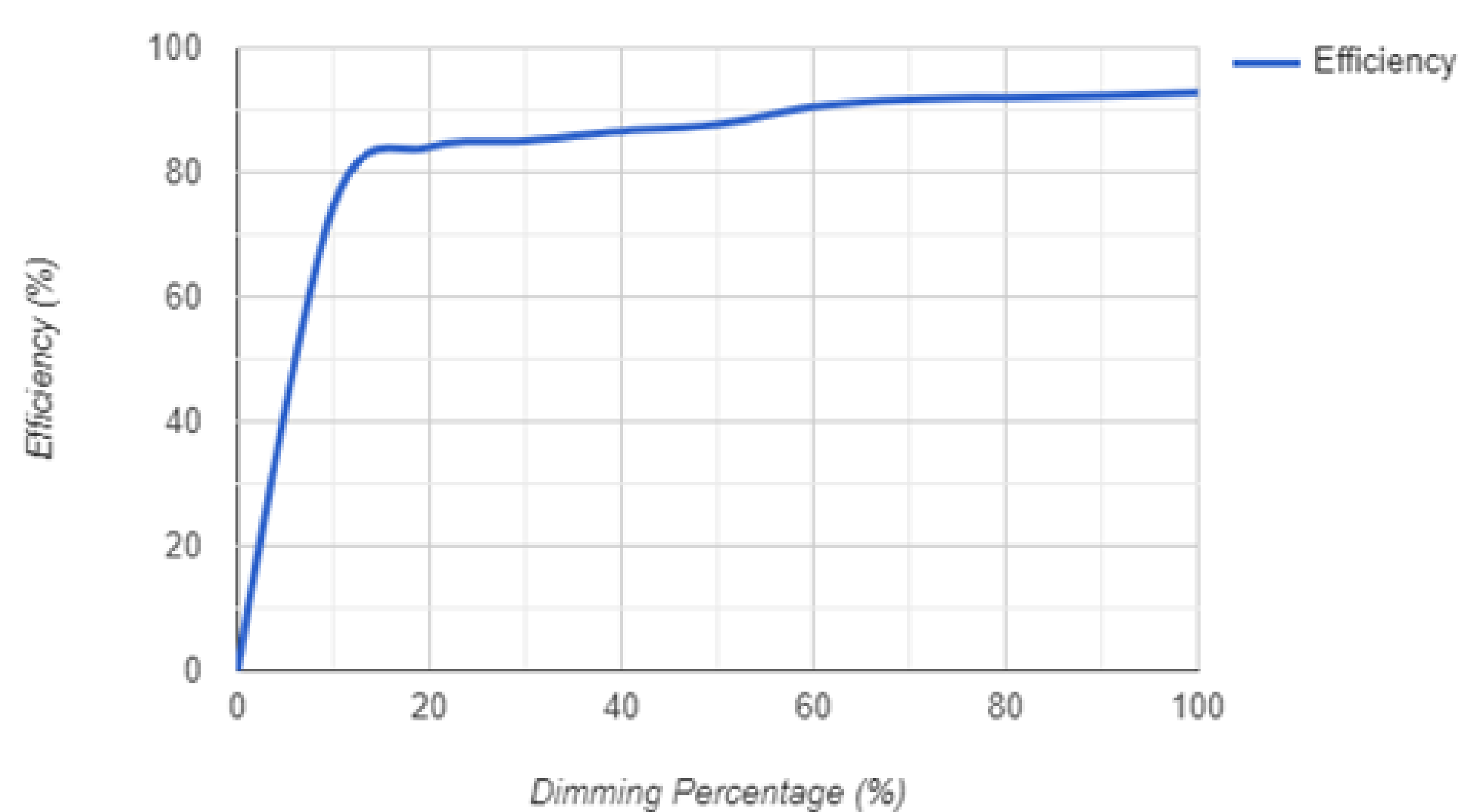


Figure 1:
nController at 60W (Conditions: Pin = 60W, V out = 38V)

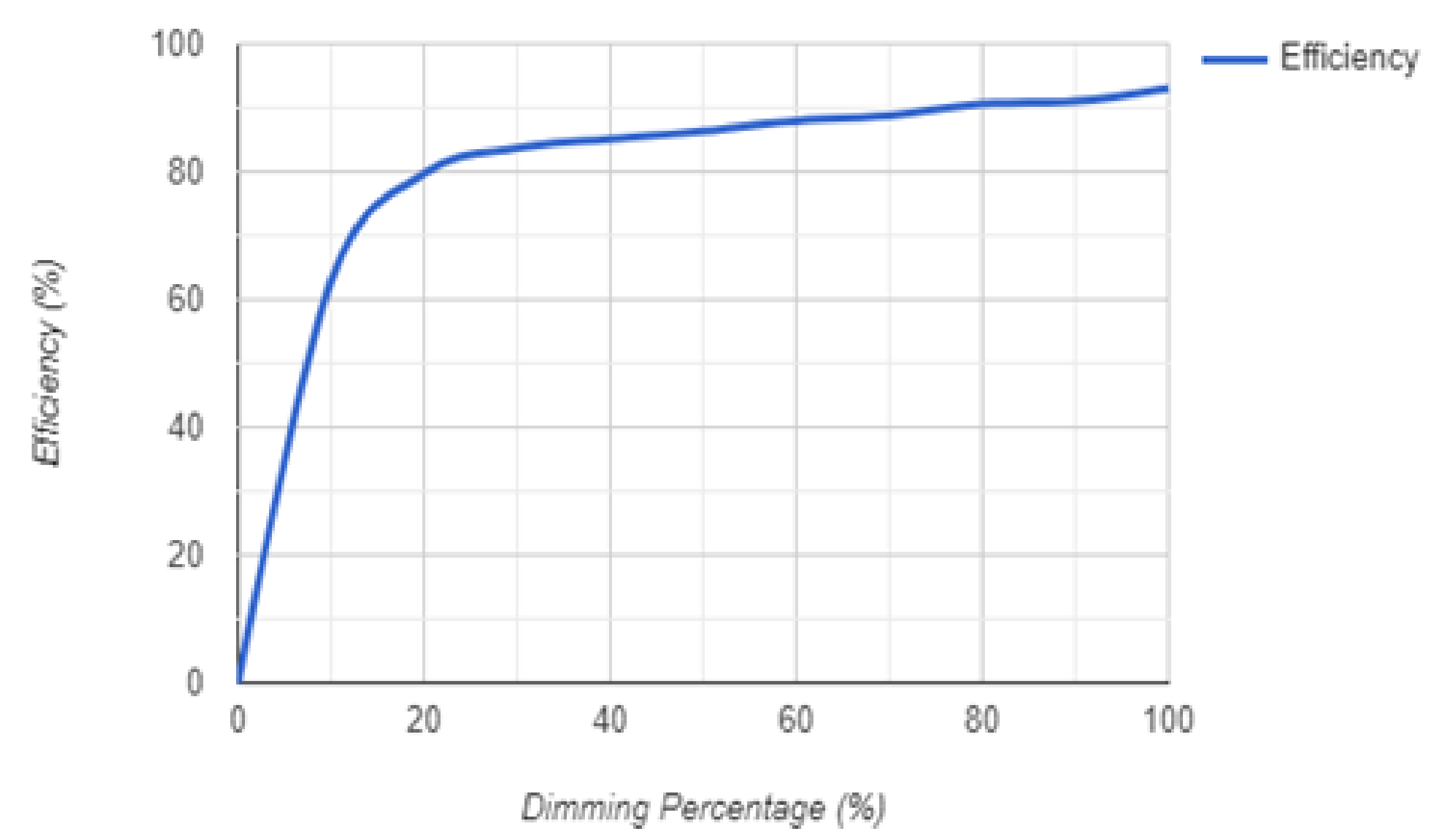


Figure 2:
nController at 40W (Conditions: Pin = 40W, V out = 36V)

Order Information

nLUMINAIRE
controller

Model: CY-NL-CNR100

Description: IP networked lighting controller, POE++ input port, multiple LED light outputs, nSensor and nSwitch dedicated output ports



Related Products

Model:
CY-NL-NSR100

nLUMINAIRE
sensor

Description: Daylight harvesting and motion sensor, ceiling mounted, direct connection with nController via RJ45 input port



Model:
CY-NL-SWT100

nLUMINAIRE
switch

Description: Light wall switch, dual mode, full glass touch panel, direct connection with nController via RJ45 input port



nLUMINAIRE

by **CABSY**

About

nLUMINAIRE



nLUMINAIRE is a PoE Connected Lighting System that uses ethernet cable to transmit DC power and data to efficiently power, monitor, and control LED light fixtures. It reduces installation and operating costs and lowers carbon footprint while enhancing safety and security. By implementing this elegant lighting system, both commercial and industrial buildings are becoming smarter and more sustainable.

Learn More

To learn more about nLUMINAIRE visit www.cabsy.com

