



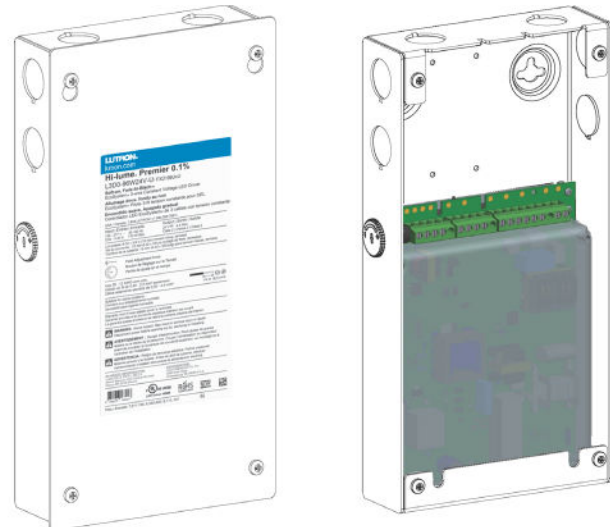
Hi-lume Premier 0.1% EcoSystem/3-wire Constant Voltage 24 V $\overline{\text{DC}}$ LED Driver with Soft-on, Fade-to-Black

The Hi-lume Premier 0.1% Constant Voltage Driver (L3D0) is a high-performance LED driver capable of controlling up to 96 W of 24 V $\overline{\text{DC}}$ constant voltage loads. This driver provides smooth and continuous dimming down to 0.1% low-end. It is ideal for use with strip lighting in applications such as coves, under or over cabinet lighting and pathway lighting. The driver is UL \circledR Listed with an integrated wiring compartment and can be mounted up to 150 ft (45 m) away from the load.

Features

- Continuous, flicker-free dimming from 100% to 0.1%¹.
- Soft-on, Fade-to-Black operation for EcoSystem controls: fades smoothly between 0% and 0.1% when turned on and off for an incandescent like experience.²
- PWM dimming meets IEEE1789 over the entire dimming range.
- UL \circledR Listed for United States and Canada (cULus \circledR).
- NOM certified for Mexico.
- Field Adjustment Knob offers customer low-end light output tuning for better fixture-to-fixture matching.
- Guaranteed dimming performance when used with Lutron controls:
 - HomeWorks QS, Energi Savr Node units with EcoSystem controls, GRAFIK Eye QS with EcoSystem controls, PowPak with EcoSystem dimming modules, PowPak with EcoSystem wireless fixture controls, and Quantum systems, allowing for integration into a planned or existing EcoSystem lighting control solution.
 - Lutron 3-wire controls and interfaces.
- Protected from miswires of input power, up to 277 V \sim , to EcoSystem control inputs.
- Rated lifetime of 50,000 hours at 40 °C (104 °F) ambient temperature and maximum loading.
- FCC Part 15
 - Class A (277 V \sim)
 - Class B (120 V \sim)

NOVA FLEX \circledR



Hi-lume Premier 0.1% Constant Voltage Driver (L3D0)
 NF-PS-L3D0-96W-24V
 5.5 in (140 mm) W x 2.0 in (51 mm) H x 10.5 in (267 mm) L

- Inrush limiting allows full loading of circuit breakers without nuisance tripping.
- 100% end-of-line performance tested at a Lutron factory.
- RoHS compliant.
- Restores all settings after power failure.
- Barrier provided for Class 2 separation in the wiring compartment.
- Redundant connections on line and control terminals for easy daisy chain wiring.
- Redundant connections on output terminals allow for easy wiring of two LED load home runs.
- Class 2 output designed to withstand hot swap.
- For more information please visit: www.lutron.com

¹ Light output at 0.1% depends on installation and light engine efficacy.

² Soft-on, Fade-to-Black dimming technology is not available for 3-wire controls.



Specifications

Regulatory Approvals and Compliance

- Lutron Quality Systems registered to ISO 9001.2015
- Manufacturing facilities employ ESD reduction practices that comply with the requirements of ANSI/ESD S20.20
- Meets ANSI C62.41 category A surge protection standards up to and including 4 kV
- FCC Part 15
 - Class A (277 V~)
 - Class B (120 V~)
- CAN ICES-005 (A) (277 V~)
- CAN ICES-005 (B) (120 V~)
- LED drivers need to meet certain performance criteria in order for the completed luminaires to comply with the ENERGY STAR® Luminaires V2.0 Specification. All models meet these performance criteria throughout their entire load compatibility regions. Consult Application Note #599 “ENERGY STAR® Luminaires V2.0 and Lutron Drivers” for availability dates of compliant products.
- LED drivers need to meet certain performance criteria in order for the completed luminaires to comply with Title 24 requirements as detailed in CEC-400-2015-037-CMF. All models meet both commercial (at 120 V~/277 V~) and residential (at 120 V~) performance criteria throughout their entire load operating regions. Consult CEC-400-2015-032-CMF Section 6.2.7 for important information on meeting start-up time requirements with fade-in lighting.
- Meets UL® 8750/CSA C22.2 No. 250.13-14, “Light Emitting Diode (LED) Equipment For Use in Lighting Products”
- NOM certified
- Class 2 output; meets UL® 1310/CSA C22.2 No. 223-M91

Performance

- Dimming Range: 100% to 0.1%¹
- LED lighting turns on to any dimmed level without flashing to full brightness
- Operating Voltage: 120 V~ to 277 V~ at 50/60 Hz
- Rated lifetime of 50,000 hours at 40 °C (104 °F) ambient temperature and maximum loading
- For rated warranty, ambient temperature (t_a) not to exceed 40 °C (104 °F) (maximum rated temperature)^{2,3}
- Patented thermal fold back protection
- Non-volatile memory restores all driver settings after power failure
- Typical standby power consumption: 0.25 W at 120 V~ and 0.4 W at 277 V~
- Open-circuit protected output
- Short-circuit and overload-protected output
- Output: 24 V== constant voltage at high-end
- Output Load Range: 2 W to 96 W at high-end
- PWM dimming frequency: meets IEEE1789 at all dim levels
- Power Factor: > 0.90 at maximum power
- Total Harmonic Distortion (THD): < 20% at maximum power
- NEMA 410 – 2011 compliant
- Inrush Current Limiting Circuitry: decreases circuit breaker tripping, switch arcing and relay failure; allows full loading of switch leg
- Inrush Current: < 2 A
- Device turn-on time: < 100 ms from electronic off and, < 500 ms from power off
- L3D0-96W24V-U driver is programmed by Lutron manufacturing and is NOT configurable by the Lutron QwikFig configuration system
- NOM Thermal Classification: Class B

¹ Light output at 0.1% depends on installation and light engine efficacy.

² To maintain warranty, installer is responsible for ensuring that the driver ambient temperature does not exceed 40 °C (104 °F).

³ Where t_a is the temperature of the air directly surrounding the driver.

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Specifications (continued)

Environmental

- Sound rated: Class A inaudible in 24 dBA ambient
- Relative Humidity: maximum 90% non-condensing
- Minimum Operating Ambient Temperature: $t_a = 0\text{ }^\circ\text{C}$ (32 $^\circ\text{F}$)¹
- Indoor use only
- Rated for dry and damp locations
- Meets NEC® requirements for installation in “other space used for environmental air”²
- Meets the Canadian National Building Code Plenum Requirements for a concealed space used as a plenum within a floor or roof assembly
- Maximum heat output of module: 46 BTU/hour

Driver Wiring and Mounting

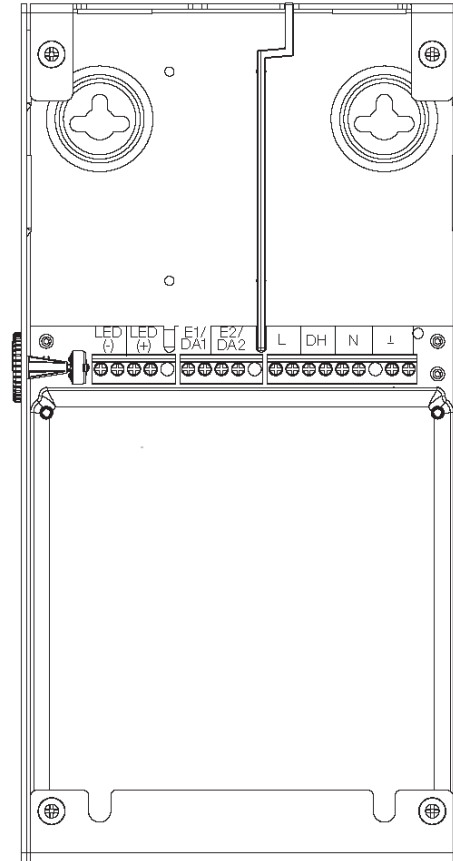
For best installation practices, please refer to Application Note #591 at www.lutron.com.

- Mount the driver in a position where it can be easily located and accessed if service or troubleshooting is necessary.
- Driver is grounded by terminal connection
- Terminal blocks on the driver accept solid or stranded wire per terminal from 20 AWG to 12 AWG (0.50 mm² to 2.5 mm²).
- Maximum wire length between the LED driver and the start of the linear strip for different wire sizes is listed below. The table below can be used independently of the line voltage that is powering the LED Driver.

Wire Gauge	Maximum Lead Length
24 AWG (0.20 mm ²) ³	6 ft (1.8 m)
22 AWG (0.34 mm ²) ³	10 ft (3.0 m)
20 AWG (0.50 mm ²)	15 ft (4.5 m)
18 AWG (0.75 mm ²)	25 ft (7.62 m)
16 AWG (1.0 mm ²)	40 ft (12.2 m)
14 AWG (1.5 mm ²)	60 ft (18.3 m)
12 AWG (2.5 mm ²)	100 ft (30.5 m)
10 AWG (4.0 mm ²) ³	150 ft (45.7 m)

- 1 Where t_a is the temperature of the air directly surrounding the driver.
- 2 Additional considerations may be required based on state and local codes and standards.
- 3 To use wire gauge larger or smaller than terminal blocks' rated gauge of 20 AWG to 12 AWG (0.50 mm² to 2.5 mm²), connect 1 ft (0.3 m) or less of rated wire from terminal and connect with larger or smaller wire.

Terminal Block Details



Nova Flex LED, LLC. retains the right to modify the design of our products at any time as part of the company's continual product improvement program.