# Constant current fixtures are to be wired in SERIES and require a MINIMUM and MAXIMUM number of fixtures connected to a driver as indicated on the following page.

# NOTE:

Powering or testing less than the minimum number of fixtures per driver

or

connecting fixtures with the driver powered (live wired)

or

wiring them in parallel will IMMEDIATELY and PERMANENTLY DESTROY the fixtures and void the warranty.

Carefully read instructions prior to installation and testing.

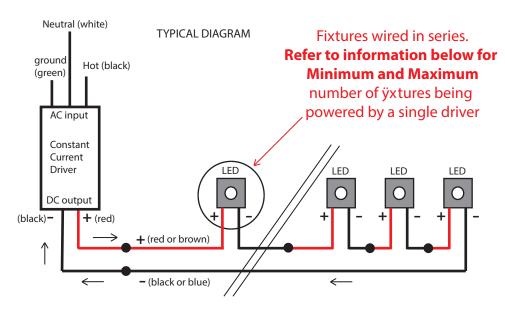


# **Constant Current drivers**

#### Wiring Key Points

- 1. This product shall be installed by a qualiÿed electrician.
- 2. Make sure the main power supply to the driver is turned o° when wir ing either the LEDs or driver.
- 3. LEDs shall be wired in series as shown in wiring diagram. CAUTION: parallel wiring will damage LEDs.
- Wire shall be 18 awg stranded minimum. Large gauge wire shall be used to limit voltage drop in order to maintain the proper operating voltage. Take every precaution to avoid interferance from other electrical circuits and equipment.
- 5. Dimming circuits are more sensitive to voltage drop and electrical interference from other electrical sources.
- 6. Isolating LED wiring by dedicated circuit for each control zone is recommended.
- 7. Contractor shall verify the ÿxture quantities connected to the driver are compatible with the driver's speciÿcations prior to energizing the circuit.
- 8. All Class II power cable remote wiring and driver enclosures by others.

LED's can be permanently damaged if these points are not followed



# **Driver options:**

Driver AC Input Dimming Minimum number Maximum number of ÿxtures of ÿxtures

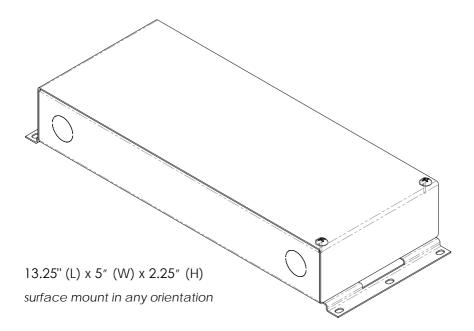
# **PEQ0**: Hi-lume Premier 0.1% EcoSystem LED Driver

Please note: Dimming/control wiring not shown in the diagram above.



Project:	Type:	Date:
Manufacturer:	Fixture:	

# **Inter-lux DB12 Dry Location Enclosure**



3691077e 1 10.25.19

# Hi-lume Premier 0.1% EcoSystem LED Driver

Hi-lume Premier 0.1% EcoSystem LED Drivers provide a high-performance solution for any space, in any application. They provide smooth, continuous dimming down to 0.1% of full output current, and fade smoothly between 0% and 0.1% with Soft-on, Fade-to-Black.

#### **Features**

- Soft-on, Fade-to-Black: fades smoothly between 0% and 0.1% when turned on and off for an incandescent-like experience.
- Continuous, flicker-free dimming from 100% to 0.1%<sup>1</sup>.
- Dimming Method:
  - Constant-current reduction dimming provides video-friendly performance down to 0.1%.
  - Meets IEEE 1789 over entire dimming range.
- Hi-lume 1% EcoSystem with Soft-on, Fade-to-Black models also available for dimming from 100% to 1%.
- 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.
- QwikFig compatible models available, see How to Build a Model Number page for details. For more information, please refer to the QwikFig User Guide (Lutron P/N 041473) or contact your Lutron sales representative.
- Protected from miswires of input power to EcoSystem control inputs up to 277 V~.
- Rated lifetime of 50,000 hours at 80 °C (176 °F) calibration point (t<sub>c</sub>).
- Designed for FCC Part 15 Class A. Final performance is dependent on fixture design.
- 100% performance tested at factory before shipping.
- RoHS compliant.
- Non-volatile memory restores all settings after power failure.
- For more information, visit www.lutron.com



#### Case type V

1.60 in (40.64 mm) W x 1.07 in (27.18 mm) H x 4.30 in (109.22 mm) L

#### **EcoSystem Features**

- Simpler to wire and more reliable than 0–10 V===.
- Guarantees compatibility between Lutron controls, LED drivers, ballasts, and sensors.
- Accommodates zone and control changes without re-wiring.
- Connect to Lutron Vive and Quantum Total Light Management Systems to monitor lighting power consumption.
- Polarity-free and topology-free.
- Digital EcoSystem intelligence allows easy code compliance.
- Digital EcoSystem control link can be Class 1 or Class 2.

PEQO: Hi-lume Premier 0.1% EcoSystem LED Driver

<sup>1</sup> Light output at low-end depends on the efficacy of the LED light engine used with the driver.

# Job Name: Model Numbers:

Job Name:	Model Numbers:
Lala Niverala ave	
Job Number:	

3691077e 2 10.25.19

#### **Specifications**

#### Regulatory Approvals and Compliance

- UL<sub>®</sub> Listed Class P
- NOM certified for Mexico
- Lutron Quality Systems registered to ISO 9001.2015
- Manufacturing facilities employ ESD reduction practices that comply with the requirements of ANSI/ESD S20.20
- Inrush current less than NEMA<sub>®</sub> 410-2011 limit
- Designed for FCC Part 15 Class A. Final performance is dependent on fixture design
- Canadian EMI Class A Compliance Equivalent: CAN ICES-005(A)/NMB-005(A)
- Meets UL<sub>®</sub> 8750, "Light Emitting Diode (LED) Equipment For Use in Lighting Products"
- Class 2 output

#### **ENERGY STAR® Luminaires V2.0 Specification**

- LED drivers need to meet certain performance criteria in order for the completed luminaires to comply with the ENERGY STAR<sub>®</sub> Luminaires V2.0 Specification
- PEQ1 and PEQ0 models meet performance criteria at 120 V∼ input and when driver output power exceeds 5 W
- PEQ1 and PEQ0 models meet performance criteria at 277 V∼ input and when driver output power exceeds 13 W

#### Title 24

- LED drivers need to meet certain performance criteria in order for the completed luminaires to comply with Title 24 requirements as detailed in Reference Joint Appendix JA8
- PEQ1 and PEQ0 models meet performance criteria at 120 V~ input and when driver output power exceeds 10 W
- Consult CEC-400-2015-032-CMF Section 6.2.7 for important information on meeting start-up time requirements with fade-in lighting

#### Performance

- Soft-on, Fade-to-Black: fades smoothly between 0% and 0.1% when turned on and off for an incandescent-like experience
- Dimming Range: 100% to 0.1%<sup>1</sup>
- Operating Voltage: 120  $V\sim$  / 277  $V\sim$  at 50/60 Hz
- Lifetime: 50,000 hours when calibration point (t<sub>c</sub>) at 80 °C (176 °F)<sup>2</sup>
- For rated warranty, t<sub>c</sub> not to exceed 80 °C (176 °F) (maximum rated temperature)<sup>2</sup>
- Patented thermal foldback protection
- At turn on, lighting fades smoothly to the desired level without decreasing or flashing to full brightness
- Non-volatile memory restores all driver settings after power failure
- Typical standby power consumption: < 0.5 W at 120 V $\sim$  / 277 V $\sim$
- Open-circuit protected output
- Short-circuit protected output
- Light output at low-end depends on the efficacy of the LED light engine used with the driver.
- <sup>2</sup> To maintain warranty, installer is responsible for ensuring that the driver calibration point does not exceed 80 °C (176 °F).

PEQ0: Hi-lume Premier 0.1% EcoSystem LED Driver

Job Name:	Model Numbers:
Job Number:	

3691077e 3 10.25.19

## Specifications (continued)

#### **Environmental**

- Sound rated: Class A inaudible in 24 dBA ambient
- Relative Humidity: maximum 90% non-condensing
- Minimum Operating Ambient Temperature:  $t_a = 0 \, ^{\circ}\text{C} \, (32 \, ^{\circ}\text{F})^1$
- Indoor use only
- Rated for dry and damp locations

#### **Driver Wiring and Mounting**

- Fixture must be grounded in accordance with local and national electrical codes
- Use only within an enclosure
- Includes 6 in (152 mm) leads of stranded 18 AWG (0.75 mm²), 600 V~ and 105 °C (221 °F) rated.
   Stripped to 0.5 in (12.7 mm)
- Maximum driver-to-LED light engine wire length for:

	Maximum Lead Length					
Wire Gauge	150 mA to 700 mA	710 mA to 1.50 A	1.51 A to 2.10 A			
18 AWG (0.75 mm <sup>2</sup> )	30 ft (9 m)	15 ft (4.5 m)	10 ft (3 m)			
16 AWG (1.5 mm <sup>2</sup> )	35 ft (10.5 m)	25 ft (7.5 m)	15 ft (4.5 m)			
14 AWG (2.5 mm <sup>2</sup> )	50 ft (15 m)	40 ft (12 m)	25 ft (7.5 m)			
12 AWG (4.0 mm <sup>2</sup> )	100 ft (30 m)	60 ft (18 m)	40 ft (12 m)			

 $<sup>^{\</sup>rm 1}~$  Where  $t_a$  is the temperature of the air directly surrounding the driver

**PEQ0**: Hi-lume Premier 0.1% EcoSystem LED Driver

Job Name:	Model Numbers:
Job Number:	

3691077e 4 10.25.19

## How to Determine Compatibility Between an LED Driver and LED Load

- 1. Review the specifications of the LED load.
- 2. Identify the minimum and maximum operating voltage of the LED load at the desired operating current. This "current" will be the rated output current of the LED driver. Consult the LED load manufacturer for any questions.

**Example:** An LED load that is rated at 0.7 A and 30 V nominally, has an input (forward) voltage range of 25-35 V (at 0.7 A) due to unit-to-unit variation, temperature, etc.

3. Examine the **LED Driver Load Compatibility** graphs below for each output range to ensure that the voltage range of the LED load is within the load compatibility range.

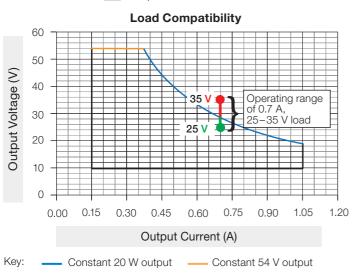
**Example:** Lines marked below indicate two load specifications:

Load A (25 - 35 V) at 0.5 A Load B (25 - 35 V) at 0.7 A

#### Load B (Not Compatible) X



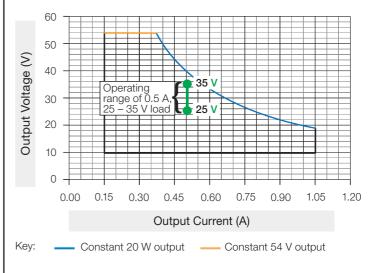
Since the maximum voltage of the load, 35 V, exceeds the 28.5 V allowable at 0.7 A, this combination of LED load and LED driver is not compatible.



#### Load A (Compatible)



Operating voltage range for load A is 25 – 35 V at 0.5 A. Since the load specifications are within the operating range, the combination of LED Load and LED Driver is compatible.



- 4. The LED Driver Selection Tool is a website compatibility tool that allows for a fast compatibility search of all Lutron LED Drivers that are compatible with an LED Load.
- 5. See **How to Build A Model Number** to create the appropriate model number for the desired driver. If a QwikFig compatible driver is needed, identify the proper LED Load Output Range (voltage and current) and insert "BLK" in the Current Level (for Constant Current) section of the model number.

**PEQ0**: Hi-lume Premier 0.1% EcoSystem LED Driver

Job Name:	Model Numbers:
Job Number:	

3691077e 5 10.25.19

#### **Load Learning**

#### What is load learning?

Each Lutron constant-current LED driver is able to operate over a range of LED load voltages. In order to operate with optimum efficiency, these drivers continuously sense the LED load voltage and make adjustments to their internal operation.

#### When does load learning happen?

Load learning happens continuously and in most cases is imperceptible. However, when a new load is connected to the driver it will take some time for the LED driver to adapt. A driver may be performing load learning during R&D/bench testing, production testing, or QwikFig/AirFig configuration when using a real load. If a driver was not allowed to learn its load during the fixture production process, it may happen when first installed in the final location.

#### What does load learning look like?

Depending on the difference in forward voltage of the new load versus the last load the driver learned, one of the following may be observed:

- 1. The load may seem to operate properly.
- 2. The load may turn on at a low light level and remain there for a few seconds before transitioning to full light.
- 3. The load may turn on for a very brief flash, then go off for a few seconds before turning back on again.
- 4. There may be no light output at all for up to 20 seconds.

#### How do I make a driver "learn" a new load?

Although this process will happen on its own during normal usage, Lutron recommends the following procedure be carried out before attempting to confirm proper operation:

- 1. Power up the LED driver on the intended load.
- 2. Once the light seems to be stable at full output, which may take 20 to 30 seconds, leave the driver on for another 20 seconds for the driver to learn the load voltage and commit it to memory.

Note: There is no limit to the number of times a driver can learn a new load.

**PEQ0**: Hi-lume Premier 0.1% EcoSystem LED Driver

Job Name:	Model Numbers:
Job Number:	

3691077e 6 10.25.19

# How to Build a Model Number, V-Case Type ("BLK" models for use with Lutron QwikFig technology): Hi-lume Premier 0.1% EcoSystem LED Driver with Soft-On, Fade-to-Black



V-case type

PEQ 1UVN – A

Dimming Performance

• 0: select for Hi-lume Premier 0.1%

LED Load Output Range: Class 2 Constant Current (see the following pages for more detail)

• 2: 20 W Max, 0.15–1.05 A, 10–54 V===\*

Example: PEQ01UVN-2A040

- 0.40 A
- Hi-lume Premier 0.1%
- 4-20 W\*\*
- 10-50 V===

For further assistance in selecting your model number, contact our LED Center of Excellence at

LEDs@lutron.com

\*\* At 0.40 A, maximum voltage of 50 V provides 20 W (0.40 A × 50 V = 20 W)

#### Current Level (for Constant-Current)

015 = 0.15 A
 105 = 1.05 A
 BLK = QwikFig

compatible bulk

Option 1: Order a driver configured by Lutron to a desired output current.

**Example:** PEQ01UVN-2A040 has been pre-configured at Lutron to an output of 0.40 A. Refer to the example above.

Option 2: Order a QwikFig compatible driver.

Example: PEQ01UVN-2ABLK (0.15 - 1.05 A)\*

Note: Default set to minimum output current for the respective LED Load Output Range.

#### **PEQ0**: Hi-lume Premier 0.1% EcoSystem LED Driver

Job Name:	Model Numbers:
Job Number:	

<sup>\*</sup> Output voltage range changes with output current and according to power limits. Check driver specifications on the following pages carefully to understand output voltage range of a particular SKU. Purchaser is responsible for electrical compatibility between LED driver and LED load.

3691077e 7 10.25.19

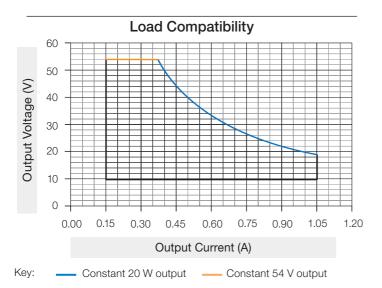
# "2" Output Range

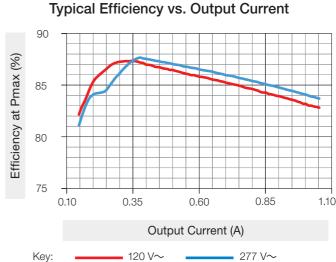
Driver Type	Output Voltage	Output Current	Output Power		Maximum Rated Temp. @ t <sub>c</sub> for Warranty	
Constant Current Driver (Class 2)	10-54 V===	0.15 – 1.05 A*	20 W	CLASS P E322469	80 °C	

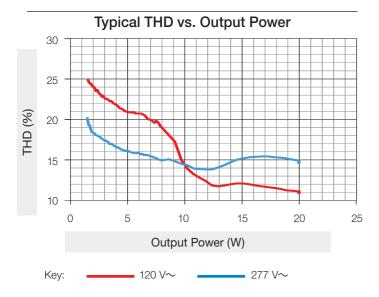
<sup>\*</sup> QwikFig compatible model number PEQ01UVN-2ABLK is configurable to any current within this range in 0.01 A increments.

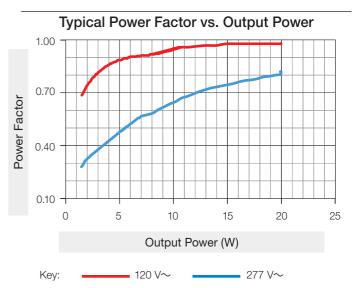
#### **Typical Performance Specifications:**

Parameter	Value	Test Conditions
Input Current	0.2 A	
Power Factor	0.95	$V_i = 120 \text{ V}$ , $t_a = 25 \text{ °C}$ , $I_o = 0.40 \text{ A}$ , $V_o = 50 \text{ V}$
Total Harmonic Distortion (THD)	15%	Maximum Light Output PEQ01UVN-2A040
Driver Efficiency	85%	









Job Name:	Model Numbers:
Job Number:	

# "2" Output Range (continued)

			ble Load ge (V)	Typical Performance at Minimum Compatible Load Voltage			Typical Performance at Maximum Compatible Load Voltage			
Model number* PEQ _1UVN-	Rated Output Current (A)	Minimum	Maximum	Power Factor at 120 V~/ 277 V~	THD at 120 V∼/ 277 V∼	Efficiency at 120 V~/ 277 V~	Power Factor at 120 V~/ 277 V~	THD at 120 V∼/ 277 V∼	Efficiency at 120 V~/ 277 V~	
-2A015	0.15	10.0	54.0	0.68/0.28	25%/20%	58%/40%	0.92/0.58	21%/15%	81%/81%	
-2A016	0.16	10.0	54.0	0.69/0.28	25%/19%	60%/41%	0.92/0.60	20%/15%	82%/81%	
-2A017	0.17	10.0	54.0	0.71/0.29	24%/19%	61%/42%	0.93/0.62	17%/15%	83%/82%	
-2A018	0.18	10.0	54.0	0.72/0.31	24%/19%	62%/42%	0.94/0.63	15%/15%	83%/83%	
-2A019	0.19	10.0	54.0	0.73/0.31	24%/18%	63%/43%	0.95/0.65	14%/14%	84%/83%	
-2A020	0.20	10.0	54.0	0.74/0.32	24%/18%	64%/45%	0.96/0.67	13%/14%	85%/83%	
-2A021	0.21	10.0	54.0	0.75/0.33	24%/18%	65%/46%	0.96/0.68	13%/14%	85%/84%	
-2A022	0.22	10.0	54.0	0.76/0.33	24%/18%	66%/47%	0.96/0.69	12%/14%	85%/84%	
-2A023	0.23	10.0	54.0	0.76/0.34	24%/18%	66%/48%	0.96/0.70	12%/14%	86%/84%	
-2A024	0.24	10.0	54.0	0.77/0.34	23%/18%	67%/49%	0.97/0.71	12%/14%	86%/84%	
-2A025	0.25	10.0	54.0	0.78/0.35	23%/18%	68%/50%	0.97/0.72	12%/14%	86%/84%	
-2A026	0.26	10.0	54.0	0.79/0.35	23%/18%	68%/51%	0.97/0.73	12%/15%	86%/84%	
-2A027	0.27	10.0	54.0	0.79/0.36	23%/18%	69%/52%	0.97/0.74	12%/15%	86%/85%	
-2A028	0.28	10.0	54.0	0.80/0.36	23%/18%	69%/53%	0.98/0.74	12%/15%	87%/85%	
-2A029	0.29	10.0	54.0	0.80/0.37	23%/18%	70%/54%	0.98/0.75	12%/15%	87%/85%	
-2A030	0.30	10.0	54.0	0.81/0.37	23%/17%	70%/55%	0.98/0.76	12%/15%	87%/85%	
-2A031	0.31	10.0	54.0	0.82/0.38	23%/17%	71%/56%	0.98/0.77	12%/15%	87%/86%	
-2A032	0.32	10.0	54.0	0.82/0.38	23%/17%	71%/57%	0.98/0.77	12%/15%	87%/86%	
-2A033	0.33	10.0	54.0	0.83/0.39	22%/17%	72%/58%	0.98/0.78	12%/15%	87%/86%	
-2A034	0.34	10.0	54.0	0.83/0.39	22%/17%	72%/59%	0.98/0.79	11%/15%	87%/87%	
-2A035	0.35	10.0	54.0	0.84/0.40	22%/17%	72%/60%	0.98/0.79	11%/15%	87%/87%	
-2A036	0.36	10.0	54.0	0.84/0.40	22%/17%	72%/60%	0.98/0.80	11%/15%	87%/87%	
-2A037	0.37	10.0	54.0	0.85/0.41	22%/17%	73%/61%	0.98/0.80	11%/15%	87%/87%	
-2A038	0.38	10.0	52.6	0.85/0.41	22%/17%	73%/62%	0.98/0.80	11%/15%	87%/87%	
-2A039	0.39	10.0	51.3	0.85/0.42	22%/17%	73%/63%	0.98/0.80	11%/15%	87%/87%	
-2A040	0.40	10.0	50.0	0.86/0.42	22%/17%	74%/63%	0.98/0.80	11%/15%	86%/87%	
-2A041	0.41	10.0	48.8	0.86/0.43	22%/17%	74%/64%	0.98/0.80	11%/15%	86%/87%	
-2A042	0.42	10.0	47.6	0.86/0.43	22%/16%	74%/65%	0.98/0.80	11%/15%	86%/87%	
-2A043	0.43	10.0	46.5	0.87/0.44	21%/16%	74%/65%	0.98/0.81	11%/15%	86%/87%	
-2A044	0.44	10.0	45.5	0.87/0.44	21%/16%	74%/66%	0.98/0.81	11%/15%	86%/87%	

 $<sup>^{\</sup>star}$  See How to Build a Model Number, V-Case Type on page 6 for a sample model number.

PEQ0: Hi-lume Premier 0.1% EcoSystem LED Driver

Job Name:	Model Numbers:
Job Number:	

3691077e 9 10.25.19

# "2" Output Range (continued)

			ble Load ge (V)	J	erformance ata		J	rformance at atible Load V	
Model number* PEQ _1UVN-	Rated Output Current (A)	Minimum	Maximum	Power Factor at 120 V∼/ 277 V∼	THD at 120 V∼/ 277 V∼	Efficiency at 120 V~/ 277 V~	Power Factor at 120 V~/ 277 V~	THD at 120 V∼/ 277 V∼	Efficiency at 120 V~/ 277 V~
-2A045	0.45	10.0	44.4	0.87/0.45	21%/16%	75%/66%	0.98/0.81	11%/15%	86%/87%
-2A046	0.46	10.0	43.5	0.87/0.45	21%/16%	75%/67%	0.98/0.81	11%/15%	86%/87%
-2A047	0.47	10.0	42.6	0.88/0.46	21%/16%	75%/67%	0.98/0.81	11%/15%	86%/87%
-2A048	0.48	10.0	41.7	0.88/0.46	21%/16%	75%/68%	0.98/0.81	11%/15%	86%/87%
-2A049	0.49	10.0	40.8	0.88/0.47	21%/16%	75%/68%	0.98/0.81	11%/15%	86%/87%
-2A050	0.50	10.0	40.0	0.88/0.47	21%/16%	76%/69%	0.98/0.81	11%/15%	86%/86%
-2A051	0.51	10.0	39.2	0.88/0.48	21%/16%	76%/69%	0.98/0.81	11%/15%	86%/86%
-2A052	0.52	10.0	38.5	0.89/0.48	21%/16%	76%/69%	0.98/0.81	11%/15%	86%/86%
-2A053	0.53	10.0	37.7	0.89/0.48	21%/16%	76%/70%	0.98/0.81	11%/15%	86%/86%
-2A054	0.54	10.0	37.0	0.89/0.49	21%/16%	76%/70%	0.98/0.81	11%/15%	86%/86%
-2A055	0.55	10.0	36.4	0.89/0.49	21%/16%	76%/71%	0.98/0.81	11%/15%	86%/86%
-2A056	0.56	10.0	35.7	0.89/0.50	21%/16%	76%/71%	0.98/0.81	11%/15%	85%/86%
-2A057	0.57	10.0	35.1	0.89/0.50	21%/16%	76%/71%	0.98/0.81	11%/15%	85%/86%
-2A058	0.58	10.0	34.5	0.90/0.51	21%/16%	76%/71%	0.98/0.81	11%/15%	85%/86%
-2A059	0.59	10.0	33.9	0.90/0.51	21%/16%	76%/72%	0.98/0.81	11%/15%	85%/86%
-2A060	0.60	10.0	33.3	0.90/0.52	21%/16%	76%/72%	0.98/0.81	11%/15%	85%/86%
-2A061	0.61	10.0	32.8	0.90/0.52	21%/16%	76%/72%	0.98/0.81	11%/15%	85%/86%
-2A062	0.62	10.0	32.3	0.90/0.53	21%/16%	76%/72%	0.98/0.81	11%/15%	85%/86%
-2A063	0.63	10.0	31.7	0.90/0.53	21%/16%	76%/73%	0.98/0.81	11%/15%	85%/86%
-2A064	0.64	10.0	31.3	0.90/0.54	21%/16%	76%/73%	0.98/0.81	11%/15%	85%/86%
-2A065	0.65	10.0	30.8	0.90/0.54	20%/16%	76%/73%	0.98/0.81	11%/15%	85%/86%
-2A066	0.66	10.0	30.3	0.91/0.55	20%/16%	76%/73%	0.98/0.81	11%/15%	85%/86%
-2A067	0.67	10.0	29.9	0.91/0.55	20%/16%	76%/73%	0.98/0.81	11%/15%	85%/86%
-2A068	0.68	10.0	29.4	0.91/0.55	20%/16%	76%/74%	0.98/0.81	11%/15%	85%/86%
-2A069	0.69	10.0	29.0	0.91/0.56	20%/15%	76%/74%	0.98/0.81	11%/15%	85%/85%
-2A070	0.70	10.0	28.6	0.91/0.56	20%/15%	76%/74%	0.98/0.81	11%/15%	85%/85%
-2A071	0.71	10.0	28.2	0.91/0.57	20%/15%	76%/74%	0.98/0.81	11%/15%	85%/85%
-2A072	0.72	10.0	27.8	0.91/0.57	20%/15%	76%/74%	0.98/0.81	11%/15%	85%/85%
-2A073	0.73	10.0	27.4	0.91/0.58	20%/15%	76%/74%	0.98/0.81	11%/15%	84%/85%
-2A074	0.74	10.0	27.0	0.91/0.58	20%/15%	76%/74%	0.98/0.81	11%/15%	84%/85%

 $<sup>^{\</sup>star}$  See How to Build a Model Number, V-Case Type on page 6 for a sample model number.

PEQ0: Hi-lume Premier 0.1% EcoSystem LED Driver

The state of Lott Forth or Copies in the				
Job Name:	Model Numbers:			
Job Number:				

3691077e 10 10.25.19

# "2" Output Range (continued)

			ble Load ge (V)		erformance at atible Load V			rformance at atible Load V	
Model number* PEQ _1UVN-	Rated Output Current (A)	Minimum	Maximum	Power Factor at 120 V∼/ 277 V∼	THD at 120 V∼/ 277 V∼	Efficiency at 120 V~/ 277 V~	Power Factor at 120 V∼/ 277 V∼	THD at 120 V∼/ 277 V∼	Efficiency at 120 V~/ 277 V~
-2A075	0.75	10.0	26.7	0.91/0.58	20%/15%	76%/74%	0.98/0.81	11%/15%	84%/85%
-2A076	0.76	10.0	26.3	0.91/0.59	20%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A077	0.77	10.0	26.0	0.91/0.59	19%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A078	0.78	10.0	25.6	0.92/0.60	19%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A079	0.79	10.0	25.3	0.92/0.60	19%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A080	0.80	10.0	25.0	0.92/0.60	19%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A081	0.81	10.0	24.7	0.92/0.61	19%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A082	0.82	10.0	24.4	0.92/0.61	18%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A083	0.83	10.0	24.1	0.92/0.61	18%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A084	0.84	10.0	23.8	0.92/0.62	18%/15%	76%/75%	0.98/0.81	11%/15%	84%/85%
-2A085	0.85	10.0	23.5	0.92/0.62	18%/15%	77%/75%	0.98/0.81	11%/15%	84%/85%
-2A086	0.86	10.0	23.3	0.92/0.63	18%/14%	77%/76%	0.98/0.81	11%/15%	84%/84%
-2A087	0.87	10.0	23.0	0.92/0.63	17%/14%	77%/76%	0.98/0.81	11%/15%	84%/84%
-2A088	0.88	10.0	22.7	0.92/0.63	17%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A089	0.89	10.0	22.5	0.93/0.64	17%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A090	0.90	10.0	22.2	0.93/0.64	16%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A091	0.91	10.0	22.0	0.93/0.64	16%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A092	0.92	10.0	21.7	0.93/0.65	15%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A093	0.93	10.0	21.5	0.94/0.65	15%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A094	0.94	10.0	21.3	0.94/0.65	15%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A095	0.95	10.0	21.1	0.94/0.66	14%/14%	77%/76%	0.98/0.81	11%/15%	83%/84%
-2A096	0.96	10.0	20.8	0.94/0.66	14%/14%	77%/76%	0.98/0.82	11%/15%	83%/84%
-2A097	0.97	10.0	20.6	0.94/0.66	14%/14%	77%/76%	0.98/0.82	11%/15%	83%/84%
-2A098	0.98	10.0	20.4	0.94/0.67	13%/14%	77%/76%	0.98/0.82	11%/15%	83%/84%
-2A099	0.99	10.0	20.2	0.95/0.67	13%/14%	77%/76%	0.98/0.82	11%/15%	83%/84%
-2A100	1.00	10.0	20.0	0.95/0.67	13%/14%	77%/76%	0.98/0.82	11%/15%	83%/84%
-2A101	1.01	10.0	19.8	0.95/0.67	13%/14%	77%/76%	0.98/0.82	11%/15%	82%/83%
-2A102	1.02	10.0	19.6	0.95/0.68	12%/14%	77%/76%	0.98/0.82	11%/15%	82%/83%
-2A103	1.03	10.0	19.4	0.95/0.68	12%/14%	77%/76%	0.98/0.82	11%/15%	82%/83%
-2A104	1.04	10.0	19.2	0.96/0.68	12%/14%	77%/76%	0.98/0.82	11%/15%	82%/83%
-2A105	1.05	10.0	19.0	0.96/0.68	11%/14%	77%/76%	0.98/0.82	11%/15%	82%/83%

 $<sup>^{\</sup>star}$  See How to Build a Model Number, V-Case Type on page 6 for a sample model number.

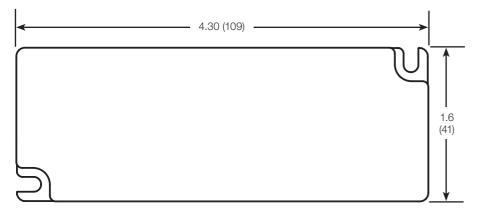
PEQ0: Hi-lume Premier 0.1% EcoSystem LED Driver

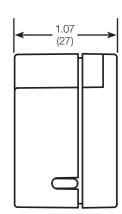
Job Name:	Model Numbers:
Job Number:	

3691077e 11 10.25.19

#### **Outer Dimensions**

All measurements shown as: in (mm)

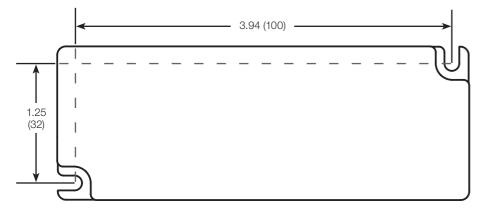




# Mounting

All measurements shown as: in (mm)

Accommodates #6 screws for mounting. Ensure that the driver is fully secured to the mounting surface. Do not clamp with more than 8 in-lb (0.9 N•m) of torque.

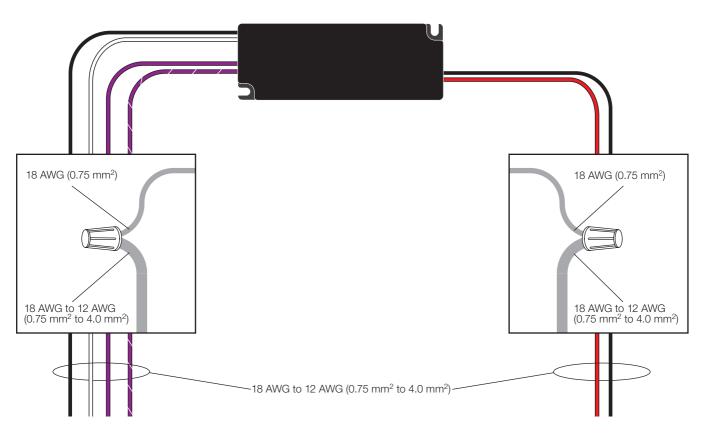


#	,			
Job Name:	Model Numbers:			
Job Number:				

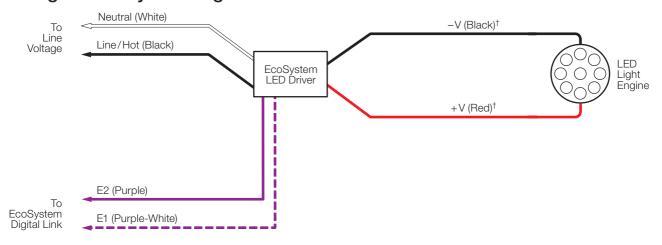
3691077e 12 10.25.19

## Wiring Gauges

Wire colors shown correspond to wires on driver.



# Wiring for EcoSystem Digital Control\*



<sup>\*</sup> Refer to Lutron Application note #142 (048162), "EcoSystem Bus Class 1 and Class 2 listing" at www.lutron.com for more information on wiring options.

Job Name:	Model Numbers:
Job Number:	

<sup>†</sup> For maximum driver-to-LED light engine wire length, see charts in the Driver Wiring and Mounting section on page 2.

3691077e 13 10.25.19

# Compatible Controls: Lutron EcoSystem Digital Controls

Guaranteed performance specifications with the controls listed in the chart below.

For assistance selecting controls, contact our LED Center of Excellence at 1.877.346.5338 or LEDs@lutron.com

	Part Numb	oer	Drivers per Control			
Lutron EcoSystem Compatible Controls	120 V∼	277 V∼	EcoSystem Loops per Control	Drivers per EcoSystem Loop	Maximum Drivers per Control	
DowDak Dimming Madulas	RMJ-ECO32-	-DV-B	1	32	32	
PowPak Dimming Modules	FCJ/FCJS-E	:CO <sup>1,</sup>	1	3	3	
Enorgi Sayr Nodo	QSN-1ECO-S	N/A	1	64	64	
Energi Savr Node	QSN-2ECO-S	IN/A	2	64	128	
GRAFIK Eye QS / HomeWorks QS control unit	QSGRJE (wireless) QSGRE	N/A	1	64	64	
	QP2 2C		2	64	128	
Quantum Hub	QP24C	N/A	4	64	256	
Quantum nub	QP26C	IN/A	6	64	384	
	QP28C		8	64	512	
HomeWorks QS / myRoom Plus power module	LQSE-2ECO-D	N/A	2	64	128	

All devices connected to one FCJ/FCJS-ECO will be controlled together. Devices will dim to the same level as the result of a control command. For more detail on adjusting low-end light level refer to Application Note #556 (048556) at www.lutron.com

Job Name:	Model Numbers:
Job Number:	

3691077e 14 10.25.19

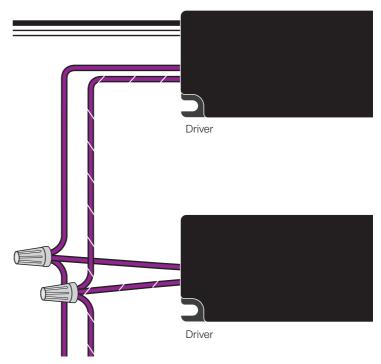
#### **EcoSystem Wiring**

#### **EcoSystem Digital Link Overview**

- The EcoSystem Digital Link wiring (E1 and E2) connects the digital ballasts and drivers together to form a lighting control system.
- E1 and E2 (EcoSystem digital link wires) are polarity-insensitive and can be wired in any topology (e.g., T-tap and daisy-chain).
- Power is supplied to the EcoSystem Digital Link from the control system.

#### **EcoSystem Digital Link Wiring**

- Make sure that the supply breaker to the drivers and EcoSystem Digital Link Supply is OFF when wiring.
- Connect the two conductors to the two driver terminals E1 and E2 as shown.
- Using two different colors for E1 and E2 will reduce confusion when wiring several drivers together.
- The EcoSystem Digital Link may be wired Class 1 or Class 2. Consult applicable electrical codes for proper wiring practices. Refer to Lutron Application Note #142 (P/N 048162), "EcoSystem Bus Class 1 and Class 2 listing" at www.lutron.com for more information on wiring options.
- For emergency wiring, please refer to Lutron Application Note #106 (P/N 048106) at www.lutron.com



To the EcoSystem Digital Link Supply and additional drivers and/or ballasts

#### Notes

- The EcoSystem Digital Link Supply does not have to be located at the end of the Digital Link.
- Both wires of the EcoSystem link are included in maximum digital lead length.
- EcoSystem Digital Link length is limited by the wire gauge used for E1 and E2 as follows:

Wire Gaug	je	Digital Link Length (max)
12 AWG		2200 ft
14 AWG		1400 ft
16 AWG		900 ft
18 AWG		550 ft

Wire Size	Digital Link Length (max)
4.0 mm <sup>2</sup>	828 m
2.5 mm <sup>2</sup>	517 m
1.5 mm <sup>2</sup>	310 m
1.0 mm <sup>2</sup>	207 m
0.75 mm <sup>2</sup>	155 m

Job Name:	Model Numbers:
Job Number:	

3691077e 15 10.25.19

#### Service

#### Warranty

For warranty information, please visit www.lutron.com/driverwarranty

#### Replacement Parts

When ordering Lutron replacement parts, please provide the full model number. Consult Lutron if you have any questions.

#### **Further Information**

For further information, please visit us at www.lutron.com/hilume1softbled or contact our LED Control Center of Excellence at 1.877.346.5338 or LEDs@lutron.com

#Lutron, Lutron, EcoSystem, Energi Savr Node, GRAFIK Eye, Hi-lume, HomeWorks, PowPak, Quantum, QwikFig, Soft-on, Fade-to-Black, and Vive are trademarks or registered trademarks of Lutron Electronics Co., Inc. in the U.S. and other countries.

All product names, logos, and brands are property of their respective owners.

West of the control o		
Job Name:	Model Numbers:	
Job Number:		