

## EcoSystem™ 5-Series LED Driver — 5 W to 75 W

EcoSystem™ 5-Series LED drivers provide a high-performance solution for any space, in any application, while providing smooth, continuous dimming down to 5% of full output current.

### Features

- Continuous, flicker-free dimming from 100% to 5%<sup>1</sup>.
- Guaranteed dimming performance when used with Lutron® controls.
- Guaranteed compatibility with Energi Savr Node™ units with EcoSystem™, GRAFIK Eye® QS with EcoSystem™, PowPak® dimming module with EcoSystem™, 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<sub>~</sub>.
- A rated lifetime of 50,000 hours at 75 °C (167 °F) calibration point (t<sub>c</sub>).
- Type TL Rated<sup>2</sup>.
- FCC Part 15 compliant for commercial applications at 120–277 V<sub>~</sub><sup>2</sup>.
- 100% performance tested at factory.
- RoHS compliant.
- Non-volatile memory restores all settings after power failure.
- For more information please visit: [www.lutron.com/EcoSystem5Series](http://www.lutron.com/EcoSystem5Series)

### EcoSystem™ Features

- Simpler to wire and more reliable than 0-10 V<sub>~</sub>.
- Guarantees compatibility between Lutron® controls, drivers, and sensors.
- Accommodates zone changing without rewiring.
- Link to Lutron® Quantum® Total Light Management System to monitor lighting power consumption.

<sup>1</sup> Light output at 5% depends on the efficacy of the light engine used with the driver.

<sup>2</sup> Does not include J, K, L, M, and N output ranges (preliminary spec).



### EcoSystem™ LED Driver, case type M

1.18 in (30 mm) W x 1.00 in (25 mm) H x 14.13 in (359 mm) L

<b>Job Name:</b>  <b>Job Number:</b>	<b>Model Numbers:</b>
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## Specifications

### Regulatory Approvals

- Lutron® Quality Systems registered to ISO 9001.2008
- 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 compliant for commercial applications at 120–277 V $\sim$ <sup>4</sup>
- Meets UL® 8750, “Light Emitting Diode (LED) Equipment for use in Lighting Products”<sup>4</sup>
- Type TL rated<sup>4</sup>
- Class 2 output<sup>4</sup>
- Meets LED driver requirements for Energy Star version 1.2
- Class 2 output designed to withstand hot swap<sup>4</sup>
- Inrush current less than NEMA 410-2011 limit<sup>4</sup>
- Dimming method: constant-current reduction, refer to Lutron® Application Note #360 for details

### 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  $^\circ\text{F}$ )<sup>3</sup>
- Indoor use only
- Rated for dry and damp locations

### Driver Wiring and Mounting

- Driver is grounded by a mounting screw to the grounded fixture
- Terminal blocks on the driver accept one solid wire per terminal from 18 AWG to 16 AWG (0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>)
- Fixture must be grounded in accordance with local and national electrical codes
- Maximum driver-to-LED light engine wire length for:

Wire Gauge	Maximum Lead Length		
	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)

\* To use wire gauges larger than the terminal blocks' rated gauge of 18 to 16 AWG (0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>), refer to **Terminal Wiring Gauges** diagram. The 18 to 16 AWG (0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>) wires connected to the driver should be less than 3 ft (0.9 m).

### Performance

- Dimming Range: 100% to 5%<sup>1</sup>
- Operating Voltage: 120–277 V $\sim$  at 50/60 Hz
- Lifetime: 50,000 hours when calibration point ( $t_c$ ) at 75  $^\circ\text{C}$  (167  $^\circ\text{F}$ )<sup>2</sup>
- For rated warranty,  $t_c$  not to exceed 75  $^\circ\text{C}$  (167  $^\circ\text{F}$ ) (maximum rated temperature)<sup>2</sup>
- Patented thermal foldback protection
- LED lighting turns on to any dimmed level without flashing to full brightness
- Non-volatile memory restores all driver settings after power failure
- Typical standby power consumption: 0.2 W at 120 V $\sim$  and 0.3 W at 277 V $\sim$
- Open-circuit protected output
- Short-circuit and overload-protected output
- Device turn-on time: < 100 ms from electronic off and < 500 ms from power off

<sup>1</sup> Light output at 5% depends on the efficacy of the 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 75  $^\circ\text{C}$  (167  $^\circ\text{F}$ ).

<sup>3</sup> Where  $t_a$  is the temperature of the air directly surrounding the driver.

<sup>4</sup> Does not include J, K, L, M, and N output ranges (Preliminary Spec).

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## How to Select the Correct LED Driver for Your 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 1 A and 33 V nominally, has an output voltage range of 28–38 V (at 1 A) due to unit-to-unit variation, temperature, etc.

3. Determine the proper operating range of the LED driver.
  - a. Identify the output range(s) of the driver family that includes the desired current.
    - i. Select Current

**Example:** Only “B”, “C”, “U”, and “V” models meet the current range of the selected load (1 A).

### LED Load Output Range

L = 0.15 – 0.32 A, 20–40 V<sub>DC</sub>, 5-10 W

M = 0.25 – 0.50 A, 20–40 V<sub>DC</sub>, 6.5-14 W

N = 0.35 – 0.75 A, 20–40 V<sub>DC</sub>, 10-20 W

B = 0.50 – 1.25 A, 20–40 V<sub>DC</sub>, 15-35 W

C = 0.88 – 1.75 A, 20–40 V<sub>DC</sub>, 25-50 W

D = 1.25 – 2.10 A, 20–40 V<sub>DC</sub>, 35-75 W

J = 0.15 – 0.30 A, 30–50 V<sub>DC</sub>, 6-12 W

K = 0.24 – 0.50 A, 30–50 V<sub>DC</sub>, 9-20 W

T = 0.40 – 0.83 A, 30–50 V<sub>DC</sub>, 15-35 W

U = 0.70 – 1.33 A, 30–50 V<sub>DC</sub>, 25-50 W

V = 1.00 – 1.88 A, 30–50 V<sub>DC</sub>, 40-75 W

- ii. Select Voltage

**Example:** Out of the 4 models indicated above, only “B” and “C” models meet the voltage requirement for the selected load (28–38 V).

### LED Load Output Range

L = 0.15 – 0.32 A, 20–40 V<sub>DC</sub>, 5-10 W

M = 0.25 – 0.50 A, 20–40 V<sub>DC</sub>, 6.5-14 W

N = 0.35 – 0.75 A, 20–40 V<sub>DC</sub>, 10-20 W

B = 0.50 – 1.25 A, 20–40 V<sub>DC</sub>, 15-35 W

C = 0.88 – 1.75 A, 20–40 V<sub>DC</sub>, 25-50 W

D = 1.25 – 2.10 A, 20–40 V<sub>DC</sub>, 35-75 W

J = 0.15 – 0.30 A, 30–50 V<sub>DC</sub>, 6-12 W

K = 0.24 – 0.50 A, 30–50 V<sub>DC</sub>, 9-20 W

T = 0.40 – 0.83 A, 30–50 V<sub>DC</sub>, 15-35 W

U = 0.70 – 1.33 A, 30–50 V<sub>DC</sub>, 25-50 W

V = 1.00 – 1.88 A, 30–50 V<sub>DC</sub>, 40-75 W

continued on next page...

Job Name:	Model Numbers:
Job Number:	

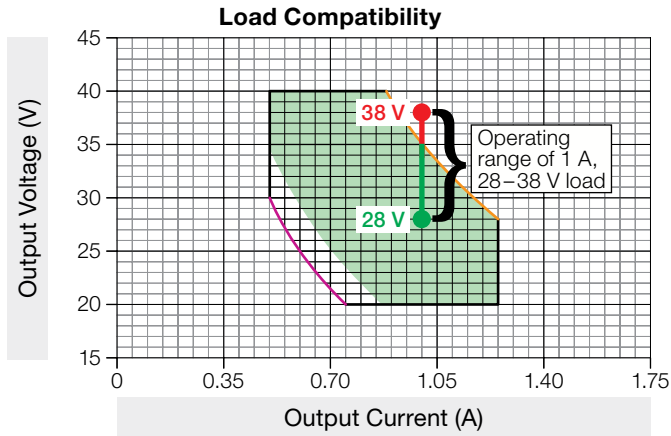
## How to Select the Correct LED Driver for Your Load (continued)

b. Examine the **Load Compatibility** graphs below for each output range to ensure that the voltage range of the LED load is within the safe operating area.

**Example:** Lines marked below indicate load specifications (28–38 V at 1 A).

### “B” Model (Not Compatible) ❌

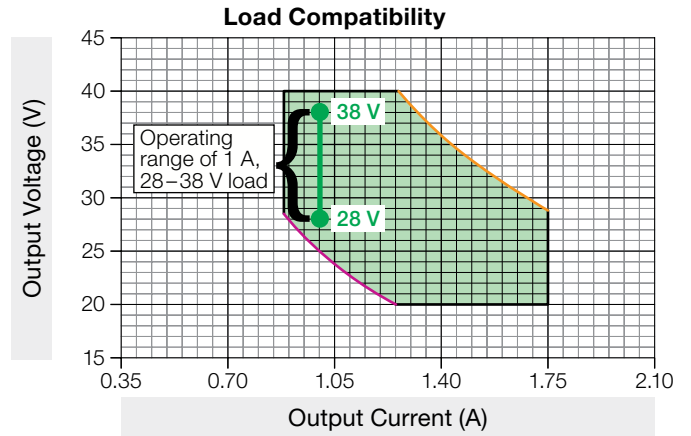
Since the maximum voltage of the load (38 V) exceeds the allowable voltage of “B” model (35 V at 1 A), this model is not compatible.



Key:   
 Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).   
 Constant 15 W output     Constant 35 W output

### “C” Model (Compatible) ✅

Operating voltage range for “C” model is 25–40 V at 1 A. Since the load specifications are within the operating range, “C” model is compatible for this load.



Key:   
 Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).   
 Constant 25 W output     Constant 50 W output

4. 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.

Job Name:	Model Numbers:
Job Number:	

# How to Build a Model Number (“BLK” models for use with Lutron® QwikFig™ technology): EcoSystem™ 5-Series (up to 75 W) LED Driver

LDE5 U1UMN- A

**Example: LDE53U1UMN-BA070**  
 0.70 A, 15–28 W, 21.5–40 V<sup>\*\*\*</sup> LED driver  
 For further assistance selecting your model number, contact our LED Center of Excellence at LEDs@lutron.com

**LED Load Output Range**  
**Class 2 Constant Current**  
 L = 0.15–0.32 A, 20–40 V<sup>\*\*\*</sup>, 5–10 W  
 M = 0.25–0.50 A, 20–40 V<sup>\*\*\*</sup>, 6.5–14 W  
 N = 0.35–0.75 A, 20–40 V<sup>\*\*\*</sup>, 10–20 W  
 B = 0.50–1.25 A, 20–40 V<sup>\*\*\*</sup>, 15–35 W  
 C = 0.88–1.75 A, 20–40 V<sup>\*\*\*</sup>, 25–50 W  
 D = 1.25–2.10 A, 20–40 V<sup>\*\*\*</sup>, 35–75 W  
 J = 0.15–0.30 A, 30–50 V<sup>\*\*\*</sup>, 6–12 W  
 K = 0.24–0.50 A, 30–50 V<sup>\*\*\*</sup>, 9–20 W  
 T = 0.40–0.83 A, 30–50 V<sup>\*\*\*</sup>, 15–35 W  
 U = 0.70–1.33 A, 30–50 V<sup>\*\*\*</sup>, 25–50 W  
 V = 1.00–1.88 A, 30–50 V<sup>\*\*\*</sup>, 40–75 W

**Current Level (for Constant Current):**  
 015 = 0.15 A: . . . 210 = 2.10 A

**Option 1:** Order a driver configured by Lutron to a desired output current.  
**Example:** LDE53U1UMN-BA070 has been pre-configured at Lutron to an output of 0.70 A. Refer to the example above.  
**Note:** Lutron® pre-configured drivers are *not* QwikFig™ compatible and cannot be re-configured.

**Option 2:** Order a QwikFig™ compatible driver.  
**Example:** LDE53U1UMN-BABLK (0.5–1.25 A)\*  
**Note:** Default set to minimum output current for the respective **LED Load Output Range**.

**LED Load Power Range**  
 1 = Use when **LED Load Output Range** is “J,” “L,” or “M”  
 2 = Use when **LED Load Output Range** is “K” or “N”  
 3 = Use when **LED Load Output Range** is “B” or “T”  
 5 = Use when **LED Load Output Range** is “C” or “U”  
 7 = Use when **LED Load Output Range** is “D” or “V”

**Attention:** Model numbers may appear similar to Lutron® Hi-lume® A-Series drivers, but EcoSystem™ 5-Series drivers are not a direct model-for-model replacement for Hi-lume® A-Series drivers. Please note the driver’s output rating and the load ratings to select the correct product for your fixture.

**Note:** QwikFig™ bulk drivers are only available as UL® recognized. Does not include “J,” “K,” “L,” “M,” and “N” output ranges.

\* Output voltage range changes with output current and according to power limits. Check driver specifications on following pages carefully to understand output voltage range of a particular SKU. Purchaser is responsible for electrical compatibility between LED driver and LED load.  
 \*\* Minimum voltage of LDE53U1UMN-BA070 limited by 15 W minimum power.

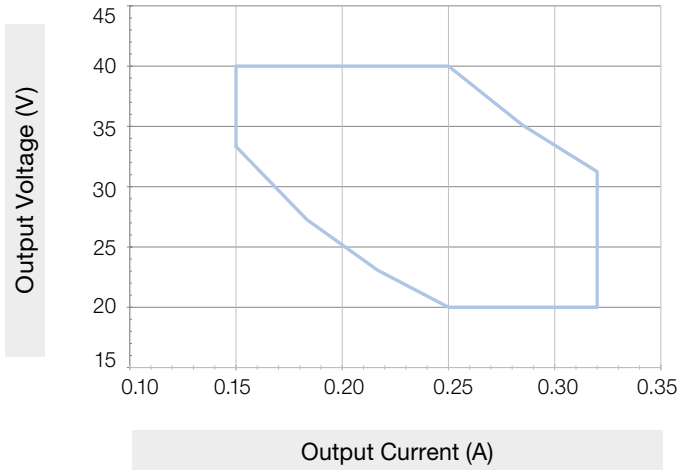
<b>LUTRON® SPECIFICATION SUBMITTAL</b>		Page
<b>Job Name:</b>	<b>Model Numbers:</b>	
<b>Job Number:</b>		

### “L” Output Range (preliminary spec)

Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver	Constant Current Reduction (CCR)	20–40 V $\equiv$	0.15–0.32 A*	5–10 W	—	75 °C

\* QwikFig™ compatible model number LDE51U1UMN-LABLK is configurable to any current within this range.

**Load Compatibility**



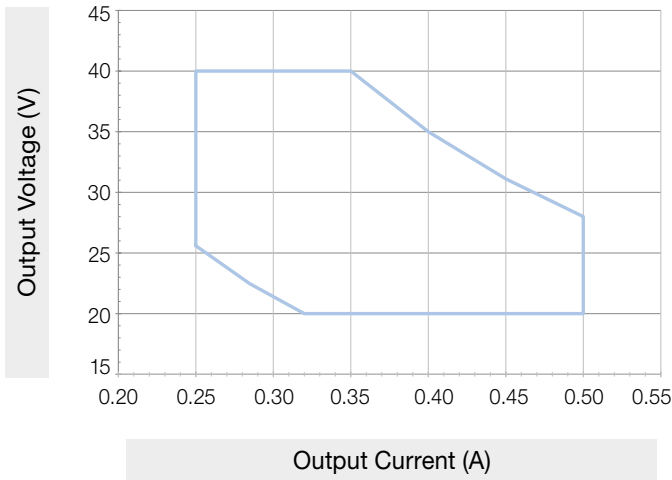
Job Name:	Model Numbers:
Job Number:	

### “M” Output Range (preliminary spec)

Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver	Constant Current Reduction (CCR)	20–40 V $\equiv$	0.25–0.50 A*	6.5–14 W	—	75 °C

\* QwikFig™ compatible model number LDE51U1UMN-MABLK is configurable to any current within this range.

**Load Compatibility**



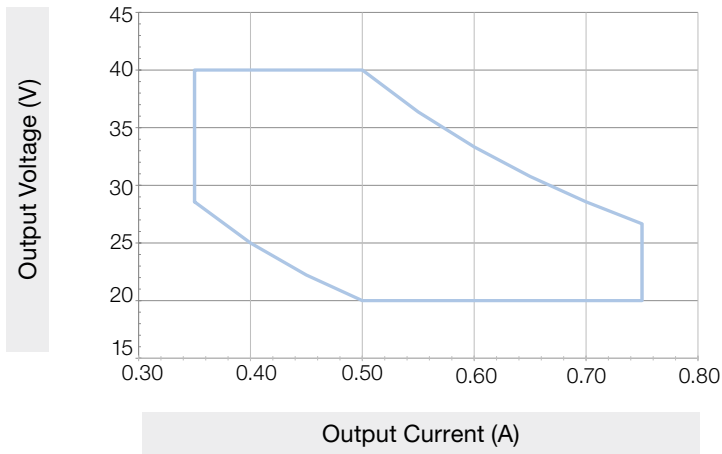
Job Name:	Model Numbers:
Job Number:	

### “N” Output Range (preliminary spec)

Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver	Constant Current Reduction (CCR)	20–40 V $\equiv$	0.35–0.75 A*	10–20 W	—	75 °C

\* QwikFig™ compatible model number LDE52U1UMN-NABLK is configurable to any current within this range.

**Load Compatibility**



Job Name:	Model Numbers:
Job Number:	



### “B” Output Range

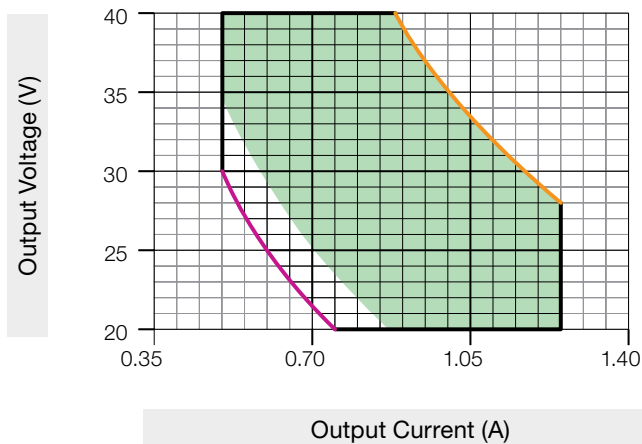
Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ t <sub>c</sub> for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	20–40 V <sup>==</sup>	0.50–1.25 A*	15–35 W	 Type TL 84 °C/65 °C	75 °C

\* QwikFig™ compatible model number LDE53U1UMN-BABLK is configurable to any current within this range.

### Typical Performance Specifications:

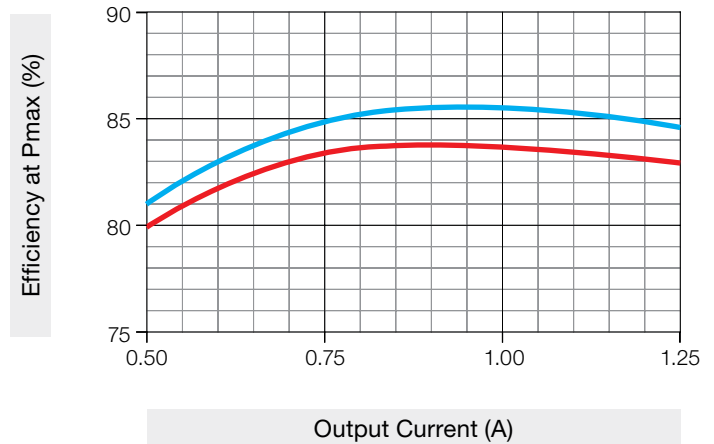
Parameter	Value	Test Conditions
Input Current	0.15 A	V <sub>i</sub> = 277 V <sup>~</sup> , t <sub>a</sub> = 25 °C, I <sub>o</sub> = 0.88 A, V <sub>o</sub> = 40 V <sup>==</sup> , Maximum Light Output
Power Factor	0.96	
THD	15%	LDE53U1UMN-BA088
Driver Efficiency	85%	

Load Compatibility



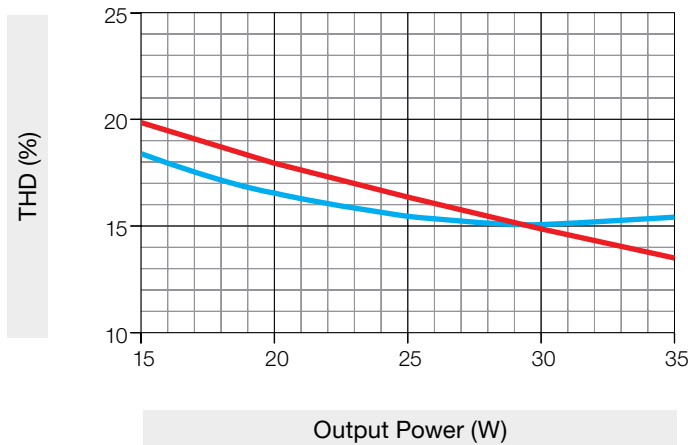
Key:   
■ Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).   
— Constant 15 W output — Constant 35 W output

Typical Efficiency vs. Output Current



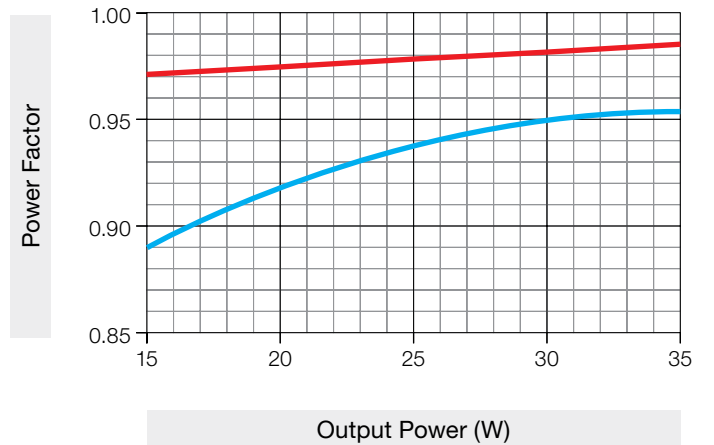
Key: — 120 V~ — 277 V~

Typical THD vs. Output Power



Key: — 120 V~ — 277 V~


Typical Power Factor vs. Output Power



Key: — 120 V~ — 277 V~

Job Name:	Model Numbers:
Job Number:	

### “C” Output Range

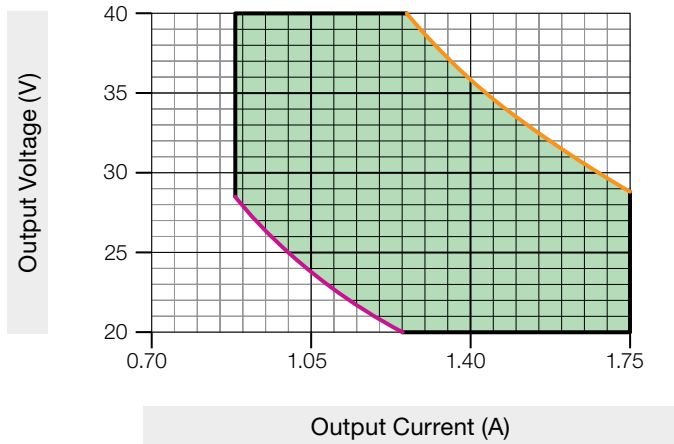
Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ t <sub>c</sub> for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	20–40 V <sup>==</sup>	0.88–1.75 A*	25–50 W	 Type TL 80 °C/76 °C	75 °C

\* QwikFig™ compatible model number LDE55U1UMN-CABLK is configurable to any current within this range.

### Typical Performance Specifications:

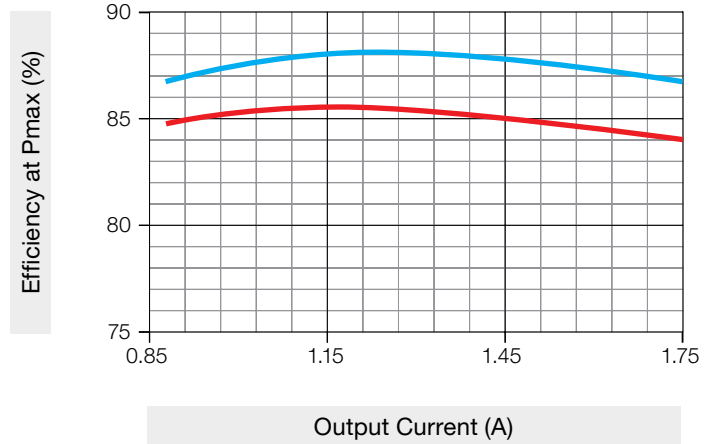
Parameter	Value	Test Conditions
Input Current	0.21 A	V <sub>i</sub> = 277 V <sup>~</sup> , t <sub>a</sub> = 25 °C, I <sub>o</sub> = 1.25 A, V <sub>o</sub> = 40 V <sup>==</sup> , Maximum Light Output  LDE55U1UMN-CA125
Power Factor	0.97	
THD	13%	
Driver Efficiency	88%	

Load Compatibility



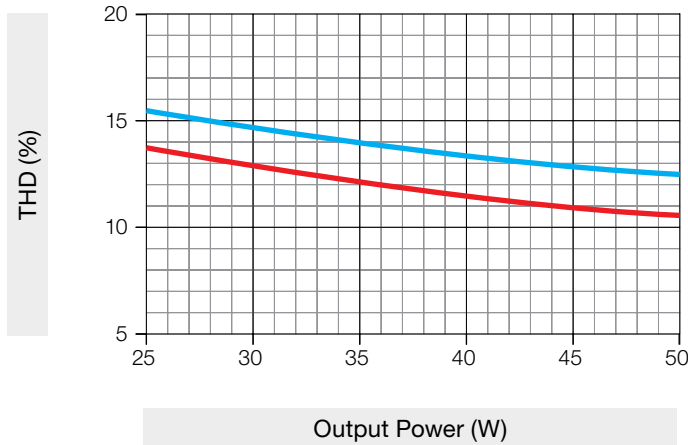
Key:   
■ Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).   
— Constant 25 W output — Constant 50 W output

Typical Efficiency vs. Output Current



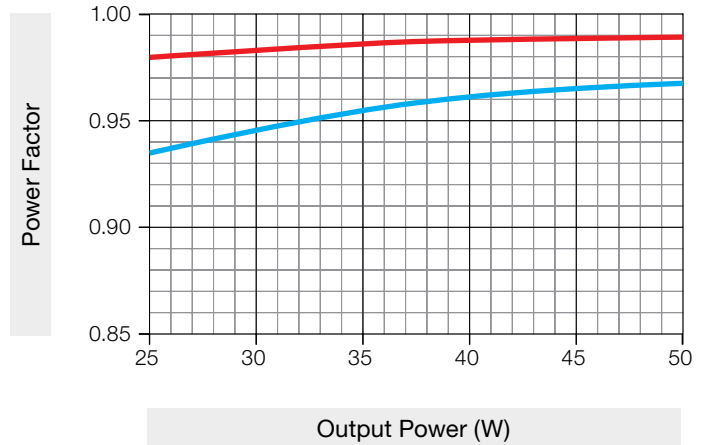
Key: — 120 V~ — 277 V~

Typical THD vs. Output Power



Key: — 120 V~ — 277 V~


Typical Power Factor vs. Output Power



Key: — 120 V~ — 277 V~

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## “D” Output Range

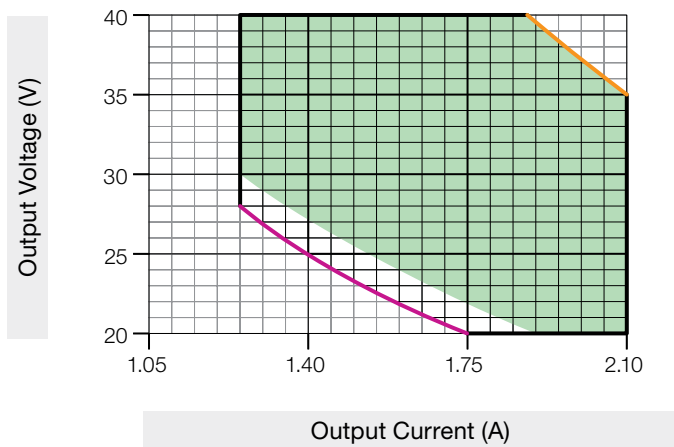
Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	20–40 V $\overline{=}$	1.25–2.10 A*	35–75 W		75 °C

\* QwikFig™ compatible model number LDE57U1UMN-DABLK is configurable to any current within this range.

### Typical Performance Specifications:

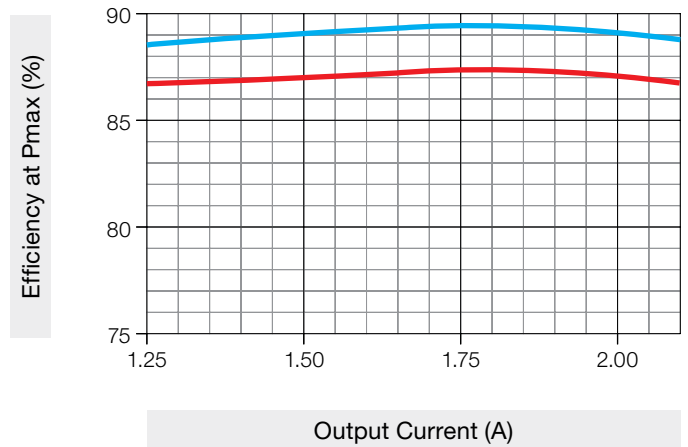
Parameter	Value	Test Conditions
Input Current	0.31 A	$V_i = 277\text{ V}\sim$ , $t_a = 25\text{ }^\circ\text{C}$ , $I_o = 1.88\text{ A}$ , $V_o = 40\text{ V}\overline{=}$ , Maximum Light Output
Power Factor	0.95	
THD	13%	LDE57U1UMN-DA188
Driver Efficiency	89%	

Load Compatibility



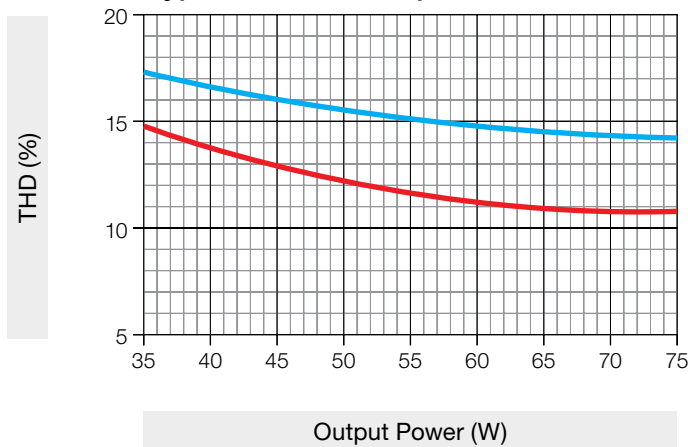
Key:  Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).

Typical Efficiency vs. Output Current



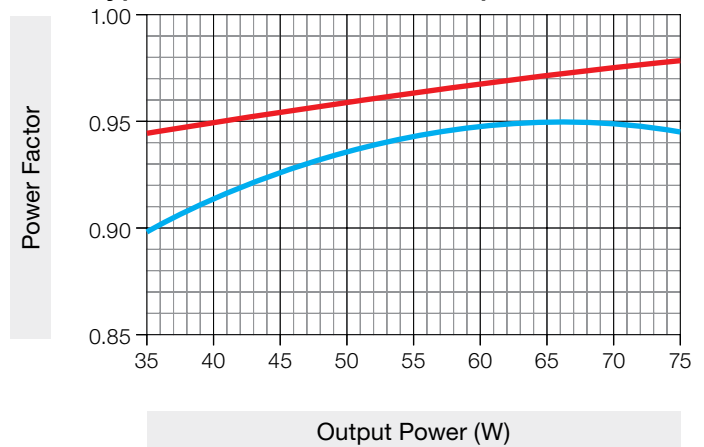
Key: — 120 V $\sim$  — 277 V $\sim$

Typical THD vs. Output Power



Key: — 120 V $\sim$  — 277 V $\sim$

Typical Power Factor vs. Output Power



Key: — 120 V $\sim$  — 277 V $\sim$

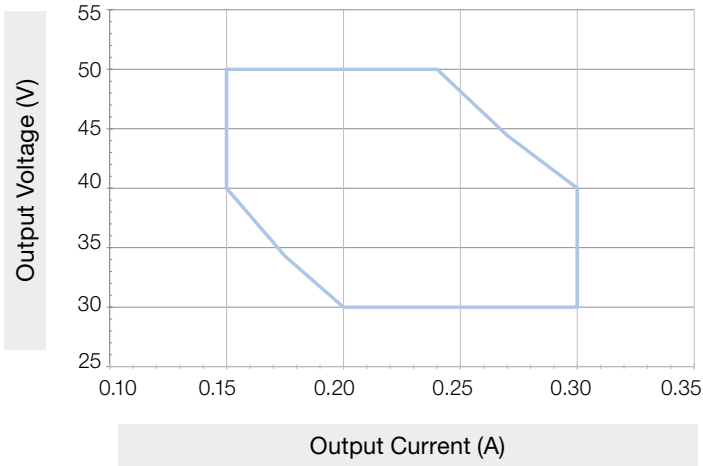
Job Name:	Model Numbers:
Job Number:	

### “J” Output Range (preliminary spec)

Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	30–50 V $\equiv$	0.15–0.30 A*	6–12 W	—	75 °C

\* QwikFig™ compatible model number LDE51U1UMN-JABLK is configurable to any current within this range.

**Load Compatibility**



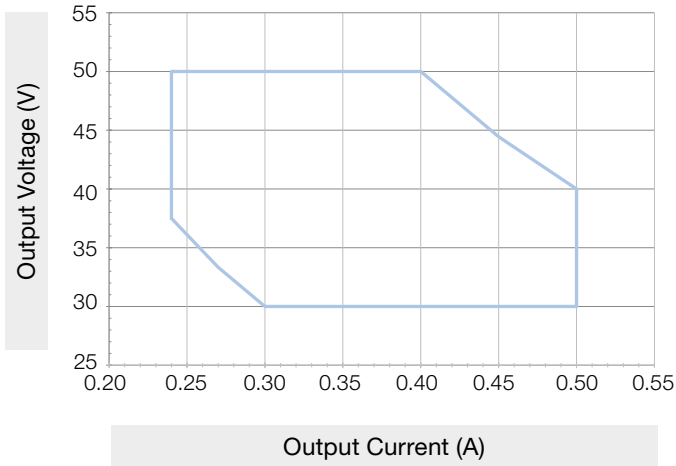
Job Name:	Model Numbers:
Job Number:	

### “K” Output Range (preliminary spec)

Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver	Constant Current Reduction (CCR)	30–50 V $\equiv$	0.24–0.50 A*	9–20 W	—	75 °C


\* QwikFig™ compatible model number LDE52U1UMN-KABLK is configurable to any current within this range.

**Load Compatibility**



Job Name:	Model Numbers:
Job Number:	

### “T” Output Range

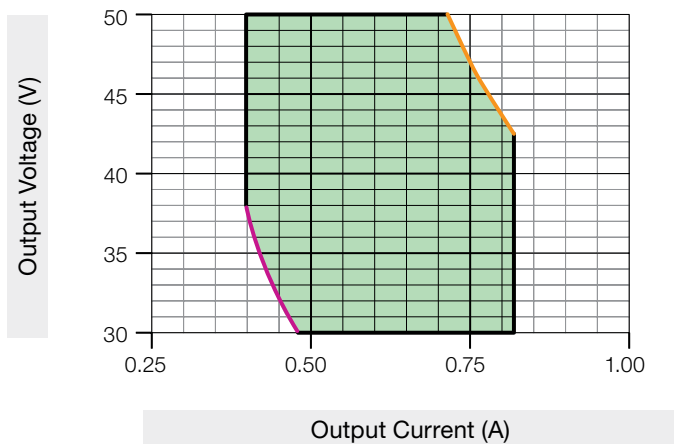
Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ t <sub>c</sub> for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	30–50 V <sup>==</sup>	0.40–0.83 A*	15–35 W		75 °C

\* QwikFig™ compatible model number LDE53U1UMN-TABLK is configurable to any current within this range.

### Typical Performance Specifications:

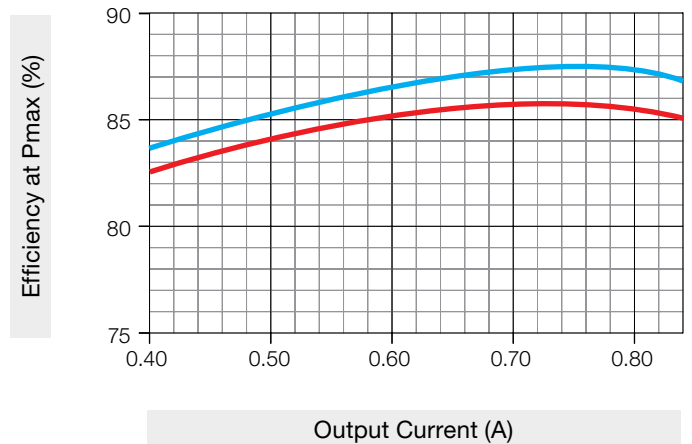
Parameter	Value	Test Conditions
Input Current	0.15 A	V <sub>i</sub> = 277 V <sub>~</sub> , t <sub>a</sub> = 25 °C, I <sub>o</sub> = 0.70 A, V <sub>o</sub> = 50 V <sup>==</sup> , Maximum Light Output LDE53U1UMN-TA070
Power Factor	0.96	
THD	13%	
Driver Efficiency	87%	

Load Compatibility



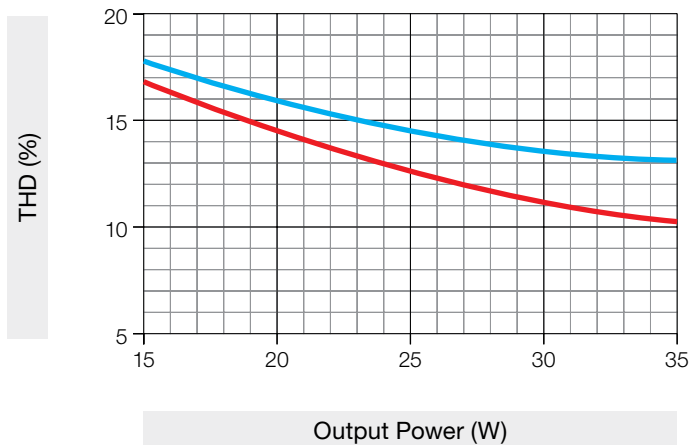
Key:   
 Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).  
 Constant 15 W output     Constant 35 W output

Typical Efficiency vs. Output Current



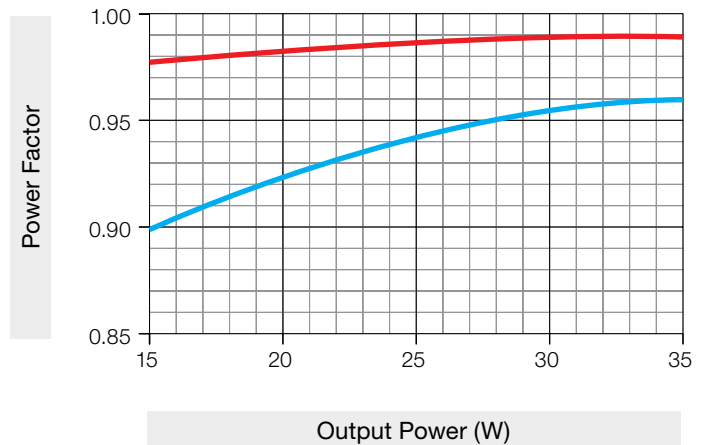
Key:  120 V~     277 V~

Typical THD vs. Output Power



Key:  120 V~     277 V~


Typical Power Factor vs. Output Power



Key:  120 V~     277 V~

Job Name:	Model Numbers:
Job Number:	

## “U” Output Range

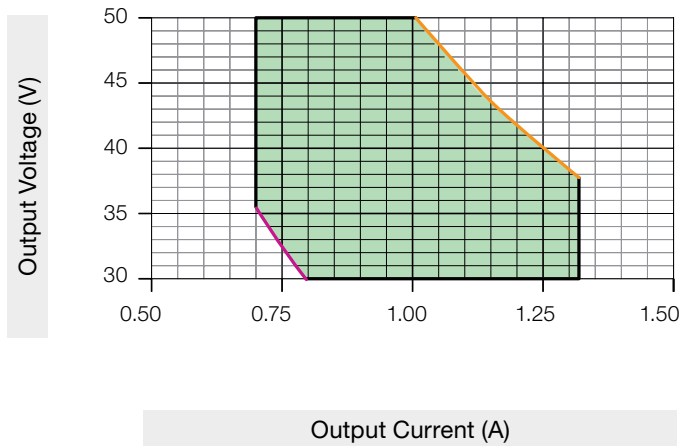
Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ $t_c$ for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	30–50 V $\equiv$	0.70–1.33 A*	25–50 W		75 °C

\* QwikFig™ compatible model number LDE55U1UMN-UABLK is configurable to any current within this range.

### Typical Performance Specifications:

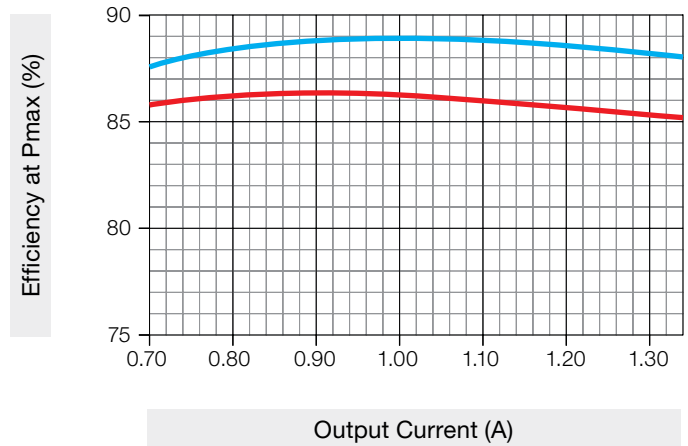
Parameter	Value	Test Conditions
Input Current	0.21 A	$V_i = 277\text{ V}\sim$ , $t_a = 25\text{ }^\circ\text{C}$ , $I_o = 1.0\text{ A}$ , $V_o = 50\text{ V}\equiv$ , Maximum Light Output  LDE55U1UMN-UA100
Power Factor	0.97	
THD	11%	
Driver Efficiency	86%	

Load Compatibility



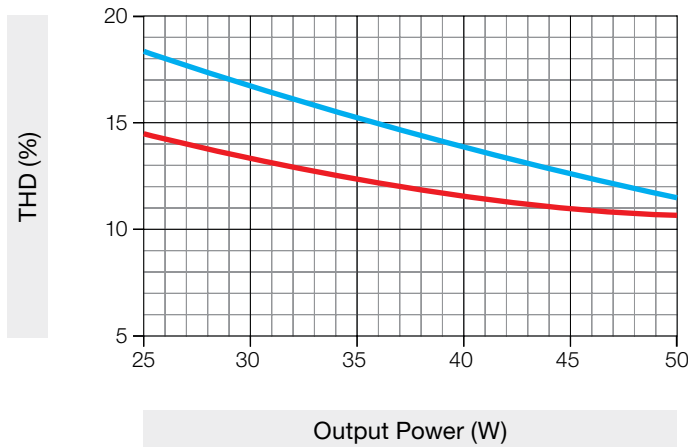
Key:   
■ Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).  
— Constant 25 W output    — Constant 50 W output

Typical Efficiency vs. Output Current



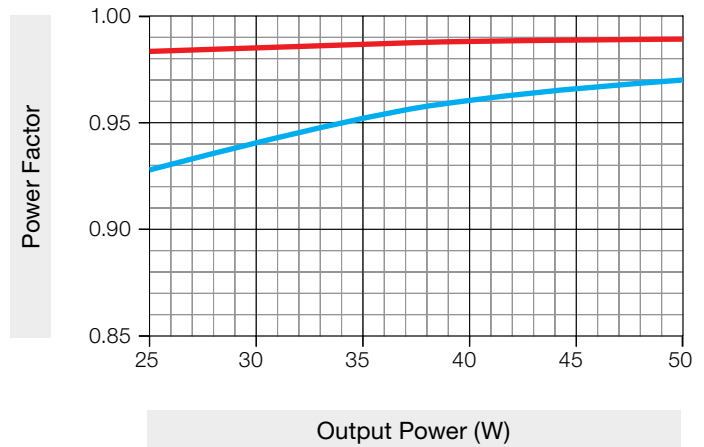
Key: — 120 V~    — 277 V~

Typical THD vs. Output Power



Key: — 120 V~    — 277 V~


Typical Power Factor vs. Output Power



Key: — 120 V~    — 277 V~

Job Name:	Model Numbers:
Job Number:	

### “V” Output Range

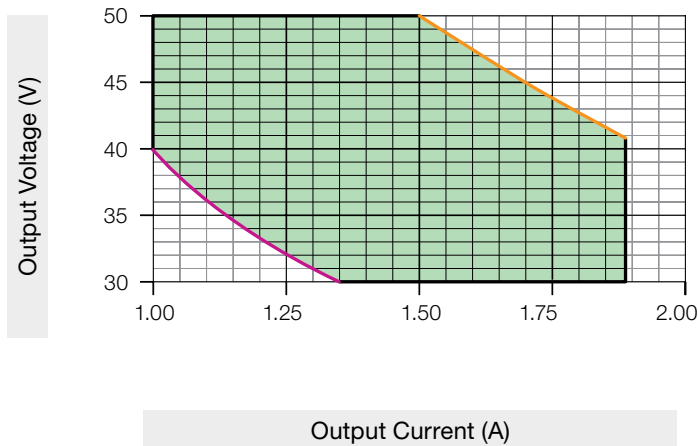
Driver Type	Output Dimming Method	Output Voltage	Output Current	Output Power	Standards Recognition	Maximum Rated Temp. @ t <sub>c</sub> for Warranty
Constant Current Driver (Class 2)	Constant Current Reduction (CCR)	30–50 V <sup>~</sup>	1.00–1.88 A*	40–75 W	 Type TL 89 °C/88 °C	75 °C

\* QwikFig™ compatible model number LDE57U1UMN-VABLK is configurable to any current within this range.

### Typical Performance Specifications:

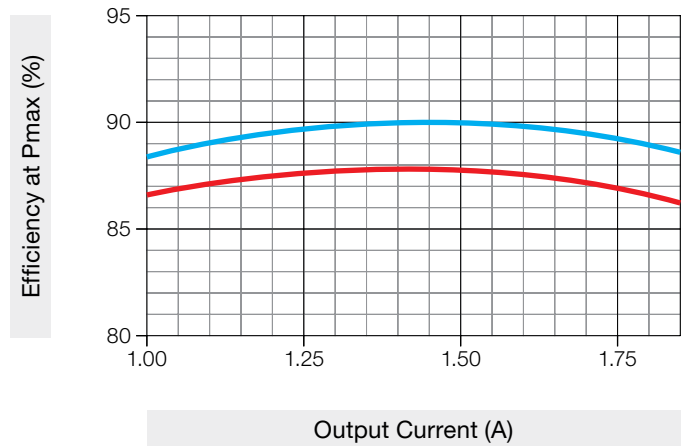
Parameter	Value	Test Conditions
Input Current	0.31 A	V <sub>i</sub> = 277 V <sup>~</sup> , t <sub>a</sub> = 25 °C, I <sub>o</sub> = 1.5 A, V <sub>o</sub> = 50 V <sup>~</sup> , Maximum Light Output  LDE57U1UMN-VA150
Power Factor	0.96	
THD	13%	
Driver Efficiency	90%	

Load Compatibility



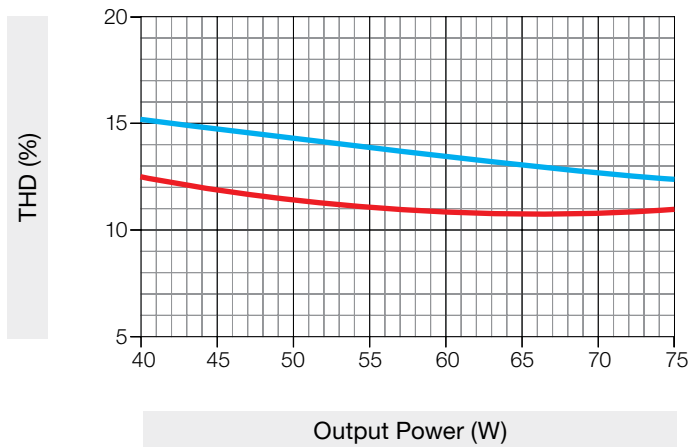
Key:   
■ Shaded area meets DLC Version 2.1 (areas outside of shaded areas may not meet THD or PF requirements).  
— Constant 35 W output — Constant 75 W output

Typical Efficiency vs. Output Current



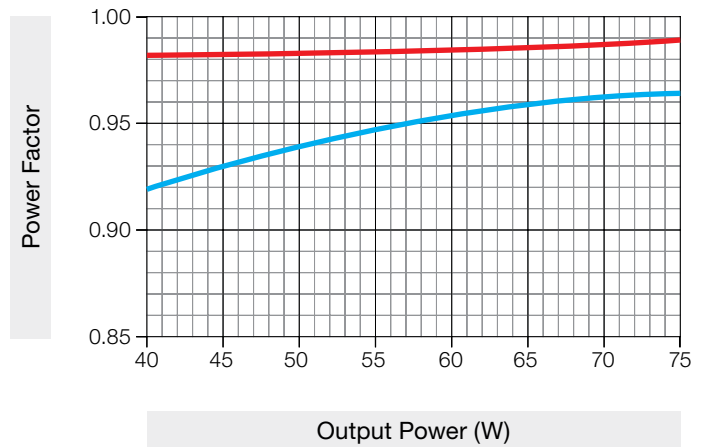
Key: — 120 V~ — 277 V~

Typical THD vs. Output Power



Key: — 120 V~ — 277 V~

Typical Power Factor vs. Output Power

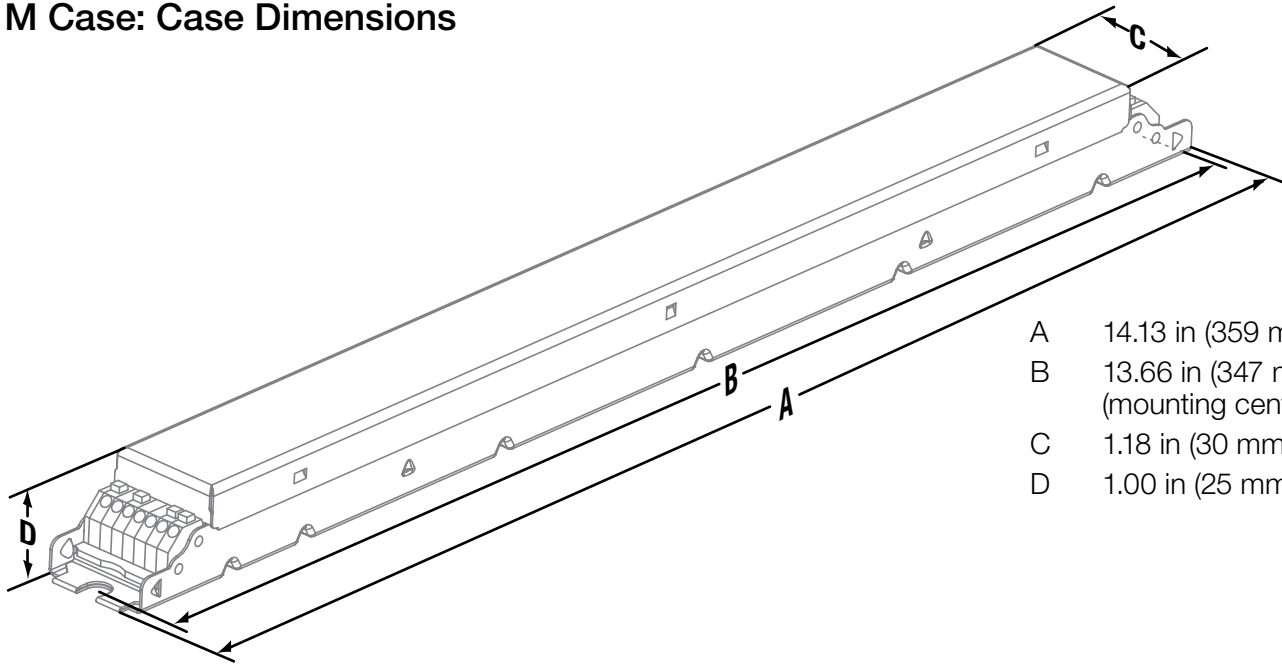


Key: — 120 V~ — 277 V~

Job Name:	Model Numbers:
Job Number:	



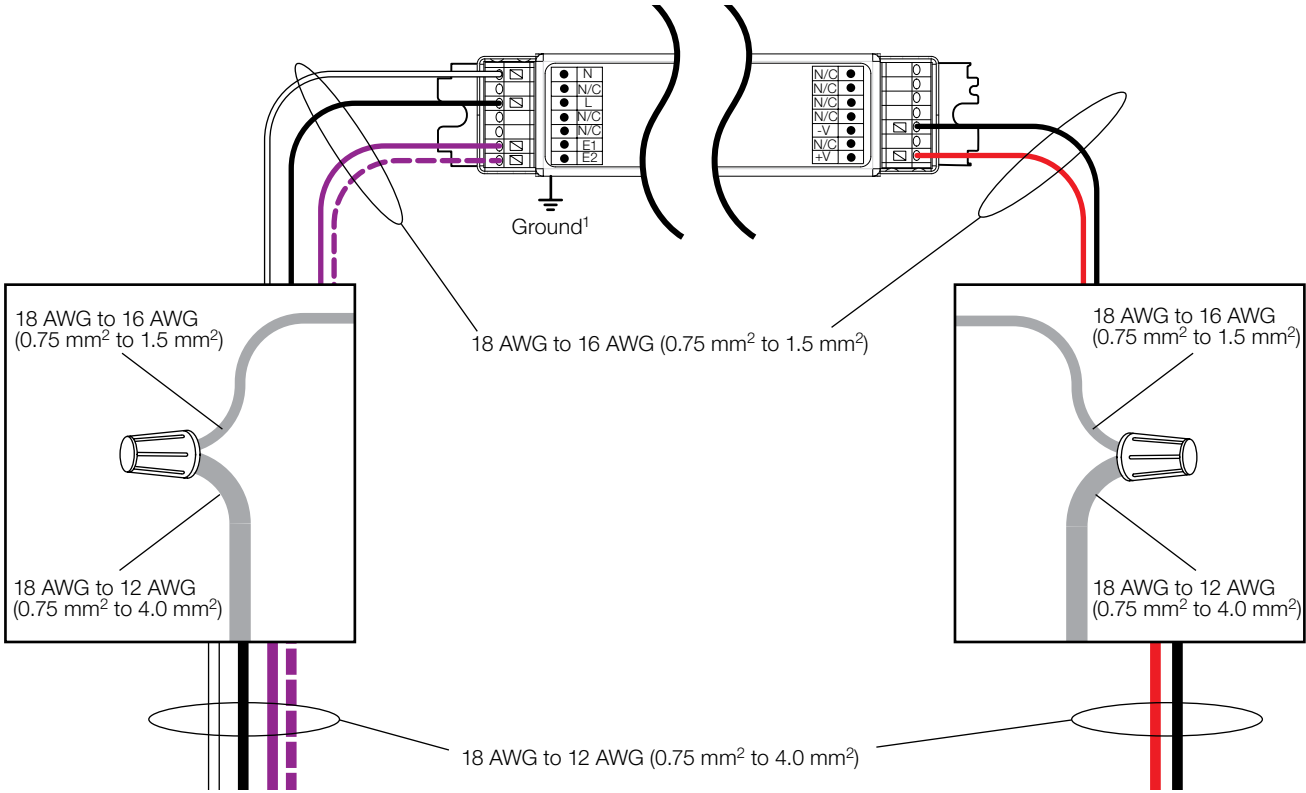
### M Case: Case Dimensions



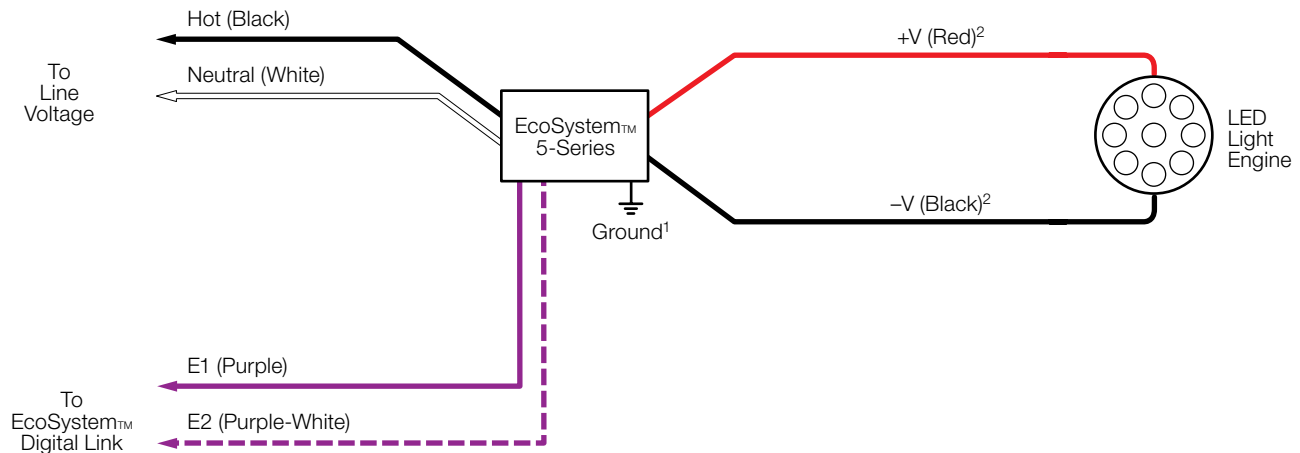
- A 14.13 in (359 mm)
- B 13.66 in (347 mm)  
(mounting center)
- C 1.18 in (30 mm)
- D 1.00 in (25 mm)

Job Name:	Model Numbers:
Job Number:	

### Terminal Wiring Gauges



### Wiring Diagram for EcoSystem™ Digital Control



**Note:** Colors shown correspond to terminal blocks on driver.

<sup>1</sup> Fixture and driver case must be grounded in accordance with local and national electrical codes; ground connection to driver must be accomplished through grounding the case.  
<sup>2</sup> For maximum driver-to-LED light engine wire length, see charts in the **Driver Wiring and Mounting** section.

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

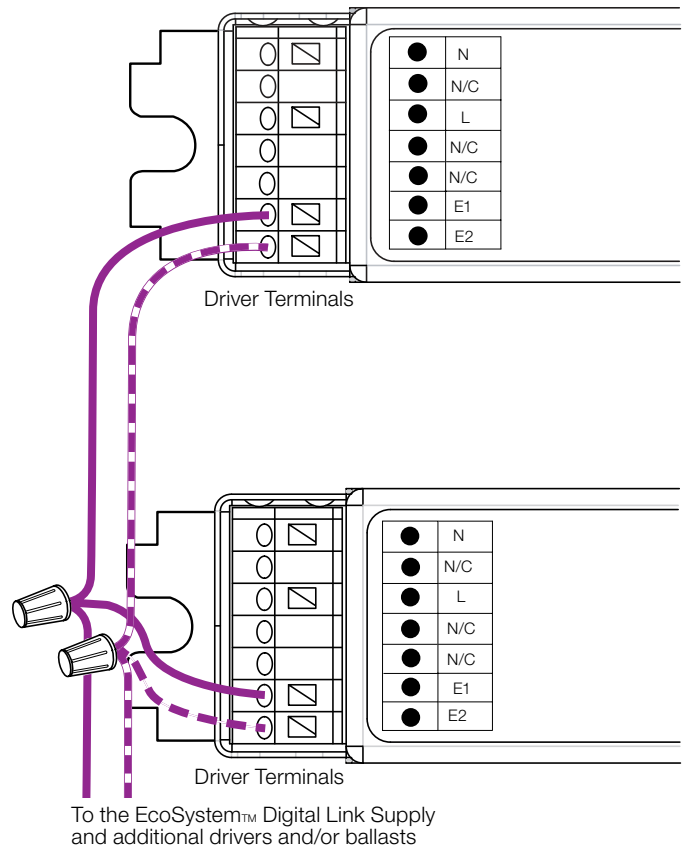
## EcoSystem™ Wiring Diagrams

### 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.
- Sensors do not connect directly to EcoSystem™ 5-Series LED drivers. Sensors are integrated through the EcoSystem™ controller.
- E1 and E2 (EcoSystem™ digital link wires) are polarity-insensitive and can be wired in any topology.
- Power is supplied to the EcoSystem™ Digital Link from the control system.

### EcoSystem™ Digital Link Wiring

- EcoSystem™ Digital Link terminals accept only one 18 AWG to 16 AWG (0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>) solid copper wire per terminal.
- 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.
- For emergency wiring, please refer to Lutron® Application Note #106.



### Notes

- The EcoSystem™ Digital Link Supply does not have to be located at the end of the Digital Link.
- EcoSystem™ Digital Link length is limited by the wire gauge used for E1 and E2 as follows:

Wire Gauge	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

\* To use wire gauges larger than the terminal blocks' rated gauge of 18 AWG to 16 AWG (0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>), refer to **Terminal Wiring Gauges** diagram. The 18 AWG to 16 AWG (0.75 mm<sup>2</sup> to 1.5 mm<sup>2</sup>) wires connected to the driver should be less than 3 ft (0.9 m).

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## EMC Information

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

## Service

### Warranty

For warranty information, please visit [www.lutron.com/ballastdriverwarranty](http://www.lutron.com/ballastdriverwarranty)

### 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/EcoSystem5Series](http://www.lutron.com/EcoSystem5Series) or contact our LED Control Center of Excellence at 1.877.346.5338 or [LEDs@lutron.com](mailto:LEDs@lutron.com)

<p><b>Job Name:</b></p> <p><b>Job Number:</b></p>	<p><b>Model Numbers:</b></p>
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