

# **LED Driver**

by (s) ignify







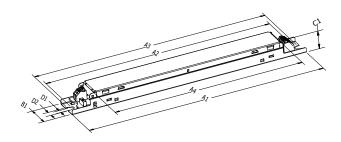
Advance CertaDrive indoor LED drivers are designed to meet basic lighting needs. These dimmable drivers are offered with specific voltage-current settings and are, thus, optimized with specifications that are appropriately suited for the application, making LED conversion affordable.

### **Specifications**

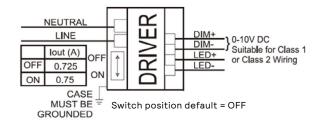
				Efficiency@			Max.	THD		Surge			
Input	Output	Output	Output	Max Load	Max Case	Input	Input	@ Max	Power	Protection	Envir.		
Voltage	Power	Voltage	Current	and 70°C	Temp.	Current	Power	Load	Factor @	(Ring	Protection		Dimming
(Vac)	(W)	(V)	(A)	Case	(°C)	(A)	(W)	(%)	Max Load	Wave, KV)	Rating	Dimming	Range
120				86	Tc-life:	0.35						0-10V	
277	36	28-48	0.725/0.75A	88	70°C Tc-UL: 80°C	0.15	41.9	<20%	>0.9	2.5	UL damp & dry	Analog	10% ~ 100%

#### **Enclosure**

	In. (mm)	Tolerance (mm)
Overall length (A1)	11.02 (280.0)	+/-0.5
Mounting Hole Distance (A2)	10.52 (267.3)	+/-0.5
Mounting Hole Distance (A3)	10.85 (275.6)	+/-0.5
Cover Length (A4)	8.81 (223.8)	+/-0.5
Case Width (B1)	1.18 (30.0)	+/-0.5
Case Height (C1)	0.83 (21.0)	+/1.0
Mounting Hole Diameter (D1)	0.20 (5.08)	+/-0.3
Mounting Hole Diameter (D2)	0.30 (7.7)	+/-0.3



### **Wiring Diagram**



Lead-wires are 18AWG 105C/600V solid copper. Install in accordance with national and local. electrical code, USE 18AWG Solid and tinned stranded copper wires.











Class P Conforms to UL STD 8750 Certified to CAN/CSA STD C22.2 No. 250.13

## 36W 0.725/0.75A 48V 0-10V 120-277V

#### **Features**

- 50,000+ hour lifetime<sup>1</sup>
- Excellent thermal performance
- · High power factor & low THD2

### **Benefits**

- · Enables long life luminaire designs
- Allows operability in indoor (low-bay) ambient conditions
- Suitable for commercial indoor applications

## **Application**

- · Indoor linear troffers, pendants
- · Office areas
- · Retail centers
- · Educational facilities

### **Electrical Specifications**

All the specifications are typical and at 25°C Tcase unless specified otherwise.

### **Product Data**

Order Information					
Full Product Code	CI036C075V048CDX1 (Mid-Pack, 18pcs/Box) 12NC:929002722613				
Line Frequency	50/60Hz				
Min. Mains Voltage Operational	108 Vac				
Max. Mains Voltage Operational	305 Vac				
Output Information					
Maximum Open Circuit Voltage	60Vdc, Class 2 output				
Output Current Ripple (ripple = peak to average / average)	30% max @ max lout				
Output Current Tolerance (at maximum output current)	<8%²				
Protected	Short Circuit protection				
Over Voltage Protection	52V+/-4V Hiccup mode protection				
Features					
0-10V Dimming	See dim curve for detail.				
Environment & Approbation					
Operating Ambient Temp. Range	-20°C to +40°C				
Max Case Temperature (Tcase) <sup>3</sup>	80°C, Tcase Life: 70°C				
Agency Approbations	UL 8750, UL 1310, CSA 250.13, Class P (UL, CSA, ETL)				
Electromagnetic Compliance	FCC Title 47 Part 15 Class A for 120Vac - 277Vac				
Audible Noise	<24dB Class A				
Weight	0.430Lbs / 0.195kgs				

<sup>1.</sup> Advance CertaDrive LED drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTBF modeling.

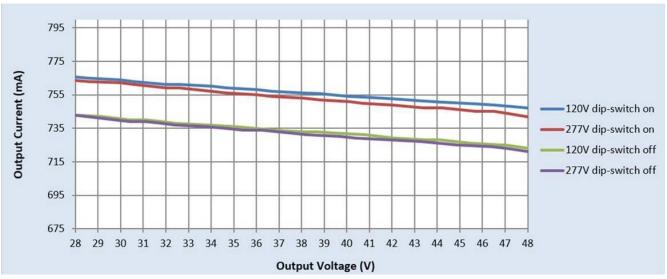
<sup>2.</sup> Note: power factor (PF) and total harmonic distortion (THD) may deviate under adverse mains voltage conditions outside nominal operation. Output current (I out) variation includes effects of line and load regulation, temperature variation and component tolerances.

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## lout Vs. lout



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## **Electrical Specifications**

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#### 0-10V Dimming Curve

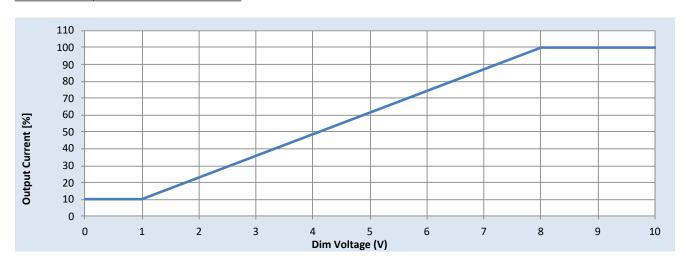
Dimming source current from the driver:  $100\mu A-250\mu A$  (@ 1<Vdim<8V)

Minimum dim level: 10% of lout

Maximum output voltage on the dimming wires: 12V

## **Approved Dimmer List**

Manufacturer	Manufacturer Part Number		
Lutron	Visit www.lutron.com		
Leviton	IllumaTech IP7 series		
Advance	Sunrise - SR1200ZTUNV		

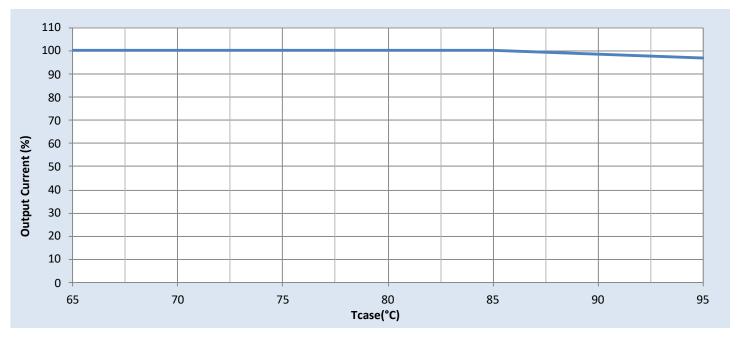


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## **Electrical Specifications**

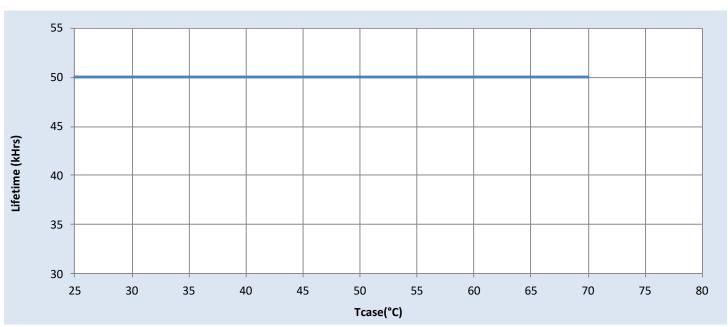
All the specifications are typical and at 25°C Tcase unless specified otherwise.

## **Output Current Vs. Driver Case Temperature**



Note: There is  $\pm 5^{\circ}$ C tolerance on the driver case temperature.

## **Driver Lifetime Vs. Driver Case Temperature**

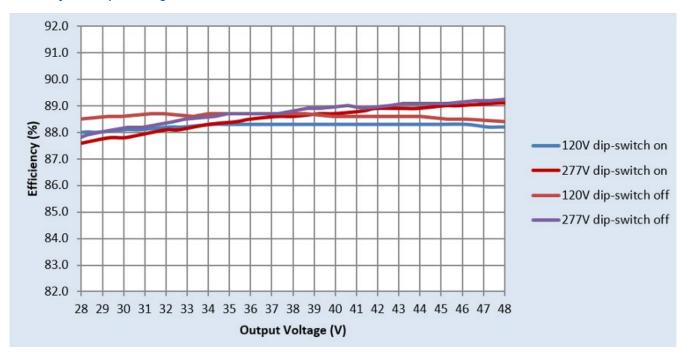


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### **Performance Characteristics**

Based on measurements on a typical sample at  $70^{\circ}$ C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

## Efficiency Vs. Output Voltage

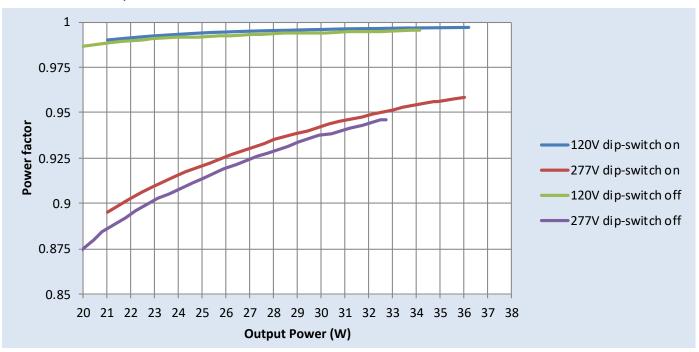


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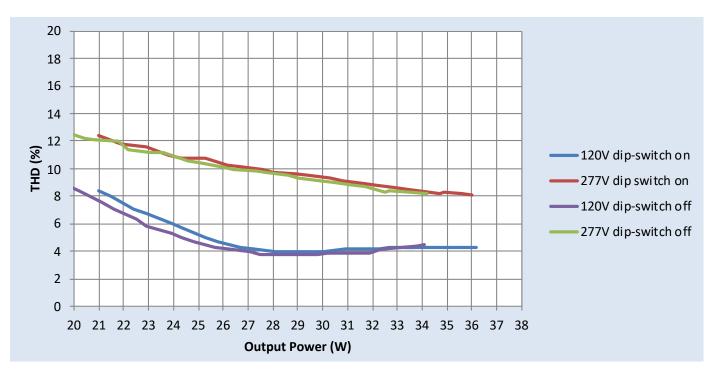
#### **Performance Characteristics**

Based on measurements on a typical sample at  $70^{\circ}$ C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

#### **Power Factor Vs. Output Power**

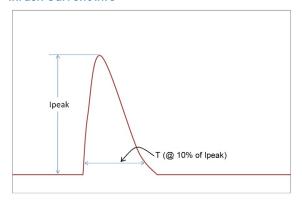


## Total Harmonic Distortion (THD) Vs. Output Power



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### **Inrush Current Info**



Vin	lpeak	T (@ 10% of Ipeak)		
120 Vrms	10.7A	6.1µS		
277 Vrms	26.6A	7.56µS		

Inrush current is measured at peak of the corresponding line voltage. Source impedance per NEMA 410.

## **Lightning Surge Info**

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)		
100 kHz Ring Wave (w/t 30Ω)	2.5kV	2.5kV		

#### Isolation

Isolation	Input	Output	0-10V	Enclosure	
Input	NA	2xU+1kV	2xU+1kV	2xU+1kV	
Output	2xU+1kV	NA	2xU+1kV	500V	
0-10V	2xU+1kV	2xU+1kV	NA	2xU+1kV	
Enclosure	2xU+1kV	500V	2xU+1kV	NA	

U = Max working voltage



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