# **LED Driver**

# **ADVANCE**

by (s) ignify

## Xitanium

# XI063C150V042CNS1





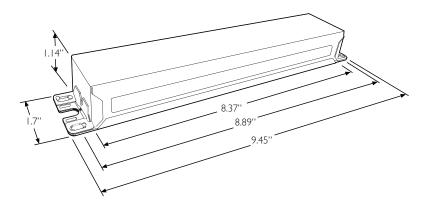
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. **The Advance Xitanium LED Outdoor Driver portfolio** offers a range of products specially designed to operate LED solutions in outdoor applications. These drivers are designed for hard-wired integration into outdoor luminaires for the most rugged applications. They operate to specification under wide temperature and electrical ranges to ensure reliability.

### **Specifications**

				Efficiency@			Max.	Inrush			Surge		
Input	Output	Output	Output	Max Load	Max.	Input	Input	Current	THD @	Power	Protection		Envir.
Voltage	Power	Voltage	Current	and 70°C	Case Temp.	Current	Power	(A <sub>pk</sub> /10%-	Max.	Factor @	Common/	Weight	Protection
(Vrms)	(W)	(V)	(A)	Case	(°C)	(Arms)	(W)	μs)	Load	Max. Load	Diff (KV)	(Lbs/kgs)	Rating
120	63	27 - 42	1.50	86	90℃	0.62	74	37/313	<15%	>0.90	4/4	1.48/0.67	UL Dry &
277	03	27 - 42	1.50	87	0.28	/4	83/299	<15%	70.90 4/4	1.48/0.67	Damp		

#### **Enclosure**

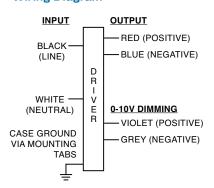
	In. (mm)	
Case Length	8.37 (212.6)	
Case Width	1.70 (43.2)	
Case Height	1.14 (29.0)	
Mounting Length	8.89 (225.8)	
Overall Length	9.45 (240.0)	



### **UL Conditions of Acceptability:**

Please contact your representative for a copy of the latest UL Conditions of Acceptability (COA).

# Wiring Diagram



Input and output use lead-wires.

Lead-wires are 18AWG solid copper.

 $105^{\circ}$ C/600V per UL1316 and  $90^{\circ}$ C/1000V per UL1452.

Lead Length outside enclosure:

280 mm (+50.8mm/-25.4mm) on all wires.

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	15% ~ 100%	0.225	NA

# 63W 120-277V 1.50A 0-10V

### **Electrical Specifications**

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

### **Features**

- UL Class 2 output, high drive current (1.5A)
- 50,000+ hour lifetime<sup>1</sup>
- Increased thermal capability (90°C Tcase max)<sup>2</sup>

### **Benefits**

- · Tailored specifically for various COB arrays
- $\cdot$  Enables long life luminaire designs
- Allows luminaire designs for higher ambient temperatures

### **Application**

- Pathways
- · Parking garages
- · City street lighting
- · Roadway

### **Product Data**

Order Information					
Order Code	XI063C150V042CNS1				
Full Product Code	XI063C150V042CNS1M (Mid-Pack 20pcs/Box)				
Full Product Name	XITANIUM 63W 1.50A 0-10V INT-S				
Line Voltage	120-277Vac_rms				
Line Current	0.62A @ 120V, 0.28A @ 277V				
Line Frequency	50/60Hz				
Min. Mains Voltage Operational	108V [min]				
Max. Mains Voltage Operational	305V [max]				
THD (total)	Refer to graph				
Power Factor (PF)	Refer to graph				
Inrush Current	Per NEMA 410				
Lightning Surge Protection	Refer to table				
Output Information					
Output Voltage Range	27V to 42Vdc				
Maximum Open Circuit Voltage	46Vdc				
Output Current	15% max @ max lout and max Vout (1.5A/42V)				
(ripple = peak to average / average)	Low frequency (≤120 Hz) content <5%				
Protections	Short Circuit and Open Circuit Protection for LED + and LED -				
Ambient Temp Range	-40°C to +55°C				
Max Case Temperature (Tcase)	90°C				
Features					
Interfaces	0-10V dimming				
0-10V Dimming Specifications	See dim curve for detail.				
Environment & Approbation					
Environmental Protection Rating	UL damp and dry				
Agency Approbations	UL8750, UL1310, UL935, CSA-C22.2 No. 250.13-12, CSA C22.2 No. 223				
Electromagnetic Compliance	FCC Title 47 Part 15 Class A				
Isolation	Refer to table				
Audible Noise	<24dB Class A				

Footnotes on last page.

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### **Electrical Specifications**

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## 0-10V Dimming Curve:

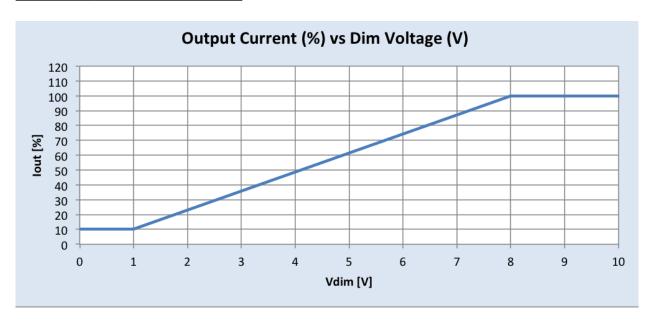
LED Current Tolerance at 1500mA ≤ +-5% and ≤ +- 10% at any dim level (sample to sample)

Minimum Dim Level: 15% of Iout (225mA nominal)

Maximum output voltage on the dimming wires: 13V

## **Approved Dimmer List**

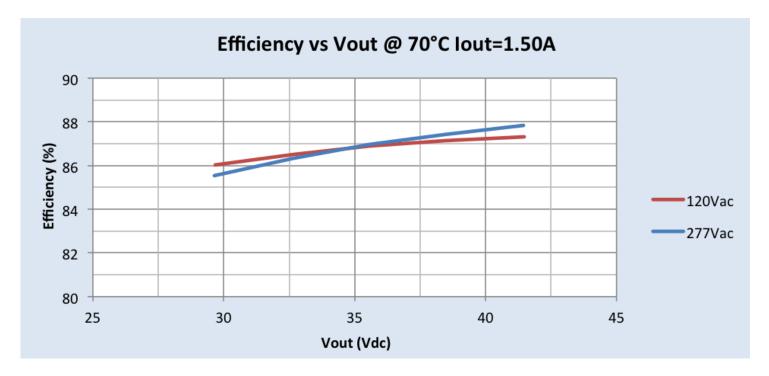
Manufacturer	Manufacturer Part Number		
Lutron	Visit www.lutron.com/ advance for a list of dimmers (Mark VII) that will work with this driver		
Leviton	IllumaTech IP7 series		
Advance	Sunrise - SR1200ZTUNV		



63W 120-277V 1.50A 0-10V

#### **Performance Characteristics**

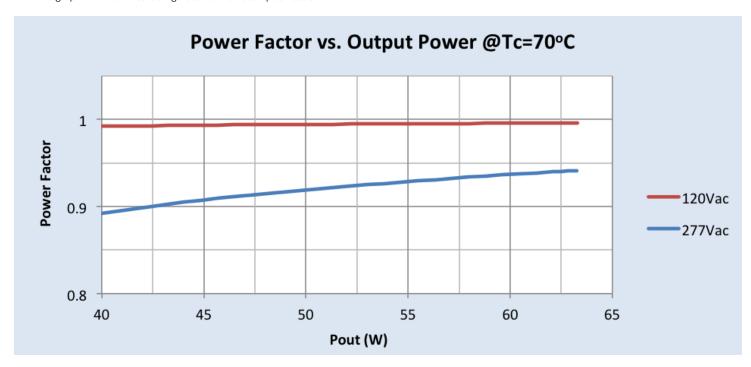
Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

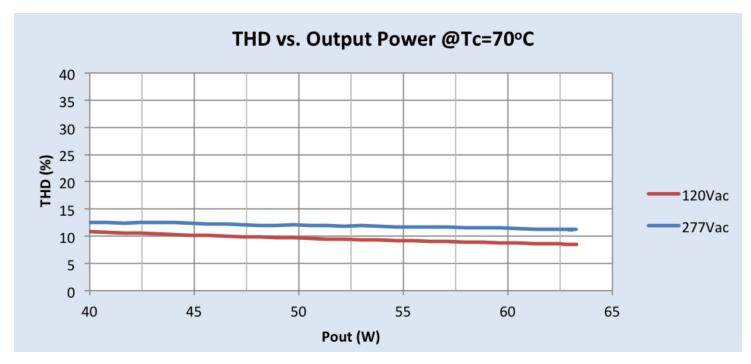


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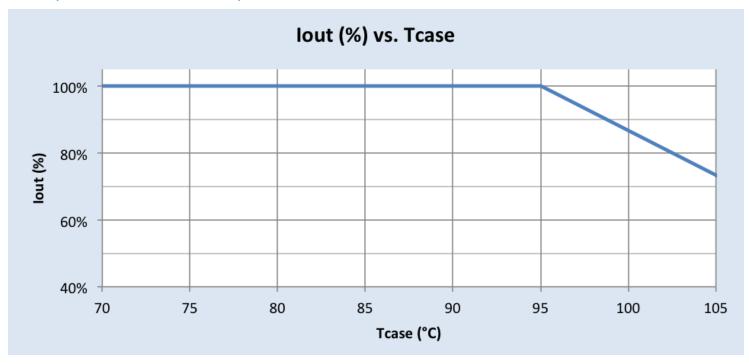


# 63W 120-277V 1.50A 0-10V

# **Electrical Specifications**

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## **Output Current vs. Driver Case Temperature:**

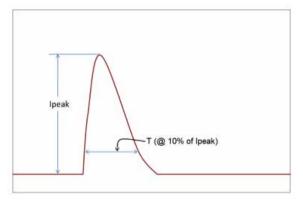


## **Driver Lifetime Vs. Driver Case Temperature:**



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#### **Inrush Current Info:**



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	37A	313µS
277 Vrms	83A	299µS

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)
1.2/50µs - 8/20µs	4kV	4kV
Combination Wave (w/t $2\Omega$ )		

#### **Isolation:**

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2.5KVac	2xU+1kV
Output	2xU+1KV	NA	NA	500V
0-10V (Class 2)	2.5KVac	NA	NA	500V
Enclosure	2xU+1KV	500V	500V	NA

#### Footnotes

- Advance Xitanium LED Drivers are designed and manufactured to engineering standards correlating to an average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTBF modeling.
- $2. \quad \text{Based upon these drivers having a } 90^{\circ}\text{C max case temperature, while the standard is } 80^{\circ}\text{C for outdoor drivers.}$



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