## **LED Driver**

## **ADVANCE**

by (s) ignify

### Xitanium



XI075C070V105CNV2

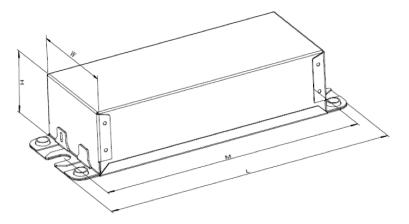
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. **The Advance Xitanium LED Outdoor Driver portfolio** offers a range of products 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**

Input Voltage (Vrms)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max. Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	Inrush Current (A <sub>pk</sub> /10%- µs)	THD @ Max. Load	Power Factor @ Max. Load	Surge Protection Common/ Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating
120	<del></del> /5	43 - 107	0.70	90.5	00	0.70		36 / 223	<10%	- 0.05	4/4	1 52 /0 57	UL Dry &
277				92.5	80	0.30	84	92 / 188	<10%	>0.95	4/4	1.53/0.57	Damp

#### **Enclosure**

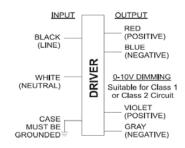
	In. (mm)
Case Length	5.43 (138.00)
Case Width	2.32 (59.00)
Case Height	1.50 (38.00)
Mounting Length	5.98 (152.00)
Mounting Width	1.69 (42.88)
Overall Length	6.61 (168.00)



#### **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 105C/600V solid copper per UL1452.

Lead Length outside enclosure: 270 mm (±30mm) on input, output and dimming wires.

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 1 and 2 Wiring	10% ~ 100%	0.07	Dimming source current: 150 µA (±3%)

## 75W 120-277V 0.70A 0-10V

#### **Electrical Specifications**

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

#### **Features**

- · 50,000+ hour lifetime1
- · Isolated 0-10V dimming
- · New housing with high thermal capability

#### **Benefits**

- · Enables long life luminaire designs
- Helps to maximize energy savings and allows application specific light levels
- Allows luminaire designs for ambient environments

#### **Application**

- · Area
- · Roadway
- · Parking garages
- Floodlights
- 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.

#### **Product Data**

Out of the section					
Order Information	T				
Order Code	XI075C070V105CNY2M				
Full Product Code	XI075C070V105CNY2M (Mid-Pack, 12pcs/Box)				
Full Product Name	XITANIUM 75W 0.70A 0-10V Dimming				
Line Voltage	120-277Vac_rms				
Line Current	0.70A @ 120V, 0.30A @ 277V				
Line Frequency	50/60Hz				
Min. Mains Voltage Operational	108V				
Max. Mains Voltage Operational	305V				
THD (total)	Refer to graph				
Power Factor (PF)	Refer to graph				
Efficiency	Refer to graph				
Inrush Current	Per NEMA 410				
Lightning Surge Protection	Refer to table				
Output Information					
Output Voltage Range	43Vdc to 107Vdc				
Maximum Open Circuit Voltage	180Vdc				
Output Current	15% max @ max lout and max Vout				
(ripple = peak to average / average)	Low frequency (≤120 Hz) content <5%				
Protections	Short Circuit and Open Circuit Protection for LED + and LED –				
Operating Ambient Temp. Range	-40°C to +55°C				
Max Case Temperature (Tcase)	80°C				
Features					
Interfaces	0-10V Dimming				
0-10V Dimming Specifications	150μA ± 3% source current from driver. See dim curve for detail.				
Environment & Approbation					
Environmental Protection Rating	UL dry and damp				
Agency Approbations	UL879, UL1012, UL935, (cRUs/CSA)				
Electromagnetic Compliance	FCC Title 47 Part 15 Class A				
Isolation	Refer to table				
Audible Noise	<24dB Class A				

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#### 0-10V Dimming Curve:

Dimming source current from the driver: 150µA (±3%) (@ 0<Vdim<8V)

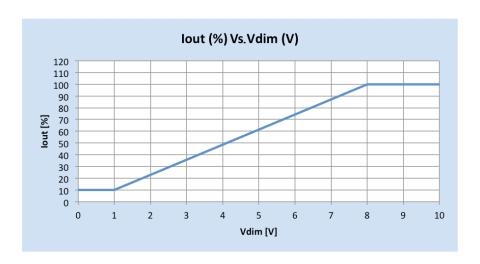
LED Current Tolerance at 700mA ≤ 5% over temperature and component variations.

Minimum Dim Level (nominal): 70 mA

Maximum output voltage on the dimming wires: 12V

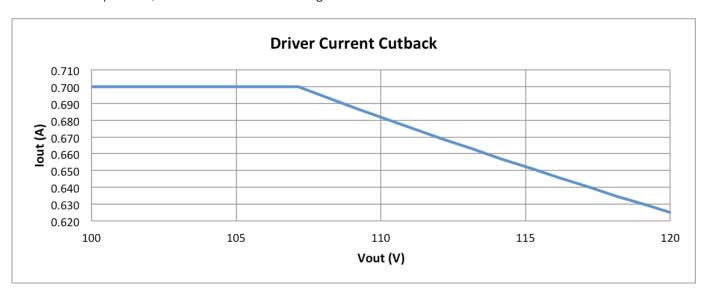
### **Approved Dimmer List**

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



#### **Driver Current Cutback**

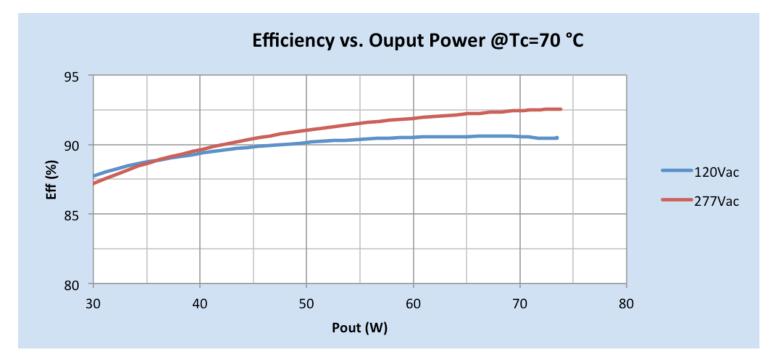
The Driver Current Cutback feature provides for an increased output voltage with a reduced output current during abnormal LED operation, such as cold weather starting.

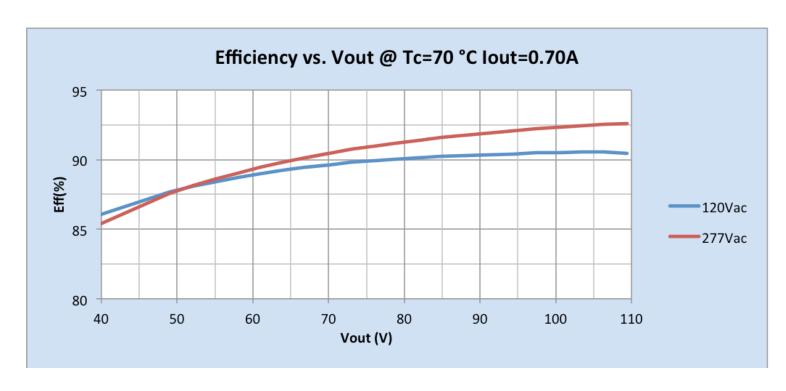


75W 120-277V 0.70A 0-10V

#### **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.

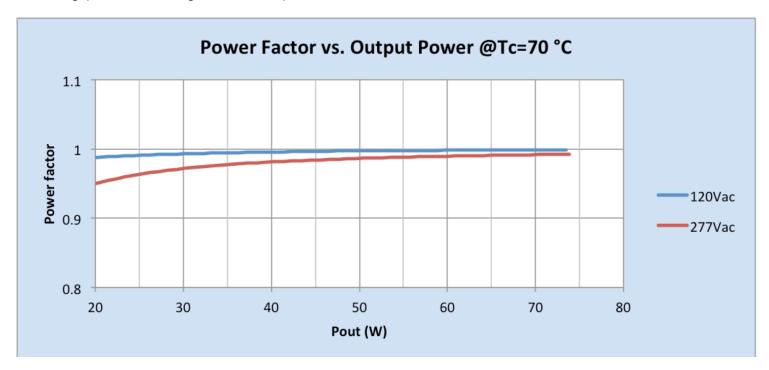


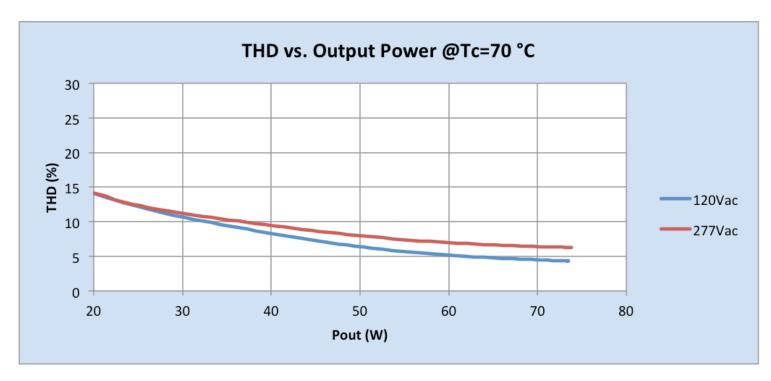


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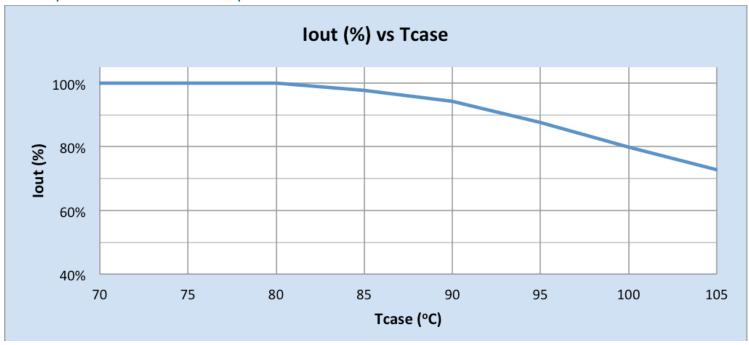


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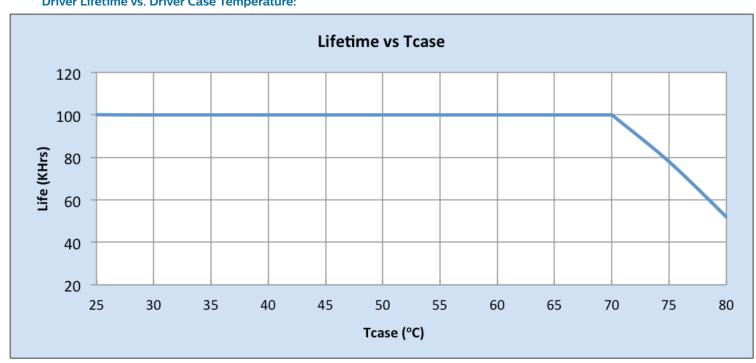
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### **Output Current vs. Driver Case Temperature:**

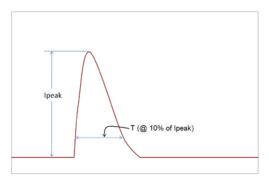


#### **Driver Lifetime vs. Driver Case Temperature:**



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



Vin	lpeak	T (@ 10% of Ipeak)	
120 Vrms	36A	223µs	
277 Vrms	92A	188µs	

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 Combination Wave (w/t 2Ω)	4kV	4kV	

#### **Isolation**:

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



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