LED Driver

ADVANCE

by (s) ignify

Xitanium





XI075C105V070CNY2

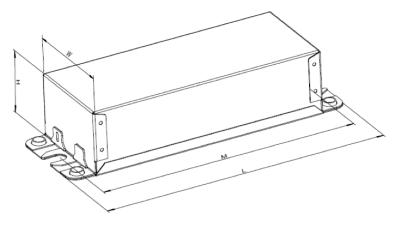
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. **The Advance Xitanium LED Outdoor Driver portfolio** offers a range of products 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 _{pk} /10%-	Max.	Factor @	Common/	Weight	Protection
(Vrms)	(W)	(V)	(A)	Case	(°C)	(Arms)	(W)	μs)	Load	Max. Load	Diff (KV)	(Lbs/kgs)	Rating
120	75	22 72	105	89.5	00	0.70	0.4	38 / 209	<10%	> O OF	4/4	1 5 2 / 0 5 7	UL Dry &
277	75	32 - 72	1.05	91	80	0.30	84	93 / 190	<10%	>0.95	4/4	1.53/0.57	Damp

Enclosure

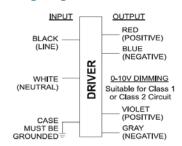
	In. (mm)	
Case Length	5.43 (138.00)	
Case Width	2.32 (59.00)	
Case Height	1.50 (38.00)	
Mounting Length	5.98 (152.00)	
Mounting Width	1.69 (42.88)	
Overall Length	6.61 (168.00)	



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%	0.105	Dimming source current: 150 µA (±3%)

75W 120-277V 1.05A 0-10V

Electrical Specifications

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

Features

- · 50,000+ hour lifetime1
- · High drive current
- · Isolated 0-10V dimming
- \cdot New housing with high thermal capability

Benefits

- Enables high lumen per dollar fixture 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

Order Information				
Order Code	XI075C105V070CNY2M			
Full Product Code	XI075C105V070CNY2M (Mid-Pack, 12pcs/Box)			
Full Product Name	XITANIUM 75W 1.05A 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	32Vdc to 72Vdc			
Maximum Open Circuit Voltage	150V			
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	$150\mu\text{A}\pm3\%$ 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)

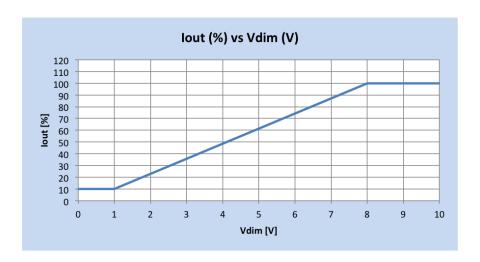
LED Current Tolerance at 1050mA ≤ 5% over temperature and component variations

Minimum Dim Level (nominal): 105 mA

Maximum output voltage on the dimming wires: 12V

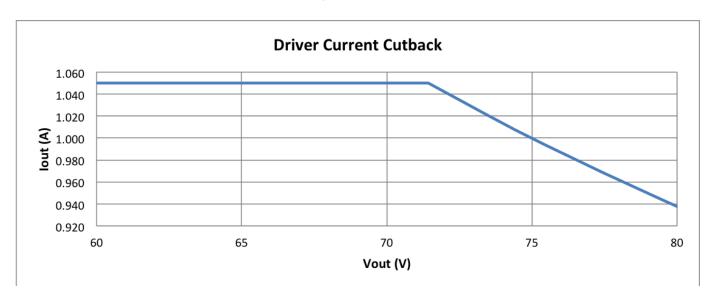
Approved Dimmer List

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

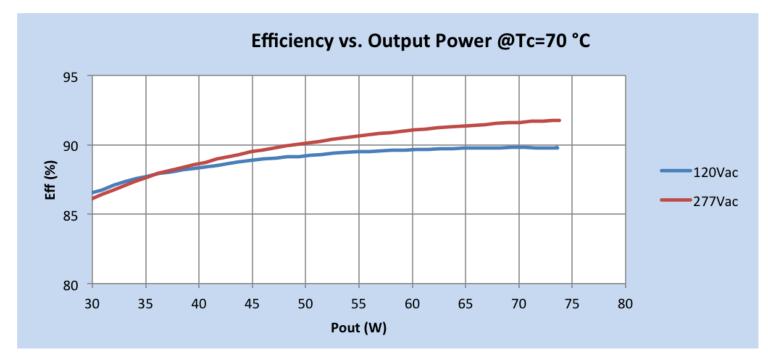
The Driver Current Cutback feature provides for an increased output voltage with a reduced output current during abnormal LED operation, such as cold weather starting.

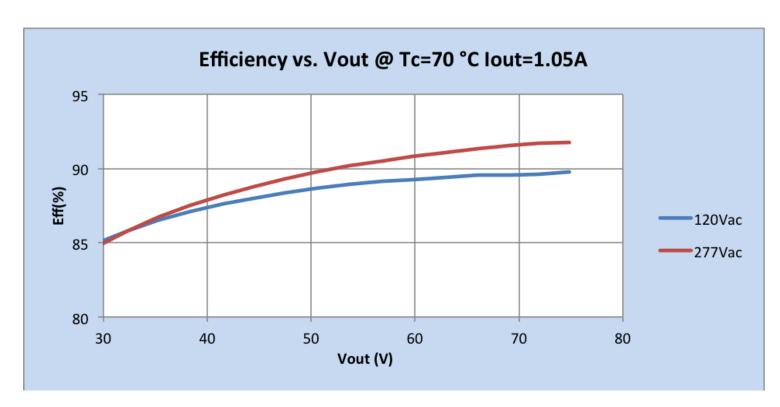


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Performance Characteristics

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.

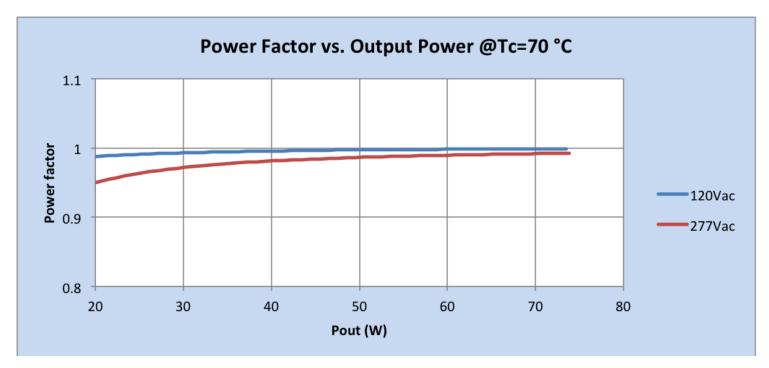


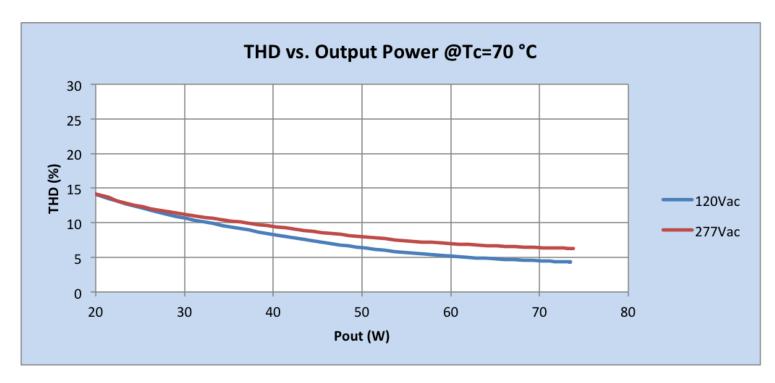


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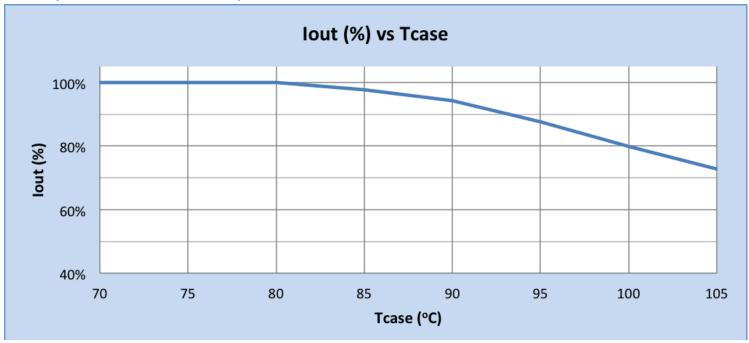


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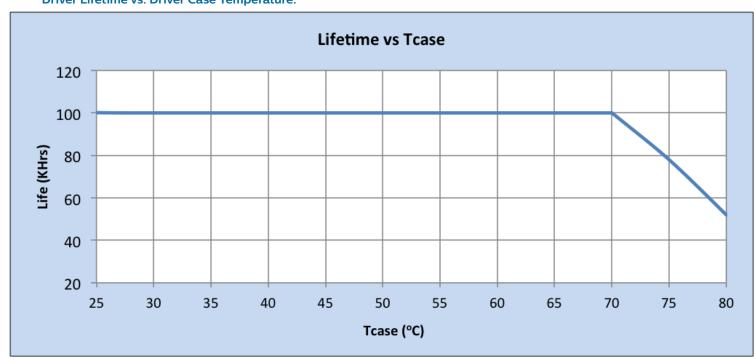
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Output Current vs. Driver Case Temperature:

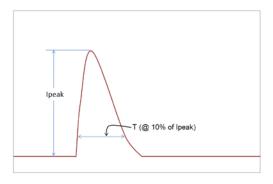


Driver Lifetime vs. Driver Case Temperature:



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Inrush Current Info:



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	38A	209µs
277 Vrms	93A	190µs

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	4kV	4kV
Wave (w/t 2Ω)		

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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