ADVANCE

by (signify

LED Driver

Xitanium

XI100C150V038CNH1



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 even in rugged applications. They operate to specification under wide temperature and electrical ranges to help ensure reliability.

Specifications

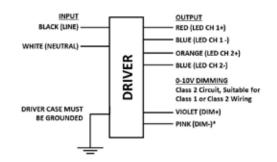
Input Voltage (Vac)	Output Power (W)	Output Voltage Range (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi-Wave, KV)	Envir. Protection Rating	Driver Type
120	54W	20-36		87.5		1		<10%			UL damp	Constant
277		Class 2 Output	1.5 89.4	89.4	80°C	0.4	125	<10%	>0.95 4	4	& dry and Type HL	Current

Enclosure

	In. (mm)
Case Length	5.7 (144.7)
Case Width	3.6 (91.4)
Case Height	1.5 (38.2)
Mounting Length	6 (151.5)
Overall Length	6.32 (160.5)



Wiring Diagram



Input lead wires are 18AWG 105C/600V stranded copper with flag terminals per UL1452.

Lead Length outside enclosure: 7" (+2"/-1").

Dimming and Output lead wires are 18AWG 105C/600V solid copper per UL1452.

Lead Length outside enclosure: 12" (+2"/-1").

Driver case must be grounded.

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog	10% ~ 100%	0.15	Dimming source current: 150µA (±3%)



Warning

- Install in accordance with national and local electrical codes.
- The field-wiring leads or push-in terminals shall be enclosed.

Features

- Dual channel UL Class 2 output
- 50,000+ hour lifetime¹
- Isolated 0-10V dimming

Benefits

- Allows for Class 2 luminaire designs
- Enables long life luminaire designs
- Helps maximize energy savings and allows application-specific light levels

Application

- Roadway
- Parking garages
- Wallpacks

Electrical Specifications

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

Product Data

Order Information					
Full Product Code	XI100C150V038CNH1M (Mid-Pack, 10pcs/Box)				
Line Frequency	50/60Hz				
Min. Mains Voltage Operational	108Vac				
Max. Mains Voltage Operational	305Vac				
Output Information					
Maximum Open Circuit Voltage	<60Vdc				
Output Current Ripple	15% max @ max lout				
(ripple = peak to average / average)	Low frequency (≤120 Hz) content <5%				
Output Current Tolerance	<5%				
at maximum output current					
Protections	Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback				
Features					
0-10V Dimming	150µA source current from driver. See dim curve for detail.				
Environment & Approbation					
Operating Ambient Temp. Range	-40°C to +55°C				
Max Case Temperature (Tcase)	80°C				
Agency Approbations	UL8750, UL1310, UL935, cUL				
Electromagnetic Compliance	FCC Title 47 Part 15 Class A				
Audible Noise	<24dB Class A				
Weight	2.1 Lbs/0.95 kgs				

Advance Xitanium 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.

Electrical Specifications

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

0-10V Dimming Curve

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

Minimum Dim Level: 10% of lout (minimum 150mA)

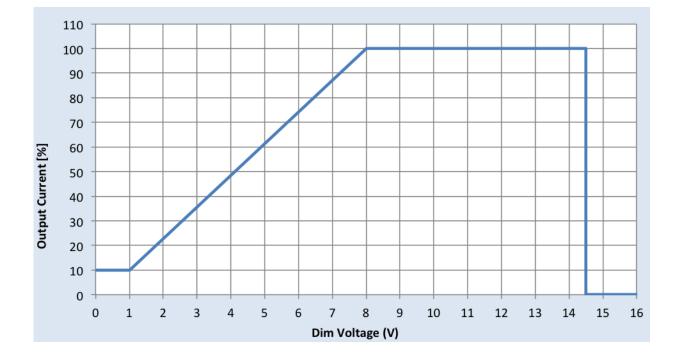
Vdim guaranteed not to shutdown the driver: ≤12V

Vdim for shutdown: ≥14.5V

The dimming lead leakage current is 0.01mA. The maximum number of drivers that can be connected in parallel to one dimming control circuit is based on this dimming lead leakage current and the calculation is described in the corresponding Design-in Guide.

Approved Dimmer List

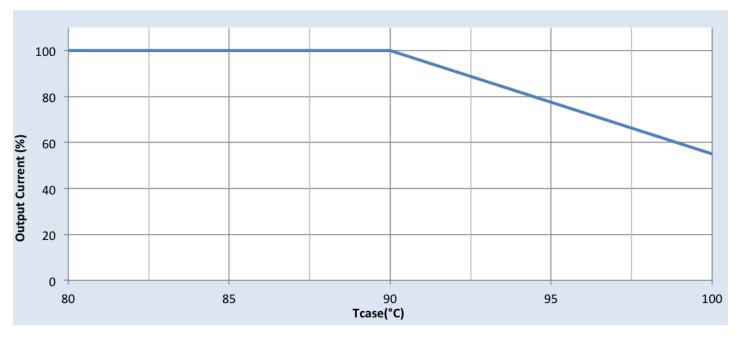
Manufacturer	Manufacturer Part Number		
Lutron	Visit www.lutron.com/ advance for a list of dimmers (Mark VII) that will work with this driver.		
Leviton	IllumaTech IP7 series		
Advance	Sunrise - SR1200ZTUNV		



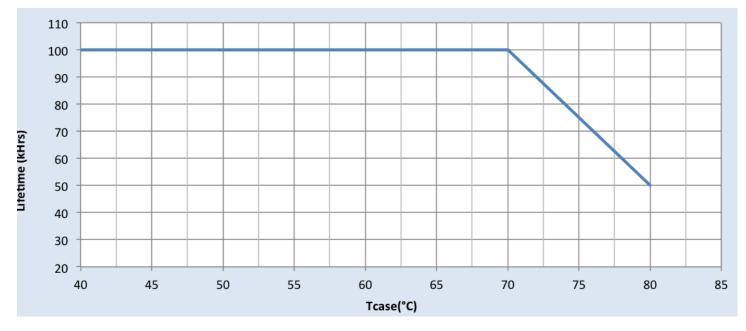
Electrical Specifications

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Output Current Vs. Driver Case Temperature



Note: There is ±5°C tolerance on the driver case temperature.

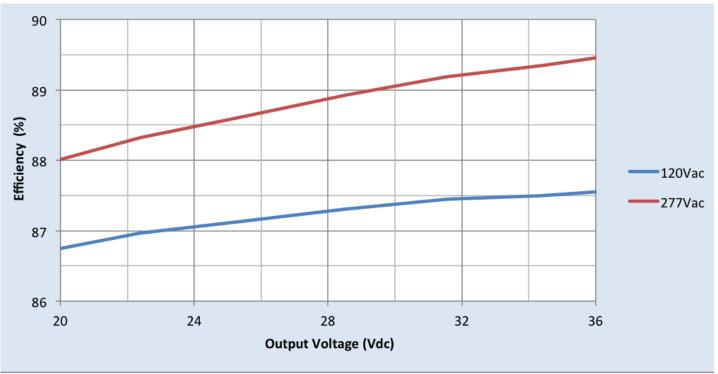


Driver Lifetime Vs. Driver Case Temperature

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.

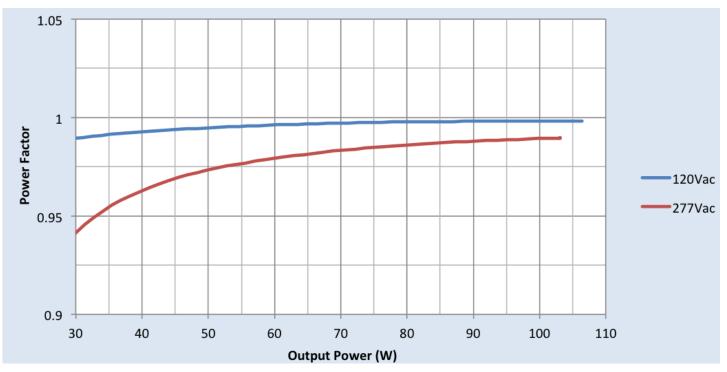
Efficiency Vs. Output Voltage



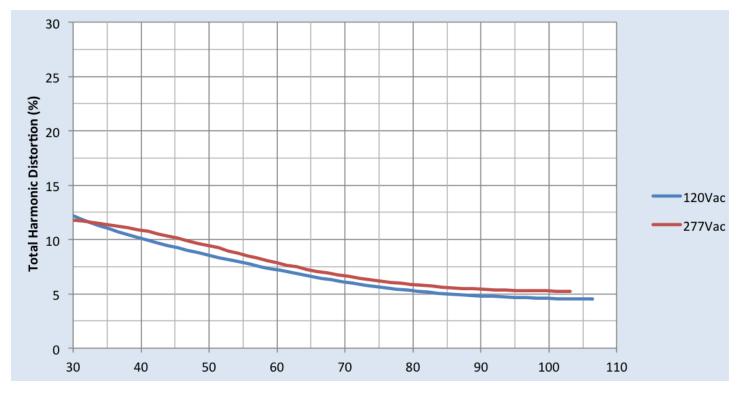
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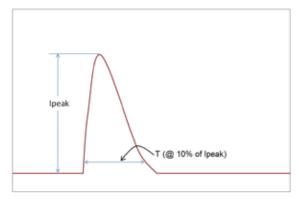
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)	
120 Vrms	32A	225µS	
277 Vrms	80A	209µS	

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)
1.2/50 μ s Combination Wave (w/t 2 Ω)	4kV	4kV

Isolation

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

U = Max input voltage

UL Conditions of Acceptability

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

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