ADVANCE

by (signify

LED Driver

Xitanium

XI075C200V054BST2



Advance Xitanium LED drivers are 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 Indoor Driver portfolio offers a range of products specifically designed to operate LED solutions in indoor applications. These drivers are designed for hard-wired integration into indoor luminaires for the most rugged applications. They operate to specification under wide temperature and electrical ranges to ensure reliability.

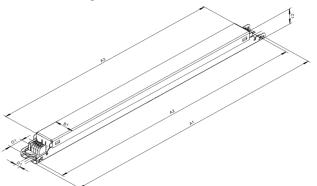
Specifications

Input Volt. (Vac)	Out- put Pow- er (W)	Output Voltage (V)	Out- put Cur- rent (A)	Efficiency @ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protect. (Combi and Ring Wave, KV)	Envir. Protect. Rating	Dim.	Dim. Range (with specified dimmers)	Min. Output Current (A)	Driver Type
120		10 - 54	0.1	87.5	Life -	0.7		<10%		2.0KV for		0-10V Analog	10/		Con-
277	75 Class 2 Output	2.0	89.5	80°C UL - 85°C	0.3	86	<15%	>0.95	Combi Wave 2.5KV for Ring Wave	UL Dry & Damp	Class 1 & 2 Wiring	1% ~ 100%	0.005	stant Cur- rent	

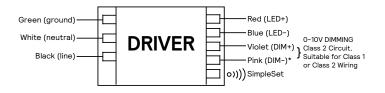
Enclosure

ltem	ln(mm)	Tolerance	
Overall length (A1)	16.69 (424)	± 0.5mm	
Mounting Length (A2)	16.34 (415)	± 0.5mm	
Case Length (A3)	14.49 (368)	± 0.5mm	
Case Width (B1)	1.20 (30.5)	± 0.5mm	
Case Height (C1)	1.02 (25.8)	± 1.0mm	
Mounting Hole Diameter (D1)	0.31 (7.9)	± 0.3mm	
Center of Simpleset Antenna (G1)	0.76 (19.4)	±3.0mm	

Mechanical Diagram



Wiring Diagram



WARNING

- Install in accordance with national and local electrical codes.
- The field-wiring leads or push-in terminals shall be fully enclosed.
- Use 18 AWG Solid Copper Wire Rated >= 90 °C.
- Strip Wire 3/8".
- For Class 2 wiring, use 20 AWG-16 AWG.

GROUNDING

• Driver case must be grounded.



Features

- 50,000+ hour lifetime¹
- Excellent thermal performance
- 0-10V Dimming suitable for UL Class 1 and Class 2 wiring

Benefits

- Slim Profile housing enables easy design-in with excellent thermal performance
- Enables Simple, Fast, Flexible application specific configurations
- Enables fixture designs with comprehensive application coverage for various loads and lumen levels

Application

- Indoor linear applications
- Troffers and pendant fixtures
- Office, Healthcare, Education
- Retail, Big Box stores

Electrical Specifications

All the specifications are typical and at $25^{\circ}\mathrm{C}$ Ta unless specified otherwise.

Product Data

Order Information						
Full Product Code	XI075C200V054BST2 (Mid-Pack, 12pcs/Box), 12NC: 929002722413					
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)	15% max. @ max. lout 4% max @ Frequency range 60Hz-3KHz					
Output Current Tolerance	<5%					
Protections	Short Circuit, Open Circuit Protection for LED + and LED - and Temperature Foldback					
Features						
0-10V Dimming Interface current	150µА +/-3% (@ 1 <vdim<8v)< th=""></vdim<8v)<>					
0-10V Active Range	1V to 8V. See dim curve for details.					
AOC (adjustable output current)	0.1A-2.0A via SimpleSet (Factory Default at 2.0A)					
Additional SimpleSet Configurable Features	Adjustable Minimum dim level Dimming curve selection (Linear or Logarithmic) Adjustable Light Output (ALO) Adjustable Output Current (AOC) OEM Write Protected features (OWP) Adjustable Startup Time					
Environment & Approbation						
Operating Ambient Temp. Range	-40°C to +50°C					
Max. Case Temperature (Tcase)	80°C for Life & 85°C for UL Safety					
Agency Approbations	UL8750, NOM, cUL, Class P (cUL, UL)					
Electromagnetic Compliance	FCC Title 47 Part 15 Class A					
Audible Noise	<24dB Class A					
Weight	0.768Lbs/ 0.35Kgs					

^{1.} 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 MTTF modeling.

Electrical Specifications

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0-10V Dimming Curve

Dimming source current from the driver: 150µA (@ 1<Vdim<8V)

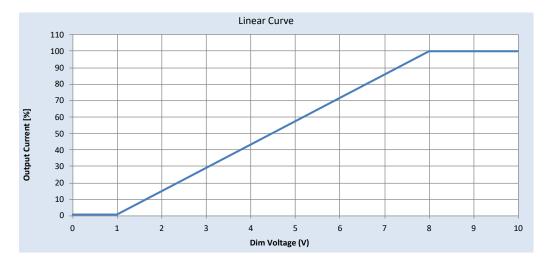
Minimum Dim Level: 1% of lout (minimum 5mA);Factory default 1% of lout setting as default

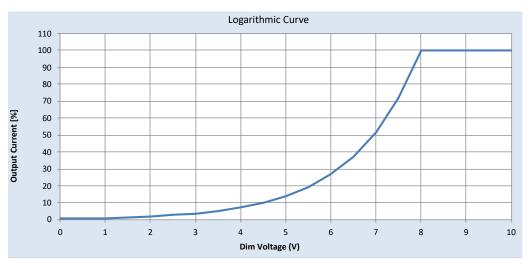
Maximum output voltage on the dimming wires: 12V

Leakage current of dimming leads : 0.005mA, recommended max number of control circuits in parallel, refer to Design In Guides

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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Driver Operation Window



Notes

1. Factory default output current is 2.0A.

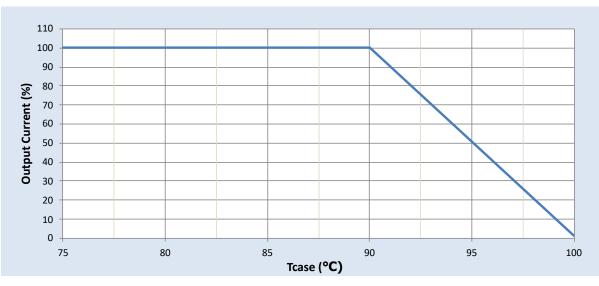
2. To get a 100% to 1% dimming range, the output current setting through AOC should be \geq 0.5A.

3. Factory default minimum dimming level is 1%. This can be adjusted between 1% and 100% using Advance MultiOne.

Electrical Specifications

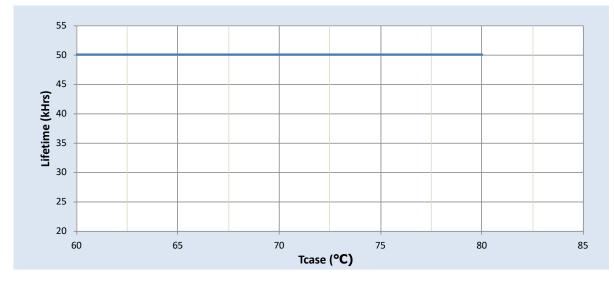
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Output Current Vs. Driver Case Temperature



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

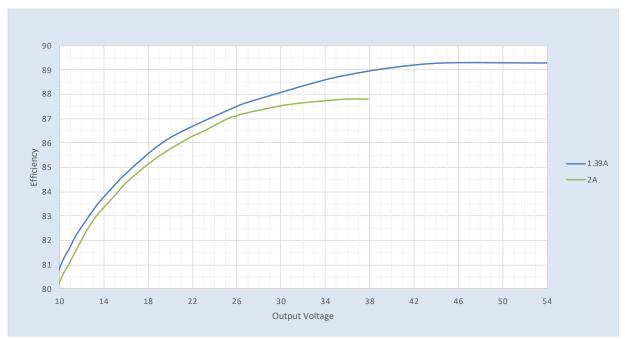
Driver Lifetime Vs. Driver Case Temperature



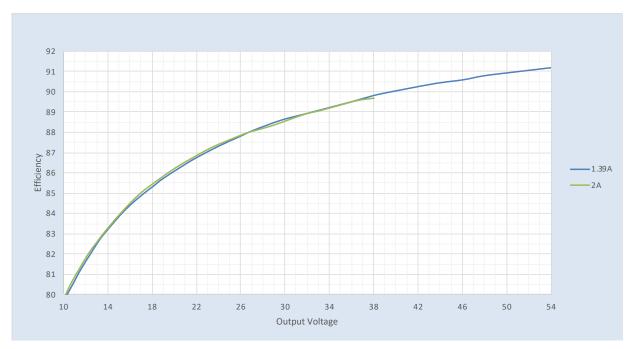
Performance Characteristics

Based on measurements on a typical sample at 80° C T case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency Vs. Output Voltage at 120Vac Input



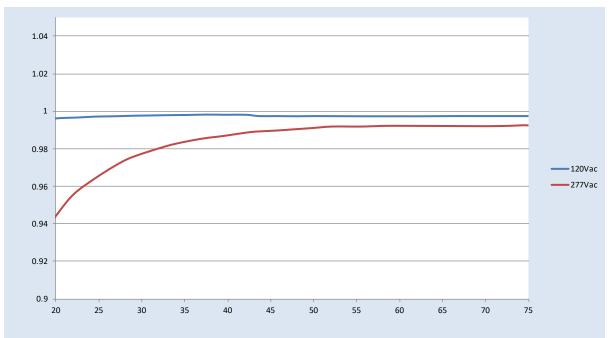
Efficiency Vs. Output Voltage at 277Vac Input



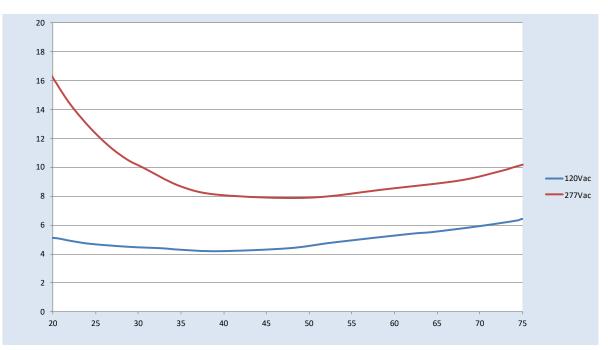
Performance Characteristics

Based on measurements on a typical sample at 80° C T case. The accuracy of the measurements is within the tolerance of the measurement instruments.

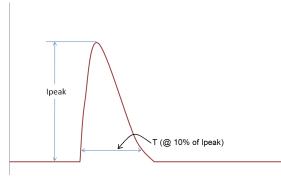
Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



Inrush Current Info



Vin	lpeak	T (@ 10% of Ipeak)		
120 Vrms	12.5A	6.82µS		
277 Vrms	29.8A	6.84µS		

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)					
100kHz Ring Wave (w/t 30Ω)	2.5kV	2.5kV					
1.2/50uS Combi Wave (w/t 2Ω)	2.0kV	2.0kV					

Isolation

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

U = Max. working voltage

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