# PHILIPS ADVANCE

### **LED** Driver

### Xitanium

95W 0.1-2.75A 0-10V Dimming with SimpleSet XI095C275V054BSS1



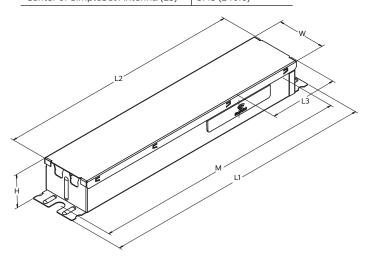
Philips Advance Xitanium outdoor LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. The drivers' wide operating windows and simple programming make it easy for luminaire manufacturers to design luminaires of different sizes and lumen levels for outdoor applications.

### **Specifications**

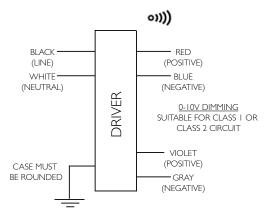
Input Voltage (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 75°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection (Combi- Wave, KV)	Envir. Protection Rating
120	95 2	20-54 0.1 - 2.75	88	Life - 85°C	0.89	- 110 <10%	~10°/	>0.95	6	UL damp & dry and	
277	95	20-34	0.1 - 2.75	89 UL - 90°C	0.38		20.95	1.95	Type HL		

### **Enclosure**

	In. (mm)
Case Length (L2)	8.37 (212.6)
Case Width (W)	1.70 (43.2)
Case Height (H)	1.14 (29.0)
Mounting Length (M)	8.89 (225.8)
Overall Length (L1)	9.45 (240.0)
Center of SimpleSet Antenna (L3)	9.45 (240.0)



### **Wiring Diagram**



Dimming	Dimming Range (with specified dimmers)	Minimum Output Current (A)	
0-10V Analog Class 1 and 2 Wiring	5% ~ 100%	0.03	

#### **Features**

- 50,000+ hour lifetime<sup>1</sup>
- Programmable output current through SimpleSet
- · Large operating window
- 6kV combi-wave surge rating to comply with ANSI C82.77-5 CAT C low

#### **Benefits**

- · Designed for Class 2 luminaires
- · Fast and simple way of programming
- Perfectly suited for COB applications up to 2.6A
- Industry leading dimming range for 95W Class 2 product
- No external surge protection required to pass C82.77-5 CAT C low

#### **Application**

- · Area
- · Roadway
- · Parking garages
- Floodlights
- · High-bay and mid-bay fixtures

### **Electrical Specifications**

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

#### **Product Data**

Order Information				
Full Product Code	XI095C275V054BSS1M (Mid-Pack, 10pcs/Box)			
Line Frequency	50/60Hz			
Min. Mains Voltage Operational	108 Vac			
Max. Mains Voltage Operational	305 Vac			
Output Information				
Maximum Open Circuit Voltage	<60Vdc			
Output Current Ripple (ripple = peak to average / average)	15% max @ max lout (Low frequency ripple ( ≤120Hz) content <5%)			
Output Current Tolerance (in performance window)	<5%			
Protections	Short Circuit, Open Circuit Protection for LED + and LED – and Temperature Foldback			
Features				
0-10V Dimming	150μA (±3%) source current from driver. See dim curve for detail.			
AOC (Adjustable Output Current)	0.1A-2.75A via SimpleSet (Factory Default at 2.3A)			
Additional SimpleSet Configurable Features	Adjustable Min Dim level, Adjustable Lumen Output, Adjustable Lumen Output Min, OEM Write Protection			
Environment & Approbation				
Operating Ambient Temp. Range	-40°C to +55°C			
Max Case Temperature (Tcase)	90°C			
Agency Approbations	UL8750, UL1310, CSA, UL Class P			
Electromagnetic Compliance	FCC Title 47 Part 15 Class A			
Audible Noise	<24dB Class A			
Weight	1.5 Lbs / 0.68 kgs			

Philips 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.

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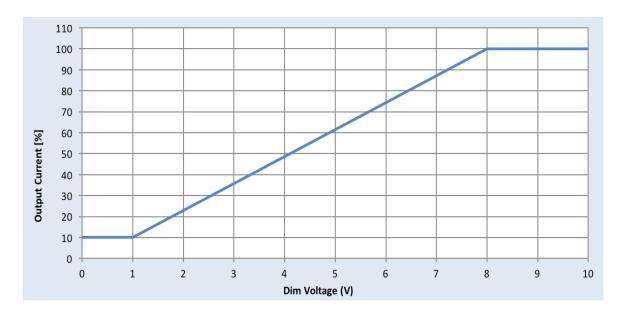
### **0-10V Dimming Curve**

Dimming source current from the driver:  $150\mu A$  (@ 0<Vdim<8V) Minimum dim level: Factory default 10% of lout setting as default

Maximum output voltage on the dimming wires: 12V

### **Approved Dimmer List**

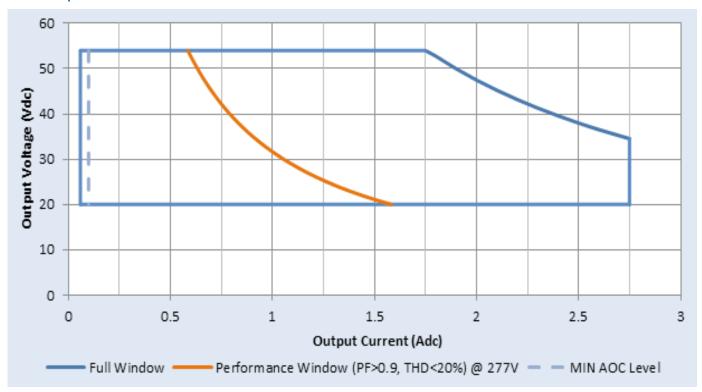
Manufacturer	Manufacturer Part Number	
Lutron	Visit www.lutron.com/ advance for a list of dimmers (Mark VII) that will work with this driver	
Leviton	IllumaTech IP7 series	
Philips	Sunrise - SR1200ZTUNV	



### **Electrical Specifications**

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### **Driver Output Window**



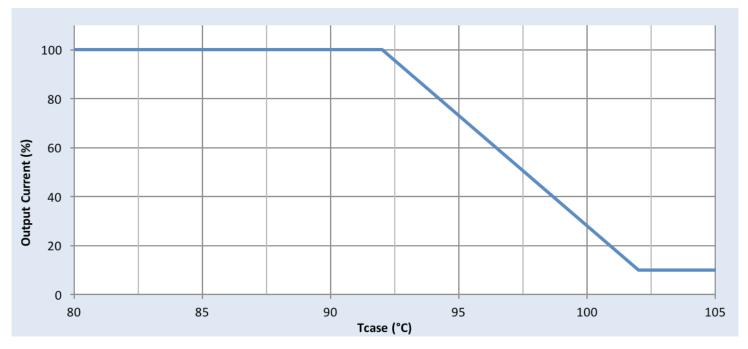
### **Notes**

- 1. Factory default output current is 2.3A.
- 2. To get a 100% to 10% dimming range, the output current setting through AOC should be  $\geq$  300mA.
- 3. Factory default setting for the dimming range is 100% to 10%. However, the minimum dim level can be set between 5% and 100% through MultiOne and SimpleSet.

### **Electrical Specifications**

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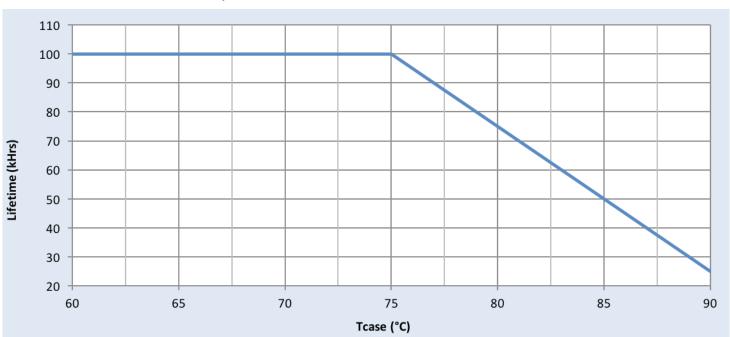
### **Output Current Vs. Driver Case Temperature**



### Note

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

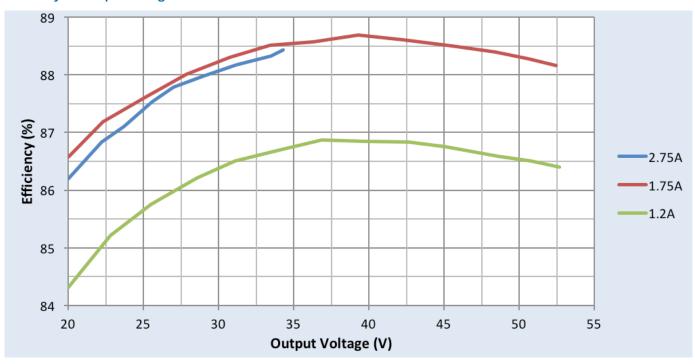
### **Driver Lifetime Vs. Driver Case Temperature**



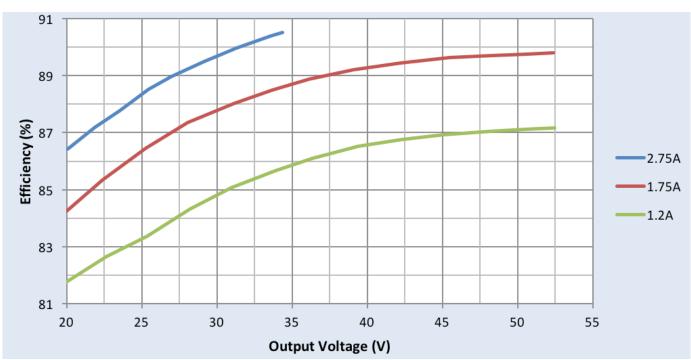
#### **Performance Characteristics**

Based on measurements on a typical sample at  $75^{\circ}$ C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

### Efficiency Vs. Output Voltage at 120Vac



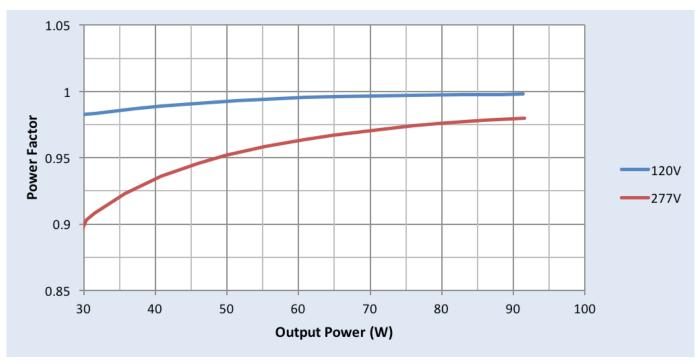
### Efficiency Vs. Output Voltage at 277Vac



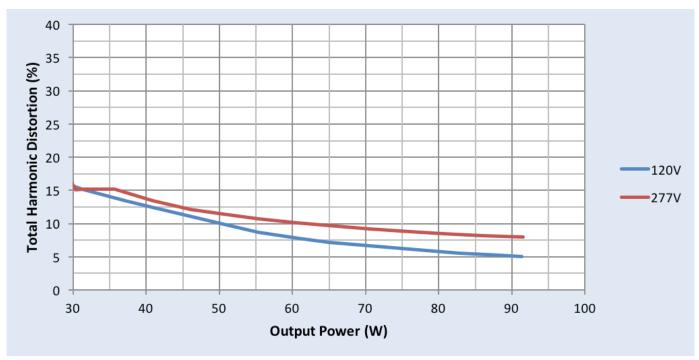
#### **Performance Characteristics**

Based on measurements on a typical sample at  $70^{\circ}$ C case. The accuracy of the measurements is within the tolerance of the measurement instruments.

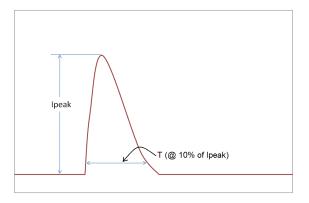
### **Power Factor Vs. Output Power**



### Total Harmonic Distortion (THD) Vs. Output Power



### **Inrush Current Info**



Vin	Ipeak	T (@ 10% of Ipeak)	
120 Vrms	27A	141µS	
277 Vrms	84A	117µS	

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)	6kV	6kV	

### **Isolation**

Isolation	Input	Output	0-10V	Enclosure
Input	NA	2xU+1kV	2.5kV	2xU+1kV
Output	2xU+1kV	NA	2.5kV	500V
0-10V	2.5kV	2.5kV	NA	2.5kV
Enclosure	2xU+1kV	500V	2.5kV	NA

U = Max input voltage

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