



**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.

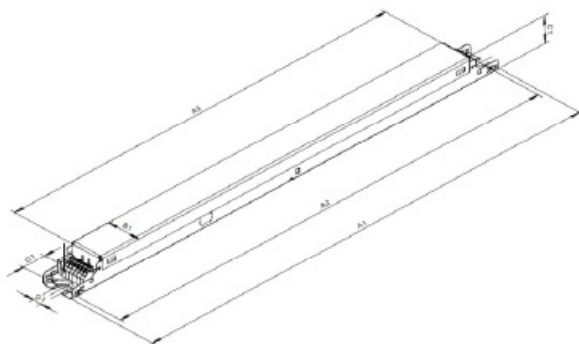
### Specifications

Input Volt. (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency @ Max Load and 85°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protect. (Combi Wave, KV)	Envir. Protect. Rating	Dim. Range (with specified dimmers)	Min. Output Current (A)	Driver Type	
120	85	10 - 54 Class 2 Output	0.7 - 2.4	87.5	Life - 85°C UL - 90°C	0.83	100	<10%	>0.95	6KV	UL Dry & Damp	0-10V Analog Class 1 & 2 Wiring	1% ~ 100%	0.007	Constant Current
277				89.5		0.36		<15%							

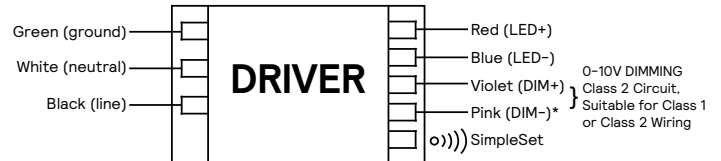
### Enclosure

Item	In(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  $\geq 90^\circ\text{C}$ .
- Strip Wire 3/8".
- For Class 2 wiring, use 20 AWG-16 AWG.

### GROUNDING

- Driver case must be grounded.



# Xitanium XI085C240V054BST1

## 85W 0.7–2.4A 0–10V Dimming

### Features

- 50,000+ hour lifetime<sup>1</sup>
- 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
- Office, Healthcare, Education , Warehouse & Industrial Applications
- Highbay & Midbay Applications

### Electrical Specifications

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

### Product Data

Order Information	
Full Product Code	XI085C240V054BST1 (Mid-Pack, 12pcs/Box), 12NC: 929002756513
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. Iout 4% max @ Frequency range 60Hz–3KHz
Output Current Tolerance	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED –
Standby Power	<0.5W
Features	
0–10V Dimming Interface current	150µA +/-3% (@ 1<Vdim<8V) source current from driver.
0–10V Active Range	1V to 8V. See dim curve for details.
AOC (adjustable output current)	0.1A–2.4A via SimpleSet (Factory Default at 1.4A)
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 Dim to Off Function Constant Light Output (CLO) End of Life (EOL) Driver Temperature Limit(DTL) Adjustable
Environment & Approbation	
Operating Ambient Temp. Range	–40°C to +55°C
Max. Case Temperature (Tcase)	85°C for Life & 90°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	1.09Lbs/ 0.495Kgs

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.

# Xitanium XI085C240V054BST1

## 85W 0.7-2.4A 0-10V Dimming

### Electrical Specifications

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

### 0-10V Dimming Curve

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

Minimum Dim Level: 1% of Iout (minimum 7mA); Factory default 1% of Iout setting as default

Maximum output voltage on the dimming wires: 12V

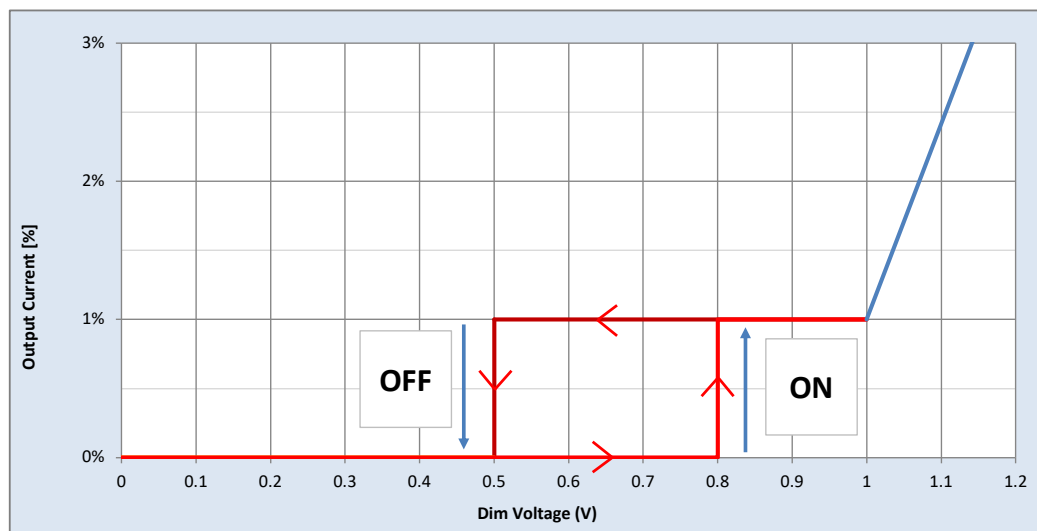
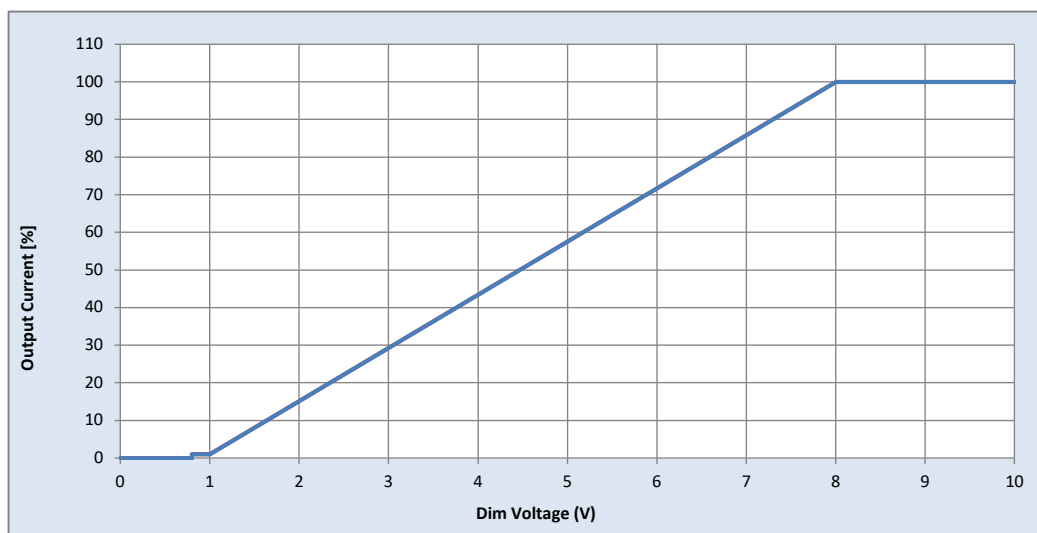
Leakage current of dimming leads : 0.005mA, recommended max number of control circuits in parallel, refer to Design In Guides

### Approved Dimmer List

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

### Dim to Off Function

Symbol	Parameter	Min	Typical	Max	Unit
Von	Turn on threshold	0.7	0.8	0.9	V
Voff	Turn off threshold	0.4	0.5	0.6	V
Ton	Turn on time			250	mS
Toff	Turn off time			1000	mS



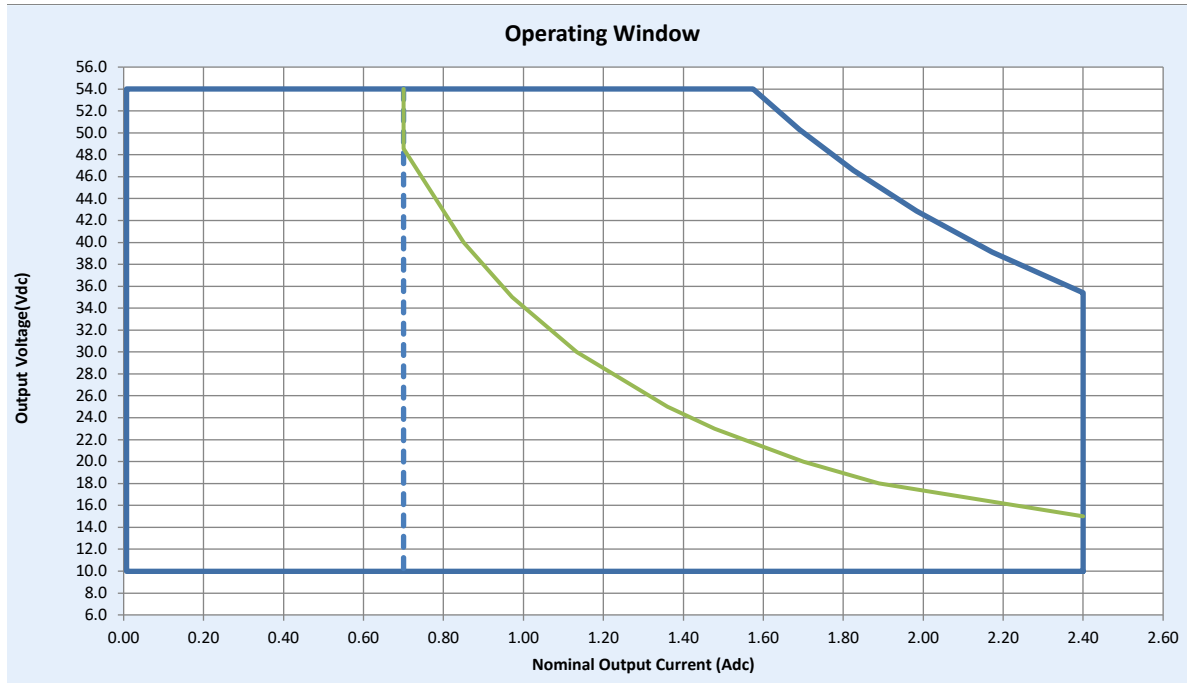
# Xitanium XI085C240V054BST1

85W 0.7-2.4A 0-10V Dimming

## Electrical Specifications

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

## Driver Operation Window



## Notes

1. Factory default output current is 1.4A.
2. To get a 100% to 1% dimming range, the output current setting through AOC should be  $\geq 0.7A$ .
3. Factory default minimum dimming level is 1%. This can be adjusted between 1% and 100% using Advance MultiOne.

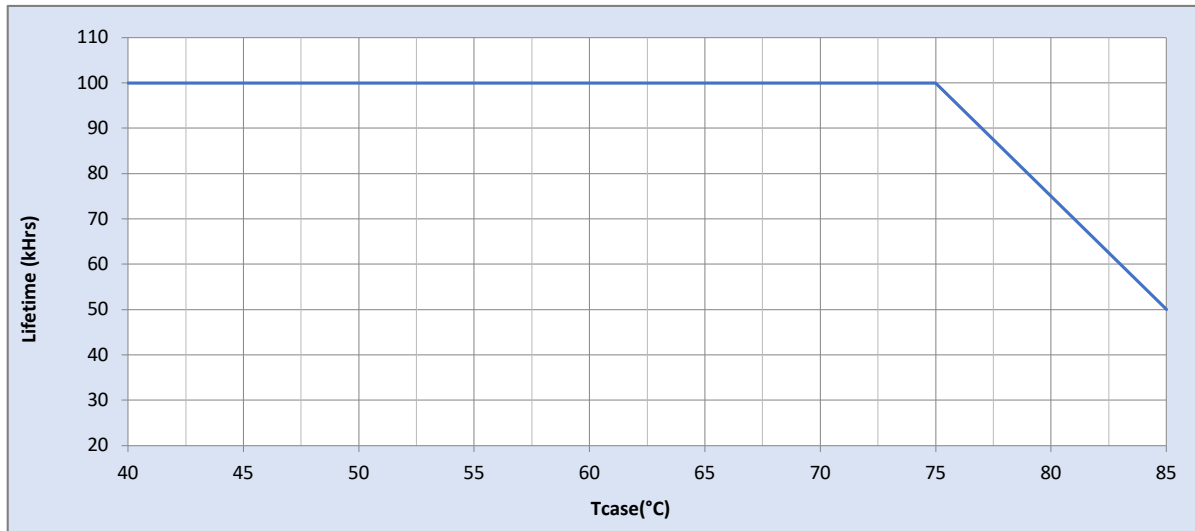
# Xitanium XI085C240V054BST1

85W 0.7-2.4A 0-10V Dimming

## Electrical Specifications

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## Driver Lifetime Vs. Driver Case Temperature



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

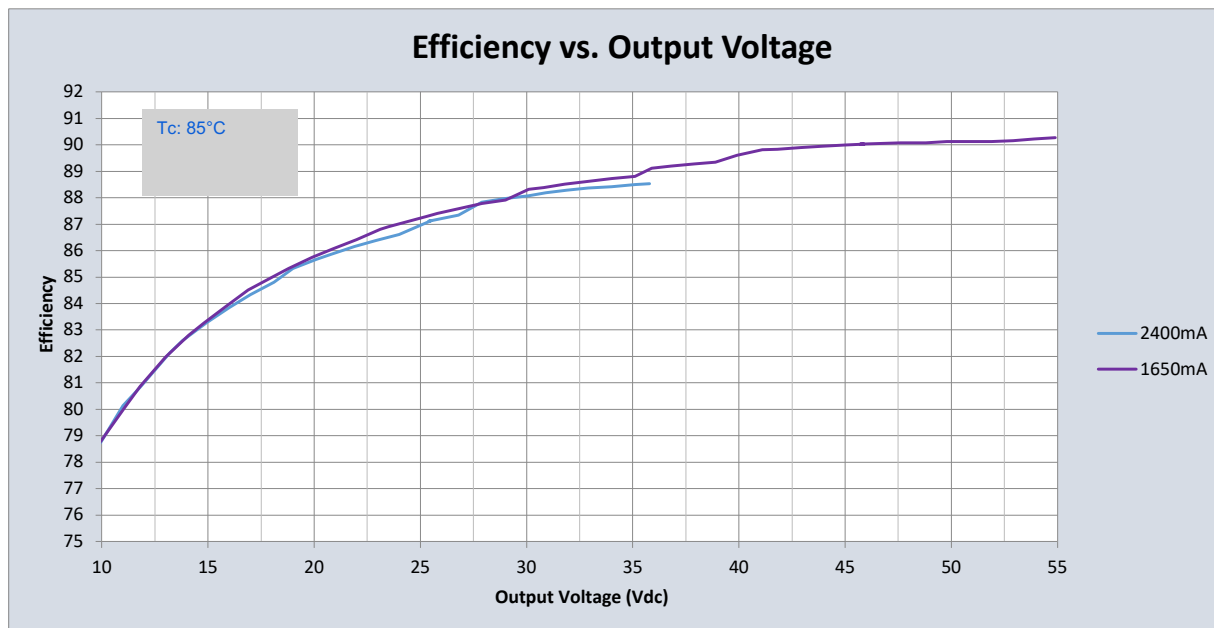
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85W 0.7-2.4A 0-10V Dimming

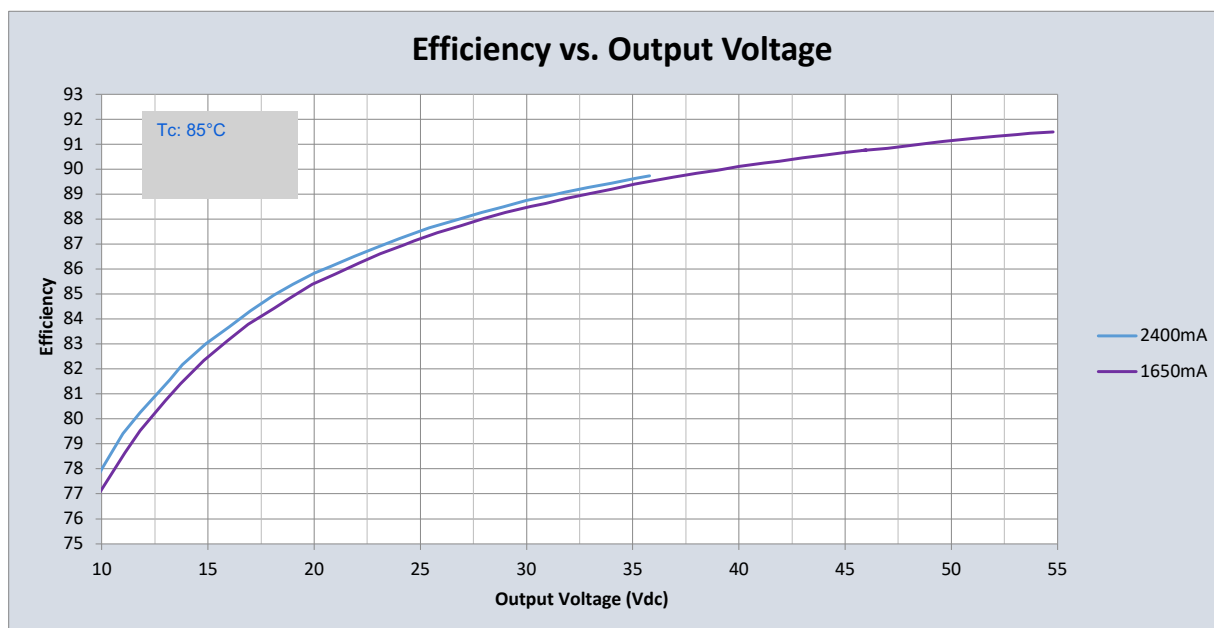
## Performance Characteristics

Based on measurements on a typical sample at 85°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



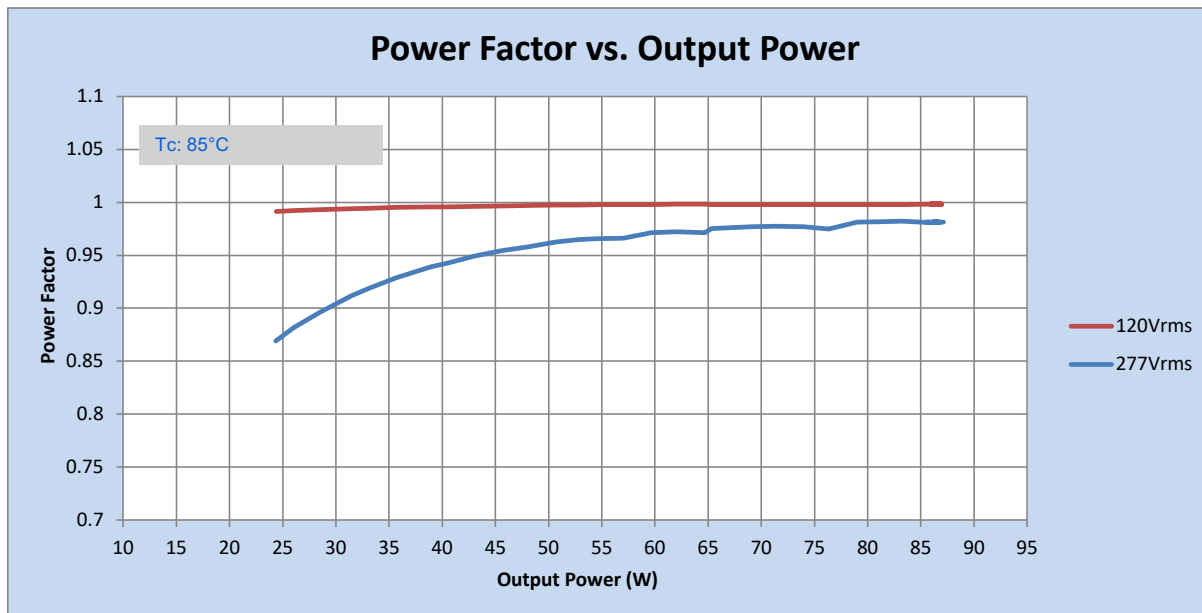
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85W 0.7-2.4A 0-10V Dimming

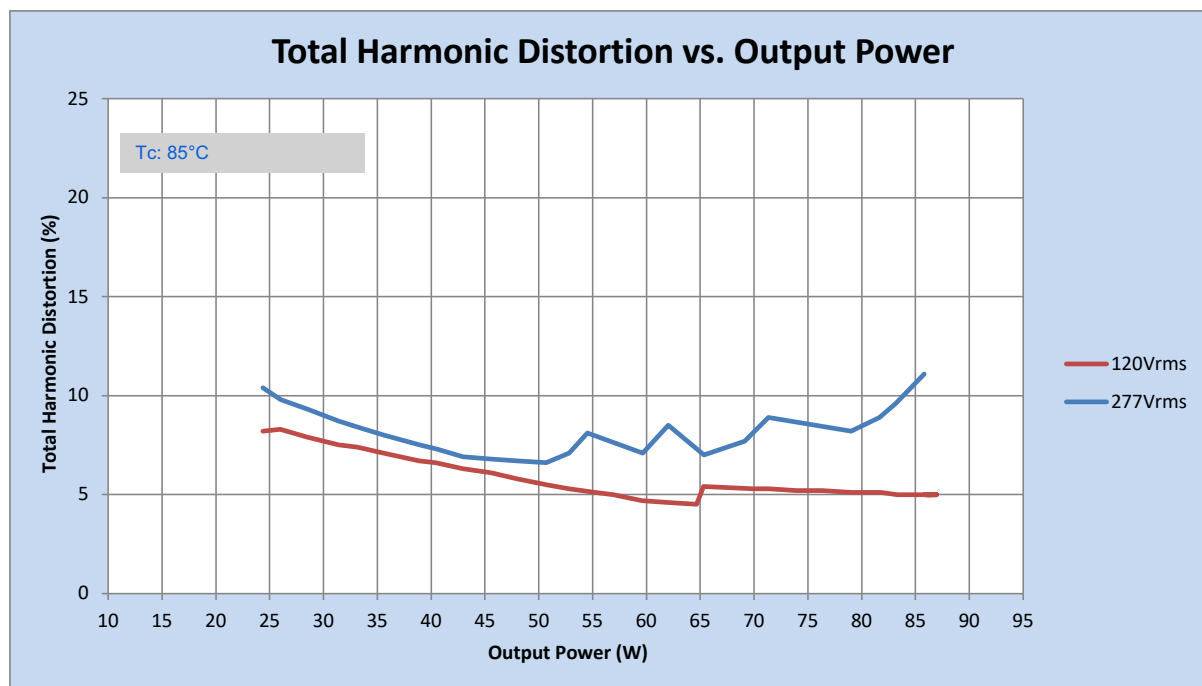
## Performance Characteristics

Based on measurements on a typical sample at 85°C T case. The accuracy of the measurements is within the tolerance of the measurement instruments.

### Power Factor Vs. Output Power



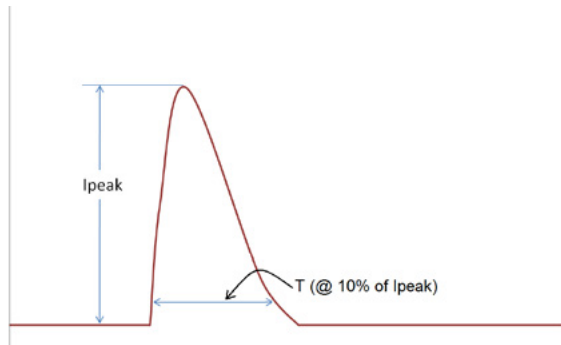
### Total Harmonic Distortion (THD) Vs. Output Power



# Xitanium XI085C240V054BST1

85W 0.7–2.4A 0–10V Dimming

## Inrush Current Info



$V_{in}$	$I_{peak}$	T (@ 10% of $I_{peak}$ )
120 Vrms	11.2A	35.4 $\mu$ S
277 Vrms	29.4A	34.8 $\mu$ S

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 $\mu$ S Combi Wave (w/t 2 $\Omega$ )	6kV	6kV

## 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. input voltage



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