

**PHILIPS  
ADVANCE**

**LED Driver**

**Xitanium**

100W 0.1-1.1A 0-10V  
with SimpleSet  
XI100C110V143BSY1



**RoHS  
COMPLIANT**

**ETL**  
Intertek  
Class P  
Conforms to UL STD 8750  
Certified to CAN/CSA STD  
C22.2 No. 250.13

**UL** US  
**LISTED**  
**E321253**

**Class P**  
**For Dry and Damp Location**

**SP** US

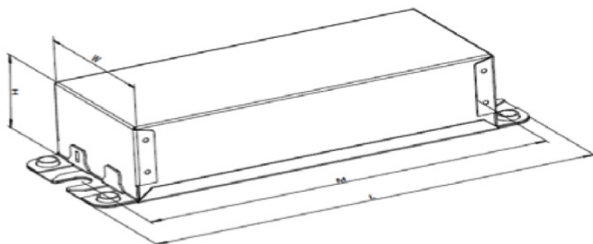
Philips Advance Xitanium outdoor LED drivers with SimpleSet technology are designed to give OEMs ultimate flexibility. With the drivers' wide operating windows and simple programming, luminaire manufacturers can design luminaires of different sizes and lumen levels for outdoor applications.

**Specifications**

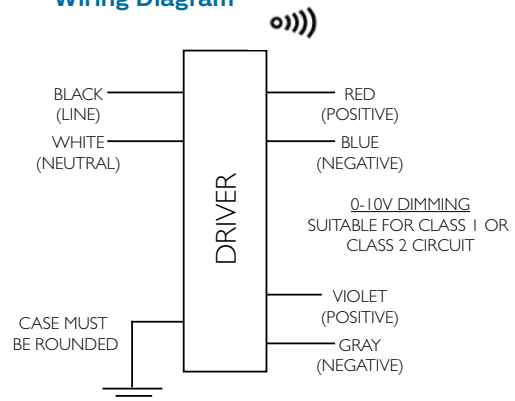
| Input Voltage (Vac) | Output Power (W) | Output Voltage (V) | Output Current (A) | Efficiency@ Max Load and 70°C Case | Max Case Temp. (°C) | Input Current (A) | Max. Input Power (W) | THD @ Max Load (%) | Power Factor @ Max Load | Surge Protection (Combi-Wave, KV) | Envir. Protection Rating  |
|---------------------|------------------|--------------------|--------------------|------------------------------------|---------------------|-------------------|----------------------|--------------------|-------------------------|-----------------------------------|---------------------------|
| 120                 | 100              | 48-143             | 0.1 - 1.1          | 89.5                               | 85°C                | 0.94              | 114                  | <10%               | >0.95                   | 6                                 | UL damp & dry and Type HL |
| 277                 |                  |                    |                    | 91.2                               |                     | 0.42              |                      |                    |                         |                                   |                           |

**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) |
| Overall Length  | 6.61 (168.00) |



**Wiring Diagram**



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

# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

## 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

- Enables long life luminaire designs
- Fast and simple way of programming
- Enables fixture designs with wide variety of loads and adjustable current options
- No external surge protection required to pass C82.77-5 CAT C low

## Application

- Area
- Roadway
- Parking garages
- Floodlights
- Mid-bay and low-bay fixtures

## Electrical Specifications

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

## Product Data

| Order Information  |  |
|--|--|
| Full Product Code  | XI100C110V143DSY1M (Mid-Pack, 12pcs/Box)   |
| Line Frequency   | 50/60Hz  |
| Min. Mains Voltage Operational                             | 108 Vac  |
| Max. Mains Voltage Operational                             | 305 Vac  |
| Output Information   |  |
| Maximum Open Circuit Voltage                               | 190Vdc   |
| Output Current Ripple (ripple = peak to average / average) | 15% max @ max Iout   |
| Output Current Tolerance (In the performance window)       | <5%  |
| Protections  | Short Circuit, Open Circuit Protection for LED + and LED -   |
| Features   |  |
| 0-10V Dimming  | 150µA (±3%) source current from driver. See dim curve for detail                                     |
| AOC (Adjustable Output Current)                            | 0.1A-1.1A via SimpleSet (Factory Default at 1.05A)   |
| 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)                               | 85°C   |
| Agency Approbations  | UL Listed, ETL Class P, CSA  |
| Electromagnetic Compliance                                 | FCC Title 47 Part 15 Class A   |
| Audible Noise  | <24dB Class A  |
| Weight   | 1.44 Lbs / 0.65 kgs  |

1. 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 MTBF modeling.

# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

## Electrical Specifications

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

## 0-10V Dimming Curve

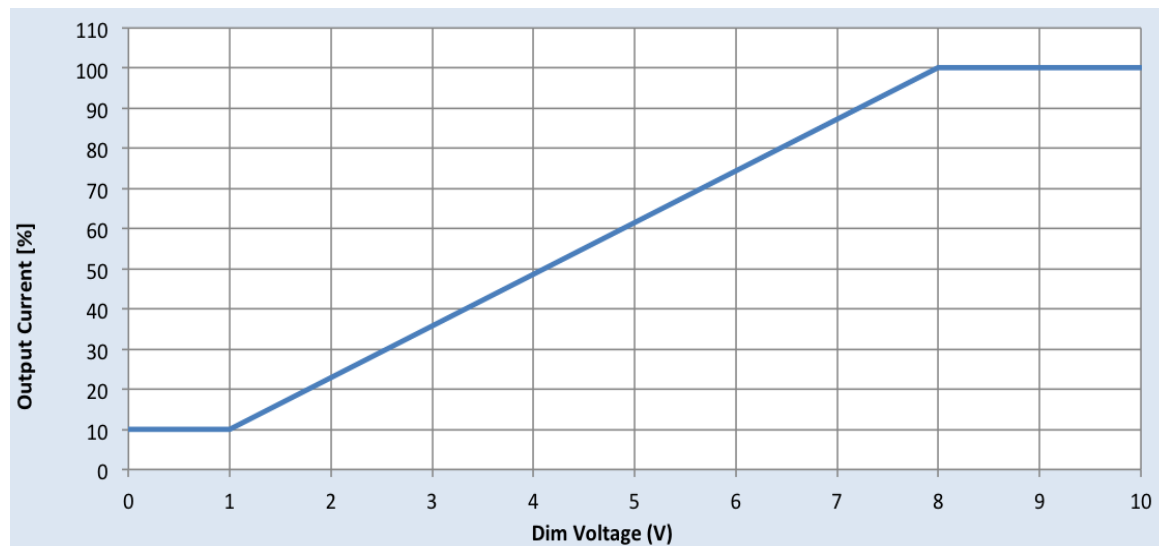
Dimming source current from the driver: 150µA (@ 0<Vdim<8V)

Minimum Dim Level: Factory default 10% of Iout (minimum 100mA), can be programmed to a higher level via SimpleSet

Maximum output voltage on the dimming wires: 12V

## 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   |
| Philips      | Sunrise - SR1200ZTUNV   |

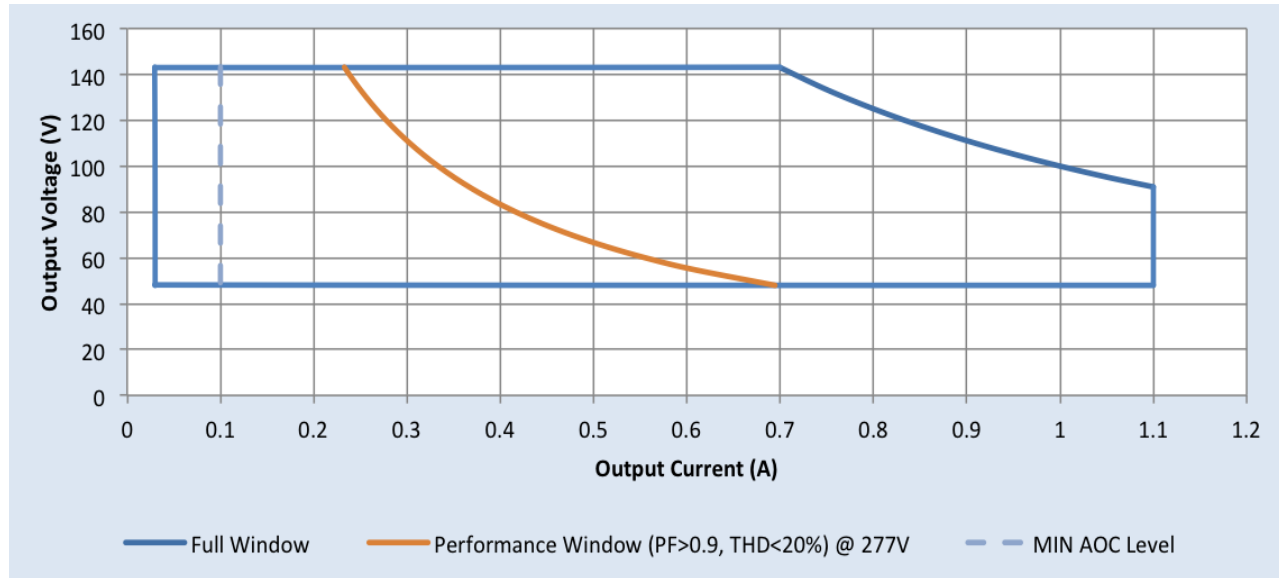


# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

## Electrical Specifications

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

## Driver Output Window



## Notes

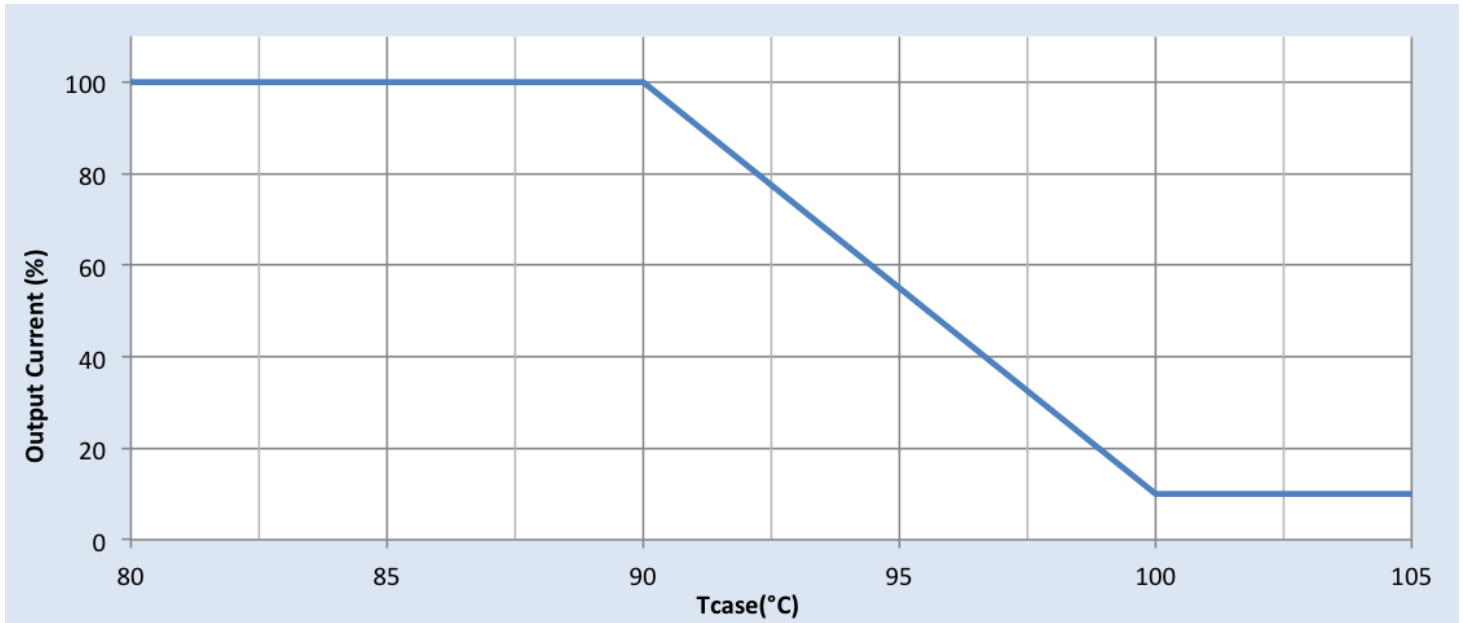
1. Factory default output current is 1.05A.
2. To get a 100% to 10% dimming range, the output current setting through AOC should be > 0.3A.

# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

## Electrical Specifications

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

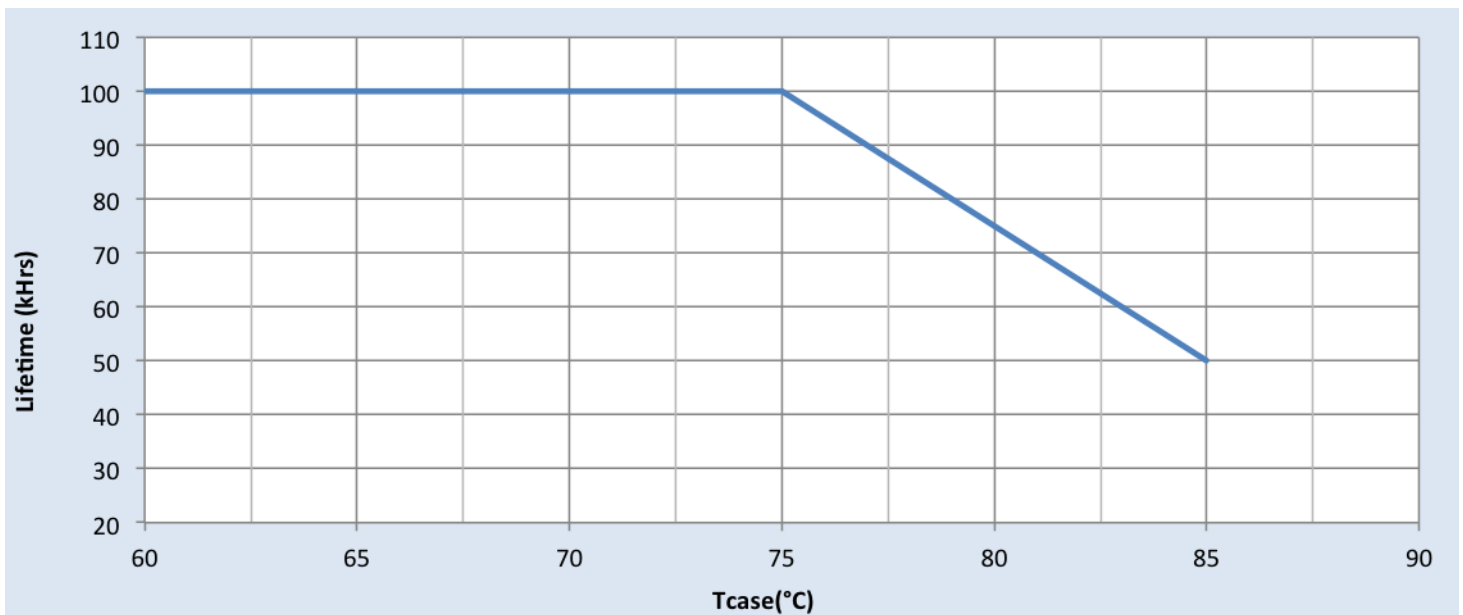
### Output Current Vs. Driver Case Temperature



#### Note

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

### Driver Lifetime vs. Driver Case Temperature

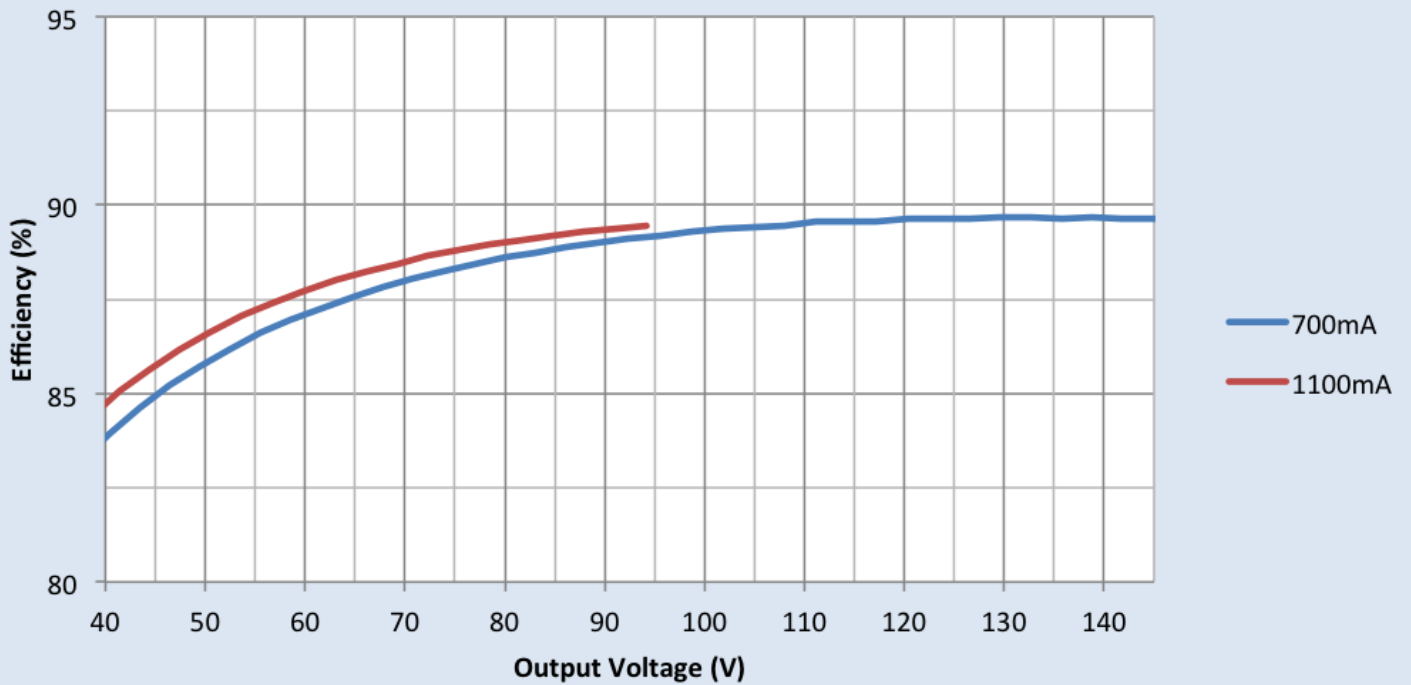


# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

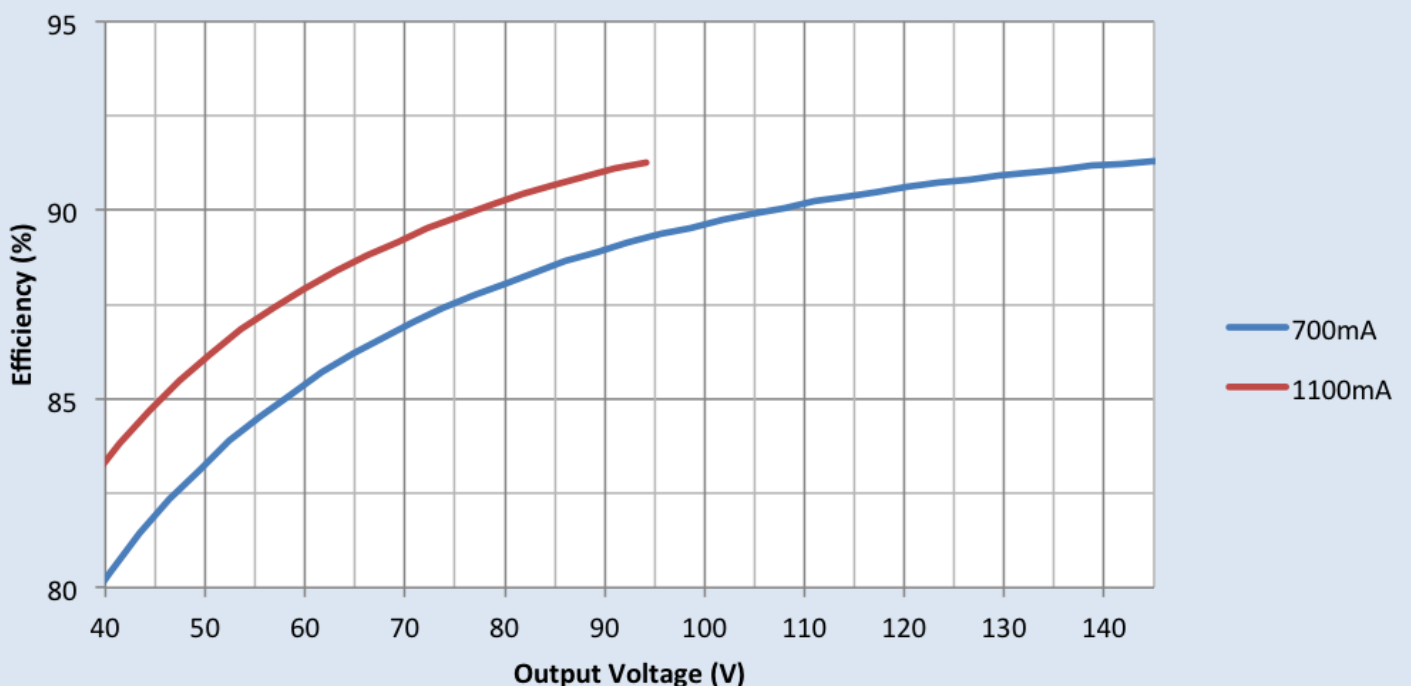
## Performance Characteristics

Based on measurements on a typical sample at 75°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

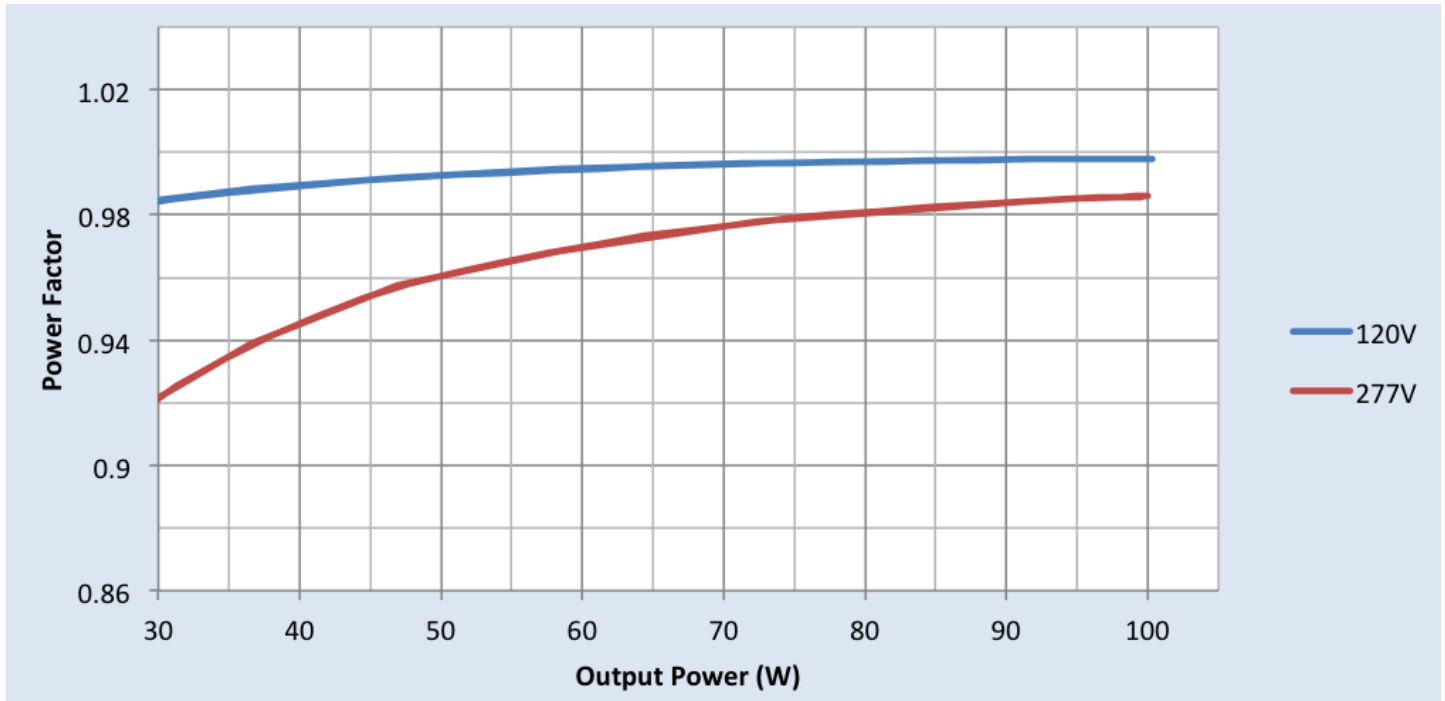


# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

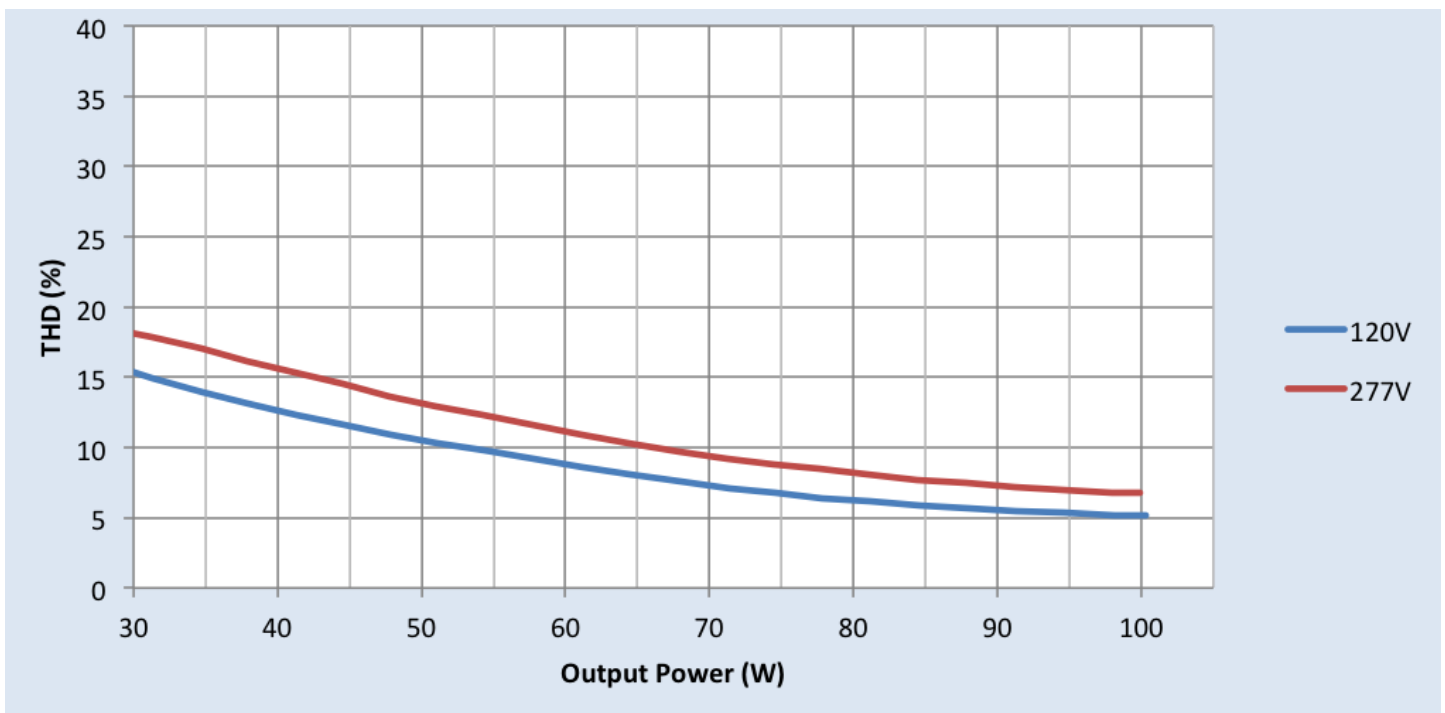
## Performance Characteristics

Based on measurements on a typical sample at 75°C Case. The accuracy of the measurements is within the tolerance of the measurement instruments.

### Power Factor Vs. Output Power

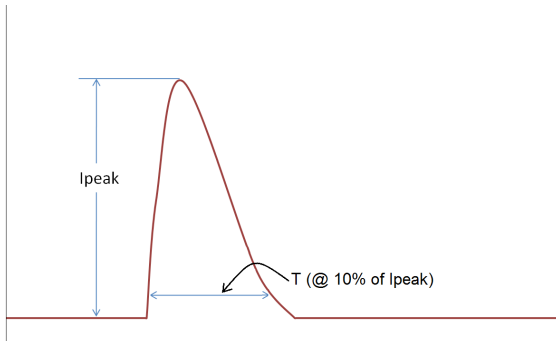


### Total Harmonic Distortion (THD) Vs. Output Power



# Xitanium 100W 0.1-1.1A 0-10V with SimpleSet

## Inrush Current Info



| V <sub>in</sub> | I <sub>peak</sub> | T (@ 10% of I <sub>peak</sub> ) |
|-----------------|-------------------|---------------------------------|
| 120 Vrms        | 57A               | 166μS                           |
| 277 Vrms        | 135A              | 160μS                           |

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 | 2xU+1kV   |
| 0-10V     | 2.5kV   | 2.5kV   | NA    | 2.5kV     |
| Enclosure | 2xU+1kV | 2xU+1kV | 2.5kV | NA        |

U = Max input voltage

© 2016 Philips Lighting Holding B.V. All rights reserved. Philips reserves the right to make changes in specifications and/or to discontinue any product at any time without notice or obligation and will not be liable for any consequences resulting from the use of this publication. [philips.com/leddrivers](http://philips.com/leddrivers)



Philips Lighting North America Corporation  
10275 W. Higgins Road, Rosemont IL 60018  
Tel: 800-322-2086 Fax: 888-423-1882  
Customer/Technical Service: 800-372-3331  
OEM Support: 866-915-5886

Philips Lighting Canada Ltd.  
281 Hillmount Rd,  
Markham, ON, Canada L6C 2S3  
Tel. 800-668-9008