



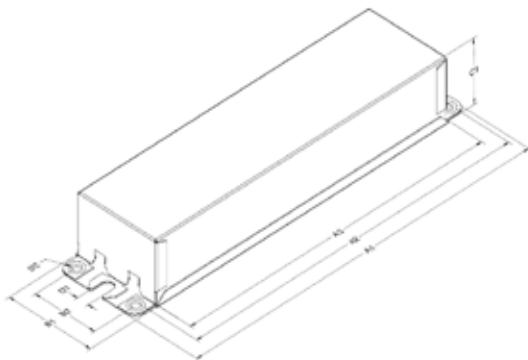
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. **The Philips Advance Xitanium LED Outdoor Driver portfolio** offers a range of products specially designed to operate LED solutions in outdoor applications. These drivers are designed for hard-wired integration into outdoor luminaires for the most rugged applications. They operate to specification under wide temperature and electrical ranges to ensure reliability.

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	Dimming	Dimming Range (with specified dimmers)	Min. Output Current (A)	Driver Type
120	150	44 - 140	1.05A	90.7	80°C	1.4	169	<10%	>0.95	6	UL damp & dry, Type HL	0-10V Analog Class 1 and 2 Wiring	10% - 100%	0.105	Constant Current
277				92.8		0.6		<10%							

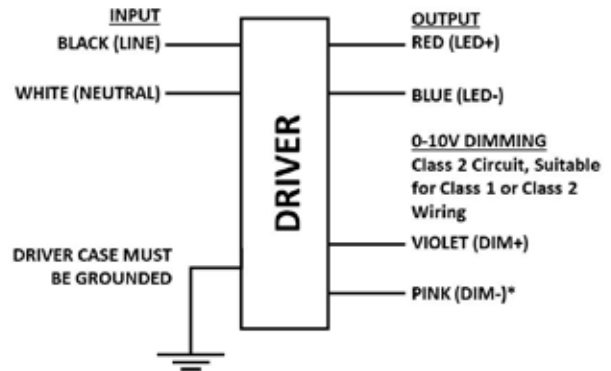
Enclosure

	In. (mm)	Tolerance
Case Length (A3)	8.31 (211.0)	± 0.5mm
Case Width (B1)	2.32 (59.0)	± 0.5mm
Case Height (C1)	1.48 (37.6)	± 1.0mm
Overall Length (A1)	9.47 (240.5)	± 0.5mm
Mounting Hole Distance (A2)	8.91 (226.2)	± 0.5mm
Mounting Hole Distance (B2)	1.69 (42.9)	± 0.5mm
Mounting Hole Diameter (D1)	0.31 (7.94)	± 0.3mm
Mounting Hole Diameter (D2)	0.24 (6.2)	± 0.3mm



Wiring Diagram

	Wire Length (mm)
Black/ (Line)	270 (± 30)
White/(Neutral)	270 (± 30)
Red (Positive, LED output)	270 (± 30)
Blue (Negative, LED output)	270 (± 30)
Violet (Positive, 0-10V)	270 (± 30)
Grey (Negative, 0-10V)	270 (± 30)



Warning

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

Xitanium XI150C105V140CNF1

150W 1.05A 0-10V Dimming

Features

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

Benefits

- Enables long life luminaire designs
- Allows luminaire designs for a wide range of ambient environments

Application

- Area
- Roadway
- Parking garages
- Floodlights

Electrical Specifications

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

Product Data

Order Information	
Full Product Code	XI150C105V140CNF1M (Mid-Pack, 10pcs/Box), 12NC: 929000722913
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108Vac
Max. Mains Voltage Operational	305Vac
DC Input Voltage	250Vdc
Output Information	
Output voltage range	44Vdc to 140Vdc
Maximum Open Circuit Voltage	220Vdc
Output Current Ripple (ripple = peak to average / average)	15% max @ max Iout and max Vout (Low frequency ripple content <4%)
Output Current Tolerance	<5%
Protections	Short Circuit, Open Circuit Protection for LED + and LED - and Temperature Foldback
Features	
Interfaces	0-10V Dimming
0-10V Dimming Interface current	150µA ±3% (for dimming voltage >1V)
Environment & Approbation	
Operating Ambient Temp. Range	-40°C to +55°C
Max Case Temperature (Tcase)	80°C
Agency Approbations	UL879, UL1020, UL935, cUL
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Audible Noise	<24dB Class A
Weight	2.1Lbs/ 0.95Kgs

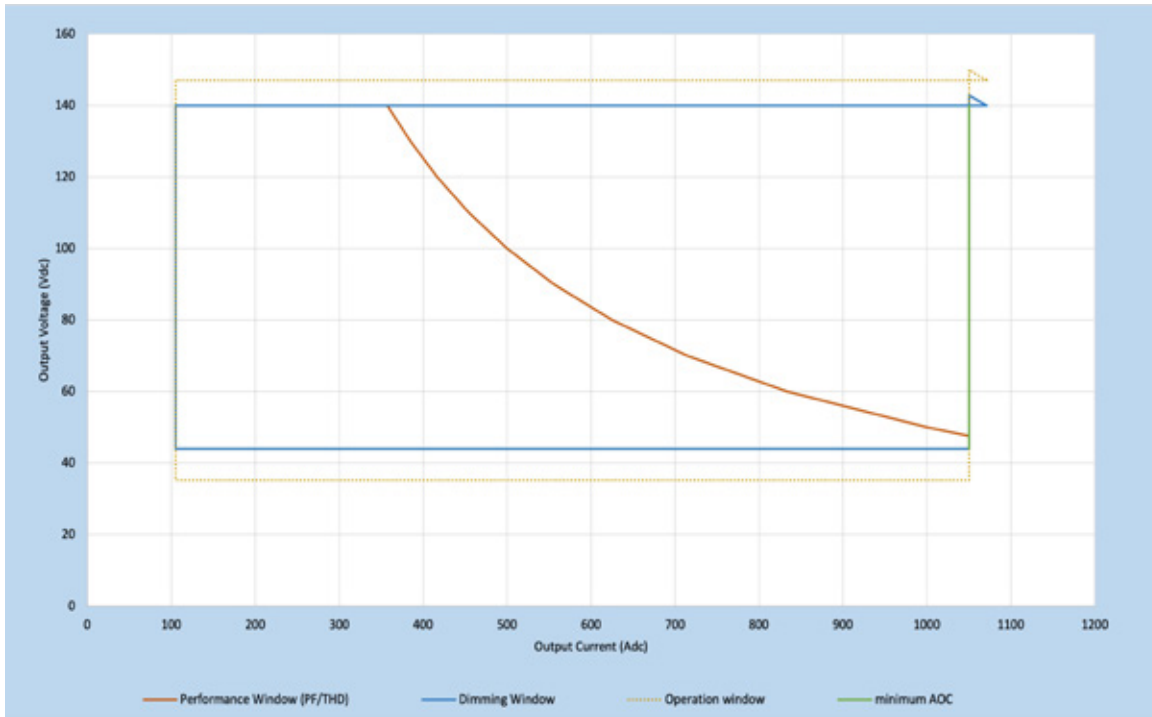
1. Philips Advance Xitanium LED Drivers are manufactured to engineering standards correlating to a designed and average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTTF modeling.

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150W 1.05A 0-10V Dimming

Electrical Specifications

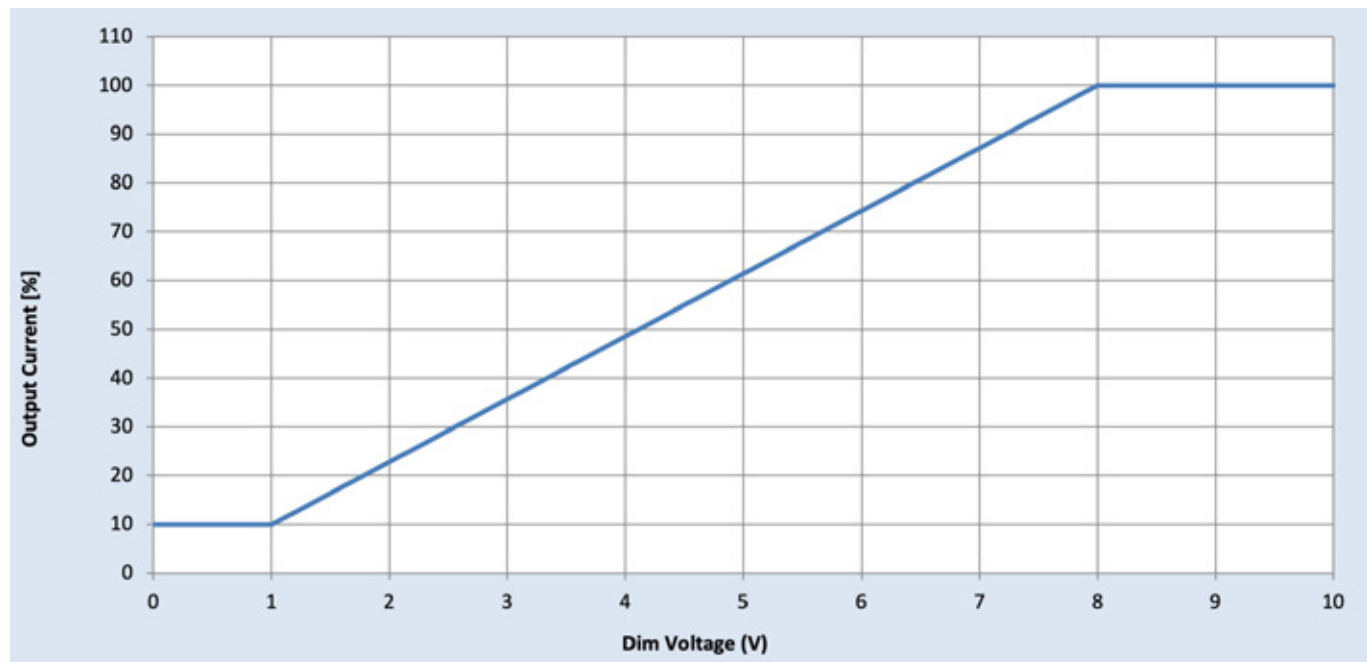
All the specifications are typical and at 25°C TCASE unless specified otherwise.

0-10V Dimming Curve

- Dimming source current from the driver: 150µA (@ 0<Vdim<8V)
- Minimum Dim Level: Factory default 10% of Iout setting as default
- Maximum output voltage on the dimming wires: 12V
- Leakage current of dimming leads: 0.005 mA, recommended max number of control circuits in parallel refer to Design-in Guide
- 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	IlumaTech IP7 series
Philips	Sunrise - SR1200ZTUNV



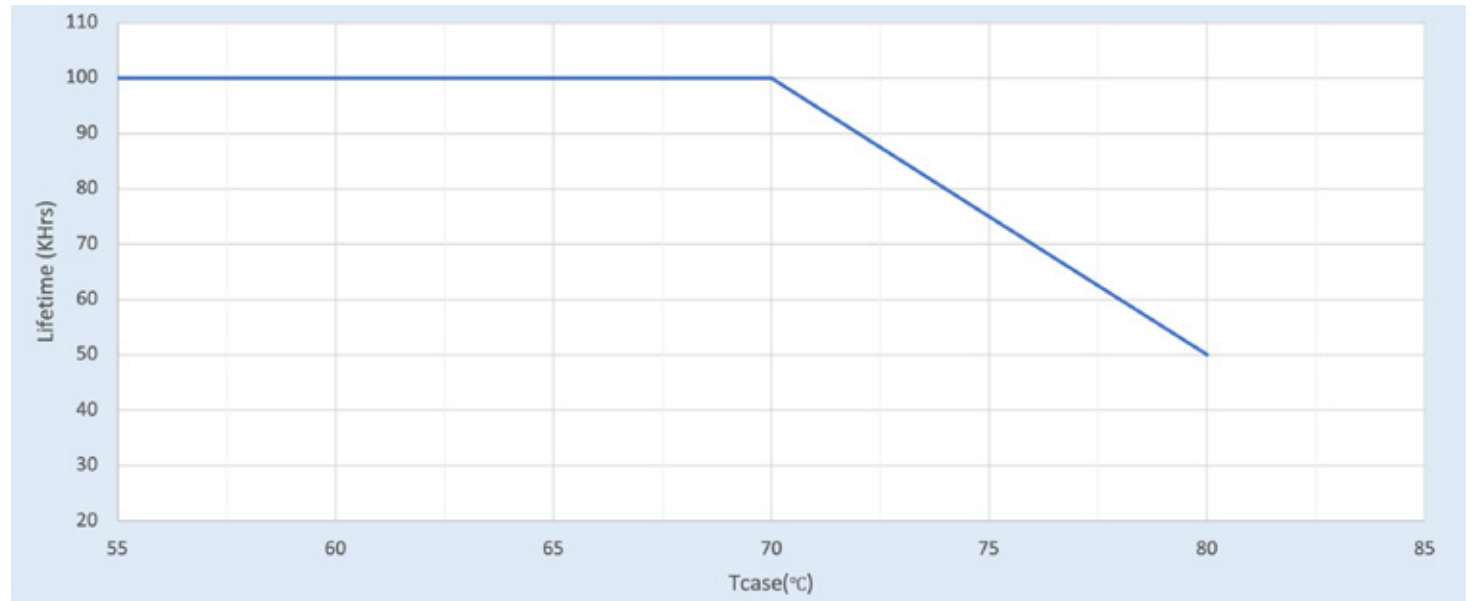
Xitanium XI150C105V140CNF1

150W 1.05A 0-10V Dimming

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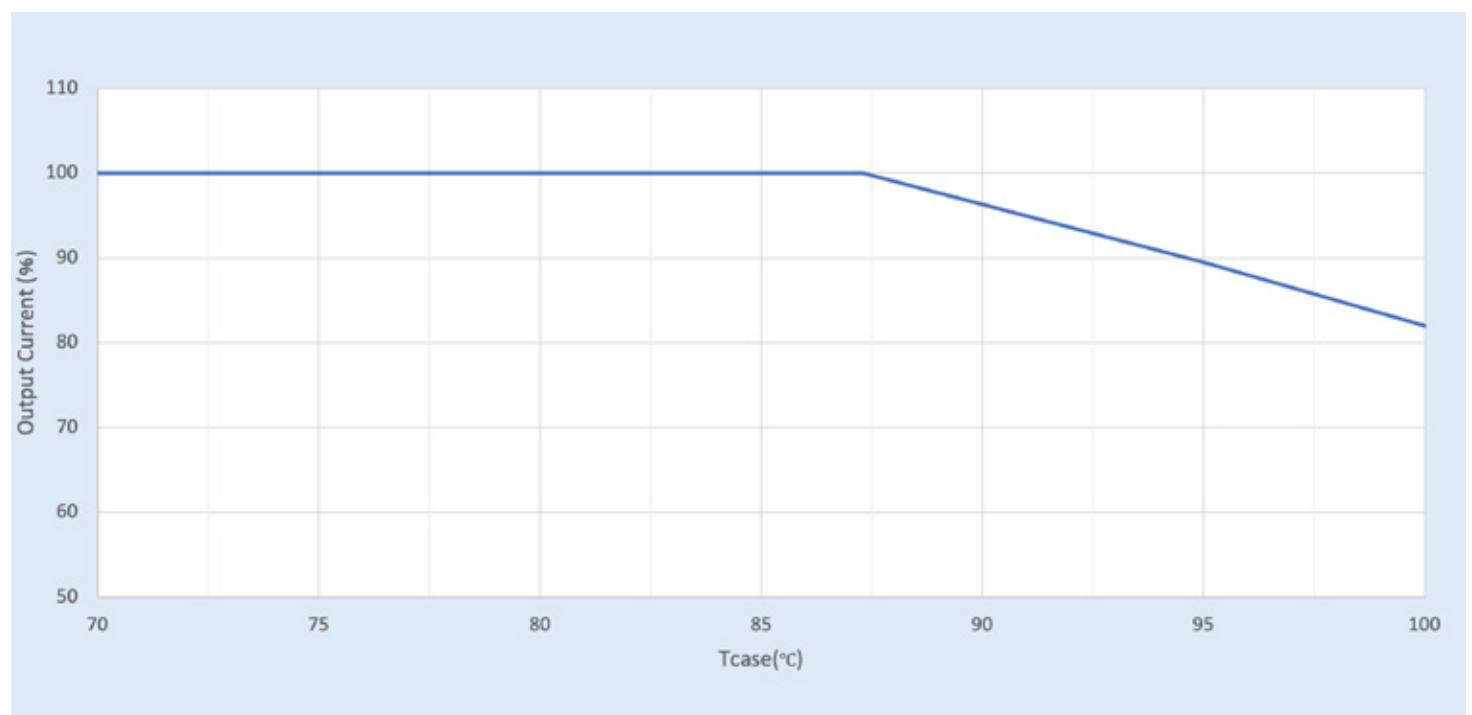
Output Current vs. Driver Case Temperature



Note

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

Driver Lifetime vs. Driver Case Temperature



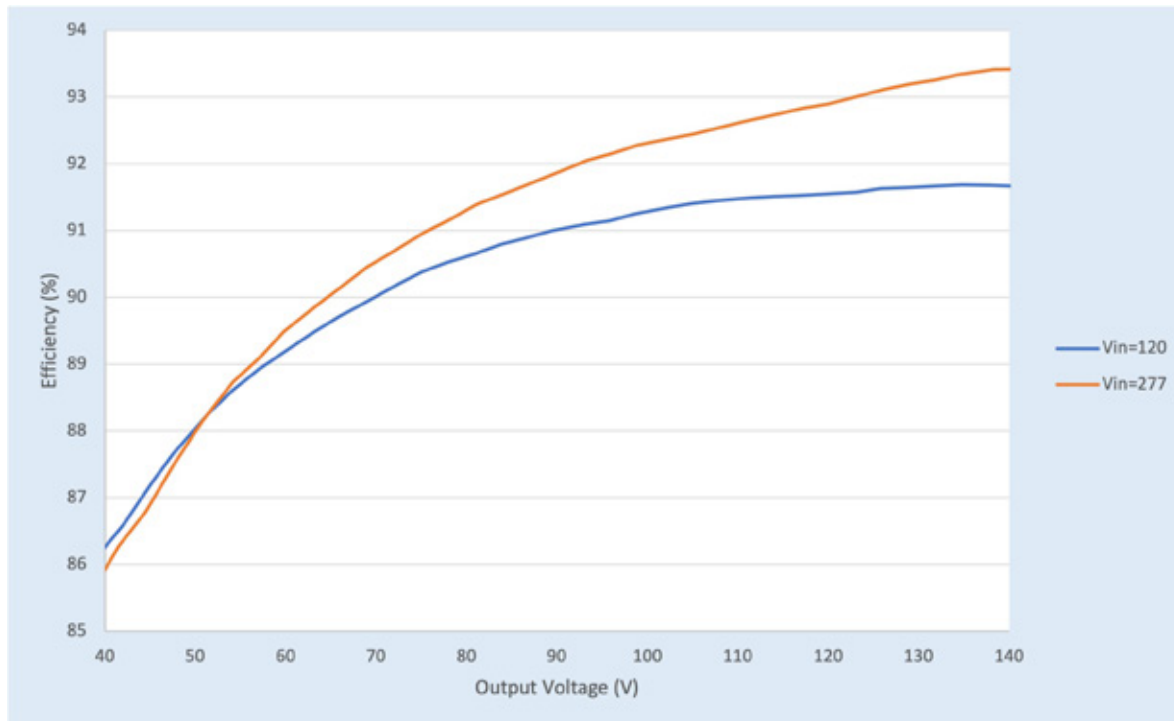
Xitanium XI150C105V140CNF1

150W 1.05A 0-10V Dimming

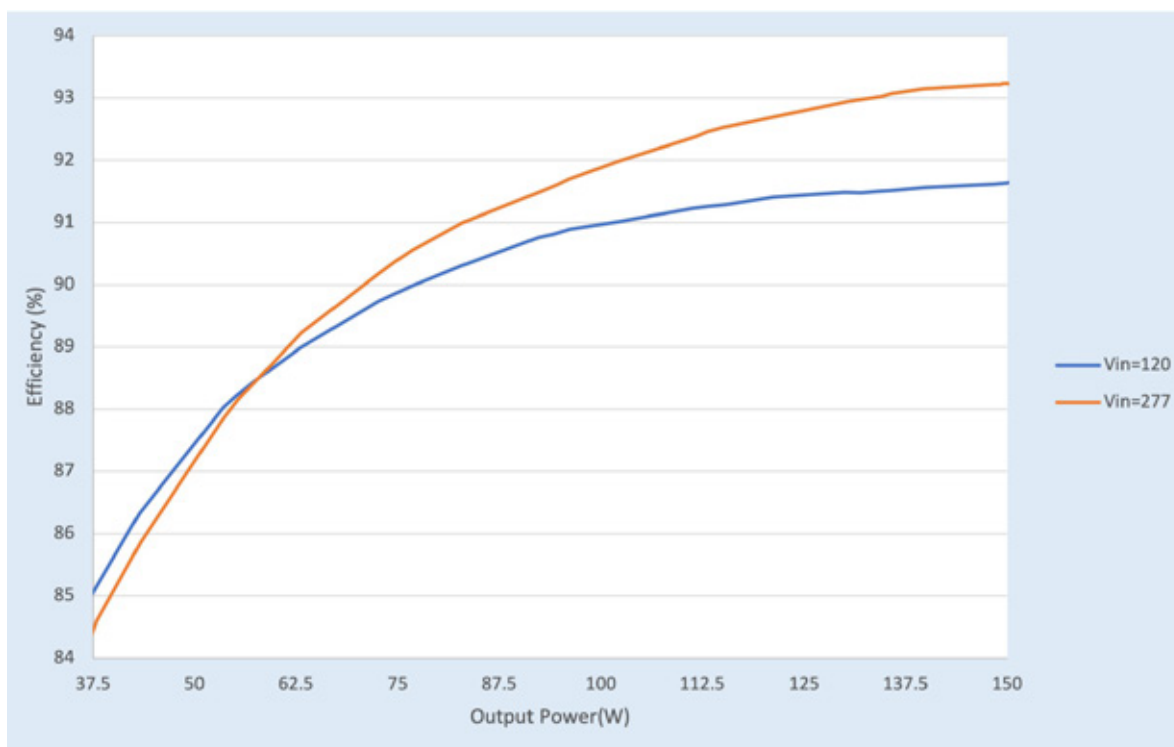
Performance Characteristics

Based on measurements on a typical sample at 70°C Case. The accuracy of the measurements is within the tolerance of the measurement instruments.

Efficiency vs. Output Voltage



Efficiency Vs. Output Power



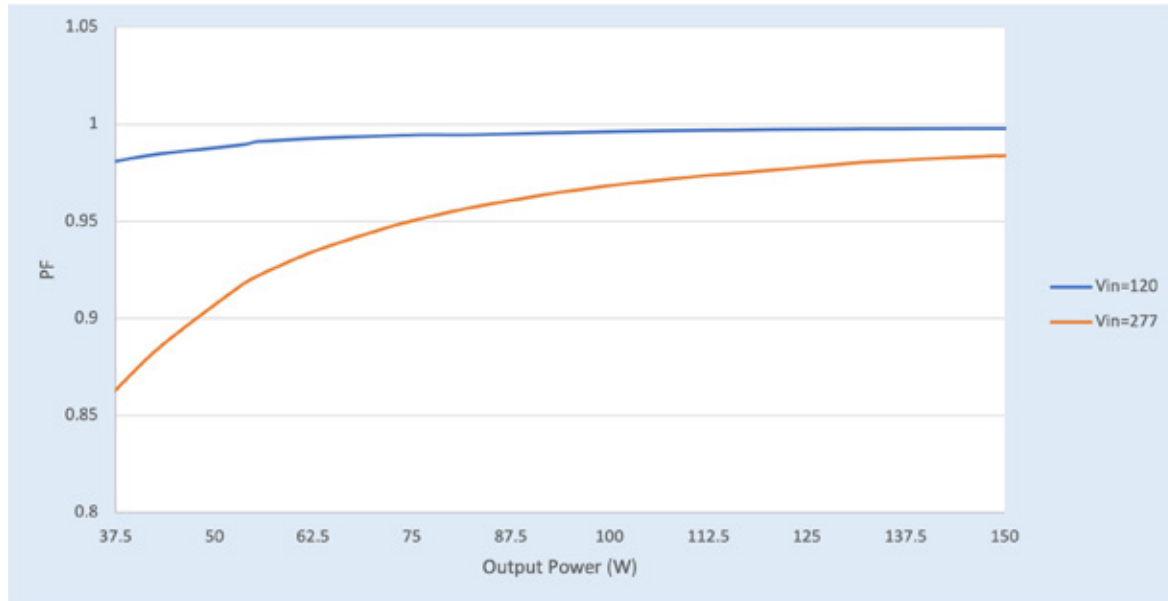
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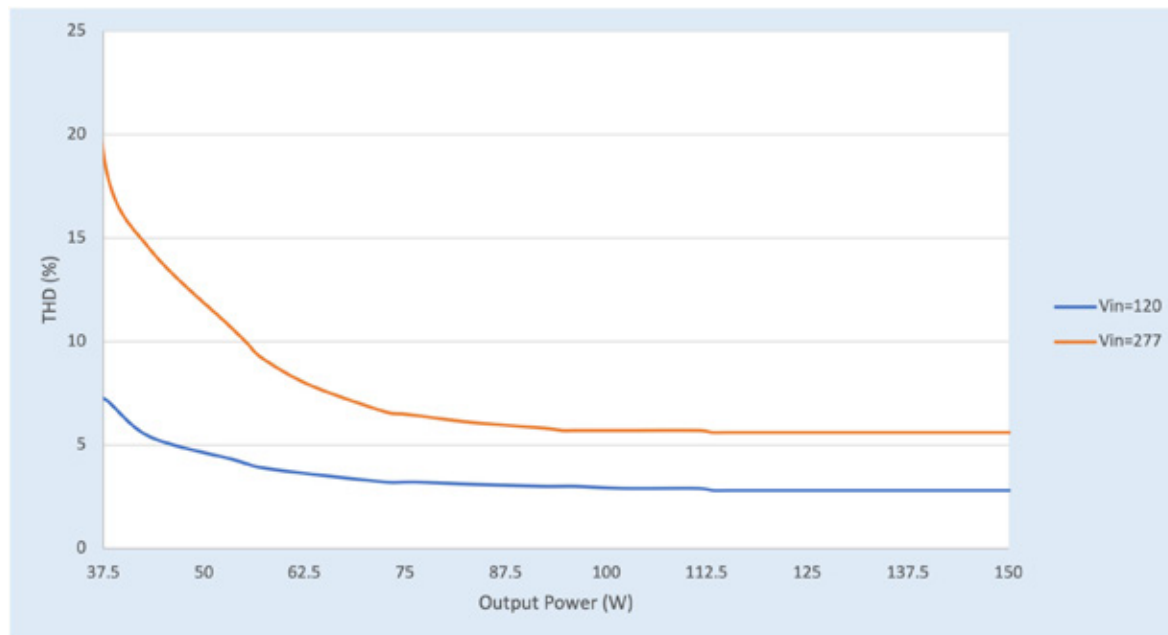
Performance Characteristics

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Power Factor Vs. Output Power



Total Harmonic Distortion (THD) Vs. Output Power



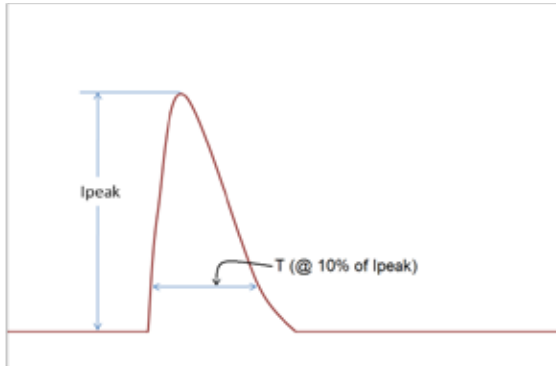
Note

PF>0.9, THD<20%.

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150W 1.05A 0-10V Dimming

Inrush Current Info



V_{in}	I_{peak}	T (@10% of I_{peak})
120 Vrms	44A	214us
277 Vrms	155A	204us

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)
Combi Wave (w/t 2 Ω)	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	2xU+1kV
Enclosure	2xU+1kV	2xU+1kV	2xU+1kV	NA

U = Max input voltage

UL Conditions of Acceptability

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

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