

LED Driver

Xitanium SR FlexTune



by (s) ignify

XI040C110V050VWT1

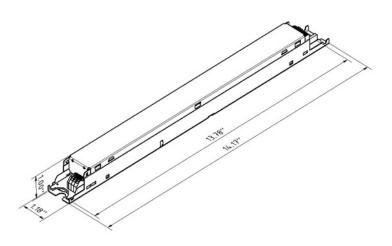
The Advance Xitanium range of linear LED drivers is a new class of driver that provides unparalleled flexibility for your next lighting project that requires color tuning (CCT) capability. It enables digital control of color temperature and lighting output through the open-standard Sensor Ready (SR) interface. It works with multiple LED modules and fixture-based, wireless networked lighting control solutions. With the Xitanium SR FlexTune LED driver you can precisely control the color temperature and lighting output down to 1% and meet NEMA flicker requirement. There is no longer a need for separate control electronics inside the luminaire. The result is a simpler, less expensive light fixture with the right digital foundation for your next connected lighting project.

Specifications

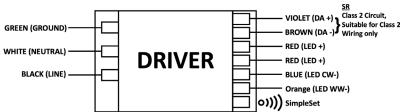
Input Volt. (Vac)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency @ Max Load and 75°C Case	Max Case Temp. (°C)	Input Current (A)	Max. Input Power (W)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protect. (Ring Wave, KV)	Envir. Protect. Rating	Dimming	Dimming Range	Min. Output Current (A)	Other Comments
120	40	16 - 50	0.1 - 1.1	84%	Life- 75°C UL-	0.4	48	<10%	>0.95	2.5	UL damp	SR	1% ~ 100%	0.004	SR input current (PSU off),
277				86%	85°C	0.18		<15%			& dry				max 2mA

Enclosure

	In. (mm)
Case Length	14.17 (360)
Case Width	1.18 (30)
Case Height	1.00 (25.4)
Mounting Length	13.78 (350)



Wiring Diagram



WARNING:

Install in accordance with national and local electrical codes.

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.









40W 1.1A 50V (1% dim) with SimpleSet

Features

- Digital CCT tuning per DALI 209, Device Type 8
- Flicker-free (meets NEMA 77-2017 requirement)
- Standard digital interface based on proposed ANSI C137.4
- \cdot Energy metering and advanced diagnostics
- $\boldsymbol{\cdot}$ Continuous dimming down to 1%
- Drive current setting via SimpleSet wireless programming
- · 5-year limited warranty*

Benefits

- Color consistency throughout the full dimming range (down to 1%)
- Precise CCT tuning based on the chromaticity of the chosen LED module
- Greater design flexibility with a wide range of LED modules and control systems to choose from
- Enable interoperability with diverse wireless sensors/network systems
- Future proof through standard interface to any suitable sensor and ease of adjustable drive current
- Reduce complexity and cost of fixture by eliminating auxiliary component

Application

- Indoor linear applications such as troffers and pendants
- · Office
- Healthcare
- Education
- Hospitality

Product Data

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

Ordering Information					
Order Code	XI040C110V050VWT1 (12NC: 929001758313)				
Full Product Code	XIO40C110V050VWT1M (Mid-pack, 18/box)				
Full Product Name	XITANIUM 40W 0.10-1.1A 50V 120-277V SR FlexTune				
Global Trade Identification Number (GTIN)	781087159880				
Input Information					
Inrush Current	Per NEMA 410				
Line Voltage (AC Operation)	120-277VAC +/- 10%				
Line Frequency	50/60Hz				
Output Information					
Output Voltage Range	16 - 50V				
Output Current Ripple	<15% at max lout (ripple = pk-avg/avg) Low frequency (<120 Hz) content <5%				
Output Current Tolerance	±5% at max output current				
Open Circuit Voltage	60V				
Protections	Short Circuit and Open Circuit Protection for LED + and LED-				
Control Lead Current Leakage (SR, LSI)	0.01mA, recommended max number of control circuits in parallel refer to Design-In Guide				
Features					
AOC (Adjustable Output Current)	100mA to 1100mA via SimpleSet programming				
Life @ TC 75°C	50000 hr [nom] (refer to graphs)				
Suitable for Outdoor Use?	No				
Interfaces	AOC (SimpleSet), SR				
Ambient Temp Range	-20°C to +50°C				
Max Case Temperature (Tcase)	85°C for UL, 75°C for life				
Earth Leakage Current	0.75 mA [max]				
THD Total	Refer to graph				
Power Factor	Refer to graph				
Sensor Power Supply	52-60mA Peak (55mA typ.); 12vdc-20vdc (14vdc typ.) (refer to graph)				
Power Reporting Accuracy	±0.5W/±4%				
Environment & Approbation					
Agency Approbations	UL8750, UL1310, CSA-C22.2 No. 250.13-12, CSA C22.2 No. 223, cUL				
Audible Noise	<24dB Class A				
Isolation Between Output and Input	Refer to table (page 7)				
Isolation of Controls	Refer to table (page 7)				
EMC (Electromagnetic Compliance)	Meets FCC 47 Part 15 Class A				
Envir. Protection Rating	UL Dry & Damp				
Net Weight Per Piece	0.58 Lbs / 0.265 Kgs				
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^{*} View limited warranty: www.signify.com/warranties.

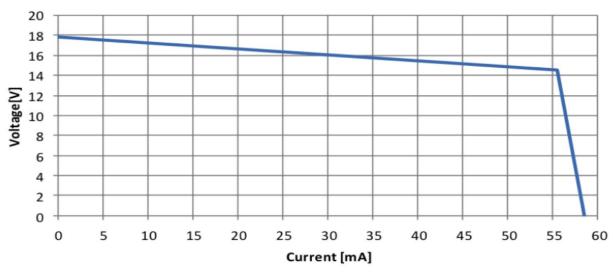
Note: In order to achieve color temperature accuracy, keep wire length from driver to LED board within 6 ft, and keep CW- and WW- wires close each other.

40W 1.1A 50V (1% dim) with SimpleSet

Electrical Specifications

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

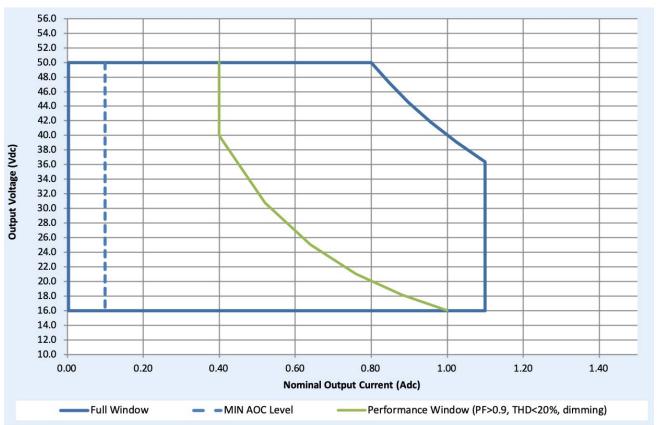
SR Power Supply Characteristics (Typical)



Note:

Power supply through digital connection, default "on," for connection of one driver to one sensing/RF device. Consult your representative for use with multiple devices. Standby power <0.25W when SR have no load, <0.5W when SR has a load of 0.15W.

Operating Window



Note:

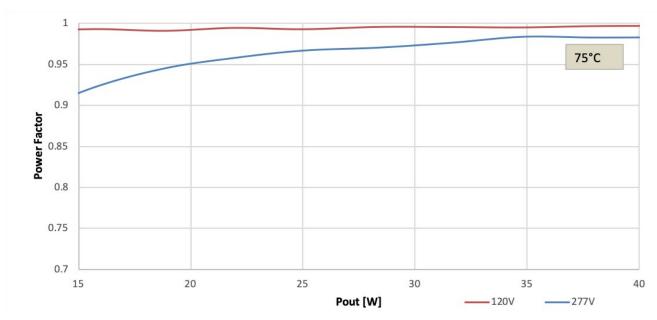
Factory default output current is 1.1A.

40W 1.1A 50V (1% dim) with SimpleSet

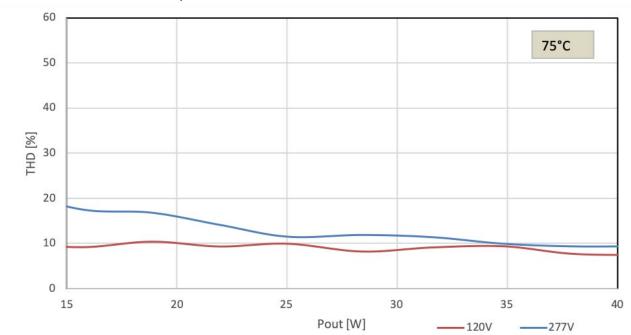
Performance Characteristics

Based on measurements on a typical sample at 75°C case. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Power Factor vs. Output Power



Total Harmonic Distortion vs. Output Power

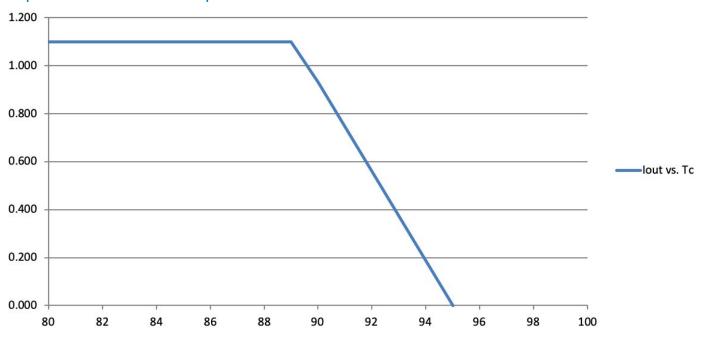


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Performance Characteristics

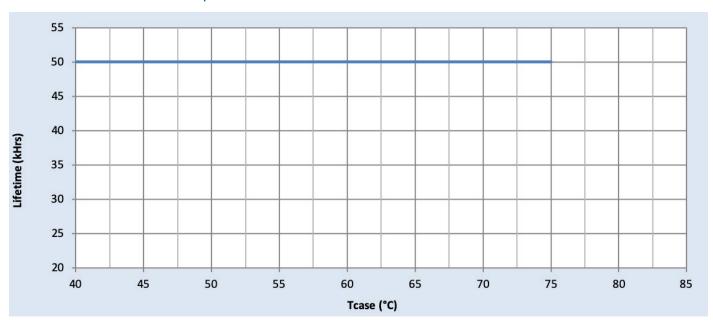
Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

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

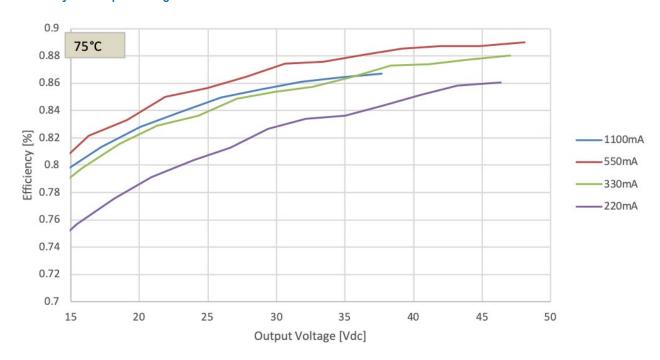


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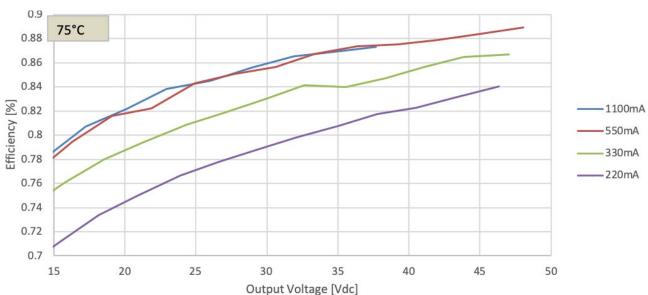
Performance Characteristics

Based on measurements on a typical sample. The accuracy of the measurements is within the tolerance of the measurement instruments. The graphs are meant to be a guideline and not a specification.

Efficiency Vs. Output Voltage at 120Vac

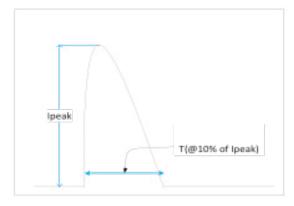


Efficiency Vs. Output Voltage at 277Vac



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Inrush Current Info



Vin	Ipeak	T (@ 10% of Ipeak)		
120 Vrms	7 A	42 µs		
277 Vrms	17 A	36 µs		

Lightning Surge Info

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)		
100 kHz Ring Wave (w/t 30)	>2.5kV	>2.5kV		

Isolation:

Isolation	Input	Output	SR	Enclosure	
Input	_	2xU+1kV 1600V	2500V	2xU+1kV 1600V	
Output	2xU+1kV 1600V	-	500V	500V	
SR	2500V	500V	-	500V	
Enclosure	2xU+1kV 1600V	500V	500V	-	

Standby power <0.25W when SR have no load, <0.5W when SR has a load of 0.15W.

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