# Xitanium LED Driver

# XITANIUM 40W 1.05A 0-10V INT-J XI040C105V042CNJ1

#### **Features**

- 3 drive current options available 700mA, 1050mA, 1200mA, with UL Class 2 output
- 0-10V dimming
- · Compact housing

#### **Benefits**

- · Flexibility of design via multiple drive currents and low voltage
- · Helps to maximize energy savings and allows application specific light levels
- Enables design of low profile and compact fixtures

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments	
0-10V Analog Class 2 Wiring	10% ~ 100%	0.105	Dimming source current: 150 µA	

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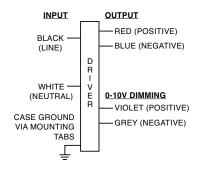




#### **Dimensions**

	in.	mm
Case Length	5.47	138.9
Case Width	1.81	46.0
Case Height	1.11	28.2
Mounting Length	5.67	144.0
Mounting Width	1.08	27.4
Overall Length	5.93	148.25

#### Wire Diagram



#### **Product Data**

Input and output use lead-wires.

Lead-wires are 18AWG 105C/600V solid copper per UL1452. Lead Length outside enclosure: 270 mm (±30mm) on all wires.

Input Voltage (Vac)	Output Power (W)	Output Voltage Range (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	Inrush Current (Apk/ 50%-µs)	THD @ Max Load (%)	Power Factor @ Max Load	Surge Protection Common/ Diff (KV)	Weight (Lbs/ kgs)	Envir. Protection Rating
120		14 - 42	1.05		25 / 100	<8%	2005	1.0/ 0.45	UL damp				
277	44	14-42		<12%	>0.95	4/4	1.0/ 0.43	and dry					







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

Ordering Information		
Order code	XI040C105V042CNJ1	
Full product code	XI040C105V042CNJ1M (Mid-Pack, I2pcs/Box)	
Full product name	XITANIUM 40W 1.05A 0-10V INT-J	
Input Information		
Line Voltage	120-277Vac_rms	
Line Current	0.46A @ 120V, 0.21A @ 277V	
Line Frequency	50/60Hz	
Min. Mains voltage operational	108 V [min]	
Max. Mains voltage operational	305V [max]	
THD (total)	Refer to graph	
Power Factor (PF)	Refer to graph	
Inrush Current	Per NEMA 410	
Lightning Surge Protection	Refer to table below	
Output Information		
Output voltage range	I4V to 42Vdc	
Maximum open circuit voltage	44V	
Output Current Ripple (ripple = peak to average / average)	I0% max @ max lout Low frequency (≤I20 Hz) content <5%	
Protections	Short Circuit and Open Circuit Protection for LED + and LED-	
Ambient Temp Range	-40°C to +55°C	
Max Case Temperature (Tcase)	80°C	
Features		
Interfaces	0-10V Dimming	
AOC (Adjustable Output Current)	N/A	
MTP (Module Temperature Protection)	N/A	
0-10V Dimming Specifications	I50µA source current from driver, See dim curve for detail.	
Environment & Approbation		
Environmental Protection Rating	UL damp and dry	
Agency Approbations	UL8750, UL1310, UL935, CSA-C22.2 No. 250.13-12, CSA C22.2 No. 223	
Electromagnetic Compliance	FCC Title 47 Part 15 Class A	
Isolation	Refer to table	
Audible noise	<24dB Class A	
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# **0-10V Dimming Curve:**

Dimming source current from the driver: I50µA (@ 0<Vdim<8V)

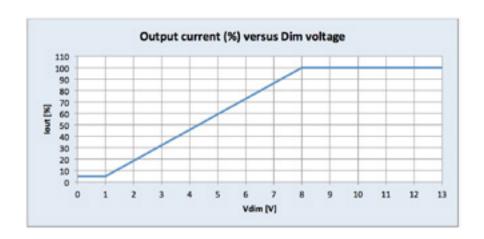
LED Current Tolerance at  $1050 \text{mA} \le 5\%$  over temperature and component variations and  $\le 10\%$  at any dim level.

Minimum Dim Level: 10% of lout (minimum 105mÅ)
Maximum output voltage on the dimming wires: 13V

### **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 - SRI200ZTUNV

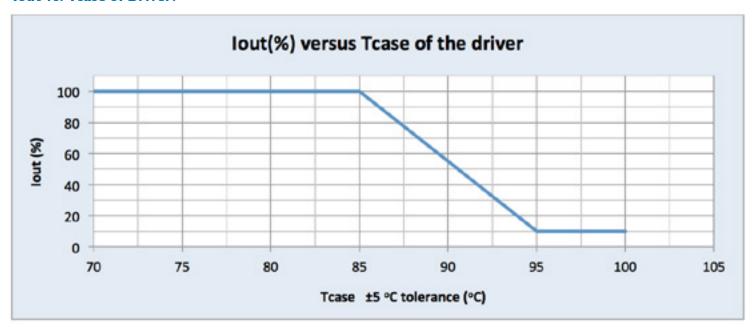
For compatibility with other dimmers please contact the dimmer manufacturer.



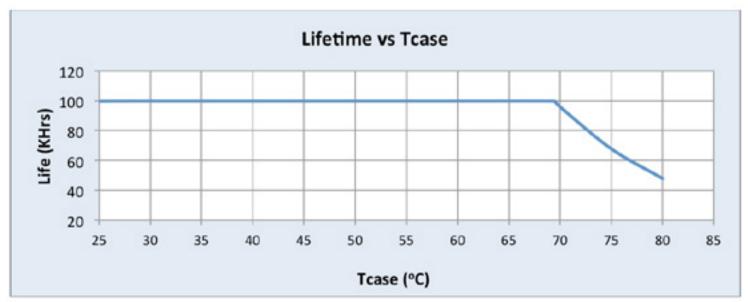


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#### **lout vs. Tcase of Driver:**



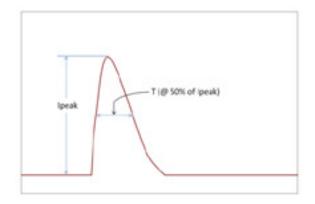
# Lifetime vs. Tcase of Driver:





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

#### **Inrush Current Info:**



Vin	lpeak	T (@ 50% of Ipeak)
120 Vrms	25 A	Ι00 μs
277 Vrms	65 A	Ι00 μs

Inrush current is measured at peak of the corresponding line voltage, source impedance per NEMA 410.

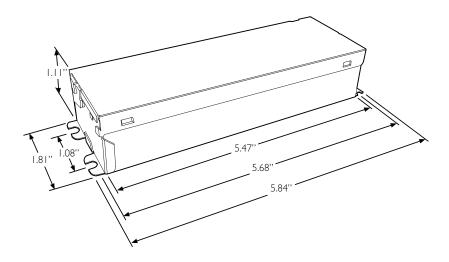
# **Lightning Surge Info:**

ANSI Surge Type	Differential Mode (L-N)	Common Mode (L-G, N-G, L&N-G)	
100 kHz Ring Wave (w/t 30Ω)	6kV	6kV	
I.2/50μs - 8/20μs Combination Wave (w/t $2\Omega$ )	4kV	4kV	

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# **Mechanical Specifications**

# **Mechanical Drawing:**

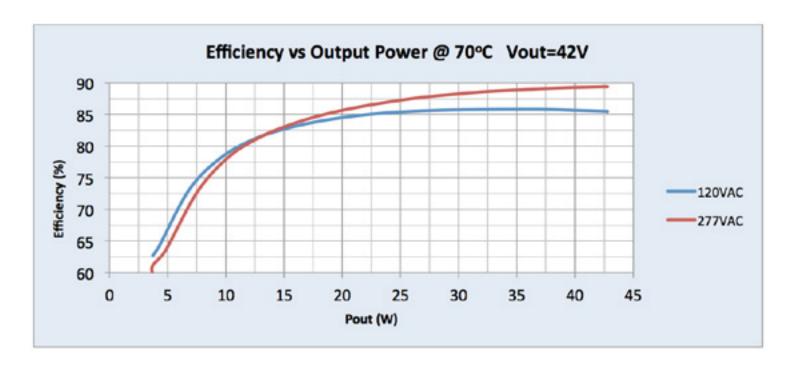


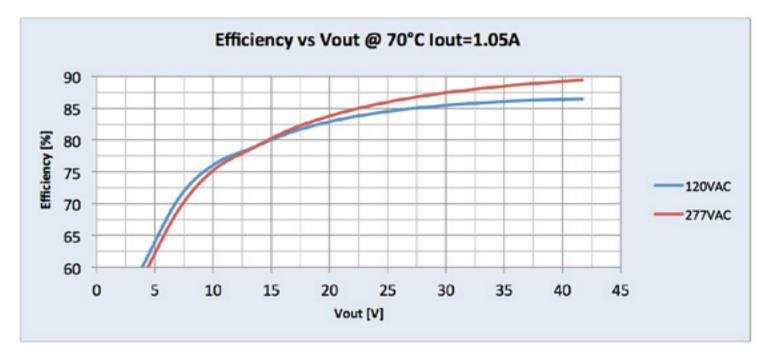
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#### **Performance Characteristics**

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.

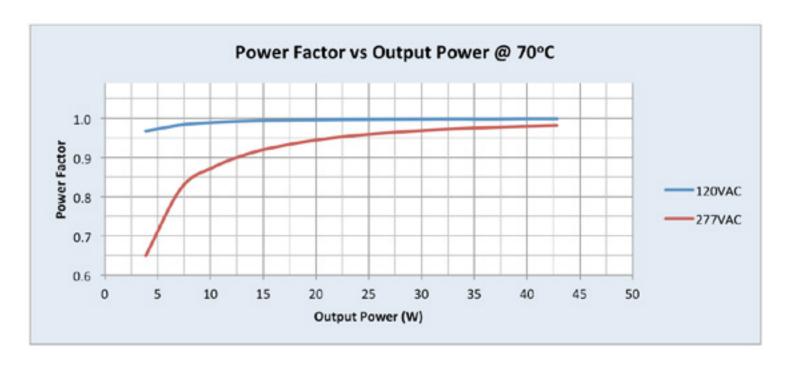


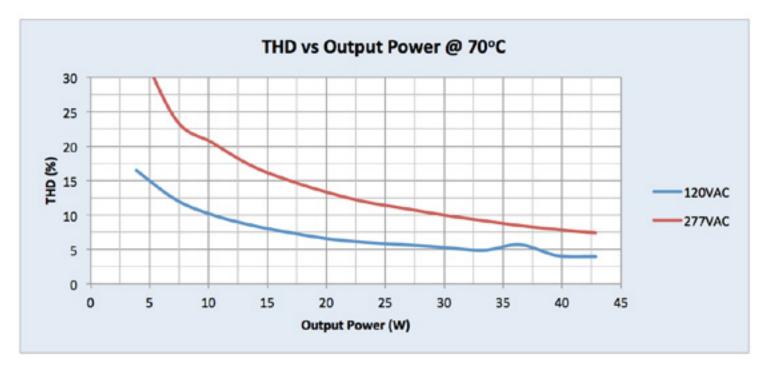


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# **Application Notes**

#### **Isolation:**

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	Not applicable	2xU+IKV	2.5KVac	2xU+IKV
Output	2xU+IKV	Not applicable	Not applicable	500V
0-10V (Class 2)	2.5KVac	Not applicable	Not applicable	500V
Enclosure	2xU+IKV	500V	500V	Not applicable

# **UL Conditions of Acceptability:**

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

