



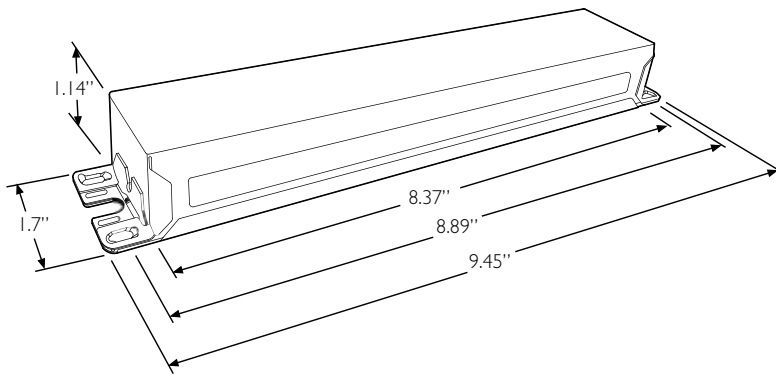
Long-lasting and low maintenance, LED-based light sources are an excellent solution for all lighting applications. For optimal performance, these solutions require reliable drivers matching the long lifetime of the LEDs. **The Advance Xitanium LED Outdoor Driver portfolio** offers a range of products 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

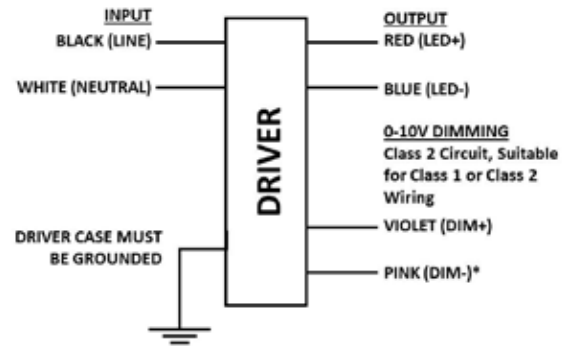
Input Voltage (Vrms)	Output Power (W)	Output Voltage (V)	Output Current (A)	Efficiency@ Max Load and 70°C Case	Max. Case Temp. (°C)	Input Current (Arms)	Max. Input Power (W)	Inrush Current (A _{pk} /10%-μs)	THD @ Max. Load	Power Factor @ Max. Load	Surge Protection Common/Diff (KV)	Weight (Lbs/kgs)	Envir. Protection Rating	Driver Type
120	76	27 - 42 Class 2 Output	1.80	87	90°C	0.75	88	37/313	<15%	>0.90	4/4	1.48/0.67	UL Dry & Damp	Constant Current
277				88		0.33		83/299	<15%					

Enclosure

	In. (mm)
Case Length	8.37 (212.6)
Case Width	1.70 (43.2)
Case Height	1.14 (29.0)
Mounting Length	8.89 (225.8)
Overall Length	9.45 (240.0)



Wiring Diagram



Input and output use lead-wires.

Lead-wires are 18AWG solid copper.

105°C/600V per UL1316 and 90°C/1000V per UL1452.

Lead Length outside enclosure:

280 mm (+50.8mm/-25.4mm) on all wires.

UL Conditions of Acceptability:

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

Warning

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

Dimming	Dimming Range	Minimum Output Current (A)	Other Comments
0-10V Analog Class 2 Wiring	15% ~ 100%	0.270	NA

Xitanium XI076C180V042CNS1

76W 120-277V 1.80A 0-10V

Electrical Specifications

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

Features

- UL Class 2 output, high drive current (1.5A)
- 50,000+ hour lifetime¹
- Increased thermal capability (90°C Tcase max)²

Benefits

- Tailored specifically for various COB arrays
- Enables long life luminaire designs
- Allows luminaire designs for higher ambient temperatures

Application

- Pathways
- Parking garages
- City street lighting
- Roadway

Product Data

Order Information	
Order Code	XI076C180V042CNS1
Full Product Code	XI076C180V042CNS1M (Mid-Pack 20pcs/Box)
Full Product Name	XITANIUM 76W 1.80A 0-10V INT-S
Line Voltage	120-277Vac_rms
Line Current	0.75A @ 120V, 0.33A @ 277V
Line Frequency	50/60Hz
Min. Mains Voltage Operational	108V [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
Output Information	
Output Voltage Range	27V to 42Vdc
Maximum Open Circuit Voltage	46Vdc
Output Current (ripple = peak to average / average)	15% max @ max Iout and max Vout (1.5A/42V) Low frequency (≤ 120 Hz) content $< 5\%$ Low frequency (≤ 120 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)	90°C
Features	
Interfaces	0-10V dimming
0-10V Dimming Specifications	See dim curve for detail.
Environment & Approbation	
Environmental Protection Rating	UL damp and dry
Agency Approbations	UL8750, UL1310, UL935, cUL
Electromagnetic Compliance	FCC Title 47 Part 15 Class A
Isolation	Refer to table
Audible Noise	< 24 dB Class A

Footnotes on last page.

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Electrical Specifications

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0-10V Dimming Curve:

LED Current Tolerance at 1800mA $\leq \pm 5\%$ and $\leq \pm 10\%$ at any dim level (sample to sample)

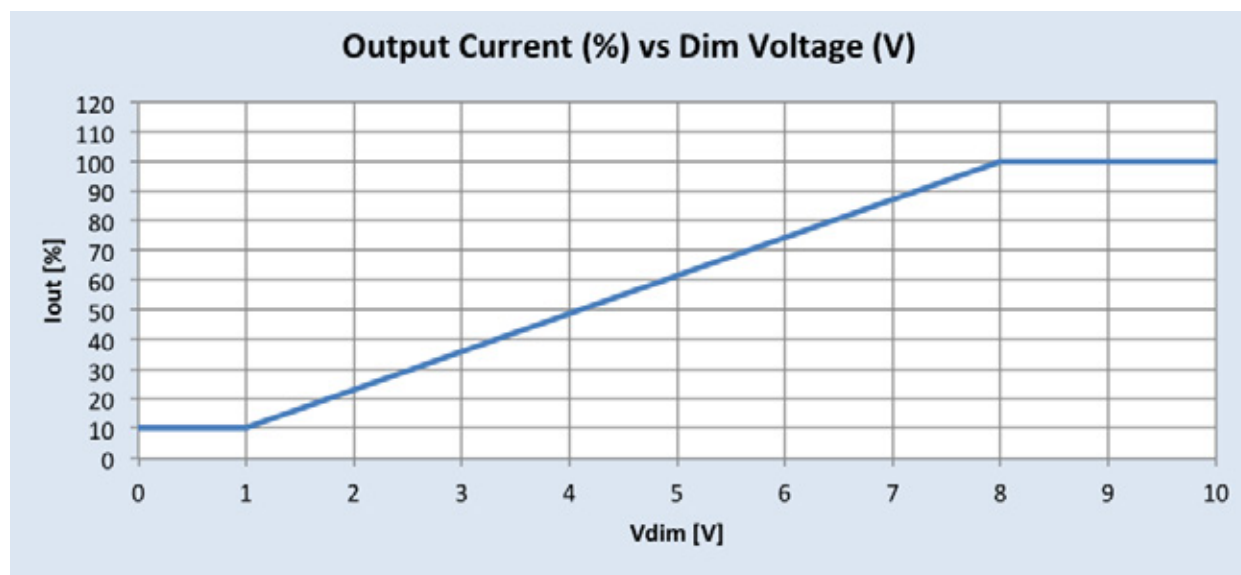
Minimum Dim Level: 15% of Iout (270mA nominal)

Maximum output voltage on the dimming wires: 13V

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	IllumaTech IP7 series
Advance	Sunrise - SR1200ZTUNV

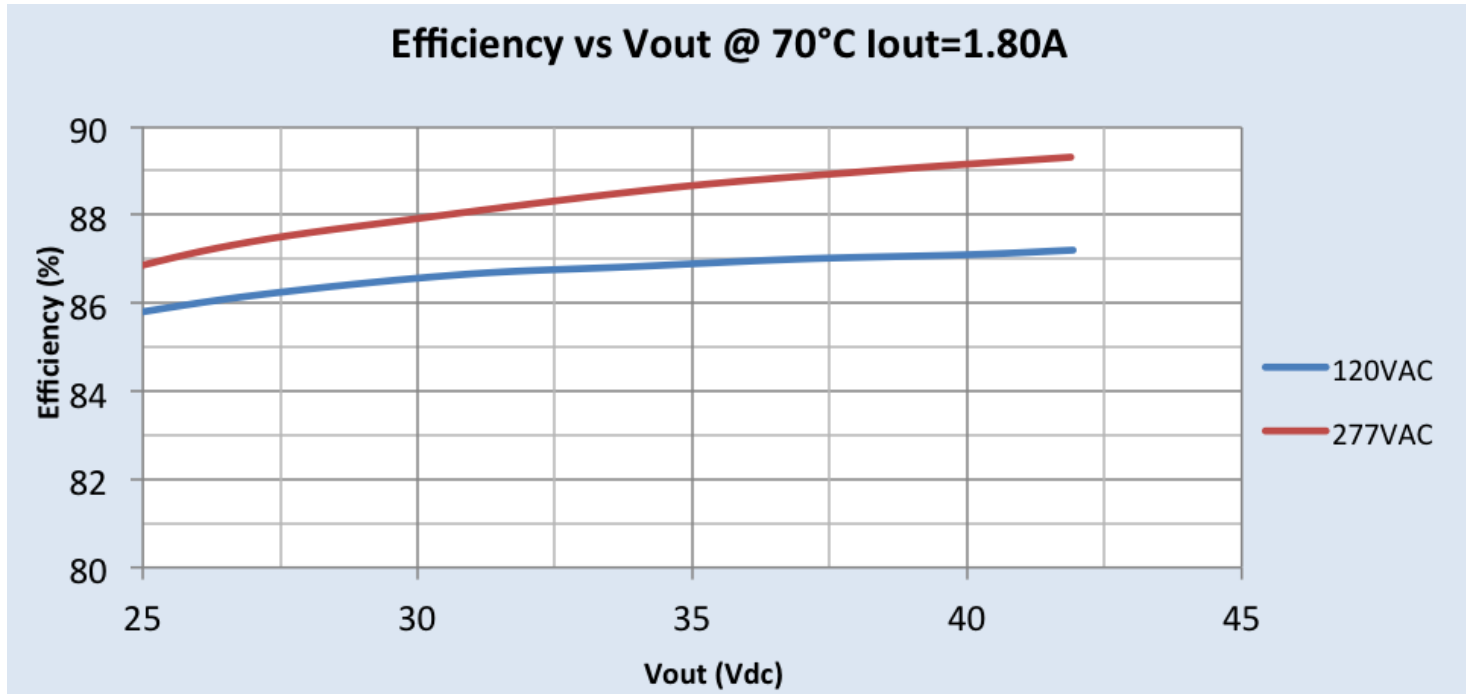


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Performance Characteristics

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.



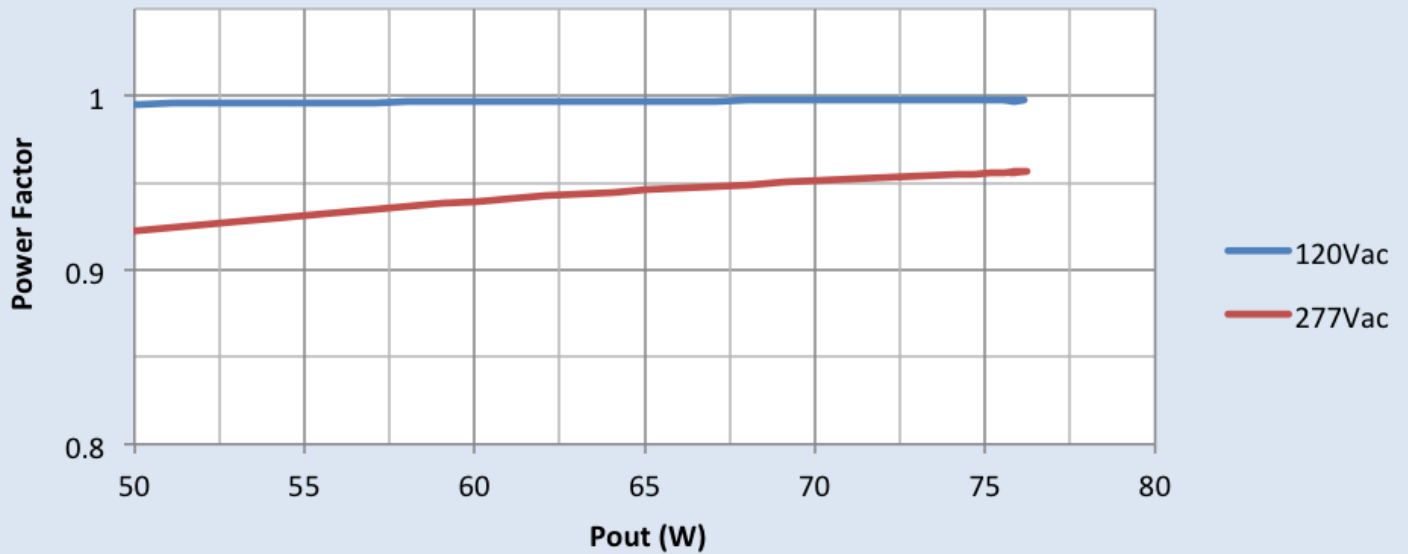
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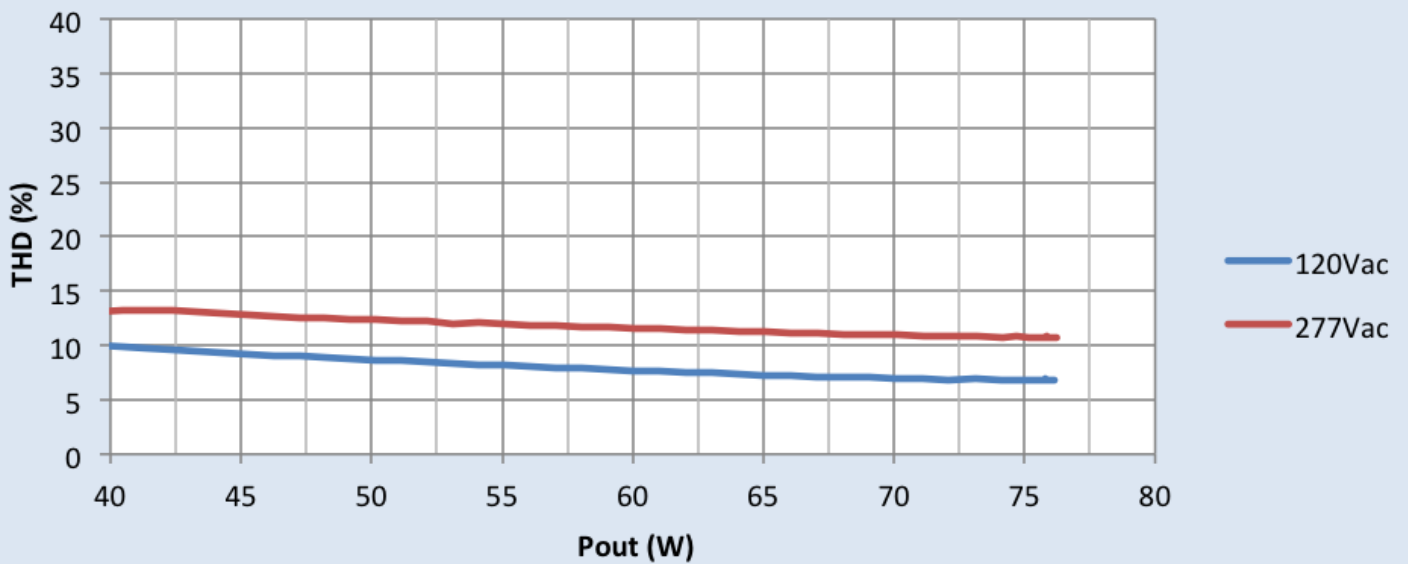
Performance Characteristics

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Power Factor vs. Output Power @Tc=70°C



THD vs. Output Power @Tc=70°C



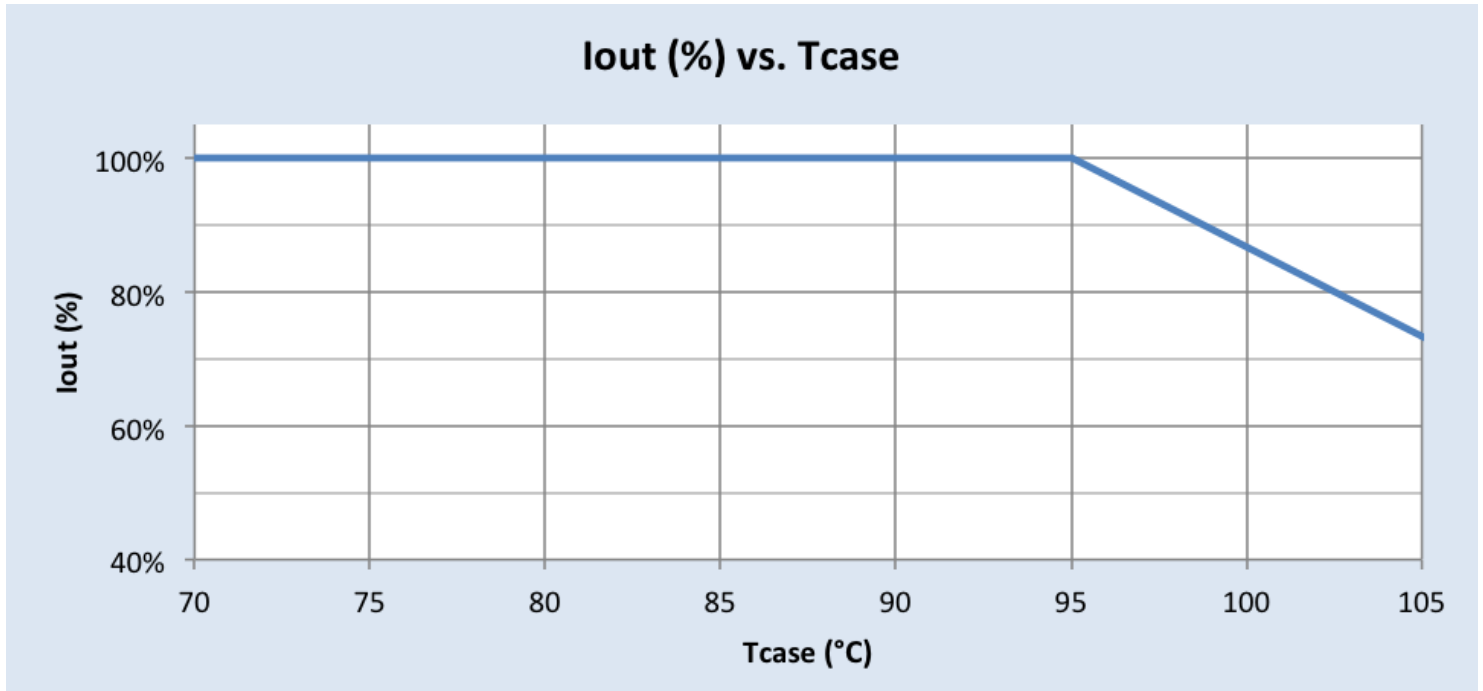
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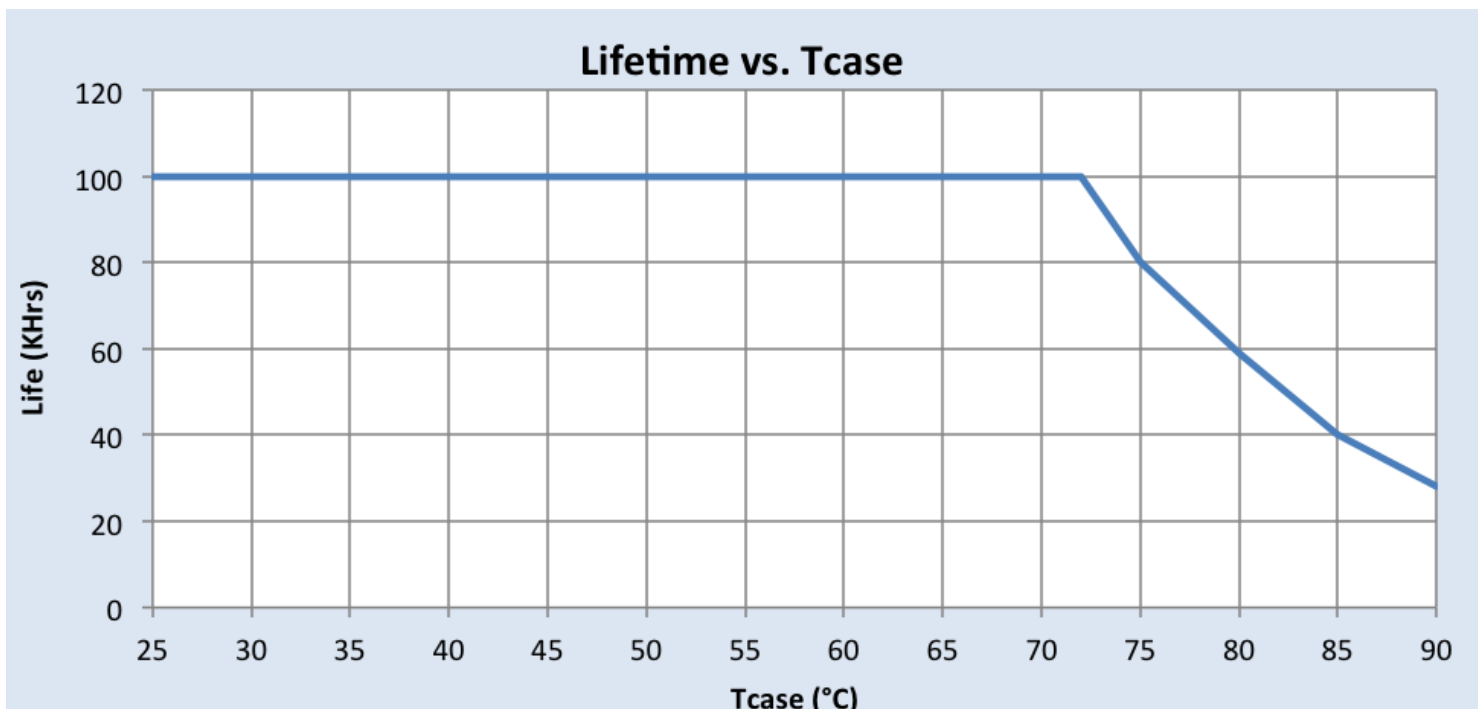
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Output Current vs. Driver Case Temperature:



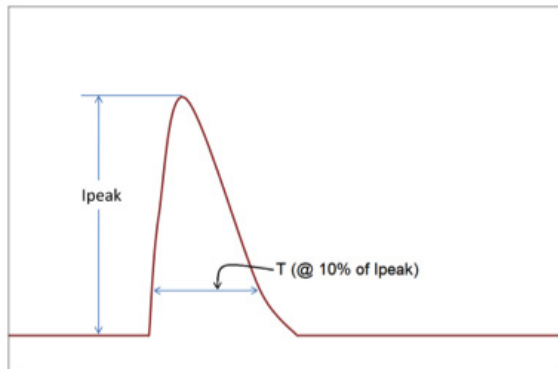
Driver Lifetime Vs. Driver Case Temperature:



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Inrush Current Info:



Vin	Ipeak	T (@ 10% of Ipeak)
120 Vrms	37A	313 μ S
277 Vrms	83A	299 μ 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 μ s - 8/20 μ s Combination Wave (w/t 2 ₂)	4kV	4kV

Isolation:

Isolation	Input	Output	0-10V (Class 2)	Enclosure
Input	NA	2xU+1kV	2.5KVac	2xU+1kV
Output	2xU+1KV	NA	NA	500V
0-10V (Class 2)	2.5KVac	NA	NA	500V
Enclosure	2xU+1KV	500V	500V	NA

Footnotes:

1. Advance Xitanium LED Drivers are designed and manufactured to engineering standards correlating to an average life expectancy of 50,000 hours of operation at maximum rated case temperature. Minimum 90% survivals based on MTBF modeling.
2. Based upon these drivers having a 90°C max case temperature, while the standard is 80°C for outdoor drivers.



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