

700mA Programmable LED Driver with 10-yr Warranty

- Universal (120-277V) Input Voltage
- Class 2, 20W Constant Current Output with 0-10V dimming
- Full featured programmability with Wireless Programming



Performance

| | |
|---|--|
| Input Voltage | 120 ~ 277 Vac |
| Input Current Max | 0.19A / 120V 0.09A / 277V |
| Input Power Max | 34W |
| Input Frequency | 50 - 60 (Hz) |
| Power Factor | > 0.95 @ max load |
| THD max | < 20 % @ max load |
| Output Voltage (Refer to Driver Operating Range) | 16V to 29V @ 0.70 Amps 16V to 56V @ 0.36 Amps |
| Max. Output Current | 700mA |
| Min. Dimming Current | 4mA |
| Output Power | 20W |
| Standby Power | < 2.8W @ 120Vac < 3.5W @ 277Vac |
| Line Regulation | ±3 % |
| Load Regulation | ±5 % |
| Output Current Ripple | <10% (Pk-Pk/avg) |
| Inrush Current* | 120V: 18A / 310uS |
| Peak / >10% Duration | 277V: 42A / 286uS |

* source impedance per NEMA 410

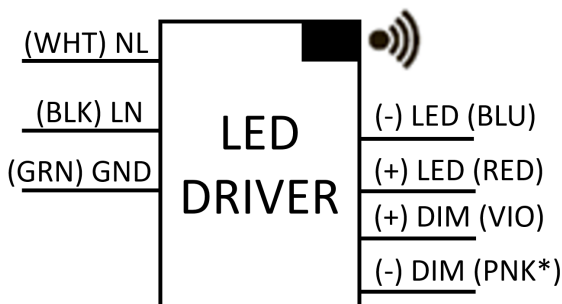
Physical

| | |
|--|----------|
| Length | 14.25 in |
| Width | 1.18 in |
| Height | 1.00 in |
| Mounting Length | 13.75 in |
| Weight (lbs) | 1.0 lbs |
| Wire Trap / Plug-in Connectors for 16-22 AWG Solid Wire Strip length 0.33in | |

Environmental

| | |
|-----------------------|--|
| EMI and RFI | Meets FCC part 15 (Class A) Non-Consumer Limits |
| Sound Rating | Class A |
| Operating Temperature | -30°C to 40°C (-22°F to 104°F) |
| Storage Temperature | -30°C to 75°C (-22°F to 167°F) |
| TC | 75°C max for warranty |
| | 75°C max for UL |
| Relative Humidity | 0 to 55% non-condensing and non-corrosive |
| Power Cycles | <20 per day |
| Location Rating | UL Dry & Damp |
| Transient Protection | IEEE C62.41 2.5kV |

Wiring Diagram:



* **Note:** The Gray has been changed to Pink for the negative 0-10V dimming control lead.

Protection

Over Voltage, Under Voltage, Short Circuit, Over Temp
Safety:

UL 8750 & CSA 250.13
UL Class P



Ordering Information

| Order Number | Description | Qty/Carton |
|--------------------|-------------|------------|
| D700C20UEXPW-C010C | 700mA 20W | 10 |

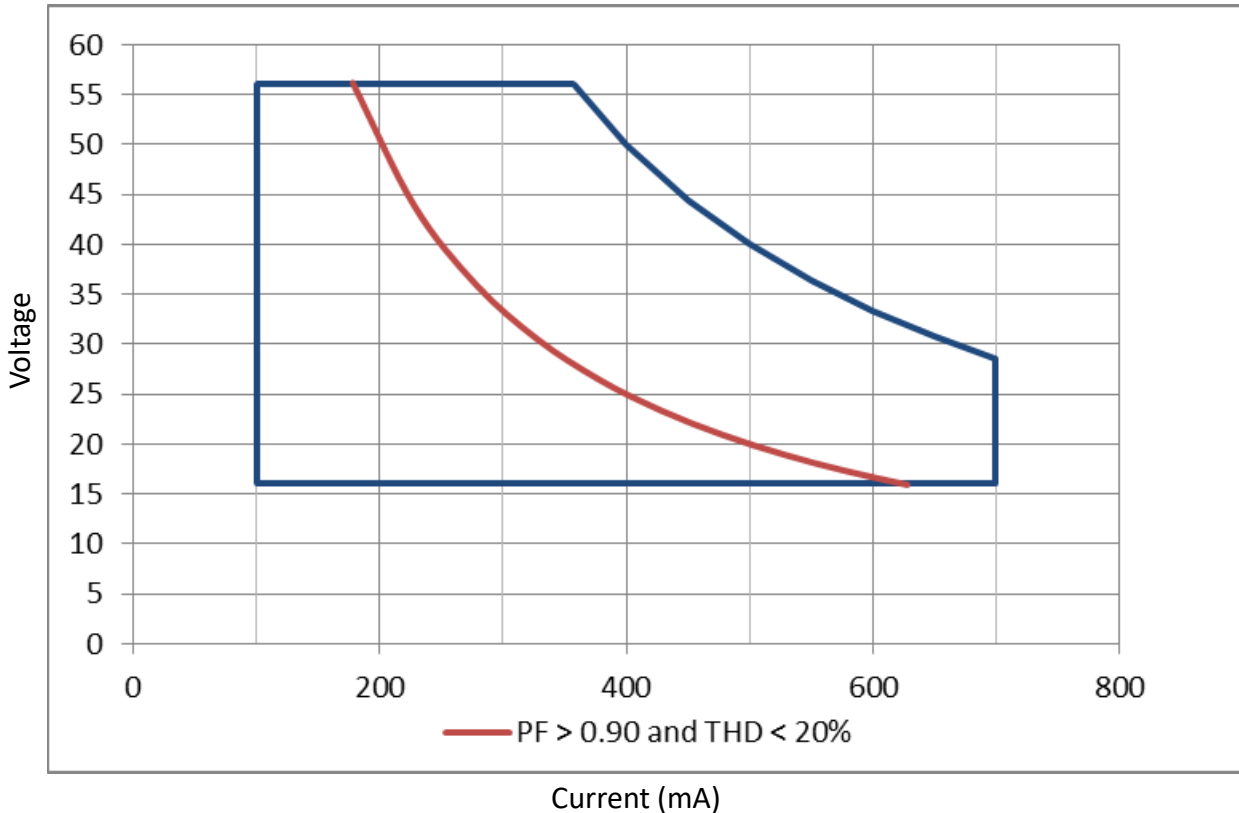
Application and operation performance specification information subject to change without notification.

| Programmable Features |
|---|
| Output Current |
| Minimum Dimming Level |
| Dim-to-Off |
| Dimming Curve (Linear, Linear Soft Start, Logarithmic) |
| Lumen Maintenance |

| Programming System | |
|--------------------|------------------------------|
| Software | EVERset Programming Software |
| Hardware | LDPC000A Configuration Tool |
| Driver Interface | Wireless via RFID |

*Refer to application notes EVD10 and EVD11 at www.universaldouglas.com for additional information on programmable features.

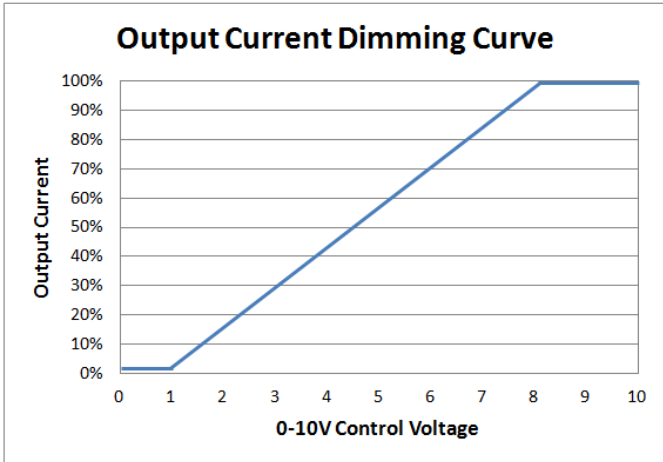
Driver Operating Range:



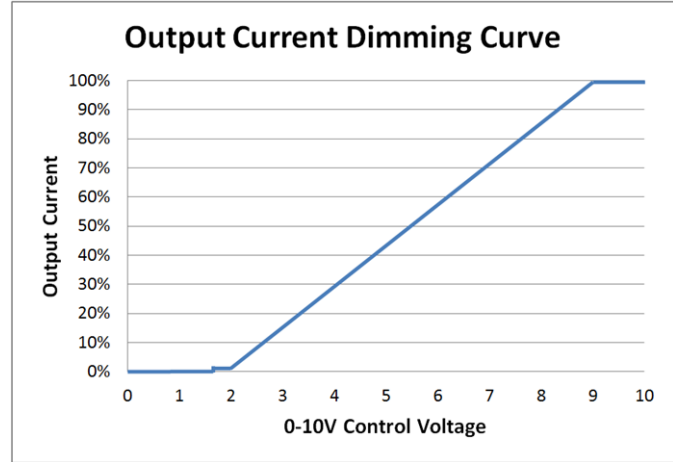
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0-10V Dimming

Linear Dimming to 1%



Linear Dimming w/ Dim-to-Off



* Driver ships with Dim-to-Off disabled. Dim-to-Off must be enabled through the EVERset programming software.

0-10V Analog Dimming Interface

- Analog 0 to 10 Vdc Voltage Control
- Use Violet (+) & Pink* (-) for connection to 0-10 Vdc.
- 10V = maximum output
- 0V = dim-to-off or programmed minimum dimming level
- 0-10V interface can be wired as Class 1 or Class 2 Circuit.
- Driver will source a maximum of 165uA for control needs.
- Controller must sink current from the 0-10V control leads.

Programmable Dimming Features

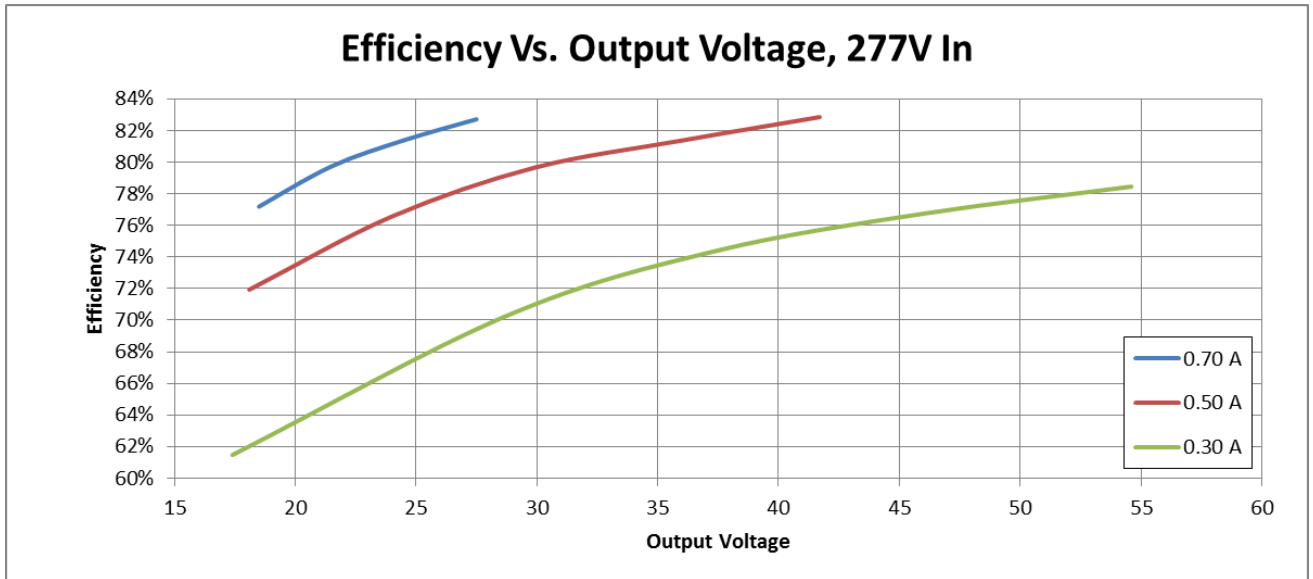
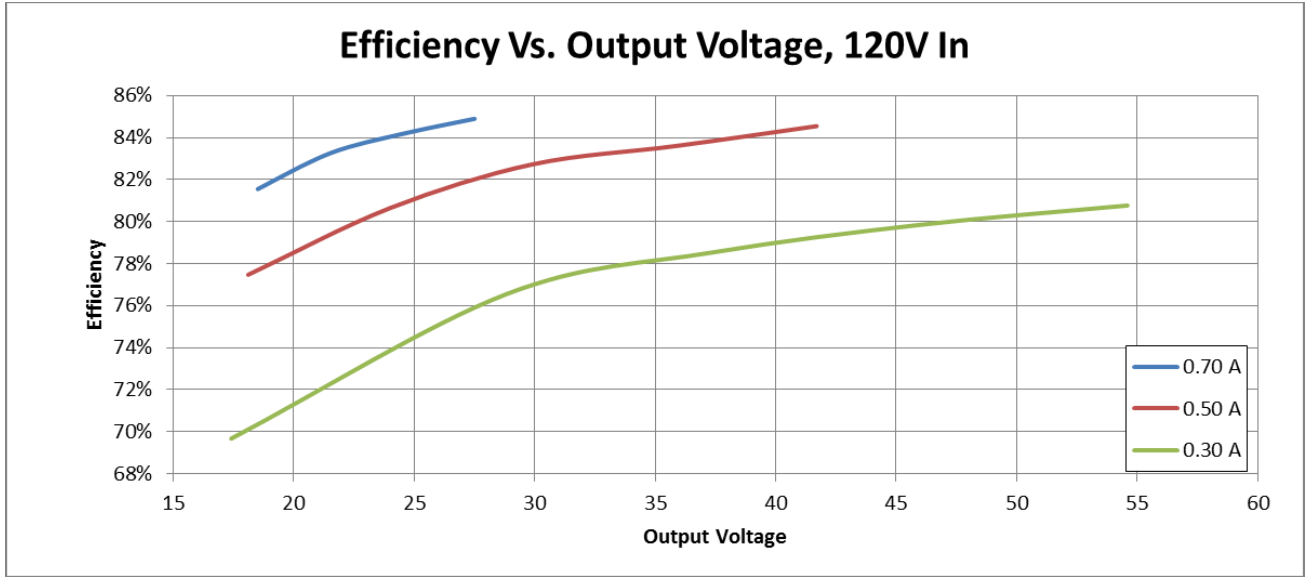
| Feature | Range | Factory Default |
|-------------------------------|---|---------------------------|
| Maximum Output Current | 100 - 700mA | default = 700mA |
| Minimum Dimming Level | 4 - 350mA | default = 4mA |
| Dimming Curve | (Linear, Linear Soft Start, Logarithmic w/ factor 1 to 7) | default = Linear |
| Dimming Control Voltage Range | | |
| Max Bright Control Voltage | 7 - 9Vdc | default = 8Vdc |
| Min Dim Level Control Voltage | 1 - 3Vdc | default = 1Vdc |
| Dim-to-Off | 0.1 - 1.7Vdc | default = 0Vdc (disabled) |

* Refer to application note EVD10 at www.universaldouglas.com for additional information on programmable dimming features.

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Performance: Efficiency

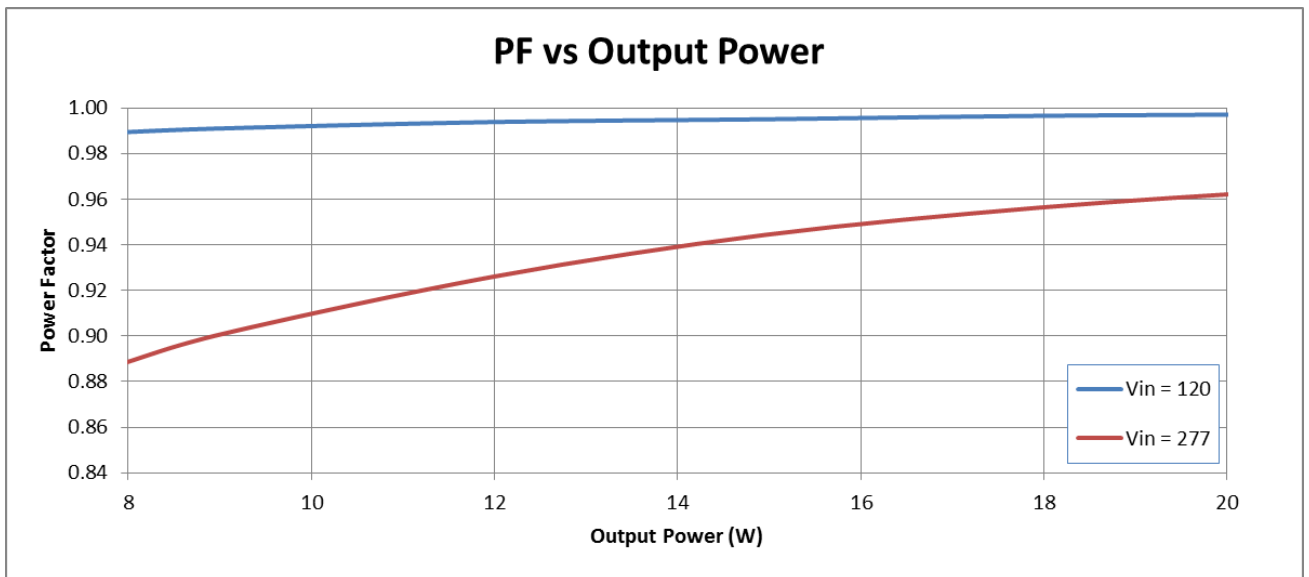
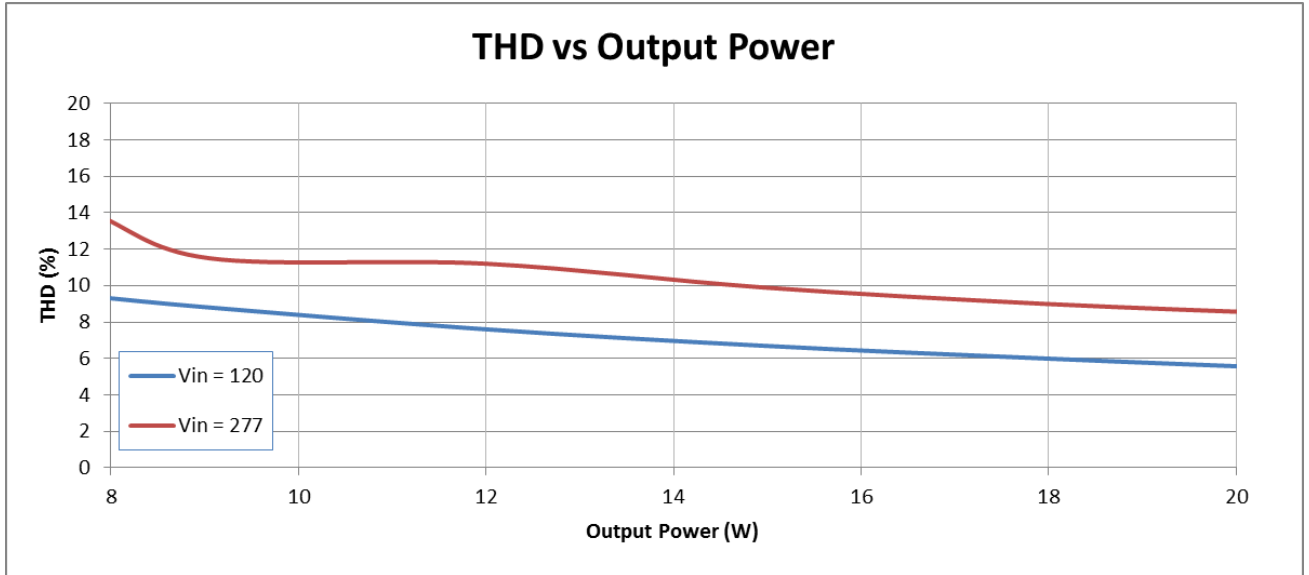
Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.



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Performance: Total Harmonic Distortion, & Power Factor

Typical performance measurements are shown. The charts are to be used as a guideline and not for specification use.



Output power based on maximum rated output current and varying load voltages.

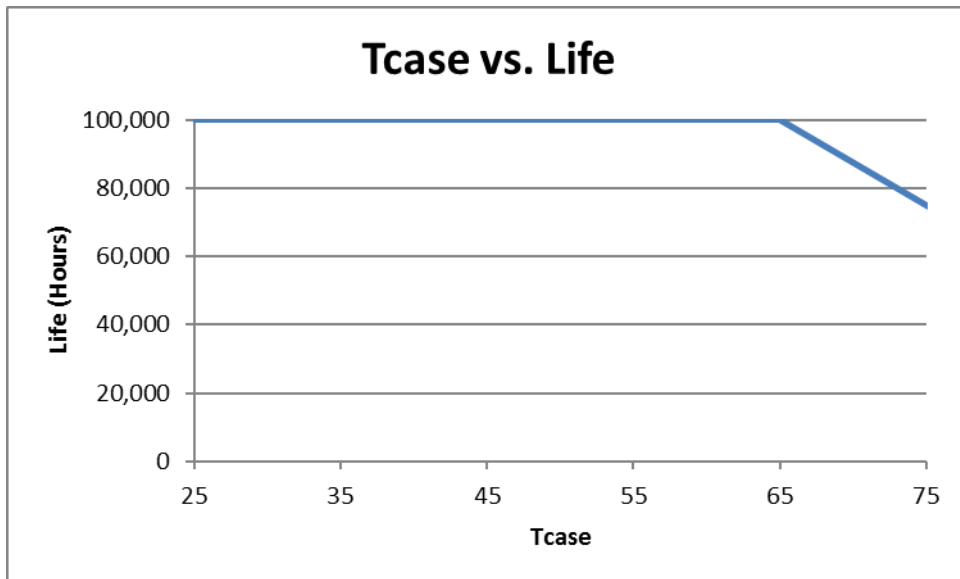
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| Transient Protection | | |
|---|-------------------------|-------------------------------|
| Transient | Differential Mode (L-N) | Common Mode (L-G, N-G, L&N-G) |
| IEEE C62.41 100kHz Ring Wave (200A maximum) | > 2.5kV | > 2.5kV |

| Isolation | | | | |
|-----------|-----------|-----------|-----------|-----------|
| Isolation | Input | Output | 0-10V | Enclosure |
| Input | - | 2xU + 1kV | 2xU + 1kV | 2xU + 1kV |
| Output | 2xU + 1kV | - | 2xU + 1kV | 700V |
| 0-10V | 2xU + 1kV | 2xU + 1kV | - | 2xU + 1kV |
| Enclosure | 2xU + 1kV | 700V | 2xU + 1kV | - |

U = Max Input Voltage

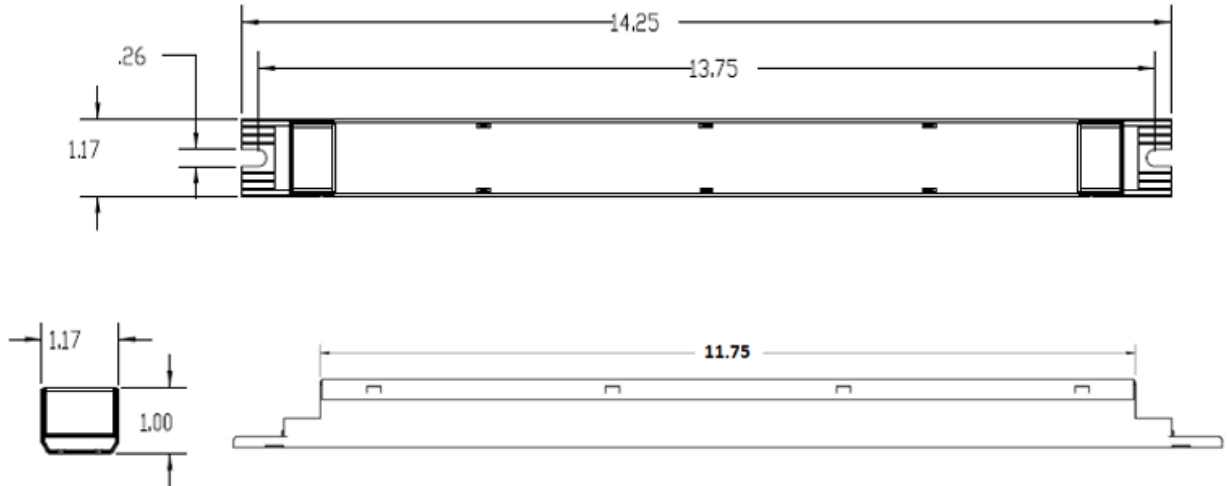
Driver Lifetime vs. Driver Case Temperature



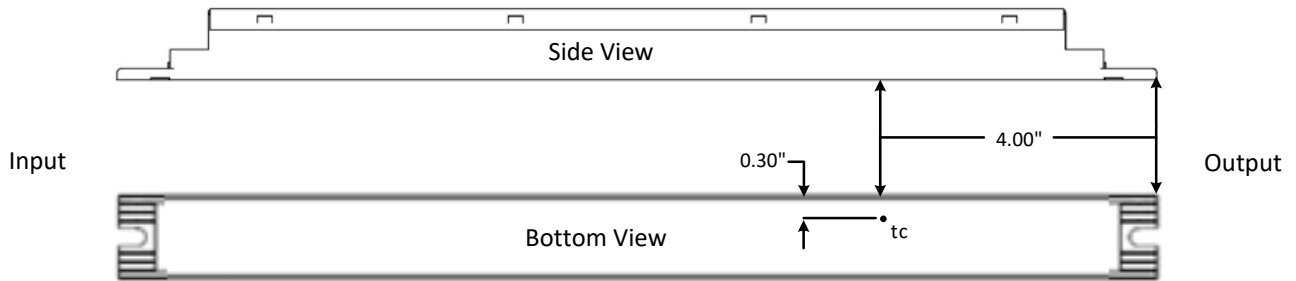
The Data curve provided predicts the LED Driver life based on the case temperature measured at the Tc location identified on the label or specification sheet. The Telecordia SR-332 standard is used to generate the prediction curves.

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Dimensional Diagram:



Tc Location:



FCC Statement: This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Warranty:

Universal Lighting Technologies warrants to the purchaser that each power supply will be free from defects in material or workmanship for a period of 10 years from the date of manufacture when properly installed per instructions and under normal operating conditions of use. Call 1-800-225-5278 for technical assistance.

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