



D700C30UNVTW-C

700mA LED Driver w/ Constant Power Tuning

- Universal (120-277V) Input Voltage
- Class 2, 30W Constant Current Output
- 0-10V Dimming to 1%



Performance	
Input Voltage	120 ~ 277 Vac \pm 10%
Input Current Max	0.29 /120V 0.13/277V
Input Power Max	35W
Input Frequency	50 - 60 (Hz)
Power Factor*	> 0.95
THD max*	< 20 %
Output Voltage	15V to 44V @ 0.700 Amps 15V to 56V @ 0.530 Amps
Max. Output Current	700mA
Min. Dimming Current	7mA
Output Power	30W
Line Regulation	\pm 3 %
Load Regulation	\pm 5 %
Output Current Ripple	<10% (Pk-Pk/avg)
Inrush Current	120V: 8.5A / 390uS
Peak / >50% Duration	277V: 11.0A / 390uS

- * Refer to charts for additional information
- Harmonic Emissions comply with ANSI C82.77
 - Inrush current complies with NEMA 410

Environmental	
EMI and RFI	Meets FCC part 15 (Class A) Non-Consumer Limits
Min. Operating Temperature	-40°C (-40°F)
Storage Temperature	-40°C to 85°C (-40°F to 185°F)
tc	85°C (185°F) max
Protection Rating	UL Dry & Damp
Transient Protection	IEEE C62.41 2.5kV/2.5kV

Physical	
Length	14.25 in (362 mm)
Width	1.18 in (30 mm)
Height	1.00 in (25.4 mm)
Mounting Length	13.75 in (349.3 mm)
Weight (lbs)	1.0
Wire Trap / Plug-in Connectors for 18 AWG Solid Wire	

Protection

Over voltage, Under voltage, short circuit, and over temp.

Safety:

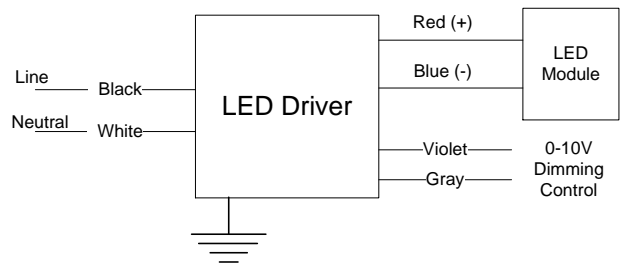
UL 8750 & CSA 250.13-12
UL Type TL

Ordering Information

Order Number	Description	Qty/Carton
D700C30UNVTW-CNOC	Standard Product	10

*Consult Factory for Tuning ordering information

Wiring Diagram:



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Programmable Tuned Output Settings

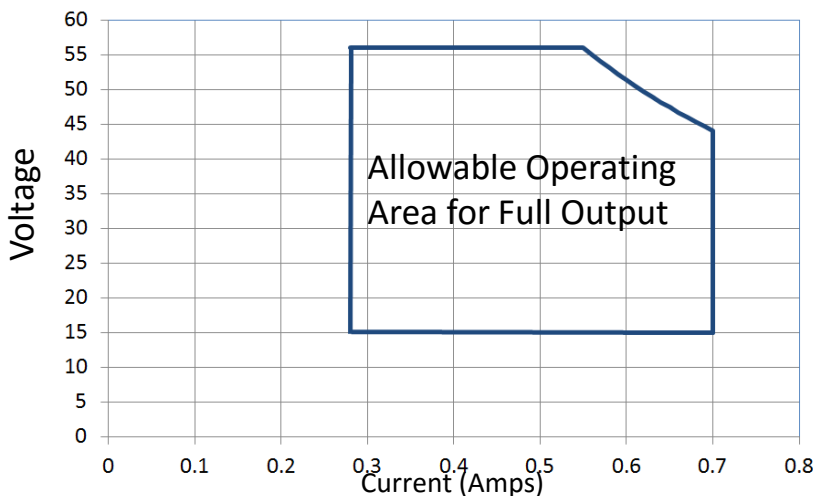
- This Everline LED Driver can be configured to set its current output to a selected fraction of their maximum rated design level. This function is called tuning (or also high-end trim) and it can be implemented with the LPTC01U using the Selector rotary switches. Tuning assignments are stored in driver memory and are not lost when power is removed. All factory produced drivers are tuned to maximum output unless otherwise noted on the label.
- Tuning SET Levels are listed in the table to the right. The SET Level corresponds to an associated Output Current value.
- Tuned output tolerance of $\pm 5\%$.
- Refer to application note EVD09 at www.unvlt.com for additional information.

Set Value	Output Current (A)
100	0.70
99	0.70
98	0.69
97	0.68
96	0.68
95	0.67
94	0.66
93	0.66
92	0.65
91	0.64
90	0.64
89	0.63
88	0.62
87	0.61
86	0.61
85	0.60
84	0.59
83	0.59
82	0.58
81	0.57

Set Value	Output Current (A)
80	0.56
79	0.56
78	0.55
77	0.54
76	0.54
75	0.53
74	0.52
73	0.51
72	0.51
71	0.50
70	0.49
69	0.49
68	0.48
67	0.47
66	0.46
65	0.46
64	0.45
63	0.44
62	0.44
61	0.43

Set Value	Output Current (A)
60	0.42
59	0.41
58	0.41
57	0.40
56	0.39
55	0.39
54	0.38
53	0.37
52	0.36
51	0.36
50	0.35
49	0.34
48	0.34
47	0.33
46	0.32
45	0.32
44	0.31
43	0.30
42	0.29
41	0.29
40	0.28

Constant Power Operating Voltage-Current Operating Range



For points along the curve:

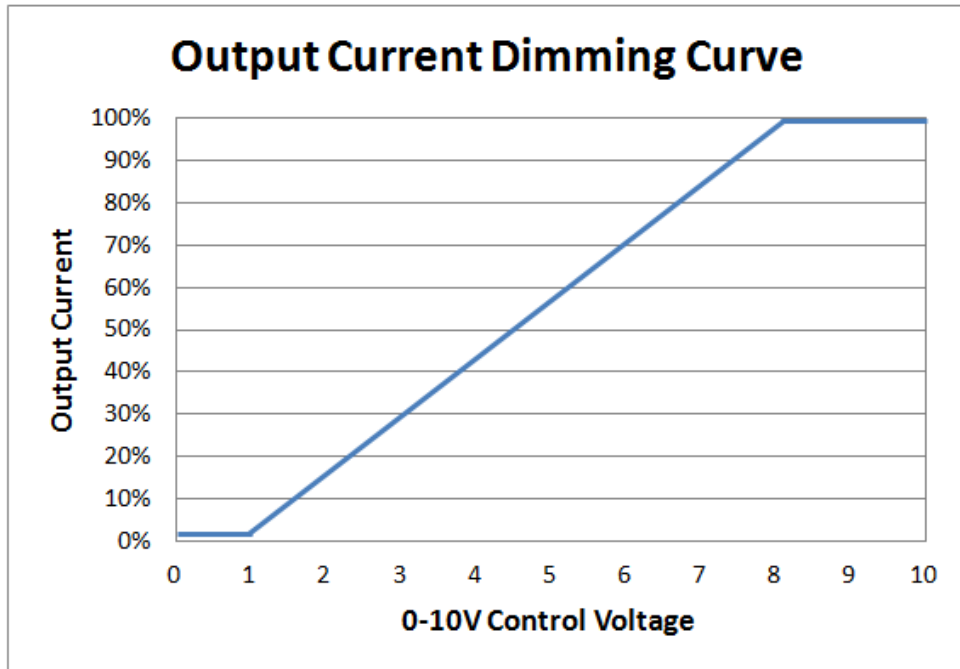
- * Maximum output current will not exceed 0.700A.
- * Maximum output voltage will not exceed 56V.
- * Output power (Volts x Amps) will not exceed 30W.



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0-10V Dimming



0-10V Analog Dimming Interface

- Analog 0 to 10 vDC Voltage Control
- Use Violet (+) & Gray (-) for connection to 0-10vDC.
- 10v = maximum output, 0v = minimum output
- Wiring Violet & Gray together provides min. light output.
- Capping Violet & Gray separately provides 100% light output.
- 0-10V interface must be wired as a Class 2 Circuit.
- Driver will source a maximum of 200uA for control needs.
- Controller must sink current from the 0-10V control leads.

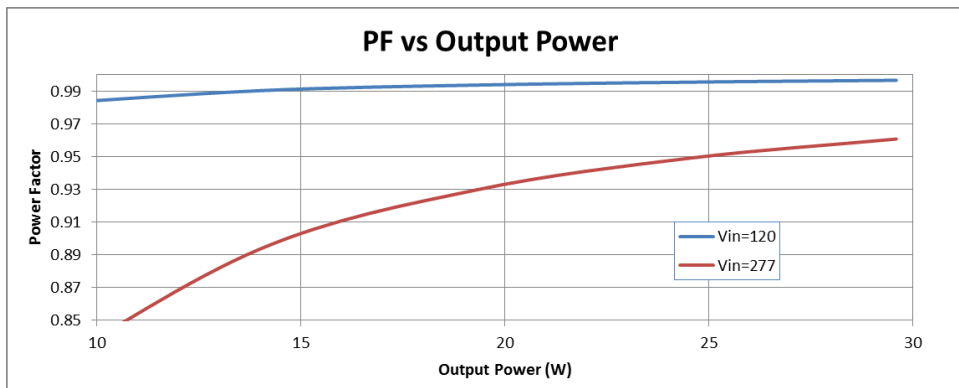
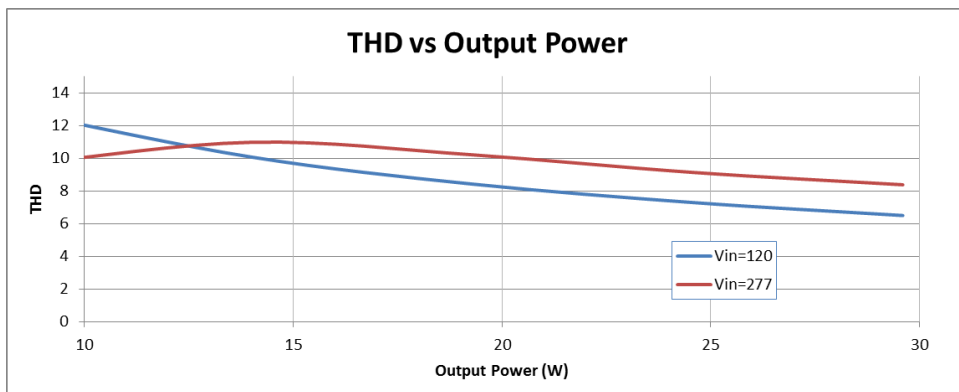
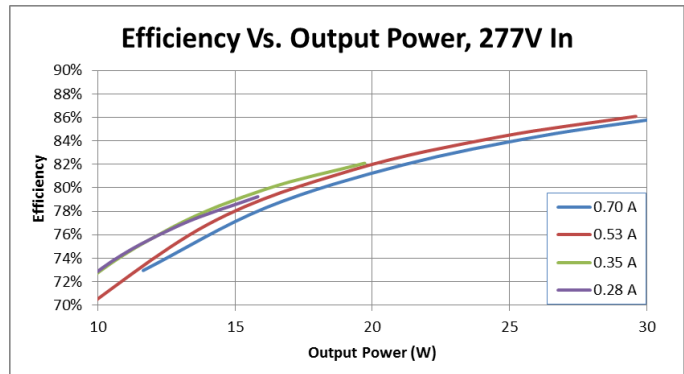
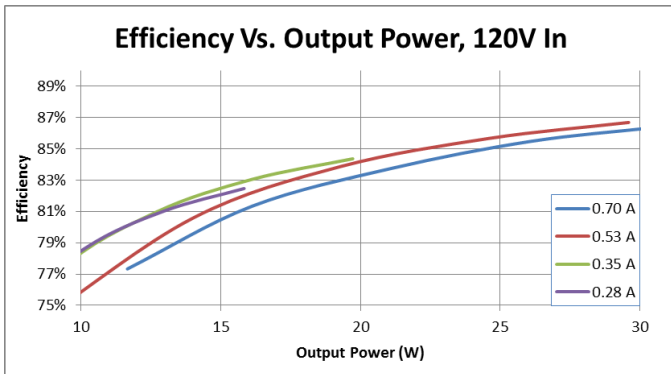


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Performance: Efficiency, THD, & Power Factor

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



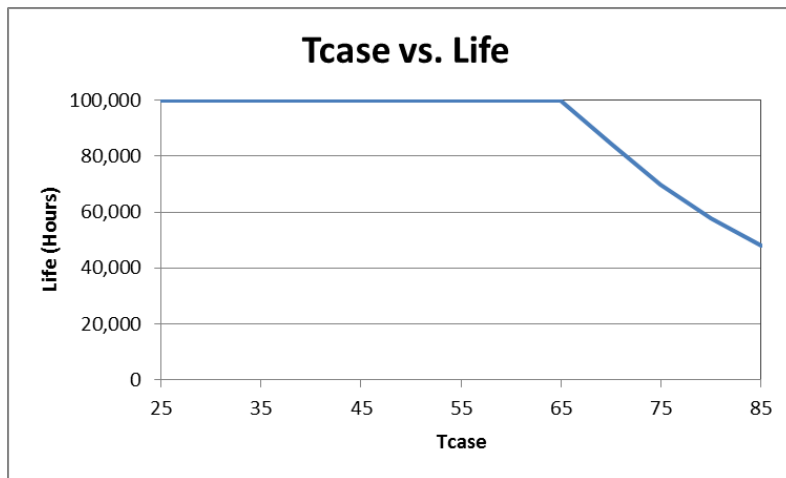
Output power based on maximum rated output current and varying load voltages.



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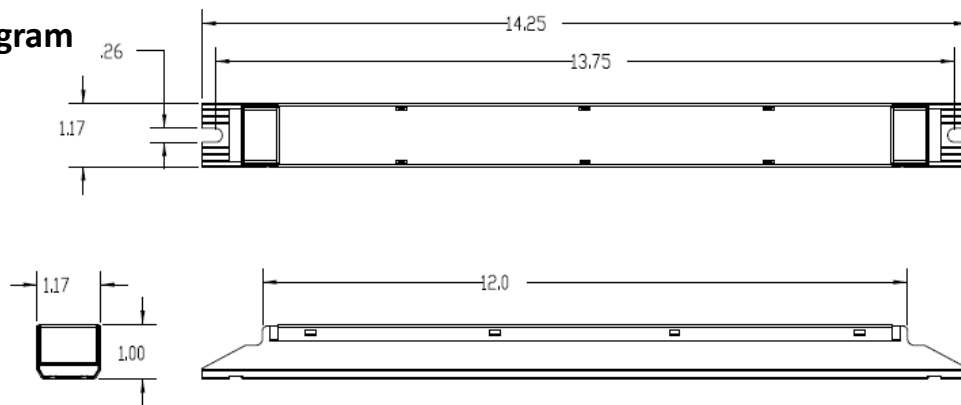


Life vs. Driver Tcase

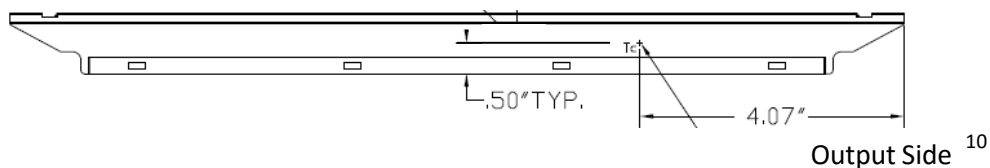


The Data curve provided predicts the LED Driver life based on the case temperature measured at the Tc location identified on the label or specification sheet. The Telecordia SR-332 standard is used to generate the prediction curves.

Dimensional Diagram



Tc Location:



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Conditions of Acceptability –

1. The driver shall be installed in compliance with the applicable requirements of the end-product standard for, mounting, spacing, casualty and segregation.
2. The maximum available output parameters of the LED output were within the maximum allowable limits for Class 2, inherently limited as specified in the UL 1310 standard for Class 2 Power Units.
3. The Driver is suitable for use in indoor “DRY” or “DAMP” locations.
4. The unit was evaluated for use at a maximum case temperature in an elevated ambient as shown in the table below. See the illustration on the previous page for the Tc location on the unit:

Model	Tref max	Measured Tref @40°C Ambient Temperature
D700C30UNVTW-C	90°C	57°C

The unit should not exceed the $T_{ref\ max}$ as tabulated above when the driver is installed and operated in the end-use application.

5. The maximum measured leakage current from the accessible driver enclosure and the accessible Class 2 output were as follows: .

Model	Maximum Measured Leakage Current MIU	
	120 V	277 V
D700C30UNVTW-C	-	0.49

6. The case must be reliably connected to earth ground in the end use.
7. Models D10CC30UNVTW-C employs a 56 Vdc rated output found to comply with Annex A of CAN/CSA-C22.2 No. 250.13-14
8. The circuit connected to the dimming control terminals for models D10CC30UNVTW-C is isolated from all primary circuitry but is not isolated Class 2 LED output and has maximum available output parameters that operate within the maximum allowable limits for Class 2, inherently limited as specified in the UL 1310 standard for Class 2 Power Units. The dimming control circuit of models D10CC30UNVTW-C is suitable only for Class 2 wiring methods.
9. The drivers have been evaluated at the following temperature test condition with the results shown in the table below. See ILL. 5 for the Tc location on the units:

Model	Max Case Temp (Tc)	Ambient
D700C30UNVTW-C	85°C	68°C

10. When Model D10CC30UNVTW-C is reprogramed at the end-use application facility, the driver shall be provided with a label that specifies the programmed output current setting and output voltage. The marking may be applied directly onto the Luminaire adjacent to the driver. The applied marking shall include the programmed output current setting along with the output voltage.

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 5 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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