

Project Name: _____

Application: _____

Date: _____

Linmore LED Labs Ultra Performance Tube System (tube + external dimmable driver) is the ultimate T8 or T12 fluorescent tube retrofit System. Our Ultra Performance Tube is the highest efficacy tube ever listed by DLC. An External Dimmable Driver is standard in this System designed to be the ultimate tube retrofit system in efficacy, efficiency, and longevity. When the objective is to minimize total life cycle cost of using LED tubes, Linmore's Ultra Performance Tube System is the clear choice.

Ultra Performance LED Tube



HIGHLIGHTS:

- Efficacy 148 lumens/watt
- 0-10 Volt Multi-Channel Dimming Driver*
- Aluminum Construction
- Polycarbonate Lens, No Glass
- 120 Degree Light Distribution
- 10 Year Warranty Tube and Driver
- No Mercury
- No UV Light

APPLICATIONS:

- Troffers
- Strips
- Case Lighting
- Indirect Lighting
- Vapor Tights

* Multi-Channel Driver ensures steady current to each LED tube in the event that a tube fails. The Driver will regulate the current to prevent over-driving the remaining tubes.



RELIABILITY ASSURANCE TESTING:

- Every LED Tube is vibrated at variable frequencies for 5 minutes
- Every LED Tube & Driver is operated for a 36 hour break in period
- Every LED Tube & Driver is cycled on/off every minute for 36 hours



Specifications

Suitability	Replace T8 or T12 Lamps
Warranty	10 Years Tube & Driver
Expected Life	> 88,000 Hours
Driver	External, 0-10 Volt Dimmable
Input Wattage (driver dependant)	9-22 Watts
# of Diodes, 4'	288 Surface Mount Diodes
# of Diodes, 2'	144 Surface Mount Diodes
Length	2' or 4'
Efficacy (5000K)	148 Lumens/Watt (+/- 10%)
Voltage	100-277 Volts AC
Beam Angle	120
Lens Type	Clear or Frosted, No Glass
Color Rendering Index (CRI)	82
Color Temperature	3500K, 4100K, or 5000K
End Caps	G13 Med Bi-Pin
Operating Temperature	-30F - 120F
Power Factor	0.99
Total Harmonic Distortion (THD)	< 11% (277 Volt)
Certifications	UL, DLC, Lighting Facts, GSA Listed
Design Lights Consortium	Yes

Ultra Performance LED Tube

EFFICACY

- Only top tier performance diodes for ultra high Lumens/Watt
- Lowest Watts per Foot Candles Available
- 288 LEDs (4' tube) or 144 LEDs (2' tube) for superior consistency of light along entire tube

THERMAL DISSIPATION

- The tube is made of aluminum, 2/3 circle of aluminum, 1/3 circle polycarbonate lens
- This "D" shaped aluminum tube utilizes 6063-T5 alloy for maximum release of thermal energy
- The aluminum heat sink tube is 10% thicker than most competing tubes for additional strength and thermal release
- Interior PCB Board is made of aluminum core and thermally bonded to a ribbed aluminum heat sink while most tubes use FRP/plastic

OPTICS

- Lens is high-impact, ruggedized polycarbonate 10% thicker than most competing tubes
- Suitable for most food processing applications
- The beam angle is 120 degrees for a wide distribution of light
- Glass Free

Ordering Information: System = Tube + External Dimmable Driver

TUBE SELECTION

Product Series	Tube Length	# of Tubes	Driver Type	Lens Type	Color Temp
Ultra Performance Tubes					
	4'	2	ED	C-Clear	41K-4100 50K-5000
Example: LL-T8-4-?-?-?-?	4-			F-	41K
Complete: LL-T8-4-2-ED-C-41K					

DLC Listed Models:

LL-T8-4-1-ED-F-40K	LL-T8-2-1-ED-C-35K
LL-T8-4-1-ED-F-50K	LL-T8-2-1-ED-C-41K
LL-T8-4-1-ED-C-35K	LL-T8-2-1-ED-C-50K
LL-T8-4-1-ED-C-40K	LL-T8-2-3-ED-C-35K
LL-T8-4-1-ED-C-35K	LL-T8-2-3-ED-C-41K
LL-T8-4-2-ED-C-35K	LL-T8-2-3-ED-C-50K
LL-T8-4-2-ED-C-40K	
LL-T8-4-2-ED-C-35K	

ED = Most Common

DIMMABLE DRIVER SELECTION

Product Series	Tube Length	Input Power	Tubes/Driver	Watts/Tube	Lumens/Tube
Drivers		#W	T#		
	2	9	1	9	1332
	4	15	1	15	2220
	4	18	1	18	2664
	2	18	2	9	1332
	2 or 4	22	2	11	1628
	4	22	1	22	3256
	4	26	2	13	1924
	4	36	2	18	2664
	2	26	3	9	1283
	4	36	3	12	1776
	4	44	2	22	3256
	4	44	3	15	2171
	4	60	3	20	2960
	4	44	4	11	1628
	4	60	4	15	2220
	4	72	4	18	2664
	4	88	4	22	3256
Example: LL-DR-?-?-DIM		26W-	T3		
Complete: LL-DR-26W-T3-DIM					

Specifications are Subject to Change.