

Project Name:

Application: Date:



## ULTRA PERFORMANCE LED TUBE (UPT)



**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 one of the highest efficacy tubes available. 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.

## HIGHLIGHTS

- Efficacy 148 Lumens/Watt
- 0-10 Volt Multi-Channel Dimming Driver\*
- Aluminum Construction
- 180 Degree Light Distribution
- Polycarbonate Lens, No Glass
- 10 Year Warranty
- No Mercury
- No UV Light

\* 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.

## APPLICATIONS

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

## RELIABILITY ASSURANCE TESTING:

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

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### Specifications

Suitability	Replace T8 or T12 Lamps
Warranty	10 Years Tube and Driver
Expected Life	> 88,000 Hours
Driver	External, 0-10 Volt Dimmable
# of Diodes, 2'	144 of Surface Mount Diodes
# of Diodes, 4'	288 of Surface Mount Diodes
Length	2' or 4'
Input Wattage (Driver Dependent)	9 - 22
Efficacy (5000K)	148 Lumens/Watt (+/- 10%)
Voltage	100-277 Volts AC

### **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

## **Ordering Information**

Ordering Information							
Model	Tube Length	No. of Tubes	Driver Type	Lens	Kelvin	Wattage	
LL-T8-	2'	1	ED	F - Frosted	3500K (35K)	9	
	4'	2		C - Clear	4100K (41K)	15	
		3		18			
		4				22	
						26	
Evamr	Example						
•	LL-T5- 4 - 2-ED-F-40K-30W					36	
Tube Lengths						60	
4′ —						72	
						88	
 =0		-4L	J	U		bs.	
Specification	title compliant ns are Subject t	O Change.			5		

Beam Angle	180 Degrees
Lens Type	Clear or Frosted, No Glass
Color Rendering Index	>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% (277V)
Certifications	UL, Lighting Facts, GSA Listed

### **Optics:**

- Lens is high-impact, ruggedized polycarbonate 10% thicker than most competing tubes
- Suitable for most food processing applications
- The beam angle is 180 degrees for a wide distribution of light
- Glass Free

Tube Length	Input Power (Watts)	Tubes/ Driver	Watts/ Tube	Lumens
2	9	1	9	1332
4	15	1	15	2220
4	18	1	18	2664
4	22	1	22	3256
2	18	2	9	1332
2 or 4	22	2	11	1628
4	26	2	13	1924
4	30	2	15	4440
4	36	2	18	2664
4	44	2	22	3256
2	26	3	9	1283
3	30	3	10	4440
4	36	3	12	1776
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

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Linmore LED Labs | 2360 S Orange Ave, Fresno CA 93725 | 559-485-6010 | www.linmoreled.com | info@linmoreled.com