

FEATURES & SPECIFICATIONS

- 50,000 hour life expectancy, 5.7 years at 24/7 and 11.4 years at 12/7
- Custom tubes available
- Voltage range 100-277v · Power Factor > 0.9
- Available in 15W-22W on 4', 9W-11W 2'
- Mercury and Lead Free
- Binned diodes for color uniformity
- Electronically tracked item should future replacement or servicing be required
- State of the art design includes shatterproof UV stabilized V1 rated carbon-proof tube. UV Free won't fade furniture or walls.

EASY INSTALLATION

Full installation instructions for proper installation by qualified personnel. The fixture retains its UL rating after disconnecting the ballast and includes new label to indicate luminaire has been modified in the field.

INTERNAL OR EXTERNAL DRIVER

WARRANTY

3, 4 & 5 year warranty available

Federal, State, & Local Rebates and Incentives available if qualified.

BENEFITS OF LED

▼ REDUCTION IN:

- Monthly Cost of Lighting
- Wattage
- Maintenance
- Carbon Footprint
- A/C Load

▲ INCREASE IN:

- Net Operating Income
- Cash Flow
- Buildings CAP Rate



ABOUT LUMENOR

Lumenor Energy Services® manufactures best-in-class affordable LED fluorescent replacement tubes for use in retrofits of stairwells, garages, office lighting, retail, hospitality, residential and commercial applications. This is one of the highest rated, LM79 and LM80 tested, DOE lighting facts labeled tube on the market today.

Retrofitting with this tube offers a major reduction in energy usage for the same hours of operation, increased savings through reduced maintenance due to the longer anticipated lifespan of the LED tube, and no more ballast replacement as this product operates via direct feed. 50%-65% more efficient than fluorescent tubes not taking de-lamping into account. No more disposal of hazardous mercury and no replacement of fixtures is necessary.

WE ARE APPROVED THROUGH THE PATENT OWNER UNDER US PATENT NO'S. 7,049,761; 7,510,299 AND 8,093,823 TO PRODUCE AND SELL LED TUBES WORLDWIDE.

ORDERING INFORMATION:

EXAMPLE: LES-T8-03-120-Clear-4100K

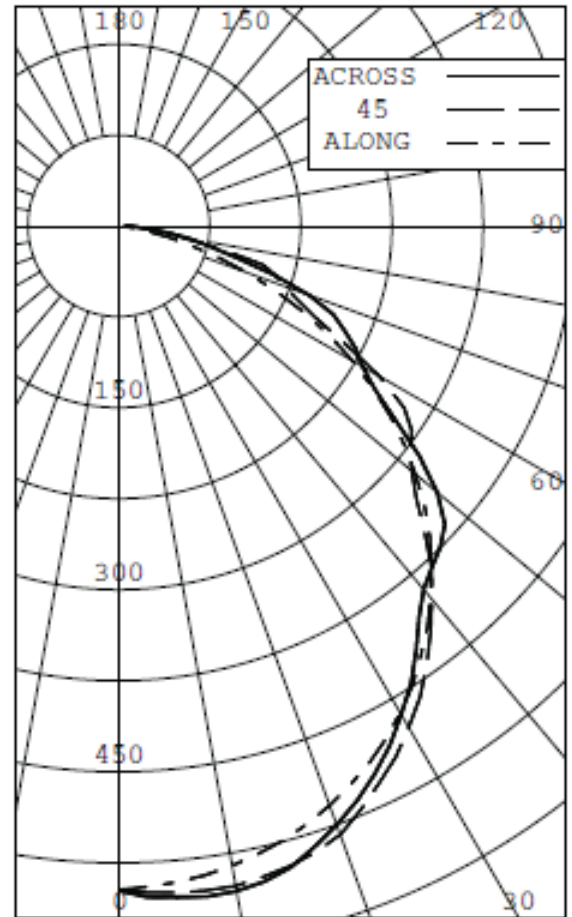
LES-T8					
Series	Lamp Style	Series	Length	Lens	Kelvin / Color
LES	T8	03	60 (2 feet)	Clear	3500K
	T8E	04	90 (3 feet)	Frosted	4100K
	T8F		120 (4 feet)	Linear	5000K
	T8DR		150 (5 feet)		
	T8W		180 (6 feet)		

LES-T8-16 WATT

LES-T8 Linear LED Tube

INTENSITY(CANDLEPOWER) SUMMARY:

Angle	Along	22.5	45	67.5	Across	Output Lumens
0	547	547	547	547	547	
5	543	541	552	556	556	53
10	536	537	553	557	557	
15	524	531	547	550	548	152
20	508	522	533	528	526	
25	488	508	507	502	499	231
30	464	488	477	468	465	
35	433	459	442	432	427	275
40	399	420	402	388	391	
45	362	378	356	364	374	283
50	319	332	315	345	342	
55	272	278	294	287	277	252
60	222	222	248	228	232	
65	168	167	178	199	206	184
70	114	147	146	172	167	
75	63	76	123	106	101	103
80	26	51	55	58	59	
85	7	17	26	26	25	27
90	0	4	6	7	6	



ZONAL LUMENS AND PERCENTAGES:

ZONE	LUMENS	% LUMINAIRE
0-30	436	27.97
0-40	711	45.58
0-60	1246	79.86
0-90	1560	100.00
40-90	849	54.42
60-90	314	20.14
90-180	0	0.00
0-180	1560	100.00

ELETRICAL MEASUREMENTS:

INPUT VOLTAGE:	120.0 VOLTS AC
INPUT CURRENT:	0.134 AMPS
INPUT POWER:	15.9 WATTS
POWER FACTOR:	98.9 PERCENT
TOTAL HARMONIC DISTORTION:	12.08 PERCENT
OFF STATE POWER:	0.00 WATTS

LIGHT OUTPUT:

LUMENS:	1560 lm
EFFICACY:	98.1 lm/W

EFFICACY (LUMENS PER WATT): 98.1

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 45.700 INS
WIDTH: 1.000 INS

SPECTRAL MEASUREMENTS:

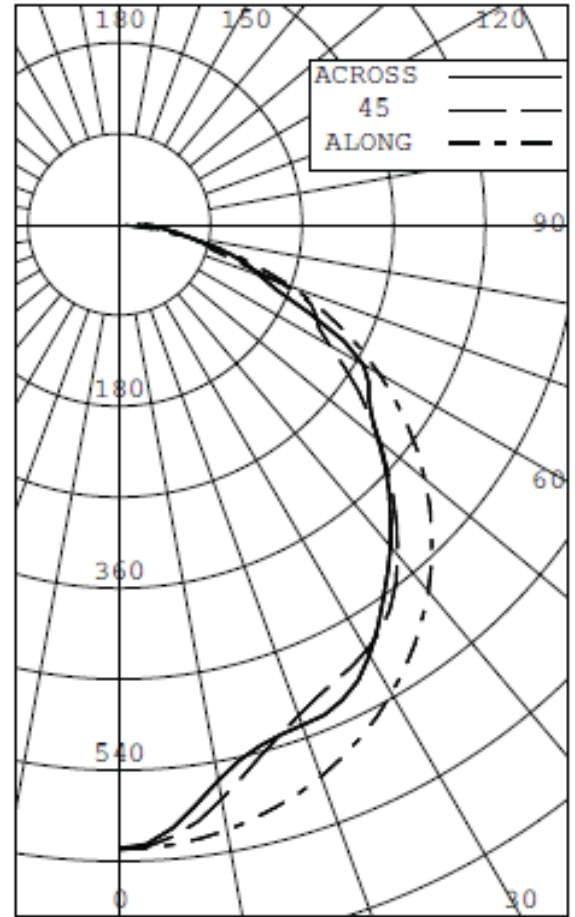
X: 0.3789	y: 0.3826	u/u': 0.2218
v: 0.3359	v': 0.5039	Duv: 0.0026
CRI(R _a): 82.8	CRI(R _g): 24.7	CCT: 4081K
RADIANT FLUX: 4855 mW		

LES-T8-17 WATT

LES-T8 Linear LED Tube

INTENSITY(CANDLEPOWER) SUMMARY:

Angle	Along	22.5	45	67.5	Across	Output Lumens
0	618	618	618	618	618	
5	616	607	608	604	600	58
10	609	592	578	564	559	
15	597	568	543	536	535	156
20	581	537	517	523	527	
25	561	502	499	517	520	237
30	536	469	487	495	492	
35	506	435	465	457	453	286
40	473	403	426	416	416	
45	435	376	381	375	375	296
50	393	345	335	333	333	
55	346	299	287	290	299	268
60	295	241	240	271	277	
65	241	183	213	220	205	205
70	182	131	172	143	147	
75	120	96	96	112	114	112
80	60	51	68	68	70	
85	12	23	35	43	45	38
90	0	7	18	24	25	



ZONAL LUMENS AND PERCENTAGES:

ZONE	LUMENS	% LUMINAIRE
0-30	451	27.20
0-40	737	44.49
0-60	1302	78.55
0-90	1657	100.00
40-90	920	55.51
60-90	355	21.45
90-180	0	0.00
0-180	1657	100.00

ELETRICAL MEASUREMENTS:

INPUT VOLTAGE:	120.0 VOLTS AC
INPUT CURRENT:	0.134 AMPS
INPUT POWER:	17.0 WATTS
POWER FACTOR:	90.1 PERCENT
TOTAL HARMONIC DISTORTION:	11.39 PERCENT
OFF STATE POWER:	0.00 WATTS

LIGHT OUTPUT:

LUMENS:	1657 lm
EFFICACY:	97.5 lm/W

EFFICACY (LUMENS PER WATT): 97.5

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 45.700 INS
WIDTH: 1.000 INS

SPECTRAL MEASUREMENTS:

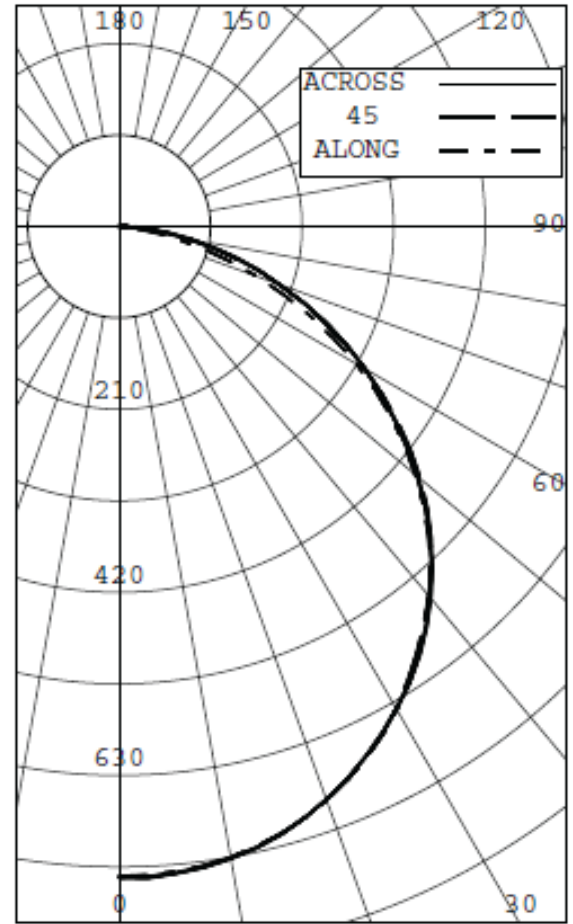
X: 0.3378	y: 0.3422	u/u': 0.2101
v: 0.3193	v': 0.4789	Duv: 0.0021
CRI(R _a): 86.8	CRI(R _g): 26.9	CCT: 5266K
RADIANT FLUX: 5393 mW		

LES-T8-21.1 WATT

LES-T8 Linear LED Tube

INTENSITY(CANDLEPOWER) SUMMARY:

Angle	Along	22.5	45	67.5	Across	Output Lumens
0	747	747	747	747	747	
5	744	737	745	747	745	72
15	721	714	721	723	722	203
25	672	666	672	673	670	309
35	599	594	596	602	600	373
45	502	497	505	508	505	387
55	381	380	390	388	386	344
65	241	251	258	264	263	253
75	103	121	135	139	139	138
85	12	30	37	37	37	38
90	0	5	7	7	8	
95	0	3	3	4	4	4
105	0	1	2	2	2	1
115	0	0	1	1	1	1
125	0	0	0	0	1	0
135	0	0	0	0	0	0
145	0	0	0	0	0	0
155	0	0	0	0	0	0
165	0	0	0	0	0	0
175	0	0	0	0	0	0
180	0	0	0	0	0	0



ZONAL LUMENS AND PERCENTAGES:

ZONE	LUMENS	% LUMINAIRE
0-30	583	27.47
0-40	956	45.06
0-60	1687	79.50
0-90	1216	99.71
40-90	1160	54.65
60-90	429	20.22
90-180	6	0.29
0-180	2122	100.00

ELETRICAL MEASUREMENTS:

INPUT VOLTAGE:	120.0 VOLTS AC
INPUT CURRENT:	0.179 AMPS
INPUT POWER:	21.1 WATTS
POWER FACTOR:	98.2 PERCENT
TOTAL HARMONIC DISTORTION:	14.95 PERCENT
OFF STATE POWER:	0.00 WATTS

LIGHT OUTPUT:

LUMENS:	2122 lm
EFFICACY:	100.6 lm/W

SPECTRAL MEASUREMENTS:

X: 0.3434	y: 0.3435	u/u': 0.2135
v: 0.3203	v': 0.4804	Duv: 0.0042
CRI(R _a): 88.1	CRI(R _g): 39.5	CCT: 5034K
RADIANT FLUX: 7025 mW		

EFFICACY (LUMENS PER WATT): 100.6

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 45.630 INS
WIDTH: 1.000 INS

OFFICE CONVERSION TO 4000K

BEFORE



BEFORE: 384 WATTS

AFTER



AFTER: 136 WATTS

COMMUNITY CENTER - NYC

BEFORE



BEFORE: 9,592 WATTS

AFTER



AFTER: 3,488 WATTS

Order number:	
Notes:	
Type:	

ABOUT LUMENOR ENERGY SERVICES

Lumener Energy Services is a South Florida based LED retrofit company specializing in commercial and residential LED technology upgrades. We are the manufacturer of numerous LED products and have the ability to reduce your kWh usage substantially. With a focus on manufacturing high end easy to install LED tubes and bulbs, we offer a complete turnkey solution for any enterprise seeking to become energy efficient. More information about *Lumener Energy Services'* Products and programs can be found by visiting us at www.lumenorenergy.com or by calling

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