

FEATURES & SPECIFICATIONS

- 50,000 hour life expectancy, 5.7 years at 24/7 and 11.4 years at 12/7
- Voltage range 100-277v · Power Factor > 0.9
- 21.1W and 2122 Lumens on individual lamps.
- 41.8W and 3615 Lumens in troffer.
- 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.

TESTS & CERTIFICATIONS

- LM79, LM80
- TM-21 In-Situ Temperature Test # 31048
- UL Verification Services Test # 31046 & 7

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:

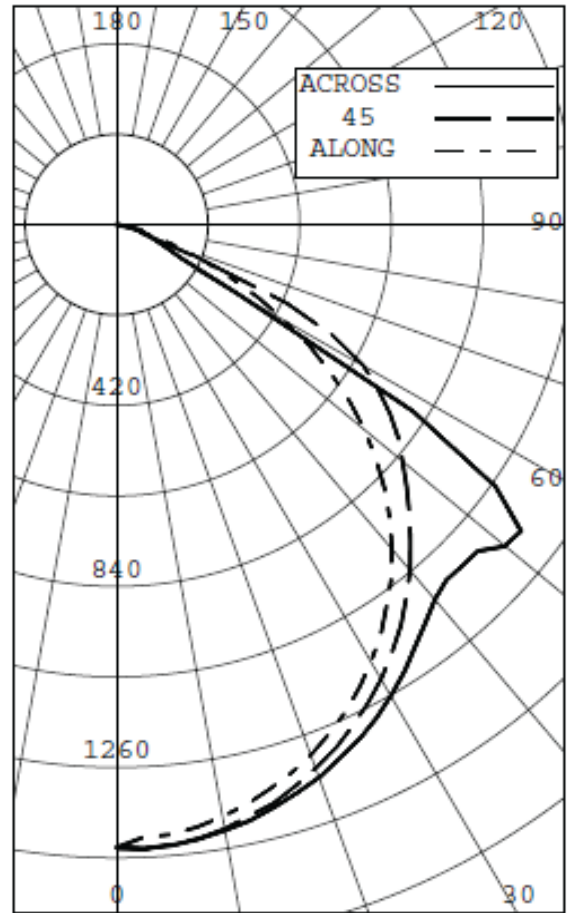
EXAMPLE: LES-T8-03-120-Clear-4100K

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)		

LM79-41.8 WATT

INTENSITY(CANDLEPOWER) SUMMARY:

Angle	Along	22.5	45	67.5	Across	Output Lumens
0	1446	1446	1446	1446	1446	
5	1422	1429	1444	1450	1447	139
10	1396	1407	1425	1433	1428	
15	1356	1368	1391	1404	1399	390
20	1307	1316	1340	1358	1364	
25	1245	1254	1282	1310	1318	590
30	1168	1180	1215	1247	1260	
35	1079	1096	1135	1175	1194	709
40	981	1000	1046	1097	1135	
45	869	892	949	1043	1120	749
50	742	774	856	1015	1161	
55	598	646	765	997	1060	690
60	444	505	652	606	323	
65	286	350	432	127	127	283
70	147	190	86	80	83	
75	44	60	36	47	47	59
80	18	17	13	20	20	
85	5	5	3	4	5	6
90	0	0	0	0	0	



ZONAL LUMENS AND PERCENTAGES:

ZONE	LUMENS	% LUMINAIRE
0-30	1118	30.93
0-40	1827	50.55
0-60	3267	90.38
0-90	3615	100.00
40-90	1788	49.45
60-90	348	9.62
90-180	0	0.00
0-180	3615	100.00

LIGHT OUTPUT:

LUMENS: 3615 lm
EFFICACY: 86.5 lm/W

EFFICACY (LUMENS PER WATT): 86.5

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 45.000 INS
WIDTH: 20.750 INS

ELETRICAL MEASUREMENTS:

INPUT VOLTAGE:	120.0 VOLTS AC
INPUT CURRENT:	0.353 AMPS
INPUT POWER:	41.8 WATTS
POWER FACTOR:	98.7 PERCENT
TOTAL HARMONIC DISTORTION:	14.67 PERCENT
OFF STATE POWER:	0.00 WATTS

INPUT VOLTAGE:	277.0 VOLTS AC
INPUT CURRENT:	0.162 AMPS
INPUT POWER:	40.9 WATTS
POWER FACTOR:	91.4 PERCENT
TOTAL HARMONIC DISTORTION:	17.04 PERCENT

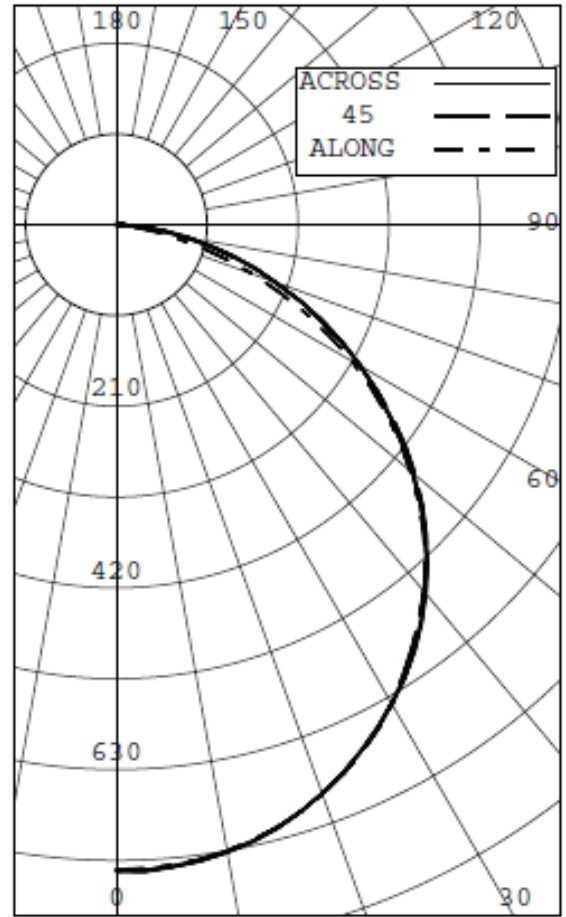
SPECTRAL MEASUREMENTS:

X: 0.3426	y: 0.3422	u/u': 0.2134
v: 0.3198	v': 0.4796	Duv: 0.0045
CRI(R _a): 88.3	CCT: 5063K	

LM79-Tube-5000K-21 WATT

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	2116	99.71
40-90	1160	54.65
60-90	429	20.22
90-180	6	0.29
0-180	2122	100.00

LIGHT OUTPUT:

LUMENS: 2122 lm
EFFICACY: 100.6 lm/W

EFFICACY (LUMENS PER WATT): 100.6

*** THIS IS AN ABSOLUTE TEST ***

LUMINOUS LENGTH: 45.630 INS
WIDTH: 1.000 INS

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

INPUT VOLTAGE:	277.0 VOLTS AC
INPUT CURRENT:	0.081 AMPS
INPUT POWER:	20.6 WATTS
POWER FACTOR:	91.6 PERCENT
TOTAL HARMONIC DISTORTION:	17.4 PERCENT

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	CCT: 5034K	

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

Toll free: 855-LUMENOR (855-586-3667)

110 East Broward Blvd. Suite 1700 Ft. Lauderdale FL 33301
 Tel: 954.639.9094 • Fax: 954.416.7002 • www.lumenorenergy.com