

Product Description

TL LED 4ft Retrofit Kit

ThinkLite introduces the industry's first LED retrofit kit that replaces fluorescent T12, T8 and T5 tubes one for one. At 131 lumens per watt it can easily maintain or increase the existing light levels as needed.

It is easily and safely installed using the existing fluorescent fixture. The ballast is bypassed, and the existing tombstones are replaced with the ThinkLite G90 tombstones that simply click into the existing fixture like any regular socket replacement. This unique feature of the ThinkLite Retrofit Kit ensures that a fluorescent lamp cannot be mistakenly re-inserted back into the same fixture; commonly referred to as "snap back". This increases the safety of the retrofit and guarantees the savings over the life of the LED.

ThinkLite's unique driverless design coupled with our enhanced heat sink system, produces advanced thermal management capabilities that eliminating long term color shifts and increase lifespans to 65,000 hours.

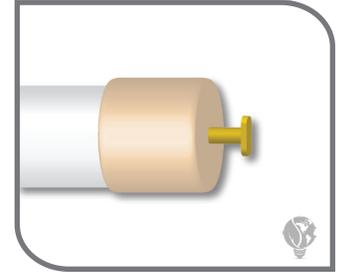
Features Included:

- ThinkLite proprietary driverless LED Technology
- Reduced energy consumption by 50%-70%
- NEW ThinkLite G90 "T-Type" sockets included to prevent snap back
- Vibration and impact resistant
- Most efficient retrofit kit in the industry
- Lasts up to 3x longer than typical fluorescent lamps
- 5 year warranty
- No harmful UV rays
- Instant on/off

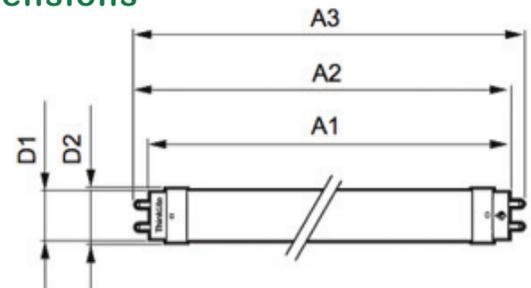
Performance Summary

Input Voltage:	90V - 277V	
Input Frequency:	50Hz - 60Hz	
Lumen Efficacy:	131 LM/W	
Wattage & Light Output (Photopic)	12W 14W 16W 18W 20W 22W 26W	1,572 Lumens 1,834 Lumens 2,096 Lumens 2,358 Lumens 2,620 Lumens 2,882 Lumens 3,406 Lumens
Visible Factor:	1.5X	
Power Factor:	>0.99	
Total Harmonic Distortion:	7.5%	
Working Environment:	Indoor / Outdoor	
Socket Types:	G90 Base	
Kelvin Options:	2100K - 7000K	
Beam Angles:	120° - 270°	
CRI:	93+	
Lumen Depreciation:	5% at 65,000 hours	
Operating Temperature:	-30°F to 130°F	
Lens Cover	Clear / Opaque	

PROJECT NAME	
CATALOG NUMBER	TL-LED-RETROFIT-KIT
NOTES	
FIXTURE TYPE	



Dimensions



Model	A1	A2	A3	D1	D2
TL-LED-T8	47.16 in	47.44 in	47.72 in	1.01 in	1.10 in

Certifications

UL Listed	E359950 (UL1598C Compliant)
FCC	WT11073957-D-E-F
CE	N8 12 12 77835 004
ROHS	DGC11100915SE
ISO	14001: 2004, 9001: 2008

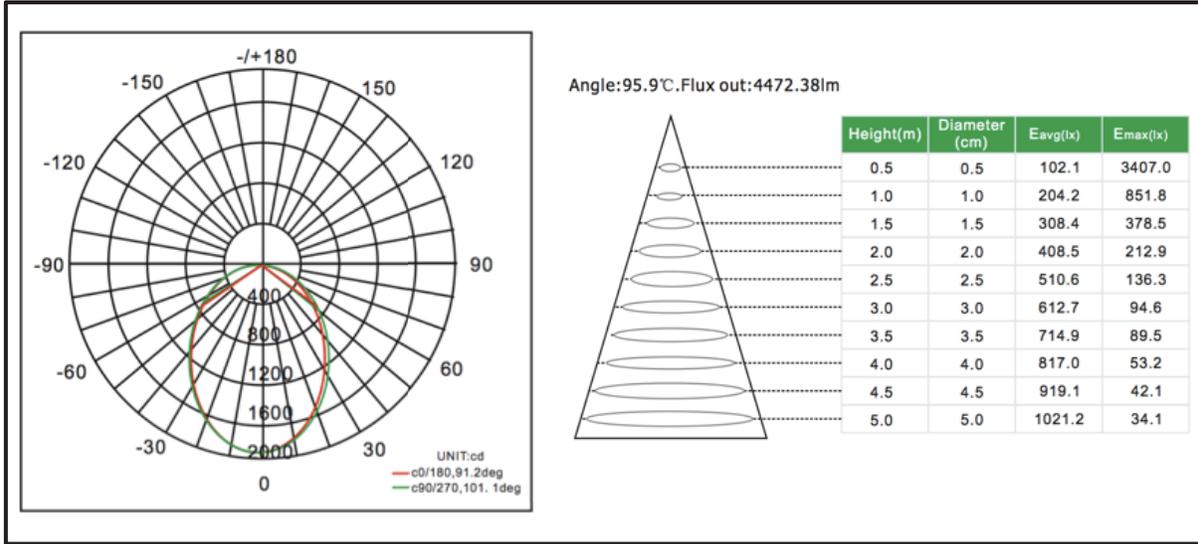


RoHS



Luminous Intensity Distribution

Average Illuminance Curve



Luminous Intensity (CD) Distribution Data

Y	C	0°C	22.5°C	45°C	67.5°C	90°C
0.0°C		1931	1931	1931	1931	1931
5.0°C		1920	1922	1921	1922	1923
10.0°C		1885	1889	1891	1895	1897
15.0°C		1828	1835	1841	1850	1855
20.0°C		1746	1757	1772	1787	1795
25.0°C		1638	1656	1679	1702	1714
30.0°C		1506	1527	1561	1595	1614
35.0°C		1350	1377	1418	1465	1494
40.0°C		1165	1201	1248	1313	1359
45.0°C		957	1002	1065	1148	1204
50.0°C		778	818	894	964	1024
55.0°C		617	640	715	778	815
60.0°C		483	474	531	602	637
65.0°C		378	358	374	439	468
70.0°C		287	276	253	316	333
75.0°C		213	210	178	218	232
80.0°C		151	142	122	141	160
85.0°C		69	68	65	69	80

Zonal Lumen Density Measurement

Deg	Flux(lm)	%
0-5	46.1	1.03
5-10	136.4	3.05
10-15	221.4	4.95
15-20	297.6	6.65
20-25	361.1	8.08
25-30	408.7	9.13
30-35	437.6	9.79
35-40	445.9	9.97
40-45	431.7	9.65
45-50	396.2	8.86
50-55	344.9	7.71
55-60	282.7	6.32
60-65	219.0	4.90
65-70	163.9	3.66
70-75	122.7	2.75
75-80	89.0	1.99
80-85	52.4	1.17
85-90	12.9	0.29

Coefficients of Utilization

pcc	80%			70%			50%			30%			10%			0
pw	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	50%	30%	10%	0
pfc	20%			20%			20%			20%			20%			0
RCR	RCR:Room Cavity Ratio			CU												
0	119	119	119	116	116	116	111	111	111	106	106	106	102	102	102	0
1	105	102	98	103	100	96	99	96	93	95	93	91	92	90	88	86
2	93	87	81	91	86	81	88	83	79	85	81	77	82	78	75	73
3	83	75	69	81	74	69	78	72	67	76	71	66	73	69	65	63
4	74	66	59	73	65	59	70	64	58	68	62	58	66	61	57	55
5	67	58	52	66	58	52	64	57	51	62	55	51	60	54	50	48
6	60	52	46	59	51	46	58	51	45	56	50	45	55	49	45	43
7	55	47	41	54	46	41	53	46	40	51	45	40	50	44	40	38
8	50	42	36	50	42	37	48	41	36	47	41	36	46	40	36	34
9	46	39	33	46	38	33	45	38	33	44	37	33	43	37	33	31
10	43	35	30	42	35	30	41	35	30	41	34	30	40	34	30	28