



**LIGHTING
DIRECT**

NEW T8 LED RETROFIT TUBE

(Replace T8 Fluorescent Tube)

Patent Number:201530468283.8

2017 v2



Energy Saving Up To 70%
Reducing CO2 Emission

Introduction

Why do we need to save energy?

We all know that it's important to save energy. In fact it's been impossible to ignore the headlines telling us to do our bit for the environment, reduce our carbon footprint, adopt a greener lifestyle, etc. But, how many of us know the hard facts as to why we need to change our ways, and why saving energy is so important?

We need to motivate ourselves into becoming more efficient with the way we use energy in the home, at work and in our everyday lives. Understanding the full picture will help kick start better energy habits sooner.

Climate Change

At the same time as stripping the planet of its natural resources, our energy consumption is also drastically affecting its climate patterns. Each time a fossil fuel is burned, CO₂ is released during the process into the atmosphere, changing the earth's natural climate and weather systems while of course long hot summers and heat waves can be a welcome change to the usual wet weather flooding, diminishing ice caps, droughts and extreme weather conditions around the world aren't so desirable.

Over a quarter of the CO₂ produced in different countries comes from the fuel we use in our homes, so cutting the amount of energy each of us use would have a major impact. The WWF has called for a cut of at least 60 percent in carbon dioxide emissions by 2050.

Looking Ahead

So far different countries' commitment to saving energy has been more talk and less action. In fact carbon dioxide emissions have recently risen due to the rise in the price of gas, meaning more coal (which produces the greater amount of CO₂) being burned instead and with the global economies of developing countries booming, the amount of energy used in the world as a whole look set to escalate further.

Recommendations

There are many opportunities to become more efficient with the energy we use in daily life. Added together over a year, the savings both in resources and your own running costs could be substantial and so would the benefit to the environment. You can apply this concept into different areas like lighting, air conditioning, refrigerator, etc.

For lighting, we can use different methods to save energy lower cost like Compact Fluorescent Lamps (CFLs), LED, T5 tubes, etc.



Benefits

Light weight and easy to retrofit. New T8 LED Retrofit Tube features an electronic ballast and T8 LED lamp in one unit. The light fits directly into an existing T8 LED lamp fixture. Eliminating replacement and disposal costs.



Patent Number:201530468283.8



Benefits

- Significant energy saving up to 50% for T8 fluorescent
- Simple and cost effective installation
- Reduce heat load
- Reduce CO₂ emission
- Increase lighting quality and quantity
- Lower maintenance cost
- Comprehensive design for applications
- Ratchets to tilt light
- No flicker
- Classy outlook
- ETL, cETL, FCC, CE, RoHS
- High power factor >0.95
- Low Total Harmonic Distortion (THD)
- Compatible with T8 fixture



Life time: 100,000Hrs

Warrantee:

7 year limited warrantee.

Limited warrantee is 12 burn hours in a 24 hour period, if burn hours are more then 12 hours in a 24 hour period the lifespan of the bulb could be less then 7 years.



SMT assembly ensures consistency and quality



EMC/EMI circuitry and protection function increase the safety and lifespan of the system



Optional light diffuser



DRIVER(BALLAST)
High PF, high efficiency, isolated power supply, in line with global certification standards



LED CHIP
Taiwan chip, high lumens, high efficiency, high CRI, long life



PC COVER
MULTILON raw materials, high transmittance, high diffusion, no spot



LED BODY
More thick aluminum heat sink, high purity one piece



G13 PIN
G13 standard lamp, internationally, PC material, flame temperature

"No lead" complies with environmental regulations



End-Cap is made of PC, fire retardant and inflammable



Double insulated wire ensures safety and prevents current leakage



New T8 LED Retrofit Tube

SPECIFICATIONS

Model	CL-DN2T8LEDRT-9W	CL-DN4T8LEDRT-18W	CL-DN4T8LEDRT-22W	CL-DN8T8LEDRT-44W
Voltage	110~277V AC	110~277V AC	110~277V AC	120~277V AC
Frequency(HZ)	50-60HZ	50-60HZ	50-60HZ	50-60HZ
Socket Base Type	G13	G13	G13	Fa8
Length	2 feet	4 feet	4 feet	8 feet
Power	9W	18W	22W	44W
PF	≥0.95	≥0.95	≥0.95	≥0.95
Output Lumens (lm)	1100lm	2200lm	2500lm	5200lm
Luminous efficiency(lm/W)	>120lm/W	>120lm/W	>120lm/W	>120lm/W
CCT (K)	2700K,4100K,5000K	2700K,4100K,5000K	2700K,4100K,5000K	2700K,4100K,5000K
CRI	>80	>80	>80	>80
Beam Angle	120 Degree	120 Degree	120 Degree	120 Degree
Operating Temperature	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C	-20°C to +50°C
Replace Fluorescent	2 FT-18W(T8)	4 FT-32W(T8)	4 FT-54W(T5)	8 FT-96W(T12)
Lifespan	100,000 Hours	100,000 Hours	100,000 Hours	100,000 Hours
Warranty	7 Years	7 Years	7 Years	7 Years
Certificate	DLC, ETL , cETL, FCC, CE, RoHS	DLC, ETL , cETL, FCC, CE, RoHS	DLC, ETL , cETL, FCC, CE, RoHS	ETL , cETL, FCC, CE, RoHS



Dimension

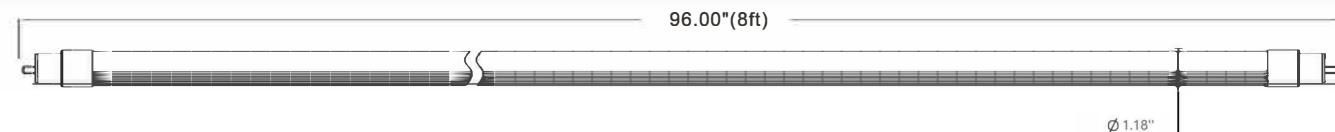
2 feet T8 LED Tube



4 feet T8 LED Tube




8 feet T8 LED Tube



DLC TEST REPORT

The New LED T8 tube with DLC certification Allows you to Qualify for Energy Rebates



IESNA LM79-2008 Test Report
TÜV SÜD America

Photometric Testing and Evaluation in Accordance with LM79-2008

Report Prepared for:

Fred Edwards
Chief Executive Officer

Lighting Direct, LP
502 W. Montgomery, Suite 4 - 324
Willis, TX 77378
United States

Telephone: (214) 763-2033

Sample Tested: CL-DN4T8LEDRT-22W
Sample Description: 4FT Linear Replacement Lamp
Manufacturer: Lighting Import Concepts

Fixture used for testing: Reference Troffer Lithonia 2GT8 Lens 2x4
Ballast used for testing: OSRAM Quicktronic® QTP 2x32T8/UNV ISN-SC


Technical Report Number: 72123331-03-LM79
Report Issue Date: April 14th 2017
Total Number of Pages: 9 (including this page)

Report Prepared by: *Peter Faria*
Peter Faria
TUV SUD Project Handler


Report Reviewed by: *Bryan Cubitt*
Bryan Cubitt
TUV SUD Operations Manager

TUV SUD America, Inc.
3535 Cass Parkway, Suite 100
Alpharetta, GA 30005
Telephone: 878-343-5900 www.tuvusa.com

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TUV SUD America is accredited under the ISO/IEC 17025:2005 program.




IESNA LM79-2008 Test Report
TÜV SÜD America

Photometric Testing and Evaluation in Accordance with LM79-2008

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Chief Executive Officer

Lighting Direct, LP
502 W. Montgomery, Suite 4 - 324
Willis, TX 77378
United States

Telephone: (214) 763-2033

Sample Tested: CL-DN4T8LEDRT-18W
Sample Description: 4FT Linear Replacement Lamp
Manufacturer: Lighting Import Concepts

Fixture used for testing: Reference Troffer Lithonia 2GT8 Lens 2x4
Ballast used for testing: OSRAM Quicktronic® QTP 2x32T8/UNV ISN-SC

Technical Report Number: 72123331-01-LM79
Report Issue Date: April 14th 2017
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Report Prepared by: *Peter Faria*
Peter Faria
TUV SUD Project Handler


Report Reviewed by: *Bryan Cubitt*
Bryan Cubitt
TUV SUD Operations Manager

TUV SUD America, Inc.
3535 Cass Parkway, Suite 100
Alpharetta, GA 30005
Telephone: 878-343-5900 www.tuvusa.com

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Qualified Products List

View Category Specifications

New Search Download Results Share Results Voir en Français

1 RESULTS FOUND SHOW 25 50 100 SORT Date Qualified (newest first)

CL-DN4T8LEDRT-22W 1

View Details

Model No: CL-DN4T8LEDRT-22W
Brand Name: Lighting Direct, LP
Manufacturer: Lighting Direct, LP

VIEW DETAILS

Linear Replacement Lamp | Four-Foot
Replacement Lamps ("plug and play")
(UL Type A)

Classification: DLC Standard
DLC Product Code: PZBUGZVM
DLC Family Code: HHHBHH

TEST DATA		RATED DATA	
Light Output	2,454 lm	Efficacy	97.65 lm/W
Wattage	25.13 W	CRI	82.4
CCT	3,800 K		

Expand details

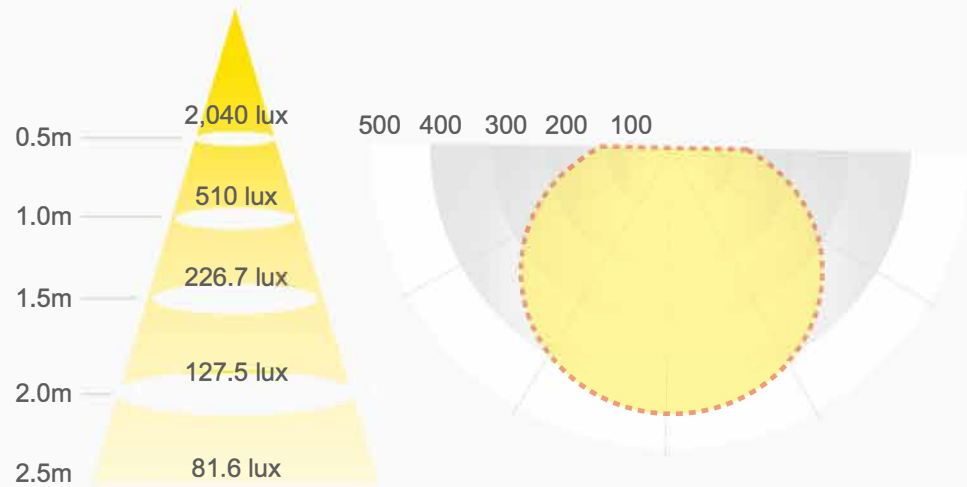
**NEW QPL LISTING COMING SOON !
NEW CERTIFICATE COMING SOON !**

TESTED IN

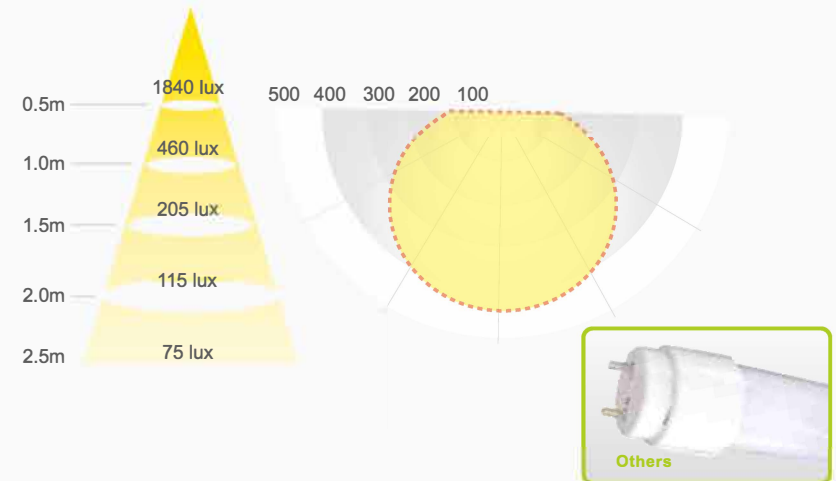


Intensity & light distribution

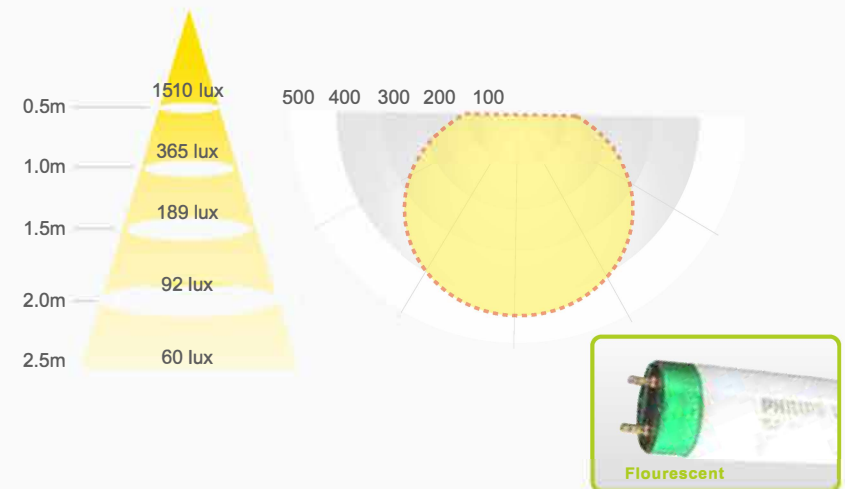
New T8 LED Tube for LD, LP 4 feet /18W/5000K



T8 LED Tube for Ordinary (4 feet /18W/5000K)



T8 Fluorescent (4 feet /32W/5000K)



Comparison in economical efficiency

Replacement	T8 fluorescent lamp	VS	LD, LP New T8 LED Tube
Power consumption(W)	32W	44% saved	18W
Efficiency (lm/w)	60lm	50%increased	120lm
Yearly electricity charge(USD)	14.8USD	44% saved	8.2USD
Lifespan (hr)	10,000hr	10 times increased	100,000hr

*Electricity charge:0.1236USD/1KWH *With an average usage of 10 hours per day

Comparison in economical efficiency

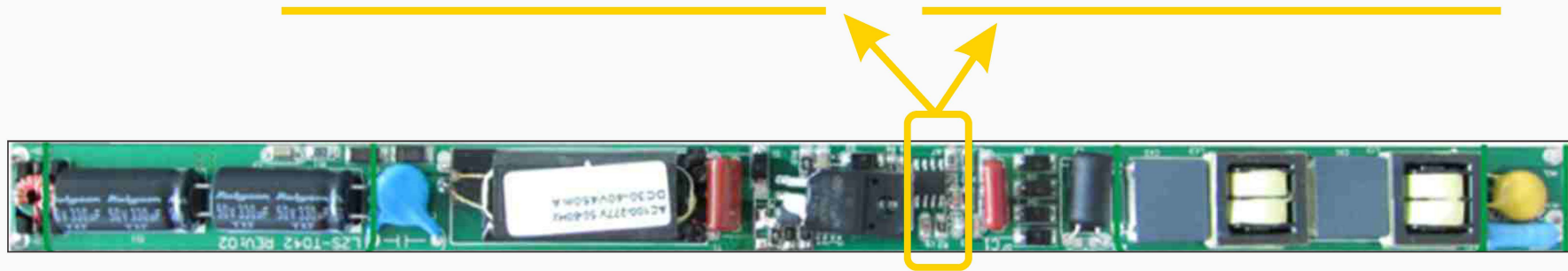
Replacement	T8 LED Tube for Ordinary	VS	LD, LP New T8 LED Tube
Power consumption(W)	22W	22% saved	18W
Efficiency (lm/w)	100lm	16.6%increased	120lm
Yearly electricity charge(USD)	9.8USD	18% saved	8.0 USD
Lifespan (hr)	50,000hrs	2 times increased	100,000hrs

*Electricity charge:0.1236USD/1KWH *With an average usage of 10 hours per day

100,000 hours LED Driver life

The patent technology of "CPU" control chip.

There is "no need to pre-cut wire" for installation of LD, LP New LED T8 Tube



The best design
best materials
Rubycon



3528 SMD LED

PE(power effective)
90%
PF(power factor)
98%



108lm per watt
Best Power Saving

Large-size chip
reach 108lm/w

Epistar
Large-size chips
longer life



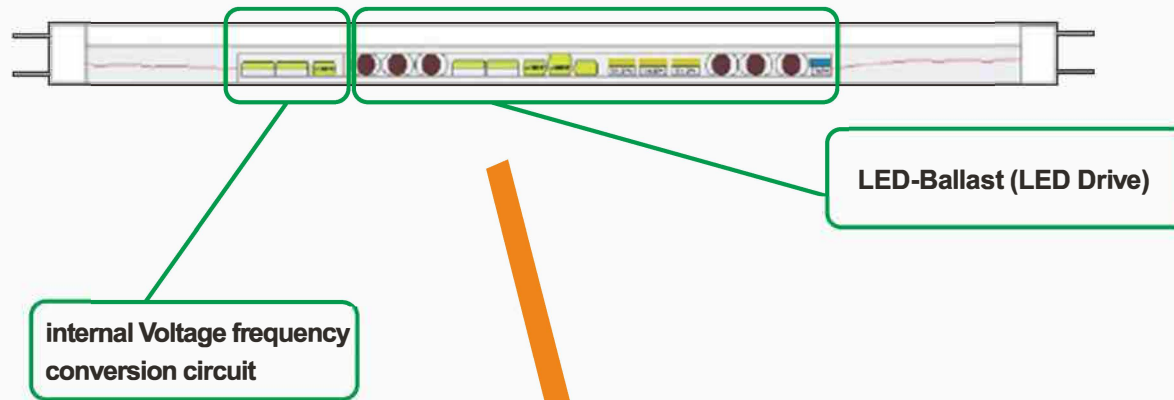
1X2.3mm
Large-Size Chip



Built-in LED Driver

New T8 LED Retrofit Tube (No need to cut ballast wire)

Structure chart



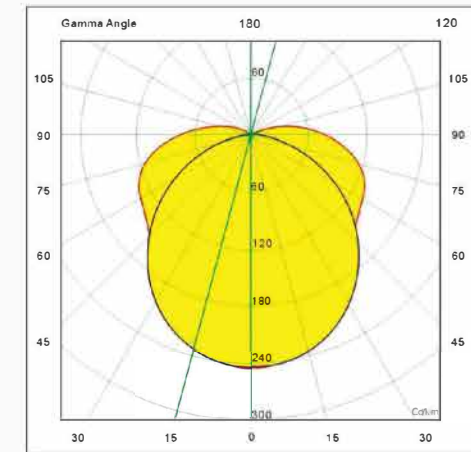
The patent technology
of "CPU" control chip.

There is "no need to pre-cut wire"
for installation of **LD, LP** New LED T8 Tube

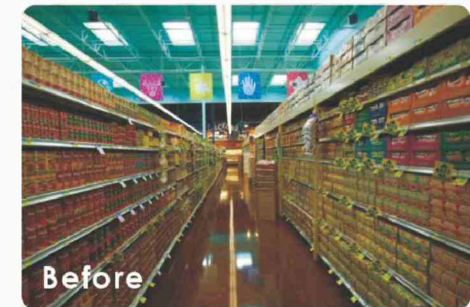


Comparison of parameter measurement

Fluorescent VS LED Tube



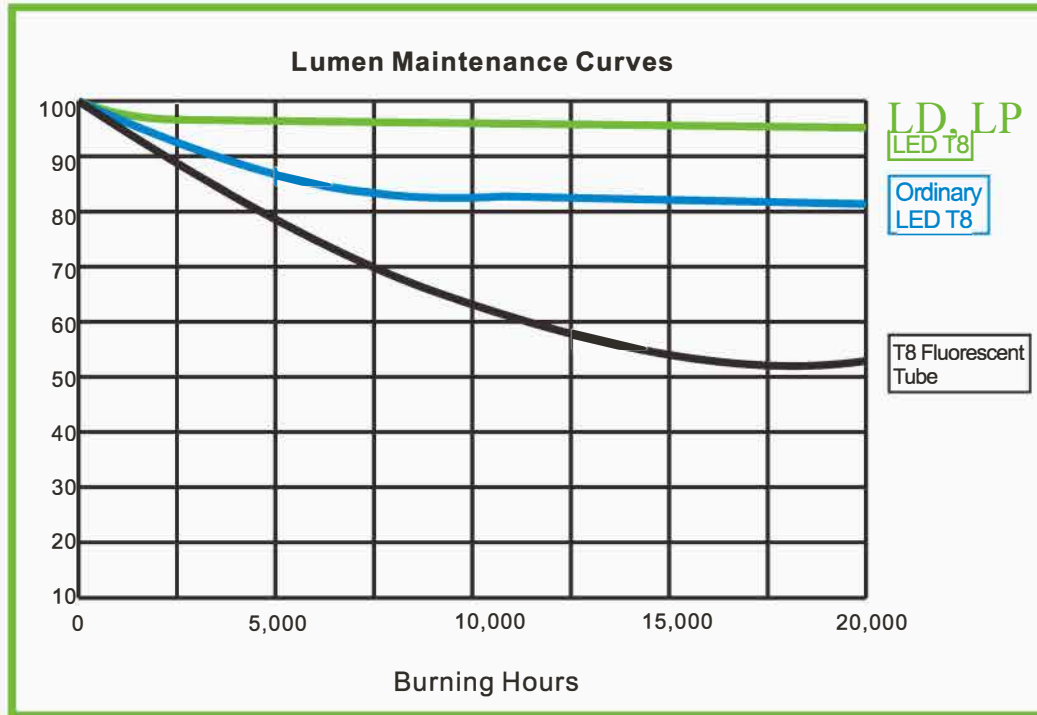
Item	T8 Fluorescent	L.I.C. -New T8 LED Tube	
Illuminant	T8 fluorescent lamp	LED	
Model Number	T8	T8	
Product body	Glass	PC+Aluminum	
Working Power	32 Watts	18 Watts	46% saved
Luminous Efficacy (LM/W)	78 LM/W @6500K	120LM/W @6500K	
Output Lumens (lm)	1760 lm	2200 lm	
Power Factor (PF)	PF≥0.95	PF≥0.95	
Color Index (Ra)	Ra=75	Ra>80	
Current (mA)	270mA @120V	88mA @120V	
Input Voltage (V)	110~277V	110~277V	
Viewing Angle (Degree)	360 Degree	120 Degree	
Lumen Maintenance	>5%@1,000hours	>1%@1,000hours	
Working Temperature	-15~+40℃	-20~+50℃	
Warranty	1 Year	7 Year	
Life Time (Hrs)	10,000 Hrs	100,000Hrs	10 times increased



Before
T8 Fluorescent (32W)



After
New T8 LED Retrofit Tube (18W)



Lighting Direct, LP T8 LED Tube



Another important advantage of the LD, LP LED T8 Tube is its no mercury content. Minimizing the amount of mercury also brings another very important advantage: since no mercury causes the lamp's light output to depreciate over its life. This helps to keep light levels much closer to initial output. The LD, LP LED T8 Tube has only 5% depreciation in the first 50% of life .



No.1 (LP, LP T8 LEDTube)



No.2 (Other's T8 LED Tube)



No.3 (T8 Fluorescent Tube)

Comparison Data for LD , LP LED T8 Tube , Ordinary of LED T8 Tube and T8 fluorescent Replacements

Item description	Power (W)	Output (lm)	Efficacy (lm/w)	CCT (K)	CRI	PF	Life (Hours)	Warranty (Year)	Install (Cut wrie)	Certification (CDC)
L.I.C. of LED T8 Tube (4-ft)	18W	2200lm	120lm/W	5000K	85%	0.95	100,000	7 Years	No need	With
Ordinary of LED T8 Tube (4-ft)	22W	2200lm	100lm/W	5000K	75%	0.95	50,000	3 Years	Need	With out
T8 fluorescent F32T8 (4-ft)	32W	1760lm	55lm/W	5000K	80%	0.99	20,000	1 Year	No need	With out

Note: The LD, LP - LED T8 Tube is considered a durable good that replaces a consumable fluorescent tube product. The LD, LP T8 LED Tube eliminates mercury from the waste stream has longer life, lower energy costs, and does not require the disposal of ballasts during retrofits

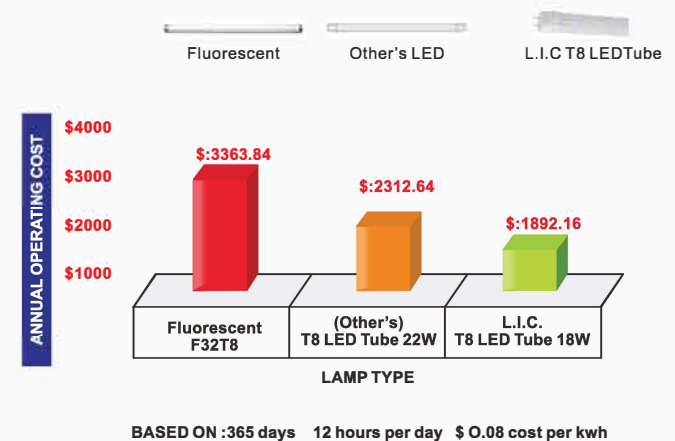
Lighting Feature & Saving Comparison

Specifications:	L.I.C. T8 LED Tube	T8 fluorescent	Others T8 LED Tube
Watts	18W	32W	22W
Kelvin Temp	4100K	4100K	4100K
Output Lumens	2200 lm	1600 lm	2200 lm
Fixture (3 Lamps / Fixture)	100	100	100
Total Watts	5400W	9600W	6600W
Lamps Used	L.I.C.	GE	Others
Ballast Used	led T8-18W (4FT)	T8-32W (4FT)	LED T8-18W(4ft)
Life Span of Lamps	No	GE	No
Installed pre-cut wrie	10,000 hours	10,000 hours	50,000 hours
Installed Cost	No need to pre-cut wrie	No need to pre-cut wrie	Need to pre-cut write
Annual Cost / \$0.08 cost per KWH	\$500,00	\$500,00	\$2,000,00
12 hours per day, 365 days	\$1,892,16	\$3,363,84	\$2,312,64
Energy Savings	46%	0%	45%
Lamp Warranty	7 Years	1 Year	3 Years
USA's DLC	With	Without	Without
Federal government an Rebate	With	Without	Without
100 pcs Fixtures			
Annual Savings	\$1,471,68	0	\$1,051,20
7 Years Savings	\$1,0301,76	0	\$7,358,40

Never repace another lamp and ballast ever again! 7 Year product warranty

A vast majority of LED lighting products currently on the market will not withstand the test of time. By contrast, the lighting experts at LD, LP understand the science and correct application of LED. Because of this LD, LP is able to offer a 7 year warranty on their LED strips, 4 years longer than most other LED lighting manufacturers.

Improves Efficiency



Lighting Direct, LP - LED T8 Tube Features

Advantages of LED

- Energy saving more than 60%
- Very long life
- High quality of light
- Contains no Mercury
- Less heat radiation
- No UV- or IR-Radiation
- No flicker, no noise
- Instant turn on
- Tolerant against cold temperatures
- Dimmable versions available



Life time: 100,000Hrs

Wellness lighting for your health and environment



Eye Protect

- Contains no harmful substances such as mercury or lead
- No emission of harmful UV and infrared wavelengths (eyesight and skin protection)
- Reduction of CO₂ emissions by saving a lot of energy
- Comfortable for the eyes without flickering



PAYBACK ON ENERGY
USAGE (ON AVERAGE)



RECYCLING OF ALL OF OUR
LED LIGHTS BY QE GLOBAL



ENERGY USED COMPARED
TO A STANDARD LIGHT
(ON AVERAGE)

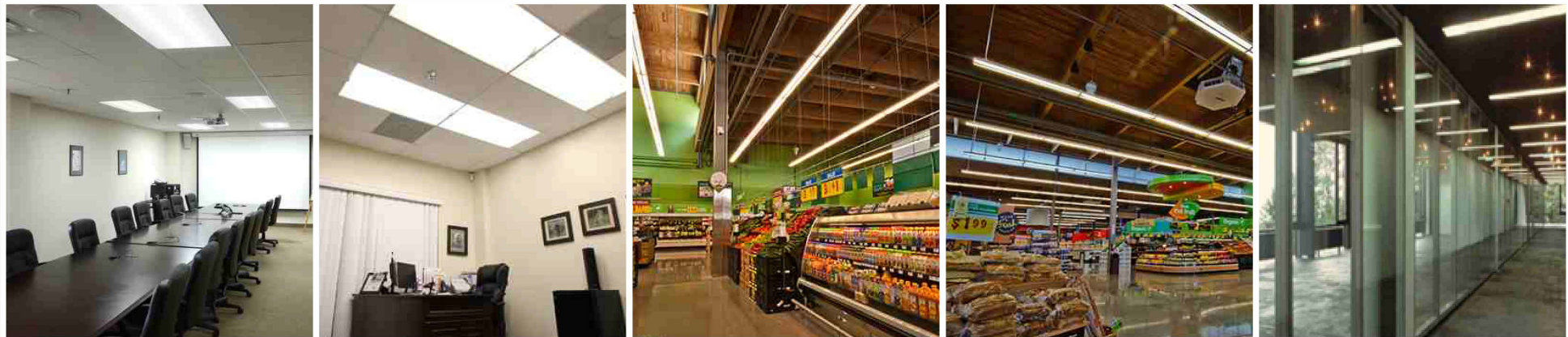
TESTED IN



Tested in USA

With DLC certification,
you can apply for states and federal government an allowance rebate

Application Scenarios (Lighting Direct, LP - New T8 LED Retrofit Tube)



APPLICATION AREAS



Education



Food retail



Healthcare



Hospitality



Industry



Office



Retail

LENS OPTIONS

Our LED T8 tubes comes with a choice of clear or milky lenses.

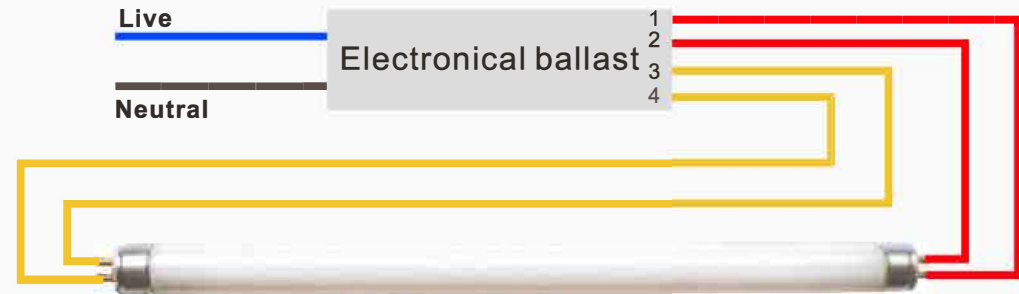


Installation Instruction (For 4 feet)



Switch off power supply **BEFORE COMMENCING WORK**

BEFORE

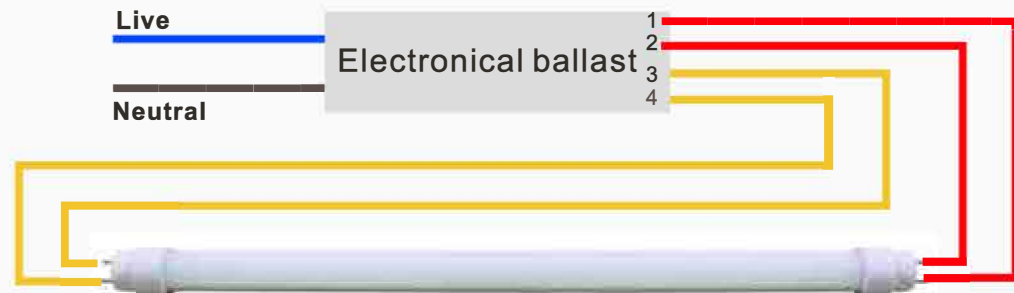


T8 fluorescent tube

Installation Steps:

1. Turn off power
2. Remove the T8 fluorescent tube
3. Clip in the New T8 LED Retrofit Tube upgrade-Clip in the New T8 LED Retrofit Tube
4. Turn on the power and installation is completed

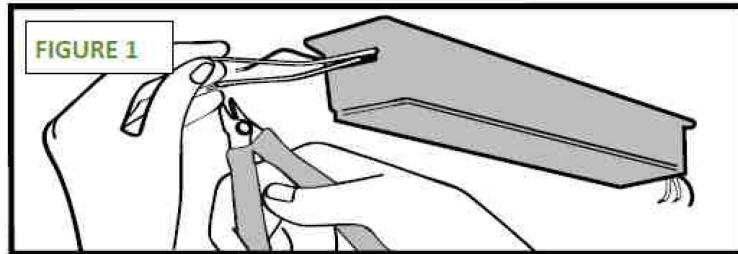
AFTER



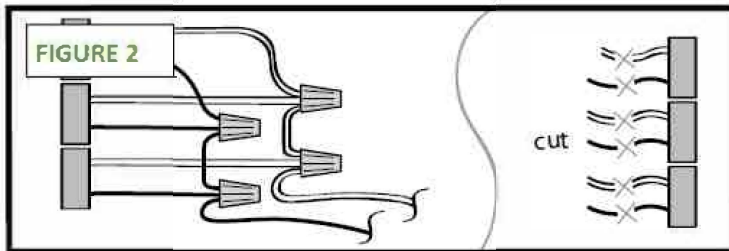
New T8 LED Retrofit Tube

Different from the market products

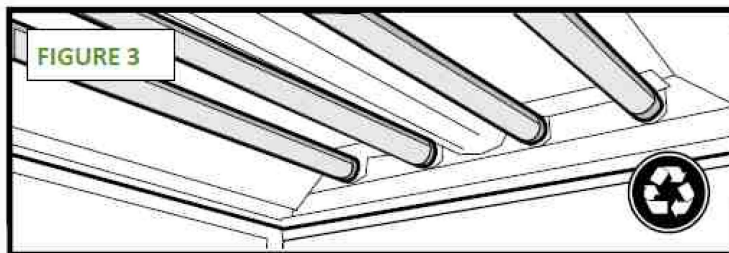
The old one



Step 1: Cut the wires of the original lamp ballast

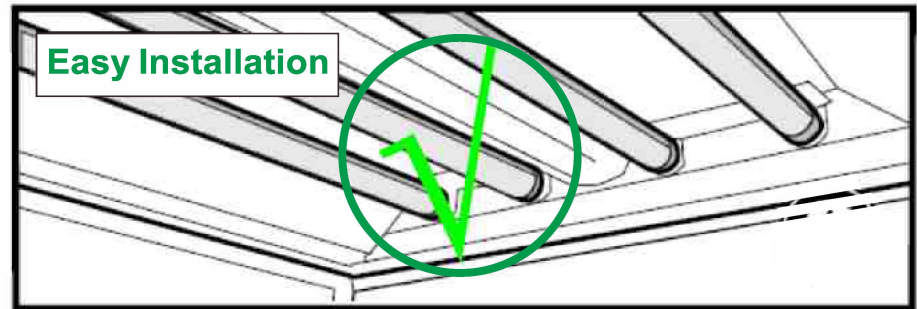
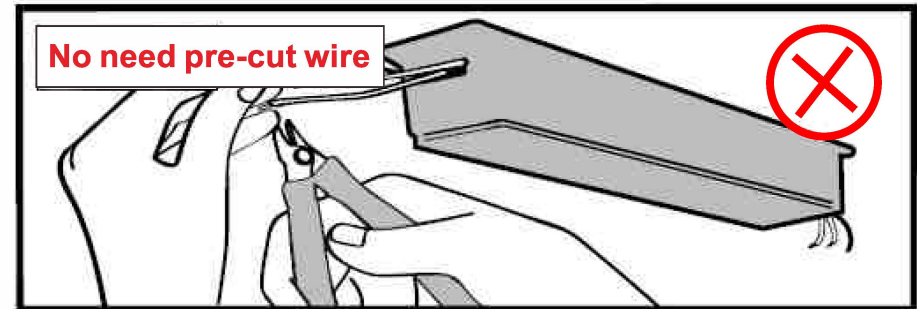


Step 2: Connect the wire



Step 3: Compatible

New T8 LED Retrofit tube



*New T8 LED Retrofit Tube can be directly installed into the fixture.

VS



- Operating temperature range between -20°C~+45°C.
- Suitable for indoor environment.
- Suitable for damp locations.
- Can be used in UL or ETL approved enclosed fixture.
- Used only with fluorescent luminaries.
- Not to be intended for use with emergency light fixtures or exit light.
- Not to be used in enclosed insulated ceilings.

Lighting Direct, LP -New LED T8 Retrofit Tube (For 4 feet)

Compatible Ballasts list

Item	Manufacturer	Model	Type
1	Philips-Advance	ICN-1P32-N	Instant Start Ballast
2	Philips-Advance	ICN-2P32-N	Instant Start Ballast
3	Philips-Advance	ICN-3P32-N	Instant Start Ballast
4	Philips-Advance	ICN-4P32-N	Instant Start Ballast
5	Philips-Advance	IOPA-1P32-N	Instant Start Ballast
6	Philips-Advance	IOPA-2P32-N	Instant Start Ballast
7	Philips-Advance	IOPA-3P32-N	Instant Start Ballast
8	Philips-Advance	IOPA-4P32-N	Instant Start Ballast
9	Philips-Advance	IOPA-1P32-HL-SC	Instant Start Ballast
10	Philips-Advance	IOPA-2P32-HL-SC	Instant Start Ballast
11	Philips-Advance	IOPA-3P32-HL-SC	Instant Start Ballast
12	Philips-Advance	IOPA-4P32-HL-SC	Instant Start Ballast
13	Philips-Advance	ICN-1P32-SC	Instant Start Ballast
14	Philips-Advance	ICN-2P32-SC	Instant Start Ballast
15	Philips-Advance	ICN-3P32-SC	Instant Start Ballast
16	Philips-Advance	ICN-4P32-SC	Instant Start Ballast
17	Philips-Advance	REB-1P32-SC	Instant Start Ballast
18	Philips-Advance	REB-2P32-SC	Instant Start Ballast
19	Philips-Advance	REB-3P32-SC	Instant Start Ballast
20	Philips-Advance	REB-4P32-SC	Instant Start Ballast
21	Philips-Advance	IOP-1P32-LW—SC	Instant Start Ballast
22	Philips-Advance	IOP-2P32-LW—SC	Instant Start Ballast
23	Philips-Advance	IOP-3P32-LW—SC	Instant Start Ballast
24	Philips-Advance	IOP-4P32-LW—SC	Instant Start Ballast
25	Philips-Advance	IOPA-1P32-LW-N	Instant Start Ballast
26	Philips-Advance	IOPA-2P32-LW-N	Instant Start Ballast
27	Philips-Advance	IOPA-3P32-LW-N	Instant Start Ballast
28	Philips-Advance	IOPA-4P32-LW-N	Instant Start Ballast
29	Philips-Advance	IOPA-1P32-N	Instant Start Ballast
30	Philips-Advance	IOPA-2P32-N	Instant Start Ballast
31	Philips-Advance	IOPA-3P32-N	Instant Start Ballast
32	Philips-Advance	IOPA-4P32-N	Instant Start Ballast
33	Philips-Advance	IOP-1P32-SC	Instant Start Ballast
34	Philips-Advance	IOP-2P32-SC	Instant Start Ballast
35	Philips-Advance	IOP-3P32-SC	Instant Start Ballast
36	Philips-Advance	IOP-4P32-SC	Instant Start Ballast
37	Philips-Advance	IOPA-1P32-HL-SC	Instant Start Ballast
38	Philips-Advance	IOPA-2P32-HL-SC	Instant Start Ballast
39	Philips-Advance	IOPA-3P32-HL-SC	Instant Start Ballast
40	Philips-Advance	IOPA-4P32-HL-SC	Instant Start Ballast
41	Philips-Advance	IOP-1PSP32-HL-SC	Program Start Ballast
42	Philips-Advance	IOP-2PSP32-HL-SC	Program Start Ballast
43	Philips-Advance	IOP-3PSP32-HL-SC	Program Start Ballast

Item	Manufacturer	Model	Type
44	Philips-Advance	IOP-4PSP32-HL-SC	Program Start Ballast
45	Philips-Advance	IOP-1PSP32-HL-SC	Program Start Ballast
46	Philips-Advance	IOP-2PSP32-HL-SC	Program Start Ballast
47	Philips-Advance	IOP-3PSP32-HL-SC	Program Start Ballast
48	Philips-Advance	IOP-4PSP32-HL-SC	Program Start Ballast
49	Philips-Advance	IOP-1PSP32-LW-SC	Program Start Ballast
50	Philips-Advance	IOP-2PSP32-LW-SC	Program Start Ballast
51	Philips-Advance	IOP-3PSP32-LW-SC	Program Start Ballast
52	Philips-Advance	IOP-4PSP32-LW-SC	Program Start Ballast
53	Philips-Advance	IOP-1PSP32-SC	Program Start Ballast
54	Philips-Advance	IOP-2PSP32-SC	Program Start Ballast
55	Philips-Advance	IOP-3PSP32-SC	Program Start Ballast
56	Philips-Advance	IOP-4PSP32-SC	Program Start Ballast
57	Philips-Advance	GOPA-1P32-SC	Instant Start Ballast
58	Philips-Advance	GOPA-2P32-SC	Instant Start Ballast
59	Philips-Advance	GOPA-3P32-SC	Instant Start Ballast
60	Philips-Advance	GOPA-4P32-SC	Instant Start Ballast
61	Philips-Advance	GOP-1PSP32-SC	Instant Start Ballast
62	Philips-Advance	GOP-2PSP32-SC	Instant Start Ballast
63	Philips-Advance	GOP-3PSP32-SC	Instant Start Ballast
64	Philips-Advance	GOP-4PSP32-SC	Instant Start Ballast
65	Philips-Advance	GOPA-1P32-LW-SC	Instant Start Ballast
66	Philips-Advance	GOPA-2P32-LW-SC	Instant Start Ballast
67	Philips-Advance	GOPA-3P32-LW-SC	Instant Start Ballast
68	Philips-Advance	GOPA-4P32-LW-SC	Instant Start Ballast
69	Philips-Advance	HOP-2PSP32-HL-SC	Program Start Ballast
70	Philips-Advance	HOP-3PSP32-HL-SC	Program Start Ballast
71	Philips-Advance	HOP-4PSP32-HL-G	Program Start Ballast
72	Philips-Advance	IOP-3P32-HL-90-SC	Instant Start Ballast
73	Philips-Advance	IOPA-4P32-HL-90-SC	Instant Start Ballast
74	Philips-Advance	RELB-2S40-N	Rapid Start Ballast
75	Philips-Advance	ICN-2S40-N	Rapid Start Ballast
76	Philips-Advance	ICN-2S24	Program Start Ballast
77	Philips-Advance	leN-2S24-N	Program Start Ballast
78	Philips-Advance	ICN-2S39	Program Start Ballast
79	Philips-Advance	ICN-2S39-N	Program Start Ballast
80	Philips-Advance	ICN-2S28	Program Start Ballast
81	Philips-Advance	ICN-2S28-N	Program Start Ballast
82	Philips-Advance	ICN-2S54	Program Start Ballast
83	Philips-Advance	ICN-2S54-N	Program Start Ballast
84	GE	GE-132-MAX-N/Ultra	Instant Start Ballast
85	GE	GE-232-MAX-N/Ultra	Instant Start Ballast
86	GE	GE-332-MAX-N/Ultra	Instant Start Ballast

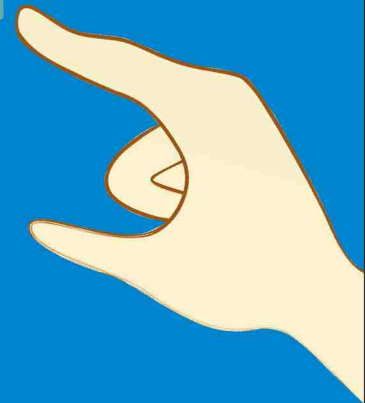
Item	Manufacturer	Model	Type
87	GE	GE-432-MAX-N/Ultra	Instant Start Ballast
88	GE	GE-132-MAX-L/Ultra	Instant Start Ballast
89	GE	GE-232-MAX-L/Ultra	Instant Start Ballast
90	GE	GE-332-MAX-L/Ultra	Instant Start Ballast
91	GE	GE-432-MAX-L/Ultra	Instant Start Ballast
92	GE	GE-132-MAX-H/Ultra	Instant Start Ballast
93	GE	GE-232-MAX-H/Ultra	Instant Start Ballast
94	GE	GE-332-MAX-H/Ultra	Instant Start Ballast
95	GE	GE-432-MAX-H/Ultra	Instant Start Ballast
96	GE	B132PUNVHP-N	Program Rapid Start Ballast
97	GE	B232PUNVHP-N	Program Rapid Start Ballast
98	GE	B332PUNVHP-A	Program Rapid Start Ballast
99	GE	B432PUNVHP-A	Program Rapid Start Ballast
100	GE	B332 347HP	Program Rapid Start Ballast
101	GE	B228PUNV-C	Program Rapid Start Ballast
102	GE	B224PUNV-C	Program Rapid Start Ballast
103	GE	B239PUNV-D	Program Rapid Start Ballast
104	GE	B254PUNV-D	Program Rapid Start Ballast
105	GE	B140R120HP	Instant Start Ballast
106	GE	B140R277HP	Instant Start Ballast
107	GE	B240R120HP	Instant Start Ballast
108	GE	B240R277HP	Instant Start Ballast
109	GE	B332 347HP	Instant Start Ballast
110	GE	B340R120HP	Program Rapid Start Ballast
111	GE	B340R277HP	Program Rapid Start Ballast
112	GE	B260 120HP	Instant Start Ballast
113	GE	B260 277HP	Instant Start Ballast
114	GE	B260 20RH	Instant Start Ballast
115	GE	B260 277RH	Instant Start Ballast
116	GE	697-L-TC-P-IP	Rapid Start Ballast
117	GE	573-L-TC-P-IP	Rapid Start Ballast
118	GE	588-L-TC-P-IP	Rapid Start Ballast
119	GE	413-C-TC-P-IP	Rapid Start Ballast
120	GE	412-L-SLH-TC-P-IP	Rapid Start Ballast
121	GE	458-L-SLH-TC-P-I	Rapid Start Ballast
122	GE	446-L-SLH-TC-P	Rapid Start Ballast
123	GE	537-L-TC-P-I	Rapid Start Ballast
124	GE	443-L-SLH-T-P	Rapid Start Ballast
125	GE	490-XLH-TC-P	Rapid Start Ballast
126	GE	627-LLH-TC-P-IP	Rapid Start Ballast
127	GE	480-SLH-TC-P-IP	Rapid Start Ballast
128	GE	480-XLH-TC-P-IP	Rapid Start Ballast
129	GE	487-SLH-TC-P-IP	Rapid Start Ballast

Lighting Direct, LP -New LED T8 Retrofit Tube (For 4 feet)

Compatible Ballasts list

Item	Manufacturer	Model	Type	Item	Manufacturer	Model	Type	Item	Manufacturer	Model	Type
130	GE	487-XLH-TC-P-IP	Rapid Start Ballast	173	SYLVANIA	OHE 2X32T8/347 ISL-SC	Instant Start Ballast	216	KEYSTONE	KTEB-432-UV-IS-N-P	Instant Start Ballast
131	GE	960-VLH-TC-P-IP	Rapid Start Ballast	174	SYLVANIA	OHE 3X32T8/347 ISL-SC	Instant Start Ballast	217	KEYSTONE	KTEB-432-UV-IS-N-P	Instant Start Ballast
132	GE	532-BR-TC-P-IP	Instant Start Ballast	175	SYLVANIA	OHE 4X32T8/347 ISL-SC	Instant Start Ballast	218	PROLUME	EP232IS/L/MV/SL	Instant Start Ballast
133	GE	213-TC-P-IP	Instant Start Ballast	176	SYLVANIA	OHE 1X32T8/347 ISN-SC	Instant Start Ballast	219	PROLUME	EP232IS/L/MV/HE	Instant Start Ballast
134	GE	B132IUNVHE-A	Program Rapid Start Ballast	177	SYLVANIA	OHE 2X32T8/347 ISN-SC	Instant Start Ballast	220	RADIONIC	E232H12	Instant Start Ballast
135	GE	B232IUNVHE-A	Program Rapid Start Ballast	178	SYLVANIA	OHE 3X32T8/347 ISN-SC	Instant Start Ballast				
136	GE	B332IUNVHE-A	Program Rapid Start Ballast	179	SYLVANIA	OHE 4X32T8/347 ISN-SC	Instant Start Ballast				
137	SYLVANIA	QHE 1x32T8/UNV ISL-SC	Instant Start Ballast	180	SYLVANIA	QT2X32T8/347 ISL-SC	Instant Start Ballast				
138	SYLVANIA	QHE 2x32T8/UNV ISL-SC	Instant Start Ballast	181	SYLVANIA	QT4X32T8/347 ISL-SC	Instant Start Ballast				
139	SYLVANIA	QHE 3x32T8/UNV ISL-SC	Instant Start Ballast	182	SYLVANIA	QTP1X32T8/347 ISN-SC	Instant Start Ballast				
140	SYLVANIA	QHE 4x32T8/UNV ISL-SC	Instant Start Ballast	183	SYLVANIA	QTP2X32T8/347 ISN-SC	Instant Start Ballast				
141	SYLVANIA	QHE 1X32T8/UNV ISN-SC	Instant Start Ballast	184	SYLVANIA	QT3X32T8/347 ISN-SC	Instant Start Ballast				
142	SYLVANIA	QHE 2X32T8/UNV ISN-SC	Instant Start Ballast	185	SYLVANIA	QT4X32T8/347 ISN-SC	Instant Start Ballast				
143	SYLVANIA	QHE 3X32T8/UNV ISN-SC	Instant Start Ballast	186	SYLVANIA	QT2X32T8/347 ISH-SC	Instant Start Ballast				
144	SYLVANIA	QHE 4X32T8/UNV ISN-SC	Instant Start Ballast	187	SYLVANIA	QTP 2x39-24T5HO/UNV PSN NL	Program Start Ballast				
145	SYLVANIA	QHE 1X32T8/UNV ISH-SC	Instant Start Ballast	188	SYLVANIA	QTP 2x39-24T5HO/UNV PSN NL	Program Start Ballast				
146	SYLVANIA	QHE 2X32T8/UNV ISH-SC	Instant Start Ballast	189	SYLVANIA	QTP 2x54 T5HO/UNV PSN NL	Program Start Ballast				
147	SYLVANIA	QHE 3X32T8/UNV ISH-SC	Instant Start Ballast	190	SYLVANIA	QTP 2x28 T5/UNV PSN NL	Program Start Ballast				
148	SYLVANIA	QHE 4X32T8/UNV ISH-SC	Instant Start Ballast	191	SYLVANIA	QTP 2x54 T5HO/UNV PSN HT NL	Program Rapid Start Ballast				
149	SYLVANIA	QTP 1X32T8/UNV ISL-SC	Instant Start Ballast	192	SYLVANIA	QTP 4x54 T5HO/UNV PSN HTW NL	Program Rapid Start Ballast				
150	SYLVANIA	QTP 2X32T8/UNV ISL-SC	Instant Start Ballast	193	GE	GE-232-120RED-DIY	Instant Start Ballast				
151	SYLVANIA	QTP 3X32T8/UNV ISL-SC	Instant Start Ballast	194	GE	GE-432-120RED-DIY	Instant Start Ballast				
152	SYLVANIA	QTP 4X32T8/UNV ISL-SC	Instant Start Ballast	195	GE	GE-232-120-N	Instant Start Ballast				
153	SYLVANIA	QTP 1X32T8/UNV ISN-SC	Instant Start Ballast	196	GE	GE-432-120-N	Instant Rapid Start Ballast				
154	SYLVANIA	QTP 2X32T8/UNV ISN-SC	Instant Start Ballast	197	GE	GE-132-MV-N	Instant Start Start Ballast				
155	SYLVANIA	QTP 3X32T8/UNV ISN-SC	Instant Start Ballast	198	GE	GE-232-MV-N	Instant Start Start Ballast				
156	SYLVANIA	QTP 4X32T8/UNV ISN-SC	Instant Start Ballast	199	GE	GE-332-MV-N	Instant Start Ballast				
157	SYLVANIA	QTP 1X32T8/UNV ISH-SC	Instant Start Ballast	200	GE	GE-432-MV-N	Instant Start Ballast				
158	SYLVANIA	QTP 2X32T8/UNV ISN-SC	Instant Start Ballast	201	GE	GE-132-MV-N-DIY	Instant Start Ballast				
159	SYLVANIA	QTP 3X32T8/UNV ISN-SC	Instant Start Ballast	202	GE	GE-232-MV-N-DIY	Instant Start Ballast				
160	SYLVANIA	QTP 4X32T8/UNV ISN-SC	Instant Start Ballast	203	GE	GE-332-MV-N-DIY	Instant Start Ballast				
161	SYLVANIA	QTP 1X32T8/UNV PSX-TC	Program Start Ballast	204	GE	GE-432-MV-N-DIY	Instant Start Ballast				
162	SYLVANIA	QTP 2X32T8/UNV PSX-TC	Program Start Ballast	205	GE	GE232MAX347-N	Instant Start Ballast				
163	SYLVANIA	QTP 3X32T8/UNV PSX-TC	Program Start Ballast	206	GE	GE432MAX347-N	Instant Start Ballast				
164	SYLVANIA	QTP 4X32T8/UNV PSX-TC	Program Start Ballast	207	SUNPARK	U-1/32ISE-HBF	Instant Start Ballast				
165	SYLVANIA	QTP 1X32T8/UNV PSN-TC	Program Start Ballast	208	SUNPARK	U-2/32ISE-HBF	Instant Start Ballast				
166	SYLVANIA	QTP 2X32T8/UNV PSN-TC	Program Start Ballast	209	SUNPARK	U-3/32ISE-HBF	Instant Start Ballast				
167	SYLVANIA	QTP 3X32T8/UNV PSN-TC	Program Start Ballast	210	SUNPARK	U-4/32ISE-HBF	Instant Start Ballast				
168	SYLVANIA	QTP 4X32T8/UNV PSN-TC	Program Start Ballast	211	SUNPARK	U-1/32ISE-LBF	Instant Start Ballast				
169	SYLVANIA	QHE2x32T8/UNV-PSH-HT	Program Start Ballast	212	SUNPARK	U-2/32ISE-LBF	Instant Start Ballast				
170	SYLVANIA	QHE3x32T8/UNV-PSH-HT	Program Start Ballast	213	SUNPARK	U-3/32ISE-LBF	Instant Start Ballast				
171	SYLVANIA	QHE4x32T8/UNV-PSH-HT	Program Start Ballast	214	SUNPARK	U-4/32ISE-LBF	Instant Start Ballast				
172	SYLVANIA	OHE 1X32T8/347 ISL-SC	Instant Start Ballast	215	HOWARD	EP3/32IS/MV/MC/HE	Instant Start Ballast				

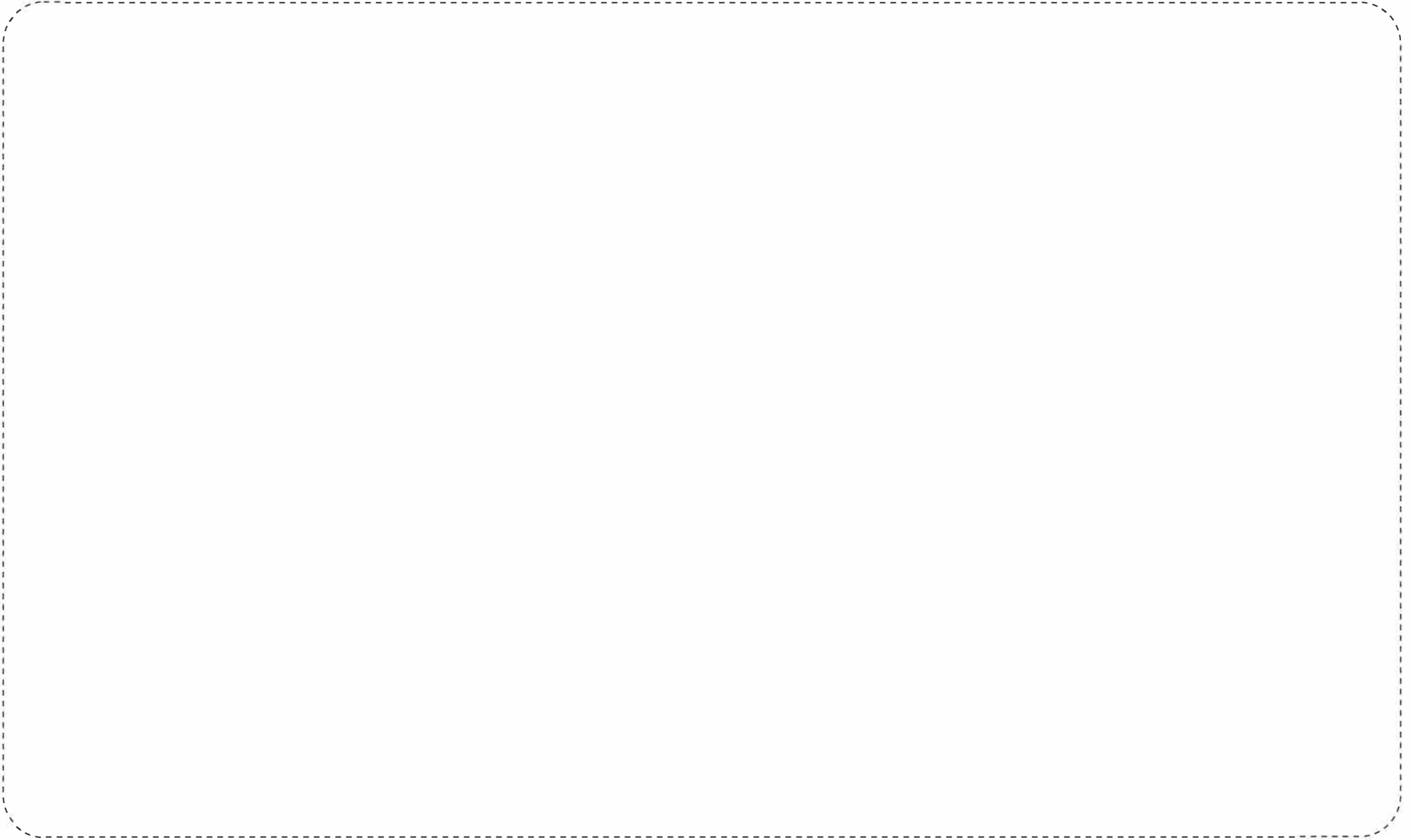
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**jill@lightingdirectlp.com
www.lightingdirectlp.com**