



Direct8™  
LED



## LED T8 Tubes GENERATION 3

TCP has a new generation of LED compatible replacement T8 tubes for linear fixtures. These T8 tubes are dimmable and feature multiple ballast compatibility including Instant Start and Rapid Start.

### Limitless Options for the following applications:

- Offices
- Restaurants
- Retail Stores
- Lobbies
- Schools
- Hospitals



5 YEAR  
WARRANTY

we know light.™

## Features/Benefits

>50% energy savings
Long 50,000 hour rated life
Dimmable
Compatible with Instant, Rapid or Programmed Start ballasts and most traditional fluorescent ballasts
No rewiring of fixture—simply replace fluorescent lamp with LED lamp
Instant on/off
No mercury
Rated for enclosed fixtures
2', 3', 4' tubes and U6 tube options available

## Specifications

Input Line Voltage	120-277, 347 VAC
Minimum Starting Temperature	-30°C
Maximum Operating Temperature	55°C
Beam Distribution	210°
NOTE: Use shunted sockets for Instant Start ballast Use unshunted sockets for Rapid Start and dimmable ballasts	

## Listing

UL/cUL Listed – damp location rated

## Warranty

Five years against defects in manufacturing

LED T8 Tube  
4 foot



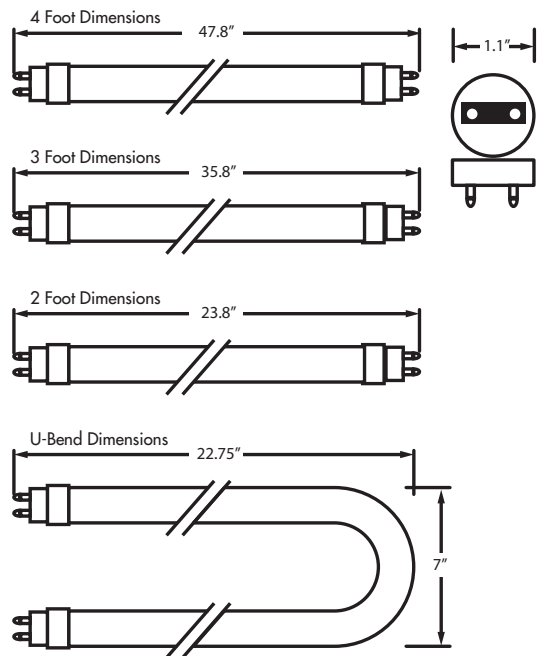
LED T8 Tube  
3 foot



LED T8 Tube  
2 foot



LED U-Bend T8 Tube  
6 inch



5 YEAR WARRANTY



To view our DLC qualified products, please consult the DLC Qualified Products List at [www.designlights.org/qpl](http://www.designlights.org/qpl).



# LED T8 Tubes GENERATION 3

## LED DirecT8™ Instant Start/Rapid Start Ballast Compatible

Item#	Description	DLC QLP*	Lamp Watts	System Watts NBF	Equivalent Watts	Lumens NBF	CCT	CRI	Base
<b>LED 12 WATT T8 TUBE – 4 FOOT GLASS MODEL# T8021</b>									
L12T8D5030K	LED 12W 4' T8 IS/RS 30K		12W	14.9W	32W	1700	3000K	80	G13
<b>L12T8D5035K</b>	<b>LED 12W 4' T8 IS/RS 35K</b>	★	<b>12W</b>	<b>14.9W</b>	<b>32W</b>	<b>1750</b>	<b>3500K</b>	<b>80</b>	<b>G13</b>
L12T8D5041K	LED 12W 4' T8 IS/RS 41K	★	12W	14.9W	32W	1800	4100K	80	G13
L12T8D5050K	LED 12W 4' T8 IS/RS 50K	★	12W	14.9W	32W	1850	5000K	80	G13
L12T8D5041KBP	LED 12W 4' T8 IS/RS 41K BULK PACK	★	12W	14.9W	32W	1800	4100K	80	G13
L12T8D5050KBP	LED 12W 4' T8 IS/RS 50K BULK PACK	★	12W	14.9W	32W	1850	5000K	80	G13
<b>LED 11 WATT HIGH OUTPUT T8 TUBE – 4 FOOT GLASS MODEL# T8024</b>									
L11T8D5030K	LED 11W 4' T8 HO IS/RS 30K		11W	13.6W	32W	1800	3000K	80	G13
L11T8D5035K	LED 11W 4' T8 HO IS/RS 35K		11W	13.6W	32W	1850	3500K	80	G13
L11T8D5041K	LED 11W 4' T8 HO IS/RS 41K		11W	13.6W	32W	1900	4100K	80	G13
L11T8D5050K	LED 11W 4' T8 HO IS/RS 50K		11W	13.6W	32W	1950	5000K	80	G13
<b>LED 11 WATT T8 TUBE – 3 FOOT GLASS MODEL# T8022</b>									
L11T83D5030K	LED 11W 3' T8 IS/RS 30K		11W	13.5W	25W	1400	3000K	80	G13
L11T83D5035K	LED 11W 3' T8 IS/RS 35K	★	11W	13.5W	25W	1450	3500K	80	G13
L11T83D5041K	LED 11W 3' T8 IS/RS 41K	★	11W	13.5W	25W	1500	4100K	80	G13
L11T83D5050K	LED 11W 3' T8 IS/RS 50K	★	11W	13.5W	25W	1550	5000K	80	G13
<b>LED 9 WATT T8 TUBE – 2 FOOT GLASS MODEL# T8023</b>									
L9T8D5030K	LED 9W 2' T8 IS/RS 30K		9W	9.5W	17W	1150	3000K	80	G13
L9T8D5035K	LED 9W 2' T8 IS/RS 35K	★	9W	9.5W	17W	1175	3500K	80	G13
L9T8D5041K	LED 9W 2' T8 IS/RS 41K	★	9W	9.5W	17W	1200	4100K	80	G13
L9T8D5050K	LED 9W 2' T8 IS/RS 50K	★	9W	9.5W	17W	1225	5000K	80	G13
<b>LED 13 WATT U-BEND T8 TUBE – 6 INCH PLASTIC MODEL# T8006</b>									
L13T8UD5030K	LED 13W U6 T8 IS/RS 30K		13W	16.0W	32W	1800	3000K	80	2G13
L13T8UD5035K	LED 13W U6 T8 IS/RS 35K		13W	16.0W	32W	1800	3500K	80	2G13
L13T8UD5041K	LED 13W U6 T8 IS/RS 41K		13W	16.0W	32W	1850	4100K	80	2G13
L13T8UD5050K	LED 13W U6 T8 IS/RS 50K		13W	16.0W	32W	1900	5000K	80	2G13

\*Design Lights Consortium (DLC) Qualified Product

### System Power Guide

- 4' system watts ≤ 15W
- 4' HO system watts ≤ 14W
- 3' system watts ≤ 14W
- 2' system watts ≤ 10W
- 2' U-Bend system watts ≤ 16W



## Compatibility Guides

### LED Direct8™ Instant Start Ballast

Manufacturer	Series	Model #	Voltage
GE		GE132MAX-L/ULTRA	UNIV
		GE132MAXP-N/ULTRA	UNIV
		GE232MAX347-N	347
		GE232MAX-N/ULTRA	UNIV
		GE232MAX-G-N/ULTRA	UNIV
		GE232MAXP-H/ULTRA	UNIV
		GE332MAXP-H/ULTRA	UNIV
		GE332MAXP-N/ULTRA	UNIV
		GE332MAX-L/ULTRA	UNIV
		GE332MAX-G-N	UNIV
		GE432MAX347-N	347
Sylvania/Osram	QHE	2x32T8/ISN-SC	UNIV
	QHE	2x32T8/ISN-SC	347
Philips/Advance	Advance	GOPA-2P32-SC	347
	Advance	GOPA-4P32-SC	347
	Advance	ICN-2P32-N	UNIV
	Advance	ICN-3P32-N	UNIV
	Advance	ICN-4P32-N	UNIV
	Advance	IOP-2P32-LW-N	UNIV
	Advance	IOP-3P32-N	UNIV
	Advance	IOPA-4P32-LW-N	UNIV
	Advance	IOPA-4P32-LW-SC	UNIV
	Advance	IOPA-4P32-N	UNIV
TCP		E2P32ISUNVE	UNIV
		E2P32ISUNVHE	UNIV
		E2P32ISUNVLE	UNIV
		E3P32ISUNVE	UNIV
		E3P32ISUNVHE	UNIV
		E3P32ISUNVLE	UNIV
		E4P32ISUNVE	UNIV
		E4P32ISUNVHE	UNIV
		E4P32ISUNVLE	UNIV
Universal Lighting Technologies	Triad	B132IUNVHP-N	UNIV
	Triad	B232IUNVHP-N	UNIV
	Triad	B332IUNVHP-A	UNIV
	Triad	B432IUNVHP-A	UNIV
	Triad	B232I347HP-A	347
	Triad	B432I347HP-000C	347
IOTA		I-320 IOTA EMERGENCY BALLAST	

### LED Direct8™ Program Start Ballast

Manufacturer	Model #	Voltage
<b>2 LAMP PROGRAM START</b>		
GE	GE-232-MVPS-N	UNIV
	GE-232-MVPS-L	UNIV
	GE-232MAXP-N/ULTRA	UNIV
	GE232MAXH/ULTRA	UNIV
Sylvania/Osram	QHE-2x32T8/UNV PSN-NC	UNIV
	QHE-2x32T8/UNV PSHHT	UNIV
Philips/Advance	IOP-2PSP32-N	UNIV
	GOP-2PSP32-SC	UNIV
TCP	E2P32PSUNVE	UNIV
	E2P32PSUNVLE	UNIV
	TCP 2S32PSUNVHE	UNIV
	E2P32PSUNVHE	UNIV
<b>3 LAMP PROGRAM START</b>		
GE	GE332-MVPS-N	UNIV
	GE332-MVPS-H	UNIV
Sylvania/Osram	QHE 3x32T8/UNV PSN-SC	UNIV
Philips/Advance	IOP-3S32-SC	UNIV
	IOP-3PSP32-SC	UNIV
TCP	E3P32PSUNVE	UNIV
	EP32PSUNVLE	UNIV
<b>4 LAMP PROGRAM START</b>		
GE	GE432-MVPS-N	UNIV
	GE432-MVPS-H	UNIV
	GE432-MVPS-L	UNIV
	GE-432-MAX-N/ULTRA	UNIV
Sylvania/Osram	QHE 4x32T8/UNV PSN-SC	UNIV
	QHE 4x32T8/UNV PSHHT	UNIV
Philips/Advance	IOP-4PSP32-SC	UNIV
	GOP-4PSP32-SC	UNIV
TCP	E4P32PSUNVE	UNIV
	E4P32PSUNVHE	UNIV
<b>1 LAMP PROGRAM START DIM</b>		
Philips/Advance	IZT-132-SC	UNIV
<b>2 LAMP PROGRAM START DIM</b>		
Philips/Advance	IZT-2S32-SC	UNIV
	IZT-2PSP32-SC	UNIV