



LED Direct8™

Instant Start Ballast Compatible

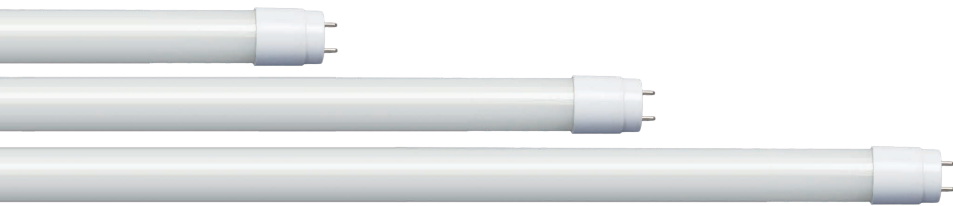
LED compatible replacement for linear fixtures with instant start ballasts*

Limitless options for the following applications:

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

Great features and benefits:

- >40% Energy Savings
- Long life: 50,000 hours
- No rewiring of fixture — just replace fluorescent lamp with LED lamp
- Instant on/off
- 2', 3' and 4' options available
- No Mercury
- 5 year warranty
- Rated for enclosed fixtures
- Food service rating available



Direct8™
LED



LED
we know light.™



LED DirecT8™ Instant Start Ballast Compatible

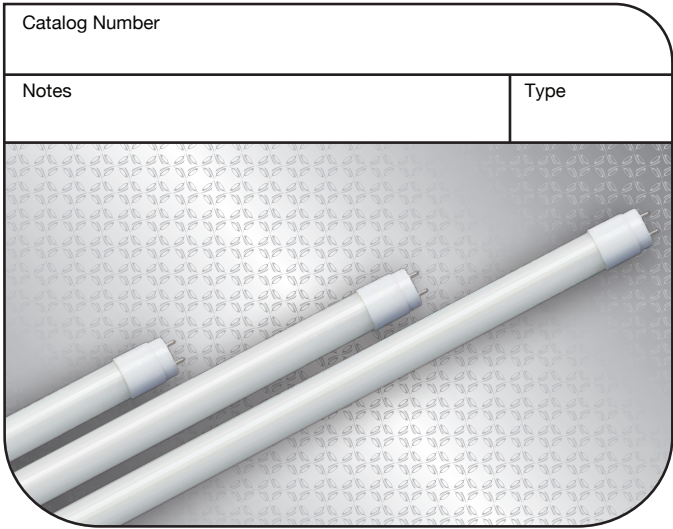
LED 50,000 hours average rated life, 120-277 volts

Applications:

LED compatible replacement for linear fixtures with instant start ballasts*

Features

>40% energy savings	No mercury
Long life - 50,000 hours	5 year warranty
Instant on/off	2', 3' and 4' options available
No rewiring of fixture — just replace fluorescent lamp with LED lamp	Rated for enclosed fixtures Food service rating available



Specifications

Input Line Voltage:	120-277 VAC
Minimum Starting Temp.....	-30°C
Maximum Operating Temp.....	55°C
Beam Distribution	190°

NOTE: Must be used with shunted sockets
Not compatible with emergency ballasts with DC output



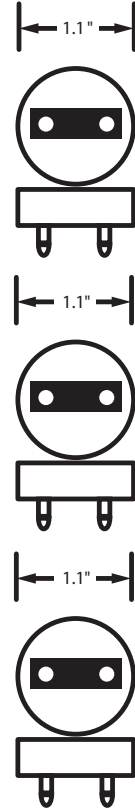
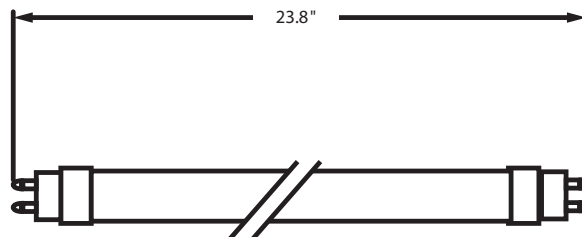
4 Foot Dimensions



3 Foot Dimensions



2 Foot Dimensions





LED DirecT8™ Instant Start Ballast Compatible

Glass Tubes

Warranties and Certifications:	Item #	Description	Bare Lamp Wattage				System Wattage				Lamp Lumens			Base	CCT	CRI	R9
			(0.88)	(0.78)	(0.88)	(1.18)	LBF	NBF	HBF	LBF	NBF	HBF	(0.78)				
5 YEAR WARRANTY 	LED4T820IS30K	LED 20W Instant Start Compatible 4 Foot T8 - 3000K	20	20	22.7	26.7	1715	1950	2600	G13	3000K	80	>0				
	LED4T820IS35K	LED 20W Instant Start Compatible 4 Foot T8 - 3500K	20	20	22.7	26.7	1760	2000	2680	G13	3500K	80	>0				
	LED4T820IS41K	LED 20W Instant Start Compatible 4 Foot T8 - 4100K	20	20	22.7	26.7	1800	2050	2740	G13	4100K	80	>0				
	LED4T820IS50K	LED 20W Instant Start Compatible 4 Foot T8 - 5000K	20	20	22.7	26.7	1840	2100	2800	G13	5000K	80	>0				
 ANSMPF 2 Fabricated Food Service Equipment ©38EJ>	LED4T815IS30K	LED 15W Instant Start Compatible 4 Foot T8 - 3000K	15	15	17	20	1440	1625	2175	G13	3000K	80	>0				
	LED4T815IS35K	LED 15W Instant Start Compatible 4 Foot T8 - 3500K	15	15	17	20	1460	1650	2210	G13	3500K	80	>0				
	LED4T815IS41K	LED 15W Instant Start Compatible 4 Foot T8 - 4100K	15	15	17	20	1500	1700	2280	G13	4100K	80	>0				
	LED4T815IS50K	LED 15W Instant Start Compatible 4 Foot T8 - 5000K	15	15	17	20	1550	1750	2340	G13	5000K	80	>0				
	LED4T815IS41KSS	LED 15W Instant Start Compatible SHATTER COAT 4 Foot T8 - 4100K	15	15	17	20	1500	1700	2280	G13	4100K	80	>0				
	LED4T815IS50KSS	LED 15W Instant Start Compatible SHATTER COAT 4 Foot T8 - 5000K	15	15	17	20	1550	1750	2340	G13	5000K	80	>0				
"SHATTER COAT" LAMPS ARE NSF RATED	LED3T811IS30K	LED 12.5W Instant Start Compatible 3 Foot T8 - 3000K	12.5	13	15	17.5	1170	1325	1770	G13	3000K	80	>0				
	LED3T811IS35K	LED 12.5W Instant Start Compatible 3 Foot T8 - 3500K	12.5	13	15	17.5	1190	1350	1810	G13	3500K	80	>0				
	LED3T811IS41K	LED 12.5W Instant Start Compatible 3 Foot T8 - 4100K	12.5	13	15	17.5	1240	1400	1870	G13	4100K	80	>0				
	LED3T811IS50K	LED 12.5W Instant Start Compatible 3 Foot T8 - 5000K	12.5	13	15	17.5	1280	1450	1940	G13	5000K	80	>0				
	LED2T89IS30K	LED 10.5W Instant Start Compatible 2 Foot T8 - 3000K	10.5	11	12.5	14.5	720	900	1125	G13	3000K	80	>0				
	LED2T89IS35K	LED 10.5W Instant Start Compatible 2 Foot T8 - 3500K	10.5	11	12.5	14.5	740	930	1150	G13	3500K	80	>0				
	LED2T89IS41K	LED 10.5W Instant Start Compatible 2 Foot T8 - 4100K	10.5	11	12.5	14.5	770	970	1200	G13	4100K	80	>0				
	LED2T89IS50K	LED 10.5W Instant Start Compatible 2 Foot T8 - 5000K	10.5	11	12.5	14.5	800	1010	1250	G13	5000K	80	>0				

Plastic Tubes (Rated for Food Service)

Warranties and Certifications:	Item #	Description	Bare Lamp Wattage				System Wattage				Lamp Lumens			Base	CCT	CRI	R9
			(0.88)	(0.78)	(0.88)	(1.18)	LBF	NBF	HBF	LBF	NBF	HBF	(0.78)				
5 YEAR WARRANTY 	LED15T84IS35K	LED 15W Instant Start Compatible 4 Foot T8 - 3500K	14.9	15.0	17.4	20.5	1418	1600	2145	G13	3500K	80	>0				

* See instant start compatibility at www.tcp.com



LED DirecT8™ Instant Start Ballast Compatible

DIRECT8™ LED Tube Ballast Compatibility Guide

Manufacturer	Series	Model	Voltage
General Electric		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
Osram	QHE	2x32T8/ISN-SC	UNIV
	QHE	2x32T8/ISN-SC	347
Philips	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™

Instant Start Ballast Compatible

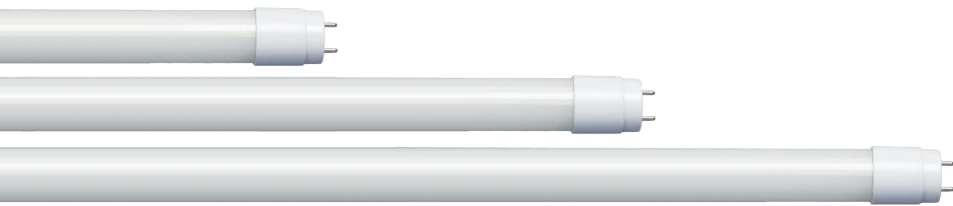
LED compatible replacement for linear fixtures with instant start ballasts*

Limitless options for the following applications:

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

Great features and benefits:

- >40% Energy Savings
- Long life: 50,000 hours
- No rewiring of fixture — just replace fluorescent lamp with LED lamp
- Instant on/off
- 2', 3' and 4' options available
- No Mercury
- 5 year warranty
- Rated for enclosed fixtures
- Food service rating available



Direct8™
LED



LED
we know light.™



LED DirecT8™ Instant Start Ballast Compatible

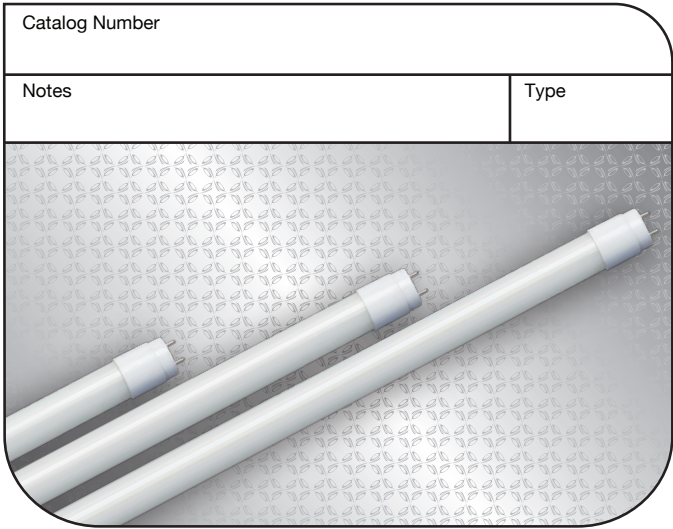
LED 50,000 hours average rated life, 120-277 volts

Applications:

LED compatible replacement for linear fixtures with instant start ballasts*

Features

>40% energy savings	No mercury
Long life - 50,000 hours	5 year warranty
Instant on/off	2', 3' and 4' options available
No rewiring of fixture — just replace fluorescent lamp with LED lamp	Rated for enclosed fixtures Food service rating available



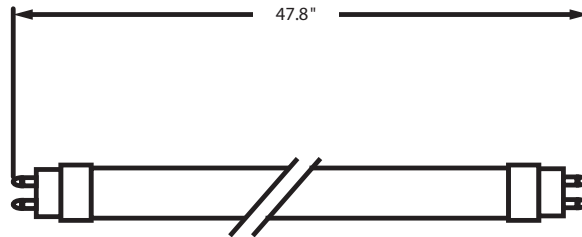
Specifications

Input Line Voltage:	120-277 VAC
Minimum Starting Temp.....	-30°C
Maximum Operating Temp.....	55°C
Beam Distribution	190°

NOTE: Must be used with shunted sockets
Not compatible with emergency ballasts with DC output



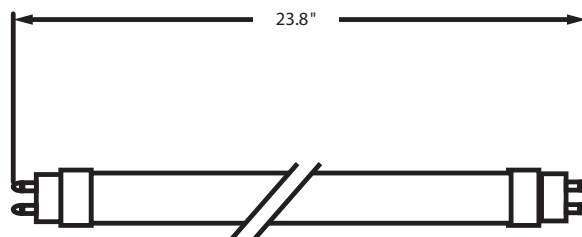
4 Foot Dimensions



3 Foot Dimensions



2 Foot Dimensions





LED DirecT8™ Instant Start Ballast Compatible

Glass Tubes

Warranties and Certifications:	Item #	Description	Bare Lamp Wattage				System Wattage				Lamp Lumens			Base	CCT	CRI	R9
			(0.88)	(0.78)	(0.88)	(1.18)	LBF	NBF	HBF	LBF	NBF	HBF	(0.78)				
5 YEAR WARRANTY 	LED4T820IS30K	LED 20W Instant Start Compatible 4 Foot T8 - 3000K	20	20	22.7	26.7	1715	1950	2600	G13	3000K	80	>0				
	LED4T820IS35K	LED 20W Instant Start Compatible 4 Foot T8 - 3500K	20	20	22.7	26.7	1760	2000	2680	G13	3500K	80	>0				
	LED4T820IS41K	LED 20W Instant Start Compatible 4 Foot T8 - 4100K	20	20	22.7	26.7	1800	2050	2740	G13	4100K	80	>0				
	LED4T820IS50K	LED 20W Instant Start Compatible 4 Foot T8 - 5000K	20	20	22.7	26.7	1840	2100	2800	G13	5000K	80	>0				
 ANSMPF 2 Fabricated Food Service Equipment ©38EJ>	LED4T815IS30K	LED 15W Instant Start Compatible 4 Foot T8 - 3000K	15	15	17	20	1440	1625	2175	G13	3000K	80	>0				
	LED4T815IS35K	LED 15W Instant Start Compatible 4 Foot T8 - 3500K	15	15	17	20	1460	1650	2210	G13	3500K	80	>0				
	LED4T815IS41K	LED 15W Instant Start Compatible 4 Foot T8 - 4100K	15	15	17	20	1500	1700	2280	G13	4100K	80	>0				
	LED4T815IS50K	LED 15W Instant Start Compatible 4 Foot T8 - 5000K	15	15	17	20	1550	1750	2340	G13	5000K	80	>0				
	LED4T815IS41KSS	LED 15W Instant Start Compatible SHATTER COAT 4 Foot T8 - 4100K	15	15	17	20	1500	1700	2280	G13	4100K	80	>0				
	LED4T815IS50KSS	LED 15W Instant Start Compatible SHATTER COAT 4 Foot T8 - 5000K	15	15	17	20	1550	1750	2340	G13	5000K	80	>0				
"SHATTER COAT" LAMPS ARE NSF RATED	LED3T811IS30K	LED 12.5W Instant Start Compatible 3 Foot T8 - 3000K	12.5	13	15	17.5	1170	1325	1770	G13	3000K	80	>0				
	LED3T811IS35K	LED 12.5W Instant Start Compatible 3 Foot T8 - 3500K	12.5	13	15	17.5	1190	1350	1810	G13	3500K	80	>0				
	LED3T811IS41K	LED 12.5W Instant Start Compatible 3 Foot T8 - 4100K	12.5	13	15	17.5	1240	1400	1870	G13	4100K	80	>0				
	LED3T811IS50K	LED 12.5W Instant Start Compatible 3 Foot T8 - 5000K	12.5	13	15	17.5	1280	1450	1940	G13	5000K	80	>0				
	LED2T89IS30K	LED 10.5W Instant Start Compatible 2 Foot T8 - 3000K	10.5	11	12.5	14.5	720	900	1125	G13	3000K	80	>0				
	LED2T89IS35K	LED 10.5W Instant Start Compatible 2 Foot T8 - 3500K	10.5	11	12.5	14.5	740	930	1150	G13	3500K	80	>0				
	LED2T89IS41K	LED 10.5W Instant Start Compatible 2 Foot T8 - 4100K	10.5	11	12.5	14.5	770	970	1200	G13	4100K	80	>0				
	LED2T89IS50K	LED 10.5W Instant Start Compatible 2 Foot T8 - 5000K	10.5	11	12.5	14.5	800	1010	1250	G13	5000K	80	>0				

Plastic Tubes (Rated for Food Service)

Warranties and Certifications:	Item #	Description	Bare Lamp Wattage				System Wattage				Lamp Lumens			Base	CCT	CRI	R9
			(0.88)	(0.78)	(0.88)	(1.18)	LBF	NBF	HBF	LBF	NBF	HBF	(0.78)				
5 YEAR WARRANTY UL CERTIFIED TO NSF STANDARDS	LED15T84IS35K	LED 15W Instant Start Compatible 4 Foot T8 - 3500K	14.9	15.0	17.4	20.5	1418	1600	2145	G13	3500K	80	>0				

* See instant start compatibility at www.tcp.com



**DIRECT8™
LED Tube
Ballast
Compatibility
Guide**

Manufacturer	Series	Model	Voltage
General Electric		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
Osram	QHE	2x32T8/ISN-SC	UNIV
	QHE	2x32T8/ISN-SC	347
Philips	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	