

# Philips T5 Fluorescent Lamps featuring ALTO Technology

Powerful, environmentally-responsible ultra-slim lamps



- ✓ Industry low 1.4mg of mercury in all Philips T5 and T5HO lamps
- ✓ No burn in required before dimming Philips T5 and T5HO lamps
- ✓ Operate on programmed start ballast only to maintain warranty
- ✓ Lumen output ratings at 35°C, lumens at 25°C, average 10% lower

### T5 High Efficiency

- New 25W Energy Advantage version of 28W
- Up to 116 lumens per watt
- 5000 kelvin being added to all sizes
- Slim profile lamp and ballast
- Perfect for office, healthcare and government applications

### T5 High Output

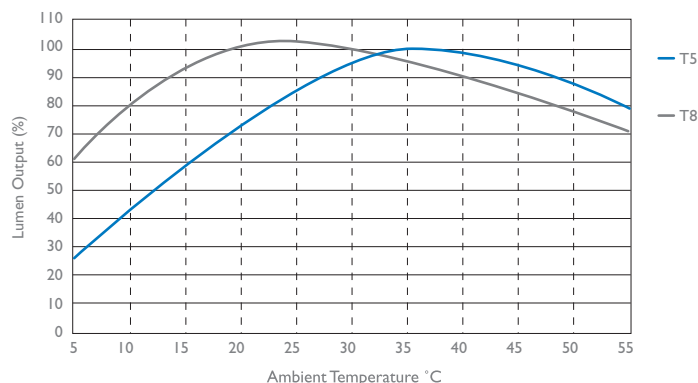
- New 49W HO Energy Advantage version of 54W HO
- 49W HO also available in extreme temperature version
- T5HO offers superb high bay options
- Increased energy saving options for many applications
- Perfect for retail, industrial and warehouse applications

### PHILIPS T5 LAMP WARRANTY PERIODS

Philips Lamp	WARRANTY PERIOD*
T5 High Output Energy Advantage Lamps	42 Months
T5 High Output Energy Advantage Lamps "Extreme Temperature" with Amalgam Technology	42 Months
T5 High Output Lamps	36 Months
Energy Advantage T5 Lamps	42 Months
T5 Lamps	36 Months

\* Certain limitations and conditions apply. See Philips for further warranty details.

### T5/T8 LUMENS VS. TEMPERATURE



### PHILIPS T5 LAMP FAMILY—LIFE RATINGS

Products	PROGRAMMED START <sup>1</sup>	
	Rated Average Life (Hrs.)	
	3 hour start	12 hour start
T5 High Output Energy Advantage Lamps	35,000	40,000
T5 High Output Energy Advantage Lamps "Extreme Temperature" with Amalgam Technology	35,000	40,000
T5 High Output Lamps	25,000	35,000
T5 Energy Advantage Lamps	35,000	40,000
T5 Lamps	25,000	35,000

<sup>1</sup>) Average life under engineering data on programmed start ballast with lamps turned off and restarted once every 3 or 12 operating hours as noted.

# FLUORESCENT LAMPS

## T5 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### T5 HIGH OUTPUT (HO) ENERGY ADVANTAGE LAMPS\*

T5 Miniature Bipin; Programmed Start

44	41781-6	\$ Ⓞ ● †	F54T5/835/HO/XEW/ALTO 44W	40	TL 835, 3500K	46	35,000	40,000	4520	4150	85
	41782-4	\$ Ⓞ ● †	F54T5/841/HO/XEW/ALTO 44W	40	TL 841, 4100K	46	35,000	40,000	4520	4150	85
	41783-2	\$ Ⓞ ● †	F54T5/850/HO/XEW/ALTO 44W	40	TL 850, 5000K	46	35,000	40,000	4300	3950	82
49	22049-1	\$ Ⓞ ●	F54T5/830/HO/EA/ALTO 49W	40	TL 830, 3000K	46	35,000	40,000	5000	4750	85
	22050-9	\$ Ⓞ ●	F54T5/835/HO/EA/ALTO 49W	40	TL 835, 3500K	46	35,000	40,000	5000	4750	85
	22052-5	\$ Ⓞ ●	F54T5/841/HO/EA/ALTO 49W	40	TL 841, 4100K	46	35,000	40,000	5000	4750	85
	41249-4	\$ Ⓞ ● †	F54T5/841/HO/EA/ALTO 49W Sleeved	20	TL 841, 4100K	46	35,000	40,000	5000	4750	85
	40649-6	\$ Ⓞ ●	F54T5/850/HO/EA/ALTO 49W	40	TL 850, 5000K	46	35,000	40,000	4850	4625	82
	41248-6	\$ Ⓞ ● †	F54T5/850/HO/EA/ALTO 49W Sleeved	20	TL 850, 5000K	46	35,000	40,000	4850	4625	82

### T5 HIGH OUTPUT (HO) ENERGY ADVANTAGE LAMPS "EXTREME TEMPERATURE" WITH AMALGAM TECHNOLOGY

T5 Miniature Bipin; Programmed Start

49	40729-6	\$ Ⓞ ●	F54T5/835/HO/A/EA/ALTO 49W	40	TL 835, 3500K	46	35,000	40,000	5000	4750	85
	40730-4	\$ Ⓞ ●	F54T5/841/HO/A/EA/ALTO 49W	40	TL 841, 4100K	46	35,000	40,000	5000	4750	85
	40752-8	\$ Ⓞ ● †	F54T5/850/HO/A/EA/ALTO 49W	40	TL 850, 5000K	46	35,000	40,000	4850	4625	82

### T5 HIGH OUTPUT (HO) LAMPS—(2FT-5 FT)

T5 Miniature Bipin; Programmed Start

24	29019-7	\$ ●	F24T5/830/HO/ALTO	40	TL 830, 3000K	22	25,000	35,000	2000	1900	85
	29020-5	\$ ●	F24T5/835/HO/ALTO	40	TL 835, 3500K	22	25,000	35,000	2000	1900	85
	29021-3	\$ ●	F24T5/841/HO/ALTO	40	TL 841, 4100K	22	25,000	35,000	2000	1900	85
	41277-5	\$ ● †	F24T5/850/HO/ALTO	40	TL 850, 5000K	22	25,000	35,000	1900	1800	82
39	29022-1	\$ ●	F39T5/830/HO/ALTO	40	TL 830, 3000K	34	25,000	35,000	3500	3325	85
	29023-9	\$ ●	F39T5/835/HO/ALTO	40	TL 835, 3500K	34	25,000	35,000	3500	3325	85
	29025-4	\$ ●	F39T5/841/HO/ALTO	40	TL 841, 4100K	34	25,000	35,000	3500	3325	85
	41435-9	\$ ● †	F39T5/850/HO/ALTO	40	TL 850, 5000K	34	25,000	35,000	3400	3230	82
54	29026-2	\$ ● Ⓞ	F54T5/830/HO/ALTO	40	TL 830, 3000K	46	25,000	35,000	5000	4750	85
	29028-8	\$ ● Ⓞ	F54T5/835/HO/ALTO	40	TL 835, 3500K	46	25,000	35,000	5000	4750	85
	29083-3	\$ ● Ⓞ	F54T5/841/HO/ALTO	40	TL 841, 4100K	46	25,000	35,000	5000	4750	85
	41181-9	\$ ● Ⓞ †	F54T5/841/HO/ALTO Sleeved	20	TL 841, 4100K	46	25,000	35,000	5000	4750	85
	13510-3	\$ ● Ⓞ	F54T5/850/HO/ALTO	40	TL 850, 5000K	46	25,000	35,000	4850	4625	82
80	14745-4	\$ ● Ⓞ	F54T5/865/HO/ALTO	40	TL 865, 6500K	46	25,000	35,000	4750	4500	82
	29084-1	\$ ●	F80T5/830/HO/ALTO	40	TL 830, 3000K	58	25,000	35,000	7000	6650	85
	14744-7	\$ ●	F80T5/835/HO/ALTO	40	TL 835, 3000K	58	25,000	35,000	7000	6650	85
	29088-2	\$ ●	F80T5/841/HO/ALTO	40	TL 841, 4100K	58	25,000	35,000	7000	6650	85

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

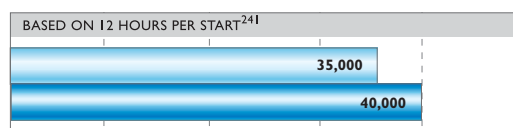
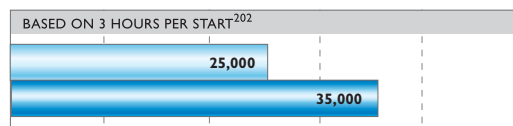
**ENERGY ADVANTAGE T5  
AND T5 HO**

Warranty Period: 42 months\*

\* Certain limitations and conditions apply.  
See Philips for further warranty details.

### RATED AVERAGE LIFE

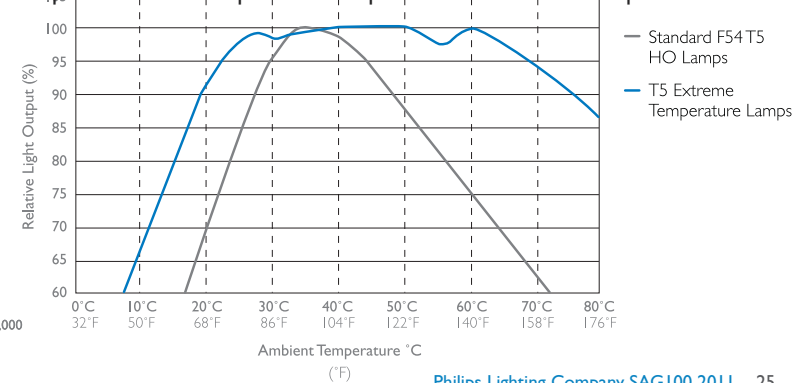
■ Philips T5 Lamps    ■ Philips Energy Advantage Lamps



T5 Miniature Bipin

### PERFORMANCE (RELATIVE LIGHT OUTPUT VS. TEMPERATURE)

Philips T5 Extreme Temperature Lamps vs. Standard F54T5 Lamps



# FLUORESCENT LAMPS

## T5, Colored Linear Fluorescent Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ENERGY ADVANTAGE T5 LAMPS —(4FT)

T5 Miniature Bipin; Programmed Start

25	40630-6	●	F28T5/830/EA/ALTO 25W	40	TL 830, 3000K	46	35,000	40,000	2900	2750	85
	40631-4	●	F28T5/835/EA/ALTO 25W	40	TL 835, 3500K	46	35,000	40,000	2900	2750	85
	40632-2	●	F28T5/841/EA/ALTO 25W	40	TL 841, 4100K	46	35,000	40,000	2900	2750	85
	41420-1	●†	F28T5/850/EA/ALTO 25W	40	TL 850, 5000K	46	35,000	40,000	2800	2660	82

### T5 HIGH EFFICIENCY LAMPS—(2FT–5 FT)

T5 Miniature Bipin; Programmed Start

14	23077-1	●	F14T5/830/ALTO	40	TL 830, 3000K	22	25,000	35,000	1350	1275	85
	23079-7	●	F14T5/835/ALTO	40	TL 835, 3500K	22	25,000	35,000	1350	1275	85
	23080-5	●	F14T5/841/ALTO	40	TL 841, 4100K	22	25,000	35,000	1350	1275	85
	41275-9	●†	F14T5/850/ALTO	40	TL 850, 5000K	22	25,000	35,000	1300	1225	82
21	23081-3	●	F21T5/830/ALTO	40	TL 830, 3000K	34	25,000	35,000	2100	2000	85
	23082-1	●	F21T5/835/ALTO	40	TL 835, 3500K	34	25,000	35,000	2100	2000	85
	23083-9	●	F21T5/841/ALTO	40	TL 841, 4100K	34	25,000	35,000	2100	2000	85
	41434-2	●†	F21T5/850/ALTO	40	TL 850, 5000K	34	25,000	35,000	2000	1900	82
28	23084-7	●Ⓢ	F28T5/830/ALTO	40	TL 830, 3000K	46	25,000	35,000	2900	2750	85
	23085-4	●Ⓢ	F28T5/835/ALTO	40	TL 835, 3500K	46	25,000	35,000	2900	2750	85
	41180-1	●Ⓢ†	F28T5/835/ALTO Sleeved	20	TL 835, 3500K	46	25,000	35,000	2900	2750	85
	23086-2	●Ⓢ	F28T5/841/ALTO	40	TL 841, 4100K	46	25,000	35,000	2900	2750	85
	41276-7	●Ⓢ†	F28T5/850/ALTO	40	TL 850, 5000K	46	25,000	35,000	2800	2660	82
35	23088-8	●	F35T5/830/ALTO	40	TL 830, 3000K	58	25,000	35,000	3650	3450	85
	23091-2	●	F35T5/835/ALTO	40	TL 835, 3500K	58	25,000	35,000	3650	3450	85
	23095-3	●	F35T5/841/ALTO	40	TL 841, 4100K	58	25,000	35,000	3650	3450	85

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### COLORED—LINEAR FLUORESCENT LAMPS—T5 HIGH OUTPUT

24	27562-8	●	F24T5/RED/HO	15	TL5HO Colored Pro 24W/150 Red	22	12,000	1400	1330	N/A
	27548-7	●	F24T5/GREEN/HO	15	TL5HO Colored Pro 24W/170 Green	22	12,000	2750	2475	N/A
	27547-9	●	F24T5/BLUE/HO	15	TL5HO Colored Pro 24W/180 Blue	22	12,000	550	440	N/A
54	27565-1	●	F54T5/RED/HO	15	TL5HO Colored Pro 54W/150 Red	46	12,000	3450	3280	N/A
	27563-6	●	F54T5/GREEN/HO	15	TL5HO Colored Pro 54W/170 Green	46	12,000	6900	6210	N/A
	27562-8	●	F54T5/BLUE/HO	15	TL5HO Colored Pro 54W/180 Blue	46	12,000	1500	1200	N/A

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

**T5 & T5 HO**  
Warranty Period: 36 months\*

\* Certain limitations and conditions apply.  
See Philips for further warranty details.

### T5 LUMENS AT 35°C AND 25°C



T5 Miniature Bipin

Lamp Type	Approx. Initial Lumens at 35°C (203, 204)	Approx. Initial Lumens at 25°C (203, 204)
F14T5	1350	1200
F21T5	2100	1900
F28T5	2900	2600
F35T5	3650	3300
F24T5/HO	2000	1800
F39T5/HO	3500	3150
F54T5/HO	5000	4500
F80T5/HO	7000	6300

# FLUORESCENT LAMPS

## T5 Circular Lamps, Preheat Fluorescent Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### T5 CIRCULAR FLUORESCENT LAMPS

2GX13 Base; Programmed Start

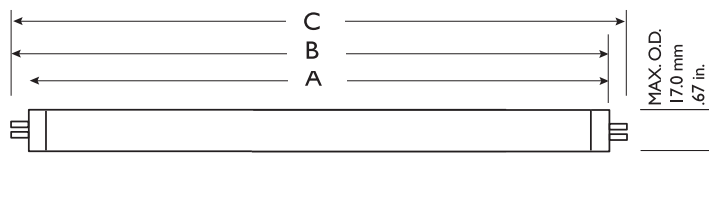
22	16601-7	\$	TL5C 22W/830	10	Formerly FC9T5/830	9 OD	16,000	1800	1530	85
	14856-9	\$	TL5C 22W/835	10	Formerly FC9T5/835	9 OD	16,000	1800	1530	85
	16600-9	\$	TL5C 22W/840	10	Formerly FC9T5/841	9 OD	16,000	1800	1530	85
40	16596-8	\$	TL5C 40W/830	10	Formerly FC12T5/830	12 OD	16,000	3300	2805	85
	14859-3	\$	TL5C 40W/835	10	Formerly FC12T5/835	12 OD	16,000	3300	2805	85
	16598-4	\$	TL5C 40W/840	10	Formerly FC12T5/841	12 OD	16,000	3300	2805	85
55	16593-6	\$	TL5C 55W/830	10	Formerly FC12T5/830/HO	12 OD	16,000	4200	3580	85
	14862-7	\$	TL5C 55W/835	10	Formerly FC12T5/835/HO	12 OD	16,000	4200	3580	85
	16592-8	\$	TL5C 55W/840	10	Formerly FC12T5/841/HO	12 OD	16,000	4200	3580	85

### PREHEAT FLUORESCENT LAMPS

T5 Miniature Bipin; Requires Use of Starters

4	33236-1		F4T5/CW	25	Cool White, 4100K	6	6000	135	95	59
	33241-1		F6T5/CW	25	Cool White, 4100K	9	7500	295	230	59
8	33242-9		F6T5/D	25	Daylight, 6500K	9	7500	230	180	73
	33247-8		F8T5/CW	25	Cool White, 4100K	12	7500	400	300	59
	20702-7		F8T5/30U	25	Ultralume, 3000K	12	7500	450	360	85
13	33249-4		F8T5/D	25	Daylight, 6500K	12	7500	330	265	73
	33253-6		F13T5/CW	25	Cool White, 4100K	21	7500	820	655	59
	20703-5		F13T5/30U	25	Ultralume, 3000K	21	7500	1000	800	85

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
 Fluorescent symbols and footnotes located on page 51



### T5 AND T5 HIGH OUTPUT DIMENSIONS (226)

Type	A Max. (Width)		B Min. (Width)		B Max. (Width)		C Max. (Width)	
	inches	mm	inches	mm	inches	mm	inches	mm
T5 14W/24W	21.61	549.0	21.80	553.7	21.89	556.1	22.17	563.2
T5 21W/39W	33.42	849.0	33.61	853.7	33.70	856.1	33.98	863.2
T5 28W/54W	45.24	1149.0	45.42	1153.7	45.52	1156.1	45.80	1163.2
T5 35W/80W	57.05	1449.0	57.23	1453.7	57.33	1456.1	57.61	1463.2

# Philips ALTO II Technology

Philips T8 Fluorescent Lamps featuring ALTO II Technology  
Better for your business, Better for the environment



ALTO lamps with green endcaps have become synonymous with environmental responsibility and low mercury. Since the launch of ALTO Lamp Technology in 1995, 2.0 billion Philips fluorescent lamps with ALTO Lamp Technology have been produced with over 20 tons less mercury than previous non-ALTO lamps<sup>1</sup>.

Philips launched ALTO II Technology in 2007. ALTO II technology has 50% less mercury than prior T8 lamps featuring ALTO technology, making these lamps the most sustainable linear fluorescents available. Best of all, these lamps offer the same performance levels as ALTO lamps (life, energy, and light output).

## PHILIPS T8 LAMP WARRANTY PERIODS

PHILIPS LAMP	WARRANTY PERIOD <sup>2</sup>
T8 17W, 25W and 32W, 700 and 800 Series	30 Months
Energy Advantage 25W and 28W	36 Months
PLUST8 17W, 25W, and 32W	36 Months
Advantage T8 32W	36 Months
T8 32W Extra Long Life	48 Months
Energy Advantage T8 25W Extra Long Life	48 Months

## DID YOU KNOW?

- ALTO II T8 lamps have warranty periods ranging from 2½–4 years<sup>3</sup>
- ALTO II T8 lamps require no burn in before dimming
- ALTO II T8 lamps can contribute to LEED-EB certification. For more information go to [www.usgbc.org](http://www.usgbc.org)

## PHILIPS T8 LAMP FAMILY—LIFE RATINGS

Products	INSTANT START <sup>4</sup>		PROGRAMMED START <sup>5</sup>	
	Rated Average Life (Hrs.)		Rated Average Life (Hrs.)	
	3 hour start	12 hour start	3 hour start	12 hour start
700 and 800 Series T8	24,000	30,000	30,000	36,000
PLUST8	30,000	36,000	36,000	42,000
Advantage T8	24,000	30,000	30,000	36,000
Energy Advantage T8 25W and 28W	30,000	36,000	36,000	42,000
32W Extra Long Life	36,000	40,000	40,000	46,000
Energy Advantage T8 25W and 28W Extra Long Life	36,000	40,000	40,000	46,000

1) [1994 industry average (22.8mg)—PLC average (4.0mg)] x 2 billion lamps. Convert to pounds by dividing by 464. Convert to tons by dividing by 2000.

2) Certain limitations and conditions apply. See Philips for further warranty details.

3) Warranty Periods: 700 & 800 Series T8—30 months; Energy Advantage T8—36 months; PLUST8—36 months; and Advantage T8—36 months; Extra Long Life T8—48 months; Energy Advantage Extra Long Life T8—48 months.

4) Average life under engineering data on instant start ballast with lamps turned off and restarted once every 3 or 12 operating hours as indicated.

5) Average life under engineering data on programmed start ballast with lamps turned off and restarted once every 3 or 12 operating hours as noted.

# FLUORESCENT LAMPS

## Energy Advantage T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ENERGY ADVANTAGE T8 25 WATT FLUORESCENT LAMPS

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

25	I3781-0	\$ ④ ●	F32T8/ADV830/XEW/ALTO 25 WATT	25	Advantage 830, 3000K	48	30,000	36,000	2500	2450	85
	I3782-8	\$ ④ ●	F32T8/ADV835/XEW/ALTO 25 WATT	25	Advantage 835, 3500K	48	30,000	36,000	2500	2450	85
	I3783-6	\$ ④ ●	F32T8/ADV841/XEW/ALTO 25 WATT	25	Advantage 841, 4100K	48	30,000	36,000	2500	2450	85
	I5238-9	\$ ④ ● †	F32T8/ADV841/XEW/ALTO 25 WATT	10	Advantage 841, 4100K, 10PK	48	30,000	36,000	2500	2450	85
	I3784-4	\$ ④ ●	F32T8/ADV850/XEW/ALTO 25 WATT	25	Advantage 850, 5000K	48	30,000	36,000	2400	2350	82

### ENERGY ADVANTAGE T8 28 WATT FLUORESCENT LAMPS

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

28	I4732-2	\$ ④ ●	F32T8/ADV830/EW/ALTO 28 WATT	25	Advantage 830, 3000K	48	30,000	36,000	2725	2645	85
	I4733-0	\$ ④ ●	F32T8/ADV835/EW/ALTO 28 WATT	25	Advantage 835, 3500K	48	30,000	36,000	2725	2645	85
	I4734-8	\$ ④ ●	F32T8/ADV841/EW/ALTO 28 WATT	25	Advantage 841, 4100K	48	30,000	36,000	2725	2645	85
	I4735-5	\$ ④ ●	F32T8/ADV850/EW/ALTO 28 WATT	25	Advantage 850, 5000K	48	30,000	36,000	2675	2595	82

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

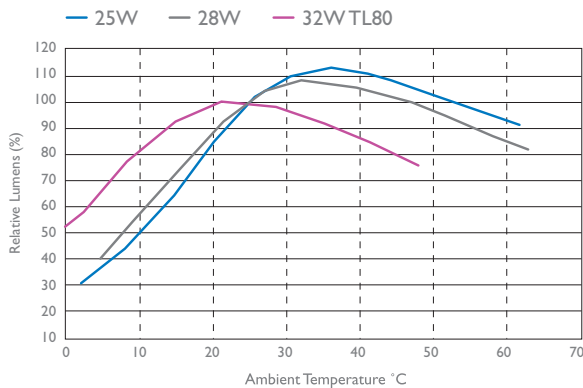
**PHILIPS ENERGY ADVANTAGE T8**

Warranty Period: 36 months\*

\* Certain limitations and conditions apply. See Philips for further warranty details.

### RELATIVE LIGHT OUTPUT VS. AMBIENT TEMP.

4' T8 Lamps—0.88 BF Ballast



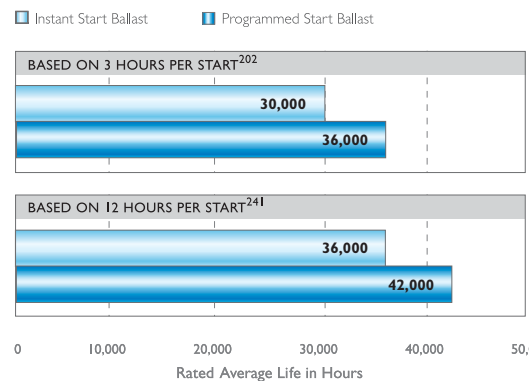
Relative light output with respect to 25°C rated temperature

### ENERGY ADVANTAGE 25W T8 SAVINGS

Save 7 Watts Instantly			
7 watts per lamp saved	Energy Savings Calculator		
	Annual Operating Hours**	Savings Over Lamp Life	
<b>KWH Rate</b>	<b>4380</b>	<b>8760</b>	<b>36,000 hrs.</b>
\$0.06	\$1.84	\$3.68	\$15.12
\$0.08	\$2.45	\$4.90	\$20.16
\$0.10	\$3.07	\$6.13	\$25.20
\$0.12	\$3.68	\$7.36	\$30.24
\$0.20	\$6.13	\$12.26	\$50.40

\*\* 4380 hours are based on operating the lamps 12 hours per day/7 days per week.  
8760 hours are based on operating the lamps 24 hours per day/7 days per week.

### RATED AVERAGE LIFE



T8 Medium Bipin

### Cost of Ownership Savings

Energy Advantage T8 fluorescent lamps vs. standard T8 lamps.

### General Overview

Energy Advantage 25WT8 fluorescent lamps provide energy savings of up to 25% versus standard 32WT8, so the benefits and financial impact can be significant.

### Benefits

By using Energy Advantage 25WT8 lamps the energy savings of 7 watts per lamp can be achieved instantly by simply changing the lamp.

### Financial Impact

Energy Savings per Lamp	7 Watts
Operating Hours per Year	8760 hours, continuous burn
Cost per kWh	\$.10

**Cost of Ownership Savings = \$6.13 per lamp per year**

# FLUORESCENT LAMPS

## Extra Long Life (XLL) T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### EXTRA LONG LIFE ENERGY ADVANTAGE 25 WATT T8 FLUORESCENT LAMP

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

25	15206-6	\$ ●	F32T8/ADV830/XLL/ALTO 25 WATT	25	Advantage 830, 3000K	48	36,000	40,000	2425	2375	85
	15207-4	\$ ●	F32T8/ADV835/XLL/ALTO 25 WATT	25	Advantage 835, 3500K	48	36,000	40,000	2425	2375	85
	15208-2	\$ ●	F32T8/ADV841/XLL/ALTO 25 WATT	25	Advantage 841, 4100K	48	36,000	40,000	2425	2375	85
	15209-0	\$ ●	F32T8/ADV850/XLL/ALTO 25 WATT	25	Advantage 850, 5000K	48	36,000	40,000	2325	2275	82

### EXTRA LONG LIFE ENERGY ADVANTAGE 28 WATT T8 FLUORESCENT LAMP

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

28	23454-2	●	F32T8/ADV830/XLL/ALTO 28 WATT	25	Advantage 830, 3000K	48	36,000	40,000	2675	2600	85
	23726-3	●	F32T8/ADV835/XLL/ALTO 28 WATT	25	Advantage 835, 3500K	48	36,000	40,000	2675	2600	85
	16933-4	●	F32T8/ADV841/XLL/ALTO 28 WATT	25	Advantage 841, 4100K	48	36,000	40,000	2675	2600	85
	16938-3	●	F32T8/ADV850/XLL/ALTO 28 WATT	25	Advantage 850, 5000K	48	36,000	40,000	2625	2550	82

### EXTRA LONG LIFE 32 WATT T8 FLUORESCENT LAMPS

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

32	15202-5	\$ ④ ●	F32T8/TL830/XLL/ALTO	25	TL 830, 3000K	48	36,000	40,000	2950	2800	85
	15203-3	\$ ④ ●	F32T8/TL835/XLL/ALTO	25	TL 835, 3500K	48	36,000	40,000	2950	2800	85
	15204-1	\$ ④ ●	F32T8/TL841/XLL/ALTO	25	TL 841, 4100K	48	36,000	40,000	2950	2800	85
	15205-8	\$ ④ ●	F32T8/TL850/XLL/ALTO	25	TL 850, 5000K	48	36,000	40,000	2850	2700	82

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

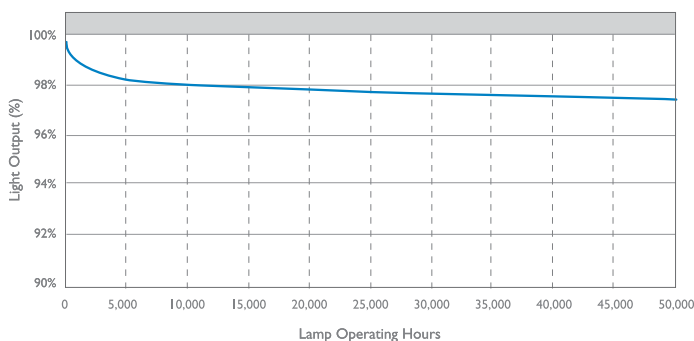
**PHILIPS EXTRA  
LONG LIFE T8**

Warranty Period: 48 months\*

\* Certain limitations and conditions apply. See Philips for further warranty details.

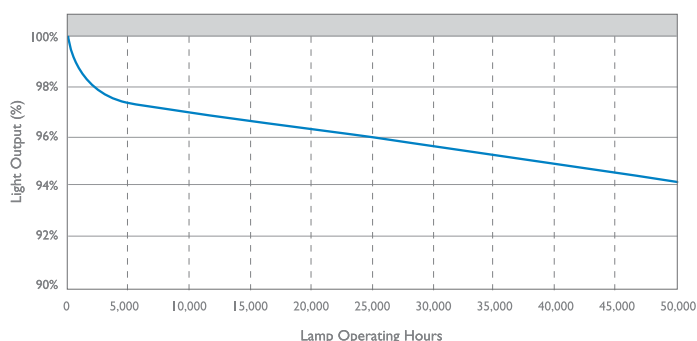
### 98% LUMEN MAINTENANCE

Philips Energy Advantage T8 25W XEW and XLL Lamps



### 97% LUMEN MAINTENANCE

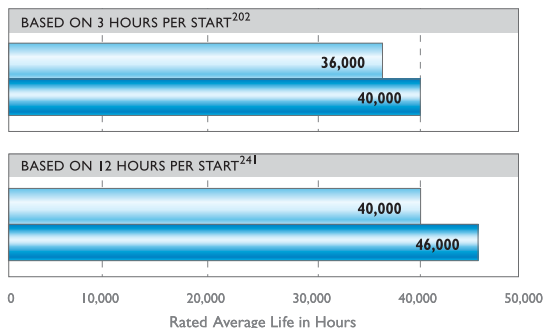
Philips Energy Advantage T8 28W XEW and XLL Lamps



### RATED AVERAGE LIFE

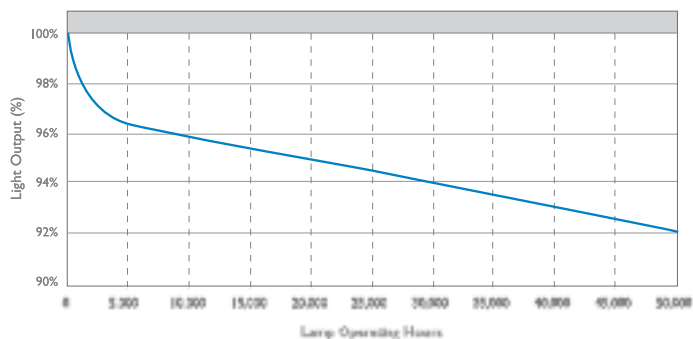


Instant Start Ballast   Programmed Start Ballast



### 95% LUMEN MAINTENANCE

Philips T8 32W XLL Lamps



# FLUORESCENT LAMPS

## Advantage T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208, 239)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ADVANTAGE T8 HIGH LUMEN FLUORESCENT LAMPS

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

17	20483-4	\$ ④ ●	F17T8/ADV830/ALTO	25	Advantage 830, 3000K	24	24,000	30,000	1500	1450	85
	20484-2	\$ ④ ●	F17T8/ADV835/ALTO	25	Advantage 835, 3500K	24	24,000	30,000	1500	1450	85
	20485-9	\$ ④ ●	F17T8/ADV841/ALTO	25	Advantage 841, 4100K	24	24,000	30,000	1500	1450	85
	20487-5	\$ ④ ●	F17T8/ADV850/ALTO	25	Advantage 850, 5000K	24	24,000	30,000	1425	1380	82
25	20488-3	\$ ④ ●	F25T8/ADV830/ALTO	25	Advantage 830, 3000K	36	24,000	30,000	2380	2300	85
	20490-9	\$ ④ ●	F25T8/ADV835/ALTO	25	Advantage 835, 3500K	36	24,000	30,000	2380	2300	85
	20495-8	\$ ④ ●	F25T8/ADV841/ALTO	25	Advantage 841, 4100K	36	24,000	30,000	2380	2300	85
	20498-2	\$ ④ ●	F25T8/ADV850/ALTO	25	Advantage 850, 5000K	36	24,000	30,000	2275	2210	82
32	13987-3	□ \$ ④ ●	F32T8/ADV830/ALTO	25	Advantage 830, 3000K	48	24,000	30,000	3100	3000	85
	13988-1	□ \$ ④ ●	F32T8/ADV835/ALTO	25	Advantage 835, 3500K	48	24,000	30,000	3100	3000	85
	13989-9	□ \$ ④ ●	F32T8/ADV841/ALTO	25	Advantage 841, 4100K	48	24,000	30,000	3100	3000	85
	13990-7	□ \$ ④ ●	F32T8/ADV850/ALTO	25	Advantage 850, 5000K	48	24,000	30,000	3000	2910	82

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

**PHILIPS ADVANTAGE T8**

Warranty Period: 36 months\*

\* Certain limitations and conditions apply. See Philips for further warranty details.

### ENERGY SAVINGS: TWO LAMP VS. TWO LAMP SYSTEM

Electronic Ballast	Ballast Factor	No. of Lamps	Lamp Watts	Standard T8 Lumens	Advantage T8 Lumens	System Watts	Savings
Standard T8	0.87	2	32	2850	—	58	—
Reduced Light Output T8	0.75	2	32	—	3100	51	\$2.80/yr

Combine Advantage T8 lamps with reduced light output electronic ballasts, with these results:

- Saves 7 system watts vs. standard T8 system
- Saves \$2.80 per fixture per year
- Energy savings based on 4000 hrs/yr @ \$.10 kw/hr

### ENERGY SAVINGS: TWO LAMP VS. THREE LAMP SYSTEM

Electronic Ballast	Ballast Factor	No. of Lamps	Lamp Watts	Standard T8 Lumens	Advantage T8 Lumens	System Watts	Savings
Standard T8	0.87	3	32	2850	—	88	—
Increased Light Output T8	1.20	2	32	—	3100	78	\$4.00/yr

Combine advantage T8 lamps with increased light output ballasts. A two lamp advantage T8 system vs. a three lamp standard T8 system will:

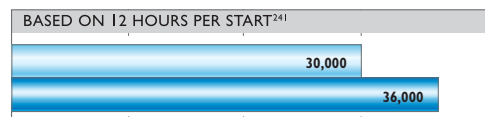
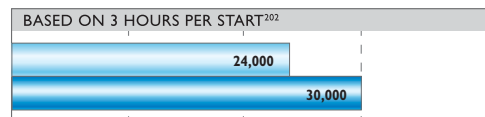
- Save 10 system watts
- Save \$4.00 per fixture per year
- Save energy based on 4000 hrs/yr @ \$.10 kw/hr
- Reduce lighting installation costs (lamps, ballasts, fixtures and labor)
- Operate on ballast with ballast factors up to 1.32 with warranty intact



T8 Medium Bipin

### RATED AVERAGE LIFE

- Philips Advantage Instant Start Ballast
- Philips Advantage Programmed Start Ballast



Rated Average Life in Hours



# FLUORESCENT LAMPS

## PLUS 800 Series T8 Lamps, PLUS 700 Series T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208, 239)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### PLUS 800 SERIES LONG LIFE T8 FLUORESCENT LAMPS

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

17	I4552-4	\$ @ ●	F17T8/TL830/PLUS/ALTO	25	TL 830, 3000K	24	30,000	36,000	1400	1330	85
	I4553-2	\$ @ ●	F17T8/TL835/PLUS/ALTO	25	TL 835, 3500K	24	30,000	36,000	1400	1330	85
	I4554-0	\$ @ ●	F17T8/TL841/PLUS/ALTO	25	TL 841, 4100K	24	30,000	36,000	1400	1330	85
	I4555-7	\$ @ ●	F17T8/TL850/PLUS/ALTO	25	TL 850, 5000K	24	30,000	36,000	1325	1260	82
	38215-0	\$ @ ●	F17T8/TL865/PLUS/ALTO	25	TL 865, 6500K	24	30,000	36,000	1275	1210	82
25	I4556-5	\$ @ ●	F25T8/TL830/PLUS/ALTO	25	TL 830, 3000K	36	30,000	36,000	2225	2115	85
	I4557-3	\$ @ ●	F25T8/TL835/PLUS/ALTO	25	TL 835, 3500K	36	30,000	36,000	2225	2115	85
	I4558-1	\$ @ ●	F25T8/TL841/PLUS/ALTO	25	TL 841, 4100K	36	30,000	36,000	2225	2115	85
	I4559-9	\$ @ ●	F25T8/TL850/PLUS/ALTO	25	TL 850, 5000K	36	30,000	36,000	2150	2040	82
	38258-0	\$ @ ●	F25T8/TL865/PLUS/ALTO	25	TL 865, 6500K	36	30,000	36,000	2125	2000	82
32	36000-8	\$ @ ●	F32T8/TL830/PLUS/ALTO	25	TL 830, 3000K	48	30,000	36,000	2950	2800	85
	36001-6	\$ @ ●	F32T8/TL835/PLUS/ALTO	25	TL 835, 3500K	48	30,000	36,000	2950	2800	85
	36002-4	\$ @ ●	F32T8/TL841/PLUS/ALTO	25	TL 841, 4100K	48	30,000	36,000	2950	2800	85
	20277-0	\$ @ ● †	F32T8/TL841/PLUS/ALTO	10	TL 841, 4100K, 10 PK	48	30,000	36,000	2950	2800	85
	36003-2	\$ @ ●	F32T8/TL850/PLUS/ALTO	25	TL 850, 5000K	48	30,000	36,000	2850	2710	82
	38261-4	\$ @ ● ✗	F32T8/TL865/PLUS/ALTO	25	TL 865, 6500K	48	30,000	36,000	2750	2610	82

### PLUS 700 SERIES LONG LIFE T8 FLUORESCENT LAMPS

T8 Medium Bipin Featuring ALTO II Technology and HI-VISION Phosphor

32	36004-0	\$ @ ● ✗	F32T8/TL730/PLUS/ALTO	25	TL 730, 3000K	48	30,000	36,000	2800	2660	78
	36005-7	\$ @ ● ✗	F32T8/TL735/PLUS/ALTO	25	TL 735, 3500K	48	30,000	36,000	2800	2660	78
	36013-1	\$ @ ● ✗	F32T8/TL741/PLUS/ALTO	25	TL 741, 4100K	48	30,000	36,000	2800	2660	78
	36014-9	\$ @ ● ✗	F32T8/TL750/PLUS/ALTO	25	TL 750, 5000K	48	30,000	36,000	2700	2550	78

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

✗ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012

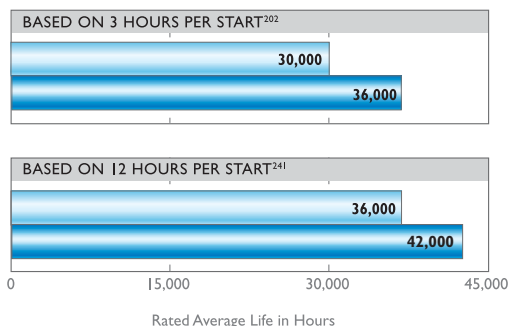
### PHILIPS PLUS 700 SERIES AND 800 SERIES T8

Warranty Period: 36 months\*

\* Certain limitations and conditions apply. See Philips for further warranty details.

### RATED AVERAGE LIFE

- Philips PLUS Instant Start Ballast
- Philips PLUS Programmed Start Ballast



T8 Medium Bipin

# FLUORESCENT LAMPS

## 800 Series T8 Lamps, 700 Series T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208, 239)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### 800 SERIES T8 FLUORESCENT LAMPS

#### T8 Medium Bipin Featuring ALTO II Technology

17	36791-2	\$ ●	F17T8/TL835/ALTO	25	TL 835, 3500K	24	24,000	30,000	1350	1280	85
	36793-8	\$ ●	F17T8/TL841/ALTO	25	TL 841, 4100K	24	24,000	30,000	1350	1280	85
	14123-4	\$ ●	F17T8/TL850/ALTO	25	TL 850, 5000K	24	24,000	30,000	1300	1235	82
25	36814-2	\$ ●	F25T8/TL835/ALTO	25	TL 835, 3500K	36	24,000	30,000	2150	2040	85
	36825-8	\$ ●	F25T8/TL841/ALTO	25	TL 841, 4100K	36	24,000	30,000	2150	2040	85
	14124-2	\$ ●	F25T8/TL850/ALTO	25	TL 850, 5000K	36	24,000	30,000	2150	2040	82
32	24667-8	\$ ④ ●	F32T8/TL830/ALTO	25	TL 830, 3000K	48	24,000	30,000	2850	2710	85
	24670-2	\$ ④ ●	F32T8/TL835/ALTO	25	TL 835, 3500K	48	24,000	30,000	2850	2710	85
	24671-0	\$ ④ ●	F32T8/TL841/ALTO	25	TL 841, 4100K	48	24,000	30,000	2850	2710	85
	27235-1	\$ ④ ●	F32T8/TL841/ALTO PLZ	1350	TL 841, 4100K	48	24,000	30,000	2850	2710	85
	27229-4	\$ ④ ●	F32T8/TL850/ALTO	25	TL 850, 5000K	48	24,000	30,000	2850	2710	82
40	36831-6	\$ ●	F40T8/TL830/ALTO	25	TL 830, 3000K	60	24,000	30,000	3725	3500	85
	36834-0	\$ ●	F40T8/TL835/ALTO	25	TL 835, 3500K	60	24,000	30,000	3725	3500	85
	36847-2	\$ ●	F40T8/TL841/ALTO	25	TL 841, 4100K	60	24,000	30,000	3725	3500	85
	20698-7	\$ ●	F40T8/TL850/ALTO	25	TL 850, 5000K	60	24,000	30,000	3600	3500	82

### 700 SERIES T8 FLUORESCENT LAMPS

#### T8 Medium Bipin Featuring ALTO II Technology

32	27252-6	\$ ④ ● ∅	F32T8/TL730/ALTO	25	TL 730, 3000K	48	24,000	30,000	2700	2565	78
	27249-2	\$ ④ ● ∅	F32T8/TL735/ALTO	25	TL 735, 3500K	48	24,000	30,000	2700	2565	78
	27259-1	\$ ④ ● ∅	F32T8/TL735/ALTO PLZ	1350	TL 735, 3500K	48	24,000	30,000	2700	2565	78
	27248-4	\$ ④ ● ∅	F32T8/TL741/ALTO	25	TL 741, 4100K	48	24,000	30,000	2700	2565	78
	38351-3	\$ ④ ● ∅	F32T8/TL741/ALTO	10	TL 741, 4100K, 10PK	48	24,000	30,000	2700	2565	78
	27255-9	\$ ④ ● ∅	F32T8/TL741/ALTO PLZ	1350	TL 741, 4100K	48	24,000	30,000	2700	2565	78
	27268-2	\$ ④ ● ∅	F32T8/TL750/ALTO	25	TL 750, 5000K	48	24,000	30,000	2600	2470	78

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

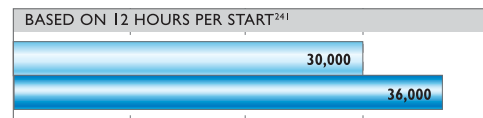
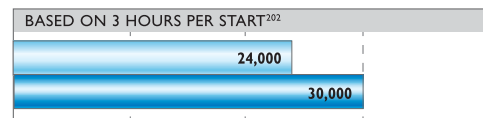
∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012

**PHILIPS 700 SERIES  
AND 800 SERIES T8**  
Warranty Period: 30 months\*

\* Certain limitations and conditions apply. See Philips for further warranty details.

### RATED AVERAGE LIFE

- Philips Universal Instant Start Ballast
- Philips Universal Programmed Start Ballast



T8 Medium Bipin

0 10,000 20,000 30,000 40,000  
Rated Average Life in Hours

# FLUORESCENT LAMPS

## T8 U-Bent Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ENERGY ADVANTAGE U-BENT 6" T8 FLUORESCENT LAMPS

#### T8 Medium Bipin with 6" Wide Spacing (212)

25	20420-6	\$●	FB32T8/ADV830/6/XEW/ALTO 25 WATT	20	TL 830, 3000K	22%	24,000	30,000	2400	2330	85
	20421-4	\$●	FB32T8/ADV835/6/XEW/ALTO 25 WATT	20	TL 835, 3500K	22%	24,000	30,000	2400	2330	85
	20423-0	\$●	FB32T8/ADV841/6/XEW/ALTO 25 WATT	20	TL 841, 4100K	22%	24,000	30,000	2400	2330	85
	20424-8	\$●	FB32T8/ADV850/6/XEW/ALTO 25 WATT	20	TL 850, 5000K	22%	24,000	30,000	2350	2280	82

### 800 SERIES U-BENT RAPID START T8 FLUORESCENT LAMPS

#### T8 Medium Bipin with 6" Wide Spacing (212)

32	37897-6	\$●	FB32T8/TL830/6/ALTO	20	TL 830, 3000K	22%	24,000	30,000	2800	2535	85
	37900-8	\$●	FB32T8/TL835/6/ALTO	20	TL 835, 3500K	22%	24,000	30,000	2800	2535	85
	37902-4	\$●	FB32T8/TL841/6/ALTO	20	TL 841, 4100K	22%	24,000	30,000	2800	2535	85
	37880-2	\$●	FB32T8/TL850/6/ALTO	20	TL 850, 5000K	22%	24,000	30,000	2700	2450	82

### 700 SERIES U-BENT RAPID START T8 FLUORESCENT LAMPS

#### T8 Medium Bipin with 6" Wide Spacing (212)

32	37892-7	\$●∅	FB32T8/TL730/6/ALTO	20	TL 730, 3000K	22%	20,000	24,000	2650	2370	78
	37893-5	\$●∅	FB32T8/TL735/6/ALTO	20	TL 735, 3500K	22%	20,000	24,000	2650	2370	78
	37894-3	\$●∅	FB32T8/TL741/6/ALTO	20	TL 741, 4100K	22%	20,000	24,000	2650	2370	78
	37882-8	\$●∅	FB32T8/TL750/6/ALTO	20	TL 750, 5000K	22%	20,000	24,000	2600	2325	78

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### ENERGY ADVANTAGE U-BENT 1 1/8" T8 FLUORESCENT LAMPS

#### T8 Medium Bipin with 1 1/8" Wide Spacing (212)

29	22675-3	●	FB29T8/TL830/EA/ALTO	15	TL 830, 3000K	22%	24,000	2600	2470	85
	22676-1	●	FB29T8/TL835/EA/ALTO	15	TL 835, 3500K	22%	24,000	2600	2470	85
	22677-9	●	FB29T8/TL841/EA/ALTO	15	TL 841, 4100K	22%	24,000	2600	2470	85

### 800 SERIES U-BENT 1 1/8" T8 FLUORESCENT LAMPS

#### T8 Medium Bipin with 1 1/8" Wide Spacing (212)

31	22671-2	●	FB31T8/TL830/ALTO	15	TL 830, 3000K	22%	24,000	2775	2636	85
	22672-0	●	FB31T8/TL835/ALTO	15	TL 835, 3500K	22%	24,000	2775	2636	85
	22674-6	●	FB31T8/TL841/ALTO	15	TL 841, 4100K	22%	24,000	2775	2636	85

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



#### PHILIPS STANDARD AND 1 1/8" U-BENT T8

Warranty Period: 24 months\*

#### PHILIPS ENERGY ADVANTAGE U-BENT T8

Warranty Period: 36 months\*

\* Certain limitations and conditions apply.  
See Philips for further warranty details.

# FLUORESCENT LAMPS

## Rapid Start T8 Lamps, Preheat T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### RAPID START T8 FLUORESCENT LAMPS

#### T8 Medium Bipin; High CRI

17	22154-9	\$	F17T8/TL950	25	TL 950, 5000K	24	20,000	20,000	910	850	98
25	22159-8	\$	F25T8/TL950	25	TL 950, 5000K	36	20,000	20,000	1550	1450	98
32	20904-9	\$	F32T8/TL930	25	TL 930, 3000K	48	20,000	20,000	2000	1860	95
	20905-6	\$	F32T8/TL950	25	TL 950, 5000K	48	20,000	20,000	2000	1860	98

### TL-D RAPID START T8 FLUORESCENT LAMPS—FOR OPERATION ON EUROPEAN BALLAST

#### T8 Medium Bipin; High CRI

36	29189-8		TLD36W/840NG	25	TL840, 4000K	48	20,000	—	3350	3100	82
58	29184-9		TLD58W/840NG	25	TL840, 4000K	60	20,000	—	5200	4300	82
70	29186-4		TLD70W/840NG	25	TL840, 4000K	72	20,000	—	6200	5100	82

### PREHEAT T8 FLUORESCENT LAMPS

#### T8 Medium Bipin Linear Fluorescent Lamps; Requires Use of Starters (202)

15	40720-5	†	F15T8D	25	Daylight, 6500K	18	7500	—	750	660	73
	40719-7	†	F15T8/CW	25	Cool White, 4100K	18	7500	—	870	765	59
	36436-4		F15T8/CW BULK	96	Cool White, 4100K	18	7500	—	850	750	59
	39226-6		F15T8/PLANT	6	Plant Lite, Sleeved	18	7500	—	410	N/A	N/A
30	23545-7	●†	F30T8/CW/ALTO	25	Cool White, 4100K	36	7500	—	2200	2000	59

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51



T8 Medium Bipin

# FLUORESCENT LAMPS

## Slimline T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ENERGY ADVANTAGE T8 SLIMLINE 8-FOOT FLUORESCENT LAMPS

T8 Single Pin; Featuring ALTO Lamp Technology; Instant Start

51	I6321-2	☐\$@●	F96T8/ADV835/XEW/ALTO 51W	25	TL 835, 3500K	96	24,000	30,000	5300	4940	85
	I6331-1	☐\$@●	F96T8/ADV841/XEW/ALTO 51W	25	TL 841, 4100K	96	24,000	30,000	5300	4940	85
	I6457-4	☐\$@●	F96T8/ADV850/XEW/ALTO 51W	25	TL 850, 5000K	96	24,000	30,000	5200	4840	82

### PLUS SLIMLINE T8 8-FOOT FLUORESCENT LAMPS

T8 Single Pin; Featuring ALTO Lamp Technology; Instant Start

59	23684-4	☐\$@●	F96T8/TL835/PLUS/ALTO	25	TL 835, 3500K	96	24,000	30,000	5900	5490	85
	23685-1	☐\$@●	F96T8/TL841/PLUS/ALTO	25	TL 841, 4100K	96	24,000	30,000	5900	5490	85
	23686-9	☐\$@●	F96T8/TL850/PLUS/ALTO	25	TL 850, 5000K	96	24,000	30,000	5780	5375	82
	23681-0	☐\$@●∅	F96T8/TL735/PLUS/ALTO	25	TL 735, 3500K	96	24,000	30,000	5700	5190	78
	23682-8	☐\$@●∅	F96T8/TL741/PLUS/ALTO	25	TL 741, 4100K	96	24,000	30,000	5700	5190	78

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

#### PHILIPS XEW SLIMLINE T8

Warranty Period: 30 months\*

#### PHILIPS PLUS SLIMLINE T8

Warranty Period: 24 months\*

\* Certain limitations and conditions apply.  
See Philips for further warranty details.

### PLUS SLIMLINE T8 8-FOOT COST OF OWNERSHIP SAVINGS

PLUS Slimline 8-foot T8 Fluorescent Lamps vs. Standard 8-foot T8 Lamps

#### General Overview

PLUS Slimline 8-foot T8 fluorescent lamps may provide up to 60% longer life than standard 8-foot T8 products. With an incremental cost as little as \$1.00 per lamp, benefits and financial impact can be significant.

#### Benefits

By using PLUS Slimline 8-foot T8 lamps, the lamp replacement and labor costs are extended by an extra 2 years on a facility that operates an average of 4000 hours per year. For example, a standard 8-foot T8 product, with a rated average life expectancy of 15,000 hours, will last nearly 4 years (15,000 hours rated average life / 4000 hours per year = 3¾ years).

Conversely, PLUS Slimline 8-foot T8 lamps will operate for 6 years due to their rated average life expectancy of 24,000 hours (24,000 hours rated average life / 4000 hours per year = 6 years).

#### Financial Impact

With the extended life expectancy of 2 years and the benefits of Philips exclusive TCLP-compliant low mercury technology, the positive financial impact of installing PLUS Slimline 8-foot T8 lamps may provide cost of ownership savings per lamp as follows:

Incremental Cost	\$ (1.00)
Material Cost Avoidance <sup>A</sup>	\$ 4.00
Labor Cost Avoidance <sup>B</sup>	\$ 3.72
Disposal Cost Avoidance <sup>C</sup>	\$ 0.72
<b>Cost of Ownership Savings</b>	<b>\$ 7.44</b>

**A** Material Cost Avoidance is the annualized acquisition cost per lamp (average cost per lamp of \$7.50 for standard 8-Foot T8 product / 3 3/4 years = \$2.00 per year). By installing PLUS Slimline 8-Foot T8 lamps, a material cost per lamp of \$4.00 is avoided due to the extra 2 years of life expectancy. Note that the average cost per lamp may vary.

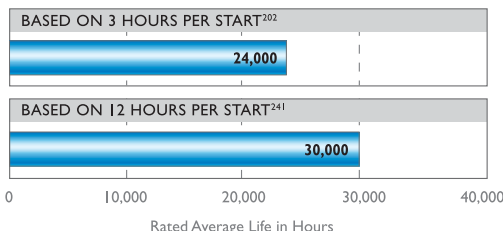
**B** Labor Cost Avoidance is the annualized labor replacement cost per lamp (labor replacement cost per lamp of \$7.00 / 3 years = \$1.86 per year). By installing PLUS Slimline 8-Foot T8 lamps, a labor replacement cost per lamp of \$3.72 is avoided due to the extra 2 years life expectancy. Note that the labor replacement cost per lamp may vary.

**C** Disposal Cost Avoidance is based on an average of \$.09 per foot for lamp recycling or \$.72 per 8-foot lamp. Philips Lighting Company encourages the recycling of all fluorescent lamps.



### RATED AVERAGE LIFE

■ Philips PLUS Slimline T8



# FLUORESCENT LAMPS

## High Output T8 Lamps, Very High Output T8 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### PLUS HIGH OUTPUT (HO) T8 8-FOOT FLUORESCENT LAMPS

T8 Recessed D.C.; Featuring ALTO Lamp Technology

86	23687-7	☐ \$ ③ ●	F96T8/TL835/HO/PLUS/ALTO	25	TL 835, 3500K	96	24,000	30,000	8200	7625	85
	23688-5	☐ \$ ③ ●	F96T8/TL841/HO/PLUS/ALTO	25	TL 841, 4100K	96	24,000	30,000	8200	7625	85
	23689-3	☐ \$ ③ ●	F96T8/TL850/HO/PLUS/ALTO	25	TL 850 5000K	96	24,000	30,000	8100	7550	82

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### HIGH OUTPUT (HO) T8 FLUORESCENT LAMPS—4 FOOT, 5 FOOT & 6 FOOT

T8 Recessed D.C.; Featuring ALTO Lamp Technology

44	23679-4	☐ \$ ●	F48T8/TL841/HO/ALTO	25	TL 841, 4100K	48	18,000	4000	3600	85
55	41168-6	☐ \$ ● †	F60T8/TL841/HO/ALTO	25	TL 841, 4100K	60	18,000	5050	4545	85
65	23680-2	☐ \$ ●	F72T8/TL841/HO/ALTO	25	TL 841, 4100K	72	18,000	6100	5490	85

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### VERY HIGH OUTPUT-OUTDOOR (VHO-O) T8 EXTREME TEMPERATURE FLUORESCENT LAMPS

T8 Medium Bipin; Featuring ALTO Lamp Technology

84	40888-0	● †	F48T8/TL835/VHO-O/ALTO	25	TL 835, 3500K	48	30,000	40,000	7200	6840	85
	40889-8	● †	F48T8/TL841/VHO-O/ALTO	25	TL 841, 4100K	48	30,000	40,000	7200	6840	85
	40887-2	● †	F48T8/TL850/VHO-O/ALTO	25	TL 850, 5000K	48	30,000	40,000	6900	6550	82

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51

**PHILIPS PLUS HIGH OUTPUT,  
HIGH OUTPUT AND  
VERY HIGH OUTPUT T8**  
Warranty Period: 24 months\*

\* Certain limitations and conditions apply.  
See Philips for further warranty details.



T8 Recessed DC



T8 Medium Bipin

# FLUORESCENT LAMPS

## Rapid Start T12 Lamps, T12 U-Bent Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ADVANTAGE RAPID START ULTIMATE PERFORMANCE T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

34	I4258-8	● X	F34T12/ADV35/EW/ALTO	30	Advantage 35, T12, 3500K	48	24,000	30,000	3100	2945	85
	I4259-6	● X	F34T12/ADV41/EW/ALTO	30	Advantage 41, T12, 4100K	48	24,000	30,000	3100	2945	82
	I4260-4	● X	F34T12/ADV50/EW/ALTO	30	Advantage 50, T12, 5000K	48	24,000	30,000	3000	2845	82

### RAPID START "LONG LIFE" T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

34	I4251-3	● ∅	F34/CW/RS/EW/LL/ALTO	30	Cool White, 4100K	48	24,000	30,000	2650	2300	59
	I4252-1	● ∅ X	F34/MW/RS/EW/LL/ALTO	30	Warm White, 3000K	48	24,000	30,000	2700	2350	49

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### RAPID START 800 SERIES T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

34	I4253-9	● ∅	F34T12/830/EW/ALTO	30	TL 830, 3000K	48	20,000	2800	2660	82
	I4254-7	● ∅	F34T12/835/EW/ALTO	30	TL 835, 3500K	48	20,000	2800	2660	82
	I4255-4	● ∅	F34T12/841/EW/ALTO	30	TL 841, 4100K	48	20,000	2800	2660	82
	I4256-2	● ∅	F34T12/850/EW/ALTO	30	TL 850, 5000K	48	20,000	2800	2660	82

### RAPID START T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

34	26659-3	● ●	F34/DX/RS/EW/ALTO	30	Daylight Deluxe, 6500K	48	20,000	2025	1775	90
	24470-7	● ● ∅	F34/CW/RS/EW/ALTO	30	Cool White, 4100K	48	20,000	2650	2300	59
	22046-7	● ● ∅	F34/CW/RS/EW/ALTO	10	Cool White, 4100K, 10PK	48	20,000	2650	2300	59
	25686-7	● ● ∅	F34/MW/RS/EW/ALTO	30	Warm White, 3000K	48	20,000	2575	2200	49

### U-BENT T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

34	37872-9	● ● ∅	FB34/SPEC35/6/EW/ALTO	12	SPEC35, 3500K	22 $\frac{1}{16}$	18,000	2760	2500	73
	37874-5	● ● ∅	FB34/SPEC41/6/EW/ALTO	12	SPEC41, 4100K	22 $\frac{1}{16}$	18,000	2760	2500	70
	37863-8	● ∅	FB34/CW/6/EW/ALTO	12	Cool White, 4100K	22 $\frac{1}{16}$	18,000	2400	2050	59
	37862-0	● ∅	FB34/MW/6/EW/ALTO	12	Warm White, 3000K	22 $\frac{1}{16}$	18,000	2400	2050	49

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



T12 Medium Bipin

T12 U-Bent  
Medium Bipin

# FLUORESCENT LAMPS

## Rapid Start T12 Lamps, T12 U-Bent Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### ADVANTAGE RAPID START T12 ULTIMATE PERFORMANCE FLUORESCENT LAMPS

#### T12 Medium Bipin

40	26604-9	□ ● ∅	F40T12/ADV830/ALTO	30	Advantage 30, T12, 3000K	48	24,000	30,000	3450	3300	85
	26631-2	□ ● ∅	F40T12/ADV835/ALTO	30	Advantage 35, T12, 3500K	48	24,000	30,000	3450	3300	85
	26640-3	□ ● ∅	F40T12/ADV841/ALTO	30	Advantage 41, T12, 4100K	48	24,000	30,000	3450	3300	85
	26643-7	□ ● ∅	F40T12/ADV850/ALTO	30	Advantage 50, T12, 5000K	48	24,000	30,000	3300	3150	82

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### RAPID START T12 800 SERIES FLUORESCENT LAMPS

#### T12 Medium Bipin

40	14261-2	● ∅	F40T12/830/ALTO	30	TL 830, 3000K	48	20,000	3200	3040	82
	14262-0	● ∅	F40T12/835/ALTO	30	TL 835, 3500K	48	20,000	3200	3040	82
	14263-8	● ∅	F40T12/841/ALTO	30	TL 841, 4100K	48	20,000	3200	3040	82
	14264-6	● ∅	F40T12/850/ALTO	30	TL 850, 5000K	48	20,000	3150	3000	82

### RAPID START T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

40	30203-4		F40/C50	30	Colortone 50, 5000K	48	20,000	2200	1915	92
	27359-9	●	F40/DX/ALTO	30	Daylight Deluxe, 6500K	48	20,000	2325	2025	90
	36765-6	●	F40/CWX ALTO	30	Cool White Deluxe, 4200K	48	20,000	2550	2100	89
	39228-2		F40/PLANT	6	Plant Light, Sleeved	48	20,000	1600	1360	—

### U-BENT T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

40	37866-1	● ∅	FB40/SPEC30/6/ALTO	12	SPEC30, 3000K	22 $\frac{1}{2}$	18,000	2950	2700	70
	37854-7	● ∅	FB40/SPEC35/6/ALTO	12	SPEC35, 3500K	22 $\frac{1}{2}$	18,000	2950	2700	73
	37868-7	● ∅	FB40/SPEC41/6/ALTO	12	SPEC41, 4100K	22 $\frac{1}{2}$	18,000	2950	2700	70
	21993-1		FB40/DX/6	12	Daylight Deluxe, 6500K	22 $\frac{1}{2}$	18,000	2250	1950	90

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



T12 Medium Bipin



T12 U-Bent Medium Bipin



# FLUORESCENT LAMPS

## Rapid Start T12 Lamps, Preheat T12 Lamps, Slimline T12 Fluorescent Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### RAPID START T12 FLUORESCENT LAMPS

#### T12 Medium Bipin

25	27247-6	\$ ● X	F25T12/CW/RS/EW/ALTO	30	Cool White, 4100K	36	18,000	1950	1650	59
30	37649-1	●	F30T12/D/RS/ALTO	30	Daylight, 6500K	36	18,000	1950	1700	73
	27242-7	●	F30T12/CW/RS/ALTO	30	Cool White, 4100K	36	18,000	2250	1900	59
	13221-7	●	F30T12/WW/RS/ALTO	30	Warm White, 3000K	36	18,000	2300	1950	49

### PREHEAT T12 FLUORESCENT LAMPS

#### T12 Medium Bipin Linear Fluorescent Lamps

14	14151-5		F14T12/CW	30	Cool White, 4100K	15	9000	710	590	59
20	27328-4	●	F20T12/D/ALTO	30	Daylight, 6500K	24	9000	960	960	73
	27332-6	●	F20T12/CW/ALTO	30	Cool White, 4100K	24	9000	1200	1050	59
	27349-0	●	F20T12/WW/ALTO	30	Warm White, 3000K	24	9000	1250	1100	49
	39227-4		F20T12/PLANT	6	Plant Lite, Sleeved	24	9000	600	500	—

### SLIMLINET12 800 SERIES FLUORESCENT LAMPS

#### T12 Single Pin Linear Fluorescent Lamps; Instant Start

60	14270-3	●	F96T12/835/EW/ALTO	15	TL835, 3500K	96	12,000	5800	5550	84
	14271-1	●	F96T12/841/EW/ALTO	15	TL841, 4100K	96	12,000	5800	5550	82
	14272-9	●	F96T12/850/EW/ALTO	15	TL850, 5000K	96	12,000	5700	5450	82
75	14274-5	● ∅	F96T12/835/ALTO	15	TL835, 3500K	96	12,000	6600	6225	85
	14275-2	● ∅	F96T12/841/ALTO	15	TL841, 4100K	96	12,000	6600	6225	85
	14276-0	● ∅	F96T12/850/ALTO	15	TL850, 5000K	96	12,000	6500	6125	82

### SLIMLINET12 FLUORESCENT LAMPS

#### T12 Single Pin Linear Fluorescent Lamps; Instant Start

30	14140-8	\$	F36T12/CW	30	Cool White, 4100K	36	7500	1850	1630	59
39	36219-4	●	F48T12/D/ALTO	15	Daylight, 6500K	48	9000	2500	2220	73
56	36985-0	●	F72T12/D/ALTO	15	Daylight, 6500K	72	12,000	3800	3350	73
	36989-2	●	F72T12/CW/ALTO	15	Cool White, 4100K	72	12,000	4450	3900	59
60	36654-2	●	F96T12/DX/EW/ALTO	15	Daylight Deluxe, 6500K	96	12,000	4050	3550	90
	25840-0	● ∅	F96T12/CW/EW/ALTO	15	Cool White, 4100K	96	12,000	5400	4750	59
75	34170-1		F96T12/C50	15	Colortone 50, 5000K	96	12,000	4650	4200	92
	37282-1	●	F96T12/DX/ALTO	15	Daylight Deluxe, 6500K	96	12,000	4500	3950	90

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



T12 Medium Bipin



T12 Single Pin

# FLUORESCENT LAMPS

## High Output T12 Lamps, Very High Output T12 Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### HIGH OUTPUT T12 FLUORESCENT LAMPS (800MA)

#### T12 Recessed D.C. Linear Fluorescent Lamps (207, 214)

35	14144-0	●	F24T12/D/HO	30	Daylight, 6500K	24	9000	1400	1180	73
	14145-7		F24T12/CW/HO	30	Cool White, 4100K	24	9000	1650	1390	59
40	14141-6		F30T12/D/HO	30	Daylight, 6500K	30	9000	1920	1590	73
	14142-4		F30T12/CW/HO	30	Cool White, 4100K	30	9000	2290	1900	59
50	14138-2		F36T12/D/HO	30	Daylight, 6500K	36	9000	2500	2150	73
	14139-0		F36T12/CW/HO	30	Cool White, 4100K	36	9000	2800	2450	59
55	14136-6		F42T12/D/HO	30	Daylight, 6500K	42	9000	3000	2610	73
	14137-4		F42T12/CW/HO	30	Cool White, 4100K	42	9000	3400	2950	59
60	36984-3	●	F48T12/D/HO/ALTO	15	Daylight, 6500K	48	12,000	3400	3000	73
	36978-5	●	F48T12/CW/HO/ALTO	15	Cool White, 4100K	48	12,000	4050	3500	59
85	36653-4	●	F72T12/D/HO/ALTO	15	Daylight, 6500K	72	12,000	5600	4850	73
	36651-8	●	F72T12/CW/HO/ALTO	15	Cool White, 4100K	72	12,000	6350	5500	59

### HIGH OUTPUT T12 800 SERIES FLUORESCENT LAMPS (800MA)

#### T12 Recessed D.C. Linear Fluorescent Lamps (207, 214)

110	14283-6	●∅	F96T12/841/HO/ALTO	15	TL841, 4100K	96	12,000	9500	8550	85
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### HIGH OUTPUT T12 FLUORESCENT LAMPS (800MA)

#### T12 Recessed D.C. Linear Fluorescent Lamps (207, 214)

95	21471-8	\$	F96T12/DX/HO/EW	15	Daylight Deluxe, 6500K	96	12,000	5850	5000	90
	26660-1	\$●∅	F96T12/CW/HO/EW/ALTO	15	Cool White, 4100K	96	12,000	8000	6950	59
110	21489-0	●	F96T12/DX/HO	15	Daylight Deluxe, 6500K	96	12,000	6750	5800	90

### HIGH OUTPUT T12 800 SERIES FLUORESCENT LAMPS (800MA)

#### T12 Recessed D.C. Linear Fluorescent Lamps; For Low Temperature Applications (223)

110	38177-4	●	F96T12/D/HO-O/ALTO	15	Daylight, 6500K	96	12,000	7800	6800	73
	38176-4	●	F96T12/CW/HO-O/ALTO	15	Cool White, 4100K	96	12,000	8800	7650	59

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Average Life		Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
							3 Hr. Start (202)	12 Hr. Start (241)			

### VERY HIGH OUTPUT T12 FLUORESCENT LAMPS (1500MA)

#### T12 Recessed D.C. Linear Fluorescent Lamps (214)

110	21819-8		F48T12/CW/VHO	15	Cool White, 4100K	48	12,000	12,000	7050	4950	59
185	34232-9	\$	F96T12/CW/VHO/EW	15	Cool White, 4100K	96	12,000	12,000	13,000	9000	59
215	34234-5		F96T12/CW/VHO	15	Cool White, 4100K	96	12,000	12,000	15,200	10,700	59

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



T12 Recessed DC

# FLUORESCENT LAMPS

## Gold Fluorescent Lamps, Appliance Lamps, T9 Circline Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### GOLD FLUORESCENT LAMPS

#### Blocks UV Emissions

32	14746-2		F32T8/GOLD PLUS	25	Gold Sleeved	48	24,000	1750	1480	—
40	14750-4		F40T12/GOLD	30	Gold Sleeved	48	20,000	1700	1465	—

### APPLIANCE FLUORESCENT LAMPS

#### T8 and T12 Medium Bipin Linear Fluorescent Lamps; For Use With Starters

14	25914-3		F14T8/CW/15	24	Cool White, 4100K	15	7500	700	595	59
16	51172-5	†	F16T8/CW/26	24	Cool White, 4100K	26	7500	1275	1020	59
18	23691-9	● †	F18T8/CW/30/ALTO	24	Cool White, 4100K	30	7500	1350	1070	59
	23690-1	†	F18T8/CW/24	24	Cool White, 4100K	24	7500	1175	940	59
25	14135-8	✕	F25T12/CW/28	30	Cool White, 4100K	28	7500	1600	1280	59

### CIRCLINE FLUORESCENT LAMPS

#### T9 4-Pin Circular Fluorescent Lamps

20	24982-1		FC6T9/COOL WHITE PLUS	12	Cool White, 4100K	6½ OD	12,000	800	590	59
22	39222-5		FC8T9/SOFT WHITE	12	3000K	8 OD	12,000	1150	875	85
	39235-7		FC8T9/DAYDLX	12	6500K	8 OD	12,000	910	675	73
	39116-9		FC8T9/COOL WHITE PLUS	12	Cool White, 4100K	8 OD	12,000	1050	775	59
32	39122-7		FC12T9/SOFT WHITE	12	3000K	12 OD	12,000	1900	1600	85
	26260-0		FC12T9/D	12	Daylight, 6500K	12 OD	12,000	1570	1300	73
	39117-7		FC12T9/COOL WHITE PLUS	12	Cool White, 4100K	12 OD	12,000	1800	1500	59
40	39118-5		FC16T9/COOL WHITE PLUS	12	Cool White, 4100K	16 OD	12,000	2500	1975	59

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)  
Fluorescent symbols and footnotes located on page 51



GOLD Lamp



T8 Medium Bipin



T12 Medium Bipin



T9 4-Pin Circular

# FLUORESCENT LAMPS

## TuffGuard Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Color Temp. (K)	Nom. Length (In.)	Rated Avg. Life (Hrs.)(241)	Approx. Initial Lumens (203,204)	CRI	Availability
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### TUFFGUARD T5 FLUORESCENT COATED LAMPS

#### T5 Miniature Bipin Linear Fluorescent Lamps

8	16691-8		F8T5/CW PHTG	25	4100	12	10,000	400	59	Made to Order
13	16757-7		F13T5/CW PHTG	25	4100	21	10,000	820	59	Made to Order
14	16690-0	●	F14T5/830/ALTO TG	40	3000	22	35,000	1350	85	Made to Order
	16726-2	●	F14T5/841/ALTO TG	40	4100	22	35,000	1350	85	Made to Order
21	16455-8	●	F21T5/830/ALTO TG	40	3000	34	35,000	2100	85	Stocked
	16856-7	●	F21T5/835/ALTO TG	40	3500	34	35,000	2100	85	Made to Order
	16669-4	●	F21T5/841/ALTO TG	40	4100	34	35,000	2100	85	Made to Order
24	16913-6	●	F24T5/835/HO/ALTO TG	40	3500	22	35,000	2000	85	Made to Order
25	41377-3	●†	F28T5/835/EA/ALTO 25W TG	40	3500	46	25,000	2900	85	Made to Order
	41378-1	●†	F28T5/841/EA/ALTO 25W TG	40	4100	46	25,000	2900	85	Made to Order
28	16775-9	●	F28T5/830/ALTO TG	40	3000	46	35,000	2900	85	Made to Order
	16417-8	●	F28T5/835/ALTO TG	40	3500	46	35,000	2900	85	Stocked
	16674-4	●	F28T5/841/ALTO TG	40	4100	46	35,000	2900	85	Stocked
35	16733-8	●	F35T5/841/ALTO TG	40	4100	58	35,000	3650	85	Made to Order
49	16960-7	●†	F54T5/835/HO/EA/ALTO 49W TG	40	3500	46	35,000	5000	85	Stocked
	16961-5	●†	F54T5/841/HO/EA/ALTO 49W TG	40	4100	46	35,000	5000	85	Stocked
	16967-2	●†	F54T5/830/HO/EA/ALTO 49W TG	40	3000	46	35,000	5000	85	Stocked
	40900-3	●†	F54T5/850/HO/EA/ALTO 49W TG	40	5000	46	35,000	4850	82	Stocked
	41055-5	●†	F54T5/835/A/EA/ALTO 49W TG	40	3500	46	35,000	5000	85	Stocked
	41056-3	●†	F54T5/841/A/EA/ALTO 49W TG	40	4100	46	35,000	5000	82	Stocked
	41057-1	●†	F54T5/850/A/EA/ALTO 49W TG	40	5000	46	35,000	4850	82	Stocked
54	16861-7	●	F54T5/830/HO/ALTO TG	40	3000	46	35,000	5000	85	Made to Order
	16672-8	●	F54T5/835/HO/ALTO TG	40	3500	46	35,000	5000	85	Stocked
	16298-2	●	F54T5/841/HO/ALTO TG	40	4100	46	35,000	5000	85	Stocked
	16686-8	●	F54T5/850/HO/ALTO TG	40	5000	46	35,000	5000	82	Stocked

### TUFFGUARD T8 FLUORESCENT COATED LAMPS

#### T8 Medium Bipin Linear Fluorescent Lamps

15	41312-0	†	F15T8/CW TG	25	4100	18	10,000	870	59	Stocked
17	41316-1	●†	F17T8/TL830/PLUS/ALTO TG	25	3000	24	36,000	1400	85	Stocked
	16731-2	●	F17T8/TL835/ALTO TG	25	3500	24	30,000	1350	85	Made to Order
	16898-9	●	F17T8/TL841/ALTO TG	25	4100	24	30,000	1350	85	Made to Order
25	16316-2	●	F25T8/TL830/PLUS/ALTO TG	25	3000	36	36,000	2225	85	Stocked
	16306-3	●	F25T8/TL835/PLUS/ALTO TG	25	3500	36	36,000	2225	85	Stocked
	16305-5	●	F25T8/TL841/PLUS/ALTO TG	25	4100	36	36,000	2225	85	Stocked
	16670-2	●	F25T8/TL835/ALTO TG	25	3500	36	30,000	2150	85	Made to Order
	16787-4	●	F25T8/TL841/ALTO TG	25	4100	36	30,000	2150	85	Made to Order
	16975-5	●	F32T8/ADV841/XLL/ALTO TG 25W	25	4100	48	40,000	2425	85	Stocked
	16294-1	●	F32T8/ADV835/XEW/ALTO TG 25W	25	3500	48	36,000	2500	85	Stocked
	16293-3	●	F32T8/ADV841/XEW/ALTO TG 25W	25	4100	48	36,000	2500	85	Stocked

Note: Made to order products require a 3 week lead time.

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51



T5 Miniature Bipin



T8 Medium Bipin

# FLUORESCENT LAMPS

## TuffGuard Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Color Temp. (K)	Nom. Length (In.)	Rated Avg. Life (Hrs.)(241)	Approx. Initial Lumens (203,204)	CRI	Availability
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### TUFFGUARD T8 FLUORESCENT COATED LAMPS CONTINUED

#### T8 Medium Bipin Linear Fluorescent Lamps

28	I6966-4	● †	F32T8/ADV830/EW/ALTO 28W TG	25	3000	48	36,000	2725	85	Stocked
	I6958-1	● †	F32T8/ADV835/EW/ALTO 28W TG	25	3500	48	36,000	2725	85	Stocked
	I6959-9	● †	F32T8/ADV841/EW/ALTO 28W TG	25	4100	48	36,000	2725	85	Stocked
	I6965-6	● †	F32T8/ADV850/EW/ALTO 28W TG	25	5000	48	36,000	2675	82	Stocked
32	I6863-3	●	F32T8/ADV830/ALTO TG	25	3000	48	30,000	3100	85	Made to Order
	I6502-7	●	F32T8/ADV850/ALTO TG	25	5000	48	30,000	3000	82	Made to Order
	I6682-7	●	F32T8/ADV850/XEW/ALTO TG	25	5000	48	30,000	2400	82	Made to Order
	I6894-8		F32T8/TL950 TG	25	5000	48	20,000	2000	98	Made to Order
	I6508-4	● ∅	F32T8/TL730/ALTO TG	25	3000	48	30,000	2700	78	Made to Order
	20428-9	● ∅	F32T8/TL735/ALTO TG	25	3500	48	30,000	2700	78	Stocked
	I6484-8	● ∅	F32T8/TL741/ALTO TG	25	4100	48	30,000	2700	78	Stocked
	I6619-9	● ∅	F32T8/TL750/ALTO TG	25	5000	48	30,000	2600	78	Made to Order
	I6541-5	●	F32T8/TL830/ALTO TG	25	3000	48	30,000	2850	85	Stocked
	I6488-9	●	F32T8/TL835/ALTO TG	25	3500	48	30,000	2850	85	Stocked
	I6487-1	●	F32T8/TL841/ALTO TG	25	4100	48	30,000	2850	85	Made to Order
	I6503-5	●	F32T8/TL850/ALTO TG	25	5000	48	30,000	2850	82	Made to Order
	I6791-6	●	F32T8/TL865/PLUS/ALTO TG	25	6500	48	36,000	2750	82	Made to Order
	I6308-9	●	F32T8/ADV841/ALTO TG	25	4100	48	30,000	3150	85	Stocked
	I6246-1	● ∅	F32T8/TL730/PLUS/ALTO TG	25	3000	48	36,000	2800	78	Stocked
	I6239-6	● ∅	F32T8/TL735/PLUS/ALTO TG	25	3500	48	36,000	2800	78	Stocked
	I6078-8	● ∅	F32T8/TL741/PLUS/ALTO TG	25	4100	48	36,000	2800	78	Stocked
	I6318-8	● ∅	F32T8/TL750/PLUS/ALTO TG	25	5000	48	36,000	2700	78	Stocked
	I6275-0	●	F32T8/TL830/PLUS/ALTO TG	25	3000	48	36,000	2950	85	Stocked
	I6238-8	●	F32T8/TL835/PLUS/ALTO TG	25	3500	48	36,000	2950	85	Stocked
	I6295-8	●	F32T8/TL841/XLL/ALTO TG	25	4100	48	40,000	2950	85	Stocked
	I6274-3	●	F32T8/TL841/PLUS/ALTO TG	25	4100	48	36,000	2950	85	Stocked
I6292-5	●	F32T8/TL850/PLUS/ALTO TG	25	5000	48	36,000	2850	82	Stocked	
40	I6323-8	●	F40T8/TL835/ALTO TG	25	3500	60	36,000	3725	85	Stocked
	I6439-2	●	F40T8/TL841/ALTO TG	25	4100	60	36,000	3725	85	Stocked
44	40905-2	● †	F48T8/TL841/HO/ALTO TG	25	4100	48	18,000	4000	85	Made to Order
51	41315-3	● †	F96T8/ADV835/XEW/ALTO 51W TG	25	3500	96	30,000	5300	85	Stocked
	41314-6	● †	F96T8/ADV841/XEW/ALTO 51W TG	25	4100	96	30,000	5300	85	Stocked
	41313-8	● †	F96T8/ADV850/XEW/ALTO 51W TG	25	5000	96	30,000	5200	82	Stocked
59	40906-0	● † ∅	F96T8/TL735/PLUS/ALTO TG	25	3500	96	30,000	5700	78	Stocked
	40907-8	● † ∅	F96T8/TL741/PLUS/ALTO TG	25	4100	96	30,000	5700	78	Made to Order
	40908-6	● †	F96T8/TL835/PLUS/ALTO TG	25	3500	96	30,000	5900	85	Made to Order
	40909-4	● †	F96T8/TL841/PLUS/ALTO TG	25	4100	96	30,000	5900	85	Made to Order
	40910-2	● †	F96T8/TL850/PLUS/ALTO TG	25	5000	96	30,000	5780	82	Stocked
86	40911-0	● †	F96T8/TL835/HO/PLUS/ALTO TG	25	3500	96	30,000	8200	85	Made to Order
	40912-8	● †	F96T8/TL841/HO/PLUS/ALTO TG	25	4100	96	30,000	8200	85	Stocked
	40913-6	● †	F96T8/TL850/HO/PLUS/ALTO	25	5000	96	30,000	8100	82	Stocked

Note: Made to order products require a 3 week lead time.

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51



T8 Medium Bipin

# FLUORESCENT LAMPS

## TuffGuard Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Color Temp. (K)	Nom. Length (In.)	Rated Avg. Life (Hrs.)(202)	Approx. Initial Lumens (203,204)	CRI	Availability
<b>TUFFGUARD T12 FLUORESCENT COATED LAMPS</b>										
<b>T12 Medium Bipin Linear Fluorescent Lamps</b>										
14	16792-4		F14T12/CWTG	30	4100	15	9000	710	59	Made to Order
15	16687-6		F15T12/CWTG	30	4100	18	9000	800	59	Made to Order
20	16919-3	●	F20T12/D/ALTO TG	30	6500	24	9000	1075	73	Made to Order
	16300-6	●	F20T12/CW/ALTO TG	30	4100	24	9000	1200	59	Stocked
25	16729-6		F25T12/CWTG	30	4100	36	7500	1900	59	Made to Order
30	16893-0	●	F30T12/D/RS/ALTO TG	30	6500	36	24,000	1950	73	Made to Order
	16310-5	●	F30T12/CW/RS/ALTO TG	30	4100	36	24,000	2250	59	Stocked
	16742-9	●	F48T12/CW/EW/ALTO TG	15	4100	48	9000	2400	59	Made to Order
34	16032-5	●∅	F34/CW/RS/EW/LL/ALTO TG	30	4100	48	24,000	2650	59	Stocked
	16060-6	●∅	F34T12/CW/RS/EW/ALTO TG	30	4100	48	20,000	2650	59	Stocked
	16315-4	●∅	F34T12/WW/RS/EW/ALTO TG	30	3000	48	20,000	2575	49	Stocked
	16759-3	●∅	F34T12/835/EW/ALTO TG	30	3500	48	20,000	2800	82	Made to Order
	16764-3	●∅	F34T12/841/EW/ALTO TG	30	4100	48	20,000	2800	82	Made to Order
	16743-7	●X	F34T12/ADV850/EW/ALTO TG	30	5000	48	24,000	3000	82	Made to Order
	16693-4	●	F34T12/DX/RS/EW/ALTO TG	30	6500	48	20,000	2025	90	Made to Order
39	16309-7	●	F48T12/CW/ALTO TG	30	4100	48	9000	2950	59	Stocked
	16307-1	●	F48T12/D/ALTO TG	15	6500	48	9000	2500	73	Stocked
40	16736-1	●∅	F40T12/830/ALTO TG	30	3000	48	20,000	3200	82	Made to Order
	16314-7		F40C50 TG	30	5000	48	20,000	2200	92	Stocked
	16299-0	●	F40DX/ALTO TG	30	6500	48	20,000	2325	90	Stocked
	16311-3	●∅	F40T12/835/ALTO TG	30	3500	48	20,000	3200	82	Stocked
	16322-0	●∅	F40T12/841/ALTO TG	30	4100	48	20,000	3200	82	Stocked
	16744-5	●∅	F40T12/ADV835/ALTO TG	30	3500	48	24,000	3450	85	Made to Order
	16918-5	●∅	F40T12/ADV841/ALTO TG	30	4100	48	24,000	3450	85	Made to Order
	16886-4	●∅	F40T12/ADV850/ALTO TG	30	5000	48	24,000	3300	82	Made to Order
	16890-6		F40T12/C75 TG	30	7500	48	20,000	2000	95	Made to Order
	20427-1	●∅	F40T12/CW/ALTO TG	30	4100	48	20,000	2650	59	Stocked
	16677-7	●	F40T12/CWX/ALTO TG	30	4200	48	20,000	2550	89	Made to Order
56	16689-2	●	F72T12/CW/ALTO TG	15	4100	72	12,000	4450	59	Made to Order
	16924-3	●	F72T12/D/ALTO TG	15	6500	72	12,000	3800	73	Made to Order

Note: Made to order products require a 3 week lead time.

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51



T12 Medium Bipin

# FLUORESCENT LAMPS

## TuffGuard Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Color Temp. (K)	Nom. Length (In.)	Rated Avg. Life (Hrs.)(202)	Approx. Initial Lumens (203,204)	CRI	Availability
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### TUFFGUARD T12 FLUORESCENT COATED LAMPS CONTINUED

#### T12 Medium Bipin Linear Fluorescent Lamps

60	I6296-6	●	F48T12/CW/HO/ALTO TG	15	4100	48	12,000	4050	59	Stocked
	I6762-7	●	F48T12/D/HO/ALTO TG	15	6500	48	12,000	3400	73	Made to Order
	I6124-0	●∅	F96T12/CW/EW/ALTO TG	15	4100	96	12,000	5400	59	Stocked
	I6324-6	●	F96T12/DX/EW/ALTO TG	15	6500	96	12,000	4050	90	Stocked
	I6836-9	●X	F96T12/830/EW/ALTO TG	15	3000	96	12,000	5800	84	Made to Order
	I6883-1	●	F96T12/841/EW/ALTO TG	15	4100	96	12,000	5800	82	Made to Order
	I6855-9	●∅	F96T12/WWW/EW/ALTO TG	15	3000	96	12,000	5500	49	Made to Order
	I6974-8	●∅	F96T12/CW/EW/LL/ALTO TG	15	4100	96	18,000	5400	59	Made to Order
75	I6728-8		F60T12/CW/HO TG	15	4100	60	12,000	5150	59	Made to Order
	I6319-6	●∅	F96T12/835/ALTO TG	15	3500	96	12,000	6600	85	Stocked
	I6123-2	●∅	F96T12/CW/ALTO TG	15	4100	96	12,000	6100	59	Stocked
	I6777-5	●∅	F96T12/841/ALTO TG	15	4100	96	12,000	6600	85	Made to Order
	I6297-4	●∅	F96T12/D/ALTO TG	15	6500	96	12,000	4500	73	Stocked
	I6783-3	●∅	F96T12/850/ALTO TG	15	5000	96	12,000	6500	82	Made to Order
85	I6312-1	●	F72T12/CW/HO/ALTO TG	15	4100	72	12,000	6350	59	Stocked
95	I6216-4	●∅	F96T12/CW/HO/EW/ALTO TG	15	4100	96	12,000	8000	59	Stocked
	I6725-4	●	F96T12/841/HO/EW/ALTO TG	15	4100	96	12,000	8500	85	Made to Order
	I6694-2		F96T12/DX/HO/EW TG	15	6500	96	12,000	5850	90	Stocked
100	I6817-9		F84T12/CW/HO TG	15	4100	84	12,000	7800	59	Made to Order
110	I6320-4		F96T12/C50/HO TG	15	5000	96	12,000	6300	92	Stocked
	I6301-4	●	F96T12/CW/HO-O/ALTO TG	15	4100	96	12,000	8800	59	Stocked
	I6302-2	●	F96T12/D/HO-O/ALTO TG	15	6500	96	12,000	7800	73	Stocked
	I6730-4	●∅	F96T12/841/HO/ALTO TG	15	4100	96	12,000	9500	85	Made to Order
	I6582-9		F96T12/CWX/HO TG	15	4200	96	12,000	6600	89	Stocked

Note: Made to order products require a 3 week lead time.

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51



T12  
Single Pin

T12  
Recessed DC Bay

# FLUORESCENT LAMPS

## Consumer Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### T5 FLUORESCENT LAMPS

#### Blister-Carded Linear Fluorescent Lamps; Miniature Bipin

4	39218-3		F4T5/SOFT WHITE	12/1	3000K	6	6000	150	120	85
6	39219-1		F6T5/SOFT WHITE	12/1	3000K	9	7500	325	260	85
8	39220-9		F8T5/SOFT WHITE	12/1	3000K	12	7500	450	360	85
	39114-4		F8T5/COOL WHITE PLUS	12/1	4100K	12	7500	400	300	59
	15756-0	†	F8T5/BLB UPC	25/1	—	12	7500	—	—	—
13	39221-7		F13T5/SOFT WHITE	12/1	3000K	21	7500	1000	800	85
	40974-8	†	F13T5/Cool White	12/1	4100K	21	7500	820	660	59

### T5 FLUORESCENT LAMPS

28	20613-6	●	F28T5/TL835 ALTO UPC 15/1	15	TL835, 3500K	46	20,000	2900	2750	85
	40963-1	●†	F28T5/TL841 ALTO UPC 15/1	15	TL841, 4100K	46	25,000	2900	2750	85

### T8 FLUORESCENT LAMPS

#### T8 Medium Bipin Linear Fluorescent Lamps

15	39212-6	●	F15T8/Soft White	1	3000K Individually Sleeved	18	7500	1000	900	85
	39207-6	●	F15T8/Cool White Plus	1	4100K Individually Sleeved	18	7500	870	765	59
	39108-6	●	F15T8/Cool White Plus	1	4100K Individually Sleeved	24	7500	1175	1035	59
	39226-6		F15T8/Plant	1	Individually Sleeved	18	7500	410	—	—
	15760-2	†	F15T8/Blacklight	6/1	Individually Sleeved	18	7500	—	—	—
17	16069-0	●	F17T8/Soft White UPC	25	3000K 25 Pk Case	24	20,000	1400	1300	85
30	39216-7	●	F30T8/Soft White	6/1	3000K Individually Sleeved	36	7500	2500	2250	85
	23442-7	●†	F30T8/CW ALTO UPC	25	4100K Individually Sleeved	36	7500	2200	1760	59
32	40943-3	●†	F32T8/SOFT WHITE ALTO	10	3000K 10 Pk Case	48	24,000	2950	2800	85
	20545-0	●∅	F32T8/TL735 ALTO 10PK	10	3500K 10 Pk Case	48	24,000	2700	2565	78
	40944-1	●†∅	F32T8/TL741/ALTO TG	10	Safety Coated 4100K 10 Pk	48	24,000	2700	2565	78
	38351-3	●∅	F32T8/TL741 ALTO 10PK	10	4100K 10 Pk Case	48	24,000	2700	2565	78
	15238-9	●†	F32T8/ADV841/XEW/ALTO 25W	10	4100K 10 Pk Case	48	30,000	2500	2425	85
	20278-8	●	F32T8/TL841/XLL/ALTO 10PK	10	4100K 10 Pk Case	48	36,000	2950	2800	85
	20504-7	●	F32T8/TL850 ALTO 10PK	10	5000K 10 Pk Case	48	24,000	2850	2710	82
	15235-5	●∅	F32T8/TL865/PLUS/ALTO 10PK	10	6500K 10 Pk Case	48	24,000	2750	2610	82
	40927-6	●†∅	F32T8/TL735/ALTO	25	3500K 25 Pk Case	48	24,000	2700	2565	78
	40925-0	●†∅	F32T8/TL741/ALTO	25	4100K 25 Pk Case	48	24,000	2700	2565	78
	40926-8	●†	F32T8/TL850/ALTO	25	5000K 25 Pk Case	48	24,000	2850	2710	82
	40940-9	●†∅	F32T8/DAYLIGHT DELUXE/ALTO	25	6500K 25 Pk Case	48	24,000	2750	2610	82
	40966-4	●†	F32T8/TL850/ALTO	15/2	5000K 2 Pk	48	24,000	2850	2710	82
	22682-9	●	F32T8/SOFT WHITE /ALTO 36/2	36/2	3000K 2 Pk	48	24,000	2950	2800	84
22679-5	∅	F32T8/COOL WHITE PLUS 36/2	36/2	4100K 2 Pk	48	24,000	2800	2660	78	
22681-1	●∅	F32T8/DAYLIGHT DELX/ALTO 36/2	36/2	6500K 2 Pk	48	24,000	2750	2610	82	

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



T5 Medium Bipin



T8 Medium Bipin



# FLUORESCENT LAMPS

## Consumer Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
14	14150-7		F14T12/SOFT WHITE	6/1	3000K Individually Sleeved	15	9000	700	560	85
15	14146-5		F15T12/SOFT WHITE	6/1	3000K Individually Sleeved	18	9000	800	720	85
20	39120-1	●	F20T12/SOFT WHITE	6/1	3000K Individually Sleeved	24	9000	1350	1215	85
	39230-8		F20T12/NATURAL SUNSHINE	6/1	5000K Individually Sleeved	24	9000	850	755	92
	39227-4		F20T12/PLANT	6/1	Individually Sleeved	24	9000	600	—	—
	15761-0	†	F20T12/BLACKLIGHT	6/1	Individually Sleeved	24	9000	—	—	—
	40945-8	●†	F20T12/CW/ALTO	10	4100K 10 Pk Case	24	9000	1200	1050	59
	38693-8	●†	F20T12/SPEC 35 UPC	30	3500K 30 Pk Case	24	9000	1200	1050	75
	20550-0	●	F20T12/CW/ALTO 15/2	15/2	4100K 2 Pk	24	9000	1200	1050	59
	20554-2	●	F20T12/D/ALTO 15/2	15/2	6500K 2 Pk	24	9000	1075	960	73
	30	39215-9	●	F30T12/SOFT WHITE	6/1	3000K Individually Sleeved	36	18,000	2400	2160
40937-5		●†	F30T12/DAYLIGHT DELUXE/ALTO	6/1	6500K Individually Sleeved	36	18,000	1950	1700	90
38694-6		●†	F30T12/SPEC 35 UPC	30	3500K 30 Pk Case	36	18,000	2350	2080	73
34	40939-1	●†∅	F34T12/835/EW/ALTO	10	3500K 10 Pk	48	20,000	2800	2660	82
	22046-7	●†∅	F34T12/CW/EW/ALTO	10	4100K 10 Pk	48	20,000	2650	2300	59
	20562-5	●∅	F34T12CW/RS/EW/ALTO 15/2	15/2	Cool White, 4100K 2 Pk	48	20,000	2650	2300	59
	40928-4	●†∅	F34T12/835/ALTO	30	3500K 30 Pk Case	48	20,000	2800	2660	82
	40929-2	●†∅	F34T12/CW/EW/ALTO	30	4100K 30 Pk Case	48	20,000	2650	2300	59
40	39228-2		F40T12/PLANT	6/1	Individually Sleeved	48	20,000	1600	—	—
	15762-8	●†	F40T12/BLACKLIGHT	6/1	Individually Sleeved	48	20,000	—	—	—
	40942-5	●†∅	F40T12/SOFT WHITE/ALTO	10	3000K 10 Pk Case	48	20,000	3300	2970	82
	40946-6	●†	F40T12/CW/PLUS/ALTO TG	10	Safety Coated 4100K	48	20,000	3100	2880	70
	40941-7	●†∅	F40T12/NATURAL LIGHT/ALTO	10	5000K 10 Pk Case	48	20,000	3050	2900	82
	22606-8	●∅	F40T12/COOL WHITE PLUS	10	4100K 10 Pk	48	20,000	3200	2880	70
	38752-2	●	F40T12/DAYDLX	10	6500K 10 Pk	48	20,000	2325	2025	90
	39240-7	●∅	F40T12/SOFT WHITE/15/2PK	15/2	3000K 2 Pk	48	20,000	3100	2970	85
	41089-4	●†∅	F40T12/CW PREMIUM/ALTO	15/2	4100K 2 Pk	48	20,000	3200	3040	82
	40967-2	●†	F40T12/C50	15/2	5000K 2 Pk	48	20,000	2200	1915	92
	40995-2	●∅	F40T12/SOFT WHITE ALTO 36/2	36/2	3000K 2 Pk	48	20,000	3300	2970	85
	22684-5	●∅	F40T12/COOL WHITE PLUS/ALTO	36/2	4100K 2 Pk	48	20,000	3200	2880	70
	22683-7	●	F40T12/DAYDELUX ALTO 36/2PK	36/2	6500K 2 Pk	48	20,000	2325	2025	90
	40930-0	●†∅	F40T12/COOL WHITE PLUS/ALTO	30	4100K 30 Pk Case	48	20,000	3200	2880	70
	40931-8	●†	F40T12/C50	30	5000K 30 Pk Case	48	20,000	2200	1915	92
40938-3	●†	F40T12/DAYLIGHT DELUXE/ALTO	30	6500K 30 Pk Case	48	20,000	2325	2025	90	
56	36999-1	●†	F72T12/CW/ALTO UPC	15	4100K 15 Pk Case	72	12,000	4450	3900	59
60	13349-6	●X∅	F96T12/CW/EW/36/2PK	36/2	4100K 2 Pk	96	12,000	5400	4750	59
	20523-7	●∅	F96T12/CW/EW/ALTO 8/2PK	8/2	4100K 2 Pk	96	12,000	5400	4750	59
	20505-4	●X	F96T12/835/EW ALTO 8/2	8/2	3500K 2 Pk	96	12,000	5900	5550	85
	40964-9	●†∅	F96T12/CW/EW/ALTO	15	4100K 15 Pk Case	96	12,000	5400	4750	59
	36982-7	●†	F48T12/CW/HO/UPC	15	4100K 15 Pk Case	48	12,000	4050	3500	59
75	37663-2	●X	F96T12/DAYDLX/ALTO 8/2PK	8/2	6500K 2 Pk	96	12,000	4500	3950	90
95	37528-7	●†∅	F96T12/CW/HO/EW/ALTO UPC	15	Cool White, 4100K 15 Pk	96	12,000	8000	6950	59
110	38176-4	●†	F96T12/CW/HO-O/ALTO	15	Cool White, 4100K 15 Pk	96	12,000	8800	7650	59
	20544-3	●†	F96T12/CW/HO-O/ALTO	8/2	4100K 2 Pk	96	12,000	8800	7650	59
	20507-0	●†	F96T12/C50	8/2	5000K 2 Pk	96	12,000	6300	5400	92

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July, 2012



T12 Medium Bipin

T12 Single Pin

T12 Recessed DC

# FLUORESCENT LAMPS

## Consumer Lamps

Watts	Product Number	Symbols, Footnotes	Ordering Code	Pkg. Qty.	Description	Nom. Length (In.)	Rated Avg. Life (Hrs.) (202)	Approx. Initial Lumens (203,204)	Design Lumens (208)	CRI
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### CIRCLINE FLUORESCENT LAMPS

#### T9 Circular 4-Pin Fluorescent Lamps

22	39222-5		FC8T9/SOFT WHITE	6/1	3000K Individually Sleeved	8 OD	12,000	1150	875	85
	39116-9		FC8T9/COOL WHITE PLUS	6/1	4100K Individually Sleeved	8 OD	12,000	1050	775	59
	39235-7		FC8T9/DAYDLX	6/1	6500K Individually Sleeved	8 OD	12,000	910	675	79
32	39122-7		FC12T9/SOFT WHITE	6/1	3000K Individually Sleeved	12 OD	12,000	1900	1600	85
	39117-7		FC12T9/COOL WHITE PLUS	6/1	4100K Individually Sleeved	12 OD	12,000	1800	1500	59
	26260-0	†	FC12T9/DAYLIGHT DELUXE	6/2	6500K Individually Sleeved	13 OD	12,000	1570	1300	79
40	39118-5		FC16T9/COOL WHITE PLUS	6/1	4100K Individually Sleeved	16 OD	12,000	2500	1975	59

### U-BENT T8

#### T8 Medium Bipin

32	20549-2	● ∅	FB32T8/TL735/6/ALTO UPC 10/1	1	TL70, 3500K Individually Sleeved	22 $\frac{1}{2}$	20,000	2650	2370	78
	20548-4	● ∅	FB32T8/TL741/6/ALTO UPC 10/1	1	TL70, 4100K Individually Sleeved	22 $\frac{1}{2}$	20,000	2650	2370	78

### RAPID START U-BENT T12

#### T12 Medium Bipin

34	37839-8	● ∅	FB34/CW/6/EW UPC	12	Cool White, 4100K	22 $\frac{1}{2}$	18,000	2400	2050	59
40	37875-8	● ∅	FB40/SPEC35/6 UPC	12	SPEC, 3500K	22 $\frac{1}{2}$	18,000	2950	2700	73
	21993-1	†	FB40DX/6	12	Daylight Deluxe, 6500K	22 $\frac{1}{2}$	18,000	2250	1950	90

For the most current product information, go to the e-catalog on [www.philips.com](http://www.philips.com)

Fluorescent symbols and footnotes located on page 51

∅ Due to DOE regulations, these lamps will no longer be manufactured as of July 2012



T9 4-Pin Circular



T8 U-Bent

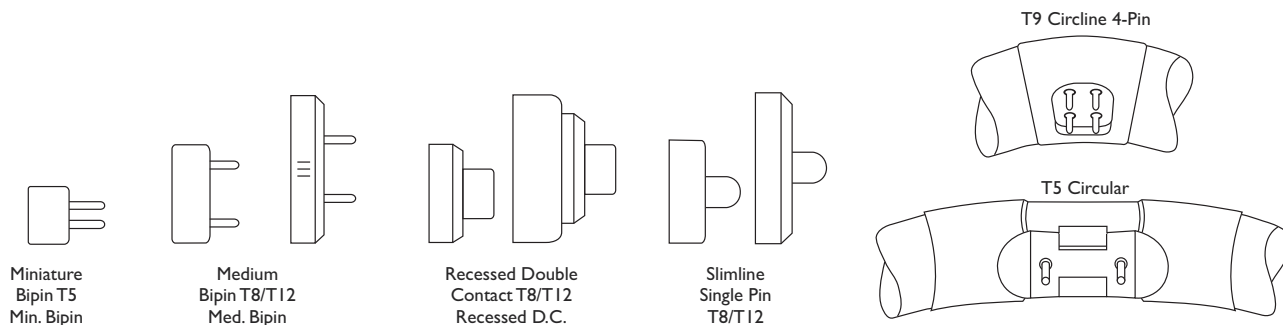


T12 U-Bent  
Medium Bipin

# FLUORESCENT LAMPS

## Base Types and Bulb Shapes

### Base Types (Not Actual Sizes)



### Bulb Shapes (Not Actual Sizes)

The size and shape of a bulb is designated by a letter or letters followed by a number. The letter indicates the shape of the bulb, while the number indicates the diameter of the bulb in eighths of an inch. For example, "T12" indicates a tubular shaped bulb having a diameter of  $\frac{12}{8}$  or  $1\frac{1}{2}$  inches. The following illustrations show some of the more popular bulb shapes and sizes.

