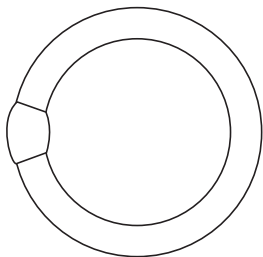
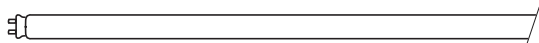


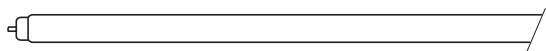
**Lamp Locator** (not drawn to scale)



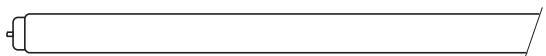
T9 Circline (1-1/8" diameter) 4-Pin Base (G10q)



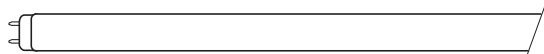
T5 (5/8" diameter) Miniature Bi-Pin Base (G5)



T6 (3/4" diameter) Single Pin Base (Fa8)



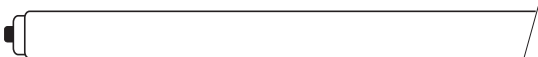
T8 (1" diameter) Single Pin Base (Fa8)



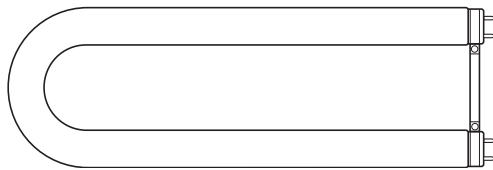
T8 (1" diameter) Medium Bi-Pin Base (G13)



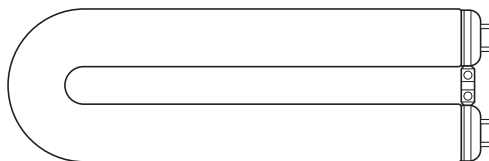
T8 (1" diameter) Recessed Double Contact Base (R17d)



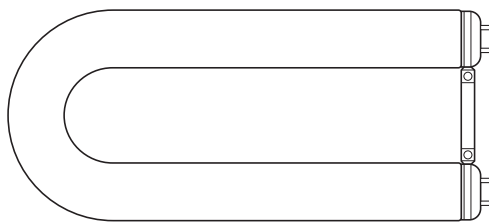
T10 (1 1/4" diameter) Recessed Double Contact Base (R17d)



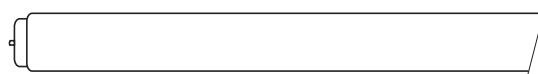
Mod-U-Line® T8/U6 (1" diameter) Medium Bi-Pin Base (G13)



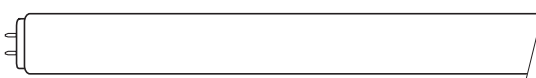
Mod-U-Line® T12/U3 (1 1/2" diameter) Medium Bi-Pin Base (G13)



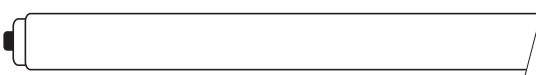
Mod-U-Line® T12/U6 (1-1/2" diameter) Medium Bi-Pin Base (G13)



T12 (1-1/2" diameter) Single Pin Base (Fa8)



T12 (1-1/2" diameter) Medium Bi-Pin Base (G13)



T12 (1-1/2" diameter) Recessed Double Contact Base (R17d)



T17 (2-1/8" diameter) Mogul Bi-Pin (G20)



Power Groove® (2-1/8" diameter)  
Recessed Double Contact Base (R17d)

Incandescent

Halogen

High Intensity  
Discharge

Fluorescent

Compact  
Fluorescent

LED Lamps,  
Tubes and Modules

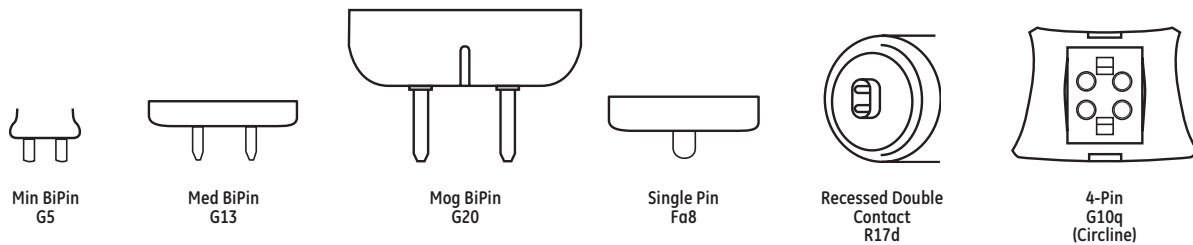
Stage and Studio

Miniature, Sealed  
Beam and Automotive

Projection

# Fluorescent Lamps

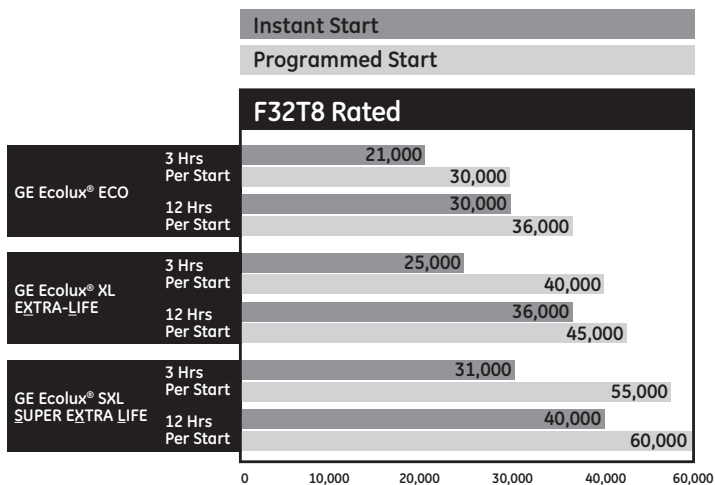
## Base Identification



## Introduction

GE introduced the first fluorescent lamp in 1939. Today, these lamps have become almost a universal standard in office and other lighting applications. The characteristics of fluorescent lamps vary widely according to the lamp type. In general, fluorescent lamps have the following advantages:

- Low Operating Cost:**  
 Efficient, fluorescent lamps can cost significantly less to operate over their lifetime than incandescent lamps. Many common linear fluorescent lamps now have energy-saving versions often designated in this catalog by Watt-Miser® (WM).
- Long Life:**  
 Life ratings for fluorescent lamps range from 36,000 to 55,000 hours based on the industry standard of 3 burning hours per start, except where noted.
- Light Quality:**  
 GE Starcoat® T5 and T8 lamps offer higher color rendering and lumen maintenance of 92%-95%.
- Flexibility:**  
 Fluorescent lamps are available in a wide range of sizes, shapes, color performance, and wattage ratings.
- Fast Starting:**  
 Rapid Start and Instant Start lamps typically start within 1 second of being turned on.



Life ratings are based on engineering data on programmed start ballasts with lamps cycled every 3 operating hours.

GE	OSRAM/SYLVANIA	PHILIPS
Aquarium/Terrarium	—	—
Chroma 50	Design 50®	Colortone 50
covRguard®	—	Tuff Away®
Ecolux®	Ecologic	Alto
Gro & Sho™/Plant & Aquarium	GRO-LUX®	Agro-Lite
Kitchen and Bath ULTRA™	Interior Design® (D30)	Softone Pastel FL (SPEC 30)
Mod-U-Line®	Curvalume®	U-Bent
Power Groove®	—	—
Specification Series (SP)	Designer® Series (D)	SPEC Series
Specification Series (SPX)	Designer® "800" Series	Ultralume™
Starcoat®	—	—
T5	Pentron®	Silhouette™
T8	Octron®	TL70/TL80™
T10/1500MA	VHO/LT	—
/1500	VHO	VHO
Watt-Miser®	SuperSaver®	Econ-o-Watt
Watt-Miser® Plus	SuperSaver Plus®	—
XL	XP	Plus

**ATTENTION:** This brand-name cross-reference chart is provided only as a quick reference. Other lamp company brand listings may only represent a near equivalent, versus an identical match to GE Lighting brands. Individual lamp manufacturers' performance specifications and product offerings should be consulted. Lamp performance may be affected by environmental conditions, ballast type and/or other auxiliary equipment.

See [www.gelighting.com](http://www.gelighting.com) e-Catalog for a comprehensive cross-reference tool.

## Product Information

### GE T5 Starcoat® Ecolux® Lamps (pg 4-8)

- Used in a variety of applications from indirect fixtures in commercial office buildings to warehouses and manufacturing facilities
- Many combinations of wattage and length provide flexibility of fixture design and ceiling layout
- Longer rated life at 30,000 hours
- TCLP compliant, lowering disposal costs where applicable (state regulations vary, consult your state EPA)

### GE Ultra Energy Saving T5 Lamps (pg 4-8 to 4-9)

- High Output Watt-Miser®: Over 5% energy savings versus standard Starcoat® T5 HO lamps. Same lumen output. Great for use in high-bay systems.
- High Efficiency Watt-Misers®: Over 5% energy savings versus standard Starcoat® T5 HE lamps. Same lumen output. Available in four different lengths.
- High Lumen T5: 5% greater lumen output versus standard Starcoat® F28WT5 lamps. Same wattage. Great for new commercial troffers.
- Excellent color rendering – 85 CRI
- TCLP compliant, lowering disposal costs where applicable (state regulations vary, consult your state EPA).

### GE Ultra Energy Saving Ecolux® T5 High Output 47 Watt Watt-Miser® (pg 4-9)

- GE's highest efficiency and lowest wattage T5 HO combination at 102 LPW
- Relamp existing full wattage 54W lamp with the 47W T5 lamp and saves energy
- TCLP compliant, lowering disposal costs where applicable (state regulations vary, consult your state EPA)

### GE T8 Starcoat® Ecolux® Lamps (pgs 4-9 to 4-10)

- More light over life – 94-95% lumen maintenance
- Enhanced color rendering...available in 700 and 800 series
- High system efficiency, relative to T12, delivers significant energy cost savings
- TCLP Compliant, lowering disposal costs where applicable (state regulations vary, consult your state EPA)

### GE Starcoat® Ecolux® XL Extra-Life and SXL Super Long Life lamps (pgs 4-9 to 4-10)

- Same great features of the T8 Starcoat® Ecolux®...with longer life... up to 67% longer than standard T8 lamps

### GE Ultra Energy Saving T8 Lamps 2ft and 3ft T8 Watt-Misers® (pg 4-10 to 4-11)

- Energy-saving alternative to standard 2ft and 3ft T8 lamps. Up to 12% energy savings versus standard F17T8 and/or F25T8 lamps, with approximately 10% light loss.
- Excellent color rendering – 80+ CRI
- TCLP compliant, lowering disposal costs where applicable (state regulations vary, consult your state EPA).

### GE Ultra Energy Saving T8 Lamps 4ft T8 25 Watt Lamp (pg 4-11)

- Lowest wattage 4ft T8 currently available.
- Longer rated life at 50,000 hours depending on ballast type and burn cycle
- Operates on any ANSI compliant T8 Instant Start or Programmed Start ballast; also approved on GE UltraStart® PRS ballast
- Excellent color rendering – 80+ CRI
- TCLP compliant, lowering disposal costs where applicable (state regulations vary, consult your state EPA)
- Approximately 10% less light

### GE Ultra Energy Saving T8 Lamps T8 28W UltraMax® (pg 4-11)

- Highly efficient T8 system utilizing the new 28W T8 lamp designed for optimal use on the GE UltraMax® ballast product family
- Operates on any ANSI compliant T8 Instant Start or Programmed Start ballast
- Also approved for use on GE UltraStart® PRS ballast
- 80+ CRI (Color Rendering Index) and TCLP compliant
- Approximately 4% less light

### GE Ultra Energy Saving T8 Lamps T8 32W High Lumen Lamps (HL) (pg 4-11)

- 5-8% more lumens than GE 32W T8 SP and SPX
- 3100 initial lumens allows you to increase light levels over a standard T8 or the option to implement a de-lamp or de-fixture strategy
- 33% longer life over GE F32T8
- 80+ CRI (Color Rendering Index) and TCLP compliant

### GE 8' T8 Lamps (pg 4-11 to 4-12)

- Single-pin based lamps designed to operate on Instant Start Ballast

### GE 8' T8 Watt-Miser® Plus and 49W Energy Saving Lamps (pg 4-11)

- One of the most efficient fluorescent products available, up to 107 LPW
- Energy savings...8.5% to 17% less energy consumed than standard F96T8 lamps
- Watt-Miser® Plus has same light output as standard lamps; 49W is approximately 14% less light
- Excellent color rendering – 80+ CRI
- Watt-Miser® Plus lamp reduces wattage to 54W per lamp

### GE 8' T8 High Output Lamps (pg 4-12)

- High system efficiency delivers 38% energy cost savings
- 50% longer life than T12 high output lamps
- Wide choice of color options
- Operate at 400mA

Incandescent

Halogen

High Intensity Discharge

Fluorescent

Compact Fluorescent

LED Lamps, Tubes and Modules

Stage and Studio

Miniature, Sealed Beam and Automotive

Projection

# Fluorescent Lamps

## Product Information (continued)

### GE T8 Mod-U-Line® U-Shaped Fluorescent Lamps (pg 4-12)

- Primarily used in 2x2 fixtures with prismatic or parabolic lenses
- Lower energy cost...36% energy cost savings vs. F40T12 U-Tubes
- New Watt-Miser® version saves even more money!
- Longer lamp life than T12 Mod-U-Line® – 20,000 hours
- 700 and 800 Series

### GE Energy Saving Mod-U-Line® U-Shaped Fluorescent Lamps (pg 4-12)

- Primarily used in 2x2 fixtures with prismatic or parabolic lenses
- Relamp existing F31T8 Mod-U-Line® with F29T8 or F26T8 Mod-U-Line® and save up to 16% in energy
- Longer lamp life than T12 Mod-U-Line® – 24,000 hours
- Approximately 8 to 17% less light

### GE 4' T12 Watt-Miser® Ecolux® Energy Saving Lamps (WM) (pg 4-14)

- Energy-saving replacement for all standard T12 fluorescent lamps
- 12% to 20% savings in energy costs vs. standard fluorescent with approximately 15% light loss
- TCLP compliant, lowering disposal costs where applicable (state and local regulations vary, consult your state EPA)

### GE T12 High Output Lamps (pg 4-15 to 4-16)

- High light output and long life
- Produces about 45% more initial lumens than standard lamps of the same size
- Usually operated at 800mA

### GE T12 Very High Output Lamps (pg 4-16)

- Where high light levels are required – factories, warehouses, gymnasiums, open areas
- Rapid Start, operated at 1500mA

### covRguard® Shatter Resistant Fluorescent Lamps (pg 4-17)

- Polycarbonate shield helps to contain shattered glass particles if lamp is broken, protecting people, food and other valuable items
- UV-blocking properties guard against fading and UV degradation
- Available in a variety of colors for decorative and architectural applications

### GE Cold-Temperature Lamps (pg 4-19)

- Specifically designed for cold-temperature applications such as freezers and coolers, display cases and outdoor areas
- Available in T5, T8, T10 and T12 versions
- Rated nominal watts and initial lumens are peak values. Actual watt and lumen values may be somewhat lower in service, depending on ambient conditions.

### GE Appliance Lamps (pg 4-20)

- Designed for intermittent service in appliances such as oven hoods and microwaves

### GE Blacklight/Blacklight Blue Lamps (pg 4-20)

- Blacklight (BL) lamps are commonly used in insect traps
- Blacklight Blue (BLB) lamps are often used decoratively in disco lighting and theatrical applications. These lamps are produced with a special dark blue glass that filters most visible light.

### GE Gold Lamps (pg 4-21)

- Effectively blocks all UV emissions below 520nm
- Available in covRguard®
- Used in photo-sensitive applications such as semi-conductor assembly and darkrooms

### GE Germicidal Lamps (pg 4-21)

- Clear lamps with special UV transmitting glass
- The 254nm radiation from appropriately designed and installed devices using the lamps can inactivate many forms of bacteria and other organisms
- Used in air, water and surface purification devices

## Headings in this catalog section

The following terms and descriptions can help you when checking Fluorescent lamp specifications and when ordering products. Within each product line, lamps are divided into families, within these

families, lamps are then listed by wattage, then bulb, and then by base. There are exceptions to this ordering among the specialty lamps listed.

**Order Code:**

It is important to use this five-digit code when ordering to ensure that you receive the exact product you require.

**Nominal Length (in):**

Lamp length including base and/or pins.

**Watts:**

Energy used (as defined by FTC Lamp Label Rules). To estimate energy consumption (kWh), multiply watts x hours of use and divide by 1000.

**Bulb Shape:**

Bulb shape followed by its size (the maximum diameter of the bulb expressed in eighths of an inch).

**Base:**  
The type of base.

**Description:**  
The lamp's identification code.

**Case Quantity:**  
Number of product units packed in a case.

**Rated Life - Hours:**  
Lamp burning hours to median life expectancy.

**Initial Lumens:**  
Lamp light output after the initial 100 hours of operation.

**Mean Lumens:**  
Lamp light output at 40% of rated lamp life or 8K hours for lamps exceeding 20K hours life.


**Color Temperature Kelvins (K):**

A measure of the visual "warmth" or "coolness" of the light from the lamp. The higher the value, the whiter or "cooler" the light appears.

**Color Rendering Index (CRI or R<sub>a</sub>):**

An indication of the ability of the lamp to render object colors in a normal, natural way. The higher the number (0-100), the better the color appearance.

**High Color Rendering:**   
Indicates that this is a lamp with high color rendering, which helps objects and persons illuminated to appear more true to life.

**Reduced Wattage:**   
Indicates that this is a reduced wattage option for lamps normally used in this application. Be sure to check wattage, lumens and life to determine which lamp is best suited to your needs.


**Warning and Caution Notices:**  
See page 4-27 for more information.

**Footnotes:**  
Related footnotes, see page 4-26

**Additional Information:**  
Typical application and/or other important information.

Bulb Shape	Base	Watts	Nominal Length (in)	Order Code	Description	Case Qty	Rated Life (3hr/Start)	Rated Life (12hr/Start)	Initial Lumens	Mean Lumens	Color Temp K	CRI	High Color Rendering	Energy Savings	Reduced Wattage	Footnotes	Warning and Caution Notices	Additional Information
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**T5 Starcoat Ecolux® Lamps**

High Efficiency																			
T5	Miniature Bi-Pin (G5)	14	21.6	31590	F14W/T5/830/ECO	40	30000	36000	1350	1240	3000	85				19	101		

# F 14W/T5/830 / ECO

Identifies as Fluorescent lamp.

Identifies either the lamp's wattage or its length in inches.

Identifies the lamp shape and the bulb diameter in eighths of an inch.

Identifies the lamp finish or color.

Identifies TCLP compliance.

**WHEN YOU DON'T KNOW THE LAMP DESCRIPTION**

1. Identify bulb shape by using table on page 4-3.
2. Measure bulb diameter using ruler in Appendix section page D-1 to determine width in eighths of an inch.
3. Identify base type using table on page 4-4.
4. Find your lamp in the table containing the bulb shape, size and base.



Bulb Shape	Base	Watts	Nominal Length (in)	Order Code	Description	Case Qty	Rated Life (3 hr/ start)	Rated Life (12 hr/ start)	Initial Lumens	Mean Lumens	Color Temp K	CRI	High Color Rendering	Energy Savings	Reduced Wattage	Footnotes	Warning and Caution Notices	Additional Information	
<b>T12 Lamps (continued)</b>																			
<b>T12 Other Lengths (continued)</b>																			
<b>6' T12 Instant Start</b>																			
T12	Single Pin (Fa8)	55	72.0	15286	F72T12/SP35 15PK	15	12000		4700	4420	3500	73					101		
		55	72.0	15097	F72T12/SP41	15	12000		4700	4420	4100	72					101		
		55	72.0	15117	F72T12/SPX30 15PK	15	12000		4800	4510	3000	82	☺				101		
		55	72.0	15098	F72T12/SPX35 15PK	15	12000		4800	4510	3500	82	☺				101		
		55	72.0	13743	F72T12/CW 15PK	15	12000		4500	4140	4100	60						101	
		55	72.0	12525	F72T12/CW/UPC 10PK	10	12000		4500	4140	4100	60						101	
		55	72.0	13748	F72T12/D 15PK	15	12000		3800	3500	6500	75						101	Daylight
<b>7' T12 Instant Start</b>																			
T12	Single Pin (Fa8)	65	84.0	13764	F84T12/CW 15PK	15	12000		5300	4880	4100	60					101		
<b>T12 High Output (800mA) Rapid Start Recessed Double Contact</b>																			
<b>18" High Output</b>																			
T12	Recessed Double Contact (R17d)	30	18.0	10204	F18T12/CW/HO	24	9000		1000	750	4100	60					101		
<b>2' High Output</b>																			
T12	Recessed Double Contact (R17d)	35	24.0	10261	F24T12/CW/HO	24	9000		1620	1345	4100	60					101		
		35	24.0	10275	F24T12/D/HO	24	9000		1400	1160	6500	74					101	Daylight	
<b>30" High Output</b>																			
T12	Recessed Double Contact (R17d)	40	30.0	33707	F30T12/CW/HO	24	9000		2250	1950	4100	60					101		
<b>3' High Output</b>																			
T12	Recessed Double Contact (R17d)	45	36.0	10374	F36T12/CW/HO	24	9000		2800	2440	4100	60					101		
		45	36.0	10380	F36T12/D/HO	24	9000		2350	2040	6500	75					101		
		45	36.0	10388	F36T12/SGN/HO	24	9000		2150	1830	5400	82	☺				101		
<b>42" High Output</b>																			
T12	Recessed Double Contact (R17d)	55	42.0	10559	F42T12/CW/HO	24	9000		3200	2790	4100	60					101		
		55	42.0	10560	F42T12/D/HO	24	9000		2900	2520	6500	74					101	Daylight	
		55	42.0	10562	F42T12/SGN/HO	24	9000		2600	2215	5400	82	☺				101	Sign White	
<b>4' High Output</b>																			
T12	Recessed Double Contact (R17d)	60	48.0	15359	F48T12/SP30/HO	24	12000		4250	3830	3000	70					101		
		60	48.0	15360	F48T12/SP35/HO	24	12000		4250	3830	3500	73					101		
		60	48.0	15361	F48T12/SP41/HO	24	12000		4250	3830	4100	72					101		
		60	48.0	15115	F48T12/SPX35/HO	24	12000		4350	3920	3500	82	☺				101		
		60	48.0	10773	F48T12/CW/HO	24	12000		3825	3320	4100	60					101		
		60	48.0	27313	F48T12/CW/HO/UPC	24	12000		4050	3520	4100	60					101		
		60	48.0	10778	F48T12/D/HO	24	12000		3400	2960	6500	75					101	Daylight	
		60	48.0	10573	F48T12/SGN/HO	24	12000		3100	2640	5400	80	☺				101	Sign White	
		<b>4' High Output Watt-Miser® Energy Saving Lamps</b>																	
T12	Recessed Double Contact (R17d)	55	48.0	15342	F48T12/SP35/HO/WM	24	12000		3850	3465	3500	73		\$	↗	1	101		
		55	48.0	11179	F48T12/LW/HO/WM	24	12000		3900	3390	4200	49		\$	↗	1	101	Lite White	
<b>5' High Output</b>																			
T12	Recessed Double Contact (R17d)	75	60.0	23075	F60T12/CW/HO 15PK	15	12000		5150	4480	4100	60					101		
		75	60.0	23077	F60T12/D/HO 15PK	15	12000		4400	3830	6500	75					101	Daylight	
		75	60.0	23081	F60T12/SGN/HO 15PK	15	12000		4000	3400	5400	82	☺				101	Sign White	
<b>64" High Output</b>																			
T12	Recessed Double Contact (R17d)	80	64.0	23083	F64T12/CW/HO 15PK	15	12000		5600	4870	4100	60					101		
		80	64.0	23087	F64T12/D/HO 15PK	15	12000		4750	4130	6500	75					101	Daylight	
		80	64.0	23089	F64T12/SGN/HO 15PK	15	12000		4300	3660	5400	82	☺				101	Sign White	

For the most up-to-date product information, see [www.gelighting.com](http://www.gelighting.com). To convert inches to millimeters, multiply by 25.4. All footnotes, warning and caution notices found at the end of this section (page 4-26).