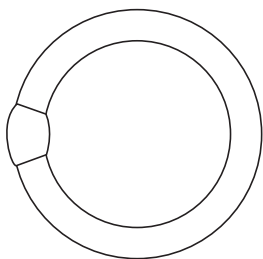
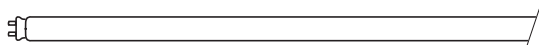


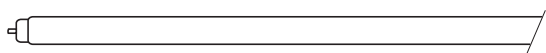
## Lamp Locator (not drawn to scale)



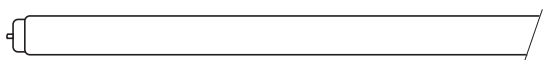
T9 Circline (1-1/8" diameter) 4-Pin Base (G10q)



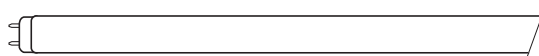
T5 (5/8" diameter) Miniature Bi-Pin Base (G5)



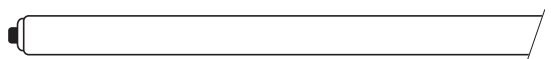
T6 (3/4" diameter) Single Pin Base (Fa8)



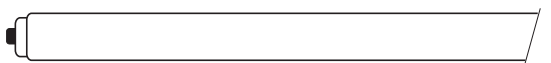
T8 (1" diameter) Single Pin Base (Fa8)



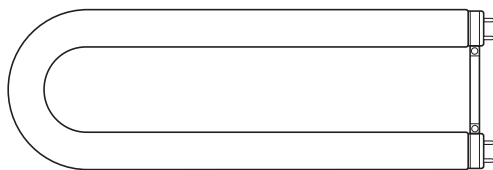
T8 (1" diameter) Medium Bi-Pin Base (G13)



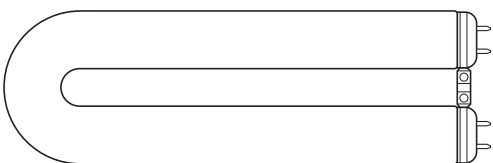
T8 (1" diameter) Recessed Double Contact Base (R17d)



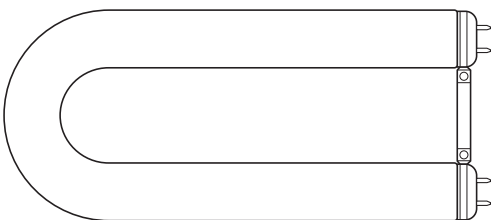
T10 (1 1/4" diameter) Recessed Double Contact Base (R17d)



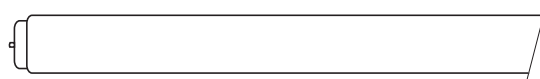
Mod-U-Line® T8/U6 (1" diameter) Medium Bi-Pin Base (G13)



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



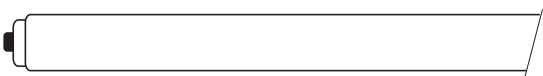
Mod-U-Line® T12/U6 (1-1/2" diameter) Medium Bi-Pin Base (G13)



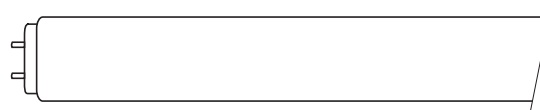
T12 (1-1/2" diameter) Single Pin Base (Fa8)



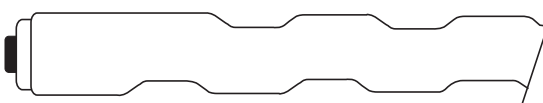
T12 (1-1/2" diameter) Medium Bi-Pin Base (G13)



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  
FluorescentLED Lamps,  
Tubes and Modules

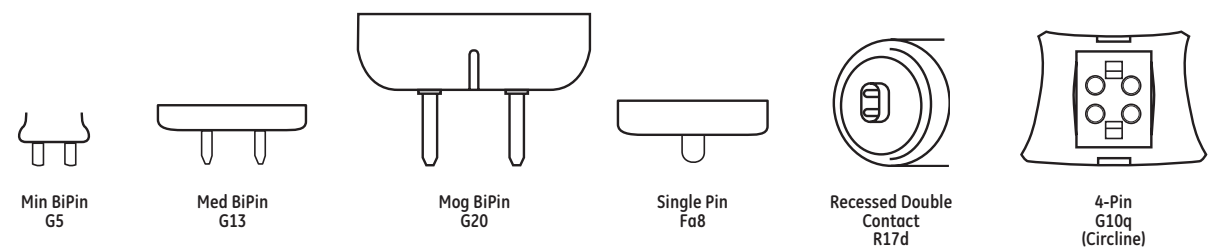
Stage and Studio

Miniature, Sealed  
Beam and Automotive

Projection

# Fluorescent Lamps

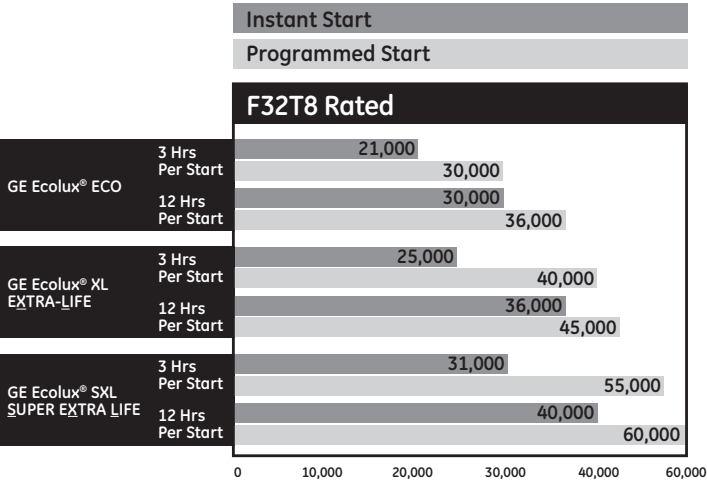
## Base Identification



## 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.

### 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 |
|------------|------|-------|---------------------|------------|-------------|----------|------------------------|-------------------------|----------------|-------------|--------------|-----|----------------------|----------------|-----------------|-----------|-----------------------------|------------------------|
|------------|------|-------|---------------------|------------|-------------|----------|------------------------|-------------------------|----------------|-------------|--------------|-----|----------------------|----------------|-----------------|-----------|-----------------------------|------------------------|

### 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

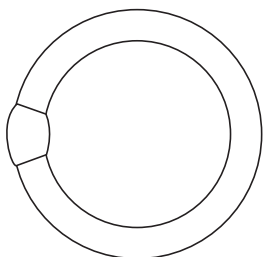
1. Identify bulb shape by using table on page 4-3.
2. Measure bulb diameter using ruler in Appendix section page D-1 to determine width in eighths of an inch.
3. Identify base type using table on page 4-4.
4. Find your lamp in the table containing the bulb shape, size and base.



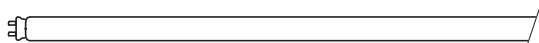
# Fluorescent Lamps

| 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 |                         |
|----------------------------------------------------|---------------------|-------|---------------------|------------|----------------------|----------|--------------------------|---------------------------|----------------|-------------|--------------|-----|-------------------------------------------------------------------------------------|----------------|-----------------|-------------------------------------------------------------------------------------|-----------------------------|------------------------|-------------------------|
| Special Application Lamps (continued)              |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8 Ecolux® w/ Starcoat®                            |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| 2' T8 Ecolux® w/ Starcoat®                         |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 17    | 24.0                | 15974      | F17T8SP35ECOCVG      | 24       | 30000                    | 36000                     | 1280           | 1220        | 3500         | 78  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 15977      | F17T8SP41ECOCVG      | 24       | 30000                    | 36000                     | 1280           | 1220        | 4100         | 78  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 15975      | F17T8SPX35ECOCVG     | 24       | 30000                    | 36000                     | 1310           | 1242        | 3500         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 15976      | F17T8SPX41ECOCVG     | 24       | 30000                    | 36000                     | 1310           | 1242        | 4100         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 28885      | F17T8XLSPX50ECOCVG   | 24       | 40000                    | 45000                     | 1310           | 1243        | 5000         | 82  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
| 3' Ecolux® w/Starcoat®                             |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 25    | 36.0                | 15978      | F25T8SP30ECOCVG      | 24       | 30000                    | 36000                     | 2020           | 1920        | 3000         | 78  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15981      | F25T8SP35ECOCVG      | 24       | 30000                    | 36000                     | 2020           | 1920        | 3500         | 78  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15984      | F25T8SP41ECOCVG      | 24       | 30000                    | 36000                     | 2020           | 1920        | 4100         | 78  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15989      | F25T8SPX30ECOCVG     | 24       | 30000                    | 36000                     | 2080           | 1970        | 3000         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15990      | F25T8SPX35ECOCVG     | 24       | 30000                    | 36000                     | 2080           | 1970        | 3500         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15991      | F25T8SPX41ECOCVG     | 24       | 30000                    | 36000                     | 2080           | 1970        | 4100         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 28887      | F25T8XLSPX50ECOCVG   | 24       | 40000                    | 45000                     | 1990           | 1890        | 5000         | 82  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
| 4' T8 (48") Ecolux® w/Starcoat®                    |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 32    | 48.0                | 94838      | F32T8SP30ECO/CVG     | 36       | 30000                    | 36000                     | 2800           | 2640        | 3000         | 80  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94839      | F32T8SP35ECO/CVG     | 36       | 30000                    | 36000                     | 2800           | 2640        | 3500         | 80  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94861      | F32T8SP41ECO/CVG     | 36       | 30000                    | 36000                     | 2800           | 2640        | 4100         | 80  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94842      | F32T8SP50ECO/CV      | 36       | 30000                    | 36000                     | 2800           | 2640        | 5000         | 80  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94843      | F32T8SPX65ECO/CV     | 36       | 30000                    | 36000                     | 2800           | 2670        | 6500         | 78  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 41125      | F32T8SPX30ECOCVG     | 36       | 30000                    | 36000                     | 2860           | 2715        | 3000         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 41126      | F32T8SPX35ECOCVG     | 36       | 30000                    | 36000                     | 2860           | 2715        | 3500         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 41127      | F32T8SPX41ECOCVG     | 36       | 30000                    | 36000                     | 2860           | 2715        | 4100         | 85  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 15971      | F32T8SPX50ECOCVG     | 36       | 30000                    | 36000                     | 2715           | 2580        | 5000         | 82  |    |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
| 4' T8 Ecolux® XL Extra-life w/Starcoat®            |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 32    | 48.0                | 15972      | F32T8XLSPX30ECOCVG   | 36       | 40000                    | 45000                     | 2860           | 2715        | 3000         | 85  |  |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 15973      | F32T8XLSPX35ECOCVG   | 36       | 40000                    | 45000                     | 2860           | 2715        | 3500         | 85  |  |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 18369      | F32T8XLSPX41ECCVG    | 36       | 40000                    | 45000                     | 2860           | 2715        | 4100         | 85  |  |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 23746      | F32T8XLSPX50ECOCVG   | 36       | 40000                    | 45000                     | 2715           | 2580        | 5000         | 82  |                                                                                     |                |                 |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
| Ultra Energy Saving T8 Lamps w/ covRguard®         |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| 4' T8 Ecolux® 25 Watt Lamp                         |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 25    | 48.0                | 72814      | F32T8/25WSPX41ECOCVG | 36       | 40000                    | 46000                     | 2425           | 2350        | 4100         | 82  |  |                | \$              |  | 1,11,13,18                  | 103                    | Blocks UV               |
|                                                    |                     | 25    | 48.0                | 72815      | F32T8/25WSPX50ECOCVG | 36       | 40000                    | 46000                     | 2425           | 2350        | 5000         | 80  |  |                | \$              |  | 1,11,13,18                  | 103                    | Blocks UV               |
| 4' T8 Ecolux® UltraMax® 28 Watt Lamp               |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 28    | 48.0                | 73292      | F28T8/XLSPX30ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 3000         | 85  |  |                | \$              |  | 1,11,13,18                  | 103                    | Blocks UV, CEE Approved |
|                                                    |                     | 28    | 48.0                | 73293      | F28T8/XLSPX35ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 3500         | 85  |  |                | \$              |  |                             | 103                    | Blocks UV, CEE Approved |
|                                                    |                     | 28    | 48.0                | 73294      | F28T8/XLSPX41ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 4100         | 82  |  |                | \$              |  |                             | 103                    | Blocks UV, CEE Approved |
|                                                    |                     | 28    | 48.0                | 73295      | F28T8/XLSPX50ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 5000         | 80  |  |                | \$              |  |                             | 103                    | Blocks UV               |
| 4' T8 Ecolux® High Lumen XL Extra-Life w/Starcoat® |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 32    | 48.0                | 00268      | F32T8XLSPX35HCVG     | 36       | 40000                    | 45000                     | 3007           | 2827        | 3500         | 85  |  |                | \$              |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 00269      | F32T8XLSPX41HCVG     | 36       | 40000                    | 45000                     | 3007           | 2827        | 4100         | 82  |  |                | \$              |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 80497      | F32T8XLSPX50HCVG     | 36       | 40000                    | 45000                     | 2910           | 2735        | 5000         | 80  |  |                | \$              |                                                                                     | 11,13,18                    | 103                    | Blocks UV               |
| 5' T8 w/Starcoat®                                  |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| 5' T8 (60") w/Starcoat®                            |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Medium Bi-Pin (G13) | 40    | 60.0                | 41131      | F40T8/SPX35/CVG      | 24       | 20000                    |                           | 3610           | 3250        | 3500         | 84  |  |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 40    | 60.0                | 47351      | F40T8/SPX41/CVG      | 24       | 20000                    |                           | 3610           | 3250        | 4100         | 84  |  |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
| T8 Instant Start w/Starcoat®                       |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| 8' T8 (96") Instant Start w/Starcoat®              |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                                                                                     |                |                 |                                                                                     |                             |                        |                         |
| T8                                                 | Single Pin (Fa8)    | 59    | 96.0                | 94856      | F96T8XL/SPX30/CVG    | 24       | 24000                    | 30000                     | 5750           | 5480        | 3000         | 85  |                                                                                     |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 94859      | F96T8XL/SPP35/CVG    | 24       | 24000                    | 30000                     | 5600           | 5060        | 3500         | 80  |                                                                                     |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 94860      | F96T8XL/SPP41/CVG    | 24       | 24000                    | 30000                     | 5600           | 5060        | 4100         | 80  |                                                                                     |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 40099      | F96T8XL/SPX30CVG     | 24       | 24000                    | 30000                     | 5770           | 5480        | 3000         | 85  |  |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 40105      | F96T8XL/SPX35/CVG    | 24       | 24000                    | 30000                     | 5770           | 5480        | 3500         | 85  |  |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 40106      | F96T8XL/SPX41/CVG    | 24       | 24000                    | 30000                     | 5770           | 5480        | 4100         | 85  |  |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 48205      | F96T8XL/SPX50/CVG    | 24       | 24000                    | 30000                     | 5770           | 5480        | 5000         | 82  |  |                |                 |                                                                                     | 11,13                       | 103                    | Blocks UV               |

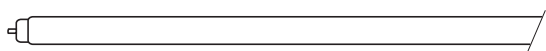
## Lamp Locator (not drawn to scale)



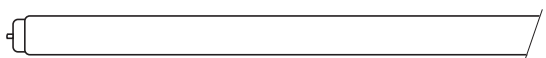
T9 Circline (1-1/8" diameter) 4-Pin Base (G10q)



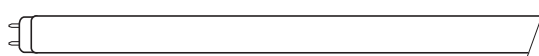
T5 (5/8" diameter) Miniature Bi-Pin Base (G5)



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



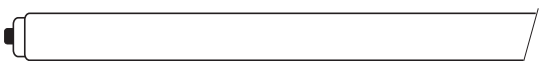
T8 (1" diameter) Single Pin Base (Fa8)



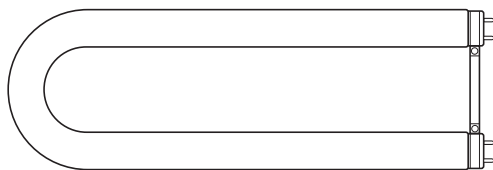
T8 (1" diameter) Medium Bi-Pin Base (G13)



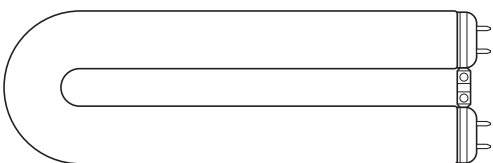
T8 (1" diameter) Recessed Double Contact Base (R17d)



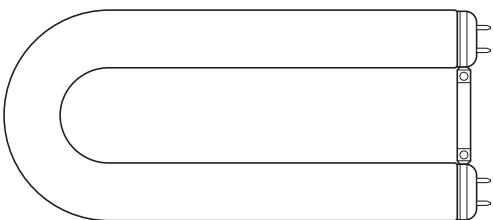
T10 (1 1/4" diameter) Recessed Double Contact Base (R17d)



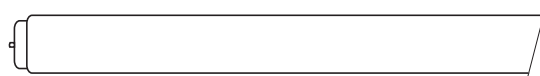
Mod-U-Line® T8/U6 (1" diameter) Medium Bi-Pin Base (G13)



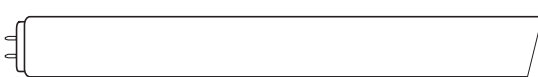
Mod-U-Line® T12/U3 (1 1/2" diameter) Medium Bi-Pin Base (G13)



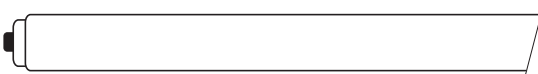
Mod-U-Line® T12/U6 (1-1/2" diameter) Medium Bi-Pin Base (G13)



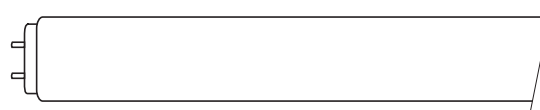
T12 (1-1/2" diameter) Single Pin Base (Fa8)



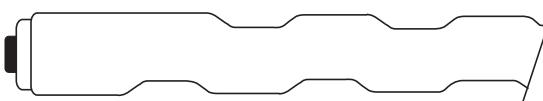
T12 (1-1/2" diameter) Medium Bi-Pin Base (G13)



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  
FluorescentLED Lamps,  
Tubes and Modules

Stage and Studio

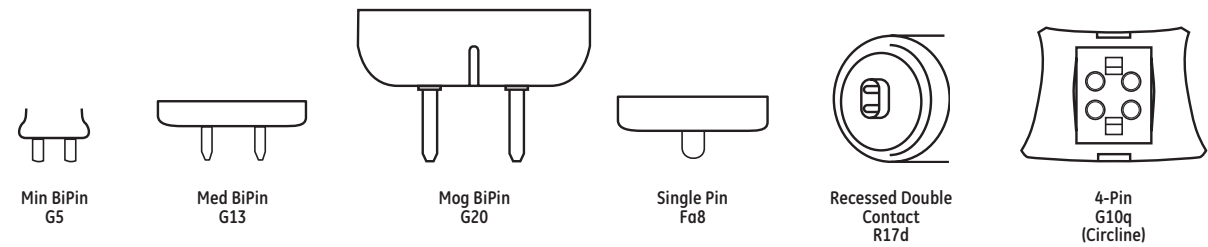
Miniature, Sealed  
Beam and Automotive

Projection



# Fluorescent Lamps

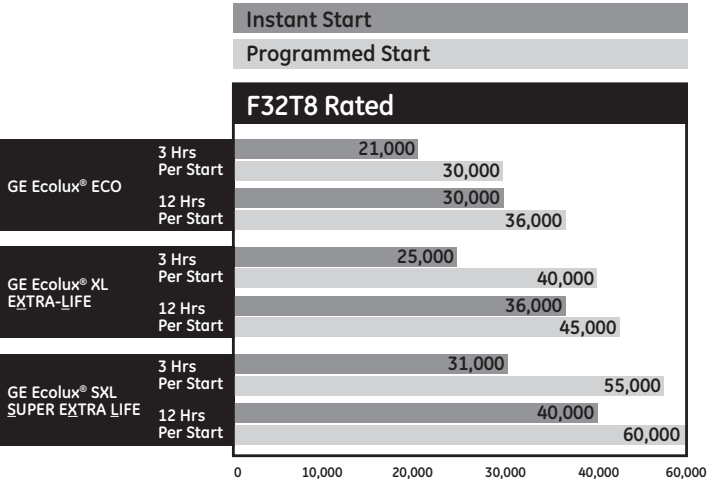
## Base Identification



## 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.

### 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 |
|------------|------|-------|---------------------|------------|-------------|----------|------------------------|-------------------------|----------------|-------------|--------------|-----|----------------------|----------------|-----------------|-----------|-----------------------------|------------------------|
|------------|------|-------|---------------------|------------|-------------|----------|------------------------|-------------------------|----------------|-------------|--------------|-----|----------------------|----------------|-----------------|-----------|-----------------------------|------------------------|

### 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.



# Fluorescent Lamps

| 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  |
|----------------------------------------------------|---------------------|-------|---------------------|------------|----------------------|----------|--------------------------|---------------------------|----------------|-------------|--------------|-----|----------------------|----------------|-----------------|------------|-----------------------------|-------------------------|
| Special Application Lamps (continued)              |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8 Ecolux® w/ Starcoat®                            |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| 2' T8 Ecolux® w/ Starcoat®                         |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 17    | 24.0                | 15974      | F17T8SP35ECOCVG      | 24       | 30000                    | 36000                     | 1280           | 1220        | 3500         | 78  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 15977      | F17T8SP41ECOCVG      | 24       | 30000                    | 36000                     | 1280           | 1220        | 4100         | 78  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 15975      | F17T8SPX35ECOCVG     | 24       | 30000                    | 36000                     | 1310           | 1242        | 3500         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 15976      | F17T8SPX41ECOCVG     | 24       | 30000                    | 36000                     | 1310           | 1242        | 4100         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 17    | 24.0                | 28885      | F17T8XLSPX50ECOCVG   | 24       | 40000                    | 45000                     | 1310           | 1243        | 5000         | 82  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
| 3' Ecolux® w/Starcoat®                             |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 25    | 36.0                | 15978      | F25T8SP30ECOCVG      | 24       | 30000                    | 36000                     | 2020           | 1920        | 3000         | 78  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15981      | F25T8SP35ECOCVG      | 24       | 30000                    | 36000                     | 2020           | 1920        | 3500         | 78  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15984      | F25T8SP41ECOCVG      | 24       | 30000                    | 36000                     | 2020           | 1920        | 4100         | 78  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15989      | F25T8SPX30ECOCVG     | 24       | 30000                    | 36000                     | 2080           | 1970        | 3000         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15990      | F25T8SPX35ECOCVG     | 24       | 30000                    | 36000                     | 2080           | 1970        | 3500         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 15991      | F25T8SPX41ECOCVG     | 24       | 30000                    | 36000                     | 2080           | 1970        | 4100         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 25    | 36.0                | 28887      | F25T8XLSPX50ECOCVG   | 24       | 40000                    | 45000                     | 1990           | 1890        | 5000         | 82  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
| 4' T8 (48") Ecolux® w/Starcoat®                    |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 32    | 48.0                | 94838      | F32T8SP30ECO/CVG     | 36       | 30000                    | 36000                     | 2800           | 2640        | 3000         | 80  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94839      | F32T8SP35ECO/CVG     | 36       | 30000                    | 36000                     | 2800           | 2640        | 3500         | 80  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94861      | F32T8SP41ECO/CVG     | 36       | 30000                    | 36000                     | 2800           | 2640        | 4100         | 80  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94842      | F32T8SP50ECO/CV      | 36       | 30000                    | 36000                     | 2800           | 2640        | 5000         | 80  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 94843      | F32T8SPX65ECO/CV     | 36       | 30000                    | 36000                     | 2800           | 2670        | 6500         | 78  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 41125      | F32T8SPX30ECOCVG     | 36       | 30000                    | 36000                     | 2860           | 2715        | 3000         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 41126      | F32T8SPX35ECOCVG     | 36       | 30000                    | 36000                     | 2860           | 2715        | 3500         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 41127      | F32T8SPX41ECOCVG     | 36       | 30000                    | 36000                     | 2860           | 2715        | 4100         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
| 32                                                 | 48.0                | 15971 | F32T8SPX50ECOCVG    | 36         | 30000                | 36000    | 2715                     | 2580                      | 5000           | 82          | ☞            |     |                      | 11,13,18       | 103             | Blocks UV  |                             |                         |
| 4' T8 Ecolux® XL Extra-life w/Starcoat®            |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 32    | 48.0                | 15972      | F32T8XLSPX30ECOCVG   | 36       | 40000                    | 45000                     | 2860           | 2715        | 3000         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 15973      | F32T8XLSPX35ECOCVG   | 36       | 40000                    | 45000                     | 2860           | 2715        | 3500         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 18369      | F32T8XLSPX41ECCVG    | 36       | 40000                    | 45000                     | 2860           | 2715        | 4100         | 85  | ☞                    |                |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 23746      | F32T8XLSPX50ECOCVG   | 36       | 40000                    | 45000                     | 2715           | 2580        | 5000         | 82  |                      |                |                 | 11,13,18   | 103                         | Blocks UV               |
| Ultra Energy Saving T8 Lamps w/ covRguard®         |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| 4' T8 Ecolux® 25 Watt Lamp                         |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 25    | 48.0                | 72814      | F32T8/25WSPX41ECOCVG | 36       | 40000                    | 46000                     | 2425           | 2350        | 4100         | 82  | ☞                    | \$             | ↗               | 1,11,13,18 | 103                         | Blocks UV               |
|                                                    |                     | 25    | 48.0                | 72815      | F32T8/25WSPX50ECOCVG | 36       | 40000                    | 46000                     | 2425           | 2350        | 5000         | 80  | ☞                    | \$             | ↗               | 1,11,13,18 | 103                         | Blocks UV               |
| 4' T8 Ecolux® UltraMax® 28 Watt Lamp               |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 28    | 48.0                | 73292      | F28T8/XLSPX30ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 3000         | 85  | ☞                    | \$             | ↗               | 1,11,13,18 | 103                         | Blocks UV, CEE Approved |
|                                                    |                     | 28    | 48.0                | 73293      | F28T8/XLSPX35ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 3500         | 85  | ☞                    | \$             | ↗               |            | 103                         | Blocks UV, CEE Approved |
|                                                    |                     | 28    | 48.0                | 73294      | F28T8/XLSPX41ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 4100         | 82  | ☞                    | \$             | ↗               |            | 103                         | Blocks UV, CEE Approved |
|                                                    |                     | 28    | 48.0                | 73295      | F28T8/XLSPX50ECO/CVG | 36       | 40000                    | 46000                     | 2595           | 2440        | 5000         | 80  | ☞                    | \$             | ↗               |            | 103                         | Blocks UV               |
| 4' T8 Ecolux® High Lumen XL Extra-Life w/Starcoat® |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 32    | 48.0                | 00268      | F32T8XLSPX35HCVG     | 36       | 40000                    | 45000                     | 3007           | 2827        | 3500         | 85  | ☞                    | \$             |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 00269      | F32T8XLSPX41HCVG     | 36       | 40000                    | 45000                     | 3007           | 2827        | 4100         | 82  | ☞                    | \$             |                 | 11,13,18   | 103                         | Blocks UV               |
|                                                    |                     | 32    | 48.0                | 80497      | F32T8XLSPX50HCVG     | 36       | 40000                    | 45000                     | 2910           | 2735        | 5000         | 80  | ☞                    | \$             |                 | 11,13,18   | 103                         | Blocks UV               |
| 5' T8 w/Starcoat®                                  |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| 5' T8 (60") w/Starcoat®                            |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Medium Bi-Pin (G13) | 40    | 60.0                | 41131      | F40T8/SPX35/CVG      | 24       | 20000                    |                           | 3610           | 3250        | 3500         | 84  | ☞                    |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 40    | 60.0                | 47351      | F40T8/SPX41/CVG      | 24       | 20000                    |                           | 3610           | 3250        | 4100         | 84  | ☞                    |                |                 | 11,13      | 103                         | Blocks UV               |
| T8 Instant Start w/Starcoat®                       |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| 8' T8 (96") Instant Start w/Starcoat®              |                     |       |                     |            |                      |          |                          |                           |                |             |              |     |                      |                |                 |            |                             |                         |
| T8                                                 | Single Pin (Fa8)    | 59    | 96.0                | 94856      | F96T8XL/SPX30/CVG    | 24       | 24000                    | 30000                     | 5750           | 5480        | 3000         | 85  |                      |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 94859      | F96T8XL/SPX35/CVG    | 24       | 24000                    | 30000                     | 5600           | 5060        | 3500         | 80  |                      |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 94860      | F96T8XL/SPX41/CVG    | 24       | 24000                    | 30000                     | 5600           | 5060        | 4100         | 80  |                      |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 40099      | F96T8XL/SPX30CVG     | 24       | 24000                    | 30000                     | 5770           | 5480        | 3000         | 85  | ☞                    |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 40105      | F96T8XL/SPX35/CVG    | 24       | 24000                    | 30000                     | 5770           | 5480        | 3500         | 85  | ☞                    |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 40106      | F96T8XL/SPX41/CVG    | 24       | 24000                    | 30000                     | 5770           | 5480        | 4100         | 85  | ☞                    |                |                 | 11,13      | 103                         | Blocks UV               |
|                                                    |                     | 59    | 96.0                | 48205      | F96T8XL/SPX50/CVG    | 24       | 24000                    | 30000                     | 5770           | 5480        | 5000         | 82  | ☞                    |                |                 | 11,13      | 103                         | Blocks UV               |