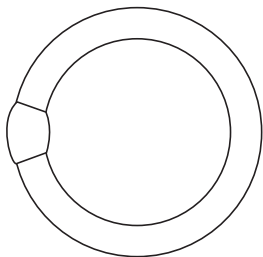
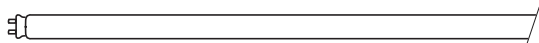


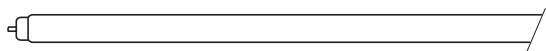
Lamp Locator (not drawn to scale)



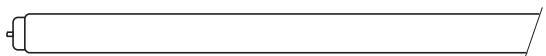
T9 Circline (1-1/8" diameter) 4-Pin Base (G10q)



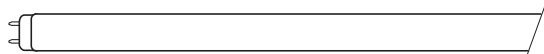
T5 (5/8" diameter) Miniature Bi-Pin Base (G5)



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



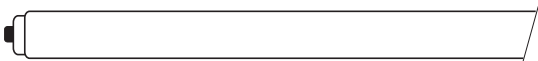
T8 (1" diameter) Single Pin Base (Fa8)



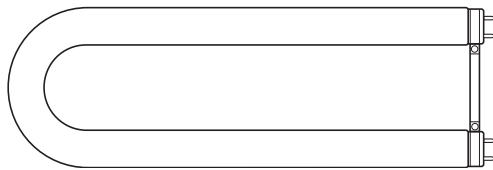
T8 (1" diameter) Medium Bi-Pin Base (G13)



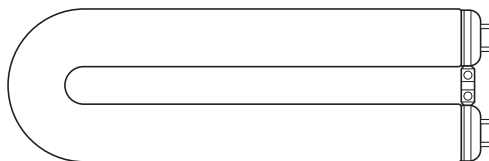
T8 (1" diameter) Recessed Double Contact Base (R17d)



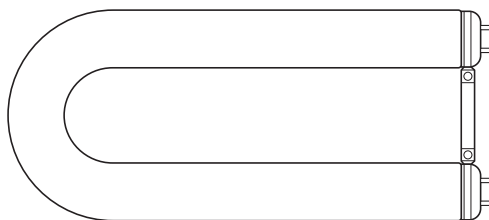
T10 (1 1/4" diameter) Recessed Double Contact Base (R17d)



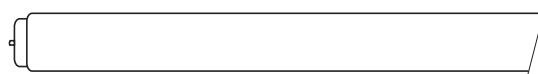
Mod-U-Line® T8/U6 (1" diameter) Medium Bi-Pin Base (G13)



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



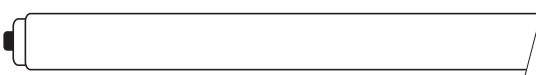
Mod-U-Line® T12/U6 (1-1/2" diameter) Medium Bi-Pin Base (G13)



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

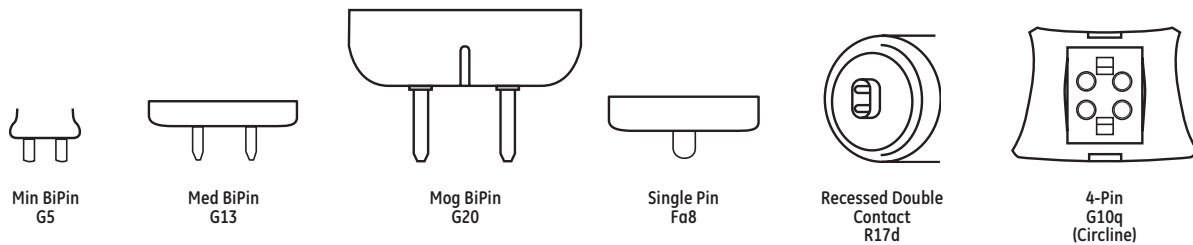
Stage and Studio

Miniature, Sealed  
Beam and Automotive

Projection

# Fluorescent Lamps

## Base Identification



## Introduction

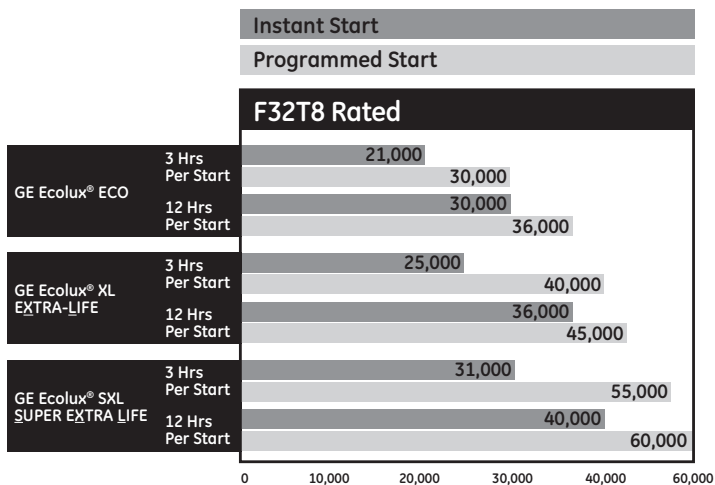
GE introduced the first fluorescent lamp in 1939. Today, these lamps have become almost a universal standard in office and other lighting applications. The characteristics of fluorescent lamps vary widely according to the lamp type. In general, fluorescent lamps have the following advantages:

- 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.

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.



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

## 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>Other Diameters (continued)</b>																									
<b>T17 Instant Start</b>																									
T17	Mogul Bi-Pin (G20)	40	60.0	10575	F40T17/CW/IS	12	7500		2850	2620	4100	60			↔	3	101	Use only w/ Instant Start Ballasts							
<b>Pg17 T17 Preheat</b>																									
T17	Mogul Bi-Pin (G20)	82	60.0	43443	F90T17/CW/WM	12	9000		5750	5060	4100	60		\$	↔	4	101								
		90	60.0	10643	F90T17/CW	12	9000		6000	5280	4100	60			↔	4	101								
<b>Power Groove Recessed Double Contact (1500mA)</b>																									
PG17	Recessed Double Contact (R17d)	185	96.0	42666	F96PG17/CW/WM	8	12000		12700	9900	4100	60		\$	↔	4	101								
		215	96.0	11009	F96PG17/CW	8	10000		14000	10915	4100	60			↔	4	101								
		215	96.0	11018	F96PG17/D	8	10000		12100	9440	6500	74					4	101	Daylight						
<b>T9 Circline® Lamps</b>																									
T9	4-Pin (G10q)	20	6.5	42732	FC6T9/CW	12	12000		800	560	4100	60						101							
		22	8.25	33774	FC8T9/CW	12	12000		1100	825	4100	60							101						
		22	8.25	11026	FC8T9/D	12	12000		925	690	6500	75								Daylight					
		22	8.25	11084	FC8T9/KB	6	12000		1400	1120	3000	82	☺							104	Kitchen & Bath				
		32	12.0	33890	FC12T9/CW	12	12000		1950	1460	4100	60									101				
		32	12.0	11039	FC12T9/D	12	12000		1675	1260	6500	75										Daylight			
		32	12.0	11085	FC12T9/KB	6	12000		2400	1920	3000	82	☺								104	Kitchen & Bath			
		40	16.0	33893	FC16T9/CW	12	12000		2700	2030	4100	60										101			
		40	16.0	11052	FC16T9/D	12	12000		2250	1690	6500	75											Daylight		
		<b>Special Application Lamps</b>																							
<b>covGuard® Shatter Resistant</b>																									
<b>T5 High Efficiency</b>																									
T5	Miniature Bi-Pin (G5)	14	21.6	73194	F14W/T5/830/ECO/CVG	40	30000	36000	1310	1200	3000	85	☺				11,13	103	Blocks UV						
		14	21.6	73195	F14W/T5/835/ECO/CVG	40	30000	36000	1310	1200	3500	85	☺					11,13	103	Blocks UV					
		28	45.2	81546	F28W/T5/830/ECO/CVG	40	30000	36000	2813	2672	3000	85	☺						11,13	103	Blocks UV				
		28	45.2	81547	F28W/T5/835/ECO/CVG	40	30000	36000	2813	2672	3500	85	☺							11,13	103	Blocks UV			
		28	45.2	81548	F28W/T5/841/ECO/CVG	40	30000	36000	2813	2672	4100	85	☺							11,13	103	Blocks UV			
		28	45.2	81549	F28W/T5/850/ECO/CVG	40	30000	36000	2667	2534	5000	85	☺								11,13	103	Blocks UV		
		28	45.2	81550	F28W/T5/865/ECO/CVG	40	30000	36000	2319	2488	6500	85	☺								11,13	103	Blocks UV		
		<b>T5 High Output</b>																							
T5	Miniature Bi-Pin (G5)	24	21.6	71000	F24W/T5/830/ECO/CVG	40	30000	36000	1950	1853	3000	85	☺					11	103						
		24	21.6	70998	F24W/T5/835/ECO/CVG	40	30000	36000	1950	1853	3500	85	☺							11	103				
		24	21.6	70997	F24W/T5/841/ECO/CVG	40	30000	36000	1950	1853	4100	85	☺								11	103			
		24	21.6	70999	F24W/T5/850/ECO/CVG	40	30000	36000	1850	1758	5000	85	☺									11	103		
		39	33.4	70995	F39W/T5/830/ECO/CVG	40	30000	36000	3400	3230	3000	85	☺									11	103		
		39	33.4	70994	F39W/T5/835/ECO/CVG	40	30000	36000	3400	3230	3500	85	☺										11	103	
		39	33.4	70993	F39W/T5/841/ECO/CVG	40	30000	36000	3400	3230	4100	85	☺										11	103	
		39	33.4	70990	F39W/T5/865/ECO/CVG	40	30000	36000	3200	3040	6500	85	☺										11	103	
		54	45.2	48433	F54T5/830/HO/ECO/CVG	40	30000	36000	4850	4560	3000	85	☺										11	103	
		54	45.2	48436	F54T5/835/HO/ECO/CVG	40	30000	36000	4850	4560	3500	85	☺										11	103	
		54	45.2	48458	F54T5/841/HO/ECO/CVG	40	30000	36000	4850	4560	4100	85	☺										11	103	
		54	45.2	80311	F54T5/850/HO/ECO/CVG	40	30000	36000	4650	4370	5000	85	☺										11	103	
		54	45.2	48469	F54T5/865/HO/ECO/CVG	40	30000	36000	4650	4320	6500	85	☺										11	103	
		<b>T5 High Output Watt-Miser®</b>																							
T5	Miniature Bi-Pin (G5)	51	45.2	72986	F54T5/835/WM/ECO/CVG	40	30000	36000	4850	4560	3500	85	☺	\$	↔		11	103							
		51	45.2	72987	F54T5/841/WM/ECO/CVG	40	30000	36000	4850	4560	4100	85	☺	\$	↔		11	103							
		51	45.2	72988	F54T5/850/WM/ECO/CVG	40	30000	36000	4650	4370	5000	85	☺	\$	↔		11	103							
		47	45.0	65106	F54T5/47W/841CVG	40	30000	36000	4728	4343	4100	85	☺	\$	↔		11	103							
		47	45.0	65107	F54T5/47W/850CVG	40	30000	36000	4531	4167	5000	85	☺	\$	↔		11	103							
<b>T5 Preheat Lamps</b>																									
T5	Miniature Bi-Pin (G5)	8	12.0	41107	F8T5/CW/CVG	24	5000		385	310	4100	60					11,13	103	Blocks UV						
		13	21.0	41108	F13T5/CW/CVG	24	5000		820	684	4100	60						11,13	103	Blocks UV					