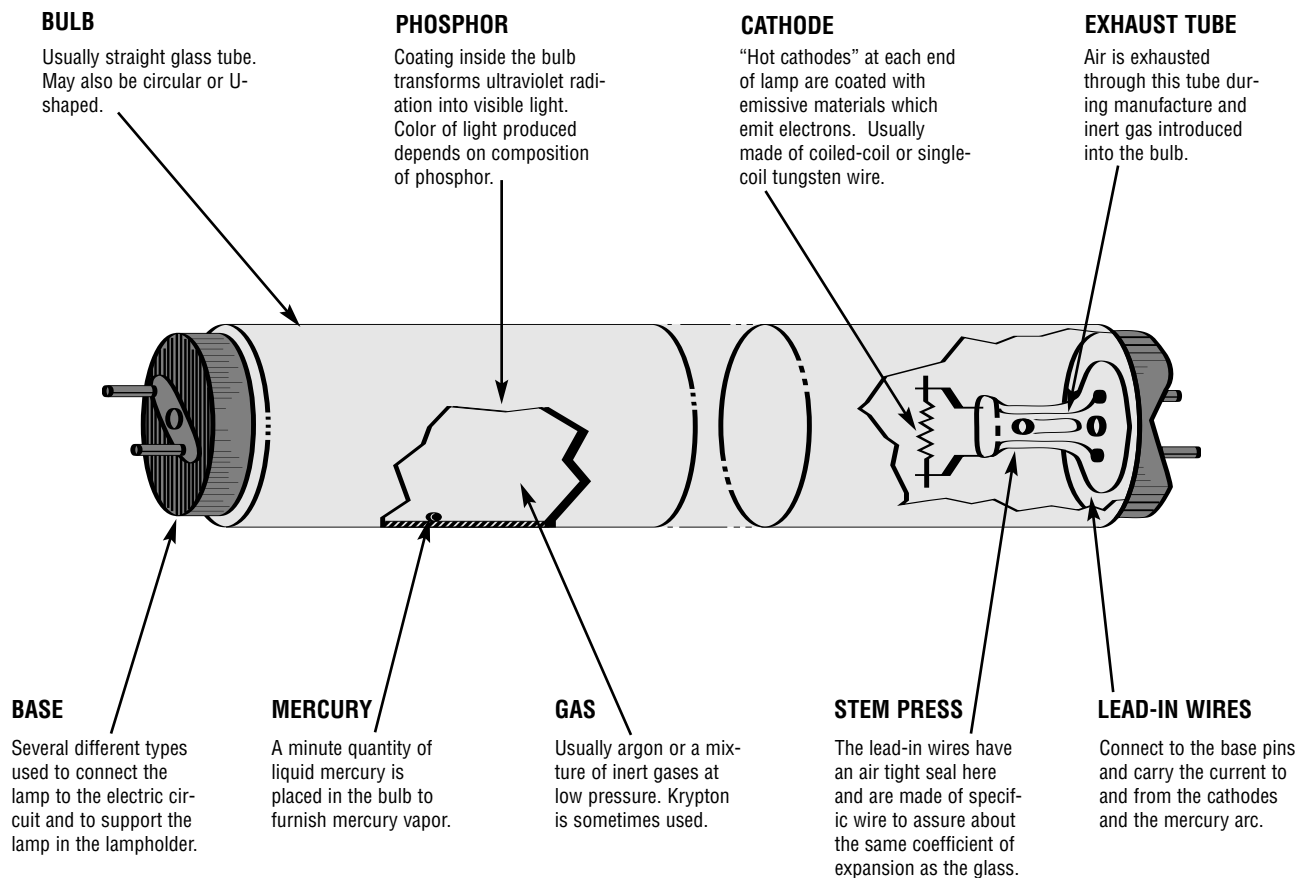


## OSRAM SYLVANIA: THE LEADER IN ENERGY SAVING FLUORESCENT LAMPS

The fluorescent lamp is an electric discharge device which utilizes a low pressure mercury vapor arc to generate ultra-violet (plus a little visible) energy. The ultra-violet energy is absorbed by a phosphor coat on the inside of the glass tube and converted by the phosphor to visible wavelengths; the wavelengths of the light generated are determined by the composition of the phosphor. In addition to the small amount of mercury vapor, the fluorescent tube contains an atmosphere of an inert gas, usually argon, krypton, neon, or a mixture of two or more of these gases. The pressure of the gases contained in the lamp is very low, usually from 2 to 3 torr. Atmospheric pressure is 760 torr.



## HOW TO READ PRODUCT INFORMATION - FLUORESCENT

Nominal Wattage	Bulb	Nominal Length(in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21763	<b>F032/835XP/ECO</b>	30	24000	3500	85	3000	2850	Ⓔ Ⓐ Ⓒ 2,21,31,35,39,60,70
34	T12	48	47.78	Med Bipin	24594	<b>F34CW/SS</b> Formerly F40CW/SS	30	20000	4200	60	2650	2279	Ⓔ 2,10,13,19,21,42
54	T5	48	45.5	Mini Bipin	20857	<b>FP54/830/HO</b>	40	20000	3000	85	4450 5000	4228 4750	Ⓒ 2,21,26,35,59
60	T12	96	94	Single Pin	29815	<b>F96T12/CW/SS</b>	15	12000	4200	60	5300	4664	Ⓔ 2,15,21

<b>Nominal Wattage</b>	Design wattage on reference ballast. Actual wattage dependent on ballast.
<b>Bulb</b>	Describes the shape of the bulb followed by the bulb's diameter at its widest point. The diameter value is expressed in eighths of an inch. Ex. T = Tubular, 8 = 8/8 inch = 1 inch. Please see page 134 for bulb illustrations.
<b>Base</b>	Please see page 134 for base illustrations.
<b>Nominal Length</b>	The nominal length of linear fluorescent lamps is typically measured from back of lampholder to back of lampholder. PENTRON® linear lamp, CURVALUME® and Circline lamps are exceptions. The nominal length given for PENTRON linear lamps is the closest familiar nominal length. CURVALUME lamps are measured from the face of the bases to the outside of the glass bend. The measurement for Circline lamps is the outside diameter. Values are in inches.
<b>MOL</b>	Maximum overall length. The length of the lamp measured in inches.
<b>Symbols &amp; Footnotes</b>	Most symbols and footnotes that apply to a specific product will appear in this space. The explanations of the symbols and footnotes are at the end of the fluorescent section.
<b>Ordering Abbreviation</b>	A text description of the lamp. Please see below for several examples and explanations of some of the codes.
<b>CCT</b>	Correlated Color Temperature. The degree of "whiteness" of the light. Expressed in kelvins (K). Please see page 131 for more information.
<b>CRI</b>	Color Rendering Index. A numbering system for rating the relative color rendering quality of a light source compared to a standard. Please see page 131 for more information.
<b>Initial &amp; Mean Lumens</b>	Initial lumens are measured when the lamp has been operating for 100 hours. Mean lumens are typically measured at 40% of the rated life of the lamp. For longer life lamp such as the OCTRON® XP® lamps, the mean lumens are measured at the same point in time as they are measured for the standard lamps they replace. Fluorescent lamp lumens are typically measured at 25°C (77°F). The lamp lumens are measured at both 25°C (77°F) and 35°C (95°F) for PENTRON® linear lamps.

### How to Read Ordering Abbreviations

F032/835XP/ECO		F34CW/SS		FP54/830/HO		F96T12/CW/SS	
F	Fluorescent	F	Fluorescent	F	Fluorescent	F	Fluorescent
O	OCTRON®	34	Nominal lamp wattage	P	PENTRON	96	96" nominal length
32	Nominal lamp wattage	CW	Cool White phosphor	54	Nominal lamp wattage	T	Tubular Shape Bulb
8	85 CRI	SS	SUPERSAVER® - reduced wattage lamp	8	85 CRI	12	Bulb diameter; 1 1/2 inch = 1 1/2 inches
35	3500K CCT			30	3000K CCT	CW	Cool White phosphor
XP®	EXtended Performance			HO	High Output	SS	SUPERSAVER - reduced wattage lamp
ECO®	ECOLOGIC® - TCLP passing lamp						

### Lamp Disposal Labeling

The following information appears on the packages of fluorescent lamps. For more information on lamp disposal labeling, see the inside back cover of this catalog.



## Lamp Contains Mercury

Manage in accordance with disposal laws  
See [www.lamprecycle.org](http://www.lamprecycle.org) or 1-866-666-6850

For weight and measurement information, please visit [www.sylvania.com](http://www.sylvania.com)

## FLUORESCENT LAMP COLORS

COLOR	COLOR ABBREVIATION	CORRELATED COLOR TEMPERATURE(1)	COLOR RENDERING INDEX(2)
OCTRON® "800" 2700K	827	2700	85
OCTRON XP® "800" 2700K	827	2700	85
WARM WHITE DELUXE	WWX	2900	82
WARM WHITE	WW	3000	52
WARM WHITE PLUS	WWP	3000	70
DESIGNER® 3000K	D30	3000	70
DESIGNER WARM WHITE	DWW	3000	70
DESIGNER "800" 3000K	D830	3000	80
DESIGNER WARM WHITE PLUS	DWWP	3000	80
OCTRON "700" 3000K	730	3000	75
OCTRON XP "700" 3000K	730	3000	78
OCTRON "800" 3000K	830	3000	82
OCTRON XP "800" 3000K	830	3000	85
OCTRON XPS® "800" 3000K	830	3000	85
PENTRON® 3000K	830	3000	85
GRO-LUX®Aquarium WIDE SPECTRUM	GRO/AQ/WS	3400	89
WHITE	W	3450	57
DESIGNER 3500K	D35	3500	70
DESIGNER "800" 3500K	D835	3500	80
ICETRON® 3500K	835	3500	80
PENTRON 3500K	835	3500	85
OCTRON "700" 3500K	735	3500	75
OCTRON XP "700" 3500K	735	3500	78
OCTRON "800" 3500K	835	3500	82
OCTRON XP "800" 3500K	835	3500	85
OCTRON XPS "800" 3500K	835	3500	86
NATURAL WHITE	N	3600	86
DESIGNER 4100K	D41	4100	70
DESIGNER COOL WHITE	DCW	4100	70
DESIGNER "800" 4100K	D841	4100	80
DESIGNER COOL WHITE PLUS	DCWP	4100	80
ICETRON 4100K	841	4100	80
OCTRON "700" 4100K	741	4100	75
OCTRON XP "700" 4100K	741	4100	78
OCTRON "800" 4100K	841	4100	82
OCTRON XP "800" 4100K	841	4100	85
OCTRON XPS "800" 4100K	841	4100	86
PENTRON 4100K	841	4100	85
COOL WHITE DELUXE	CWX	4100	87
LITE WHITE	LW	4150	48
COOL WHITE	CW	4200	60
COOL WHITE PLUS	CWP	4100	70
ICETRON 5000K	850	5000	80
OCTRON "700" 5000K	750	5000	75
OCTRON "800" 5000K	850	5000	80
OCTRON XP "800" 5000K	850	5000	85
OCTRON "900" 5000K	950	5000	90
PENTRON 5000K	580	5000	85
DESIGN 50®	DSGN50	5000	90
DAYLIGHT FULL SPECTRUM	DAYLIGHTFULL SPECTRUM	5000	90
DAYLIGHT®	DAYLIGHT	6500	76
DAYLIGHT 6500	DAYLIGHT6500V	6500	80
OCTRON "700" 6500K	765	6500	75
OCTRON XP "800" 6500K	865	6500	85
PENTRON 6500K	865	6500	85
DESIGNER 6500K	865	6500	80
DAYLIGHT DELUXE	DX	6500	88
OCTRON SKYWHITE	SKYWHITE	8000	88

## FLUORESCENT COMPETITIVE GUIDES

NOTE: These tables are intended only as guides and may represent another lamp company's most similar product or product family rather than an identical match. Individual manufacturer's performance values should be consulted. Environmental conditions, ballast type, and other auxiliary equipment may affect lamp performance.

### FLUORESCENT BRAND NAMES

SYLVANIA	GE*	PHILIPS**
CURVALUME® (FB)	MOD-U-LINE (U)	U-Bent (FB)
CWX		Home Light Everywhere (HL Everywhere)
DESIGN 50® (DSGN50)	Chroma 50 (C50)	Colortone 50 (C50)
DESIGNER® Series	Specification Series (SP)	SPEC or TL700
DESIGNER 800 Series	Specification Series (SPX)	Ultralume or TL800
DESIGNER Cool White	SP41	Home Light Cool (HL Cool)
DESIGNER Cool White PLUS	SPX41	41U
DESIGNER Warm White	Kitchen and Bath ULTRA (70 CRI)	SPEC30
DESIGNER Warm White PLUS (DWWP)	Kitchen and Bath ULTRA (80 CRI)	Home Light WX (HL WX)
DESIGNER 700, 3500K (D35)	SP35	Home Light Warm (HL Warm)
ECOLOGIC® (ECO®)	Ecolux (ECO)	ALTO
GRO-LUX®	Gro & Sho/Plant & Aquarium/Terrarium	Agro-Lite (AGRO)
ICETRON®	---	---
OCTRON®	T8 (was Trimline)	TL70/TL80
OCTRON 700 XP™ ECO	SP Ecolux XL T8 Lamps with Starcoat	TL700 PLUS ALTO
OCTRON 800 XP ECO	SPX Ecolux XL T8 Lamps with Starcoat	TL800 PLUS ALTO
OCTRON 800 XPS ECO	---	---
OCTRON 950	---	TL950
PENTRON®	T5 Starcoat	SILHOUETTE™
---	---	QL (similar to ICETRON, but not interchangeable)
SAFELINE®	covRguard	---
SUN STICK®	SUN (Sunshine)	C50
SUPERSAVER® (SS)	Watt-Miser (WM)	Econ-o-Watt (EW)
HO (800mA)	HO (800mA)	HO (800mA)
VHO (1500mA)	1500 (1500mA) & Power Grove	VHO (1500mA) (was SHO)
VHO/LT	T10/1500MA	VHO-0
XP®	XL	Plus
XPS®		Advantage

\* Trademarks or registered trademarks of General Electric Company \*\* Trademarks or registered trademarks of Philips

### FLUORESCENT COLOR CROSS REFERENCE

SYLVANIA	GE	PHILIPS	SYLVANIA	GE	PHILIPS
CW	CW	CW	D41	SP41	Spec 41
CWX		CWX, HL Everywhere		SP65	
D	D	D	D830	SPX30	30U
DX	DX	DX	D835	SPX35	35U
DSGN50	C50	50	D841	SPX41	41U
DSGN50	SGN	C50	D865		
DCW, D41	SP41	HL Cool	730	SP30	730
DCWP	SPX41	U41	735	SP35	735
DWW, D30	KB / 70 CRI, SP30	SPEC30	741	SP41	741
DWWP, D830	KB / 82 CRI, SPX30	HL WX	750	SP50	750
D35	SP35	HL Warm	765	SP65	
GRO/AQ		AGRO	827	SPX27	27
GRO/WS/AQ	PL/AQ		830	SPX30	30, 830
LW	LW	LW	835	SPX35	35, 835
N	N	N	841	SPX41	41, 841
SUN STICK	SUN	C50	850	SPX50	50, 850
WW	WW	WW	865	SPX65	865
D30	SP30	Spec 30	950		950
D35	SP35	Spec 35			

## FLUORESCENT COMPETITIVE GUIDES (continued)

### FLUORESCENT ELECTRICAL INTERCHANGEABILITY

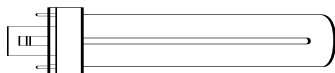
SYLVANIA	GE	PHILIPS
<b>Linear Lamps</b>		
F18T8/CW/K/23	F24" T8/CW/4	F15T8/CW/24
F18T8/CW/K/26	F26" T8/CW/4	F16T8/CW/26
F18T8/CW/K/28	F28" T8/CW/4	F17T8/CW/28
F18T8/CW/K/30	F30" T8/CW/4	F18T8/CW/30
F34CW/SS	F34CW/WM	F34CW/EW
Formerly known as F40CW/SS	F40CW/WM	F40CW/EW
F96T12/CW/SS	F96T12/CW/WM	F96T12/CW/EW
FB40/D41/6	F40/SP41/U/6	FB40/SPEC41/6
FB40/CW/6/SS (new FB34/CW/6/SS)	F40CW/U/6/WM (new F34CW/U/6/WM)	FB40/CW/6/EW (new F34/CW/6/EW)
OCTRON®	T8 (was Trimline)	TL70/TL80
OCTRON 700 Series	T8 SP	TL70
OCTRON 800 Series	T8 SPX	TL80
FO17...	F17T8/SP(or SPX)...	F17T8/TL...
FO25...	F25T8/SP(or SPX)...	F25T8/TL...
FO32...	F32T8/SP(or SPX)...	F32T8/TL...
FO32/...XP®	F32T8/XL/SP (or SPX)	F32T8/TL...PLUS
FO32/...XPS®/ECO®	---	F32T8/ADV
FO30...XP/SS/ECO	F32T8/SP.../IS/WM/ECO	F32T8/ADV8.../EW
FO28/8...XP/SS/ECO	---	---
FO32/25W/8...XP/SS/ECO	---	F32T8/ADV8.../XEW/ALTO
FO40...	F40T8/SP... (or SPX)	F40T8/TL
FO72...	---	---
FO96...	F96T8/SP... (or SPX)	F96T8/TL...
FO96/7...XP/ECO	F96T8/XL.SP...	---
FO96/8...XP/ECO	F96T8/XL/SPX...	---
FO96/8...XP/SS/ECO	F96T8/SP.../WM	---
---	---	F48T8/TL.../HO
---	---	F60T8/TL.../HO
---	---	F72T8/TL.../HO
FO96.../HO/ECO	F96T8/SP (or SPX).../HO	F96T8/TL.../HO
---	F25T12/SP... (for T8 electronic ballasts)	---
FBO16...	---	---
FBO24...	---	---
FBO31...	F31T8/SPX.../U	---
FBO31...XP	---	---
FBO32...	F32T8/SP(or SPX).../U6	FB32T8/TL.../6
FBO32...XP	---	---
FBO31/...XPS/ECO	---	---
FBO32/...XPS/ECO	---	---
FBO32/8...XP/SS/ECO	---	---
FP14/8..	F14/T5/8..	F14T5/8..
FP21/8..	F21/T5/8..	F21T5/8..
FP28/8..	F28/T5/8..	F28T5/8..
FP35/8..	F35/T5/8..	F35T5/8..
FP24/8../HO	F24/T5/8../HO	F24T5/8../HO
FP39/8../HO	F39/T5/8../HO	F39T5/8../HO
FP54/8../HO	F54/T5/8../HO	F54T5/8../HO
FP80/8../HO	F80/T5/8../HO	F80T5/8../HO
---	F40T17/CW/IS	---
---	F96T17/...	---
HO (800mA)	HO (800mA)	HO (800mA)
F96T12/.../HO/COLDTEMP	F96T12/.../HO/CT	F96T12/.../HO-0
VHO (1500mA)	1500 or PG17 (both 1500mA)	VHO (1500mA)
VHO/LT (1500mA)	T10, 1500-0 (both 1500mA)	VHO-0 (1500mA)
<b>Induction Lamps</b>		
ICE 70/8... (ICETRON®)	---	---
ICE 100/8... (ICETRON)	---	---
ICE 150/8... (ICETRON)	---	---
---	EL23/R25/... (Genura™)	---
---	---	QL55W/... (QL)
---	---	QL85W/... (QL)
---	---	QL165W/... (QL)

For a more complete manufacturers' cross reference, please see that section of this catalog or visit the electronic catalog at [www.sylvania.com](http://www.sylvania.com).

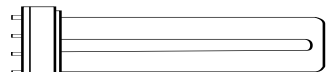
## FLUORESCENT LAMPS

The bulb shape and size of a fluorescent lamp are expressed by means of a code consisting of the letter "T" (which designates that the bulb is "tubular" in shape) followed by a number that expresses the diameter in eighths of an inch. Diameters range from T2 (1/4 inch) to T17 (2 1/8 inch). In nominal overall length, linear fluorescent lamps range from 6 to 96 inches. The nominal length is measured from back of lamp holder to back of lamp holder. For example, the actual overall length of the 40-watt rapid start T12 lamp with a nominal length of 48 inches is 47 3/4 inches. The nominal length given for PENTRON® linear lamps is the closest familiar nominal length. CURVALUME® U-shaped fluorescent lamps are available as OCTRON® T8 lamps with leg spacings of 1 1/2 inches and 6 inches and as rapid start T12 lamps with 6 spacings of 6 inches. The leg spacing is measured from the center of one leg to the center of the other leg. The overall length of the CURVALUME lamps is measured from the face of the bases to the outside of the glass bend. Circline lamps, which are circular in shape, are available as T9 lamps with outside diameters of 6 1/2, 8, 12 and 16 inches as well as PENTRON T5 lamps with outside diameters of 8.85 and 11.77 inches.

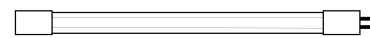
### Germicidal Compact Fluorescent



G23



2G11



Germicidal Single End

### T2 MINIATURE



T2 Axial Base (2/8" Diameter)

### PREHEAT, RAPID START



Preheat T5 Miniature Bipin (5/8" diameter)  
PENTRON T5 Miniature Bipin (5/8" diameter)



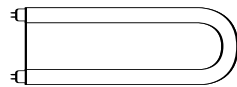
T8 Medium Bipin (1" diameter)



OCTRON T8 Medium Bipin (1" diameter)  
Rapid Start or Instant Start operation



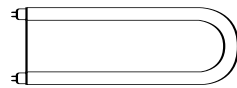
T12 Medium Bipin (1-1/2" diameter)



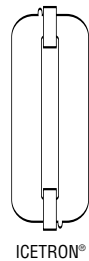
U-Shaped T12  
(1-1/2" diameter)  
6" leg spacing



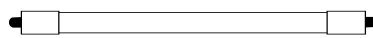
OCTRON T8 U-Shaped  
with 1 5/8" leg spacing  
(1" diameter)



OCTRON T8 U-Shaped  
with 6" leg spacing  
(1" diameter)



ICETRON®



Germicidal Single Pin

### HIGH OUTPUT AND VERY HIGH OUTPUT



OCTRON T8 Recessed Double Contact (1" diameter)



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



T14-1/2 Recessed Double Contact (1-13/16" diameter)

### INSTANT START



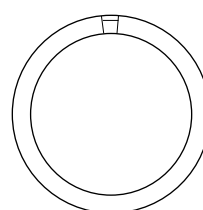
T6 Single Pin (3/4" diameter)



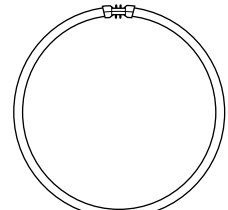
T8 Single Pin (1" diameter)  
OCTRON T8 Single Pin (1" diameter)



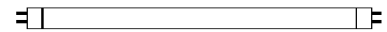
T12 Single Pin (1-1/2" diameter)



CIRCLINE 4-Pin T-9  
(6-1/2", 8", 12", 16"  
outside diameters)



PENTRON CIRCLINE 4-  
Pin T5 (8.85" & 11.77"  
outside diameters)



Germicidal T5 Bipin

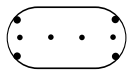


Germicidal T8 Bipin

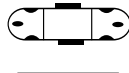
## BASES

For linear Preheat and Rapid Start Lamps, four electrical contacts are required, two at each end of the lamp. This is accomplished in the standard line of lamps by the use of a miniature bipin base for T5 lamps and a medium bipin for T8 and T12 lamps. The OCTRON® T8 medium bipin lamps may also be operated as instant start lamps with the proper wiring and ballasts. When operating OCTRON bipin lamps with instant start ballasts, the two contacts in the lamp holder are shorted together and connected to the single circuit in the ballast. In Circline lamps, the cathodes are connected to a four-pin base located between the junction of the two ends of the lamp. High Output (HO) and Very High Output (VHO) lamps have recessed double contact (RDC) type bases. Slimline Instant Start lamps require only two electrical contacts, one on each lamp end and have single pin bases.

### Germicidal Compact Fluorescent



GX 23



2 G 11

### SINGLE PIN



Single Pin for  
T6 Slimline



Single Pin for T8 Slimline  
& OCTRON



Single Pin for  
T12 Slimline

### BIPIN



Miniature Bipin for T5  
Preheat & PENTRON®



Miniature Bipin for T8  
Preheat & OCTRON



Medium Bipin for T12



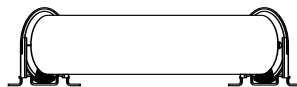
Axial T2 Subminiature



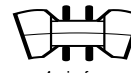
Recessed Double Contact  
for OCTRON T8 HO



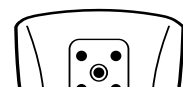
Recessed Double Contact  
for T12 HO & VHO



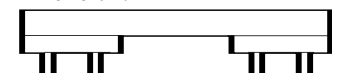
ICETRON® Mounting Brackets



4-pin for  
PENTRON Circline



4-pin for T9 Circline



OCTRON T8 & T12 Rapid Start  
CURVALUME

Germicidal Single End

Germicidal Single Pin

Germicidal T5 Bipin

Germicidal T8 Bipin

## OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

OCTRON® lamps are T8 fluorescent lamps designed to be operated on dedicated magnetic rapid start or electronic instant start or programmed rapid start (also known as programmed start) ballasts. For details on various lamp/ballast system combinations, please refer to the Systems Performance Guide in the "SYLVANIA QUICKTRONIC® Ballast Technology and Specification Guide".

### OCTRON® 800 XPS® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21680	<b>F032/830/XPS/ECO</b>	30	36000 (42000)	3000	85	3100	2945	19,31,33,48, 52,76,94
					21697	<b>F032/835/XPS/ECO</b>	30	36000 (42000)	3500	85	3100	2945	19,31,33,48, 52,76,94
					21681	<b>F032/841/XPS/ECO</b>	30	36000 (42000)	4100	85	3100	2945	19,31,33,48, 52,76,94
					21660	<b>F032/850/XPS/ECO</b>	30	36000 (42000)	5000	80	3000	2850	19,31,33, 48,52,76,94
					21659	<b>F032/865/XPS/ECO</b>	30	36000 (42000)	6500	80	2900	2750	19,31,33, 48,52,76,94

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	22150	<b>F017/830/XPS/ECO</b>	30	30000	3000	85	1400	1330	31,33,48,52, 76,93,94
					22151	<b>F017/835/XPS/ECO</b>	30	30000	3500	85	1400	1330	31,33,48,52, 76,93,94
					22152	<b>F017/841/XPS/ECO</b>	30	30000	4100	85	1400	1330	31,33,48,52, 76,93,94
25	T8	36	35.78	Med Bipin	22153	<b>F025/830/XPS/ECO</b>	30	30000	3000	85	2200	2090	31,33,48,52, 76,93,94
					22154	<b>F025/835/XPS/ECO</b>	30	30000	3500	85	2200	2090	31,33,48,52, 76,93,94
					22155	<b>F025/841/XPS/ECO</b>	30	30000	4100	85	2200	2090	31,33,48,52, 76,93,94

### OCTRON® 800 XP® 4 Foot SUPERSAVER® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
25		48	47.78	Med Bipin	22232	<b>F032/25W/830/XP/SS/ECO</b>	30	36000 (42000)	3000	85	2475	2350	3,16,17,18, 20,31,33,76,94
					22233	<b>F032/25W/835/XP/SS/ECO</b>	30	36000 (42000)	3500	85	2475	2350	3,16,17,18, 20,31,33,76,94
					22234	<b>F032/25W/841/XP/SS/ECO</b>	30	36000 (42000)	4100	85	2475	2350	3,16,17,18, 20,31,33,76,94
					22235	<b>F032/25W/850/XP/SS/ECO</b>	30	36000 (42000)	5000	85	2300	2185	3,16,17,18, 20,31,33,76,94
28	T8	48	47.78	Med Bipin	22177	<b>F028/830/XP/SS/ECO</b>	30	36000 (42000)	3000	85	2725	2590	3,16,20,23, 31,33,44,76,94,95
					22178	<b>F028/835/XP/SS/ECO</b>	30	36000 (42000)	3500	85	2725	2590	3,16,20,23, 31,33,44,76,94,95
					22179	<b>F028/841/XP/SS/ECO</b>	30	36000 (42000)	4100	85	2725	2590	3,16,20,23, 31,33,44,76,94,95
					22184	<b>F028/850XP/SS/ECO</b>	30	36000 (42000)	5000	80	2600	2470	3,16,20, 23,31,33,76,94,95

FLUORESCENT

## OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

### OCTRON® 800 XP® 4 Foot SUPERSAVER® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
30	T8	48	47.78	Med Bipin	22063	<b>F030/830/XP/SS/ECO</b>	30	36000 (42000)	3000	85	2850	2710	9,16,20,23, 31,33,76,94,95
					22060	<b>F030/835/XP/SS/ECO</b>	30	36000 (42000)	3500	85	2850	2710	9,16,20,23, 31,33,76,94,95
					22062	<b>F030/841/XP/SS/ECO</b>	30	36000 (42000)	4100	85	2850	2710	9,16,20,23, 31,33,76,87,95
					22202	<b>F030/850/XP/SS/ECO</b>	30	36000 (42000)	5000	85	2800	2660	9,16,20,23, 31,33,76,94,95

### OCTRON® 800 XP® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	22039	<b>F032/827/XP/ECO</b>	30	36000 (42000)	2700	85	3000	2850	20,31,33,48, 52,76,94
					21759	<b>F032/830/XP/ECO</b>	30	36000 (42000)	3000	85	3000	2850	20,31,33,48, 52,76,94
					21763	<b>F032/835/XP/ECO</b>	30	36000 (42000)	3500	85	3000	2850	20,31,33,48, 52,76,94
					21767	<b>F032/841/XP/ECO</b>	30	36000 (42000)	4100	85	3000	2850	20,31,33,48, 52,76,94
					22026	<b>F032/850/XP/ECO</b>	30	36000 (42000)	5000	85	3000	2850	20,31,33,48, 52,76,94
					21720	<b>F032/865/XP/ECO</b>	30	36000 (42000)	6500	85	2850	2708	20,31,33,48, 52,76,94
					22594	<b>F032/SKYWHITE/XP/ECO</b>	30	36000 (42000)	8000	88	2650	2518	20,31,33,48, 52,76,94

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	21587	<b>F017/827/XP/ECO</b>	30	24000	2700	85	1375	1305	31,33,44,48, 52,76,87
					21785	<b>F017/830/XP/ECO</b>	30	24000	3000	85	1375	1305	31,33,44,48, 52,76,87
					21778	<b>F017/835/XP/ECO</b>	30	24000	3500	85	1375	1305	31,33,44,48, 52,76,87
					21907	<b>F017/841/XP/ECO</b>	30	24000	4100	85	1375	1305	31,33,44,48, 52,76,87
					22193	<b>F017/850/XP/ECO</b>	30	24000	5000	85	1375	1305	31,33,44,48, 52,76,87
					21718	<b>F017/865/XP/ECO</b>	30	24000	6500	85	1250	1188	31,33,44,48, 52,76,87
25	T8	36	35.78	Med Bipin	21586	<b>F025/827/XP/ECO</b>	30	24000	2700	85	2175	2065	31,33,44,48, 52,76,87
					21910	<b>F025/830/XP/ECO</b>	30	24000	3000	85	2175	2065	31,33,44,48, 52,76,87
					21776	<b>F025/835/XP/ECO</b>	30	24000	3500	85	2175	2065	31,33,44,48, 52,76,87
					21774	<b>F025/841/XP/ECO</b>	30	24000	4100	85	2175	2065	31,33,44,48, 52,76,87

## OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

### OCTRON® 800 XP® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
25	T8	36	35.78	Med Bipin	22194	<b>F025/850/XP/ECO</b>	30	24000	5000	85	2175	2065	31,33,44,48, 52,76,87
					21719	<b>F025/865/XP/ECO</b>	30	24000	6500	85	2000	1900	31,33,44,48, 52,76,87
40	T8	60	59.61	Med Bipin	21912	<b>F040/830/XP/ECO</b>	30	24000	3000	85	3750	3560	31,33,44,48, 52,76,87
					21911	<b>F040/835/XP/ECO</b>	30	24000	3500	85	3750	3560	31,33,44,48, 52,76,87
					21916	<b>F040/841/XP/ECO</b>	30	24000	4100	85	3750	3560	31,33,44,48, 52,76,87
					21721	<b>F040/865/XP/ECO</b>	30	24000	6500	85	3650	3468	31,33,44,48, 52,76,87

### OCTRON® 700 XP® Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @12hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21711	<b>F032/730/XP/ECO</b>	30	36000 (42000)	3000	78	2850	2705	31,33,44, 48,52,76,94
					22044	<b>F032/735/XP/ECO</b>	30	36000 (42000)	3500	78	2850	2705	31,33,44, 48,52,76,94
					21712	<b>F032/741/XP/ECO</b>	30	36000 (42000)	4100	78	2850	2705	31,33,44, 48,52,76,94

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	21699	<b>F017/735/XP/ECO</b>	30	24000	3500	78	1325	1255	31,33,44,48, 52,76,87
					21637	<b>F017/741/XP/ECO</b>	30	24000	4100	78	1325	1255	31,33,44,48, 52,76,87
25	T8	36	35.78	Med Bipin	21698	<b>F025/735/XP/ECO</b>	30	24000	3500	78	2050	1945	31,33,44,48, 52,76,87
					21639	<b>F025/741/XP/ECO</b>	30	24000	4100	78	2050	1945	31,33,44,48, 52,76,87

### OCTRON® 800 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @12hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21777	<b>F032/830/ECO</b>	30	30000 (35000)	3000	85	2950	2802	21,31,33, 48,52,76,94
					21779	<b>F032/835/ECO</b>	30	30000 (35000)	3500	85	2950	2802	21,31,33, 48,52,76,94
					21781	<b>F032/841/ECO</b>	30	30000 (35000)	4100	85	2950	2802	21,31,33, 48,52,76,94
					22143	<b>F032/850/ECO</b>	30	30000 (35000)	5000	80	2800	2660	21,31,33, 48,52,76,94

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	22135	<b>F017/830/ECO</b>	30	20000	3000	82	1350	1240	31,33,35,48, 52,76

FLUORESCENT

**OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS****OCTRON® 800 Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
17	T8	24	23.78	Med Bipin	22136	<b>F017/835/ECO</b>	30	20000	3500	82	1350	1240	31,33,35,48,52,76
					22137	<b>F017/841/ECO</b>	30	20000	4100	82	1350	1240	31,33,35,48,52,76
25	T8	36	35.78	Med Bipin	22138	<b>F025/830/ECO</b>	30	20000	3000	82	2150	1975	31,33,35,48,52,76
					22139	<b>F025/835/ECO</b>	30	20000	3500	82	2150	1975	31,33,35,48,52,76
					22140	<b>F025/841/ECO</b>	30	20000	4100	82	2150	1975	31,33,35,48,52,76
40	T8	60	59.61	Med Bipin	22144	<b>F040/830/ECO</b>	30	20000	3000	82	3650	3473	31,33,35,48,52,76
					22145	<b>F040/835/ECO</b>	30	20000	3500	82	3650	3473	31,33,35,48,52,76
					22146	<b>F040/841/ECO</b>	30	20000	4100	82	3650	3473	31,33,35,48,52,76

**OCTRON® 700 Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
32	T8	48	47.78	Med Bipin	21997	<b>F032/730/ECO</b>	30	25000	3000	78	2800	2520	31,33,48,52,76,119
					21998	<b>F032/735/ECO</b>	30	25000	3500	78	2800	2520	31,33,48,52,76,119
					21678	<b>F032/735/SL</b>	30	25000	3500	78	2716	2444	31,33,52,96,98,119
					22181	<b>F032/741/ECO/CVP</b>	12	25000	4100	78	2800	2520	31,33,48,52,76,119
					21547	<b>F032/741/ECO/SL</b>	30	25000	4100	78	2716	2444	31,33,52,76,96,98,119
					21999	<b>F032/741/ECO</b>	30	25000	4100	78	2800	2520	31,33,48,52,76,119
					22141	<b>F032/750/ECO</b>	30	25000	5000	78	2650	2385	31,33,48,52,76,119
					22175	<b>F032/765/ECO</b>	30	25000	6500	78	2700	2430	31,33,48,52,76,119
14	T8	18	17.91	Med Bipin	21666	<b>F013/735/ECO</b>	30	20000	3500	75	830	745	31,33,35,48,52,76
					21667	<b>F013/741/ECO</b>	30	20000	4100	75	830	745	31,33,35,48,52,76
17	T8	24	23.78	Med Bipin	21918	<b>F017/730/ECO</b>	30	20000	3000	75	1300	1170	31,33,35,48,52,76
					21769	<b>F017/735/ECO</b>	30	20000	3500	75	1300	1170	31,33,35,48,52,76
					21770	<b>F017/741/ECO</b>	30	20000	4100	75	1300	1170	31,33,35,48,52,76
25	T8	36	35.78	Med Bipin	21937	<b>F025/730/ECO</b>	30	20000	3000	75	1950	1755	31,33,35,48,52,76

**OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS****OCTRON® 700 Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
25	T8	36	35.78	Med Bipin	21941	<b>F025/735/ECO</b>	30	20000	3500	75	1950	1755	31,33,35,48,52,76
					21942	<b>F025/741/ECO</b>	30	20000	4100	75	1950	1755	31,33,35,48,52,76
40	T8	60	59.61	Med Bipin	22102	<b>F040/730/ECO</b>	30	20000	3000	75	3500	3150	31,33,35,48,52,76
					22103	<b>F040/735/ECO</b>	30	20000	3500	75	3500	3150	31,33,35,48,52,76
					22104	<b>F040/741/ECO</b>	30	20000	4100	75	3500	3150	31,33,35,48,52,76

**OCTRON® 800 XP® 8 Foot SUPERSAVER® Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
55	T8	96	94	Single Pin	22100	<b>F096/835/XP/SS/ECO</b>	24	18000	3500	85	5700	5415	7,31,33,76,85
					22101	<b>F096/841/XP/SS/ECO</b>	24	18000	4100	85	5700	5415	7,31,33,76,85

**OCTRON® 800 XP® 8 Foot Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
59	T8	96	94	Single Pin	22036	<b>F096/830/XP/ECO</b>	24	18000	3000	85	6100	5795	31,33,44,48,76,85
					22034	<b>F096/835/XP/ECO</b>	24	18000	3500	85	6100	5795	31,33,44,48,76,85
					22032	<b>F096/841/XP/ECO</b>	24	18000	4100	85	6100	5795	31,33,44,48,76,85
					22174	<b>F096/850/XP/ECO</b>	24	18000	5000	85	6100	5795	31,33,44,48,76,85

**OCTRON® 800 8 Foot Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
59		96	94	Single Pin	22147	<b>F096/830/ECO</b>	24	15000	3000	82	5900	5428	10,31,33,48,76
					22148	<b>F096/835/ECO</b>	24	15000	3500	82	5900	5428	10,31,33,48,76
					22149	<b>F096/841/ECO</b>	24	15000	4100	82	5900	5428	10,31,33,48,76
					22173	<b>F096/850/ECO</b>	24	15000	5000	80	5900	5428	10,31,33,48,76
86	T8	96	93.91	Recessed DC	22206	<b>F096/835/HO/ECO</b>	24	18000	3500	85	8200	7710	31,33,48,76
					22207	<b>F096/841/HO/ECO</b>	24	18000	4100	85	8200	7710	31,33,48,76

**OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS****OCTRON® 700 8 Foot Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
59	T8	96	94	Single Pin	22030	<b>F096/730/ECO</b>	24	15000	3000	75	5700	5130	31,33,48,76,84
					21737	<b>F096/735/ECO</b>	24	15000	3500	75	5700	5130	31,33,48,76,84
					21736	<b>F096/741/ECO</b>	24	15000	4100	75	5700	5130	31,33,48,76,84
86	T8	96	93.91	Recessed DC	22204	<b>F096/735/HO/ECO</b>	24	18000	3500	78	8000	7520	31,33,48,76
					22205	<b>F096/741/HO/ECO</b>	24	18000	4100	78	8000	7520	31,33,48,76

**OCTRON® 800 XP® SUPERSAVER® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing**

The OCTRON® CURVALUME® lamps are made to the same color standards and may be used in conjunction with other SYLVANIA OCTRON lamps to meet the needs of lighting installations where OCTRON T8 systems are used. Since CURVALUME and linear OCTRON lamps of the same/similar wattages operate on the same ballasts, the types of ballasts used in an installation can be minimized. When OCTRON FBO31 lamps are used in 2X2 luminaires, the 2X2 luminaire can deliver light levels similar to 2X4 luminaires with the same number of linear OCTRON lamps. The nominal length of the CURVALUME lamp is measured from the base face to the outside of the glass bend.

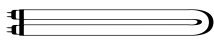
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
29	T8	22.5	22.6	Med Bipin	22195	<b>FBO29/830XP/SS/ECO</b>	15	24000	3000	85	2775	2636	9,31,33,44,54,76,87,95
					22196	<b>FBO29/835XP/SS/ECO</b>	15	24000	3500	85	2775	2636	9,31,33,44,54,76,87,95
					22197	<b>FBO29/841XP/SS/ECO</b>	15	24000	4100	85	2775	2636	9,31,33,44,54,76,87,95

**OCTRON® 800 XP® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing**

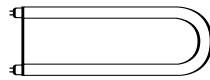
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
31	T8	22.5	22.6	Med Bipin	21693	<b>FB031/830/XP/ECO</b>	15	24000	3000	85	2775	2636	31,33,44,48,52,54,55,76,87
					21695	<b>FB031/835/XP/ECO</b>	15	24000	3500	85	2775	2636	31,33,44,48,52,54,55,76,87
					21696	<b>FB031/841/XP/ECO</b>	15	24000	4100	85	2775	2636	31,33,44,48,52,54,55,76,87

**OCTRON® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
31	T8	22.5	22.6	Med Bipin	21877	<b>FB031/830</b>	15	20000	3000	82	2725	2507	31,33,35,48,52,54,55
					21878	<b>FB031/835</b>	15	20000	3500	82	2725	2507	31,33,35,48,52,54,55
					21879	<b>FB031/841</b>	15	20000	4100	82	2725	2507	31,33,35,48,52,54,55
16	T8	10.5	10.60	Med Bipin	21834	<b>FB016/830</b>	15	20000	3000	82	1125	1035	31,33,35,48,52,54,55
					21835	<b>FB016/835</b>	15	20000	3500	82	1125	1035	31,33,35,48,52,54,55



T8 U-Shaped 1-5/8"



T8 U-Shaped 6"

**OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS****OCTRON® CURVALUME® U-SHAPED Lamps - 1 5/8" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
16	T8	10.5	10.60	Med Bipin	21836	<b>FB016/841</b>	15	20000	4100	82	1125	1035	31,33,35,48,52,54,55
24	T8	16.5	16.6	Med Bipin	21874	<b>FB024/830</b>	15	20000	3000	82	1925	1771	31,33,35,48,52,54,55
					21875	<b>FB024/835</b>	15	20000	3500	82	1925	1771	31,33,35,48,52,54,55
					21876	<b>FB024/841</b>	15	20000	4100	82	1925	1771	31,33,35,48,52,54,55

**OCTRON® 800 XP® SUPERSAVER® CURVALUME® U-SHAPED Lamps - 6" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
30	T8	22.5	22.6	Med Bipin	22170	<b>FB030/830XP/6/SS/ECO</b>	16	24000	3000	85	2800	2660	31,33,44,54,76,87,95
					22171	<b>FB030/835XP/6/SS/ECO</b>	16	24000	3500	85	2800	2660	31,33,44,54,76,87,95
					22172	<b>FB030/841XP/6/SS/ECO</b>	16	24000	4100	85	2800	2660	31,33,44,54,76,87,95

**OCTRON® 800 XP® CURVALUME® U-SHAPED Lamps - 6" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
32	T8	22.5	22.6	Med Bipin	22054	<b>FB032/830XP/6/ECO</b>	16	24000	3000	85	2900	2755	31,33,44,48,52,54,76,87
					22055	<b>FB032/835XP/6/ECO</b>	16	24000	3500	85	2900	2755	31,33,44,48,52,54,76,87
					22057	<b>FB032/841XP/6/ECO</b>	16	24000	4100	85	2900	2755	31,33,44,48,52,54,76,87

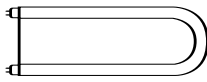
**OCTRON® 800 CURVALUME® U-SHAPED Lamps - 6" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
32		22.5	22.6	Med Bipin	21663	<b>FB032/830/6/ECO</b>	16	20000	3000	82	2850	2622	31,33,35,48,52,54,76
					21670	<b>FB032/835/6/ECO</b>	16	20000	3500	82	2850	2622	31,33,35,48,52,54,76
					21671	<b>FB032/841/6/ECO</b>	16	20000	4100	82	2850	2622	31,33,35,48,52,54,76

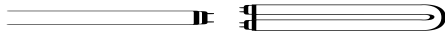
**OCTRON® 700 CURVALUME® U-SHAPED Lamps - 6" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
32		22.5	22.6	Med Bipin	22046	<b>FB032/730/6/ECO</b>	16	20000	3000	75	2750	2475	31,33,35,48,52,54,76
					22051	<b>FB032/735/6/ECO</b>	16	20000	3500	75	2750	2475	31,33,35,48,52,54,76

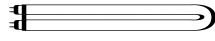
FLUORESCENT



T8 U-Shaped 6"



T8 Med Bipin



T8 U-Shaped 1-5/8"

**OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS****OCTRON® 700 CURVALUME® U-SHAPED Lamps - 6" Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
32	T8	22.5	22.6	Med Bipin	22052	<b>FB032/741/6/ECO</b>	16	20000	4100	75	2750	2475	31,33,35,48,52,54,76
					22053	<b>FB032/750/6/ECO</b>	16	20000	5000	75	2625	2363	31,33,35,48,52,54,76

**OCTRON® 5000K And 6500K for Displays, Signage and Backlighting**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
14	T8	18	17.91	Med Bipin	21731	<b>F013/865XP/ECO</b>	30	24000	6500	85	850	805	31,33,44,48,52,76,87
15	T8	20	19.78	Med Bipin	21868	<b>F014/950/20in</b>	30	20000	5000	90	750	638	31,33,35,48,52
					21716	<b>F014/865/XP/ECO</b>	30	24000	6500	85	1000	950	31,33,44,48,52,76,87
16	T8	10.5	10.60	Med Bipin	21726	<b>FB016/865XP</b>	15	24000	6500	85	1125	1069	31,33,44,48,52,54,55,87
17	T8	24	23.78	Med Bipin	21871	<b>F017/950/24in</b>	30	20000	5000	90	800	680	31,33,35,48,52
					21718	<b>F017/865/XP/ECO</b>	30	24000	6500	85	1250	1188	31,33,44,48,52,76,87
21	T8	30	29.78	Med Bipin	21869	<b>F021/950/30in</b>	30	20000	5000	90	1000	850	31,33,35,48,52
					21730	<b>F021/865/XP/ECO</b>	30	24000	6500	85	1600	1520	31,33,44,48,52,76,87
25	T8	36	35.78	Med Bipin	21872	<b>F025/950/36in</b>	30	20000	5000	90	1250	1063	31,33,35,48,52
					21719	<b>F025/865/XP/ECO</b>	30	24000	6500	85	2000	1900	31,33,44,48,52,76,87
28	T8	40	39.78	Med Bipin	21870	<b>F028/950/40in</b>	30	20000	5000	90	1400	1190	31,33,35,48,52
32	T8	48	47.78	Med Bipin	21880	<b>F032/950/48in</b>	30	25000	5000	90	1800	1530	31,33,48,52
					21720	<b>F032/865/XP/ECO</b>	30	36000	6500	85	2850	2708	20,31,33,48,52,76,94
40	T8	60	59.61	Med Bipin	21873	<b>F040/950/60in</b>	30	20000	5000	90	2200	1870	31,33,35,48,52
					21721	<b>F040/865/XP/ECO</b>	30	24000	6500	85	3650	3468	31,33,44,48,52,76,87

**OCTRON® Specialty**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
32	T8	48	47.78	Med Bipin	21961	<b>F032/GOLD</b>	10	25000			1700	1530	31,33,35,43,48,52

## PENTRON® T5 FLUORESCENT LAMPS

PENTRON® T5 lamps are designed to operate on dedicated electronic programmed rapid start (also know as programmed start) ballasts only. These lamps are globally standardized and are designed to operate with their peak light output at 35°C (95°F) ambient temperature. For comparison purposes and to accommodate existing lamp measurement standards, ratings are given at both 25°C (77°F) and 35°C (95°F). The new lamp dimensions allow for innovative fixture designs and improved fixture performance

### PENTRON® High Performance T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
28	T5	48	45.8	Mini Bipin	20868	FP28/830/ECO	40	20000	3000	85	2600	2418	31,33,38,48,74,76
					20901	FP28/835/ECO	40	20000	3500	85	2600	2418	31,33,38,48,74,76
					20902	FP28/841/ECO	40	20000	4100	85	2600	2418	31,33,38,48,74,76
					22203	FP28/850/ECO	40	20000	5000	85	2545	2367	31,33,38,48,74,76
					20990	FP28/865/ECO	40	20000	6500	85	2400	2232	31,33,38,48,74,76
					20977	FP28RED 40/CS 1/SKU	40	20000			2100		15,31,33,38,48,74
					20978	FP28GREEN 40/CS 1/SKU	40	20000			3500		15,31,33,38,48,74
					20986	FP28BLUE 40/CS 1/SKU	40	20000			700		15,31,33,38,48,74
14	T5	24	22.2	Mini Bipin	20907	FP14/830/ECO	40	20000	3000	85	1200	1116	31,33,38,48,74,76
					20908	FP14/835/ECO	40	20000	3500	85	1200	1116	31,33,38,48,74,76
					20914	FP14/841/ECO	40	20000	4100	85	1200	1116	31,33,38,48,74,76
					20988	FP14/865/ECO	40	20000	6500	85	1100	1045	31,33,38,48,74,76
21	T5	36	34	Mini Bipin	20919	FP21/830/ECO	40	20000	3000	85	1900	1767	31,33,38,48,74,76
					20921	FP21/835/ECO	40	20000	3500	85	1900	1767	31,33,38,48,74,76
					20924	FP21/841/ECO	40	20000	4100	85	1900	1767	31,33,38,48,74,76
					20989	FP21/865/ECO	40	20000	6500	85	1750	1662	31,33,38,48,74,76
35	T5	60	57.6	Mini Bipin	20925	FP35/830/ECO	40	20000	3000	85	3300	3069	31,33,38,48,74,76
					20926	FP35/835/ECO	40	20000	3500	85	3300	3069	31,33,38,48,74,76
					20927	FP35/841/ECO	40	20000	4100	85	3300	3069	31,33,38,48,74,76

### PENTRON® PREMIER™ High Performance T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
28	T5	48	45.8	Mini Bipin	20948	FP28/830PM/ECO	40	20000	3000	85	2730	2594	31,33,38,48,74,76
					20943	FP28/835PM/ECO	40	20000	3500	85	2730	2594	31,33,38,48,74,76
					20944	FP28/841PM/ECO	40	20000	4100	85	2730	2594	31,33,38,48,74,76

FLUORESCENT

## PENTRON® T5 FLUORESCENT LAMPS

### PENTRON® High Output, High Performance T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
54	T5	48	45.8	Mini Bipin	20903	FP54/830/HO/ECO	40	25000 (35000)	3000	85	4450	4138	31,33,38,48,74,76
					20904	FP54/835/HO/ECO	40	25000 (35000)	3500	85	4450	4138	31,33,38,48,74,76
					21020	FP54/835/HO/ECO/SL	40	25000 (35000)	3500	85	4316	4014	31,33,38,48,74,76,96,98
					20906	FP54/841/HO/ECO	40	25000 (35000)	4100	85	4450	4138	31,33,38,48,74,76
					21021	FP54/841/HO/ECO/SL	40	25000 (35000)	4100	85	4316	4014	31,33,48,74,76,96,98
					20949	FP54/850/HO/ECO	40	25000 (35000)	5000	85	4375	4069	31,33,38,48,74,76
					21022	FP54/850/HO/ECO/SL	40	25000 (35000)	5000	85	4243	3946	31,33,48,74,76,96,98
					20862	FP54/865/HO/ECO	40	25000 (35000)	6500	85	4050	3766	31,33,38,48,74,76
					20997	FP54/RED/HO	40	20000				3300	15,31,33,38,48,74
					20998	FP54/GREEN/HO	40	20000				5550	15,31,33,38,48,74
					20999	FP54/BLUE/HO	40	20000				1150	15,31,33,38,48,74
24	T5	24	22.2	Mini Bipin	20928	FP24/830/HO/ECO	40	20000	3000	85	1750	1627	31,33,38,48,74,76
					20929	FP24/835/HO/ECO	40	20000	3500	85	1750	1627	31,33,38,48,74,76
					20931	FP24/841/HO/ECO	40	20000	4100	85	1750	1627	31,33,38,48,74,76
39	T5	36	34	Mini Bipin	20932	FP39/830/HO/ECO	40	20000	3000	85	3100	2883	31,33,38,48,74,76
					20933	FP39/835/HO/ECO	40	20000	3500	85	3101	2883	31,33,38,48,74,76
					20934	FP39/841/HO/ECO	40	20000	4100	85	3102	2883	31,33,38,48,74,76
80	T5	60	57.6	Mini Bipin	20935	FP80/830/HO/ECO	40	20000	3000	85	6150	5719	31,33,38,48,74,76
					20936	FP80/835/HO/ECO	40	20000	3500	85	6151	5720	31,33,38,48,74,76
					20937	FP80/841/HO/ECO	40	20000	4100	85	6152	5721	31,33,38,48,74,76

### PENTRON® High Output, Wide Temperature Range T5 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @35°C/95°F	Symbols & Footnotes
54	T5	48	45.8	Mini Bipin	21042	FP54/835/C/HO/ECO	40	25000 (35000)	3500	85	4900	4655	31,33,38,48,74,76
					21043	FP54/841/C/HO/ECO	40	25000 (35000)	4100	85	4900	4655	31,33,38,48,74,76
					21044	FP54/850/C/HO/ECO	40	25000 (35000)	5000	85	4800	4560	31,33,38,48,74,76



Circline 4-Pin T5



T12 Med Bipin

## PENTRON® T5 FLUORESCENT LAMPS

### PENTRON® Circline T5 Lamps

Nominal Wattage	Bulb	Outside Diameter (in)		Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
22	T5	8.66 - 9.06		2GX13	20702	<b>FPC22/830</b>	12	12000	3000	82	1800	1585	31,33,38,48,74
					20712	<b>FPC22/835</b>	12	12000	3500	82	1800	1585	31,33,38,48,74
					20715	<b>FPC22/841</b>	12	12000	4100	82	1800	1585	31,33,38,48,74
40	T5	11.54 - 12.01		2GX13	20731	<b>FPC40/830</b>	12	12000	3000	82	3200	2815	31,33,38,48,74
					20732	<b>FPC40/835</b>	12	12000	3500	82	3200	2815	31,33,38,48,74
					20733	<b>FPC40/841</b>	12	12000	4100	82	3200	2815	31,33,38,48,74
55	T5	11.54 - 12.01		2GX13	20741	<b>FPC55/830/HO</b>	12	12000	3000	82	4000	3520	31,33,38,48,74
					20750	<b>FPC55/835/HO</b>	12	12000	3500	82	4000	3520	31,33,38,48,74
					20751	<b>FPC55/841/HO</b>	12	12000	4100	82	4000	3520	31,33,38,48,74

### RAPID START LAMPS

Rapid Start lamps, 3-foot and 4-foot in length, are typically designated by their wattage: e.g. F40 = Fluorescent 40W. Therefore lamps previously designated as F30T12/RS/SS, F40/SS and FB40/SS energy saving types will now be designated as F25T12/RS/SS, F34/SS and FB34/SS, respectively to comply with standard lamp designation nomenclature for these families of lamps.

### 3' SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)		MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
												Initial	Mean	
25	T12	36		35.78	Med Bipin	23473	<b>F25T12/WW/RS/SS</b> <i>formerly F30T12/WW/RS/SS</i>	30	18000	3000	52	1975	1679	22,31,33
						23485	<b>F25T12/D35/RS/SS</b> <i>formerly F30T12/D35/RS/SS</i>	30	18000	3500	70	2050	1804	22,31,33
						23472	<b>F25T12/CW/RS/SS</b> <i>formerly F30T12/CW/RS/SS</i>	30	18000	4200	60	1925	1636	22,31,33

### 3' Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)		MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
												Initial	Mean	
30	T12	36		35.78	Med Bipin	23490	<b>F30T12/SW/RP</b>	6	18000	3000	52	2275	1934	30,31,33,48
						23482	<b>F30T12/WW/RS</b>	30	18000	3000	52	2275	1934	30,31,33,48
						23474	<b>F30T12/D830/RS</b>	30	18000	3000	80	2290	2061	30,31,33,48
						23484	<b>F30T12/D35/RS</b>	30	18000	3500	70	2250	1980	30,31,33,48
						23139	<b>F30T12/D835/RS</b>	30	18000	3500	80	2290	2061	30,31,33,48
						23493	<b>F30T12/CW/RP</b>	6	18000	4200	60	2200	1870	30,31,33,48
						23476	<b>F30T12/CW/RS</b>	30	18000	4200	60	2200	1870	30,31,33,48
						23487	<b>F30T12/CW/RS/UPC</b>	30	18000	4200	60	2200	1870	30,31,33,48
						23478	<b>F30T12/D/RS</b>	30	18000	6500	76	1900	1615	30,31,33,48

### 4' SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)		MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
												Initial	Mean	
34	T12	48		47.78	Med Bipin	24538	<b>F34WW/SS/ECO</b> <i>formerly F40WW/SS/ECO</i>	30	20000	3000	52	2750	2365	224,30,31,33,56,76
						24535	<b>F34/D30/SS/ECO</b> <i>formerly F40/D30/SS/ECO</i>	30	20000	3000	70	2800	2520	224,30,31,33,56,76

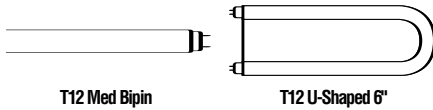
## RAPID START LAMPS

## 4' SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
34	T12	48	47.78	Med Bipin	24589	<b>F34/D830/SS</b> <i>formerly F40/D830/SS</i>	30	20000	3000	80	2900	2610	☉   2,24,30,31,33,56
					24544	<b>F34/D830/SS/ECO</b> <i>formerly F40/D830/SS/ECO</i>	30	20000	3000	80	2900	2610	☉   2,24,30,31,33,56,76
					24591	<b>F34W/SS</b> <i>formerly F40W/SS</i>	30	20000	3450	57	2750	2365	☉ 2,24,30,31,33,56
					24585	<b>F34/D35/SS</b> <i>formerly F40/D35/SS</i>	30	20000	3500	70	2800	2520	☉   2,24,30,31,33,56
					24522	<b>F34/D35/SS/CVP</b> <i>formerly F40/D35/SS/CVP</i>	10	20000	3500	70	2800	2520	☉   2,24,30,31,33,56
					24540	<b>F34/D35/SS/ECO</b> <i>formerly F40/D35/SS/ECO</i>	30	20000	3500	70	2800	2520	☉   2,24,30,31,33,56,76
					24547	<b>F34/D835/SS/ECO</b> <i>formerly F40/D835/SS/ECO</i>	30	20000	3500	80	2900	2610	☉   2,24,30,31,33,56,76
					24542	<b>F34/D41/SS/ECO</b> <i>formerly F40/D41/SS/ECO</i>	30	20000	4100	70	2800	2520	☉   2,24,30,31,33,56,76
					24554	<b>F34/D841/SS/ECO</b> <i>formerly F40/D841/SS/ECO</i>	30	20000	4100	80	2900	2610	☉   2,24,30,31,33,56,76
					24588	<b>F34CW/SS</b> <i>formerly F40CW/SS</i>	30	20000	4100	87	1925	1656	2,24,30,31,33,56
					24566	<b>F34LW/SS/ECO</b> <i>formerly F40LW/SS/ECO</i>	30	20000	4150	48	2825	2430	☉  2,24,30,31,33,56,76
					24590	<b>F34LW/SS</b> <i>formerly F40LW/SS</i>	30	20000	4150	48	2825	2430	☉ 2,24,30,31,33,56
					24516	<b>F34CW/SS/10</b> <i>formerly F40CW/SS/10</i>	10	20000	4200	60	2650	2279	☉ 2,24,30,31,33,56
					24524	<b>F34CW/SS/CVP</b> <i>formerly F40/CW/SS/CVP</i>	10	20000	4200	60	2650	2279	☉ 2,24,30,31,33,56
					24396	<b>F34CW/SS/SL</b> <i>formerly F40CW/SS/SL</i>	30	20000	4200	60	2570	2313	☉ 2,24,30,31,33,96,98
					24596	<b>F34CW/SS/ECO</b> <i>formerly F40CW/SS/ECO</i>	30	20000	4200	60	2650	2279	☉  2,24,30,31,33,56,76
					24632	<b>F34CW/SS/ECO/CVP</b> <i>formerly F40/CW/SS/ECO/CVP</i>	10	20000	4200	60	2650	2279	☉  2,24,30,31,33,56,76
					24642	<b>F34CW/SS/ECO/CVP30</b> <i>formerly F40CW/SS/ECO/CVP30</i>	30	20000	4200	60	2650	2279	☉  2,24,30,31,33,56,76
					24633	<b>F34CW/SS/ECO/RP</b> <i>formerly F40/CW/SS/ECO/RP</i>	30	20000	4200	60	2650	2279	☉  2,24,30,31,33,48,56,76
					24599	<b>F34/DX/SS</b> <i>formerly F40/DX/SS</i>	30	20000	6500	88	1930	1565	2,24,30,31,33,56
24706	<b>F34/D865/SS</b> <i>formerly F40/D865/SS</i>	30	20000	6500	80	2650	2385	☉   2,24,30,31,33,56					

## 4' Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
40	T12	48	47.78	Med Bipin	24521	<b>F40/D30/ECO</b>	30	20000	3000	70	3200	2880	☉   2,30,31,33,48,56,64,76



T12 Med Bipin

T12 U-Shaped 6"

## RAPID START LAMPS

### 4' Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
40	T12	48	47.78	Med Bipin	24543	<b>F40/D830/ECO</b>	30	20000	3000	80	3300	2970	2,30,31,33,48,56,64,76
					24537	<b>F40/D35/ECO</b>	30	20000	3500	70	3200	2880	2,30,31,33,48,56,64,76
					24546	<b>F40/D835/ECO</b>	30	20000	3500	80	3300	2970	2,30,31,33,48,56,64,76
					24438	<b>F40N</b>	30	20000	3600	86	2100	1806	2,30,31,33,48,56,64
					24442	<b>F40CWX 10/CS</b>	10	20000	4100	87	2150	1849	2,30,31,33,48,56,64
					24441	<b>F40CWX</b>	30	20000	4100	87	2150	1849	2,30,31,33,48,56,64
					24541	<b>F40/D41/ECO</b>	30	20000	4100	70	3200	2880	2,30,31,33,48,56,64,76
					24553	<b>F40/D841/ECO</b>	30	20000	4100	80	3300	2970	2,30,31,33,48,56,64,76
					24584	<b>F40/D41</b>	30	20000	4100	70	3200	2880	2,30,31,33,48,56,64
					24683	<b>F40DSGN50</b>	30	20000	5000	90	2200	1892	2,30,31,33,48,56,64
					24477	<b>F40/DX</b>	30	20000	6500	88	2180	1770	2,30,31,33,48,56,64
					24570	<b>F40/D865</b>	30	20000	6500	80	3000	2700	2,30,31,33,48,56,64
					24673	<b>F40/GO</b>	10	20000			1980		2,30,31,33,48,56,64

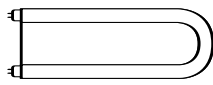
### CURVALUME® SUPERSAVER® Rapid Start Lamps – U-Shaped, 6” Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
34	T12	22.5	22.6	Med Bipin	24062	<b>FB34/WW/6/SS/UPC</b> <i>formerly FB40/WW/6/SS</i>	12	18000	3000	52	2650	2279	24,30,31,33
					24052	<b>FB34/WW/6/SS/ECO</b> <i>formerly FB40/WW/6/SS/ECO</i>	12	18000	3000	52	2650	2279	24,30,31,33,76
					24065	<b>FB34/D35/6/SS</b> <i>formerly FB40/D35/SS</i>	12	18000	3500	70	2730	2457	24,30,31,33
					24059	<b>FB34/CW/6/SS/UPC</b> <i>formerly FB40/CW/SS/6</i>	12	18000	4200	60	2600	2236	24,30,31,33
					24054	<b>FB34/CW/6/SS/ECO</b> <i>formerly FB40/CW/6/SS/ECO</i>	12	18000	4200	60	2600	2236	24,30,31,33,76

### CURVALUME® Standard Rapid Start Lamps – U-Shaped, 6” Leg Spacing

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
40	T12	22.5	22.6	Med Bipin	24080	<b>FB40/D30/6</b>	12	18000	3000	70	3050	2745	30,31,33,48
					24017	<b>FB40/D830/6</b>	12	18000	3000	80	3200	2880	30,31,33,48
					24081	<b>FB40/D35/6</b>	12	18000	3500	70	3050	2745	30,31,33,48
					24004	<b>FB40/CWX/6</b>	12	18000	4100	87	2100	1806	30,31,33,48

FLUORESCENT



T12 U-Shaped 6"



Circline 4-Pin T9



T12 RDC

**RAPID START LAMPS****CURVALUME® Standard Rapid Start Lamps – U-Shaped, 6” Leg Spacing**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
40	T12	22.5	22.6	Med Bipin	24082	<b>FB40/D41/6</b>	12	18000	4100	70	3050	2745	☉ <b>CR1</b> 30,31,33,48

**Circline T9 Rapid Start Lamps**

Nominal Wattage	Bulb	Outside Diameter (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @12hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
20	T9	6.25 - 6.75	4 PIN	20155	<b>FC6T9/WW/RS</b>	12	8000	3000	52	800	696	31,33,42,48
				20156	<b>FC6T9/CW/RS</b>	12	8000	4200	60	750	653	31,33,42,48
22	T9	8.00 - 8.50	4 PIN	20088	<b>FC8T9/WW/RS</b>	12	12000	3000	52	1050	914	31,33,42,48
				20209	<b>FC8T9/DSW/RP</b>	6	12000	3000	70	1100	990	<b>CR1</b> 31,33,42,48
				20151	<b>FC8T9/CW/RS/6 PACK</b>	6	12000	4200	60	1050	914	31,33,42,48
				20148	<b>FC8T9/CW/RS</b>	12	12000	4200	60	1050	914	31,33,42,48
				20080	<b>FC8T9/D/RS</b>	12	12000	6500	76	900	783	<b>CR1</b> 31,33,42,48
30	T9	8.00 - 8.50	4 PIN	20210	<b>FC8T9/830/EL</b>	6	10000	3000	80	1850	1591	<b>CR1</b> 31,33,40,49,79,81
32	T9	11.5 - 12.0	4 PIN	20233	<b>FC12T9/DSW/RP</b>	6	15000	3000	70	2100	1806	<b>CR1</b> 31,33,42,48
				20037	<b>FC12T9/WW/RS</b>	12	15000	3000	52	1950	1697	31,33,42,48
				20143	<b>FC12T9/CW/RS/6 PACK</b>	6	15000	4200	60	1925	1675	31,33,42,48
				20142	<b>FC12T9/CW/RS</b>	12	15000	4200	60	1925	1675	31,33,42,48
				20030	<b>FC12T9/D/RS</b>	12	15000	6500	76	1650	1436	<b>CR1</b> 31,33,42,48
40	T9	15.6 - 16.0	4 PIN	20057	<b>FC16T9/WW/RS</b>	12	18000	3000	52	2800	2436	31,33,42,48
				20132	<b>FC16T9/CW/RS</b>	12	18000	4200	60	2750	2393	31,33,42,48
				20072	<b>FC16T9/D/RS</b>	12	18000	6500	76	2350	2045	<b>CR1</b> 31,33,42,48

**High Output (800mA) SUPERSAVER® Rapid Start Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
55	T12	48	46	Recessed DC	25137	<b>F48T12D35/HO/SS</b>	30	12000	3500	70	3750	3375	<b>CR1</b> 27,31,33,97
95	T12	96	93.91	Recessed DC	25011	<b>F96T12/WW/HO/SS</b>	15	12000	3000	52	7700	6237	☉ 27,31,33,97
					25024	<b>F96T12/D35/HO/SS</b>	15	12000	3500	48	8350	7515	☉ <b>CR1</b> 27,31,33,97
					25023	<b>F96T12/D41/HO/SS</b>	15	12000	4100	70	8350	7515	☉ <b>CR1</b> 27,31,33,97
					25025	<b>F96T12/LW/HO/SS</b>	15	12000	4150	48	8000	6480	☉ 27,31,33,97
					25010	<b>F96T12/CW/HO/SS</b>	15	12000	4200	60	8000	6480	☉ 27,31,33,97
					25001	<b>F96T12/CW/HO/SS/ECO</b>	15	12000	4200	60	8000	6480	☉  27,31,33,76,97

**High Output (800mA) Standard Rapid Start Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
25	T12	18	15.91	Recessed DC	25303	<b>F18T12/DSGN50/HO</b>	30	9000	5000	90	850	740	<b>CR1</b> 31,33,48
35	T12	24	21.91	Recessed DC	25313	<b>F24T12/CW/HO</b>	30	9000	4200	60	1650	1337	31,33,48
					25312	<b>F24T12/DSGN50/HO</b>	30	9000	5000	90	1200	1044	<b>CR1</b> 31,33,48
					25314	<b>F24T12/D/HO</b>	30	9000	6500	76	1400	1134	<b>CR1</b> 31,33,48

## RAPID START LAMPS

### High Output (800mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
42	T12	30	27.91	Recessed DC	25322	F30T12/CW/HO	30	9000	4200	60	2250	1825	31,33,48
45	T12	36	33.91	Recessed DC	25333	F36T12/CW/HO	30	9000	4200	60	2850	2309	31,33,48
					25334	F36T12/DSGN50/HO	30	9000	5000	90	2100	1701	31,33,48
					25332	F36T12/D/HO	30	9000	6500	76	2500	2025	31,33,48
55	T12	42	39.91	Recessed DC	25342	F42T12/CW/HO	30	9000	4200	60	3400	2754	31,33,48
					25344	F42T12/DSGN50/HO	30	9000	5000	90	2550	2066	31,33,48
					25343	F42T12/D/HO	30	9000	6500	76	3050	2471	31,33,48
60	T12	48	46	Recessed DC	25147	F48T12/WW/HO	30	12000	3000	52	4130	3345	31,33,48,97
					25148	F48T12/D830/HO	30	12000	3000	80	4400	4048	31,33,48,97
					25154	F48T12/D35/HO	30	12000	3500	70	4250	3825	31,33,48,97
					25136	F48T12/D41/HO	30	12000	4100	70	4250	3443	31,33,48,97
					25146	F48T12/CW/HO	30	12000	4200	60	4050	3281	31,33,48,97
					25122	F48T12/CW/HO/ECO	30	12000	4200	60	4050	3281	31,33,48,76,97
					25153	F48T12/DSGN50/HO	30	12000	5000	90	3050	2471	31,33,48,97
					25150	F48T12/D/HO	30	12000	6500	76	3600	2916	31,33,48,97
75	T12	60	57.91	Recessed DC	25128	F60T12/D35/HO	30	12000	3500	70	5600	5040	31,33,48,97
					25126	F60T12/CW/HO	30	12000	4200	60	5200	4212	31,33,48,97
					25119	F60T12/DSGN50/HO	30	12000	5000	90	3850	3119	31,33,48,97
					25120	F60T12/D/HO	30	12000	6500	76	4600	3826	31,33,48,97
80	T12	64	61.91	Recessed DC	25352	F64T12/CW/HO	30	12000	4200	60	5750	4658	31,33,48,97
					25355	F64T12/DSGN50/HO	30	12000	5000	90	4200	3402	31,33,48,97
					25353	F64T12/D/HO	30	12000	6500	76	4900	3969	31,33,48,97
85	T12	72	69.91	Recessed DC	25098	F72T12/D830/HO	15	12000	3000	80	6750	6210	1,31,33,48,97
					25177	F72T12/WW/HO	15	12000	3000	52	6400	5184	1,31,33,48,97
					27249	F72T12/D35/HO	15	12000	3500	70	6650	5985	1,31,33,48,97
					25281	F72T12/D835/HO	15	12000	3500	80	6750	6210	1,31,33,48,97
					25182	F72T12/N/HO	15	12000	3600	86	4400	3564	1,31,33,48,97
					27245	F72T12/D41/HO	15	12000	4100	70	6650	5985	1,31,33,48,97
					25176	F72T12/CW/HO	15	12000	4200	60	6250	5063	1,31,33,48,97
					25171	F72T12/CW/HO/ECO	15	12000	4200	60	6250	5063	1,31,33,48,76
					25190	F72T12/DSGN50/HO	15	12000	5000	90	4600	3726	1,31,33,48,97
					25189	F72T12/D/HO	15	12000	6500	76	5550	4496	1,31,33,48,97
100	T12	84	81.91	Recessed DC	25384	F84T12/CW/HO	15	12000	4200	60	7550	6115	31,33,48,97
					25386	F84T12/DSGN50/HO	15	12000	5000	90	5600	4536	31,33,48,97
					25385	F84T12/D/HO	15	12000	6500	76	6700	5427	31,33,48,97
110	T12	96	93.91	Recessed DC	25149	F96T12/D30/HO	15	12000	3000	70	9050	8145	31,33,48,97
					25152	F96T12/D830/HO	15	12000	3000	80	9400	8648	31,33,48,97
					25165	F96T12/D35/HO	15	12000	3500	70	9050	8145	31,33,48,97
					25166	F96T12/D835/HO	15	12000	3500	80	9400	8648	31,33,48,97
					25162	F96T12/N/HO	15	12000	3600	86	6050	4900	31,33,48,97
					25184	F96T12/D41/HO	15	12000	4100	70	9050	8145	31,33,48,97

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## RAPID START LAMPS

### High Output (800mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
110	T12	96	93.91	Recessed DC	25164	<b>F96T12/DSGN50/HO</b>	15	12000	5000	90	6450	5225	31,33,48,97
					25185	<b>F96T12/D865/HO</b>	15	12000	6500	80	8800	7920	31,33,48,97

### High Output (800mA) Rapid Start Lamps for Cold Temperature Operation

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
110		96	93.91	Recessed DC	25118	<b>F96T12/CW/HO/COLD/10/CVP</b>	10	12000	4200	60	8600	6966	31,33,48,91,97
					25129	<b>F96T12/CW/HO/CT/ECO</b>	15	12000	4200	60	8600	6966	31,33,48,76,91,97
					25134	<b>F96T12/CW/HO/COLD TEMP</b>	15	12000	4200	60	8600	6966	31,33,48,91,97
					25135	<b>F96T12/D/HO/COLD TEMP</b>	15	12000	6500	76	7600	6156	31,33,48,91,97

### Very High Output (1500mA) SUPERSAVER® Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
195	T12	96	93.91	Recessed DC	25296	<b>F96T12/CW/VHO/SS</b>	15	10000	4200	60	13000	9100	28,31,33,48,108

### Very High Output (1500mA) Standard Rapid Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
115	T12	48	46	Recessed DC	25248	<b>F48T12/CW/VHO</b>	30	10000	4200	60	6600	4620	31,33,48,108
					25249	<b>F48T12/CW/VHO/LT</b>	30	10000	4200	60	6750	5250	31,33,48,58,88,108
					25244	<b>F48T12/D/VHO</b>	30	10000	6500	76	5600	3920	31,33,48,108
135	T12	60	57.91	Recessed DC	25262	<b>F60T12/CW/VHO</b>	30	10000	4200	60	8700	6090	31,33,48,108
141	T12	60	57.91	Recessed DC	25263	<b>F60T12/CW/VHO/LT</b>	30	10000	4200	60	8700	6090	31,33,48,58,88,108
160	T12	72	69.91	Recessed DC	25272	<b>F72T12/CW/VHO</b>	15	10000	4200	60	10600	7420	31,33,48,108
					25274	<b>F72T12/CW/VHO/LT</b>	15	10000	4200	60	11000	7700	31,33,48,58,88,108
					25270	<b>F72T12/D/VHO</b>	15	10000	6500	76	9400	6580	31,33,48,108
215	T12	96	93.91	Recessed DC	25209	<b>F96T12/CW/VHO</b>	15	10000	4200	60	14000	9800	31,33,48,108
					25292	<b>F96T12/CW/VHO/LT</b>	15	10000	4200	60	15000	10500	31,33,48,58,88,108
					25210	<b>F96T12/D/VHO</b>	15	10000	6500	76	11600	8120	31,33,48,108

## INSTANT START LAMPS

### Slimline SUPERSAVER® Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
32	T12	48	46.00	Single Pin	24829	<b>F48T12/D35/SS</b>	30	9000	3500	70	2575	2369	26,31,33
					24825	<b>F48T12/D41/SS</b>	30	9000	4100	70	2575	2369	26,31,33
					24823	<b>F48T12/CW/SS</b>	30	9000	4200	60	2450	2200	26,31,33
57	T12	96	94	Single Pin	29900	<b>F96T12/D41/SSP/ECO</b>	15	12000	4100	82	5600	5152	26,31,33, 76,97

**INSTANT START LAMPS****Slimline SUPERSAVER® Instant Start Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
60	T12	96	94	Single Pin	29795	F96T12/WW/SS/ECO	15	12000	3000	52	5500	4840	26,31,33,76,97
					29809	F96T12/D30/SS/ECO	15	12000	3000	70	5600	5152	26,31,33,76,97
					29854	F96T12/D830/SS/ECO	15	12000	3000	80	5800	5452	26,31,33,76,97
					29819	F96T12/D35/SS	15	12000	3500	70	5600	5152	26,31,33,97
					29808	F96T12/D35/SS/ECO	15	12000	3500	70	5600	5152	26,31,33,76,97
					29811	F96T12/D835/SS	15	12000	3500	80	5800	5452	26,31,33,97
					29859	F96T12/D835/SS/ECO	15	12000	3500	80	5800	5452	26,31,33,76,97
					29853	F96T12/D41/SS/ECO	15	12000	4100	70	5600	5152	26,31,33,76,97
					29860	F96T12/D841/SS/ECO	15	12000	4100	80	5800	5452	26,31,33,76,97
					29820	F96T12/LW/SS	15	12000	4150	48	5600	4928	26,31,33,97
					29815	F96T12/CW/SS	15	12000	4200	60	5300	4664	26,31,33,97
					29805	F96T12/CW/SS/CVP	10	12000	4200	60	5300	4664	26,31,33,97
					29816	F96T12/CW/SS/UPC	15	12000	4200	60	5300	4664	26,31,33,97
					29555	F96T12/CW/SS/SL	15	12000	4200	60	5140	4420	26,31,33,96,97,98
					29505	F96T12/CW/SS/ECO	15	12000	4200	60	5300	4664	26,31,33,76,97
					29851	F96T12/D865/SS	15	12000	6500	80	5300	4770	26,31,33,97
					29828	F96T12/DX/SS	15	12000	6500	88	3860	3397	26,31,33,97
					29868	F96T12/DX/SS/ECO	15	12000	6500	88	3860	3397	26,31,33,76,97

**Slimline Standard Instant Start Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
21	T12	24	22	Single Pin	22403	F24T12/CW	30	7500	4200	60	1150	1000	31,33,48
25	T6	42	40	Single Pin	24270	F42T6/WW	24	7500	3032	52	1825	1606	31,33,48
					24269	F42T6/D35	24	7500	3500	70	1830	1684	31,33,48
					24266	F42T6/CW	24	7500	4200	60	1750	1540	31,33,48
30	T12	36	34	Single Pin	23618	F36T12/CW	30	7500	4200	60	1970	1734	31,33,48
38	T6	64	62	Single Pin	26470	F64T6/WW	24	7500	3000	52	2900	2552	31,33,48
					26466	F64T6/CW	24	7500	4200	60	2800	2464	31,33,48
	T8	72	70	Single Pin	27270	F72T8/WW	24	7500	3000	52	3100	2728	31,33,48
					27266	F72T8/CW	24	7500	4200	60	3050	2684	31,33,48
27200	F72T8/D	24	7500	6500	76	2600	2288	31,33,48					
39	T12	48	46	Single Pin	24832	F48T12/D35	30	9000	3500	70	3000	2760	31,33,48
					24827	F48T12/CW/ECO	30	9000	4200	60	2820	2482	31,33,48,76
					24830	F48T12/CW	30	9000	4200	60	2820	2482	31,33,48

## INSTANT START LAMPS

### Slimline Standard Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
39	T12	48	46	Single Pin	24834	<b>F48T12/D</b>	30	9000	6500	76	2450	2156	31,33,48
					24836	<b>F48T12/D/ECO</b>	30	9000	6500	76	2450	2156	31,33,48,76
50	T12	60	58	Single Pin	26018	<b>F60T12/D35</b>	30	12000	3500	70	3850	3542	31,33,48,97
					26001	<b>F60T12/CW</b>	30	12000	4200	60	3700	3256	31,33,48,97
					26002	<b>F60T12/D</b>	30	12000	6500	76	3000	2640	31,33,48,97
51	T8	96	94	Single Pin	29666	<b>F96T8/CW</b>	24	7500	4200	60	4000	3520	31,33,48
					29650	<b>F96T8/D</b>	24	7500	6500	76	3550	3124	31,33,48
52	T12	64	62	Single Pin	26403	<b>F64T12/CW</b>	30	12000	4200	60	3900	3432	31,33,48,97
					26404	<b>F64T12/D</b>	30	12000	6500	76	3300	2904	31,33,48,97
55	T12	72	70	Single Pin	27255	<b>F72T12/D830</b>	15	12000	3000	80	4800	4512	31,33,48,97
					27250	<b>F72T12/D35</b>	15	12000	3500	70	4700	4324	31,33,48,97
					27243	<b>F72T12/D41</b>	15	12000	4100	70	4700	4324	31,33,48,97
					27256	<b>F72T12/CW</b>	15	12000	4200	60	4500	3960	31,33,48,97
					27259	<b>F72T12/D</b>	15	12000	6500	76	3800	3432	31,33,48,97
70	T12	84	82	Single Pin	28417	<b>F84T12/CW</b>	15	12000	4200	60	5300	4664	31,33,48,97
75	T12	96	94	Single Pin	29796	<b>F96T12/D30/ECO</b>	15	12000	3000	70	6420	5906	31,33,48,76,97
					29827	<b>F96T12/D830</b>	15	12000	3000	80	6550	6157	31,33,48,97
					29856	<b>F96T12/D830/ECO</b>	15	12000	3000	80	6550	6157	31,33,48,76,97
					29685	<b>F96T12/D35</b>	15	12000	3500	70	6420	5906	31,33,48,97
					29686	<b>F96T12/D35/ECO</b>	15	12000	3500	70	6420	5906	31,33,48,76,97
					29843	<b>F96T12/D835</b>	15	12000	3500	80	6550	6157	31,33,48,97
					29838	<b>F96T12/D835/ECO</b>	15	12000	3500	80	6550	6157	31,33,48,76,97
					29797	<b>F96T12/D41/CVP</b>	10	12000	4100	70	6420	5906	31,33,48,97
					29478	<b>F96T12/CWX</b>	15	12000	4100	87	4400	3872	31,33,48,97
					29858	<b>F96T12/CWX/CVP</b>	10	12000	4100	87	4400	3872	31,33,48,97
					29489	<b>F96T12/CWX/UPC</b>	15	12000	4100	87	4400	3872	31,33,48,97
					29852	<b>F96T12/D41/UPC</b>	15	12000	4100	70	6420	5906	31,33,48,97
					29798	<b>F96T12/D41/ECO</b>	15	12000	4100	70	6420	5906	31,33,48,76,97
					29857	<b>F96T12/D841</b>	15	12000	4100	80	6550	6157	31,33,48,97
					29850	<b>F96T12/D841/ECO</b>	15	12000	4100	80	6550	6157	31,33,48,76,97
					29833	<b>F96T12/DSGN50</b>	15	12000	5000	90	4400	3872	31,33,48,97
					29849	<b>F96T12/D865</b>	15	12000	6500	80	6000	5520	31,33,48,97
					29500	<b>F96T12/DX</b>	15	12000	6500	88	4360	3837	31,33,48,97

**PREHEAT LAMPS****Miniature T5 Preheat Lamps (Starter Required)**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial @25°C/77°F	Mean @25°C/77°F	
4	T5	6	5.91	Mini Bipin	20416	F4T5/CW	24	6000	4200	60	135	117	31,33
					20415	F4T5CW/BL/1/6	6	6000	4200	60	135	117	31,33
6	T5	9	8.91	Mini Bipin	20617	F6T5/WW	24	7500	3000	52	275	239	31,33
					20619	F6T5CW/BL/1/6	6	7500	4200	60	270	235	31,33
					20616	F6T5/CW	24	7500	4200	60	270	235	31,33
8	T5	12	11.91	Mini Bipin	20817	F8T5/WW	24	7500	3000	52	400	348	31,33
					20819	F8T5/SW/BL/1/6	6	7500	3000	52	400	348	31,33
					20837	F8T5/CWX	24	7500	4100	87	270	235	CR1 31,33
					20816	F8T5/CW	24	7500	4200	60	390	339	31,33
					20834	F8T5CW/BL/1/6	6	7500	4200	60	390	339	31,33
					20820	F8T5/D	24	7500	6500	76	350	305	CR1 31,33
13	T5	21	20.91	Mini Bipin	21317	F13T5/WW	24	7500	3000	52	880	766	31,33
					21316	F13T5/CW	24	7500	4200	60	860	748	31,33
					21315	F13T5CW/BL/1/6	6	7500	4200	60	860	748	31,33

**Standard T8 and T12 Preheat Lamps (Starter Required)**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial @25°C/77°F	Mean @25°C/77°F	
13	T8	12	11.71	Med Bipin	21766	F13T8/CW	24	7500	4200	60	530	461	31,33
14	T8	15	14.78	Med Bipin	21486	F14T8/CW	24	7500	4200	60	685	644	31,33
					21488	F14T8/D	24	7500	6500	76	575	561	CR1 31,33
					21435	F14T12/WW	30	9000	3000	52	660	574	31,33
					21451	F14T12/DSW/RP	6	9000	3000	70	720	648	CR1 31,33
	21536	F14T12/DCW/1/6/RP	6	9000	4100	70	720	648	31,33				
	21409	F14T12/CW	30	9000	4200	60	650	566	31,33				
	21410	F14T12/CW/6/RP	6	9000	4200	60	650	566	31,33				
	21411	F14T12/D	30	9000	6500	76	590	513	CR1 31,33				
15	T8	18	17.78	Med Bipin	21656	F15T8/DSW/RP	6	7500	3000	70	900	810	CR1 31,33
					21610	F15T8/D830	24	7500	3000	82	920	846	CR1 31,33
					21701	F15T8/WW	24	7500	3000	52	845	735	31,33
					21765	F15T8/SW/RP	6	7500	3000	52	845	735	31,33
					21609	F15T8/D35	24	7500	3500	70	940	846	CR1 31,33
					21682	F15T8/N	24	7500	3600	86	560	487	CR1 31,33
					21603	F15T8/DCW/RP	6	7500	4100	70	900	810	CR1 31,33
					21616	F15T8/CW	24	7500	4200	60	825	718	31,33
	21619	F15T8/CW/6PK	6	7500	4200	60	825	718	31,33				
	21642	F15T8/DSGN50	24	7500	5000	90	600	539	CR1 31,33				
	21600	F15T8/D	24	7500	6500	76	700	653	CR1 31,33				
	T12	18	17.78	Med Bipin	21542	F15T12/WW	30	9000	3000	52	770	670	31,33
21551					F15T12/DSW/RP	6	9000	3000	70	770	693	CR1 31,33	
21532					F15T12/CW	30	9000	4200	60	750	653	31,33	

**PREHEAT LAMPS****Standard T8 and T12 Preheat Lamps (Starter Required)**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial @25°C/77°F	Mean @25°C/77°F	
15	T12	18	17.78	Med Bipin	21513	<b>F15T12/CW/6PK</b>	6	9000	4200	60	750	653	31,33
					21535	<b>F15T12/DCW/RP</b>	6	9000	4100	76	770	693	CRU 31,33
					21534	<b>F15T12/D</b>	30	9000	6500	76	660	574	CRU 31,33
18	T8	24	23.78	Med Bipin	23014	<b>F18T8CW/K24</b>	24	7500	4200	60	1190	1035	31,33
					23012	<b>F18T8CW/K24/1/12/UPC</b>	12	7500	4200	60	1190	1035	31,33
					23027	<b>F18T8CW/K26</b>	24	7500	4200	60	1280	1079	31,33
		26	25.78	Med Bipin	23025	<b>F18T8/CW/K26PLT</b>	3168	7500	4200	60	1280	1079	31,33
					21728	<b>F18T8/D/K26</b>	24	7500	6500	76	1100	957	CRU 31,33
					23028	<b>F18T8CW/K28</b>	24	7500	4200	60	1360	1131	31,33
					23030	<b>F18T8CW/K30</b>	24	7500	4200	60	1400	1200	31,33
20	T12	24	23.78	Med Bipin	22131	<b>F20T12/WW</b>	30	9000	3000	52	1250	1088	31,33
					22134	<b>F20T12/WW/RP</b>	6	9000	3000	52	1250	1088	31,33
					22252	<b>F20T12/DSW/RP</b>	6	9000	3000	70	1300	1170	CRU 31,33
					22251	<b>F20T12/D35</b>	30	9000	3500	70	1300	1170	CRU 31,33
					22256	<b>F20T12/DCW/RP</b>	6	9000	4100	70	1300	1170	CRU 31,33
					22078	<b>F20T12/CW</b>	30	9000	4200	60	1200	1044	31,33
					22074	<b>F20T12/CW/CVP/10</b>	10	9000	4200	60	1200	1044	31,33
					22015	<b>F20T12/CW/RP</b>	6	9000	4200	60	1200	1044	31,33
					22073	<b>F20T12/CW/UPC</b>	30	9000	4200	60	1200	1044	31,33
					22119	<b>F20T12/DSGN50</b>	30	9000	5000	90	880	766	CRU 31,33
					22083	<b>F20T12/D</b>	30	9000	6500	76	1075	935	CRU 31,33
25	T12	28	27.78	Med Bipin	22527	<b>F25T12/CW/28</b>	30	7500	4200	60	1670	1453	31,33
					22333	<b>F25T12/WW/30</b>	30	7500	3000	52	1750	1523	31,33
		30	29.78	Med Bipin	22528	<b>F25T12/CW/30</b>	30	7500	4200	60	1730	1505	31,33
					22529	<b>F25T12/CW/33</b>	30	7500	4200	60	1850	1610	31,33
30	T8	36	35.78	Med Bipin	23701	<b>F30T8/WW</b>	24	7500	3000	52	2150	1871	31,33
					23140	<b>F30T8/DWW/RP</b>	6	7500	3000	70	2360	2124	CRU 31,33
					23182	<b>F30T8/N</b>	24	7500	3600	86	1500	1305	CRU 31,33
					23127	<b>F30T8/CWX</b>	24	7500	4100	87	1550	1349	CRU 31,33
					23116	<b>F30T8/CW</b>	24	7500	4200	60	2180	1897	31,33
					23121	<b>F30T8CW 6/CS</b>	6	7500	4200	60	2180	1897	31,33
					23100	<b>F30T8/D</b>	24	7500	6500	76	1850	1653	CRU 31,33
40	T12	48	47.2	Med Bipin	24409	<b>L40W/30-1</b>	25		3000	50		31	
58	T8	60	59.6	Med Bipin	24729	<b>L58W/840</b>	25	20000	4000	80	5200	4785	CRU 31,33,48
70	T8	70	70	Med Bipin	20804	<b>L70W / 21 - 840</b>	25	15000	4000	80	6550	6026	CRU 31,33,48

**SPECIALTY FLUORESCENT LAMPS****SAFELINE® Shatter Resistant Coated Lamps**

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial @25°C/77°F	Mean @25°C/77°F	
32	T8	48	47.78	Med Bipin	21678	<b>F032/735/SL</b>	30	25000	3500	78	2716	2444	CRU 31,33,52,96, 98,119

## SPECIALTY FLUORESCENT LAMPS

### SAFELINE® Shatter Resistant Coated Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial	Approx Lumens Mean	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21547	F032/741ECO/SL	30	25000	4100	78	2716	2444	31,33,52, 76,96,98, 119
34	T12	48	47.78	Med Bipin	24396	F34CW/SS/SL formerly F40CW/SS/SL	30	20000	4200	60	2570	2313	2,24,30,31,33,96, 98
54	T5	48	45.8	Mini Bipin	21020	FP54/835/HO/ECO/SL	40	25000	3500	85	4316	4014	31,33,38,48, 74,76,96,98
					21021	FP54/841/HO/ECO/SL	40	25000	4100	85	4316	4014	31,33,48,74, 76,96,98
					21022	FP54/850/HO/ECO/SL	40	25000	5000	85	4243	3946	31,33,48,74, 76,96,98
60	T12	96	94	Single Pin	29555	F96T12/CW/SS/SL	15	12000	4200	60	5140	4420	26,31,33,96,97,98

### Weather-Shielded Jacketed Lamps

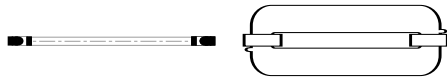
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial	Approx Lumens Mean	Symbols & Footnotes
70	T14.5	60	57.91	Recessed DC	21124	FJ60T12/CW/HO	8	12000	4200	60	5300	4293	31,33,48,97,116
110	T12	96	93.1	Recessed DC	21356	FJ96T12/CW/HO	8	12000	4200	60	8500	6885	31,33,48,97,116
115	T12	48	45.91	Recessed DC	21330	FJ48T12/CW/VHO/LT	12	10000	4200	60	6750	4725	31,33,48,88,108,116
165	T12	72	69.91	Recessed DC	21335	FJ72T12/CW/VHO/LT	8	10000	4200	60	10700	7490	31,33,48,88,108,116
215	T12	96	93.1	Recessed DC	21340	FJ96T12/CW/VHO/LT	8	10000	4200	60	15300	10710	31,33,48,88,108,116

### GRO-LUX® Lamps for Plant Growth & Aquariums

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial	Approx Lumens Mean	Symbols & Footnotes
15	T8	18	17.78	Med Bipin	21657	F15T8/GRO/AQ/RP	6	7500		66	325		31,33,48,57
20	T12	24	23.78	Med Bipin	22013	F20T12/GRO/AQ/WS/RP	6	9000	3400	89	750		31,33,48,57
					22029	F20T12/GRO/AQ/RP	6	9000			480	31,33,48,57	
40	T12	48	47.78	Med Bipin	24671	F40/GRO/AQ/WS/RP	6	20000	3400	89	1700		2,30,31,33,48,56, 64
					24660	F40/GRO/AQ/RP	6	20000			1200	2,30,31,33,48,56, 64	

### Miniature T2 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial	Approx Lumens Mean	Symbols & Footnotes
6	T2	8.6	8.6	Axial	26204	FM6/830	20	10000	3000	80	330	297	3,31,33,38,48,74, 118
					26213	FM6/841	20	10000	4100	80	330	297	3,31,33,38,48,74, 118
8	T2	12.6	12.6	Axial	26237	FM8/830	20	10000	3000	80	540	486	3,31,33,38,48,74, 118
					26232	FM8/841	20	10000	4100	80	540	486	3,31,33,38,48,74, 118
11	T2	16.6	16.6	Axial	26239	FM11/830	20	10000	3000	80	750	675	3,31,33,38,48,74, 118



T2 Axial Base

Icetron

## SPECIALTY FLUORESCENT LAMPS

### Miniature T2 Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
11	T2	16.6	16.6	Axial	26235	<b>FM11/835</b>	20	10000	3000	80	750	675	3,31,33,38,48,74,118
					26231	<b>FM11/841</b>	20	10000	4100	80	750	675	3,31,33,38,48,74,118
13	T2	20.6	20.6	Axial	26253	<b>FM13/830</b>	20	10000	3000	80	930	837	3,31,33,38,48,74,118
					26291	<b>FM13/835</b>	20	10000	3500	80	930	837	3,31,33,38,48,74,118
					26230	<b>FM13/841</b>	20	10000	4100	80	930	837	3,31,33,38,48,74,118

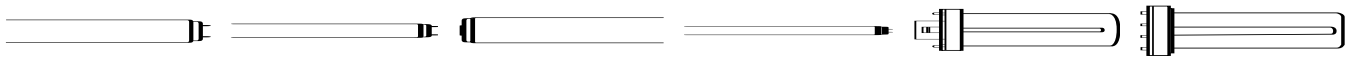
### ICETRON® Inductively Coupled, Electrodeless Lamps

The ICETRON® System is a unique adaptation of the inductively coupled electrodeless technology delivering high luminous efficacy and extremely long system life of 100,000 hours in a shape uniquely suited for a variety of lighting applications. The ICETRON lamps and ballasts are designed as dedicated systems and are not interchangeable with other lamps and ballasts. Please consult OSRAM SYLVANIA for fixture design and application assistance. An ICETRON Design Guide is available on request.

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
70	T17	12.32	Mount Brkts	26087	<b>ICE70/835/2P/ECO</b>	1	100000	3500	80	6200	4605	6,31,33,38,51,76,78,100,101	
				26081	<b>ICE70/835</b>	1	100000	3500	80	6200	4605	8,31,33,38,51,78,100,101	
				26088	<b>ICE70/841/2P/ECO</b>	1	100000	4100	80	6200	4605	6,31,33,38,51,76,78,100,101	
				26082	<b>ICE70/841</b>	1	100000	4100	80	6200	4605	8,31,33,38,51,78,100,101	
				26089	<b>ICE70/850/2P/ECO</b>	1	100000	5000	80	5950	4420	6,31,33,38,51,76,78,100,101	
100	T17	12.32	Mount Brkts	26102	<b>ICE100/835/2P/ECO</b>	1	100000	3500	80	8000	5945	6,31,33,38,51,76,78,100,101	
				26103	<b>ICE100/841/2P/ECO</b>	1	100000	4100	80	8000	5945	6,31,33,38,51,76,78,100,101	
				26105	<b>ICE100/850/2P/ECO</b>	1	100000	5000	80	7600	5645	6,31,33,38,51,76,78,100,101	
				26106	<b>ICE100/BL/2P</b>	1						6,31,33,38,51,78,100,101,109	
150	T17	16.28	Mount Brkts	26152	<b>ICE150/835/2P/ECO</b>	1	100000	3500	80	12000	8915	6,31,33,38,51,76,78,100,101	
				26153	<b>ICE150/841/2P/ECO</b>	1	100000	4100	80	12000	8915	6,31,33,38,51,76,78,100,101	
				26155	<b>ICE150/850/2P/ECO</b>	1	100000	5000	80	11650	8655	6,31,33,38,51,76,78,100,101	
				26154	<b>ICE150/BL/2P</b>	1						31,33,38,51,78,100,101,109	

### ICETRON® Inductively Coupled Electrodeless Reflector Lamp

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens		Symbols & Footnotes
											Initial	Mean	
100	T17	12.32	Mount Brkts	26161	<b>ICE100/841/R/2P/ECO</b>	1	100000	4100	80	7300	5014	6,31,33,38,51,76,78,100,101	



T12 Med Bipin

T8 Med Bipin

T12 RDC

T5 Mini Bipin

CFL 2Pin

CFL 4 Pin

## SPECIALTY FLUORESCENT LAMPS

### Diazo (SDB)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
65	T12	48	47.78	Med Bipin	24465	F40T12/SDB/65W	30	1000				115

### Blacklight, Preheat Lamps (Starter Required)

These lamps are not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
15	T8	18	17.78	Med Bipin	21623	F15T8/350BL	24	7500				31,33,59,60,105
20	T12	24	23.78	Med Bipin	22113	F20T12/350BL	24	9000				31,33,59,60,106
22	T12	15	14.78	Med Bipin	21445	F15T12/350BL/500/PH	30					31,33,59,60,111
25	T8	18	17.78	Med Bipin	21703	F25T8/350BL/18in	24	7500				31,33,59,60,107
30	T8	36	35.78	Med Bipin	23113	F30T8/350BL	24	7500				31,33,59,60,109
32	T12	18	17.78	Med Bipin	21525	F18T12/350BL/700/PH	30					31,33,59,60,112

### Blacklight, Rapid Start Lamps (No Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24922	F40/350BL	30	20000				2,30,31,33,56,60,64,110
115	T12	48	45.91	Recessed DC	25251	FR48T12/350BL/VHO/180	30	10000				31,33,60,90,113

### Blacklight Blue, Preheat Lamps (Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
4	T5	6	5.91	Mini Bipin	20425	F4T5/BLB	24	6000				31,33,59,60,99
8	T5	12	11.91	Mini Bipin	20825	F8T5/BLB	24	7500				31,33,59,60,99
15	T8	18	17.78	Med Bipin	21625	F15T8/BLB	6	7500				31,33,59,60,99

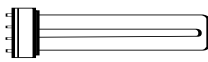
### Blacklight Blue, Rapid Start Lamps (No Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24026	F40/BLB/RP	6	20000				2,30,31,33,56,60,64,102

## GERMICIDAL LAMPS

### Germicidal Compact Fluorescent Lamps

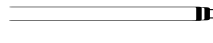
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
7	T5			G23	23372	GCF7DS/G23/SE/OF	10	8000				31,33,45,47,50,82
9	T5			G23	23373	GCF9DS/G23/SE/OF	10	8000				31,33,45,47,50,82
11	T4			G23	23377	GCF11DS/G23/SE/OF	10	8000				31,33,45,47,50,82
18	T5			2G11	23378	GFT18DL/2G11/SE/OF	10	8000				31,33,36,48,74,82
24	T5			2G11	23379	GFT24DL/2G11/SE/OF	10	8000				31,33,36,48,74,82



CFL 4 Pin



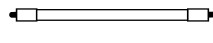
T5 Mini Bipin



T8 Med Bipin



T5 Single End, T6 Single End



T5 Single Pin

## GERMICIDAL LAMPS

### Germicidal Compact Fluorescent Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
36	T6			2G11	23380	GFT36DL/2G11/SE/OF	10	8000					31,33,36,48,74,82

### Germicidal, Preheat Lamps (Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
6	T5			Mini Bipin	23375	G6T5/OF	10	6000					31,33,45,57,82
8	T5			Mini Bipin	20811	G8T5/OF	24	6000					31,33,45,59,82
10	T8			Med Bipin	23374	G10T8/OF	10	6000					31,33,59,82
15	T8			Med Bipin	21612	G15T8/OF	24	7500					31,33,45,59,82
16	T5			4 PIN	23384	G10T5/4P/SE/OF	10	9000					31,33,59,82
				Mini Bipin	23387	G20T5/G5/OF	10	9000					31,33,59,82
25	T5			Med Bipin	23376	G25T8/OF	10	8000					31,33,59,82
30	T8			Med Bipin	23112	G30T8/OF	24	7500					31,33,45,59,82
39	T5			4 PIN	23381	G36T5/4P/SE/OF	10	9000					31,33,57,82
				Mini Bipin	23382	G36T5/G5/OF	10	9000					31,33,59,82
55	T5			Med Bipin	23388	G55T8/OF	10	8000					31,33,59,82
65	T5			4 PIN	23386	G64T5/4P/SE/OF	10	9000					31,33,82

### Germicidal Instant Start Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
14	T5			Single Pin	23383	G14T5/SP/OF	10	8000					31,33,82
16	T5			Single Pin	23385	G10T5/SP/OF	10	9000					31,33,82
39	T5			Single Pin	23443	G36T5/SP/OF	10	9000					31,33,82
65	T5			Single Pin	23442	G64T5/SP/OF	10	9000					31,33,82

### Germicidal Amalgam Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
120	T6			4 PIN	23364	G120T6/4P/SE/OF	5	8000					31,33,82
190	T6			4 PIN	23365	G190T6/4P/SE/OF	5	8000					31,33,82

## FLUORESCENT PREHEAT LAMP STARTERS

### GLOSTAT Starters

Product Number	Ordering Abbreviation	Pkg Qty	Description	Symbols & Footnotes
42812	FS-2	100	Fluorescent starter for use with F14, F15 and F20 preheat fluorescent lamps. UL, CSA	
42901	FS-2/BL/2PK	12	Fluorescent starter for use with F14, F15 and F20 preheat fluorescent lamps, bulk pack with 2 starters. UL, CSA	
44812	FS-4 100/CS	100	Fluorescent starter for use with F13, F30 and F40 preheat lamps. UL, CSA	

## FLUORESCENT PREHEAT LAMP STARTERS








### GLOSTAT Starters

Product Number	Ordering Abbreviation	Pkg Qty	Description	Symbols & Footnotes
44902	<b>FS-4/BL/2PK</b>	12	Fluorescent starter for use with F13, F30 and F40 preheat lamps, blister pack with 2 starters. UL, CSA	
45812	<b>FS-5</b>	100	Fluorescent starter for use with F4, F6 and F8 preheat fluorescent lamps. UL, CSA	
45813	<b>FS-5/BL/2PK</b>	12	Fluorescent starter for use with F4, F6 and F8 preheat fluorescent lamps, blister pack with 2 starters. UL, CSA	
43813	<b>FS-12/BL/2PK</b>	12	Fluorescent starter for use with FC12 Circline lamps when operated by preheat ballasts and F22T8 preheat lamps, blister pack with 2 starters. UL, CSA	
42512	<b>FS-25</b>	100	Fluorescent starter for use with FC6 (20W) & FC8 (22W) Circline lamps when operated by preheat ballasts; F25 and F18T8 preheat lamps. UL, CSA	
42513	<b>FS-25/BL/2PK</b>	12	Fluorescent starter for use with FC6 (20W) & FC8 (22W) Circline lamps when operated by preheat ballasts; F25 and F18T8 preheat lamps, blister pack with 2 starters. UL, CSA	

### COP Starters With Cutout And Manual Reset

Product Number	Ordering Abbreviation	Pkg Qty	Description	Symbols & Footnotes
42302	<b>FS-20 (COP-20)</b>	100	Fluorescent starter with cutout and manual reset for use with F15 & F20 preheat lamps. UL, CSA	
44102	<b>FS-40/400 (COP-40/400)</b>	100	Fluorescent starter with cutout and manual reset for use with F40 preheat lamps. UL, CSA	

## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Symbol	Description
	New item introduced within the past year.
	Item will be discontinued when inventory is depleted.
	Rating given for 200mA operation.
	This fluorescent lamp generates radiant energy which is most beneficial for plant propagation and enhances vegetative and reproductive growth of many plants for home and commercial use.
	This lamp or ballast meets minimum Federal efficiency standards.
	This ECOLOGIC® lamp was designed to pass the Federal TCLP criteria for classification as non-hazardous waste in most states. Disposal regulations may vary; check local and state regulations.
	This lamp is a High Color Rendering Lamp

Footnote	Description
1	May be operated at 100 watts (1000MA) same as F84T12/HO.
2	Average life rating at 12 hours operation per start is 28,800 hours.
3	Due to their small diameter, T2 miniature fluorescent lamps operate at higher surface temperatures than other fluorescent lamps. To avoid possible burns, do not touch the lamp during operation and allow sufficient cooling time before removing the lamp from the fixture. The typical bulb wall temperature during operation is 120 degrees at the ends. The maximum allowable bulb wall temperature is 150 degrees C. To avoid electrical shock, turn electrical power off before removing or installing the lamp.
4	The 30,000 hour average rated of the OCTRON (R) XPS CURVALUME (R) lamp is based on operation at 3 hours per start by a dedicated QUICKTRONIC(R) PSX ballast. If operated by other ballasts for T8 OCTRON lamps, life will be the same as that of the XP version of the lamp: typically 24,000 hours for rapid or programmed rapid start operation and 18,000 hours for instant start operation at 3 hours per start.
5	The lamp lumen maintenance factor used to determine the mean lumen value was 95%. This is the lamp lumen maintenance factor at 8,000 hours, 40% of 20,000 hours. It was used to allow comparison to standard OCTRON(R) lamps with an average rated life of 20,000 hours. The lamp lumen maintenance factor at 40% of 24,000 hours, 9600 hours, would be 94%; the lamp lumen maintenance factor at 40% of 30,000 hours, 12000 hours, would be 93%.
6	The /2P version of the ICETRON lamp is supplied with a 24 inch lead wire terminated by a 2-Pin connector rather than the old 12 inch lead, 3-Pin connector design. The /2P versions are powered by QT1X100 ICE/UNV-T or QT1X150 ICE/UNV-T ballasts.
7	Recommended to be used on any F96 T8 Instant Start circuit. It is not recommended to be used: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballast, or (3) inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with the OCTRON F096 SUPERSAVER 55 watt T8 lamp. Any of the above situations could result in lamp starting and stabilization problems.
8	Current ballast design incorporates a modular 2-Pin connector plugin from the lamp. An adapter, NAED code 26240, is available to connect 3-Pin lamp types to current (2-Pin) design ballasts.
9	This lamp may also be operated by the OSRAM SYLVANIA QUICKTRONIC(R) PSN ballast (.88 BF), or the QUICKTRONIC PSX ballast (.71 BF).
10	The lumen maintenance factor used to determine the mean lumens value was 92%, measured at 40% of the average rated life, 15,000 hours. The lumen maintenance factor at 4,000-4,800 hours (for comparison to F96T12 HO and F96T12 Slimline instant start lamps) is 93%.
11	Minimum starting temperature for DULUX EL lamps is 0 degrees F
12	For operation in fixtures designed only for 24", 30 watt, T-12 Fluorescent lamps.
13	Life rating is based on rapid start operation. Life rating on instant start operation is 15,000 hrs.
14	Caution: Although DURA-ONE lamps can be used with occupancy sensors that have a fluorescent volt-amp rating, DURA-ONE lamps cannot be used on any other dimming circuits, emergency exit fixtures or lights, electronic timers, photocells, lighted switches or any other switches that do not meet UL20 Sec. 7.6.15. In outdoor applications, use only in enclosed fixtures to avoid exposure to weather. Use only on 120V, 60 Hz circuits. Never disassemble or modify lamp. Install or remove unit from fixture by grasping plastic base. Best performance achieved when operated at 77°F (25°C). Operating temperature range of DURA-ONE lamps is -20°F/-29°C to 122°F/50°C.
15	Service life (that amount of time where light output remains greater than or equal to 80% of initial lumens) is 16,000 hours for FP28/RED, FP28/GREEN, FP54/RED/HO and FP54/GREEN/HO and 10,000 hours for FP28/BLUE and FP54/BLUE/HO.
16	The life of this lamp, operated on instant start electronic ballasts is 24,000 hours based on the industry standard life test standard of 3 hours per start.
17	Recommended to be used on any F32 T8 instant start circuit. It is not recommended to be used: (1) with rapid Start circuits unless the open circuit voltage is greater than 570V, (2) at lamp ambient temperatures below 70°F or in drafty locations, (3) in air handling fixtures, (4) on dimming ballasts, (5) on inverter operated emergency lighting systems unless any of the above equipment is specifically listed for 25W lamps, or (6) below 60°F starting temperature. Any of the above situations could result in lamp starting and stabilization problems or system compatibility issues.

## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Footnote	Description
18	IF AN OPERATING LAMP IS EXPOSED TO TEMPERATURES BELOW 70°F OR MOVING AIR (WIND, DRAFTS OR AIR FLOW FROM AN AIR CONDITIONING OR VENTILATION SYSTEM) STRIATION, A RHYTHMIC PULSING PATTERN OF LIGHT RUNNING THE LENGTH OF THE TUBE AND/OR A REDUCTION IN LIGHT OUTPUT MAY OCCUR. While visually disconcerting, neither behavior is damaging to lamp life and removing the cause (draft or temperature) will return the lamp to normal operation.
19	The 36,000 hour average rated life of the F032/800XPS/ECO OCTRON(R) lamp is based on operation at 3 hours per start on a QUICKTRON-IC(R) programmed start ballast. If operated on other ballasts for T8 OCTRON lamps, lamp life will be 36,000 hours for programmed rapid start operation and 24,000 hours for instant start operation at 3 hours per start.
20	The 36,000 hour average rated life of the F032/800XP/ECO, F030/800XP/SS/ECO, F028/800XP/SS/ECO and F032/25W/800XP/SS/ECO OCTRON(R) lamps is based on operation at 3 hours per start on a QUICKTRONIC(R) programmed start ballast. If operated on other ballasts for T8 OCTRON lamps, lamp life will be 36,000 hours for programmed rapid start operation and 24,000 hours for instant start operation at 3 hours per start.
21	The life rating of F032/800/ECO OCTRON® lamps operated on rapid start ballasts is 30,000 hours. The life rating of F032/800/ECO OCTRON lamps operated on instant start ballasts is 24,000 hours.
22	Recommended only for use on 2-lamp, 30 watt rapid-start high power factor lead, indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, or (5) on inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with 25 watt lamps.
23	If an operating lamp is exposed to drafts or the ambient temperature falls below 60 degrees F, striation (a rhythmic pulsing pattern of light running down the tube) and/or reduction in lamp brightness may occur. While visually disconcerting, neither behavior is damaging to the lamp and removing the cause (draft or temperature) will return the lamp to normal operation.
24	Recommended for use on one or two lamp 40 watt rapid start, high power factor, lead, indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, or (5) on inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with 34 watt lamps.
25	Recommended for use on two lamp 40 watt rapid start, high power factor, lead indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, (5) on inverter operated emergency lighting systems, or (6) on high frequency electronic ballasts. Use one Thrift/Mate with one F40/SS in each two lamp circuit.
26	Recommended for use on one or two lamp high power factor, lead, instant-start, indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, or (5) on inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with 32 watt or 60 watt lamps.
27	Recommended for use on one or two lamp high power factor, lead, 8-foot lamp, high output, indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, or (5) on inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with 95 watt lamps.
28	Recommended for use on 2-lamp high power factor, lead, 8-foot lamp, very high output, indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, or (5) on inverter operated emergency lighting systems unless equipment is specifically listed for use with 195 watt lamps.
29	Recommended for use on two-lamp high power factor, lead-lag, Preheat, indoor ballasts that meet ANSI standards and installed in open type fixtures. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations (unstable operation or starting difficulties may be experienced below 60 degrees F or in strong drafts); (2) on low power factor ballasts, reduced current, reduced light output ballasts, dimming ballasts, or in inverter operated emergency lighting systems.
30	Average rated life is measured at 3 hours per start on 2-lamp, rapid start magnetic ballasts per IES recommended practice. Lamp life on single-lamp rapid start ballasts may be reduced.
31	Approximate initial lumens after 100 hours operation.
32	Recommended for use on one or two lamp 40 watt rapid start, high power factor, lead, indoor ballasts that meet ANSI standards. Not intended for use: (1) at lamp ambient temperatures below 60 degrees F or in drafty locations, (2) on low power factor ballasts, (3) reduced current/reduced light output ballasts, (4) dimming ballasts, or (5) on inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with 34 watt lamps. Not to be used on electronic ballasts nor with any other impedance modifying devices.
33	The life ratings of fluorescent lamps are based on 3 hr. burning cycles under specified conditions and with ballast meeting ANSI specifications. If burning cycle is increased, there will be a corresponding increase in the average hours life.
34	Average rated life is based on 3 hours per start operated on rapid start circuits. Average rated life is 7,500 hours on preheat circuits and 5,000 hours on instant start circuits.
35	The life rating of OCTRON and OCTRON Curvalume lamps operated on magnetic rapid start ballasts is 20,000 hours. The life rating of OCTRON and OCTRON Curvalume lamps operated on instant start electronic ballasts is 15,000 hours.

## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Footnote	Description
36	These lamps may also be operated on rapid start circuits. On rapid start circuits the 24 watt lamp operates at 27 watts and the 36 watt lamp operated at 39 watts. Rated lamp life is unchanged.
37	Lumen output rated on high frequency operation. 60 HZ operation would result in lower lumen output.
38	Lumen output and life rated on high frequency operation.
39	DULUX F lamps can typically be operated on DULUX L and PENTRON HO ballasts of the same/similar wattage. Check with the ballast manufacturer to verify lamp/ballast compatibility.
40	Rule of Thumb for Compact Fluorescent Lamps: Divide wattage of incandescent lamp by 4 to determine approximate wattage of compact fluorescent lamp that will provide similar light output.
41	Guarded OCTRON lamp has plastic tube guard, which filters 95% of the UV emissions and provides shatter protection.
42	Rating for OSRAM SYLVANIA Circline lamps are based on operation in Rapid Start circuits. They will also operate on preheat circuits.
43	Gold OCTRON lamp has plastic tube guard which filters wavelengths less than 525nm and provides shatter protection.
44	Life rating of OCTRON XP lamps operated on instant start electronic ballasts is 18,000 hours based on the industry standard life test cycle of 3 hours per start.
45	Germicidal lamps can be operated on corresponding wattage preheat ballasts.
46	Amalgam compact fluorescent lamps provide at least 90% light output from 40-140 degrees F. Non-amalgam compact fluorescent lamps provide at least 90% light output from 60-100 degrees F in the base up position, the temperature range is narrower for horizontal or base down.
47	Minimum starting temperature: CF5: -22 degrees F; CF7: -4 degrees F; CF9: 14 degrees F; CF13DS: 14 degrees F; CF13DD: -4 degrees F; CF18DD: 5 degrees F; CF18DT: -4 degrees F; CF26: 14 degrees F.
48	Minimum starting temperature is a function of the ballast; consult the ballast manufacturer.
49	Minimum starting temperature for DULUX EL lamps is 0° F, unless otherwise specified in product literature. .
50	2 pin CF lamps are not suitable for use in frequently cycled applications or with occupancy sensors. 2 pin CF lamps should never be installed in 4 pin sockets regardless if lamp will fit.
51	Color and CRI at amalgam tip temperature of 149 degrees F (65 degrees C) for ICETRON 70 and ICETRON 100 and at 158 degrees F (70 degrees C) amalgam tip temperature for ICETRON 150.
52	OCTRON lamps should be operated only with magnetic rapid start ballasts designed to operate 265 mA, T-8 lamps or high frequency (electronic) ballasts that are either instant start, or rapid start, or programmed rapid start specifically designed to operate T8 lamps. OCTRON lamps may be operated on instant start ballasts with ballast factors ranging from a minimum of 0.71 to a maximum of 1.20 at the nominal ballast input voltage. When OCTRON lamps are operated in the instant start mode, the two wires or two contacts of each socket should be connected to each other. They should then be connected to the appropriate ballast lead wire using National Electric Code techniques.
53	For operation on instant start circuits. Use only in fixtures equipped with Instant Start Ballasts.
54	Approximate length of OCTRON CURVALUME lamps is measured from base face to outside of glass bend.
55	For optimum performance OCTRON CURVALUME 1 5/8 inch leg spacing lamps in the 3000K, 3500K and 4100K color temperatures are now available only in the 82CRI version (800 series). These lamps are made to the same color standards and may be used in combination with other SYLVANIA OCTRON lamps to meet the needs of lighting installations where T8 lamps are used.
56	The "RS" designation has been eliminated to simplify the ordering abbreviation.
57	Preheat lamp, starter required.
58	Low temperature performance rated at 35 degrees F ambient.
59	Starter required.
60	These lamps are not intended and should not be used for diagnostic, therapeutic, or cosmetic purposes.
61	For use with 4,6 & 8 watt lamps.
62	For use with 13,30 & 40 watt lamps.
63	For use with 14,15 & 20 watt lamps.
64	40W Rapid Start Lamps may be used in starter operated fixtures designed for 40W preheat lamps. Life rating for preheat service is approximately 15,000 hours average.
65	For use with 22 watt Circline lamps, 25 watt Std. Lp., FC6 & F18T8.
66	For use with 32 watt Circline lamps, F22T8.
67	For use with 15 & 20 watt lamps.
68	For use with 20 watt lamps.
69	For use with 30 watt lamps.
70	For use with 40 watt lamps.
71	For use with 90 & 100 watt lamps.
72	For use with 90 & 100 watt lamps (4-Pin type).

## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Footnote	Description
73	For use with GL-1302 GRO-LUX fixture.
74	There is a NEMA supported, industry issue where T2, T4, and T5 fluorescent and compact fluorescent lamps operated on high frequency ballasts may experience an abnormal end-of-life phenomenon. This end-of-life phenomenon can result in one or both of the following: 1. Bulb wall cracking near the lamp base. 2. The lamp can overheat in the base area and possibly melt the base and socket. NEMA recommends that high frequency compact fluorescent ballasts have an end-of-life shutdown circuit which will safely and reliably shut down the system in the rare event of an abnormal end-of-life failure mode described above. The final requirements of this system are yet to be defined by ANSI. For additional information refer to NEMA papers on their WEBSITE at <a href="http://www.NEMA.org">www.NEMA.org</a> .
75	When base pins or R.D.C. bases are horizontal, window opening is centered downward or upward.
76	SYLVANIA ECOLOGIC fluorescent lamps are designed to pass the Federal Toxic Characteristic Leaching Procedure (TCLP) criteria for classification as non-hazardous waste in most states. TCLP test results are available upon request. Lamp disposal regulations may vary, check your local & state regulations. For more information, please visit <a href="http://www.lamprecycle.org">www.lamprecycle.org</a>
77	This 4-pin DULUX lamp has an internal end-of-life mechanism (EOL) that shuts down the lamp preventing abnormal end-of-life failure modes. This lamp was designed for use with high frequency ballasts that do not have their own end-of-life (lamp)sensing circuits, but it is also compatible with high frequency ballasts that have their own end-of-life (lamp) sensing circuits.
78	ICETRON diameter is the outside diameter of the ferrite coil. ICETRON MOL is the length from the outside edge of the mounting bracket on one end to the outside edge of the mounting bracket on the opposite end.
79	DULUX EIs meet CSA, FCC and UL requirements.
80	Caution: DULUX EL units cannot be used on dimming circuits, emergency exit fixtures or lights, electronic timers, photocells, lighted switches or any other switches that do not meet UL20 Sec. 7.6.15. In outdoor applications, use only in enclosed fixtures to avoid exposure to weather. Use only on 120V, 60 Hz circuits. Never disassemble or modify lamp. Install or remove unit from fixture by grasping plastic base. Best performance achieved when operated at 77degrees F (25 degrees C). 40 Watt lamp is designed for base down orientation only.
81	Caution: DULUX EL Circline units cannot be used on dimming circuits, emergency exit fixtures or lights, electronic timers, photocells or lighted switches. In outdoor applications, use only in enclosed fixtures to avoid exposure to weather. Use only on 120V, 60 Hz circuits.
82	WARNING: To prevent possible serious injury, eyes and skin should not be exposed to direct or reflected ultraviolet power emitted by this lamp. This lamp is in Risk Group 3 per ANSI/IESNA RP-27.3-96. Adequate protection should be provided by clothing, gloves, opaque materials, and ordinary window glass. Although this lamp will operate in standard fluorescent fixtures, it should not be used for general lighting applications.
83	Mean lumens at 8,000 hours (40% of 20,000 hours for comparison to standard OCTRON and F40 rapid start lamps). The lumen maintenance factor at 40% of average rated life (9,600 hours) is 94%.
84	The lumen maintenance factor used to determine the mean lumens value was 90%, measured at 40% of the average rated life, 15,000 hours. The lumen maintenance factor at 4,000-4,800 hours (for comparison to F96T12 HO and F96T12 Slimline instant start lamps) is 91%.
85	The lumen maintenance factor used to determine the mean lumen value was 95%. This is the lamp lumen maintenance factor at 6000 hours, 40% of 15,000 hours. It was used to allow comparison to standard OCTRON(R) lamps with an average rated life of 15000 hours. The lamp lumen maintenance factor at 40% of the 18,000 hour average rated life of this lamp, 7200 hours, would be 94%.
86	When base pins or R.D.C. bases are horizontal, window opening is centered to either side.
87	The lamp lumen maintenance factor used to determine the mean lumen value was 95%. This is the lamp lumen maintenance factor at 8,000 hours, 40% of 20,000 hours. It was used to allow comparison to standard OCTRON(R) lamps with an average rated life of 20,000 hours. The lamp lumen maintenance factor at 40% of the 24,000 hour average rated life of this lamp, 9600 hours, would be 94%.
88	Low temperature performance rated at 35 degrees F ambient.
89	Cool White lamp with 30 degree aperture (Power Beam).
90	Blacklight lamp with 180 degree reflector>
91	Labeled for cold temperature (below 60 degrees F) operation only per EPACT.
92	Under ideal conditions, an average rated life of 10,000 hours at 3 hours/start is possible.
93	The 30,000 hour average rated life of the FO17/800XPS/ECO and FO25/800XPS/ECO OCTRON(R) lamps is based on operation at 3 hours start on a QUICKTRONIC(R) Programmed Start ballast. If operated on other ballasts for T8 OCTRON lamps, lamp life will be 30,000 hours for rapid start operation, and 18,000 hours for instant start operation at 3 hours per start.
94	The lamp lumen maintenance factor used to determine the mean lumen value was 95%. This is the lamp lumen maintenance factor at 8000 hours, 40% of 20,000 hours. It was used for comparison to standard OCTRON(R) lamps with an average rated life of 20,000 hours. The lamp lumen maintenance factor at 40% of 24,000 hours, 9600 hours, would be 94%; the lamp lumen maintenance factor at 40% of 30,000 hours, 12,000 hours, would be 93%
95	Recommended to be used on any F32 T8 Instant Start circuit. It is not recommended to be used:(1) with Rapid Start circuits unless the open circuit voltage is greater than 550V, (2) at lamp ambient temperatures below 60 degrees F or in drafty locations, (3) on dimming ballast or (4) inverter operated emergency lighting systems unless any of the above equipment is specifically listed for use with the OCTRON(R) SUPER-SAVER(R) 28 or 30 watt, 4 foot or 30W U-bent T8 lamp. Any of the above situations could result in lamp starting and stabilization problems

## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Footnote	Description
96	SAFELINE lamps satisfy the criteria of having a non-shattering covering for prevention of glass and other lamp components in your product by containment within the safety coating material. The covering must be intact or the lamp must be replaced to be in compliance. An onsite inspector will require correction if the lamps are installed improperly or not maintained properly.
97	Average life rating at 12 hours operation per start is 18,000 hours.
98	SAFELINE lamps are intended for indoor use only. Lamps must be used in ambient temperatures below 135 degrees F. The coating is designed to withstand constant operating temperatures up to 239 degrees F and has a melting point in excess of 500 degrees F. Lamps must be used with sockets that provide adequate lamp pin to socket contact. Lamps must not be used with defective ballasts sockets, or fixtures with improper wiring.
99	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 1 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.25 meters (10 inches) should be limited; for example exposure at 0.14m (6 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
100	WARNING: ICETRON® Inductively Coupled Electrodeless Fluorescent lamp. Read these warnings and instructions before installing and using this lamp. 1. This lamp operates at a higher temperature (130 C) than standard fluorescent lamps. To avoid the possibility of minor skin burns, do not touch lamp or metal mounting brackets during operation and allow sufficient cooling time prior to servicing, handling, or replacing lamp. 2. This lamp generates electric and magnetic fields during operation. The electric and magnetic fields generated by this lamp during operation in typical lighting applications do not pose exposure risks relative to the limits documented in ANSI C95.1. 3. To prevent electric shock, shut off the main power to the fixture and allow at least two minutes for ballast voltage to discharge before attempting to service or replace lamp. 4. To obtain optimum safety and system performance, use only with OSRAM SYLVANIA ballast. 5. To avoid potential electric shock hazard, do not use lamp if wires or insulation are cut or pulled out of connector.
101	WARNING: ICETRON® Inductively Coupled Electrodeless Fluorescent lamp. Read these warnings and instructions before installing and using this lamp. Instructions for Installation and Use. 1) To avoid premature lamp or ballast failure and ensure proper lamp, ballast, and system performance, make sure lamp, ballast, and fixture are properly installed. Electrical interconnects, electrical grounds, thermal management, and heatsinking specifications and requirements must be fully adhered to in all applications. (See OSRAM SYLVANIA ICETRON DESIGN GUIDE.) 2. Do not alter the electrical connector on lamp and/or ballast. To do so may adversely affect lamp operation, ballast life, and/or emission of EMI (electromagnetic interference). 3. This product may cause interference with radios, cordless telephones, and remote control devices. If interference occurs, relocate the radios, cordless telephones, and/or remote control devices away from this product.
102	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 1 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.3 meters (12 inches) should be limited; for example exposure at 0.14m (6 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
103	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 1 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.35 meters (14 inches) should be limited; for example exposure at 0.25m (10 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
104	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.45 meters (18 inches) should be limited; for example exposure at 0.3m (12 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
105	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.55 meters (22 inches) should be limited; for example exposure at 0.4m (16 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
106	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.65 meters (26 inches) should be limited; for example exposure at 0.45m (18 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
107	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.7 meters (28 inches) should be limited; for example exposure at 0.54m (20 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.

## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Footnote	Description
108	Average life rating at 12 hours operation per start is 15,000 hours.
109	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.75 meters (30 inches) should be limited; for example exposure at 0.55m (22 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
110	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 1.0 meters (39 inches) should be limited; for example exposure at 0.64m (24 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
111	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.6 meters (24 inches) should be limited; for example exposure at 0.45m (18 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
112	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.8 meters (31 inches) should be limited; for example exposure at 0.55m (22 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
113	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 2 per ANSI/IESNA RP-27.3-96. Exposure at less than 2.0 meters (79 inches) should be limited; for example exposure at 1.4m (55 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
114	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 1 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.3 meters (12 inches) should be limited; for example exposure at 0.2m (8 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
115	CAUTION: This lamp emits ultraviolet (UV) power during operation and is in Risk Group 1 per ANSI/IESNA RP-27.3-96. Exposure at less than 0.3 meters (12 inches) should be limited; for example exposure at 0.15m (6 inches) should not exceed 4 hours in an 8 hour interval (see ANSI/IESNA RP-27.1-96). Certain medications and chemicals can increase an individual's sensitivity. Consult your physician for specific information. Protective eyewear should be worn in occupational situations involving long term exposure in close proximity to the lamp. This lamp is not intended and should not be used for diagnostic, therapeutic or cosmetic purposes.
116	A fluorescent jacketed lamp consists of a T12 (1 1/2" diameter) lamp enclosed inside a T14.5 (1 13/16" diameter) glass jacket. A jacketed fluorescent lamp operates efficiently over a wide range of climatic conditions, including extremes of cold and strong wind in which an unjacketed (bare) lamp would be inefficient or inoperable. The jacket size provides the clearance necessary to minimize damaging lamp-jacket contact; narrow bands of rubber placed between the lamp and the jacket further prevent contact. A weather-tight seal is formed by neoprene rubber end caps.
117	Mean lumens at 7,200 hours (40% of 18,000 hour average rated life) equal 4,371. For comparison to an F72T12 Slimline lamp with an average rated life of 12,000 hours use a mean lumen value of 4418 based on 95% lumen maintenance at 4,800 hours, (40% of 12,000 hours).
118	Use only with electronic ballasts which have been specifically designed to operate T2 miniature fluorescent lamps and to reliably and safely control all lamp operating modes including end-of-lamp-life sensing circuitry. If a non-conforming ballast is used, very high temperatures (350 degrees C typical) may be generated at the ends of the lamp especially during end-of-lamp-life operation, causing the lamp to crack and resulting in potential fire, electrical shock, or burn hazards.
119	The life rating of F032/700/ECO OCTRON® lamps operated on rapid start ballasts is 25,000 hours. The life rating of F032/700/ECO OCTRON lamps operated on instant start ballasts is 24,000 hours.

# Manufacturers' Cross Reference Guide (continued)

## FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
<b>OCTRON®</b>		
F017/830/ECO	F17T8/SPX30/ECO	F17T8/TL830/ALTO
F017/835/ECO	F17T8/SPX35/ECO	F17T8/TL835/ALTO
F017/841/ECO	F17T8/SPX41/ECO	F17T8/TL841/ALTO
		F17T8/TL850/ALTO
F017/827/XP/ECO		
F017/830/XP/ECO	F17T8/XL/SPX30/ECO	F17T8/TL830/PLUS/ALTO
F017/835/XP/ECO	F17T8/XL/SPX35/ECO	F17T8/TL835/PLUS/ALTO
F017/841/XP/ECO	F17T8/XL/SPX41/ECO	F17T8/TL841/PLUS/ALTO
F017/850/XP/ECO	F17T8/XL/SPX50/ECO	F17T8/TL850/PLUS/ALTO
F017/865/XP/ECO	F17T8/XL/SPX65/ECO	F17T8/TL865 /PLUS/ALTO
F017/830XPS/ECO		
F017/835XPS/ECO		
F017/841XPS/ECO		
F025/830/ECO	F25T8/SPX30/ECO	F25T8/TL830/ALTO
F025/835/ECO	F25T8/SPX35/ECO	F25T8/TL835/ALTO
F025/841/ECO	F25T8/SPX41/ECO	F25T8/TL841/ALTO
		F25T8/TL850/ALTO
F025/827/XP/ECO		
F025/830/XP/ECO	F25T8/XP/SPX30/ECO	F25T8/TL830/PLUS/ALTO
F025/835/XP/ECO	F25T8/XP/SPX35/ECO	F25T8/TL835/PLUS/ALTO
F025/841/XP/ECO	F25T8/XP/SPX41/ECO	F25T8/TL841/PLUS/ALTO
F025/850/XP/ECO	F25T8/XP/SPX50/ECO	F25T8/TL850/PLUS/ALTO
F025/865/XP/ECO	F25T8/XP/SPX65/ECO	F25T8/TL865/PLUS/ALTO
F025/830XPS/ECO		
F025/835XPS/ECO		
F025/841XPS/ECO		
F032/25W/830XP/SS/ECO		F32T8/ADV830/XEW/LL/ALTO 25Watt
F032/25W/835XP/SS/ECO		F32T8/ADV835/XEW/LL/ALTO 25Watt
F032/25W/8410XP/SS/ECO		F32T8/ADV841/XEW/LL/ALTO 25Watt
F032/25W/850XP/SS/ECO		F32T8/ADV850/XEW/LL/ALTO 25Watt
F028/830XP/SS/ECO	F28T8/SP30UMX/ECO	F32T8/ADV830/EW/LL/ALTO 28Watt
F028/835XP/SS/ECO	F28T8/SP35UMX/ECO	F32T8/ADV835/EW/LL/ALTO 28Watt
F028/841XP/SS/ECO	F28T8/SP41UMX/ECO	F32T8/ADV841/EW/LL/ALTO 28Watt
F028/850XP/SS/ECO	F28T8/SP50UMX/ECO	F32T8/ADV850/EW/LL/ALTO 28Watt
F030/830XP/SS/ECO	F32T8XL/SP30/WM/ECO	F32T8/ADV830/EW/LL/ALTO 30Watt
F030/835XP/SS/ECO	F32T8XL/SP35/WM/ECO	F32T8/ADV835/EW/LL/ALTO 30Watt
F030/841XP/SS/ECO	F32T8XL/SP41/WM/ECO	F32T8/ADV841/EW/LL/ALTO 30Watt
F030/850XP/SS/ECO	F32T8XL/SP50/WM/ECO	F32T8/ADV850/EW/LL/ALTO 30Watt
F032/730/ECO	F32T8/SP30/ECO	F32T8/TL730/ALTO
F032/735/ECO	F32T8/SP35/ECO	F32T8/TL735/ALTO
F032/741/ECO	F32T8/SP41/ECO	F32T8/TL741/ALTO
F032/750/ECO	F32T8/SP50/ECO	F32T8/TL750/ALTO
F032/765/ECO	F32T8/SP65/ECO	
F032/730/XP/ECO	F32T8/XL/SP30/ECO	F32T8/TL730/PLUS/ALTO
F032/735/XP/ECO	F32T8/XL/SP35/ECO	F32T8/TL735/PLUS/ALTO
F032/741/XP/ECO	F32T8/XL/SP41/ECO	F32T8/TL741/PLUS/ALTO
		F32T8/TL750/PLUS/ALTO
F032/830/ECO	F32T8/SPX30/ECO	F32T8/TL830/ALTO
F032/835/ECO	F32T8/SPX35/ECO	F32T8/TL835/ALTO
F032/841/ECO	F32T8/SPX41/ECO	F32T8/TL841/ALTO
F032/850/ECO	F32T8/SPX50/ECO	F32T8/TL850/ALTO
F032/827/XP/ECO	-	-
F032/830/XP/ECO	F32T8/XL/SPX30/ECO	F32T8/TL830 PLUS/ALTO
F032/835/XP/ECO	F32T8/XL/SPX35/ECO	F32T8/TL835 PLUS/ALTO
F032/841/XP/ECO	F32T8/XL/SPX41/ECO	F32T8/TL841 PLUS/ALTO
F032/850/XP/ECO	F32T8/XL/SPX50/ECO	F32T8/TL850 PLUS/ALTO
F032/865/XP/ECO	F32T8/XL/SPX65/ECO	F32T8/TL865 PLUS/ALTO
F032/830XPS/ECO	F32T8SXL/SPX30/ECO	
F032/835XPS/ECO	F32T8SXL/SPX35/ECO	
F032/841XPS/ECO	F32T8SXL/SPX41/ECO	
F032/830XPS/ECO	F32T8/XL/SPX30/HL/ECO	F32T8/ADV830/ALTO
F032/835XPS/ECO	F32T8/XL/SPX35/HL/ECO	F32T8/ADV835/ALTO
F032/841XPS/ECO	F32T8/XL/SPX41/HL/ECO	F32T8/ADV841/ALTO
F032/850XPS/ECO	F32T8/XL/SPX50/HL/ECO	F32T8/ADV850/ALTO
F032/865XPS/ECO		

# Manufacturers' Cross Reference (continued)

## FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
<b>OCTRON®</b>		
FO40/830/ECO	F40T8/SPX30	F40T8/TL830/ALTO
FO40/835/ECO	F40T8/SPX35	F40T8/TL835/ALTO
FO40/841/ECO	F40T8/SPX41	F40T8/TL841/ALTO
FO40/830/XP/ECO	-	-
FO40/835/XP/ECO	-	-
FO40/841/XP/ECO	-	-
FO96/830XP/SS/ECO	F96T8/XL/SP30/WM	
FO96/835XP/SS/ECO	F96T8/XL/SP35/WM	
FO96/841XP/SS/ECO	F96T8/XL/SP41/WM	
FO96/830/ECO	F96T8/SPX30	F96T8/TL830/ALTO
FO96/835/ECO	F96T8/SPX35	F96T8/TL835/ALTO
FO96/841/ECO	F96T8/SPX41	F96T8/TL841/ALTO
FO96/850/ECO	F96T8/SPX50	F96T8/TL850/ALTO
FO96/830/XP/ECO	F96T8/XL/SPX30	F96T8/TL830PLUS/ALTO
FO96/835/XP/ECO	F96T8/XL/SPX35	F96T8/TL835PLUS/ALTO
FO96/841/XP/ECO	F96T8/XL/SPX41	F96T8/TL841PLUS/ALTO
FO96/850/XP/ECO	F96T8/XL/SPX50	F96T8/TL850PLUS/ALTO
-	F96T8/SPX30/HO	F96T8/TL830/HO/PLUS
FO96/835/HO	F96T8/SPX35/HO	F96T8/TL835/HO/PLUS
FO96/841/HO	F96T8/SPX41/HO	F96T8/TL841/HO/PLUS
<b>OCTRON® CURVALUME®</b>		
FBO16/830	-	-
FBO16/835	-	-
FBO16/841	-	-
FBO16/865/XP	-	-
FBO24/830	-	-
FBO24/835	-	-
FBO24/841	-	-
FBO31/830	F31T8/SPX30/U	-
FBO31/835	F31T8/SPX35/U	-
FBO31/841	F31T8/SPX41/U	-
FBO29/830/XP/SS/ECO		
FBO29/835/XP/SS/ECO		
FBO29/841/XP/SS/ECO		
FBO31/830/XP/ECO	-	-
FBO31/835/XP/ECO	-	-
FBO31/841/XP/ECO	-	-
FBO30/830/XP/6/SS/ECO		
FBO30/835/XP/6/SS/ECO		
FBO30/841/XP/6/SS/ECO		
FBO32/830/6/ECO	F32T8/SPX30/U/6	FB32T8/TL830/6/ALTO
FBO32/835/6/ECO	F32T8/SPX35/U/6	FB32T8/TL835/6/ALTO
FBO32/841/6/ECO	F32T8/SPX41/U/6	FB32T8/TL841/6/ALTO
		FB32T8/TL850/6/ALTO
FBO32/830/6/XP/ECO	-	-
FBO32/835/6/XP/ECO	-	-
FBO32/841/6/XP/ECO	-	-
<b>PENTRON® &amp; PENTRON® HO</b>		
FP14/830/ECO	F14W/T5/830/ECO	F14T5/830/ALTO
FP14/835/ECO	F14W/T5/835/ECO	F14T5/835/ALTO
FP14/841/ECO	F14W/T5/841/ECO	F14T5/841/ALTO
	F14W/T5/850/ECO	
FP14/865/ECO	F14W/T5/865/ECO	
FP21/830/ECO	F21W/T5/830/ECO	F21T5/830/ALTO
FP21/835/ECO	F21W/T5/835/ECO	F21T5/835/ALTO
FP21/841/ECO	F21W/T5/841/ECO	F21T5/841/ALTO
	F21W/T5/850/ECO	
FP21/865/ECO	F21W/T5/865/ECO	
FP28/830/ECO	F28W/T5/830/ECO	F28T5/830/ALTO
FP28/835/ECO	F28W/T5/835/ECO	F28T5/835/ALTO
FP28/841/ECO	F28W/T5/841/ECO	F28T5/841/ALTO
FP21/850/ECO	F28W/T5/850/ECO	
FP21/865/ECO	F28W/T5/865/ECO	
FP35/830/ECO	F35W/T5/830/ECO	F35T5/830
FP35/835/ECO	F35W/T5/835/ECO	F35T5/835

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# Manufacturers' Cross Reference Guide (continued)

## FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
<b>OCTRON® CURVALUME®</b>		
FP35/841/ECO	F35W/T5/841/ECO F35W/T5/850/ECO F35W/T5/865/ECO	F35T5/841
FP24/830/HO/ECO	F24W/T5/830/ECO	F24T5/830/HO/ALTO
FP24/835/HO/ECO	F24W/T5/835/ECO	F24T5/835/HO/ALTO
FP24/841/HO/ECO	F24W/T5/841/ECO F24W/T5/850/ECO F24W/T5/865/ECO	F24T5/841/HO/ALTO
FP39/830/HO/ECO	F39W/T5/830/ECO	FP39/830/HO/ECO/ALTO
FP39/835/HO/ECO	F39W/T5/835/ECO	FP39/835/HO/ECO/ALTO
FP39/841/HO/ECO	F39W/T5/841/ECO F39W/T5/850/ECO F39W/T5/865/ECO	FP39/841/HO/ECO/ALTO
FP54/830/HO/ECO	F54W/T5/830/ECO	F54T5/830/HO/ALTO
FP54/835/HO/ECO	F54W/T5/835/ECO	F54T5/835/HO/ALTO
FP54/841/HO/ECO	F54W/T5/841/ECO	F54T5/841/HO/ALTO
FP54/850/HO/ECO	F54W/T5/850/ECO	F54T5/850/HO/ALTO
FP54/865/HO/ECO	F54W/T5/865/ECO	F54T5/865/HO/ALTO
FP54/835/C/HO/ECO		
FP54/841/C/HO/ECO		
FP54/850/C/HO/ECO		
FP80/830/HO/ECO	F80W/T5/830/ECO	F80T5/830/HO
FP80/835/HO/ECO	F80W/T5/835/ECO	F80T5/835/HO
FP80/841/HO/ECO	F80W/T5/841/ECO F54W/T5/850/ECO F54W/T5/865/ECO	F80T5/841/HO
<b>PENTRON® CIRCLINE</b>		
FPC22/830	-	TL5C 22W/830
FPC22/835	-	TL5C 22W/831
FPC22/841	-	TL5C 22W/832
FPC40/830	-	TL5C 40W/833
FPC40/835	-	TL5C 40W/834
FPC40/841	-	TL5C 40W/835
FPC55/830/HO	-	TL5C 55W/833
FPC55/835/HO	-	TL5C 55W/834
FPC55/841/HO	-	TL5C 55W/835
<b>F40 TYPES (STD &amp; SS)</b>		
F34/D30/SS/ECO	F34/SP30/RS/WM/ECO	
F34/D35/SS/ECO	F34/SP35/RS/WM/ECO	
F34/D41/SS/ECO	F34/SP41/RS/WM/ECO	
F34/D830/SS/ECO	F34/SPX30/RS/WM/ECO	F34/830/RS/EW/ALTO
F34/D835/SS/ECO	F34/SPX35/RS/WM/ECO	F34/835/RS/EW/ALTO
F34/D841/SS/ECO	F34/SPX41/RS/WM/ECO	F34/841/RS/EW/ALTO F34/850/RS/EW/ALTO
F40/D30/ECO	F40/SP30/RS/ECO	F40/SPEC30/RS/ALTO
F40/D35/ECO	F40/SP35/RS/ECO	F40/SPEC35/RS/ALTO
F40/D41/ECO	F40/SP41/RS/ECO	F40/SPEC41/RS/ALTO
F40/D830/ECO	F40/SPX30/RS/ECO	F40/830/8RS/ALTO
F40/D835/ECO	F40/SPX35/RS/ECO	F40/835/RS/ALTO
F40/D841/ECO	F40/SPX41/RS/ECO	F40/841/RS/ALTO
-	F40/XL/SP30, 35, 41	
-	F40/XL/SPX30, 35, 41, 50	-
<b>CURVALUME® 3"</b>		
-	F40/SP30/U/3	-
-	F40/SP41/U/3	-
<b>CURVALUME® 6"</b>		
FB34/D30/6/SS	-	FB34/SPEC30/6/EW/ALTO
FB34/D35/6/SS	-	FB34/SPEC35/6/EW/ALTO
FB34/D41/6/SS	-	FB34/SPEC41/6/EW/ALTO
FB40/D30/6	F40/SP30/U/6	FB40/SPEC30/6/ALTO
FB40/D30/6	F40/SP35/U/6	FB40/SPEC35/6/ALTO
FB40/D41/6	F40/SP41/U/6	FB40/SPEC41/6/ALTO
FB40/D830/6	F40/SPX30/U/6	FB40/30U/6/ALTO
-	F40/SPX35/U/6	FB40/35U/6/ALTO
-	-	FB40/41U/6/ALTO

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# Manufacturers' Cross Reference (continued)

## FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
<b>SLIMLINE</b>		
-	F96T12/SP35/WMP	-
F96T12/D30/SS/ECO	F96T12/SP30/WM/ECO	
F96T12/D35/SS/ECO	F96T12/SP35/WM/ECO	
F96T12/D41/SS/ECO	F96T12/SP41/WM/ECO	
F96T12/D830/SS/ECO	F96T12/SPX30/WM/ECO	F96T12/830/EW/ALTO
F96T12/D835/SS/ECO	F96T12/SPX35/WM/ECO	F96T12/835/EW/ALTO
F96T12/D841/SS/ECO	F96T12/SPX41/WM/ECO	F96T12/841/EW/ALTO
-	F96T12/XL/SP35/WM	-
-	F96T12/XL/SP41/WM	-
F96T12/D30/ECO	F96T12/SP30/ECO	
F96T12/D35/ECO	F96T12/SP35/ECO	
F96T12/D41/ECO	F96T12/SP41/ECO	
F96T12/D830/ECO	F96T12/SPX30/ECO	F96T12/830/ALTO
F96T12/D835/ECO	F96T12/SPX35/ECO	F96T12/835/ALTO
F96T12/D841/ECO	F96T12/SPX41/ECO	F96T12/841/ALTO
-	F96T12/XL/SP35, 41	-
-	F96T12/XL/SPX35, 41, 50	-
<b>HIGH OUTPUT</b>		
F72T12/D830/HO	F72T12/SPX30/HO	F72T12/30U/HO
-	-	
F96T12/D35/HO/SS	F96T12/SP35/HO/WM	
F96T12/D41/HO/SS	F96T12/SP41/HO/WM	
F96T12/D830/HO/SS	F96T12/SPX830/HO/WM	F96T12/830/HO/EW/ALTO
F96T12/D835/HO/SS	F96T12/SPX35/HO/WM	F96T12/835/HO/EW/ALTO
F96T12/D841/HO/SS	F96T12/SPX41/HO/WM	F96T12/841/HO/EW/ALTO
F96T12/D30/HO	F96T12/SP30/HO	
F96T12/D35/HO	F96T12/SP35/HO	
F96T12/D41/HO	F96T12/SP41/HO	
F96T12/D830/HO	F96T12/SPX830/HO	F96T12/830/HO/ALTO
F96T12/D835/HO	F96T12/SPX35/HO	F96T12/835/HO/ALTO
F96T12/D841/HO	F96T12/SPX41/HO	F96T12/841/HO/ALTO
<b>APPLIANCE</b>		
F18T8CW/K24	F24T8/CW/4	
F18T8CW/K26	F26T8/CW/4	F16T8/CW/26
F18T8CW/K28	F28T8/CW/4	F17T8/CW/28
F18T8CW/K30	F30T8/CW/4	F18T8/CW/30/ALTO
F18T8/D/K26	-	-
<b>OTHER RAPID START</b>		
F25T12/D30/RS/SS	F25T12/SP30/RS/WM	-
F25T12/D35/RS/SS	F25T12/SP35/RS/WM	-
F30T12/D35/RS	F30T12/SP35/RS	F30T12/SPEC35/RS
F30T12/D41/RS	F30T12/SP41/RS	F30T12/SPEC41/RS
F30T12/D830/RS	F30T12/SPX30/RS	F30T12/30U/RS
F30T12/D835/RS	F30T12/SPX35/RS	F30T12/35U/RS