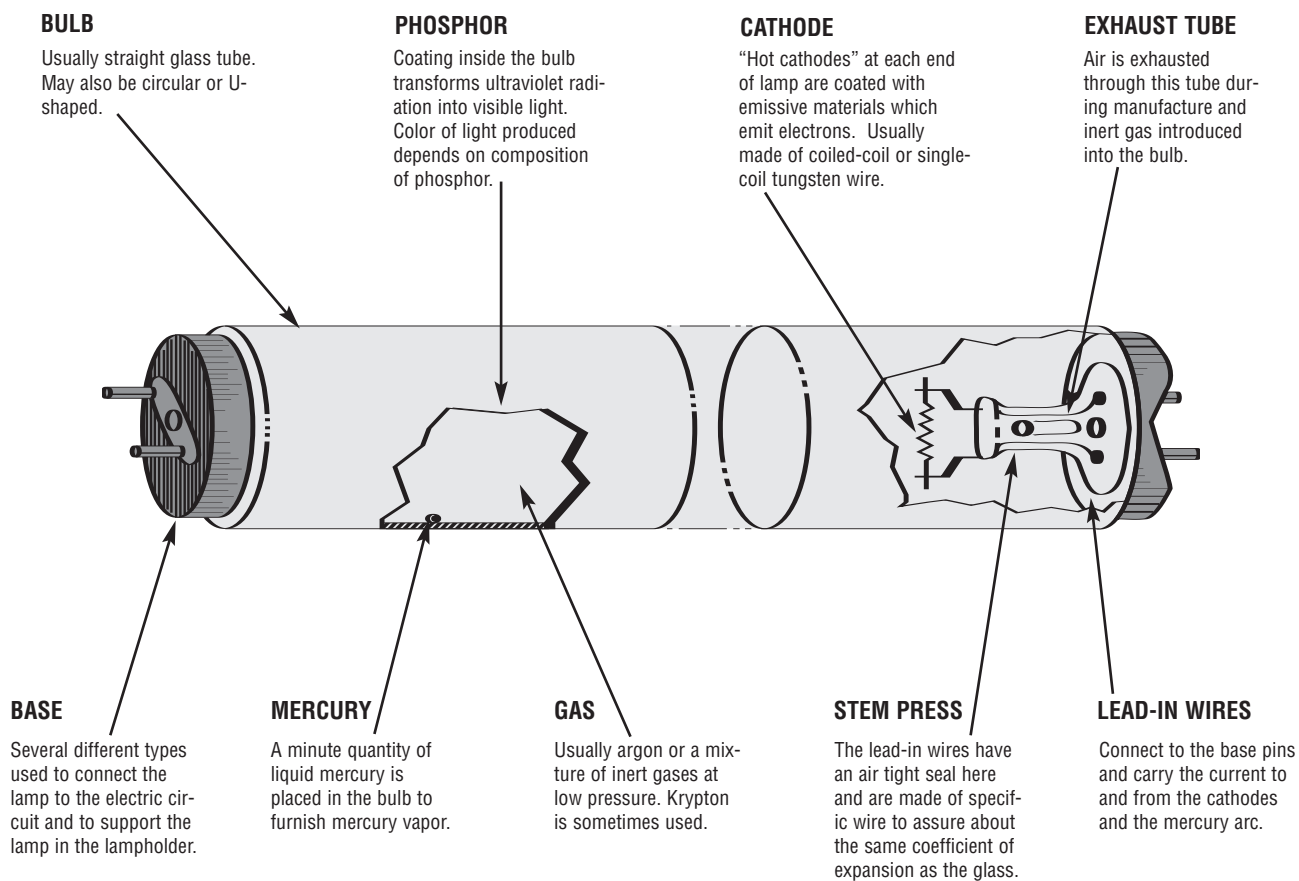


OSRAM SYLVANIA: THE LEADER IN ENERGY SAVING FLUORESCENT LAMPS

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 Mean @35°C/95°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21763	F032/835XP/ECO	30	24000	3500	85	3000 2850	Ⓔ  2,21,31, 35,39,60,70
34	T12	48	47.78	Med Bipin	24594	F34CW/SS Formerly F40CW/SS	30	20000	4200	60	2650 2279	Ⓔ 2,10,13, 19,21,42
54	T5	48	45.5	Mini Bipin	20857	FP54/830/HO	40	20000	3000	85	4450 5000 4228 4750	 2,21,26,35,59
60	T12	96	94	Single Pin	29815	F96T12/CW/SS	15	12000	4200	60	5300 4664	Ⓔ 2,15,21

Nominal Wattage	Design wattage on reference ballast. Actual wattage dependent on ballast.
Bulb	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.
Base	Please see page 134 for base illustrations.
Nominal Length	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.
MOL	Maximum overall length. The length of the lamp measured in inches.
Symbols & Footnotes	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.
Ordering Abbreviation	A text description of the lamp. Please see below for several examples and explanations of some of the codes.
CCT	Correlated Color Temperature. The degree of "whiteness" of the light. Expressed in kelvins (K). Please see page 131 for more information.
CRI	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.
Initial & Mean Lumens	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
0	OCTRON®	34	Nominal lamp	P	PENTRON	96	96" nominal length
32	Nominal lamp wattage		wattage	54	Nominal lamp wattage	T	Tubular Shape Bulb
8	85 CRI	CW	Cool White phosphor	8	85 CRI	12	Bulb diameter; 1 1/8 inch = 1 1/2 inches
35	3500K CCT	SS	SUPERSAVER® - reduced wattage lamp	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 or 1-866-666-6850

For weight and measurement information, please visit 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

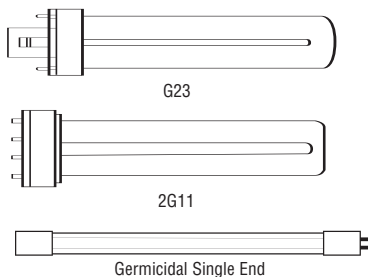
SYLVANIA	GE	PHILIPS
Linear Lamps		
F18T8/CW/K/23	F24" T8/CW/4	F15T8/CW/24
F18T8/CW/K/26	F26" T8/CW/4	F16T8/CW/26
F18T8/CW/K/28	F28" T8/CW/4	F17T8/CW/28
F18T8/CW/K/30	F30" T8/CW/4	F18T8/CW/30
F34CW/SS	F34CW/WM	F34CW/EW
Formerly known as F40CW/SS	F40CW/WM	F40CW/EW
F96T12/CW/SS	F96T12/CW/WM	F96T12/CW/EW
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
F017...	F17T8/SP(or SPX)...	F17T8/TL...
F025...	F25T8/SP(or SPX)...	F25T8/TL...
F032...	F32T8/SP(or SPX)...	F32T8/TL...
F032/...XP®	F32T8/XL/SP (or SPX)	F32T8/TL...PLUS
F032/...XPS®/ECO®	---	F32T8/ADV
F030...XP/SS/ECO	F32T8/SP.../IS/WM/ECO	F32T8/ADV8.../EW
F028/8...XP/SS/ECO	---	---
F032/25W/8...XP/SS/ECO	---	F32T8/ADV8.../XEW/ALTO
F040...	F40T8/SP... (or SPX)	F40T8/TL
F072...	---	---
F096...	F96T8/SP... (or SPX)	F96T8/TL...
F096/7...XP/ECO	F96T8/XL/SP...	---
F096/8...XP/ECO	F96T8/XL/SPX...	---
F096/8...XP/SS/ECO	F96T8/SP.../WM	---
---	---	F48T8/TL.../HO
---	---	F60T8/TL.../HO
---	---	F72T8/TL.../HO
F096.../HO/ECO	F96T8/SP (or SPX).../HO	F96T8/TL.../HO
---	F25T12/SP... (for T8 electronic ballasts)	---
FB016...	---	---
FB024...	---	---
FB031...	F31T8/SPX.../U	---
FB031...XP	---	---
FB032...	F32T8/SP(or SPX).../U6	FB32T8/TL.../6
FB032...XP	---	---
FB031/...XPS/ECO	---	---
FB032/...XPS/ECO	---	---
FB032/8...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)
Induction Lamps		
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.

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 ($\frac{1}{4}$ inch) to T17 ($2\frac{1}{8}$ 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 $47\frac{3}{4}$ 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 $1\frac{1}{8}$ 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 $\frac{1}{2}$, 8, 12 and 16 inches as well as PENTRON T5 lamps with outside diameters of 8.85 and 11.77 inches.

Germicidal Compact Fluorescent



T2 MINIATURE



PREHEAT, RAPID START



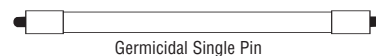
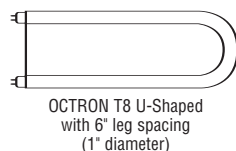
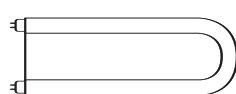
T8 Medium Bipin (1" diameter)



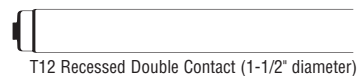
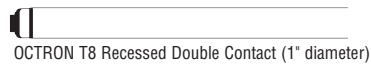
OCTRON T8 Medium Bipin (1" diameter) Rapid Start or Instant Start operation



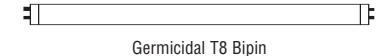
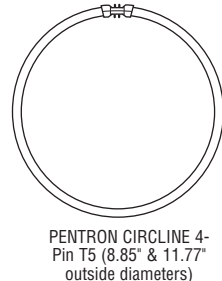
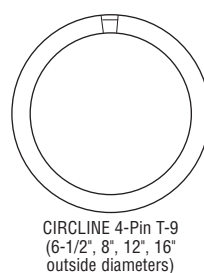
T12 Medium Bipin (1-1/2" diameter)



HIGH OUTPUT AND VERY HIGH OUTPUT



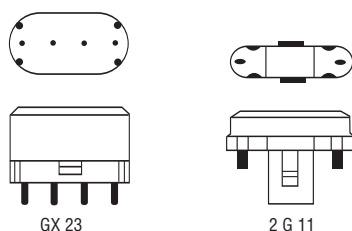
INSTANT START



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.

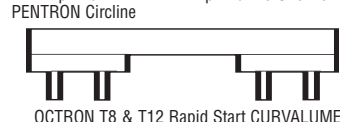
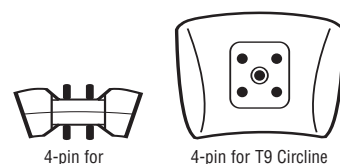
Germicidal Compact Fluorescent



SINGLE PIN



BIPIN



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 Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21680	F032/830/XPS/ECO	30	36000 (42000)	3000	85	3100 2945	19,31,33,48,52,76,94
					21697	F032/835/XPS/ECO	30	36000 (42000)	3500	85	3100 2945	19,31,33,48,52,76,94
					21681	F032/841/XPS/ECO	30	36000 (42000)	4100	85	3100 2945	19,31,33,48,52,76,94
					21660	F032/850/XPS/ECO	30	36000 (42000)	5000	80	3000 2850	19,31,33,48,52,76,94
					21659	F032/865/XPS/ECO	30	36000 (42000)	6500	80	2900 2750	19,31,33,48,52,76,94
17	T8	24	23.78	Med Bipin	22150	F017/830/XPS/ECO	30	30000	3000	85	1400 1330	31,33,48,52,76,94
					22151	F017/835/XPS/ECO	30	30000	3500	85	1400 1330	31,33,48,52,76,94
					22152	F017/841/XPS/ECO	30	30000	4100	85	1400 1330	31,33,48,52,76,94
25	T8	36	35.78	Med Bipin	22153	F025/830/XPS/ECO	30	30000	3000	85	2200 2090	31,33,48,52,76,94
					22154	F025/835/XPS/ECO	30	30000	3500	85	2200 2090	31,33,48,52,76,94
					22155	F025/841/XPS/ECO	30	30000	4100	85	2200 2090	31,33,48,52,76,94

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 Mean @25°C/77°F	Symbols & Footnotes
25		48	47.78	Med Bipin	22232	F032/25W/830/XP/SS/ECO	30	36000 (42000)	3000	85	2475 2350	16,17,18,20,31,33,76,94
					22233	F032/25W/835/XP/SS/ECO	30	36000 (42000)	3500	85	2475 2350	16,17,18,20,31,33,76,94
					22234	F032/25W/841/XP/SS/ECO	30	36000 (42000)	4100	85	2475 2350	16,17,18,20,31,33,76,94
					22235	F032/25W/850/XP/SS/ECO	30	36000 (42000)	5000	85	2300 2185	16,17,18,20,31,33,76,94
28	T8	48	47.78	Med Bipin	22177	F028/830/XP/SS/ECO	30	36000 (42000)	3000	85	2725 2590	16,20,23,31,33,44,76,94,95
					22178	F028/835/XP/SS/ECO	30	36000 (42000)	3500	85	2725 2590	16,20,23,31,33,44,76,94,95
					22179	F028/841/XP/SS/ECO	30	36000 (42000)	4100	85	2725 2590	16,20,23,31,33,44,76,94,95
					22184	F028/850XP/SS/ECO	30	36000 (42000)	5000	80	2600 2470	16,20,23,31,33,76,94,95

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 Mean @25°C/77°F	Symbols & Footnotes
30	T8	48	47.78	Med Bipin	22063	F030/830/XP/SS/ECO	30	36000 (42000)	3000	85	2850 2710	 31,33,76,94,95
					22060	F030/835/XP/SS/ECO	30	36000 (42000)	3500	85	2850 2710	 31,33,76,94,95
					22062	F030/841/XP/SS/ECO	30	36000 (42000)	4100	85	2850 2710	 31,33,76,87,95
					22202	F030/850/XP/SS/ECO	30	36000 (42000)	5000	85	2800 2660	 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 Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	22039	F032/827/XP/ECO	30	36000 (42000)	2700	85	3000 2850	 20,31,33,48,52,76,94
					21759	F032/830/XP/ECO	30	36000 (42000)	3000	85	3000 2850	 20,31,33,48,52,76,94
					21763	F032/835/XP/ECO	30	36000 (42000)	3500	85	3000 2850	 20,31,33,48,52,76,94
					21767	F032/841/XP/ECO	30	36000 (42000)	4100	85	3000 2850	 20,31,33,48,52,76,94
					22026	F032/850/XP/ECO	30	36000 (42000)	5000	85	3000 2850	 20,31,33,48,52,76,94
					21720	F032/865/XP/ECO	30	36000 (42000)	6500	85	2850 2708	 20,31,33,48,52,76,94
					22594	F032/SKYWHITE/XP/ECO	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 (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	21587	F017/827/XP/ECO	30	24000	2700	85	1375 1305	 31,33,44,48,52,76,87
					21785	F017/830/XP/ECO	30	24000	3000	85	1375 1305	 31,33,44,48,52,76,87
					21778	F017/835/XP/ECO	30	24000	3500	85	1375 1305	 31,33,44,48,52,76,87
					21907	F017/841/XP/ECO	30	24000	4100	85	1375 1305	 31,33,44,48,52,76,87
					22193	F017/850/XP/ECO	30	24000	5000	85	1375 1305	 31,33,44,48,52,76,87
					21718	F017/865/XP/ECO	30	24000	6500	85	1250 1188	 31,33,44,48,52,76,87
25	T8	36	35.78	Med Bipin	21586	F025/827/XP/ECO	30	24000	2700	85	2175 2065	 31,33,44,48,52,76,87
					21910	F025/830/XP/ECO	30	24000	3000	85	2175 2065	 31,33,44,48,52,76,87
					21776	F025/835/XP/ECO	30	24000	3500	85	2175 2065	 31,33,44,48,52,76,87
					21774	F025/841/XP/ECO	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 Mean @25°C/77°F	Symbols & Footnotes
25	T8	36	35.78	Med Bipin	22194	F025/850/XP/ECO	30	24000	5000	85	2175 2065	  31,33,44,48, 52,76,87
					21719	F025/865/XP/ECO	30	24000	6500	85	2000 1900	  31,33,44,48, 52,76,87
40	T8	60	59.61	Med Bipin	21912	F040/830/XP/ECO	30	24000	3000	85	3750 3560	  31,33,44,48, 52,76,87
					21911	F040/835/XP/ECO	30	24000	3500	85	3750 3560	  31,33,44,48, 52,76,87
					21916	F040/841/XP/ECO	30	24000	4100	85	3750 3560	  31,33,44,48, 52,76,87
					21721	F040/865/XP/ECO	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 @3hrs/start @12hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21711	F032/730/XP/ECO	30	36000 (42000)	3000	78	2850 2705	  31,33,44, 48,52,76,94
					22044	F032/735/XP/ECO	30	36000 (42000)	3500	78	2850 2705	  31,33,44, 48,52,76,94
					21712	F032/741/XP/ECO	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 Mean @25°C/77°F	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	21699	F017/735/XP/ECO	30	24000	3500	78	1325 1255	  31,33,44,48, 52,76,87
					21637	F017/741/XP/ECO	30	24000	4100	78	1325 1255	  31,33,44,48, 52,76,87
25	T8	36	35.78	Med Bipin	21698	F025/735/XP/ECO	30	24000	3500	78	2050 1945	  31,33,44,48, 52,76,87
					21639	F025/741/XP/ECO	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 @3hrs/start @12hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21777	F032/830/ECO	30	30000 (35000)	3000	85	2950 2802	  21,31,33, 48,52,76,94
					21779	F032/835/ECO	30	30000 (35000)	3500	85	2950 2802	  21,31,33, 48,52,76,94
					21781	F032/841/ECO	30	30000 (35000)	4100	85	2950 2802	  21,31,33, 48,52,76,94
					22143	F032/850/ECO	30	30000 (35000)	5000	80	2800 2660	  21,31,33, 48,52,76,94
17	T8	24	23.78	Med Bipin	22135	F017/830/ECO	30	20000	3000	82	1350 1240	  31,33,35,48, 52,76

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 Initial	Mean	Symbols & Footnotes
17	T8	24	23.78	Med Bipin	22136	F017/835/ECO	30	20000	3500	82	1350	1240	  31,33,35,48,52,76
					22137	F017/841/ECO	30	20000	4100	82	1350	1240	  31,33,35,48,52,76
25	T8	36	35.78	Med Bipin	22138	F025/830/ECO	30	20000	3000	82	2150	1975	  31,33,35,48,52,76
					22139	F025/835/ECO	30	20000	3500	82	2150	1975	  31,33,35,48,52,76
					22140	F025/841/ECO	30	20000	4100	82	2150	1975	  31,33,35,48,52,76
40	T8	60	59.61	Med Bipin	22144	F040/830/ECO	30	20000	3000	82	3650	3473	  31,33,35,48,52,76
					22145	F040/835/ECO	30	20000	3500	82	3650	3473	  31,33,35,48,52,76
					22146	F040/841/ECO	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 Initial	Mean	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21997	F032/730/ECO	30	25000	3000	78	2800	2520	  31,33,48,52,76,119
					21998	F032/735/ECO	30	25000	3500	78	2800	2520	  31,33,48,52,76,119
					21678	F032/735/SL	30	25000	3500	78	2716	2444	  31,33,52,96,98,119
					22181	F032/741/ECO/CVP	12	25000	4100	78	2800	2520	  31,33,48,52,76,119
					21547	F032/741/ECO/SL	30	25000	4100	78	2716	2444	  31,33,52,76,96,98,119
					21999	F032/741/ECO	30	25000	4100	78	2800	2520	  31,33,48,52,76,119
					22141	F032/750/ECO	30	25000	5000	78	2650	2385	  31,33,48,52,76,119
					22175	F032/765/ECO	30	25000	6500	78	2700	2430	  31,33,48,52,76,119
14	T8	18	17.91	Med Bipin	21666	F013/735/ECO	30	20000	3500	75	830	745	  31,33,35,48,52,76
					21667	F013/741/ECO	30	20000	4100	75	830	745	  31,33,35,48,52,76
17	T8	24	23.78	Med Bipin	21918	F017/730/ECO	30	20000	3000	75	1300	1170	  31,33,35,48,52,76
					21769	F017/735/ECO	30	20000	3500	75	1300	1170	  31,33,35,48,52,76
					21770	F017/741/ECO	30	20000	4100	75	1300	1170	  31,33,35,48,52,76
25	T8	36	35.78	Med Bipin	21937	F025/730/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
25	T8	36	35.78	Med Bipin	21941	F025/735/ECO	30	20000	3500	75	1950 1755	 31,33,35,48,52,76
					21942	F025/741/ECO	30	20000	4100	75	1950 1755	 31,33,35,48,52,76
40	T8	60	59.61	Med Bipin	22102	F040/730/ECO	30	20000	3000	75	3500 3150	 31,33,35,48,52,76
					22103	F040/735/ECO	30	20000	3500	75	3500 3150	 31,33,35,48,52,76
					22104	F040/741/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
55	T8	96	94	Single Pin	22100	F096/835/XP/SS/ECO	24	18000	3500	85	5700 5415	 7,31,33,76,85
					22101	F096/841/XP/SS/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
59	T8	96	94	Single Pin	22036	F096/830/XP/ECO	24	18000	3000	85	6100 5795	 31,33,44,48,76,85
					22034	F096/835/XP/ECO	24	18000	3500	85	6100 5795	 31,33,44,48,76,85
					22032	F096/841/XP/ECO	24	18000	4100	85	6100 5795	 31,33,44,48,76,85
					22174	F096/850/XP/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
59		96	94	Single Pin	22147	F096/830/ECO	24	15000	3000	82	5900 5428	 10,31,33,48,76
					22148	F096/835/ECO	24	15000	3500	82	5900 5428	 10,31,33,48,76
					22149	F096/841/ECO	24	15000	4100	82	5900 5428	 10,31,33,48,76
					22173	F096/850/ECO	24	15000	5000	80	5900 5428	 10,31,33,48,76
86	T8	96	93.91	Recessed DC	22206	F096/835/HO/ECO	24	18000	3500	85	8200 7710	 31,33,48,76
					22207	F096/841/HO/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
59	T8	96	94	Single Pin	22030	F096/730/ECO	24	15000	3000	75	5700 5130	31,33,48, 76,84
					21737	F096/735/ECO	24	15000	3500	75	5700 5130	31,33,48, 76,84
					21736	F096/741/ECO	24	15000	4100	75	5700 5130	31,33,48, 76,84
86	T8	96	93.91	Recessed DC	22204	F096/735/H0/ECO	24	18000	3500	78	8000 7520	31,33,48, 76
					22205	F096/741/H0/ECO	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.

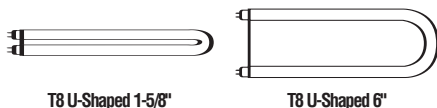
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F	Symbols & Footnotes
29	T8	22.5	22.6	Med Bipin	22195	FBO29/830XP/SS/ECO	15	24000	3000	85	2775 2636	31,33,44, 54,76,87,95
					22196	FBO29/835XP/SS/ECO	15	24000	3500	85	2775 2636	31,33,44, 54,76,87,95
					22197	FBO29/841XP/SS/ECO	15	24000	4100	85	2775 2636	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 Initial Mean @25°C/77°F	Symbols & Footnotes
31	T8	22.5	22.6	Med Bipin	21693	FB031/830/XP/ECO	15	24000	3000	85	2775 2636	31,33,44, 48,52,54,55,76,87
					21695	FB031/835/XP/ECO	15	24000	3500	85	2775 2636	31,33,44, 48,52,54,55,76,87
					21696	FB031/841/XP/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
31		22.5	22.6	Med Bipin	21877	FB031/830	15	20000	3000	82	2725 2507	31,33,35,48,52,54, 55
					21878	FB031/835	15	20000	3500	82	2725 2507	31,33,35,48,52,54, 55
					21879	FB031/841	15	20000	4100	82	2725 2507	31,33,35,48,52,54, 55
16	T8	10.5	10.60	Med Bipin	21834	FB016/830	15	20000	3000	82	1125 1035	31,33,35,48,52,54, 55
					21835	FB016/835	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 Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
16	T8	10.5	10.60	Med Bipin	21836	FB016/841	15	20000	4100	82	1125	1035	31,33,35,48,52,54,55
24	T8	16.5	16.6	Med Bipin	21874	FB024/830	15	20000	3000	82	1925	1771	31,33,35,48,52,54,55
					21875	FB024/835	15	20000	3500	82	1925	1771	31,33,35,48,52,54,55
					21876	FB024/841	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 Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
30	T8	22.5	22.6	Med Bipin	22170	FB030/830XP/6/SS/ECO	16	24000	3000	85	2800	2660	31,33,44,54,76,87,95
					22171	FB030/835XP/6/SS/ECO	16	24000	3500	85	2800	2660	31,33,44,54,76,87,95
					22172	FB030/841XP/6/SS/ECO	16	24000	4100	85	2800	2660	31,33,44,54,76,87,95

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

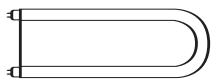
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32	T8	22.5	22.6	Med Bipin	22054	FB032/830XP/6/ECO	16	24000	3000	85	2900	2755	31,33,44,48,52,54,76,87
					22055	FB032/835XP/6/ECO	16	24000	3500	85	2900	2755	31,33,44,48,52,54,76,87
					22057	FB032/841XP/6/ECO	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 Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32		22.5	22.6	Med Bipin	21663	FB032/830/6/ECO	16	20000	3000	82	2850	2622	31,33,35,48,52,54,76
					21670	FB032/835/6/ECO	16	20000	3500	82	2850	2622	31,33,35,48,52,54,76
					21671	FB032/841/6/ECO	16	20000	4100	82	2850	2622	31,33,35,48,52,54,76

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

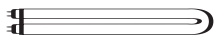
Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Approx Lumens Mean @25°C/77°F	Symbols & Footnotes
32		22.5	22.6	Med Bipin	22046	FB032/730/6/ECO	16	20000	3000	75	2750	2475	31,33,35,48,52,54,76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



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 Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	22.5	22.6	Med Bipin	22052	FB032/741/6/ECO	16	20000	4100	75	2750 2475	31,33,35,48,52,54,76
					22053	FB032/750/6/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
14	T8	18	17.91	Med Bipin	21731	F013/865XP/ECO	30	24000	6500	85	850 805	31,33,44,48,52,76,87
15	T8	20	19.78	Med Bipin	21868	F014/950/20in	30	20000	5000	90	750 638	31,33,35,48,52
					21716	F014/865XP/ECO	30	24000	6500	85	1000 950	31,33,44,48,52,76,87
16	T8	10.5	10.60	Med Bipin	21726	FB016/865XP	15	24000	6500	85	1125 1069	31,33,44,48,52,54,55,87
17	T8	24	23.78	Med Bipin	21871	F017/950/24in	30	20000	5000	90	800 680	31,33,35,48,52
					21718	F017/865XP/ECO	30	24000	6500	85	1250 1188	31,33,44,48,52,76,87
21	T8	30	29.78	Med Bipin	21869	F021/950/30in	30	20000	5000	90	1000 850	31,33,35,48,52
					21730	F021/865XP/ECO	30	24000	6500	85	1600 1520	31,33,44,48,52,76,87
25	T8	36	35.78	Med Bipin	21872	F025/950/36in	30	20000	5000	90	1250 1063	31,33,35,48,52
					21719	F025/865XP/ECO	30	24000	6500	85	2000 1900	31,33,44,48,52,76,87
28	T8	40	39.78	Med Bipin	21870	F028/950/40in	30	20000	5000	90	1400 1190	31,33,35,48,52
32	T8	48	47.78	Med Bipin	21880	F032/950/48in	30	25000	5000	90	1800 1530	31,33,48,52
					21720	F032/865XP/ECO	30	36000 ()	6500	85	2850 2708	20,31,33,48,52,76,94
40	T8	60	59.61	Med Bipin	21873	F040/950/60in	30	20000	5000	90	2200 1870	31,33,35,48,52
					21721	F040/865XP/ECO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21961	F032/GOLD	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 known 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 2900	2418 2697	 31,33,38,48, 74,76
					20901	FP28/835/ECO	40	20000	3500	85	2600 2900	2418 2697	 31,33,38,48, 74,76
					20902	FP28/841/ECO	40	20000	4100	85	2600 2900	2418 2697	 31,33,38,48, 74,76
					22203	FP28/850/ECO	40	20000	5000	85	2545 2840	2367 2641	 31,33,38,48, 74,76
					20990	FP28/865/ECO	40	20000	6500	85	2400 2750	2232 2558	 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 1350	1116 1256	 31,33,38,48, 74,76
					20908	FP14/835/ECO	40	20000	3500	85	1200 1350	1116 1256	 31,33,38,48, 74,76
					20914	FP14/841/ECO	40	20000	4100	85	1200 1350	1116 1256	 31,33,38,48, 74,76
					20988	FP14/865/ECO	40	20000	6500	85	1100 1300	1045 1209	 31,33,38,48, 74,76
21	T5	36	34	Mini Bipin	20919	FP21/830/ECO	40	20000	3000	85	1900 2100	1767 1953	 31,33,38,48, 74,76
					20921	FP21/835/ECO	40	20000	3500	85	1900 2100	1767 1953	 31,33,38,48, 74,76
					20924	FP21/841/ECO	40	20000	4100	85	1900 2100	1767 1953	 31,33,38,48, 74,76
					20989	FP21/865/ECO	40	20000	6500	85	1750 2000	1662 1860	 31,33,38,48, 74,76
35	T5	60	57.6	Mini Bipin	20925	FP35/830/ECO	40	20000	3000	85	3300 3650	3069 3394	 31,33,38,48, 74,76
					20926	FP35/835/ECO	40	20000	3500	85	3300 3650	3069 3394	 31,33,38,48, 74,76
					20927	FP35/841/ECO	40	20000	4100	85	3300 3650	3069 3394	 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 3050	2594 2898	 31,33,38,48, 74,76
					20943	FP28/835PM/ECO	40	20000	3500	85	2730 3050	2594 2898	 31,33,38,48, 74,76
					20944	FP28/841PM/ECO	40	20000	4100	85	2730 3050	2594 2898	 31,33,38,48, 74,76

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 (@35°C/95°F)	Approx Lumens Mean @25°C/77°F (@35°C/95°F)	Symbols & Footnotes
54	T5	48	45.8	Mini Bipin	20903	FP54/830/HO/ECO	40	25000 (35000)	3000	85	4450 5000	4138 4650	31,33,38,48, 74,76
					20904	FP54/835/HO/ECO	40	25000 (35000)	3500	85	4450 5000	4138 4650	31,33,38,48, 74,76
					21020	FP54/835/HO/ECO/SL	40	25000 (35000)	3500	85	4316 4850	4014 4510	31,33,38,48, 74,76,96,98
					20906	FP54/841/HO/ECO	40	25000 (35000)	4100	85	4450 5000	4138 4650	31,33,38,48, 74,76
					21021	FP54/841/HO/ECO/SL	40	25000 (35000)	4100	85	4316 4850	4014 4510	31,33,48,74, 76,96,98
					20949	FP54/850/HO/ECO	40	25000 (35000)	5000	85	4375 4900	4069 4557	31,33,38,48, 74,76
					21022	FP54/850/HO/ECO/SL	40	25000 (35000)	5000	85	4243 4753	3946 4420	31,33,48,74, 76,96,98
					20862	FP54/865/HO/ECO	40	25000 (35000)	6500	85	4050 4750	3766 4418	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 2000	1627	31,33,38,48, 74,76
					20929	FP24/835/HO/ECO	40	20000	3500	85	1750 2000	1627	31,33,38,48, 74,76
					20931	FP24/841/HO/ECO	40	20000	4100	85	1750 2000	1627	31,33,38,48, 74,76
39	T5	36	34	Mini Bipin	20932	FP39/830/HO/ECO	40	20000	3000	85	3100 3500	2883	31,33,38,48, 74,76
					20933	FP39/835/HO/ECO	40	20000	3500	85	3101 3500	2883	31,33,38,48, 74,76
					20934	FP39/841/HO/ECO	40	20000	4100	85	3102 3500	2883	31,33,38,48, 74,76
80	T5	60	57.6	Mini Bipin	20935	FP80/830/HO/ECO	40	20000	3000	85	6150 7000	5719 6510	31,33,38,48, 74,76
					20936	FP80/835/HO/ECO	40	20000	3500	85	6151 7000	5720 6510	31,33,38,48, 74,76
					20937	FP80/841/HO/ECO	40	20000	4100	85	6152 7000	5721 6510	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 (@35°C/95°F)	Approx Lumens Mean @25°C/77°F (@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 4900	4655 4655	31,33,38,48, 74,76
					21043	FP54/841/C/HO/ECO	40	25000 (35000)	4100	85	4900 4900	4655 4655	31,33,38,48, 74,76
					21044	FP54/850/C/HO/ECO	40	25000 (35000)	5000	85	4800 4800	4560 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 Initial @25°C/77°F	Mean	Symbols & Footnotes
22	T5	8.66 - 9.06	2GX13	20702	FPC22/830	12	12000	3000	82	1800	1585	31,33,38,48,74
				20712	FPC22/835	12	12000	3500	82	1800	1585	31,33,38,48,74
				20715	FPC22/841	12	12000	4100	82	1800	1585	31,33,38,48,74
40	T5	11.54 - 12.01	2GX13	20731	FPC40/830	12	12000	3000	82	3200	2815	31,33,38,48,74
				20732	FPC40/835	12	12000	3500	82	3200	2815	31,33,38,48,74
				20733	FPC40/841	12	12000	4100	82	3200	2815	31,33,38,48,74
55	T5	11.54 - 12.01	2GX13	20741	FPC55/830/HO	12	12000	3000	82	4000	3520	31,33,38,48,74
				20750	FPC55/835/HO	12	12000	3500	82	4000	3520	31,33,38,48,74
				20751	FPC55/841/HO	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 Initial @25°C/77°F	Mean	Symbols & Footnotes
25	T12	36	35.78	Med Bipin	23473	F25T12/WW/RS/SS <i>formerly F30T12/WW/RS/SS</i>	30	18000	3000	52	1975	1679	22,31,33
					23485	F25T12/D35/RS/SS <i>formerly F30T12/D35/RS/SS</i>	30	18000	3500	70	2050	1804	22,31,33
					23472	F25T12/CW/RS/SS <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 Initial @25°C/77°F	Mean	Symbols & Footnotes
30	T12	36	35.78	Med Bipin	23490	F30T12/SW/RP	6	18000	3000	52	2275	1934	30,31,33,48
					23482	F30T12/WW/RS	30	18000	3000	52	2275	1934	30,31,33,48
					23474	F30T12/D830/RS	30	18000	3000	80	2290	2061	30,31,33,48
					23484	F30T12/D35/RS	30	18000	3500	70	2250	1980	30,31,33,48
					23139	F30T12/D835/RS	30	18000	3500	80	2290	2061	30,31,33,48
					23493	F30T12/CW/RP	6	18000	4200	60	2200	1870	30,31,33,48
					23476	F30T12/CW/RS	30	18000	4200	60	2200	1870	30,31,33,48
					23487	F30T12/CW/RS/UPC	30	18000	4200	60	2200	1870	30,31,33,48
					23478	F30T12/D/RS	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 Initial @25°C/77°F	Mean	Symbols & Footnotes
34	T12	48	47.78	Med Bipin	24538	F34WW/SS/ECO <i>formerly F40WW/SS/ECO</i>	30	20000	3000	52	2750	2365	224,30,31,33,56,76
					24535	F34/D30/SS/ECO <i>formerly F40/D30/SS/ECO</i>	30	20000	3000	70	2800	2520	224,30,31,33,56,76

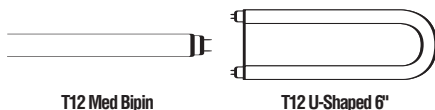
RAPID START LAMPS

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 Initial Mean @25°C/77°F	Symbols & Footnotes
34	T12	48	47.78	Med Bipin	24589	F34/D830/SS formerly F40/D830/SS	30	20000	3000	80	2900 2610	☼  2,24,30,31,33,56
					24544	F34/D830/SS/ECO formerly F40/D830/SS/ECO	30	20000	3000	80	2900 2610	☼  2,24,30,31,33,56,76
					24591	F34W/SS formerly F40W/SS	30	20000	3450	57	2750 2365	☼ 2,24,30,31,33,56
					24585	F34/D35/SS formerly F40/D35/SS	30	20000	3500	70	2800 2520	☼  2,24,30,31,33,56
					24522	F34/D35/SS/CVP formerly F40/D35/SS/CVP	10	20000	3500	70	2800 2520	☼  2,24,30,31,33,56
					24540	F34/D35/SS/ECO formerly F40/D35/SS/ECO	30	20000	3500	70	2800 2520	☼  2,24,30,31,33,56,76
					24547	F34/D835/SS/ECO formerly F40/D835/SS/ECO	30	20000	3500	80	2900 2610	☼  2,24,30,31,33,56,76
					24542	F34/D41/SS/ECO formerly F40/D41/SS/ECO	30	20000	4100	70	2800 2520	☼  2,24,30,31,33,56,76
					24554	F34/D841/SS/ECO formerly F40/D841/SS/ECO	30	20000	4100	80	2900 2610	☼  2,24,30,31,33,56,76
					24588	F34CW/SS formerly F40CW/SS	30	20000	4100	87	1925 1656	 2,24,30,31,33,56
					24566	F34LW/SS/ECO formerly F40LW/SS/ECO	30	20000	4150	48	2825 2430	☼  2,24,30,31,33,56,76
					24590	F34LW/SS formerly F40LW/SS	30	20000	4150	48	2825 2430	☼ 2,24,30,31,33,56
					24516	F34CW/SS/10 formerly F40CW/SS/10	10	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56
					24524	F34CW/SS/CVP formerly F40/CW/SS/CVP	10	20000	4200	60	2650 2279	☼ 2,24,30,31,33,56
					24396	F34CW/SS/SL formerly F40CW/SS/SL	30	20000	4200	60	2570 2313	☼ 2,24,30,31,33,56,98
					24596	F34CW/SS/ECO formerly F40CW/SS/ECO	30	20000	4200	60	2650 2279	☼  2,24,30,31,33,56,76
					24632	F34CW/SS/ECO/CVP formerly F40/CW/SS/ECO/CVP	10	20000	4200	60	2650 2279	☼  2,24,30,31,33,56,76
					24642	F34CW/SS/ECO/CVP30 formerly F40CW/SS/ECO/CVP30	30	20000	4200	60	2650 2279	☼  2,24,30,31,33,56,76
					24633	F34CW/SS/ECO/RP formerly F40/CW/SS/ECO/RP	30	20000	4200	60	2650 2279	☼  2,24,30,31,33,48,56,76
					24599	F34/DX/SS formerly F40/DX/SS	30	20000	6500	88	1930 1565	 2,24,30,31,33,56
					24706	F34/D865/SS formerly F40/D865/SS	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 Initial Mean @25°C/77°F	Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24521	F40/D30/ECO	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

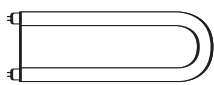
Nominal Wattage Bulb		Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	CRI	Approx Lumens Initial Mean @25°C/77°F		Symbols & Footnotes
40	T12	48	47.78	Med Bipin	24543	F40/D830/ECO	30	20000	3000	80	3300	2970	Ⓔ ⒸⒹ 2,30,31,33,48,56,64,76
					24537	F40/D35/ECO	30	20000	3500	70	3200	2880	Ⓔ ⒸⒹ 2,30,31,33,48,56,64,76
					24546	F40/D835/ECO	30	20000	3500	80	3300	2970	Ⓔ ⒸⒹ 2,30,31,33,48,56,64,76
					24438	F40N	30	20000	3600	86	2100	1806	ⒸⒹ 2,30,31,33,48,56,64
					24442	F40CWX 10/CS	10	20000	4100	87	2150	1849	ⒸⒹ 2,30,31,33,48,56,64
					24441	F40CWX	30	20000	4100	87	2150	1849	ⒸⒹ 2,30,31,33,48,56,64
					24541	F40/D41/ECO	30	20000	4100	70	3200	2880	Ⓔ ⒸⒹ 2,30,31,33,48,56,64,76
					24553	F40/D841/ECO	30	20000	4100	80	3300	2970	Ⓔ ⒸⒹ 2,30,31,33,48,56,64,76
					24584	F40/D41	30	20000	4100	70	3200	2880	Ⓔ ⒸⒹ 2,30,31,33,48,56,64
					24683	F40DSGN50	30	20000	5000	90	2200	1892	ⒸⒹ 2,30,31,33,48,56,64
					24477	F40/DX	30	20000	6500	88	2180	1770	ⒸⒹ 2,30,31,33,48,56,64
					24570	F40/D865	30	20000	6500	80	3000	2700	Ⓔ ⒸⒹ 2,30,31,33,48,56,64
24673	F40/GO	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 Initial Mean @25°C/77°F		Symbols & Footnotes
34	T12	22.5	22.6	Med Bipin	24062	FB34/WW/6/SS/UPC formerly FB40WW/6/SS	12	18000	3000	52	2650	2279	Ⓔ 24,30,31,33	
					24052	FB34/WW/6/SS/ECO formerly FB40WW/6/SS/ECO	12	18000	3000	52	2650	2279	Ⓔ  24,30,31,33,76	
					24065	FB34/D35/6/SS formerly FB40/D35/SS	12	18000	3500	70	2730	2457	Ⓔ  24,30,31,33	
					24059	FB34/CW/6/SS/UPC formerly FB40/CW/SS/6	12	18000	4200	60	2600	2236	Ⓔ 24,30,31,33	
					24054	FB34/CW/6/SS/ECO formerly FB40/CW/6/SS/ECO	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		Symbols & Footnotes
											Initial @25°C/77°F	Mean	
40	T12	22.5	22.6	Med Bipin	24080	FB40/D30/6	12	18000	3000	70	3050	2745	Ⓔ ⒸⒹ 30,31,33,48
					24017	FB40/D830/6	12	18000	3000	80	3200	2880	Ⓔ ⒸⒹ 30,31,33,48
					24081	FB40/D35/6	12	18000	3500	70	3050	2745	Ⓔ ⒸⒹ 30,31,33,48
					24004	FB40/CWX/6	12	18000	4100	87	2100	1806	ⒸⒹ 30,31,33,48



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	Mean @25°C/77°F	Symbols & Footnotes
40	T12	22.5	22.6	Med Bipin	24082	FB40/D41/6	12	18000	4100	70	3050	2745	Ⓔ CRI 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 @3hrs/start (@12hrs/start)	CCT (K)	CRI	Approx Lumens Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
20	T9	6.25 - 6.75	4 PIN	20155	FC6T9/WW/RS	12	8000	3000	52	800	696	31,33,42,48
				20156	FC6T9/CW/RS	12	8000	4200	60	750	653	31,33,42,48
22	T9	8.00 - 8.50	4 PIN	20088	FC8T9/WW/RS	12	12000	3000	52	1050	914	31,33,42,48
				20209	FC8T9/DSW/RP	6	12000	3000	70	1100	990	CRI 31,33,42,48
				20151	FC8T9/CW/RS/6 PACK	6	12000	4200	60	1050	914	31,33,42,48
				20148	FC8T9/CW/RS	12	12000	4200	60	1050	914	31,33,42,48
				20080	FC8T9/D/RS	12	12000	6500	76	900	783	CRI 31,33,42,48
				20210	FC8T9/830/EL	6	10000	3000	80	1850	1591	CRI 31,33,40,49,79,81
32	T9	11.5 - 12.0	4 PIN	20233	FC12T9/DSW/RP	6	15000	3000	70	2100	1806	CRI 31,33,42,48
				20037	FC12T9/WW/RS	12	15000	3000	52	1950	1697	31,33,42,48
				20143	FC12T9/CW/RS/6 PACK	6	15000	4200	60	1925	1675	31,33,42,48
				20142	FC12T9/CW/RS	12	15000	4200	60	1925	1675	31,33,42,48
				20030	FC12T9/D/RS	12	15000	6500	76	1650	1436	CRI 31,33,42,48
				20057	FC16T9/WW/RS	12	18000	3000	52	2800	2436	31,33,42,48
40	T9	15.6 - 16.0	4 PIN	20132	FC16T9/CW/RS	12	18000	4200	60	2750	2393	31,33,42,48
				20072	FC16T9/D/RS	12	18000	6500	76	2350	2045	CRI 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	Mean @25°C/77°F	Symbols & Footnotes
55	T12	48	46	Recessed DC	25137	F48T12D35/HO/SS	30	12000	3500	70	3750	3375	CRI 27,31,33,97
95	T12	96	93.91	Recessed DC	25011	F96T12/WW/HO/SS	15	12000	3000	52	7700	6237	Ⓔ 27,31,33,97
					25024	F96T12/D35/HO/SS	15	12000	3500	48	8350	7515	Ⓔ CRI 27,31,33,97
					25023	F96T12/D41/HO/SS	15	12000	4100	70	8350	7515	Ⓔ CRI 27,31,33,97
					25025	F96T12/LW/HO/SS	15	12000	4150	48	8000	6480	Ⓔ 27,31,33,97
					25010	F96T12/CW/HO/SS	15	12000	4200	60	8000	6480	Ⓔ 27,31,33,97
					25001	F96T12/CW/HO/SS/ECO	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	Mean @25°C/77°F	Symbols & Footnotes
25	T12	18	15.91	Recessed DC	25303	F18T12/DSGN50/HO	30	9000	5000	90	850	740	CRI 31,33,48
35	T12	24	21.91	Recessed DC	25313	F24T12/CW/HO	30	9000	4200	60	1650	1337	31,33,48
					25312	F24T12/DSGN50/HO	30	9000	5000	90	1200	1044	CRI 31,33,48
					25314	F24T12/D/HO	30	9000	6500	76	1400	1134	CRI 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 Initial Mean @25°C/77°F	Symbols & Footnotes
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



T12 RDC

T12 Single Pin

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 Initial Mean @25°C/77°F	Symbols & Footnotes
110	T12	96	93.91	Recessed DC	25164	F96T12/DSGN50/HO	15	12000	5000	90	6450 5225	31,33,48,97
					25185	F96T12/D865/HO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
110		96	93.91	Recessed DC	25118	F96T12/CW/HO/COLD/10/CVP	10	12000	4200	60	8600 6966	31,33,48,91,97
					25129	F96T12/CW/HO/CT/ECO	15	12000	4200	60	8600 6966	31,33,48,76,91,97
					25134	F96T12/CW/HO/COLD TEMP	15	12000	4200	60	8600 6966	31,33,48,91,97
					25135	F96T12/D/HO/COLD TEMP	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 Initial Mean @25°C/77°F	Symbols & Footnotes
195	T12	96	93.91	Recessed DC	25296	F96T12/CW/VHO/SS	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 Initial Mean @25°C/77°F	Symbols & Footnotes
115	T12	48	46	Recessed DC	25248	F48T12/CW/VHO	30	10000	4200	60	6600 4620	31,33,48,108
					25249	F48T12/CW/VHO/LT	30	10000	4200	60	6750 5250	31,33,48,58,88,108
					25244	F48T12/D/VHO	30	10000	6500	76	5600 3920	31,33,48,108
135	T12	60	57.91	Recessed DC	25262	F60T12/CW/VHO	30	10000	4200	60	8700 6090	31,33,48,108
141	T12	60	57.91	Recessed DC	25263	F60T12/CW/VHO/LT	30	10000	4200	60	8700 6090	31,33,48,58,88,108
160	T12	72	69.91	Recessed DC	25272	F72T12/CW/VHO	15	10000	4200	60	10600 7420	31,33,48,108
					25274	F72T12/CW/VHO/LT	15	10000	4200	60	11000 7700	31,33,48,58,88,108
					25270	F72T12/D/VHO	15	10000	6500	76	9400 6580	31,33,48,108
215	T12	96	93.91	Recessed DC	25209	F96T12/CW/VHO	15	10000	4200	60	14000 9800	31,33,48,108
					25292	F96T12/CW/VHO/LT	15	10000	4200	60	15000 10500	31,33,48,58,88,108
					25210	F96T12/D/VHO	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 Initial Mean @25°C/77°F	Symbols & Footnotes
32	T12	48	46.00	Single Pin	24829	F48T12/D35/SS	30	9000	3500	70	2575 2369	26,31,33
					24825	F48T12/D41/SS	30	9000	4100	70	2575 2369	26,31,33
					24823	F48T12/CW/SS	30	9000	4200	60	2450 2200	26,31,33
57	T12	96	94	Single Pin	29900	F96T12/D41/SSP/ECO	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	Mean	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	Mean	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
					27270	F72T8/WW	24	7500	3000	52	3100	2728	 31,33,48
	T8	72	70	Single Pin	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



T8 Single Pin

T12 Single Pin

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 Mean @25°C/77°F	Symbols & Footnotes
39	T12	48	46	Single Pin	24834	F48T12/D	30	9000	6500	76	2450 2156	31,33,48
					24836	F48T12D/ECO	30	9000	6500	76	2450 2156	31,33,48,76
50	T12	60	58	Single Pin	26018	F60T12/D35	30	12000	3500	70	3850 3542	31,33,48,97
					26001	F60T12/CW	30	12000	4200	60	3700 3256	31,33,48,97
					26002	F60T12/D	30	12000	6500	76	3000 2640	31,33,48,97
51	T8	96	94	Single Pin	29666	F96T8/CW	24	7500	4200	60	4000 3520	31,33,48
					29650	F96T8/D	24	7500	6500	76	3550 3124	31,33,48
52	T12	64	62	Single Pin	26403	F64T12/CW	30	12000	4200	60	3900 3432	31,33,48,97
					26404	F64T12/D	30	12000	6500	76	3300 2904	31,33,48,97
55	T12	72	70	Single Pin	27255	F72T12/D830	15	12000	3000	80	4800 4512	31,33,48,97
					27250	F72T12/D35	15	12000	3500	70	4700 4324	31,33,48,97
					27243	F72T12/D41	15	12000	4100	70	4700 4324	31,33,48,97
					27256	F72T12/CW	15	12000	4200	60	4500 3960	31,33,48,97
					27259	F72T12/D	15	12000	6500	76	3800 3432	31,33,48,97
70	T12	84	82	Single Pin	28417	F84T12/CW	15	12000	4200	60	5300 4664	31,33,48,97
75	T12	96	94	Single Pin	29796	F96T12/D30/ECO	15	12000	3000	70	6420 5906	31,33,48,76,97
					29827	F96T12/D830	15	12000	3000	80	6550 6157	31,33,48,97
					29856	F96T12/D830/ECO	15	12000	3000	80	6550 6157	31,33,48,76,97
					29685	F96T12/D35	15	12000	3500	70	6420 5906	31,33,48,97
					29686	F96T12/D35/ECO	15	12000	3500	70	6420 5906	31,33,48,76,97
					29843	F96T12/D835	15	12000	3500	80	6550 6157	31,33,48,97
					29838	F96T12/D835/ECO	15	12000	3500	80	6550 6157	31,33,48,76,97
					29797	F96T12/D41/CVP	10	12000	4100	70	6420 5906	31,33,48,97
					29478	F96T12/CWX	15	12000	4100	87	4400 3872	31,33,48,97
					29858	F96T12/CWX/CVP	10	12000	4100	87	4400 3872	31,33,48,97
					29489	F96T12/CWX/UPC	15	12000	4100	87	4400 3872	31,33,48,97
					29852	F96T12/D41/UPC	15	12000	4100	70	6420 5906	31,33,48,97
					29798	F96T12/D41/ECO	15	12000	4100	70	6420 5906	31,33,48,76,97
					29857	F96T12/D841	15	12000	4100	80	6550 6157	31,33,48,97
					29850	F96T12/D841/ECO	15	12000	4100	80	6550 6157	31,33,48,76,97
					29833	F96T12/DSGN50	15	12000	5000	90	4400 3872	31,33,48,97
					29849	F96T12/D865	15	12000	6500	80	6000 5520	31,33,48,97
					29500	F96T12/DX	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 Initial Mean @25°C/77°F	Symbols & Footnotes
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	 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	 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 Initial Mean @25°C/77°F	Symbols & Footnotes
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	 31,33
	T12	15	14.78	Med Bipin	21435	F14T12/WW	30	9000	3000	52	660 574	31,33
					21451	F14T12/DSW/RP	6	9000	3000	70	720 648	 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	 31,33
15	T8	18	17.78	Med Bipin	21656	F15T8/DSW/RP	6	7500	3000	70	900 810	 31,33
					21610	F15T8/D830	24	7500	3000	82	920 846	 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	 31,33
					21682	F15T8/N	24	7500	3600	86	560 487	 31,33
					21603	F15T8/DCW/RP	6	7500	4100	70	900 810	 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	 31,33
	T12	18	17.78	Med Bipin	21600	F15T8/D	24	7500	6500	76	700 653	 31,33
					21542	F15T12/WW	30	9000	3000	52	770 670	31,33
					21551	F15T12/DSW/RP	6	9000	3000	70	770 693	 31,33
					21532	F15T12/CW	30	9000	4200	60	750 653	31,33

PREHEAT LAMPS

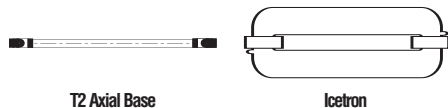
Standard T8 and T12 Preheat Lamps (Starter Required)

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 Initial Mean @25°C/77°F	Symbols & Footnotes
15	T12	18	17.78	Med Bipin	21513	F15T12/CW/6PK	6	9000	4200	60	750 653	31,33
					21535	F15T12/DCW/RP	6	9000	4100	76	770 693	31,33
					21534	F15T12/D	30	9000	6500	76	660 574	31,33
18	T8	24	23.78	Med Bipin	23014	F18T8CW/K24	24	7500	4200	60	1190 1035	31,33
					23012	F18T8CW/K24/1/12/UPC	12	7500	4200	60	1190 1035	31,33
		26	25.78	Med Bipin	23027	F18T8CW/K26	24	7500	4200	60	1280 1079	31,33
					23025	F18T8/CW/K26PLT	3168	7500	4200	60	1280 1079	31,33
					21728	F18T8/D/K26	24	7500	6500	76	1100 957	31,33
		28	27.78	Med Bipin	23028	F18T8CW/K28	24	7500	4200	60	1360 1131	31,33
		30	29.78	Med Bipin	23030	F18T8CW/K30	24	7500	4200	60	1400 1200	31,33
20	T12	24	23.78	Med Bipin	22131	F20T12/WW	30	9000	3000	52	1250 1088	31,33
					22134	F20T12/WW/RP	6	9000	3000	52	1250 1088	31,33
					22252	F20T12/DSW/RP	6	9000	3000	70	1300 1170	31,33
					22251	F20T12/D35	30	9000	3500	70	1300 1170	31,33
					22256	F20T12/DCW/RP	6	9000	4100	70	1300 1170	31,33
					22078	F20T12/CW	30	9000	4200	60	1200 1044	31,33
					22074	F20T12/CW/CVP/10	10	9000	4200	60	1200 1044	31,33
					22015	F20T12/CW/RP	6	9000	4200	60	1200 1044	31,33
					22073	F20T12/CW/UPC	30	9000	4200	60	1200 1044	31,33
					22119	F20T12/DSGN50	30	9000	5000	90	880 766	31,33
					22083	F20T12/D	30	9000	6500	76	1075 935	31,33
25	T12	28	27.78	Med Bipin	22527	F25T12/CW/28	30	7500	4200	60	1670 1453	31,33
		30	29.78	Med Bipin	22333	F25T12/WW/30	30	7500	3000	52	1750 1523	31,33
					22528	F25T12/CW/30	30	7500	4200	60	1730 1505	31,33
		33	32.78	Med Bipin	22529	F25T12/CW/33	30	7500	4200	60	1850 1610	31,33
30	T8	36	35.78	Med Bipin	23701	F30T8/WW	24	7500	3000	52	2150 1871	31,33
					23140	F30T8/DWW/RP	6	7500	3000	70	2360 2124	31,33
					23182	F30T8/N	24	7500	3600	86	1500 1305	31,33
					23127	F30T8/CWX	24	7500	4100	87	1550 1349	31,33
					23116	F30T8/CW	24	7500	4200	60	2180 1897	31,33
					23121	F30T8CW 6/CS	6	7500	4200	60	2180 1897	31,33
					23100	F30T8/D	24	7500	6500	76	1850 1653	31,33
40	T12	48	47.2	Med Bipin	24409	L40W/30-1	25		3000	50		31
58	T8	60	59.6	Med Bipin	24729	L58W/840	25	20000	4000	80	5200 4785	31,33,48
70	T8	70	70	Med Bipin	20804	L70W / 21 - 840	25	15000	4000	80	6550 6026	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 Initial Mean @25°C/77°F	Symbols & Footnotes
32	T8	48	47.78	Med Bipin	21678	F032/735/SL	30	25000	3500	78	2716 2444	31,33,52,96, 98, 119



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 Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
11	T2	16.6	16.6	Axial	26235	FM11/835	20	10000	3000	80	750	675	631,33,38,48,74,118
					26231	FM11/841	20	10000	4100	80	750	675	631,33,38,48,74,118
13	T2	20.6	20.6	Axial	26253	FM13/830	20	10000	3000	80	930	837	631,33,38,48,74,118
					26291	FM13/835	20	10000	3500	80	930	837	631,33,38,48,74,118
					26230	FM13/841	20	10000	4100	80	930	837	631,33,38,48,74,118

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 Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
70	T17	12.32	Mount Brkts	26087	ICE70/835/2P/ECO		1	100000	3500	80	6200	4605	631,33,38,51,76,78,100,101
				26081	ICE70/835		1	100000	3500	80	6200	4605	631,33,38,51,78,100,101
				26088	ICE70/841/2P/ECO		1	100000	4100	80	6200	4605	631,33,38,51,76,78,100,101
				26082	ICE70/841		1	100000	4100	80	6200	4605	631,33,38,51,78,100,101
				26089	ICE70/850/2P/ECO		1	100000	5000	80	5950	4420	631,33,38,51,76,78,100,101
100	T17	12.32	Mount Brkts	26102	ICE100/835/2P/ECO		1	100000	3500	80	8000	5945	631,33,38,51,76,78,100,101
				26103	ICE100/841/2P/ECO		1	100000	4100	80	8000	5945	631,33,38,51,76,78,100,101
				26105	ICE100/850/2P/ECO		1	100000	5000	80	7600	5645	631,33,38,51,76,78,100,101
				26106	ICE100/BL/2P		1						631,33,38,51,78,100,101,109
150	T17	16.28	Mount Brkts	26152	ICE150/835/2P/ECO		1	100000	3500	80	12000	8915	631,33,38,51,76,78,100,101
				26153	ICE150/841/2P/ECO		1	100000	4100	80	12000	8915	631,33,38,51,76,78,100,101
				26155	ICE150/850/2P/ECO		1	100000	5000	80	11650	8655	631,33,38,51,76,78,100,101
				26154	ICE150/BL/2P		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 Initial @25°C/77°F	Mean @25°C/77°F	Symbols & Footnotes
100	T17	12.32	Mount Brkts	26161	ICE100/841/R/2P/ECO		1	100000	4100	80	7300	5014	631,33,38,51,76,78,100,101

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)	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)	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			31,33,59,60,105
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)	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)	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

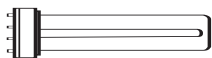
Blacklight Blue, Rapid Start Lamps (No Starter Required)

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life @3hrs/start	CCT (K)	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)	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 Initial Mean @25°C/77°F	Symbols & Footnotes
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 Initial Mean @25°C/77°F	Symbols & Footnotes
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 Initial Mean @25°C/77°F	Symbols & Footnotes
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 Initial Mean @25°C/77°F	Symbols & Footnotes
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	FS-4/BL/2PK	12	Fluorescent starter for use with F13, F30 and F40 preheat lamps, blister pack with 2 starters. UL, CSA	
45812	FS-5	100	Fluorescent starter for use with F4, F6 and F8 preheat fluorescent lamps. UL, CSA	
45813	FS-5/BL/2PK	12	Fluorescent starter for use with F4, F6 and F8 preheat fluorescent lamps, blister pack with 2 starters. UL, CSA	
43813	FS-12/BL/2PK	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	FS-25	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	FS-25/BL/2PK	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	FS-20 (COP-20)	100	Fluorescent starter with cutout and manual reset for use with F15 & F20 preheat lamps. UL, CSA	
44102	FS-40/400 (COP-40/400)	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 resulting 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 www.NEMA.org .
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 www.lamprecycle.org
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 F017/800XPS/ECO and F025/800XPS/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 FO32/700/ECO OCTRON® lamps operated on rapid start ballasts is 25,000 hours. The life rating of FO32/700/ECO OCTRON lamps operated on instant start ballasts is 24,000 hours.

Manufacturers' Cross Reference Guide (continued)

FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
OCTRON®		
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/841XP/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
OCTRON®		
F040/830/ECO	F40T8/SPX30	F40T8/TL830/ALTO
F040/835/ECO	F40T8/SPX35	F40T8/TL835/ALTO
F040/841/ECO	F40T8/SPX41	F40T8/TL841/ALTO
F040/830/XP/ECO	-	-
F040/835/XP/ECO	-	-
F040/841/XP/ECO	-	-
F096/830XP/SS/ECO	F96T8/XL/SP30/WM	
F096/835XP/SS/ECO	F96T8/XL/SP35/WM	
F096/841XP/SS/ECO	F96T8/XL/SP41/WM	
F096/830/ECO	F96T8/SPX30	F96T8/TL830/ALTO
F096/835/ECO	F96T8/SPX35	F96T8/TL835/ALTO
F096/841/ECO	F96T8/SPX41	F96T8/TL841/ALTO
F096/850/ECO	F96T8/SPX50	F96T8/TL850/ALTO
F096/830/XP/ECO	F96T8/XL/SPX30	F96T8/TL830PLUS/ALTO
F096/835/XP/ECO	F96T8/XL/SPX35	F96T8/TL835PLUS/ALTO
F096/841/XP/ECO	F96T8/XL/SPX41	F96T8/TL841PLUS/ALTO
F096/850/XP/ECO	F96T8/XL/SPX50	F96T8/TL850PLUS/ALTO
-	F96T8/SPX30/HO	F96T8/TL830/HO/PLUS
F096/835/HO	F96T8/SPX35/HO	F96T8/TL835/HO/PLUS
F096/841/HO	F96T8/SPX41/HO	F96T8/TL841/HO/PLUS
OCTRON® CURVALUME®		
FB016/830	-	-
FB016/835	-	-
FB016/841	-	-
FB016/865/XP	-	-
FB024/830	-	-
FB024/835	-	-
FB024/841	-	-
FB031/830	F31T8/SPX30/U	-
FB031/835	F31T8/SPX35/U	-
FB031/841	F31T8/SPX41/U	-
FB029/830/XP/SS/ECO		
FB029/835/XP/SS/ECO		
FB029/841/XP/SS/ECO		
FB031/830/XP/ECO	-	-
FB031/835/XP/ECO	-	-
FB031/841/XP/ECO	-	-
FB030/830/XP/6/SS/ECO		
FB030/835/XP/6/SS/ECO		
FB030/841/XP/6/SS/ECO		
FB032/830/6/ECO	F32T8/SPX30/U/6	FB32T8/TL830/6/ALTO
FB032/835/6/ECO	F32T8/SPX35/U/6	FB32T8/TL835/6/ALTO
FB032/841/6/ECO	F32T8/SPX41/U/6	FB32T8/TL841/6/ALTO
		FB32T8/TL850/6/ALTO
FB032/830/6/XP/ECO	-	-
FB032/835/6/XP/ECO	-	-
FB032/841/6/XP/ECO	-	-
PENTRON® & PENTRON® HO		
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

Manufacturers' Cross Reference Guide (continued)

FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
OCTRON® CURVALUME®		
FP35/841/ECO	F35W/T5/841/ECO	F35T5/841
	F35W/T5/850/ECO	
	F35W/T5/865/ECO	
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	F24T5/841/HO/ALTO
	F24W/T5/850/ECO	
	F24W/T5/865/ECO	
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	FP39/841/HO/ECO/ALTO
	F39W/T5/850/ECO	
	F39W/T5/865/ECO	
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	F80T5/841/HO
	F54W/T5/850/ECO	
	F54W/T5/865/ECO	
PENTRON® CIRCLINE		
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
F40 TYPES (STD & SS)		
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/RS/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	-
CURVALUME® 3"		
-	F40/SP30/U/3	-
-	F40/SP41/U/3	-
CURVALUME® 6"		
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

Manufacturers' Cross Reference (continued)

FLUORESCENT LAMPS

SYLVANIA	GE	PHILIPS
SLIMLINE		
-	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	-
HIGH OUTPUT		
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
APPLIANCE		
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	-	-
OTHER RAPID START		
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