

## OCTRON® AND OCTRON® CURVALUME® FLUORESCENT LAMPS

### OCTRON® 800, 800XP and 800 XPS Lamps

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 Mean		Symbols & Footnotes
											@25°C/77°F	@25°C/77°F	
59	T8	96	94	Single Pin	22036	F096/830/XP/ECO	24	18000	3000	85	6200	5890	☀ 1,2,6,8
					21898	F096/835	24	15000	3500	82	5900	5428	☀ 1,2,8,14,28
					21740	F096/835/XP	24	18000	3500	85	6200	5890	☀ 1,2,8,14,34
					22034	F096/835/XP/ECO	24	18000	3500	85	6200	5890	☀ 1,2,6,8
					21899	F096/841	24	15000	4100	82	5900	5428	☀ 1,2,8,14,28
					22025	F096/841/XP	24	18000	4100	85	6200	5890	☀ 1,2,8,14,34
					22032	F096/841/XP/ECO	24	18000	4100	85	6200		☀ 1,2,6,8
					21795	F096/850	24	15000	5000	80	5900	5428	☀ 1,2,8,14,28
86	T8	96	93.91	Recessed DC	22037☼	F096/835/HO	24	18000	3500	84	8200	7380	☀ 1,2,8
					22040☼	F096/841/HO	24	18000	4100	80	8200	7380	☀ 1,2,8

### 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 (hrs)	CCT (K)	CRI	Approx Lumens Initial Mean		Symbols & Footnotes
											@25°C/77°F	@25°C/77°F	
14	T8	20	19.78	Med Bipin	21868	F014/950/20in	30	20000	5000	90	750	638	☀ 1,2,8,20,21
					21716	F014/865/XP/ECO	30	24000	6500	85	1000	950	☀ 1,2,6,8,21,24,25
16	T8	10.5	10.60	Med Bipin	21726	FBO16/865/XP	15	24000	6500	85	1125	1069	☀ 1,2,8,21,24,25,35,36
17	T8	24	23.78	Med Bipin	21871	F017/950/24in	30	20000	5000	90	800	680	☀ 1,2,8,20,21
					21718	F017/865/XP/ECO	30	24000	6500	85	1250	1188	☀ 1,2,6,8,21,24,25
21	T8	30	29.78	Med Bipin	21869	F021/950/30in	30	20000	5000	90	1000	850	☀ 1,2,8,20,21
					21730	F021/865/XP/ECO	30	24000	6500	85	1600	1520	☀ 1,2,6,8,21,24,25
25	T8	36	35.78	Med Bipin	21872	F025/950/36in	30	20000	5000	90	1250	1063	☀ 1,2,8,20,21
					21719	F025/865/XP/ECO	30	24000	6500	85	2000	1900	☀ 1,2,6,8,21,24,25
28	T8	40	39.78	Med Bipin	21870	F028/950/40in	30	20000	5000	90	1800	1530	☀ 1,2,8,20,21
					21727	F028/865/XP/ECO	30	24000	6500	85	2250	2138	☀ 1,2,6,8,21,24,25
32	T8	48	47.78	Med Bipin	21880	F032/950/48in	30	20000	5000	90	1800	1530	☀ 1,2,8,20,21
					21720	F032/865/XP/ECO	30	24000	6500	85	2850	2708	☀ 1,2,6,8,21,24,25
40	T8	60	59.61	Med Bipin	21873	F040/950/60in	30	20000	5000	90	2200	1870	☀ 1,2,8,20,21
					21721	F040/865/XP/ECO	30	24000	6500	85	3650	3468	☀ 1,2,6,8,21,24,25
46	T8	70	70.00	Single Pin	21710	F072/865/XP/ECO	24	18000	6500	85	4550	3468	☀ 1,2,6,8,14,33

## 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		Symbols & Footnotes
											Initial @25°C/77°F	Mean @35°C/95°F	
32	T8	48	47.78	Med Bipin	21763	<b>F032/835XP/ECO</b>	30	24000	3500	85	3000	2850	Ⓔ Ⓐ Ⓒ 2,21,31,35,39,60,70
34	T12	48	47.78	Med Bipin	24594	<b>F34CW/SS</b> Formerly <b>F40CW/SS</b>	30	20000	4200	62	2650	2279	Ⓔ 2,10,13,19,21,42
54	T5	48	45.5	Mini Bipin	20857	<b>FP54/830/HO</b>	40	20000	3000	82	4450 5000	4228 4750	Ⓒ 2,21,26,35,59
60	T12	96	94	Single Pin	29815	<b>F96T12/CW/SS</b>	15	12000	4200	62	5300	4664	Ⓔ 2,15,21

<b>Nominal Wattage</b>	Design wattage on reference ballast. Actual wattage dependent on ballast.
<b>Bulb</b>	Describes the shape of the bulb followed by the bulb's diameter at its widest point. The diameter value is expressed in eighths of an inch. Ex. T = Tubular, 8 = 8/8 inch = 1 inch. Please see page 97 for bulb illustrations.
<b>Base</b>	Please see page 98 for base illustrations.
<b>Nominal Length</b>	The nominal length of linear fluorescent lamps is typically measured from back of lampholder to back of lampholder. PENTRON® linear lamp, CURVALUME® and Circline lamps are exceptions. The nominal length given for PENTRON linear lamps is the closest familiar nominal length. CURVALUME lamps are measured from the face of the bases to the outside of the glass bend. The measurement for Circline lamps is the outside diameter. Values are in inches.
<b>MOL</b>	Maximum overall length. The length of the lamp measured in inches.
<b>Symbols &amp; Footnotes</b>	All symbols and footnotes that apply to a specific product will appear in this space. The explanations of the symbols and footnotes are at the end of the fluorescent section.
<b>Ordering Abbreviation</b>	A text description of the lamp. Please see below for several examples and explanations of some of the codes.
<b>CCT</b>	Correlated Color Temperature. The degree of "whiteness" of the light. Expressed in kelvins (K). Please see page 93 for more information.
<b>CRI</b>	Color Rendering Index. A numbering system for rating the relative color rendering quality of a light source compared to a standard. Please see page 93 for more information.
<b>Initial &amp; Mean Lumens</b>	Initial lumens are measured when the lamp has been operating for 100 hours. Mean lumens are typically measured at 40% of the rated life of the lamp. For longer life lamp such as the OCTRON® XP™ lamps, the mean lumens are measured at the same point in time as they are measured for the standard lamps they replace. Fluorescent lamp lumens are typically measured at 25°C (77°F). The lamp lumens are measured at both 25°C (77°F) and 35°C (95°F) for PENTRON linear lamps.

### How to Read Ordering Abbreviations

F032/835XP/ECO		F34CW/SS		FP54/830/HO		F96T12/CW/SS	
F	Fluorescent	F	Fluorescent	F	Fluorescent	F	Fluorescent
O	OCTRON®	34	Nominal lamp wattage	P	PENTRON®	96	96" nominal length
32	Nominal lamp wattage	CW	Cool White phosphor	54	Nominal lamp wattage	T	Tubular Shape Bulb
8	85 CRI	SS	SUPERSAVER® - reduced wattage lamp	8	82 CRI	12	Bulb diameter; 1/8 inch = 1 1/2 inches
35	3500K CCT			30	3000K CCT	CW	Cool White phosphor
XP	EXtended Performance			HO	High Output	SS	SUPERSAVER® - reduced wattage lamp
ECO	ECOLOGIC® - TCLP passing lamp						

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## 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, rapid start or programmed rapid start (also known as programmed start) ballasts. OCTRON lamps may be operated on electronic instant start ballasts with ballast factors ranging from .77 to 1.20 at the nominal ballast input voltage. For details on various lamp/ballast system combinations, please refer to the Systems Performance Guide in the "SYLVANIA QUICKTRONIC® Ballast Technology & Specification Guide".

### OCTRON® 700 and 700 XP Lamps

Nominal Wattage	Bulb	Nominal Length (in)	MOL (in)	Base	Product Number	Ordering Abbreviation	Pkg Qty	Avg Rated Life (hrs)	CCT (K)	CRI	Approx Lumens @25°C/77°F		Symbols & Footnotes
											Initial	Mean	
17	T8	24	23.78	Med Bipin	21918	<b>F017/730/ECO</b>	30	20000	3000	75	1325	1193	1,2,6,8,20,21
					21832	<b>F017/735</b>	30	20000	3500	75	1325	1193	1,2,8,20,21
					21769	<b>F017/735/ECO</b>	30	20000	3500	75	1325	1193	1,2,6,8,20,21
					21831	<b>F017/741</b>	30	20000	4100	75	1325	1193	1,2,8,20,21
					21770	<b>F017/741/ECO</b>	30	20000	4100	75	1325	1193	1,2,6,8,20,21
25	T8	36	35.78	Med Bipin	21937	<b>F025/730/ECO</b>	30	20000	3000	75	2050	1845	1,2,6,8,20,21
					21941	<b>F025/735/ECO</b>	30	20000	3500	75	2050	1845	1,2,6,8,20,21
					21942	<b>F025/741/ECO</b>	30	20000	4100	75	2050	1845	1,2,6,8,20,21
30	T8	48	47.78	Med Bipin	22063	<b>F032/730SS/ECO</b>	30	15000	3000	82	2850	2680	1,2,6,22
					22060	<b>F032/735SS/ECO</b>	30	15000	3500	82	2850	2680	1,2,6,22
					22062	<b>F032/741SS/ECO</b>	30	15000	4100	82	2850	2680	1,2,6,22
32	T8	48	47.78	Med Bipin	21961	<b>F032/GOLD</b>	10	20000			1700	1530	1,2,8,20,21,23
					21852	<b>F032/730</b>	30	20000	3000	75	2800	2520	1,2,8,20,21
					21997	<b>F032/730/ECO</b>	30	20000	3000	75	2800	2520	1,2,6,8,20,21
					22006	<b>F032/730/ECO/PALLET</b>	1968	20000	3000	75	2800	2520	1,2,6,8,20,21
					21957	<b>F032/730/PLT</b>	1968	20000	3000	75	2800	2520	1,2,8,20,21
					21930	<b>F032/730/UPC</b>	30	20000	3000	75	2800	2520	1,2,8,20,21
					21711	<b>F032/730/XP/ECO</b>	30	24000	3000	78	2850	2708	1,2,6,8,21,24,25
					21823	<b>F032/735</b>	30	20000	3500	75	2800	2520	1,2,8,20,21
					21902	<b>F032/735/CVP</b>	12	20000	3500	75	2800	2520	1,2,8,20,21
					21998	<b>F032/735/ECO</b>	30	20000	3500	75	2800	2520	1,2,6,8,20,21
					21945	<b>F032/735/ECO/PALLET</b>	1968	20000	3500	75	2800	2520	1,2,6,8,20,21
					21959	<b>F032/735/PLT</b>	1968	20000	3500	75	2800	2520	1,2,8,20,21
21678	<b>F032/735/SL</b>	30	20000	3500	75	2745	2470	1,2,20,21,26,27					

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## SYMBOLS & FOOTNOTES FOR FLUORESCENT LAMPS

Symbol	Description
	New item introduced within the past year.
	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 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.
	Product is Canadian Standards Association approved.
	Product is UL listed.
Footnote	Description
1	Approximate initial lumens after 100 hours operation.
2	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.
3	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.
4	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.
5	2 pin CF lamps should never be installed in 4 pin sockets regardless if lamp will fit.
6	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.
7	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 0.2 m (8 in) 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 to UV. 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.
8	Minimum starting temperature is a function of the ballast; consult the ballast manufacturer.
9	There is a NEMA supported, industry issue where T2, T4, and T5 fluorescent and compact fluorescent lamps operated on high frequency ballasts may experience an abnormal end-of-life phenomenon. This end-of-life phenomenon can result in one or both of the following: 1. Bulb wall cracking near the lamp base. 2. The lamp can overheat in the base area and possibly melt the base and socket. NEMA recommends that high frequency compact fluorescent ballasts have an end-of-life shutdown circuit which will safely and reliably shutdown the system in the rare event of an abnormal end-of-life failure mode described above. The final requirements of this system are yet to be defined by ANSI. For additional information refer to NEMA papers on their website at <a href="http://www.NEMA.org">www.NEMA.org</a>
10	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. Please see fluorescent footnote 59 for more information.
11	Lumen output and life rated on high frequency operation.
12	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.
13	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.
14	Lumen output rated on high frequency operation. 60 HZ operation would result in lower lumen output.
15	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.
16	Minimum starting temperature for EL Globes & Reflectors is -22 F. Minimum starting temperature for EL Triples, Twist, Low Profile Globe and Bullet is 0 F.
17	DULUX ELs meet CSA, FCC and UL requirements.