

Product Information Bulletin

OCTRON[®] Fluorescent Lamps



OSRAM SYLVANIA OCTRON[®] T8 lamps offer energy savings over all T12 lamps and improved lighting quality compared to T12 cool white lamps.

When OCTRON lamps are operated on instant start electronic ballasts, system efficacy is maximized. OCTRON T8 lamps are designed to operate on standard, high and low power ballasts (140-270 mA lamp current), thus offering the choice to further reduce power consumption or maximize light output.

OSRAM SYLVANIA also offers a system solution for OCTRON fluorescent lighting systems using our QUICKTRONIC^{*} electronic ballasts. QUICK 60+ warranty offered. (See page 2 for details)

* QUICKTRONIC is a registered trademark of OSRAM GmbH, Germany, used under license by OSRAM SYLVANIA Inc.

- Energy efficient linear T8
 - Retrofit for T12 lamps
 - Energy savings compared to T12
- 2700K, 3000K, 3500K, 4100K, 5000K and 6500K
 - * Not all colors available in all lengths/wattages
- 75 or 82 CRI
- 20,000-hour average rated life
- Operate on QUICKTRONIC^{*} Systems
 - System 32, 32 LP or 32 PLUS ballast for 2, 3, 4 and 5-foot lamps
 - System 59 or 59 PLUS ballast for 8-foot

PRODUCT AVAILABILITY

Wattage**	Nominal Length	Rated Lumens***	
		700 Series	800 Series
17W	2 ft	1300	1400
25W	3 ft	2025	2150
32W	4 ft	2800	2950
40W	5 ft	3550	3775
59W	8 ft	5700	5900

** Wattage when operated on RS magnetic ballast except for 59W lamp (IS only) Lower wattage with Instant Start Electronic Ballast. See technical data
*** Lumens for 3000, 3500, 4100K

SYSTEM COMPARISON 4 Foot System (2 Lamps)

Lamp Type	Ballast	Ballast Factor	System Wattage	System Lumens	Mean System Lumens	Mean System LPW	% Energy Savings vs F40/D41
F40/D41	Energy Saving Magnetic	0.95	86	6080	5290	62	0%
F40/CW/SS	Energy Saving Magnetic	0.88	72	4750	4040	56	16%
FO32/741	System 32	0.9	59	5040	4540	77	31%
	System32 LP	0.77	51	4310	3880	76	40%
	System 32PLUS	1.2	78	6720	6050	78	9%

See 8 foot system comparisons on page 2.

APPLICATION INFORMATION

Applications

- Office
- Schools
- Retail
- Hospitals
- Other general lighting
- 2700K for hospitality lighting
- 6500K daylight alternative

Application Notes

- Lamps starting down to 0 °F (dependant on ballast). Operation below 50° F may affect lumen output or lamp operation
- For cold temperature applications use in enclosed fixture or use tube guard to maximize lumen output
- For rapid start operation, check with ballast manufacturer for ground plane requirement
- For maximum energy savings, operate OCTRON lamps on electronic instant ballasts

SYSTEM COMPARISONS

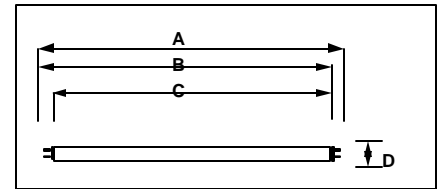
8 Foot System (2 Lamps)

Lamp Type	Ballast	Ballast Factor	System Wattage	System Lumens	Mean System Lumens	Mean System LPW	% Energy Savings vs F96T12/CW/SS
F96T12CW/SS	Magnetic	0.88	125	9,500	8075	65	0%
FO96T8/700	System 59	0.88	110	10,030	9027	82	14%

Lamp Type	Ballast	Ballast Factor	System Wattage	System Lumens	Mean System Lumens	Mean System LPW	% Energy Savings vs F96T12/CW/HO/SS
FO96T12CW/HO/SS	Magnetic	0.92	210	14,720	11780	56	0%
FO96T8HO/700	Electronic	0.85	160	13,770	12120	76	31%
FO96T8HO/800	Electronic	0.85	160	14,110	12700	79	31%
FO96T8/700	System 59 Plus	1.19	155	13,570	11940	77	35%
FO96T8/800	System 59 Plus	1.19	155	14,040	12360	80	35%

DIMENSIONS

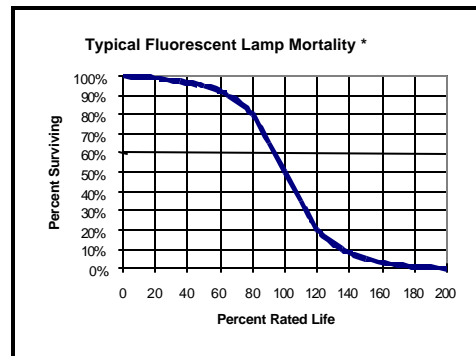
Lamp Type	(A) Max. Overall Length (in)	(B) Base Face to Opposite Pin (in)	(C) Max. Base Face to Base Face (in)	(D) Max. Outside Diameter (in)
FO17	23.78	23.40	23.50	1.1
FO25	35.78	35.40	35.50	1.1
FO32	47.78	47.40	47.50	1.1
FO40	59.61	59.24	59.33	1.1
FO96	94.00	93.42	93.65	1.1



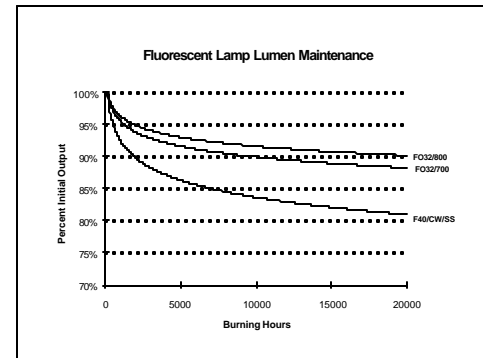
TECHNICAL INFORMATION

WARRANTY INFO

Quick 60+ OSRAM SYLVANIA lamp and ballast combination - Limited two year lamp warranty and a five year ballast warranty is possible if both lamps and ballast are provided by OSRAM SYLVANIA. See the Quick 60+ warranty for details and restrictions.



Source: IES Lighting Handbook



TECHNICAL INFORMATION

Electrical Characteristics 60 Hz Magnetic Rapid Start

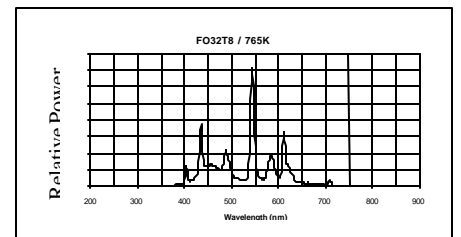
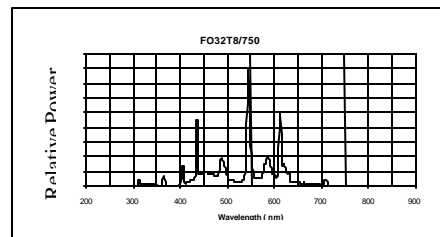
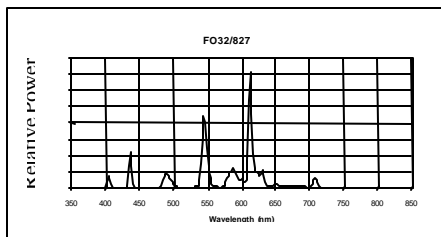
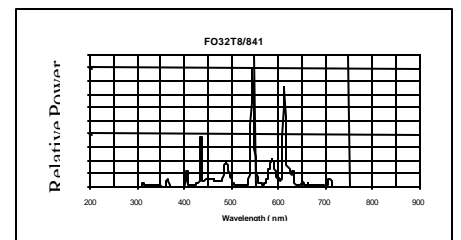
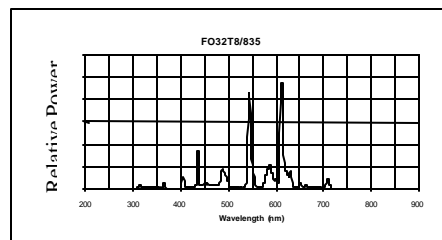
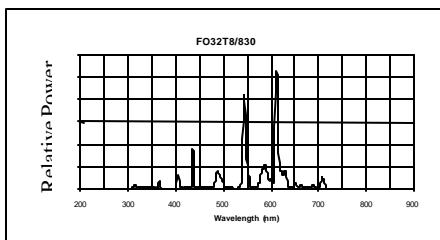
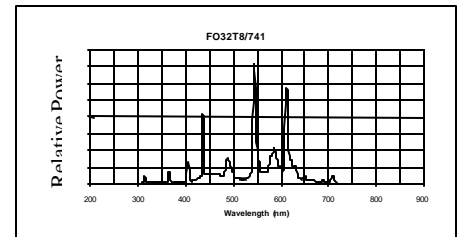
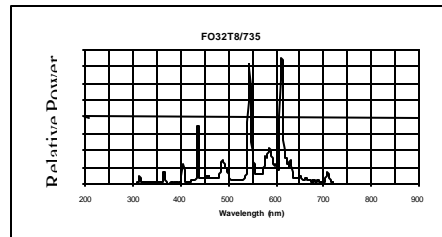
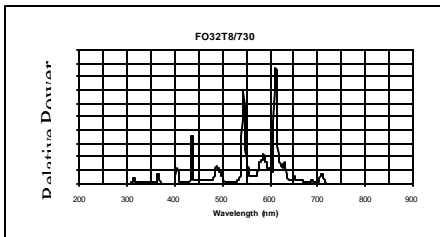
Lamp Type	Lamp Rated Power (wattage)	Lamp Current	Lamp Voltage	Ballast Requirements			
				Open Circuit Voltage ¹ (V)	Starting Time (sec)	Filament Voltage (V)	Max. Current Crest Factor
FO17	17	265 ma	70	210	0.75-2.0	3.4-4.5	1.7
FO25	25	265 ma	100	260	0.75-2.0	3.4-4.5	1.7
FO32	32	265 ma	137	300	0.75-2.0	3.4-4.5	1.7
FO40	40	265 ma	172	385	0.75-2.0	3.4-4.5	1.7

¹ Minimum for 2-lamps in series. Starting at 50° F and above.

Electrical Characteristics 25 kHz Electronic Instant Start

Lamp Type	Lamp Rated Power (wattage)	Lamp Current	Lamp Voltage	Open Circuit Voltage ² (V)	Max Starting Time (msec)	Max. Current Crest Factor
FO17	14	210 ma	66	425	50	1.7
FO25	21	210 ma	101	425	50	1.7
FO32	28	210 ma	136	500	50	1.7
FO40	35	210 ma	172	575	50	1.7
FO96	56	210 ma	270	600	50	1.7

SPECTRAL POWER DISTRIBUTIONS



ORDERING AND SPECIFICATION INFORMATION

OCTRON 700 Series

Item Number	Ordering Abbreviation	Watts	Initial Lumens	Mean Lumens	Avg. Rated Life (hrs.)*	Bulb	Nominal Length (in)	Base	Color Temperature	CRI
21849	FO17/730	17	1300	1170	20000	T-8	24	Medium Bi-Pin	3000K	75
21832	FO17/735	17	1300	1170	20000	T-8	24	Medium Bi-Pin	3500K	75
21831	FO17/741	17	1300	1170	20000	T-8	24	Medium Bi-Pin	4100K	75
21851	FO25/730	25	2025	1820	20000	T-8	36	Medium Bi-Pin	3000K	75
21817	FO25/735	25	2025	1820	20000	T-8	36	Medium Bi-Pin	3500K	75
21829	FO25/741	25	2025	1820	20000	T-8	36	Medium Bi-Pin	4100K	75
21852	FO32/730	32	2800	2520	20000	T-8	48	Medium Bi-Pin	3000K	75
21823	FO32/735	32	2800	2520	20000	T-8	48	Medium Bi-Pin	3500K	75
21824	FO32/741	32	2800	2520	20000	T-8	48	Medium Bi-Pin	4100K	75
21809	FO32/750	32	2650	2390	20000	T-8	48	Medium Bi-Pin	5000K	75
21993	FO32/765	32	2700	2430	20000	T-8	48	Medium Bi-Pin	6500K	75
21853	FO40/730	40	3550	3200	20000	T-8	60	Medium Bi-Pin	3000K	75
21820	FO40/735	40	3550	3200	20000	T-8	60	Medium Bi-Pin	3500K	75
21827	FO40/741	40	3550	3200	20000	T-8	60	Medium Bi-Pin	4100K	75
21854	FO96/730	59	5700	5130	15000	T-8	96	Single Pin	3000K	75
21839	FO96/735	59	5700	5130	15000	T-8	96	Single Pin	3500K	75
21840	FO96/741	59	5700	5130	15000	T-8	96	Single Pin	4100K	75

OCTRON 800 Series

Item Number	Ordering Abbreviation	Watts	Initial Lumens	Mean Lumens	Avg. Rated Life (hrs.)*	Bulb	Nominal Length	Base	Color Temperature	CRI
21978	FO17/827	17	1300	1200	20000	T-8	24	Medium Bi-Pin	3000K	82
21882	FO17/830	17	1400	1290	20000	T-8	24	Medium Bi-Pin	3000K	82
21883	FO17/835	17	1400	1290	20000	T-8	24	Medium Bi-Pin	3500K	82
21884	FO17/841	17	1400	1290	20000	T-8	24	Medium Bi-Pin	4100K	82
21979	FO25/827	25	2025	1860	20000	T-8	36	Medium Bi-Pin	2700K	82
21886	FO25/830	25	2150	1980	20000	T-8	36	Medium Bi-Pin	3000K	82
21887	FO25/835	25	2150	1980	20000	T-8	36	Medium Bi-Pin	3500K	82
21888	FO25/841	25	2150	1980	20000	T-8	36	Medium Bi-Pin	4100K	82
21955	FO32/827	32	2800	2580	20000	T-8	48	Medium Bi-Pin	2700K	82
21890	FO32/830	32	2950	2715	20000	T-8	48	Medium Bi-Pin	3000K	82
21891	FO32/835	32	2950	2715	20000	T-8	48	Medium Bi-Pin	3500K	82
21892	FO32/841	32	2950	2715	20000	T-8	48	Medium Bi-Pin	4100K	82
21980	FO32/850	32	2950	2715	20000	T-8	48	Medium Bi-Pin	5000K	80
21893	FO40/830	40	3775	3470	20000	T-8	60	Medium Bi-Pin	3000K	82
21894	FO40/835	40	3775	3470	20000	T-8	60	Medium Bi-Pin	3500K	82
21895	FO40/841	40	3775	3470	20000	T-8	60	Medium Bi-Pin	4100K	82
21897	FO96/830	59	5900	5430	15000	T-8	96	Single Pin	3000K	82
21898	FO96/835	59	5900	5430	15000	T-8	96	Single Pin	3500K	82
21899	FO96/841	59	5900	5430	15000	T-8	96	Single Pin	4100K	82
21795	FO96/850	59	5900	5430	15000	T-8	96	Single Pin	5000K	80

* Based on 3 hrs per start on magnetic rapid start ballast except FO96 which is based on 3hrs per start on electronic instant ballast.

ORDERING GUIDE

FO	<u>17</u>	/8	27
Fluorescent	Wattage	7= 75CRI	27= 2700K; 30= 3000K, 35=3500K;
OCTRON	17, 25, 32, 40	8= 82 CRI	41= 4000K; 50= 5000K; 65= 6500K
	Length		
	96"		

SAMPLE SPECIFICATION

Lamp(s) shall be (an) OCTRON fluorescent lamps (FO17, FO25, FO32, FO40, or FO96) having (medium bi-pin, single pin) bases. Lamp(s) shall have a correlated color temperature of (2700K, 3000K, 3500K, 4100K, 5000K, or 6500K) and a CRI of (75 or 82). The OCTRON lamp(s) shall be operated on dedicated QUICKTRONIC (System 32, System 32LP, System 32 PLUS, System 59 or System 59 PLUS) with complete system warranty from the manufacturer covering lamps and ballast.

FOR ORDERS AND GENERAL INFORMATION

OSRAM SYLVANIA National Customer Support Center, 18725 N. Union Street, Westfield, IN 46074

Industrial/Commercial

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