

# OCTRON® CURVALUME® Fluorescent Lamps



**OSRAM SYLVANIA OCTRON® CURVALUME® T8 fluorescent lamps deliver high performance characteristics and exceptional energy efficiency.**

When OCTRON CURVALUME lamps are operated on instant start electronic ballasts, system efficacy is maximized. In a typical fixture, the optical and thermal efficiency is improved over standard T12 lamps.

These lamps bring T8 technology to a wider variety of fixture configurations. CURVALUME lamps are ideal for 2X2 troffers. OCTRON CURVALUME lamps operate on the same ballasts as linear OCTRON T8 lamps providing maintenance ease and color consistency throughout an installation.

OSRAM SYLVANIA also offers a system solution with our QUICKTRONIC® electronic ballasts and lamps. QUICK 60+ warranty offered.

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

- Energy efficient CURVALUME T8
  - Retrofit for T12 CURVALUME lamps
  - Energy savings compared to T12\*
- 1 5/8" & 6" leg spacing lamps
- 1 5/8" OCTRON CURVALUME
  - 17W, 24W and 31W – 82 CRI
- 6" OCTRON CURVALUME
  - 32W – 75 or 82 CRI
- 3000K, 3500K, 4100K and 5000K  
(Not all colors available in all wattages)
- 20,000-hour average rated life
- Operate on QUICKTRONIC® Systems
  - System 32, 32LP and 32PLUS
  - Use fewer lamps or fewer fixtures with System 32PLUS

## PRODUCT AVAILABILITY

Watts**	Leg Spacing	Rated Lumens***	
		700 series	800 Series
16W	1-5/8"	—	1125
24W	1-5/8"	—	1925
31W	1-5/8"	—	2725
32W	6"	2750	2850

\*\*Wattage when operated on rapid start magnetic ballast. Lower wattage with instant start electronic ballast. See technical data

\*\*\* Lumens for 3000, 3500, 4100K

## LAMP COMPARISON

Lamp Type	Ballast	Lamp	Ballast Factor	System Watts	System Lumens*	Mean System Lumens	Mean System LPW	Percent Energy Savings vs. FB40/CW/SS
FB40/CW/6/SS	Energy Saving Magnetic	2	0.88	72	4580	3890	54	0%
FB40/D41/6/SS	Energy Saving Magnetic	2	0.88	72	4805	4180	58	0%
FBO32/741	System 32	2	0.9	59	4950	4455	76	18%
FBO32/841	System 32	2	0.9	59	5130	4720	80	18%
FBO31/841	System 32	2	0.9	57	4905	4510	79	21%
	System 32LP	2	0.77	49	4200	3860	79	32%

See system comparison vs. DULUX® L

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## APPLICATION INFORMATION

### Applications

- Retail
- Office
- Schools
- Hospitals
- Other general lighting

### Application Notes

- Lamp 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 requirements
- For maximum energy savings, operate OCTRON lamps on electronic instant start ballasts

## SYSTEM COMPARISON

### 1 5/8" OCTRON CURVALUME vs. DULUX® L (2 & 3-Lamp)

Lamp Type	Ballast	Lamp	Ballast Factor	System Watts	System Lumens	Mean System Lumens	Mean LPW	Percent Lumens
FT40/DL/841/RS	Electronic IS	2	0.85	66	5360	4820	73	100%
	System 40DL	2	1.0	74	6300	5670	77	118%
FBO31/841	System 32 PLUS	2	1.2	76	6540	6020	79	125%
FT40/DL/841/RS	Electronic IS	3	0.87	102	8220	7400	73	100%
FT40/DL/841/RS	System 40DL	3	1.0	109	9450	8510	78	115%
FBO31/841	System 32	3	0.9	84	7360	6770	81	91%
	System 32 LP	3	0.77	73	6300	5800	79	78%
	System 32 PLUS	3	1.18	109	9650	8880	81	120%

## TECHNICAL INFORMATION

### Electrical Characteristics 60 Hz Magnetic Rapid Start

Lamp Type	Lamp Rated Power (watts)	Lamp Current	Lamp Volts	Ballast Requirements			
				Open Circuit Volts <sup>1</sup> (V)	Starting Time (sec)	Filament Volts (V)	Max. Current Crest Factor
FBO16	16	265 ma.	65	210	0.75-2.0	3.4	1.7
FBO24	24	265 ma.	99	260	0.75-2.0	3.4	1.7
FBO31	31	265 ma.	135	300	0.75-2.0	3.4	1.7
FBO32	32	265 ma.	137	300	0.75-2.0	3.4	1.7

<sup>1</sup>Starting at 50°F and above

### Electrical Characteristics 25 KHz Electronic Instant Start

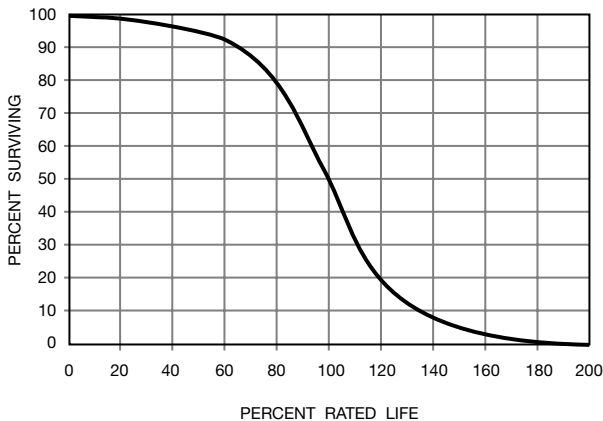
Lamp Type	Lamp Rated Power (watts)	Lamp Current	Lamp Volts	Open Circuit Volts <sup>2</sup> (V)	Starting Time (sec)	Max. Current Crest Factor
FBO16	13	210 ma.	61	425	50	1.7
FBO24	20	210 ma.	96	425	50	1.7
FBO31	27	210 ma.	131	500	50	1.7
FBO32	28	210 ma.	136	500	50	1.7

<sup>2</sup>Single lamp requirement

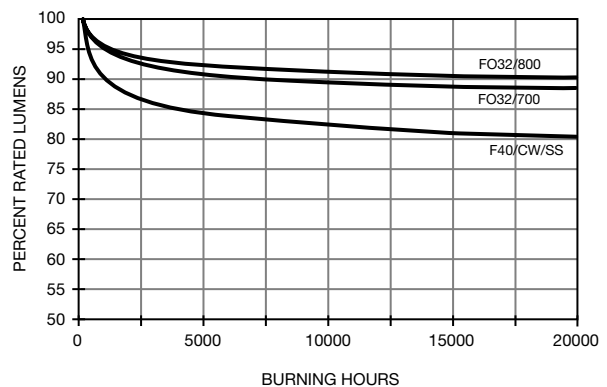
## WARRANTY INFORMATION

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

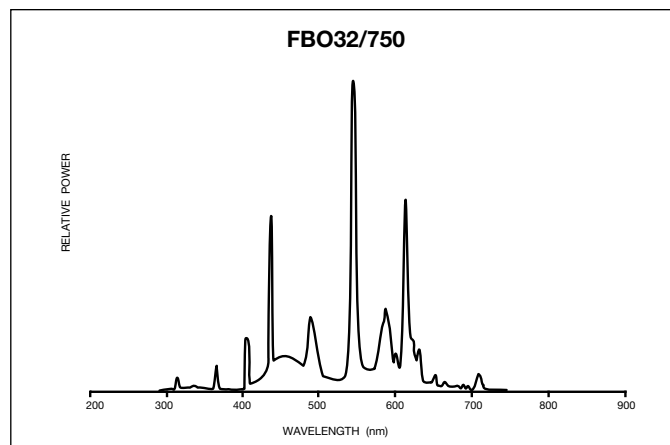
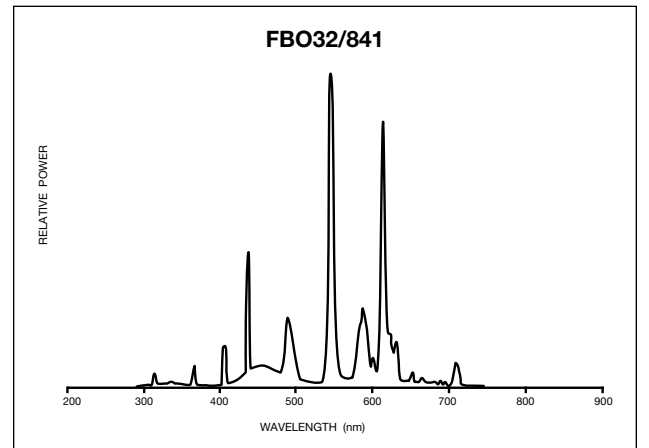
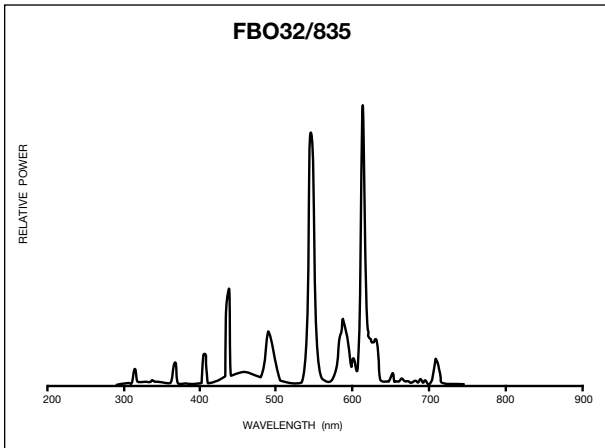
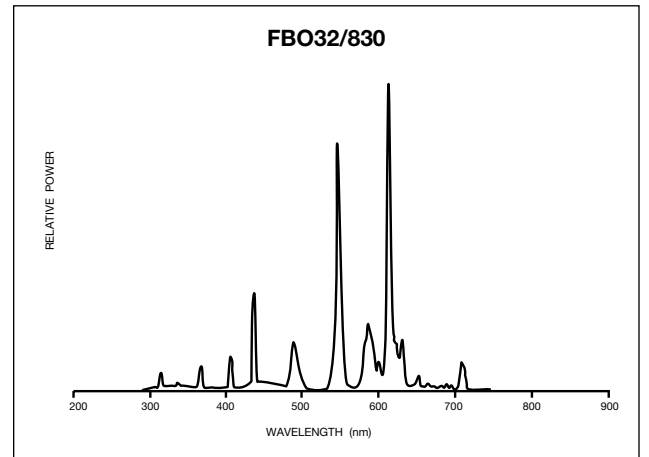
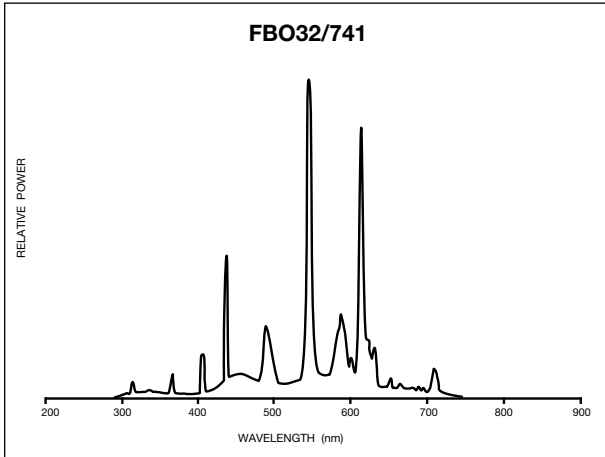
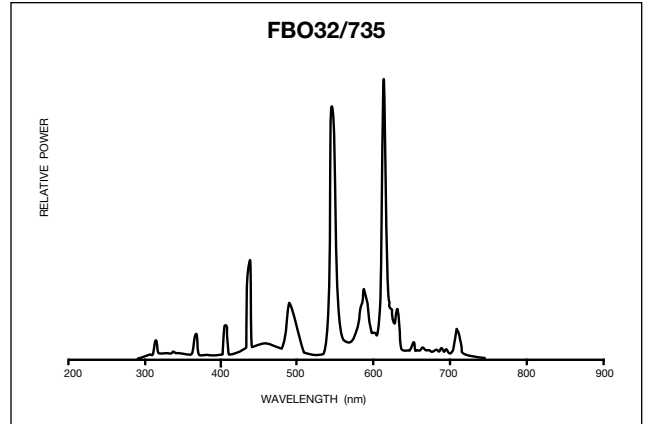
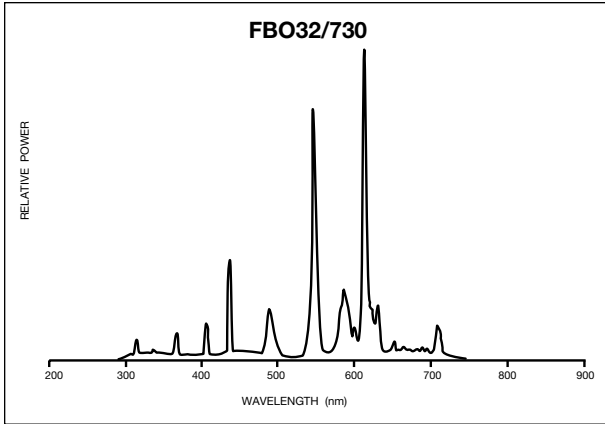
Typical Fluorescent Lamp Mortality



Fluorescent Lamp Lumen Maintenance



Spectral Power Distribution



## ORDERING AND SPECIFICATION INFORMATION

Item Number	Ordering Abbreviation	Watts	Initial Lumens	Mean Lumens	Av. Rated Life (hrs)*	Bulb	Nominal Length (inches)	Base	Color Temp.	CRI
<b>1-5/8- Inch Leg Spacing</b>										
21834	FBO16/830	16	1125	1035	20,000	T-8	10.5	Medium Bi-Pin	3000K	82
21835	FBO16/835	16	1125	1035	20,000	T-8	10.5	Medium Bi-Pin	3500K	82
21836	FBO16/841	16	1125	1035	20,000	T-8	10.5	Medium Bi-Pin	4100K	82
21874	FBO24/830	24	1925	1770	20,000	T-8	16.5	Medium Bi-Pin	3000K	82
21882	FBO24/835	24	1925	1770	20,000	T-8	16.5	Medium Bi-Pin	3500K	82
21876	FBO24/841	24	1925	1770	20,000	T-8	16.5	Medium Bi-Pin	4100K	82
21877	FBO31/830	24	2725	2510	20,000	T-8	22.5	Medium Bi-Pin	3000K	82
21878	FBO31/835	31	2725	2510	20,000	T-8	22.5	Medium Bi-Pin	3500K	82
21879	FBO31/841	31	2725	2510	20,000	T-8	22.5	Medium Bi-Pin	4100K	82
21819	FBO31/750	31	2600	2340	20,000	T-8	22.5	Medium Bi-Pin	5000K	75
21989	FBO31/830/600PLT	31	2725	2510	20,000	T-8	22.5	Medium Bi-Pin	3000K	82
21990	FBO31/835/600PLT	31	2725	2510	20,000	T-8	22.5	Medium Bi-Pin	3500K	82
21991	FBO31/841/600PLT	31	2725	2510	20,000	T-8	22.5	Medium Bi-Pin	4100K	82

### 6-Inches Leg Spacing

21967	FBO32/730/6	32	2750	2475	20,000	T-8	22.5	Medium Bi-Pin	3000K	75
21968	FBO32/735/6	32	2750	2475	20,000	T-8	22.5	Medium Bi-Pin	3500K	75
21969	FBO32/741/6	32	2750	2475	20,000	T-8	22.5	Medium Bi-Pin	4100K	75
21973	FBO32/750/6	32	2625	2360	20,000	T-8	22.5	Medium Bi-Pin	5000K	75
21970	FBO32/830/6	32	2850	2565	20,000	T-8	22.5	Medium Bi-Pin	3000K	82
21971	FBO32/835/6	32	2850	2565	20,000	T-8	22.5	Medium Bi-Pin	3500K	82
21972	FBO32/841/6	32	2850	2565	20,000	T-8	22.5	Medium Bi-Pin	4100K	82

\* Based on 3 hours per start on magnetic rapid start reference ballast

### SAMPLE SPECIFICATION

Lamp shall be an OCTRON CURVALUME lamp (FBO16, FBO24, FBO31 or FBO32) having medium bi-pin bases and (1 5/8" or 6") leg spacing. Lamp shall have a correlated color temperature of (2700K, 3000K, 3500K, 4100K or 5000K), a CRI of (75 or 82) and an average rated life of 20,000 hours. The OCTRON lamp shall be operated on a dedicated QUICKTRONIC (System 32, System 32 LP or System 32 PLUS) with complete system warranty from one manufacturer covering lamp and ballast.

### ORDERING GUIDE

FBO	16	/	7	30	/	6
Fluorescent	Wattage:		7 = 75 CRI	30 = 3000K		6 = 6 inches
Bent	16, 24, 31,		8 = 82 CRI	35 = 3500K		/600PLT
OCTRON®	32 watts			41 = 4100K		600 = Pkt. Qty. PLT = pallets (omit if 1 5/8")

### DIMENSIONS

Ordering Abbreviation	(A)	(B)	(C)	(D)
	MOL (in)	Max. Base Face to Top of Lamp (in)	Base Center to Base Center (in)	Max. Tube Diameter (in)
FBO16	11	10.6	1.625	1.1
FBO24	17	16.6	1.625	1.1
FBO31	23	22.6	1.625	1.1
FBO32	23	22.6	6.0	1.1

### FOR ORDERS AND GENERAL INFORMATION

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