

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.

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- 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 ¹ (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 |

¹Starting at 50°F and above

Electrical Characteristics 25 KHz Electronic Instant Start

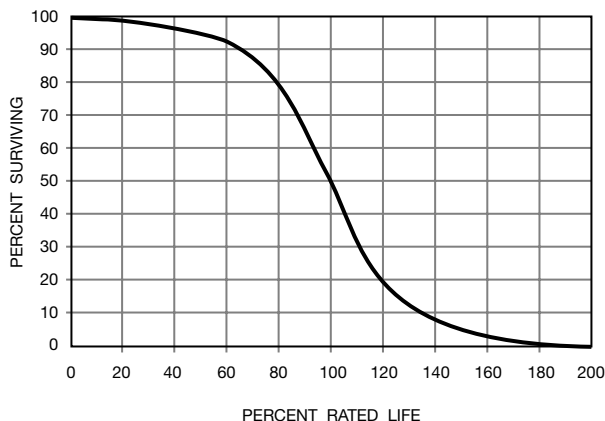
| Lamp Type | Lamp Rated Power (watts) | Lamp Current | Lamp Volts | Open Circuit Volts ² (V) | Starting Time (sec) | Max. Current Crest Factor |
|-----------|--------------------------|--------------|------------|-------------------------------------|---------------------|---------------------------|
| 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 |

²Single lamp requirement

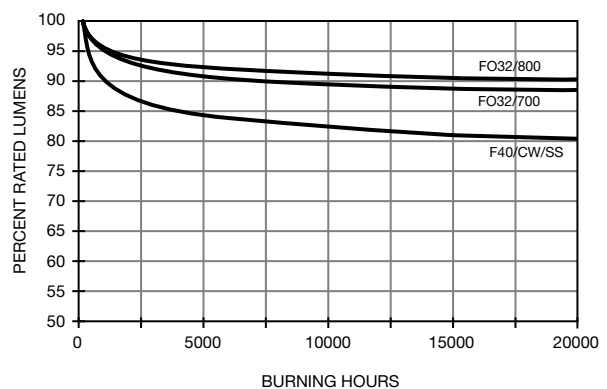
WARRANTY INFORMATION

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.

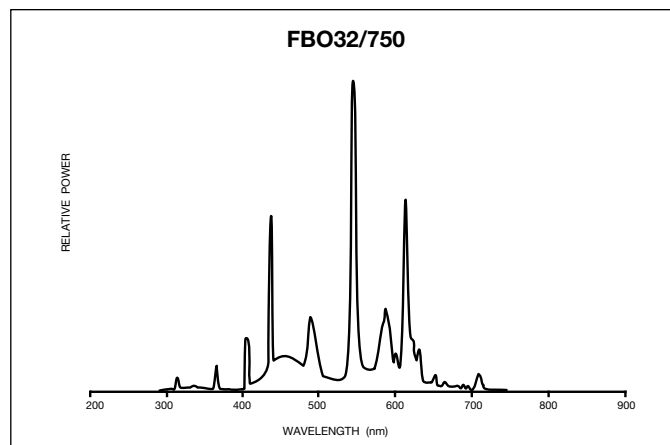
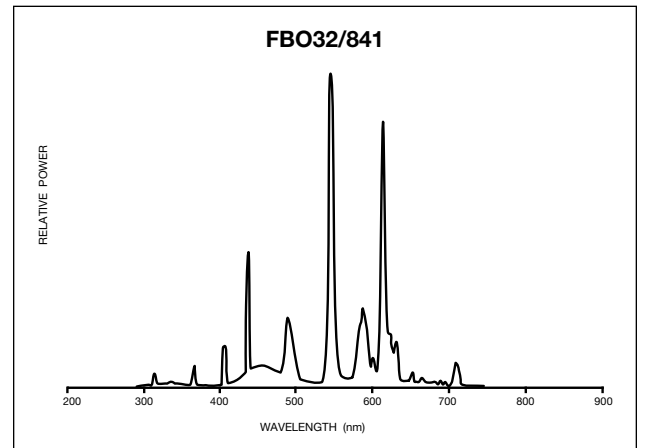
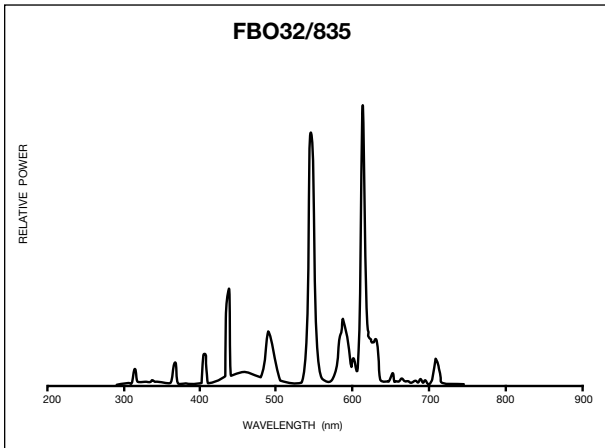
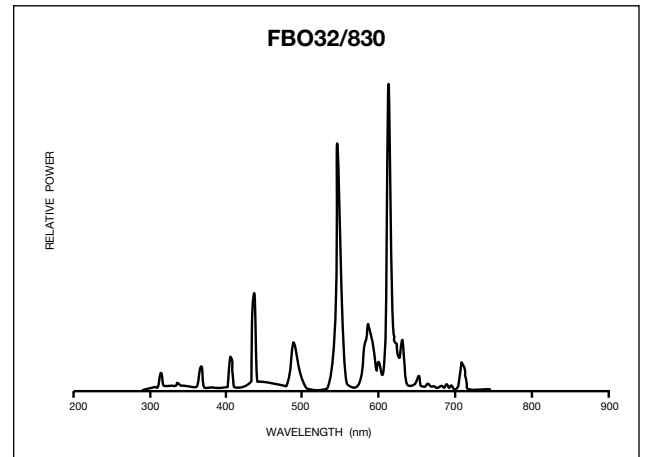
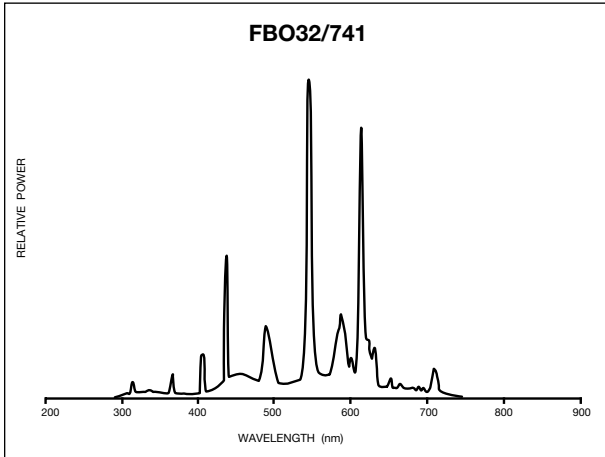
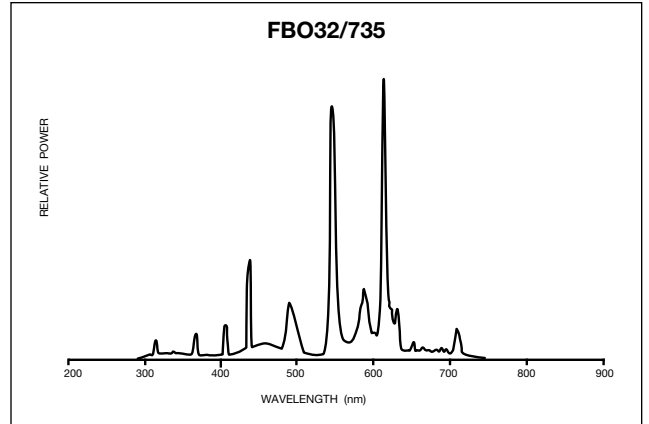
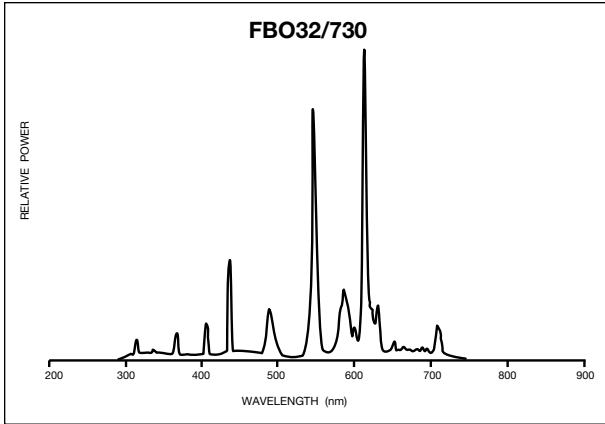
Typical Fluorescent Lamp Mortality



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 |
|--------------------------------|-----------------------|-------|----------------|-------------|-----------------------|------|-------------------------|---------------|-------------|-----|
| 1-5/8- Inch Leg Spacing | | | | | | | | | | |
| 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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