

PENTRON® HO ECOLOGIC®

High Output T5 Linear Fluorescent Lamps



Key Features & Benefits

- High Performance T5 lamps
 - 94 Lumens per Watt
 - 93% Lumen maintenance
 - Peak lumen output at 35°C (95°F)
- Long life
 - Up to 45,000 hours life
- Greater luminaire design flexibility
 - Small lamp profile allows for more compact, high light output options
- Nominal 2', 3', 4', and 5'
 - Approx. 2" shorter than T8 lengths
 - Miniature bi-pin bases
- TCLP & RoHS Compliant
- Lead free glass



ECOLOGIC® is a comprehensive program focused on addressing environmental issues at all stages of lamp life.

PENTRON HO ECOLOGIC T5 linear fluorescent lamps offer a high quality lighting solution for applications where aesthetics and/or high lumen output and long life are important. With a small lamp profile of 5/8" and lumen output that is almost twice that of T8 fluorescent lamps, these lamps offer the prospect of small luminaire designs capable of delivering illuminance levels satisfying general ambient lighting requirements ranging from general office and classrooms to industrial manufacturing. PENTRON HO ECOLOGIC T5 linear lamps are available in 2, 3, 4 and 5-foot lengths and offer a wide range of color temperatures: 3000K, 3500K, 4100K, 5000K and 6500K with up to 45,000 hours life and excellent lumen maintenance and CRI. These lamps are ideally paired with OSRAM QUICKTRONIC® QHE PROStart® ballasts and the system is covered by a comprehensive QUICK 60+® system warranty.

Product Offering

Ordering

| Abbreviation | Wattage | Color Temperature |
|-----------------|---------|-----------------------------------|
| FP24/800/HO/ECO | 24 | 3000K, 3500K, 4100K |
| FP39/800/HO/ECO | 39 | 3000K, 3500K, 4100K |
| FP54/800/HO/ECO | 54 | 3000K, 3500K, 4100K, 5000K, 6500K |
| FP80/800/HO/ECO | 80 | 3000K, 3500K, 4100K |

Application Information

Applications

- Canopy
- High bay fixtures
- Indirect luminaires
- Security lighting
- Signage

Application Notes

1. PENTRON HO ECO lamps are about 2" shorter than T8 & T12 Bi-Pin lamps.
2. Miniature Bi-Pin bases will not install into T8 & T12 sockets.
3. Miniature Bi-Pin bases require UL Listed 600 Volt rated sockets.
4. Requires high frequency programmed rapid start electronic ballasts for T5s equipped with end-of-life sensing circuit.
5. Apply thermal factor in calculations for use in exterior or unheated applications.



| | |
|------------------|------|
| Catalog # | Type |
| Project/Job | |
| SYLVANIA Lamp | |
| SYLVANIA Ballast | |
| Prepared by | |

Ordering Information

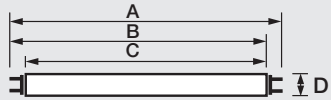
| Item Number | Ordering Abbreviation | Watts | Nom. Length (in.) | Initial Lumens @25°C | Mean Lumens @25°C | Initial Lumens @35°C | Mean Lumens @35°C | Programmed Rapid Start 3 hrs/start | Programmed Rapid Start 12 hrs/start | CCT | CRI |
|-------------|-----------------------|-------|-------------------|----------------------|-------------------|----------------------|-------------------|------------------------------------|-------------------------------------|-------|-----|
| 20928 | FP24/830/HO/ECO | 24 | 24 | 1750 | 1630 | 2000 | 1860 | 30,000 | 40,000 | 3000K | 85 |
| 20929 | FP24/835/HO/ECO | 24 | 24 | 1750 | 1630 | 2000 | 1860 | 30,000 | 40,000 | 3500K | 85 |
| 20931 | FP24/841/HO/ECO | 24 | 24 | 1750 | 1630 | 2000 | 1860 | 30,000 | 40,000 | 4100K | 85 |
| 20932 | FP39/830/HO/ECO | 39 | 36 | 3100 | 2885 | 3500 | 3255 | 30,000 | 40,000 | 3000K | 85 |
| 20933 | FP39/835/HO/ECO | 39 | 36 | 3100 | 2885 | 3500 | 3255 | 30,000 | 40,000 | 3500K | 85 |
| 20934 | FP39/841/HO/ECO | 39 | 36 | 3100 | 2885 | 3500 | 3255 | 30,000 | 40,000 | 4100K | 85 |
| 20903 | FP54/830/HO/ECO | 54 | 48 | 4450 | 4140 | 5000 | 4650 | 40,000 | 45,000 | 3000K | 85 |
| 20904 | FP54/835/HO/ECO | 54 | 48 | 4450 | 4140 | 5000 | 4650 | 40,000 | 45,000 | 3500K | 85 |
| 20906 | FP54/841/HO/ECO | 54 | 48 | 4450 | 4140 | 5000 | 4650 | 40,000 | 45,000 | 4100K | 85 |
| 20949 | FP54/850/HO/ECO | 54 | 48 | 4310 | 4000 | 4900 | 4555 | 40,000 | 45,000 | 5000K | 85 |
| 20862 | FP54/865/HO/ECO | 54 | 48 | 4100 | 3700 | 4750 | 4420 | 40,000 | 45,000 | 6500K | 85 |
| 20935 | FP80/830/HO/ECO | 80 | 60 | 6150 | 5720 | 7000 | 6510 | 20,000 | 22,000 | 3000K | 85 |
| 20936 | FP80/835/HO/ECO | 80 | 60 | 6150 | 5720 | 7000 | 6510 | 20,000 | 22,000 | 3500K | 85 |
| 20937 | FP80/841/HO/ECO | 80 | 60 | 6150 | 5720 | 7000 | 6510 | 20,000 | 22,000 | 4100K | 85 |

Ordering Guide

| | | | | | | | | |
|-------------|-------------|---|------------|------------------------------------|---|-------------|---|-------------|
| FP | 80 | / | 8 | 30 | / | HO | / | ECO® |
| Fluorescent | Wattage | | 8 = 85 CRI | Color Temperature | | High Output | | ECOLOGIC® |
| PENTRON® | 24, 39, 54 | | | 30 = 3000K, 35 = 3500K, 41 = 4100K | | | | |
| T5HO | or 80 watts | | | 50 = 5000K, 65 = 6500K | | | | |

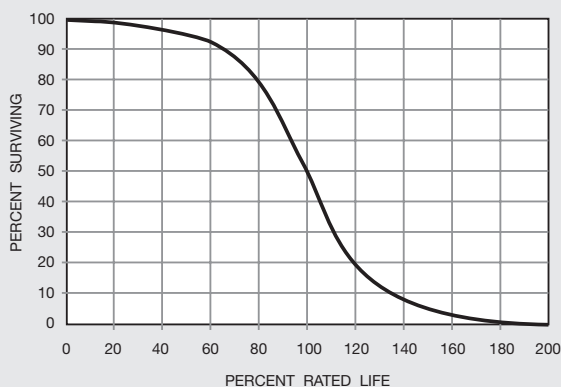
Lamp Dimensions

| Ordering Abbreviation | (A) Max. Overall Length mm (in.) | (B) Base Face to Opposite Pin mm (in.) | (C) Base Face to Base Face mm (in.) | (D) Max. Outside Diameter mm (in.) |
|-----------------------|----------------------------------|--|-------------------------------------|------------------------------------|
| FP24/HO | 563.2 (22.17) | 553.7 - 556.1 (21.80 - 21.89) | 547.1 - 549.0 (21.54 - 21.61) | 17.0 (0.67) |
| FP39/HO | 863.2 (33.89) | 853.7 - 856.1 (33.61 - 33.70) | 847.1 - 849.0 (33.35 - 33.43) | 17.0 (0.67) |
| FP54/HO | 1163.2 (45.80) | 1153.7 - 1156.1 (45.42 - 45.52) | 1147.1 - 1149.0 (45.16 - 45.24) | 17.0 (0.67) |
| FP80/HO | 1463.2 (57.61) | 1453.7 - 1456.1 (57.23 - 57.33) | 1447.1 - 1449.0 (56.97 - 57.05) | 17.0 (0.67) |

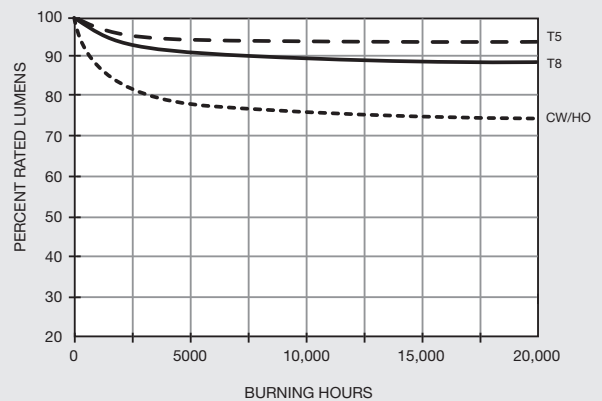


Technical Information

Typical Fluorescent Lamp Mortality



Fluorescent Lamp Lumen Maintenance



* Lumen output continues to decrease throughout the life of a fluorescent lamp.

Sample Specification

Lamps shall be PENTRON® T5 HO ECOLOGIC® lamps having miniature bi-pin bases and a minimum of 93% lumen maintenance. Lamps shall have a correlated color temperature of (3000K, 3500K, 4100K, 5000K and 6500K) and a CRI of 85. The PENTRON T5 HO ECO lamps shall be operated on universal OSRAM QUICKTRONIC® ballasts with complete system warranty covering lamps and ballasts.

Related Literature

For optimum system performance and warranty pair with OSRAM QUICKTRONIC® electronic ballast systems:

OSRAM Ballast Technology Applications & Specification Guide (Literature Code: ECS-SPECGUIDE2015)

QUICK 60+® System Warranty (Literature Code: ECS140)

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