PENTRON® HO ECOLOGIC®

High Output T5 Linear Fluorescent Lamps



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 40,000 hours life and excellent lumen maintenance and CRI. These lamps are ideally paired with QUICKTRONIC® QHE PROStart® ballasts and the system is covered by a comprehensive QUICK 60+® system warranty.

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 40,000 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
- Made in the USA

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

RoHS compliant
This light source meets restrictions on hazardous substances.

MADE IN USA

LEAD-FREE GLASS

ECOLOGIC®

Product Offering

Ordering Abbreviation	Watts	CCT
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.

Specification Data

Fixture Description:	Type
Project/Job:	
SYLVANIA lamp:	
SYLVANIA ballast:	
Notes:	

Ordering Information

Item Number	Ordering Abbreviation	Wattage	Nominal Length (in)	Initial Lumens @ 25°C	Mean* Lumens @ 25°C	Initial Lumens @ 35°C	Mean* Lumens @ 35°C	Average Rated Life: Programmed Rapid Start 3 hrs/start	Average Rated Life: Programmed Rapid Start 12 hrs/start	CCT	CRI
20928	FP24/830/HO/ECO	24	24	1,750	1,630	2,000	1,860	30,000	36,000	3000K	85
20929	FP24/835/HO/ECO	24	24	1,750	1,630	2,000	1,860	30,000	36,000	3500K	85
20931	FP24/841/HO/ECO	24	24	1,750	1,630	2,000	1,860	30,000	36,000	4100K	85
20932	FP39/830/HO/ECO	39	36	3,100	2,885	3,500	3,255	30,000	36,000	3000K	85
20933	FP39/835/HO/ECO	39	36	3,100	2,885	3,500	3,255	30,000	36,000	3500K	85
20934	FP39/841/HO/ECO	39	36	3,100	2,885	3,500	3,255	30,000	36,000	4100K	85
20903	FP54/830/HO/ECO	54	48	4,450	4,140	5,000	4,650	30,000	40,000	3000K	85
20904	FP54/835/HO/ECO	54	48	4,450	4,140	5,000	4,650	30,000	40,000	3500K	85
20906	FP54/841/HO/ECO	54	48	4,450	4,140	5,000	4,650	30,000	40,000	4100K	85
20949	FP54/850/HO/ECO	54	48	4,310	4,000	4,900	4,555	30,000	40,000	5000K	85
20862	FP54/865/HO/ECO	54	48	4,100	3,700	4,750	4,420	30,000	40,000	6500K	85
20935	FP80/830/HO/ECO	80	60	6,150	5,720	7,000	6,510	25,000	30,000	3000K	85
20936	FP80/835/HO/ECO	80	60	6,150	5,720	7,000	6,510	25,000	30,000	3500K	85
20937	FP80/841/HO/ECO	80	60	6,150	5,720	7,000	6,510	25,000	30,000	4100K	85

*Measured at 40% of rated life.

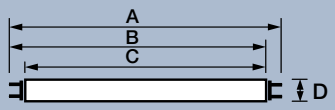
Ordering Guide

FP	80	/	8	30	/	HO	/	ECO®
Fluorescent PENTRON® T5 HO	Wattage: 24, 39, 54 or 80 watts		8 = 85 CRI	30 = 3000K CCT 35 = 3500K CCT, 41 = 4100K CCT 50 = 5000K CCT, 65 = 6500K CCT		High Output		ECOLOGIC®

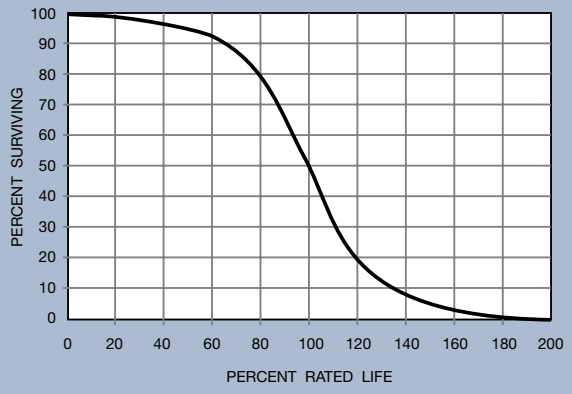
Technical Information

Dimensions

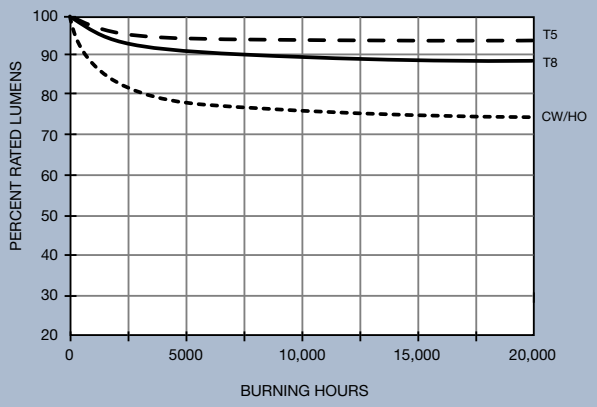
Ordering Abbreviation	(A) Max. Overall Length mm (in.)	(B) Base Face to Opposite Pin mm (in.)	(C) Base Face to Base Face mm (in.)	(D) Max. Outside Diameter mm (in.)
FP24/HO	563.2 (22.17)	553.7 - 556.1 (21.80 - 21.89)	547.1 - 549.0 (21.54 - 21.61)	17.0 (0.67)
FP39/HO	863.2 (33.89)	853.7 - 856.1 (33.61 - 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)



Typical Fluorescent Lamp Mortality



Fluorescent Lamp Lumen Maintenance



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

Related Literature

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

Ballast Technology Applications & Specification Guide (Literature Code: ECS-Electronic2009)
QUICK 60+® System Warranty (Literature Code: ECS140)

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 dedicated QUICKTRONIC® ballasts with complete system warranty from the manufacturer covering lamps and ballasts.

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