

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.

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.

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

Catalog #
Project
Comments
Prepared by

Ordering Information

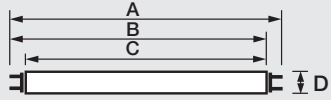
Item Number	Ordering Abbreviation	Watts	Nom. Length (in.)	Initial Lumens @25°C	Mean Lumens @25°C	Initial Lumens @35°C	Mean Lumens @35°C	Programmed Rapid Start 3 hrs/start	Programmed Rapid Start 12 hrs/start	CCT	CRI
20928	FP24/830/HO/ECO	24	24	1750	1630	2000	1860	30,000	40,000	3000K	85
20929	FP24/835/HO/ECO	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				

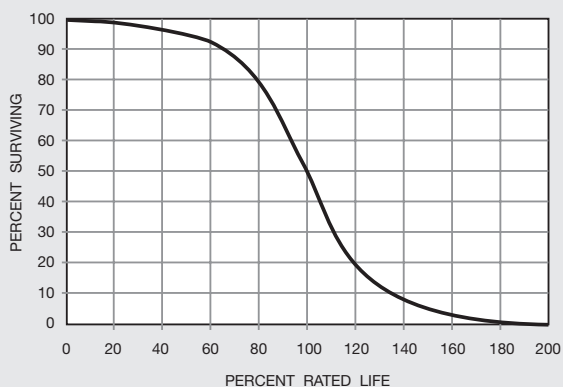
Lamp Dimensions

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)

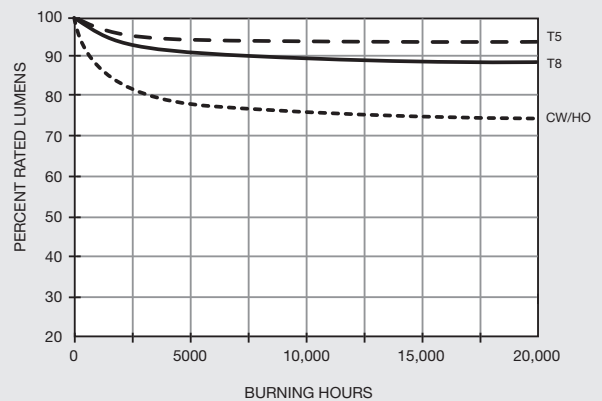


Technical Information

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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