

PENTRON® C HO ECOLOGIC®

High Output FP54 T5 Linear Fluorescent Lamp



PENTRON C T5 HO lamps provide constant light output over a wide temperature range - at least 90% of full light output from 10°C to 70°C (50°F - 158°F) - through the use of amalgam technology. This enables the lamps to provide much more light in both cooler and hotter environments than present fluorescent technology. PENTRON C lamps are an alternative lighting solution for many traditional HID applications with all the benefits of fluorescent - immediate restrike, selection of color temperatures, consistent color through life, excellent color rendition and long life.

Application Information

Applications

Indirect, sign lighting, facade lighting, industrial and warehouse lighting, canopy lighting, security lighting

Fixtures

Contact your local fixture agent for available fixtures.

Ballast Information

Contact your OSRAM SYLVANIA representative for a list of compatible electronic operating systems.

Application Notes

1. All PENTRON lamps are about 2" shorter than T8 and T12 bi-pin lamps.
2. Miniature bi-pin bases cannot be installed into T8 & T12 sockets.
3. Miniature bi-pin bases require UL Listed 600 Volt rated sockets.
4. FP54/800/C/HO/ECO lamps require Programmed Rapid Start electronic ballasts for T5 HO lamps, equipped with end-of-lamp life sensing circuit.
5. Not recommended for use on dimming circuits.
6. The warm-up time is longer than for standard PENTRON HO. This may be more noticeable when some lamps in a fixture are controlled by occupancy sensors.

Key Features & Benefits

- Produces at least 90% of full light output over 60°C (108°F) range, much more than standard 54W T5 lamps
- Suitable for both colder and hotter environments
- TCLP compliant¹
- 3500K, 4100K, 5000K – 85 CRI
- Rated initial lumens – 4900 for 3500K and 4100K, 4800 for 5000K
- 95% lumen maintenance factor
- Designated for use on Programmed Start ballast
 - 35,000 hours life at 12 hours per start
 - 25,000 hours life at 3 hours per start
- QUICK 60+[®] system warranty when paired with QUICKTRONIC[®] electronic ballasts

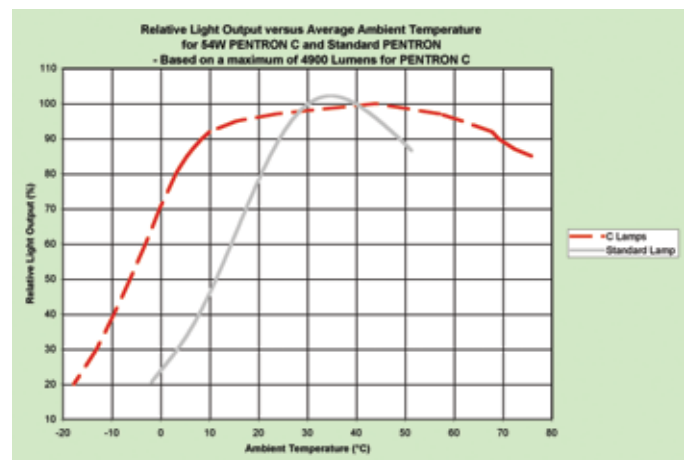
SYLVANIA PENTRON C HO ECOLOGIC fluorescent lamps are designed to pass the Federal Toxicity Characteristic Leaching Procedure (TCLP) criteria for classification as non-hazardous waste in most states².

1. TCLP test results are based on NEMA LL Series standards and are available on request.
2. Lamp disposal regulations may vary; check your local & state regulations.



Product Offering

Lamp Type	Lamp Description
21042	FP54/835/C/HO/ECO
21043	FP54/841/C/HO/ECO
21044	FP54/850/C/HO/ECO



Ordering Information

Item Number	Ordering Abbreviation	Watts	Bulb	Base	Expected Life (hrs) 12 hrs/st	Avg. Rated Life (hrs) 3 hrs/st	Initial Lumens ¹	Mean Lumens ^{1,2}	CCT	CRI
21042	FP54/835/C/HO/ECO	54	T5	Mini Bi-Pin	35,000	25,000	4900	4655	3500K	85
21043	FP54/841/C/HO/ECO	54	T5	Mini Bi-Pin	35,000	25,000	4900	4655	4100K	85
21044	FP54/850/C/HO/ECO	54	T5	Mini Bi-Pin	35,000	25,000	4800	4560	5000K	85

1. Measured at 25°C or 35°C
2. Measured at 8000 hours

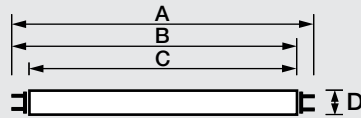
Ordering Guide

FP	54	/	8	35	/	C	/	HO	/	ECO
FLUORESCENT	Wattage:		CRI	Color Temperature		Constant		High		TCLP
PENTRON	54 watts		80+ CRI	35 = 3500K 41 = 4100K 50 = 5000K		Output		Output		Compliant

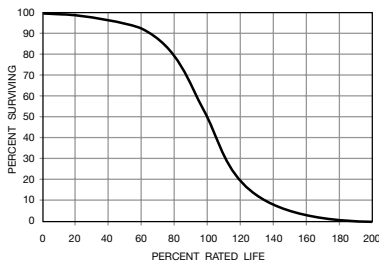
Technical Information

Dimensions

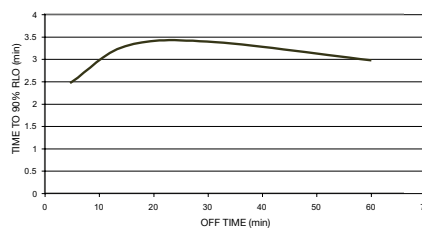
	(A) Max. Overall Length (in.)	(B) Base Face to Opposite Pin (in.)	(C) Max. Base Face to Base Face (in.)	(D) Max. Outside Diameter (in.)
FP54	45.80"	Min. 45.41" Max. 45.51"	45.24"	0.67"



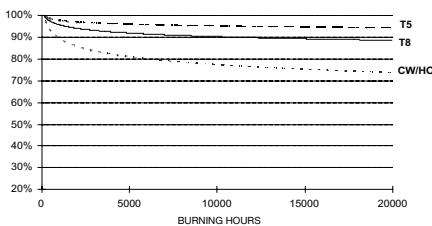
Lamp Mortality Curve



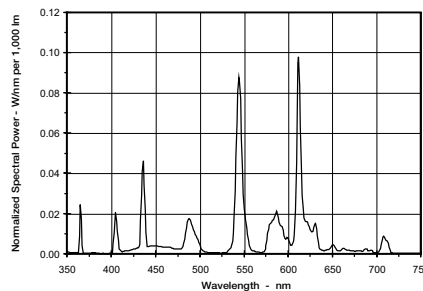
Lamp Run Up as a Function of Off Time



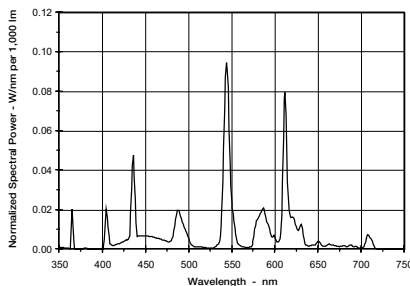
Lumen Maintenance



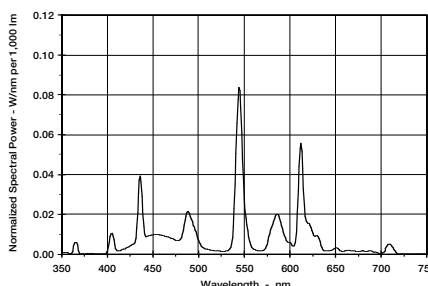
PENTRON® 835



PENTRON® 841



PENTRON® 850



Specification Data

Catalog #
Type
Project
Comments
Prepared by
Date

Sample Specification

Lamp(s) shall be (a) FP54 PENTRON® C T5 HO ECO® using mercury amalgam to maintain a minimum of 90% of full light output from 10°C to 70°C (50°F – 158°F). Lamp(s) shall have miniature bi-pin bases and be TCLP compliant. Lamp(s) shall have a correlated color temperature of (3500, 4100, 5000) and a Color Rendering Index of 85.

Lamp(s) shall be rated at 35,000 hours life when operated 12 hours per start and 25,000 hours when operated 3 hours per start.

Lamp(s) shall be operated on QUICKTRONIC® PHO programmed rapid start ballasts with a complete system warranty from the same manufacturer covering both lamps and ballasts.

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