

PENTRON PREMIER™ ECOLOGIC® LAMPS

T5 Linear Fluorescent Lamps



- Improved phosphor blend yields brighter PENTRON lamps
 - 3050 lumens at 35°C for FP28/PM lamps
- QUICK 60+® system warranty when operated on OSRAM SYLVANIA QUICKTRONIC® ballasts including the .95BF, 1.15BF and QUICKSTEP® T5 ballasts
- Multiple ballast factor choices, including a stepped switching ballast provide design flexibility as well as extreme system efficiency (as high as 100 LPW)
- Passes the Federal TCLP test
- 3000K, 3500K, 4100K and 85 CRI
- 95% lumen maintenance
- 20,000 hours average rated life

SYLVANIA PENTRON PREMIER T5 ECOLOGIC fluorescent lamps pass the Federal Toxicity Characteristic Leaching Procedure (TCLP) criteria¹ for classification as non-hazardous waste in most states².



A dramatic improvement in the developing line of slender, 5/8" diameter, T5 linear fluorescent sources, the PENTRON PREMIER™ ECO® lamps provide increased lumen output, the highest in the industry, with an astonishing 109 lamp lumens per watt

Greater system flexibility is achieved when PENTRON PREMIER lamps are combined with the new series of OSRAM SYLVANIA QUICKTRONIC PENTRON ballasts achieving a varied lumen package depending upon the application.

PENTRON PREMIER T5 lamps also present the greatest opportunity for luminaire efficiency. The 5/8" diameter affords superior optical control achieving precision distribution in a well designed luminaire.

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 Availability

| NAED Code | Ordering Description |
|-----------|----------------------|
| 20948 | FP28/830/PM/ECO |
| 20943 | FP28/835/PM/ECO |
| 20944 | FP28/841/PM/ECO |

Application Information

Applications

Office
Schools
Commercial
Retail
Hospitality
Institutional
New Construction
Renovation

Application Notes

1. PENTRON PREMIER lamps are about 2" shorter than T8 and T12 bi-pin lamps.
2. Miniature bi-pin (T-5) base will not install into T8 and T12 sockets.
3. Miniature bi-pin (T-5) base requires UL listed 600 Volt rated sockets.
4. Requires high-frequency programmed rapid start electronic ballasts equipped with end-of-life sensing circuit.
5. Apply thermal factor in calculations for exterior or unheated applications.



Sample Specification

Lamp(s) shall be PENTRON PREMIER™ ECO® T5 lamps having 2730 rated lumens at 25°C, 3050 lumens at 35°C and 95% lumen maintenance. Lamps shall have a correlated color temperature of (3000K, 3500K, 4100K) and a color rendering index of 85. Lamps shall be operated on OSRAM SYLVANIA QUICKTRONIC® ballast and a complete system warranty from a single manufacturer shall cover both lamps and ballasts.

Lamp System Comparison

| Lamp | Ballast | Input Watts | Initial System Lumens | Initial System LPW | Avg. Rated Life |
|---------------------|---------------------|-------------|-----------------------|--------------------|-----------------|
| F34T12 | ES Magnetic | 72 | 4660 | 65 | 20,000 |
| F32T8/700 - 3 lamps | 3 Lamp IS | 88 | 7525 | 86 | 15,000 |
| FP28PM/ECO | QTP2X28/UNV PS95SC | 60/58* | 5795 | 97/100* | 20,000 |
| FP28PM/ECO | QTP2X28/UNV PS115SC | 73/71* | 7015 | 96/99* | 20,000 |

*operated at 120V/operated at 277V

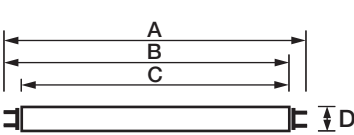
Ordering and Specification Information

| NAED Number | Ordering Abbreviation | Base | Watts | Initial Lumens @25°C | Initial Lumens @35°C | Bulb | Nominal Length (mm) | Avg. Rated Life | Color Temp | CRI |
|-------------|-----------------------|------------|-------|----------------------|----------------------|------|---------------------|-----------------|------------|-----|
| 20948 | FP28/830/PM/ECO | Min Bi-pin | 28 | 2730 | 3050 | T5 | 1149 | 20,000 | 3000K | 85 |
| 20943 | FP28/835/PM/ECO | Min Bi-pin | 28 | 2730 | 3050 | T5 | 1149 | 20,000 | 3500K | 85 |
| 20944 | FP28/841/PM/ECO | Min Bi-pin | 28 | 2730 | 3050 | T5 | 1149 | 20,000 | 4100K | 85 |

Ordering Guide

| FP | 28 | / | 8 | 35 | / | PM | / | ECO |
|-------------|----------|---|--------|--|---|----------|---|-----------|
| Fluorescent | Wattage | | CRI | Color Temperature | | PENTRON | | ECOLOGIC® |
| PENTRON T5 | 28 watts | | 8 = 85 | 30 = 3000K 35 = 3500K 41 = 4100K | | PREMIER™ | | |

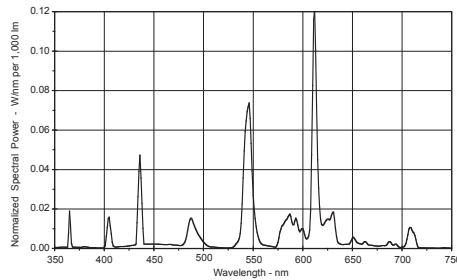
Dimensions



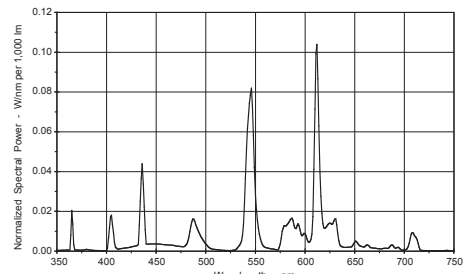
| Lamp | (A) Maximum Overall Length in. (mm) | (B) Max. Base Face to Opposite Pin in. (mm) | (C) Max. Base Face to Base Face in. (mm) | (D) Max. Outside Diameter in. (mm) |
|------|-------------------------------------|---|--|------------------------------------|
| FP28 | 45.80" (1163.2) | 45.52" (1156.1) | 45.24" (1149.0) | 0.67" (17.0) |

Technical Information

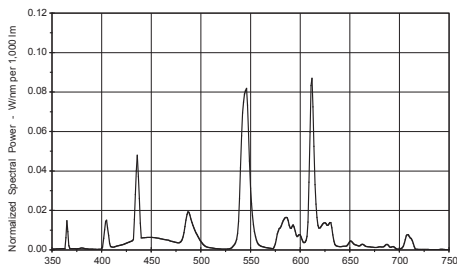
PENTRON 830



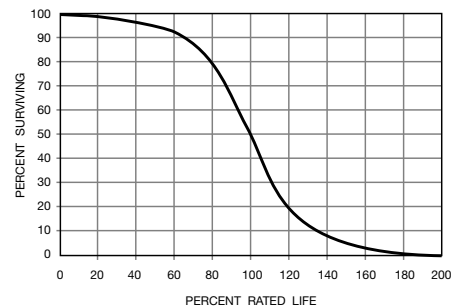
PENTRON 835



PENTRON 841



Typical Fluorescent Lamp Mortality



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