

Fluorescent Ballast Specification-T8 High Efficiency Program Start

Section I – Physical Characteristics

- 1.1 Electronic ballast shall be physically interchangeable with standard magnetic core & coil ballasts.
- 1.2 Ballast shall be furnished with integral leads, color-coded to ANSI C82.11
- 1.3 Ballast must be formed from recyclable steel painted in accordance with UL 935 standards. Plastic products with gaseous discharges are not allowed.

Section II – Performance Requirements

- 2.1 Ballast shall be Programmed Start and provide >100,000 on/off cycles before 50% lamp failure with the primary F32T8 or F96T8 lamp.
- 2.2 Ballast shall operate at 120 volts, or 277 volts, with +/- 10% variation tolerance, 60 Hz or Multi-voltage for between 108 and 305 volts, 50/60 Hz.
- 2.3 Ballast shall be 90% efficient and use 10% or less of the total system power on the primary lamp application.
- 2.4 Ballast shall eliminate lamp striation (spiraling effect) with Anti-Striation circuitry.
- 2.5 Ballast shall have a start time of less than .7 seconds.
- 2.6 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when used with the primary lamp at 120 volts. It shall be less than 20% on other approved lamps.
- 2.7 Ballast shall have a Power Factor greater than 98% when used with primary lamp at 120 volts and greater than 90% in other applications.
- 2.8 Ballast shall be Sound Rated A.
- 2.9 Ballast output frequency to the lamps shall be above 20kHz to minimize visible flicker and outside 30-42kHz to avoid interference with infrared devices.
- 2.10 Ballast shall have independent parallel lamp operation.
- 2.11 Ballast shall have less than a 1.7 lamp current crest factor.
- 2.12 Lamps may be remote or tandem mounted up to a maximum of 18ft. overall lead length.
- 2.13 Ballast shall have a minimum starting temperature of 0 degree F for F32T8, F25T8 and F17T8 lamps, and 50 degree F for F32/WM (ES) and F28T8 lamps.
- 2.14 Ballast shall have the capability to restart replacement lamps without resetting power.
- 2.15 Ballast shall tolerate sustained open circuit and short circuit output conditions without damage.

Section III – Regulatory

- 3.1 Ballast shall meet ANSI C82.11 for electronic ballast performance.
- 3.2 Ballast shall meet FCC Title 47 CFR part 18, non-consumer equipment standards, class A.
- 3.3 Ballast shall meet ANSI C62.41, Category A2 for Transient Voltage protection.
- 3.4 Ballast shall meet UL 935 standards and be UL Listed and CSA Approved.
- 3.5 Ballast shall meet UL Class P, Type 1 Outdoor, and Type HL
- 3.6 Ballast shall meet US law and contain no Polychlorinated Byphenois (PCBs).
- 3.7 Ballast shall meet all US state and federal, and Canadian provincial and federal efficacy laws.
- 3.8 Ballast shall meet the RoHS Directive 2002/95EC on the restriction of hazardous substances such as lead, cadmium, mercury, hexavalent chromium, PBBs and PBDEs.

Section IV – Other

- 4.1 Ballast shall carry a five-year warranty from the date of manufacture. Warranty shall be valid for maximum case temperature of 70 degree C.
- 4.2 Manufacturer shall carry a system warranty for F32T8, F32/WM and F28T8 lamp life to a minimum of 36 months or 10,500 hours, whichever comes first on cycles of 15 minutes or more per start.
- 4.3 Manufacturer must have a 15-year history of designing and manufacturing electronic ballast.
- 4.4 Ballast must be manufactured in an ISO 9002 Certified Facility.
- 4.5 Ballast shall be available with Ballast Factor of no less than .60 Xtra-Low, .87 Normal, and 1.15 High Power for the primary lamp application