

Fluorescent Ballast Specification-T8 High Efficiency Instant 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.
- 1.4 Ballast shall have a maximum height of 1.2 in. and maximum weight of 1.5 lbs.

Section II – Performance Requirements

- 2.1 Ballast shall operate at 120 volts and 277 volts with +/- 10% variation tolerance.
- 2.2 Ballast shall be 90% efficient and use 10% or less of the total system power on the primary lamp application.
- 2.3 Ballast shall eliminate lamp striation (spiraling effect) with Anti-Striation circuitry.
- 2.4 Ballast shall have Active Current Regulation to control lamp current to each lamp independently to ensure lamp life is not reduced when a lamp fails within the circuit.
- 2.5 Ballast shall provide UL Class CC, Closed Cabinet protection to prevent ignition of non-UL – controlled thermoplastic diffuser and overheating of bi-pin lamp holders.
- 2.6 Ballast shall have constant Ballast Factor if one or more lamps fail.
- 2.7 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.
- 2.8 Ballast shall have a Power Factor greater than 98% when used with primary lamp at 120 volts and greater than 90% in other applications.
- 2.9 Ballast shall be Sound Rated A.
- 2.10 Ballast output frequency to the lamps shall be above 20kHz to minimize visible flicker and outside 30-42kHz to avoid interference with infrared devices.
- 2.11 Ballast shall be Instant Start with independent parallel lamp operation.
- 2.12 Ballast shall have an optimal 1.4 lamp current crest factor to maximize lamp life.
- 2.13 Lamps may be remote or tandem mounted up to a maximum of 18ft. overall lead length.
- 2.14 Ballast shall have a minimum starting temperature of 0 degree F for F32T8, F25T8 and F17T8 lamps, and 60 degree F for WattMiser and F28T8 lamps.
- 2.15 Ballast shall have the capability to restart replacement lamps without resetting power.
- 2.16 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 A3 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 form the date of manufacture. Warranty shall be valid for maximum case temperature of 70 degree C.
- 4.2 Manufacturer must have a 15-year history of designing and manufacturing electronic ballast.
- 4.3 Ballast must be manufactured in an ISO 9002 Certified Facility.