

# **Electronic HID Ballast Specification-High Efficiency 20W-150W**

## **Section I – Physical Characteristics**

- 1.1 Ballast shall be furnished with integral color-coded leads.

## **Section II – Performance Requirements**

- 2.1 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.
- 2.2 Ballast shall be 90% efficient and use 10% or less of the total system power on the primary lamp application.
- 2.3 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10%.
- 2.4 Ballast shall have a Power Factor greater than 98% at 120 volts and greater than 90% in other applications. Power factor shall be greater than 50% for systems operating below 25W in accordance with ANSI and IEC specifications for accent and down lighting.
- 2.5 Ballast shall be Sound Rated A.
- 2.6 Ballast shall provide a Lamp Current Crest Factor of equal to or less than 1.4.
- 2.7 Ballast output frequency to the lamps shall less than 200 Hz to prevent acoustic resonance inside the lamp arc tube and to minimize visible flicker.
- 2.8 Ballast shall be thermally protected to shut off when operating temperatures reach UL maximum limits.
- 2.9 Ballast shall have a lamp end of life detection and shutdown circuit.

## **Section III – Regulatory**

- 3.1 Ballast shall meet FCC Title 47 CFR part 18, non-consumer equipment standards, class A.
- 3.2 Ballast shall meet ANSI C62.41, Category A2 for Transient Voltage protection.
- 3.3 Ballast shall meet UL Class P.
- 3.4 Ballast shall meet US law and contain no Polychlorinated Byphenois (PCBs).
- 3.5 Ballast shall meet all US state and federal, and Canadian provincial and federal efficacy laws.
- 3.6 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.
- 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.