

SECTION IV – Electronic HID (Metal Halide)

Ballast Specification for Electronic Metal Halide

e-Vision® Electronic Ballast Specifications

Section I - Physical Characteristics

- 1.0 The electronic ballast shall be furnished with integral, color-coded leads.

Section II - Performance Requirements

- 2.0 The electronic ballast shall be IntelliVolt® and operate from a nominal line voltage range of 120-277 volts, +/-10%, 50/60 Hz.
- 2.1 The electronic ballast input current shall have Total Harmonic Distortion (THD) of less than 15%.
- 2.2 The electronic ballast shall have a Power Factor greater than 90%.
- 2.3 The electronic ballast shall have a lamp end-of-life detection and shutdown circuit.
- 2.4 The electronic ballast shall be Sound Rated A.
- 2.5 The electronic ballast output frequency to the lamps shall be less than 200 Hz to prevent acoustic resonance inside the lamp arc tube and to minimize visible flicker.
- 2.6 The electronic ballast shall provide a "Lamp Current Crest Factor" of less than 1.5.
- 2.7 The electronic ballast shall be thermally protected to shut off when operating temperatures reach unacceptable levels.

Section III - Regulatory Requirements

- 3.0 The electronic ballast shall meet the requirements of the Federal Communications Commission rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.
- 3.1 The electronic ballast shall be Underwriters Laboratories (UL) Listed (Class P) and CSA Certified where applicable.

Section IV - Other

- 4.0 The electronic ballast shall not contain Polychlorinated Biphenyl (PCB's).
- 4.1 The electronic ballast shall carry a three-year warranty from the date of manufacture for operation at a case temperature of 85°C or less.
- 4.2 The manufacturer shall have a twenty-five year history of producing HID lamp ballasts for the North American market.
- 4.3 The electronic ballast shall be produced in a factory certified to ISO 9002 Quality System Standards

DynaVision™ Electronic Ballast Specifications

Section I – Physical Characteristics

- 1.1 The electronic ballast shall be fully enclosed in an aluminum housing painted white.
- 1.2 The aluminum housing shall include a divided wiring compartment to separate the power leads from the control leads. All leads to be color-coded.

Section II – Performance Requirements

- 2.1 The electronic ballast shall be multivoltage capable and operate from a line voltage range of 180 – 305 volts, 50/60 Hz.
- 2.2 The electronic ballast shall incorporate a microprocessor controller to provide for optimum starting and operation of the HID lamp.
- 2.3 The electronic ballast input current shall have Total Harmonic Distortion (THD) of less than 15% when operated at nominal line voltage (200V, 208V, 230V, 240V, 277V).
- 2.4 The ballast shall incorporate a 0-10V dimming interface and control the dimming function such that the HID lamp is allowed to warm up for fifteen minutes at full power before the lamp will be allowed to dim, regardless of the level of the 0-10V signal. 10V applied to the dimming control leads, shall result in full light output. 0V applied, or shorting the control leads together, shall result in dimming to 50% of nominal lamp power.
- 2.5 The ballast shall include a 120V/250W auxiliary output for stand-by incandescent lighting that shall include an integral control to turn the auxiliary lamp on and off. The integral control shall include a time-delay feature to keep the auxiliary lamp on until the HID lamp reaches 50% power.
- 2.6 The electronic ballast shall have a Power Factor greater than 90%.
- 2.7 The electronic ballast shall have a lamp end-of-life detection and shutdown circuit.
- 2.8 The electronic ballast shall be Sound Rated A.
- 2.9 The electronic ballast output frequency to the lamps shall be higher than 100 kHz to prevent acoustic resonance inside the lamp arc tube and to minimize visible flicker.
- 2.10 The electronic ballast shall be thermally protected to shut off when operating temperatures reach unacceptable levels.

Section III – Regulatory Requirements

- 3.1 The electronic ballast shall meet the requirements of the Federal Communications Commission rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.
- 3.2 The electronic ballast shall be Underwriters Laboratories (UL) Listed and CSA Certified where applicable.

Section VI – Other

- 4.1 The electronic ballast shall not contain Polychlorinated Biphenyl (PCB's).
- 4.2 The electronic ballast shall carry a three-year warranty from the date of manufacture for operation at an ambient temperature of 55° C or less and when operated as a stand alone product (i.e. remotely from a lighting fixture housing). When operated within a lighting fixture housing, the same three-year warranty shall apply for a maximum ballast case hot spot temperature of 76° C or less.
- 4.3 The manufacturer shall have a twenty-five year history of producing HID lamp ballasts for the North American market.
- 4.4 The electronic ballast shall be produced in a factory certified to ISO 9002 Quality System Standards.

