



Robert Bentley
GOVERNOR

ALABAMA
DEPARTMENT OF TRANSPORTATION
MAINTENANCE BUREAU
1409 COLISEUM BOULEVARD
MONTGOMERY, ALABAMA 36130-3050

PHONE (334) 242-6272

FAX (334) 242-6378



John R. Cooper
TRANSPORTATION DIRECTOR

Maintenance Bureau Specification 2004-01
for
Class 1 LED Beacon
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This document describes the features and specifications for a “360-Degree, Class 1, LED Beacon”.

1.0 General

- 1.01 Unit shall be a 360 degree LED beacon.
- 1.02 Shall produce at a minimum a 60 quad/quint flash pattern per minute(240/300 total flashes) along with other user selectable flash patterns.
- 1.03 Unit shall meet or exceed SAE J845 requirements for a Class 1 warning beacon.
- 1.04 Dimensions of light should be between 4” & 8” in height and between 6” & 8” in diameter.
- 1.05 The LED beacon shall feature solid-state circuitry, polarity protection and no moving parts for highest degree of reliability.
- 1.06 The LED module shall not be obstructed in any way; it shall be easily replaceable with using any mechanical hardware, nor require the un-installation/removal of the unit from the vehicle.
- 1.07 The base of the unit shall be capable of one of the following mounting options:
 - a. **Permanent Mount:** Have at least 2 mounting holes to enable mounting on a flat surface or shall also be available with a 1” NPT pipe mount.
 - b. **Temporary Mount:** A magnetic mount w/sufficient length cord and cigar plug with on/off switch.
- 1.08 Domes (lenses) shall be constructed of polycarbonate material and shall be amber in color.
- 1.09 A method to prohibit the dispersal of light through the top of the dome shall be provided.
- 1.10 Average amp draw shall not exceed 1.2 amp at 12 VDC during operation.
- 1.11 Unit shall be capable of attaching an optional branch guard.
- 1.12 Unit shall be capable of operating at an operating voltage of 12 or 24 VDC.

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- 1.13 The LED beacon electronics shall be conformal coated with an electrically inert material, or similar environmental protection, to make them resistant to corrosion, moisture, dust, and vibration related to failure. The electronics shall be housed within either a cast aluminum or polycarbonate base, with no parts such as screws, fasteners, or wires being exposed to moisture and other environmental hazards.
- 1.14 Unit shall include all mounting hardware for desired installation at the time of order.
- 1.15 Unit shall include one (1) set of installation and operation instructions, in English.

2.0 General:

- 2.01 Upon award of contract ALDOT may require; 1) independent testing at Awardee's expense to verify specifications have been met or 2) having the Awardee provide a sample unit for review/evaluation that may be returned at the Awardee's expense and direction. Failure to comply shall be grounds for sacrifice of award. Sacrifice of award may not be limited to single line, but rather, the entire group if applicable to contract format.
- 2.02 All successful bidders shall be either an authorized distributor for the manufacturer or the manufacturer of the product line with sufficient quantities of new units to remedy warranty and purchase requests and offer accessories and service parts to maintain the needs of the vehicle fleet within seventy-two (72) hours after call.
- 2.03 Model number of item bid shall appear on bid document.
- 2.04 Bid shall also include documentation such as unit specifications, cut-sheets, certifications, etc. that show item meets this specification. Failure to provide documentation with bid shall disqualify the bid without notice.
- 2.05 The unit specified shall be warranted by the manufacturer, from the date of receipt or installation, to be free of defects of material or workmanship for a period of one (1) year and the LED components shall be warranted for a period of five (5) years. Written proof of this warranty shall be provided with bid.