

**TEXAS DEPARTMENT OF TRANSPORTATION
SPECIAL SPECIFICATION
TO-7060
69, 116, AND 135 WATT TRAFFIC SIGNAL LAMP**

1.0 SCOPE

The purpose of this specification is to describe the minimum acceptable requirements for 69, 116, and 135 watt traffic signal lamps.

2.0 PHYSICAL AND ELECTRICAL REQUIREMENTS

The traffic signal lamps must have the following characteristics:

- 2.1 Meets all ITE lamp requirements for traffic signal lamps.
- 2.2 69 (± 1), 116 (± 1), and/or 135 (± 1) watt rating as specified on the solicitation.
- 2.3 120-125 Volt operating voltage.
- 2.4 Minimum 16,000 hour rated life.
- 2.5 Minimum 95% Krypton gas filled, and the remaining must be filled with Nitrogen gas.
- 2.6 Lamp filament shall be C11-V configuration type. The "V" portion must be centered directly over the filament support button.
- 2.7 The filament must be supported with a minimum of seven supports; two mandrel and five hook supports.
- 2.8 Each lamp must be marked to indicate the manufacturer, wattage, voltage range, rated lumens, rated hour life, lot code, and date of manufacture and the country of origin.
- 2.9 Failure rate of lamps installed must not exceed 3% per intersection.

3.0 REPORTS REQUIRED

- 3.1 The following reports must be supplied with the solicitation to insure compliance with the specification.

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- 1) Gas analysis report from a certified independent U.S. testing laboratory. The report will indicate the percent of gas filled of the major and minor elements or chemical compounds and all measurable trace elements of chemical compounds.
- 2) A vibration test report from a certified independent U.S. testing laboratory must conform to the NAVMMAT P9492 vibration test to a maximum level of 7.0 grams.
- 3) A light output report from a certified independent U.S. testing laboratory.

4.0 WARRANTY

The lamp manufacturer must provide a warranty against any defect in material or workmanship for a period of two year from the date of installation.