



## INCANDESCENT TRAFFIC SIGNAL LAMPS MGS-93-05A

**1.0 DESCRIPTION.** This specification covers traffic signal lamps.

### **2.0 MATERIALS.**

**2.1** Lamps furnished under this specification shall be incandescent traffic signal lamps compatible with the design requirements of the optical systems of standard traffic signals. The construction features of the traffic signal lamps require that the filament shall be adequately supported to withstand the vibration induced from truck traffic and heavy winds when burning in a horizontal position.

**2.2** The lamps shall meet the requirements of Table 1 of this specification.

**2.3 Markings.** The glass envelope of the lamps shall be legibly and permanently marked to show:

1. Manufacturer's insignia or trademark
2. Design Voltage
3. Rated Lumens or wattage

### **3.0 ORDERING INFORMATION.**

**3.1** The quantity and lumen rating is to be as shown in the order.

### **4.0 CERTIFICATION.**

**4.1** Prior to approval and use of any material delivered, the manufacturer shall submit to the State Materials Engineer, P. O. Box 270, Jefferson City, MO 65102, a certification in triplicate certifying that the lamps supplied conform to all requirements of these specifications. The certification shall include or have attached a certified test report on test lamps typical of the order, showing the test voltages, amperes, initial lumen, watts and hour life (based on accelerated life test). The accelerated life test may be conducted on the same lamps used for the initial lumens rating.

**4.1.2** The manufacturer may use their own test facilities or an approved independent testing laboratory to furnish the above test results.

### **5.0 ACCEPTANCE.**

**5.1** Acceptance will be based on acceptable certifications and certified test results furnished by the manufacturer of the lamps and any tests performed by the Engineer.

### **6.0 REJECTION.**

**6.1** If the average initial lumens of the test lamps, when tested at  $125 \pm 0.5$  volts, is less than 95 percent of the lamp requirements, the shipment will be rejected.

**6.2** If the average life in hours of the test lamps is less than 95 percent of the rated life, based on accelerated life tests, the shipment will be rejected.

**TABLE 1**

	<u>1260 Rated Lumens</u>	<u>1750 Rated Lumens</u>
Bulb Type	A21, Clear	A21, Clear
Base (Brass)	Medium Screw	Medium Screw
Class of Lamp	C	C
Filament	C-9	C-9 or C-11V with reflector
Filament Support (including power leads)	5	5 or 7
Length Center Length, inches	2-7/16	3
Position of Burning	Horizontal	Horizontal
Voltage	125	125
Average Initial Lumens, minimum	1260	1750
Rated Average Life, hours	6000	6000