

**L-852T LED IN-PAVEMENT TAXIWAY EDGE LIGHTS -
SAMPLE SPECIFICATION**

ITEM L-150 INSTALLATION OF L-852T LED IN-PAVEMENT TAXIWAY EDGE LIGHTS

DESCRIPTION

150-1.1 This item shall consist of furnishing and installing the L-852T LED in-pavement taxiway edge lights in accordance with this specification and the applicable FAA Advisory Circular. The fixtures shall be installed at the specified location and in accordance with the dimensions, design, and details shown in the plans.

This item shall include the furnishing of all equipment, materials, services and incidentals necessary to place the fixtures in operation as completed units to the satisfaction of the Engineer.

EQUIPMENT AND MATERIALS

150-2.1 L-852T LED IN-PAVEMENT TAXIWAY EDGE LIGHTS.

- a. **EQUIPMENT CONFORMANCE REQUIREMENTS.** The L-852T LED in-pavement taxiway edge lights shall conform to the requirements of FAA Advisory Circular (AC) 150/5345-46 (current edition) "Specification for Runway and Taxiway Light Fixtures" and FAA LED "Engineering Brief No. 67" (current edition). The L-852T LED in-pavement taxiway edge lights shall be ETL certified. The L-852T LED in-pavement taxiway edge lights shall be manufactured by Astronics DME or approved equal.
- b. **EQUIPMENT SUPPLIED.** The L-852T LED in-pavement taxiway edge lights shall be supplied for the total quantity as shown on the plans. The manufacturer shall have a downloadable electronic version of the manual available on their web site.
- c. **LIGHT SOURCE REQUIREMENTS.** The L-852T LED in-pavement fixture light source shall be a Light Emitting Diode (LED) assembly. The L-852T fixture shall use no more than one LED. The average lifetime of the LED shall be a minimum of 50,000 hours at full intensity.
- d. **POWER REQUIREMENTS.** The L-852T LED in-pavement fixture load shall be no more than 8.5VA without a heater kit and no more than 19VA with a heater kit. The fixture shall operate on any 3-step ferroresonant or thyristor CCR that is designed in compliance with FAA AC 150/5345-10 (current edition).

An option for a heater shall be available for the fixture. To reduce overall energy consumption, the heater shall be thermostatically controlled.

- e. **OTHER REQUIREMENTS.** The L-852T LED in-pavement taxiway edge lights shall be 12-inch fixtures designed to mount on either a standard FAA L-867B or an L-868B light base.

To reduce susceptibility to shearing, the height of the omnidirectional-emitting prism shall be Style-3 and be less than .17 of an inch above the fixture cover plane, and the diameter of the prism above the fixture cover plane shall be 1.5 inches.

The L-852T LED top cover shall be a 12-inch, single-piece construction and made from forged aluminum alloy. All components shall be corrosion proof without the use of environmentally hazardous metal protective coatings. The prisms shall be field-replaceable without the use of epoxy or other sealing compounds. Remke liquid-tight stainless steel connectors shall be used for the entry and sealing of L-823 cord set wire cables to the base, allowing for cord set replacement without the use of epoxy or other sealing compounds. A Schrader valve with removable cap shall be provided at the base of the fixture to allow for pressure testing after fixture overhaul.

CONSTRUCTION METHODS

150-3.1 **PLACING THE L-852T LED IN-PAVEMENT TAXIWAY EDGE LIGHTS.** The contractor shall furnish and install each L-852T LED in-pavement fixture as specified in the proposal and shown in the plans. The L-852T LED in-pavement fixtures shall be mounted on industry standard L-867B base cans.

150-3.2 **TESTS.** Each L-852T LED fixture shall be connected to the series circuit using the manufacturer's recommended isolation transformer. The constant current regulator (CCR) shall then be tested to verify the correct output current is present at each step. The output current shall be checked with a True RMS meter using the CCR manufacturer's instructions. The entire circuit shall then be fully tested by continuous operation for not less than 24 hours prior to acceptance. The test shall include operating the CCR in each step (Local and Remote) not less than 10 times at the beginning and end of the 24-hour test.

METHOD OF MEASUREMENT

150-4.1 **MEASUREMENT.** The quantity of lights to be paid for under this item shall be for the total quantity of L-852T LED in-pavement taxiway edge lights installed and accepted as completed units, in place, ready for operation and accepted by the Engineer.

BASIS FOR PAYMENT

150-5.1 **PAYMENT.** Payment will be made at the contract unit price for the completed total quantity of L-852T LED in-pavement taxiway edge lights installed, in place by the Contractor, and accepted by the Engineer. This price shall be full compensation for furnishing all materials and for all preparation, assembly, and installation of these materials, and for all labor, equipment, tools, and incidentals necessary to complete this item.

Payment will be made under:

Item L-150-5.1 L-852T LED In-pavement Taxiway Edge Lights, in Place—per each

END OF ITEM L-150