

L-858 LED AIRFIELD GUIDANCE SIGNS - SAMPLE SPECIFICATION

ITEM L-150 INSTALLATION OF L-858 LED AIRFIELD GUIDANCE SIGNS

DESCRIPTION

150-1.1 This item shall consist of furnishing and installing the L-858 LED airfield guidance signs 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 (including the wire and cable connections, the necessary conduits and fittings and the necessary mounting structures) as well as any other materials, services and incidentals necessary to place the signs in operation as completed units to the satisfaction of the Engineer.

EQUIPMENT AND MATERIALS

150-2.1 L-858 LED AIRFIELD GUIDANCE SIGNS.

- a. **EQUIPMENT CONFORMANCE REQUIREMENTS.** The L-858 LED airfield guidance signs shall conform to the requirements of FAA Advisory Circular (AC) 150/5345-44K, "Specification for Runway and Taxiway Signs" and FAA LED "Engineering Brief No. 67" (current edition). The L-858 LED airfield guidance signs shall be ETL certified. The L-858 LED airfield guidance signs shall be manufactured by Astronics DME or approved equal.
- b. **EQUIPMENT SUPPLIED.** The L-858 LED airfield guidance signs 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.

The Type L-858(L)R, L-858(L)Y, and L-858(L)L signs shall be *{Size 1: 18 in. legend panel with a 12 in. legend.; Size 2: 24 in. legend panel with a 15 in. legend; Size 3: 30 in. legend panel with an 18 in. legend}*. Type L-858(L)B signs shall be *{Size 4: 48 in. legend panel with a 40 in. legend; Size 5: 30 in. legend panel with a 25 in. legend.}*

- c. **LIGHT SOURCE REQUIREMENTS.** The L-858 LED airfield guidance sign light source shall be a Light Emitting Diode (LED) assembly. The average lifetime of the LEDs shall be a minimum of 50,000 hours at full intensity.
- d. **POWER REQUIREMENTS.** To insure reduced energy and maintenance requirements, the L-858 LED airfield guidance signs must be designed using LED sequencing technology developed by Astronics DME that effectively manages the on/off sequencing of four LED tubes allowing for significant reduction in power usage.

All L-858 LED airfield guidance signs must maintain constant brightness at all CCR step settings. The use of a single driver board for all sign configurations is required. The sign shall impose a low load (VA) on 3-step, 5-step or 5.5A (1-step) constant current regulators. To maximize usability, the internal LED power supply circuit shall be the same for 3-step, 5-step or 5.5A (1-step) 50/60Hz series circuits without the need for any configuration changes during installation. *{The sign shall include an On/Off switch that isolates the sign from the circuit for maintenance.}* Isolation transformer secondary power wiring shall be routed through the sign leg.

Both the fixture input maximum VA load and the maximum CCR load (which includes isolation transformer losses) shall be shown on the catalog sheet included with the submittal documents.

e. OTHER REQUIREMENTS.

Sign panels can be easily replaced from the top or side of the sign.

The sign width shall not exceed 6 inches (15.2 cm).

The signs shall be Mode 2 (able to withstand wind loads of 200 mph / 322 km/h minimum). *{The signs shall be optionally available as a Mode 3 (able to withstand wind loads of 300 mph / 483 km/h minimum).}*

CONSTRUCTION METHODS

150-3.1 PLACING THE L-858 LED AIRFIELD GUIDANCE SIGNS. The contractor shall furnish and install each L-858 LED sign as specified in the proposal and shown in the plans. Each L-858 LED sign shall be mounted on concrete pads at the location shown on the plans. The sign mounting surface must be flat and level.

150-3.2 TESTS. Each sign system shall be fully tested by continuous operation for not less than 24 hours as a completed system prior to acceptance. The test shall include operating the constant current regulator *{in each step for a 3-step or 5-step circuit}* or *{on and off for a dedicated 5.5A circuit}* 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 signs to be paid for under this item shall be for the total quantity of L-858 LED airfield guidance signs 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-858 LED signs 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-858 LED Airfield Guidance Signs, in Place—per each

END OF ITEM L-150