

Section 75 – AIRPORT BEACONS
(FAA L-101 AND L-103)

Black text – from standard FAA spec

Blue text – additions to FAA standard spec

~~Strikeout text~~ – deletions from FAA standard spec

Red text – notes to the Engineer/won't appear in spec

FAA ITEM L-101

I. DESCRIPTION

A. GENERAL

1. This item shall consist of furnishing and installing airport rotating beacons

II. EQUIPMENT AND MATERIALS

A. GENERAL

1. Airport lighting equipment and materials shall be certified and listed
2. All equipment and materials shall be subject to acceptance through manufacturer's certification
3. Manufacturer's certifications shall not relieve the Contractor of responsibility
4. All materials and equipment shall be submitted to the Engineer for approval
5. The data submitted shall be sufficient, to determine compliance with the plans
6. All equipment and materials shall be guaranteed against defects for a period of at least twelve (12) months

B. BEACON

1. Shall meet the requirements of AC 150/5345-12

C. PANEL BOARDS AND BREAKERS

1. Shall conform to the requirements of Fed. Spec. W-P-115

D. WEATHERPROOF CABINETS

1. Shall conform to National Electrical Manufacturers Association Standards

E. WIRES

1. Wires in conduit rated up to 5,000 volts shall conform to AC 150/5345 7

F. CONDUIT

1. **For use above ground, rigid** steel conduit

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G. PAINT

1. Priming paint for ungalvanized metal surfaces
2. Priming paint for galvanized metal surfaces
3. Orange paint for the body and the finish coats
4. White paint for body and finish coats
5. Priming paint for wood surfaces

III. CONSTRUCTION METHODS

A. PLACING THE BEACON

1. The beacon shall be mounted on a beacon tower

B. HOISTING AND MOUNTING

1. Shall be hoisted to the mounting platform by using suitable slings and hoisting tackle

C. LEVELING

1. It shall be accurately leveled following manufacturer's instructions

D. SERVICING

1. Contractor shall check the manufacturer's manual for proper servicing requirements

E. BEAM ADJUSTMENT

1. The final beam adjustments shall be made at night

F. BEACON MOUNTING PLATFORM

1. Shall be in accordance with the details shown in the plans

G. WIRING

1. The Contractor shall furnish all necessary labor and materials

H. PANEL AND CABINET

1. Contractor shall furnish and install at the top of the beacon tower

I. CONDUIT

1. All exposed wiring shall be in galvanized rigid steel conduit

J. ~~BOOSTER TRANSFORMER~~

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~~K. PHOTOELECTRIC CONTROL~~

L. OBSTRUCTION LIGHTS

1. Contractor shall install two L-810 obstruction lights on opposite corners

M. PAINTING

1. Paint shall be applied uniformly in the proper consistency by skilled painters
 - a) Body coats
 - b) Finish coats

N. TESTS

1. The installation shall be fully tested

IV. METHOD OF MEASUREMENT

1. Beacons shall be measured by the number of beacons installed

V. BASIS OF PAYMENT

1. Payment will be made at the contract unit price

VI. MATERIAL REQUIREMENTS

1. AC 150/5345-12
2. FED SPEC J-C-30
3. FED SPEC TT-E-489
4. FED SPEC TT-P-664D
5. FED SPEC W-P-115
6. FED STD 595
7. MIL-P-24441/19B
8. Underwriters Laboratories Standard 6
9. Underwriters Laboratories Standard 514
10. Underwriters Laboratories Standard 1242
11. NFPA-70

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- 12. NFPA-780
- 13. Master Painter's Institute

FAA ITEM L-103

I. DESCRIPTION

O. GENERAL

- 1. This item shall consist of furnishing and installing an airport beacon tower

II. EQUIPMENT AND MATERIALS

P. GENERAL

- 1. All equipment and materials shall be subject to acceptance through manufacturer's certification
- 2. Manufacturer's certifications shall not relieve the Contractor of responsibility
- 3. All materials and equipment shall be submitted to the Engineer for approval
- 4. The data submitted shall be sufficient, to determine compliance with the plans
- 5. All equipment and materials shall be guaranteed against defects for a period of at least twelve (12) months

Q. TOWER

- 1. Shall conform to the requirements of AC 150/5340-30

R. LIGHTNING PROTECTION

- 1. Shall comply with NFPA-780

S. PAINT

- 1. Priming paint for galvanized steel towers
- 2. Priming paint for ungalvanized steel towers
- 3. Orange paint for the body and the finish coats
- 4. White paint for steel tower

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III. CONSTRUCTION METHODS

T. CLEARING AND GRADING

1. The site on which the beacon tower is to be erected shall be cleared and leveled

U. EXCAVATION AND FILL

1. Excavation for the footings shall be a minimum of 4 inches below the footing

V. ERECTION

1. Erection drawings furnished by the manufacturer shall be strictly followed

W. LIGHTNING PROTECTION

1. Contractor shall provide an air terminal, down conductor, and ground plate or rod

X. PAINTING

1. Contractor shall furnish all materials and labor for painting the beacon tower
 - a) Parts to be painted
 - b) Steel towers, Galvanized
 - c) Steel towers not Galvanized
 - d) Body coats
 - e) Finish coats

IV. METHOD OF MEASUREMENT

2. Beacon towers shall be measured by the number of beacon towers installed

V. BASIS OF PAYMENT

3. Payment will be made at the contract unit price

VI. MATERIAL REQUIREMENTS

4. AC 150/5340-30
5. FED SPEC TT-E-489
6. FED STD 595

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7. MIL-DTL-24441/19B
8. NFPA-780
9. Master Painter's Institute

END OF SECTION 75