



U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

# Memorandum

---

Subject: **ACTION:** Program Guidance Letter 12-02

Date: March 5, 2012

From:

Manager, Airports Financial Assistance Division,  
APP-500

Reply to  
Attn. of: Nancy S. Williams  
202-267-8822

To: PGL Distribution List

This Program Guidance Letter (PGL) discusses the impact of Engineering Brief (EB) 67D which allows for the design selection of LEDs (or other than incandescent lighting equipment) as stipulated in EB 67D during the design phase of a project to be funded with AIP funds.

FAA Regional Airports Offices and Airports District Offices are encouraged to distribute this PGL widely to the airport and consultant community.

**Program Guidance Letter 12-02  
Specifying LED Lighting on AIP-funded Projects**

**SOAR Code Varies**

The FAA Office of Safety and Standards (AAS) has issued a revision to Engineering Brief (EB) 67D.

One of the major impacts of this revision is the separation of light emitting diode (LED) and incandescent lighting into separate specification categories. Previously, both LED and incandescent lighting were grouped under the same FAA specification. This change means that a sponsor must specify either LED or incandescent. Because of this change in the EB, a life cycle cost analysis will no longer be required to permit the selection and use of LED fixtures for an AIP funded project.

If a sponsor proposes to use LED fixtures, the airport must use the LED “L-XXX(L)” type designation as listed in AC 150/5345-53C Addendum. The requirements for airport lighting fixtures are specified in the current 150/5345-XX series advisory circular for the equipment. The additional requirements for LED airport lighting fixtures are specified in EB-67.

**1. Exceptions: LED obstruction lights, LED approach lights, and LED High Intensity Runway Lights (HIRL)**

*The FAA is reviewing the use of LED obstruction lights and approach lights with aircraft using Enhanced Flight Vision Systems or Night Vision Imagery technology that rely on an infrared signature. LED fixtures may not provide this infrared signature. The same issues may be present in LED high intensity runway edge lights. For these reasons, LED obstruction lights, LED approach lights and LED high intensity runway edge lights are not AIP eligible at this time.*

**2. LED Compatibility with Existing Airport Lighting Equipment Systems**

Some technical literature suggests that replacement of power supply systems, cabling, regulators, and other electrical equipment associated with LED fixtures may improve energy efficiency. However, much of this equipment, including alternate power supply systems is non-standard equipment. The use of nonstandard equipment or equipment configurations is not allowed under AIP.

FAA recognizes that advances in technology may allow FAA to adopt some alternate lighting equipment and power supply configurations in the future. At this time however, these alternate configurations are not allowed under AIP.

Under very limited specific circumstances, the FAA Office of Safety and Standards (AAS) may issue a Modification of Standards to an airport for the use of nonstandard equipment or design. The policy and requirements for obtaining a Modification of Standards is addressed in FAA Order 5100.1, Modifications to Agency Airport Design, Construction, and Equipment Standards.

The published policy for modifications of equipment standards is that modifications to equipment standards or airport design standards shall be made only when justified by unusual local conditions. Cost savings or standardization of the equipment on an airfield is not considered to be an unusual local condition.

### **3. Replacement of existing non-LED fixtures with LED fixtures.**

AIP funds cannot be used on a project to replace an item or equipment that has not met its useful life. Therefore, AIP must not be used to replace grant-funded existing fixtures with LED fixtures if the existing grant-funded fixtures have not met the end of their useful life.

The technical requirements and prohibitions for mixing lighting types are discussed in FAA AC 150/5340-30, Design and Installation Details for Airport Visual Aids.

### **4. Technical Requirements for Airfield Lighting**

FAA Advisory Circulars (AC) 150/5340-30 Design and Installation Details for Airport Visual Aids (latest edition), provides the design and operational requirements for airfield lighting systems. Fixtures must be designed to operate and interface with all existing airport lighting equipment systems contained in FAA Advisory Circular 150/5345-53.

FAA AC 150/5345-46, Specification for Runway and Taxiway Light Fixtures (latest edition) provides the performance specifications for the different types of light fixtures such as runway edge lights, centerline lights or taxiway lights.

Engineering Brief 67 (latest edition) provides additional requirements for light sources other than incandescent and xenon technologies subject to certification under Advisory Circular 150/5345-53, *Airport Lighting Equipment Certification Program*.

AC 150/5345-53, Airport Lighting. Equipment Certification Program, Appendix C, (latest edition) lists the airfield lighting equipment that has met the testing requirements, and therefore is certified for use on AIP funded projects.

FAA Order 5100.1, Modifications to Agency Airport Design, Construction, and And Equipment Standards provides the requirements for requesting a Modification of Standards.