

Intertek Airport Lighting Equipment Certification Program



IES Government Contacts Subcommittee, October 18, 2010

Galloway, NJ

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FAA AC 150/5345-53C

- Manufacturer submits certification request
- Qualification testing
- Documentation submittal and engineering review
- Initial manufacturing facility audit
- License Agreement
- Certificate issued and product listed in 53C Addendum

Required Support Documentation

- AL-2 Form (Application)
- Engineering Drawings
- Schematics
- Product Manuals
- Product Marketing Literature
- Statement of Warrantee
- Intertek Form AL-2B (light source details)

Typical Products Tested IAW FAA AC 150/5345 series Include:

- Rotating Beacons
- Obstruction Lights
- Wind Cones
- Isolation Transformers
- Taxiway / Runway Inpavement Lights
- Retroreflective Markers
- Cable Connectors
- Underground Cable
- Runway & Taxiway Signs
- Portable Runway Lights
- Light Bases
- Constant Current Regulators
- Precision Approach Path Indicators (PAPI)
- Runway End Identification Lights (REIL)



Common Qualification Tests Performed

*Per Product Specific FAA 150/5345
Series Advisory Circulars :*

- Photometry
- Chromaticity
- Accelerated Life
- Vibration (Sinusoidal, Random)
- Mechanical Shock
- Corrosion (Salt Fog) / Accelerated Corrosion
- Moisture, Rain Spray, Immersion, Icing
- Dust
- Wind Load
- Temperature / Humidity Cycling
- EMI / EMC
- Altitude
- Lamp Life Test
- Insulation Resistance
- Thermal Shock
- Operational
- Accelerated Weathering
- Electrical
- Leakage Current
- Dielectric
- Transient Suppression

Current Program Status

82 Participating Manufacturers

(3 New Manufacturers)

(3 Pending new manufacturers)

➤ 84 new and requalification certificates issued since the spring meeting

➤ 32 revised certificates issued since the spring meeting

8 year re-qualifications (4 years for L-890 ALCMS)

Product modifications

Specification updates

Semi-annual inspections

New Specifications

- FAA AC 150/5345-44J (signs) - 9/29/10
 - Dimensional clarifications
 - 7ftL minimum at all points
 - Category C1 surge testing changed to C2
- FAA AC 150/5345-10G (CCRs) – 9/29/10
- FAA AC 150/5345-3G (L-821 control panels) – 9/29/10
 - PLC based touchscreen panel added
- FAA AC 150/5345-12F (beacons) - 9/24/10
- FAA AC 150/5345-51B (REILS, ODALS) – 9/8/10

FAA EB67C (in process)

Related International Standards

- IEC 61827 (runway and taxiway lights)
- IEC 61822 (Constant Current Regulators)
- ICAO Annex 14 (Design Manual Part 4)
- Transport Canada CAR 621.19
- CAA CAP 437 (Heliports)
- EN 50490 (April 1, 2011)
 - EMC Directive 2004/108/EC



Thank you

Questions?

