



AEROSPACE RECOMMENDED PRACTICE

ARP5825™

REV. B

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Superseding ARP5825A

Design Requirements and Test Procedures for Dual Mode Exterior Lights

RATIONALE

The new revision is required to expand the requirements for other exterior lights and to update some of the limits based on current designs in the field.

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1. SCOPE

This SAE Aerospace Recommended Practice (ARP) contains the general requirements and test procedures for Dual Mode (NVIS Friendly visible and Covert) exterior lighting for most rotorcraft and fixed wing aircraft and could be applicable to ground vehicles that desire a Dual Mode lighting system.

1.1 Purpose

This document is to define both the basic NVIS Friendly limits for visible exterior lights and the radiance limits for the covert energy sources. In addition, this document will define the test methods and equipment necessary in verifying the measurements.

1.2 Limitations

This document includes and updates the traditional requirements that cover normal visible exterior lighting and integrate them with Dual Mode exterior lighting design and testing concepts. This document will not attempt to define the environmental qualification, reliability requirements or any of the other tests required that are normally contained in procurement specifications or readily found in other technical documentation. The primary focus of this document is for rotorcraft and fixed wing aircraft, but ground vehicles can use many of the technical requirements.

1.3 Field of Application

This document defines three classes of tests. Each test is applicable to the different phases of a product's life: for example, engineering development and qualification (Class 1), production/quality assurance (Class 2), and field service maintenance or flight readiness (Class 3). The test requirements for each of these phases differ and hence the test procedures for each test class may differ. Each procedure in this document is Class 1 unless otherwise stated.

1.4 Classes of Tests

Class 1 - Laboratory Tests - The objective of tests in this class is to verify the design of the assembly. Tests in this class are most appropriate in an engineering laboratory environment or as part of a certification program.

Class 2 - Production/Quality Assurance - The objective of this test class is to verify that every assembly has been manufactured or repaired to meet specified requirements. Tests in this class are most appropriate for acceptance and/or end item tests.

Class 3 - Maintenance/Flight Readiness - The objective of tests in this class is to verify that the assembly is within acceptable performance limits. Tests in this class are most appropriate for field service maintenance and flight line inspection.

2. REFERENCES

2.1 Applicable Documents

The following publications form a part of this document to the extent specified herein. The latest issue of SAE publications shall apply. The applicable issue of other publications shall be the issue in effect on the date of the purchase order. In the event of conflict between the text of this document and references cited herein, the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained.

2.1.1 SAE Publications

Available from SAE International, 400 Commonwealth Drive, Warrendale, PA 15096-0001, Tel: 877-606-7323 (inside USA and Canada) or +1 724-776-4970 (outside USA), www.sae.org.

ARP693 Landing and Taxiing Lights - Design Criteria for Installation

ARP694 Aerial Refueling Lights - Design Criteria