

SAE The Engineering Society
For Advancing Mobility
Land Sea Air and Space®

400 COMMONWEALTH DRIVE, WARRENDALE, PA 15096

AEROSPACE RECOMMENDED PRACTICE

Submitted for recognition as an American National Standard

ARP712

Issued 5-65
Revised 3-89

REV.
A

GALLEY LIGHTING

1. PURPOSE:

The purpose of this recommended practice is to provide minimum standards for the illumination of galleys (buffets) and for the location of lighting controls within the galley area of passenger transport aircraft.

2. DEFINITION:

Galley lighting is the lighting that is provided within the galley area. Galley lighting should provide sufficient illumination for the preparation and serving of food, the reading of instruction manuals, and the identification and operation of the various controls and equipment located in the galley.

3. RECOMMENDATIONS:

3.1 Lighting Levels:

- 3.1.1 Average of 53.8 lx (5.0 ft-c) of illumination should be provided on the floor of the galley area.
- 3.1.2 Average of 161.4 to 215.2 lx (15.0 to 20.0 ft-c) of illumination should be provided on working surfaces such as counter tops.
- 3.1.3 Average of 10.76 lx (1.0 ft-c) should be provided on the floor of deep compartments, such as ovens, and storage bins, which must be inspected.
- 3.1.4 Average of 53.8 lx (5.0 ft-c) of illumination should be provided on all controls, operating instructions, and placards.

SAE Technical Board Rules provide that: "This report is published by SAE to advance the state of technical and engineering sciences. The use of this report is entirely voluntary, and its applicability and suitability for any particular use, including any patent infringement arising therefrom, is the sole responsibility of the user."

SAE reviews each technical report at least every five years at which time it may be reaffirmed, revised, or cancelled. SAE invites your written comments and suggestions.

3.1.5 The galley area lighting should be provided with dimming controls, either continuous or stepped dimming, to reduce the illumination while operating under dark conditions.

3.1.6 The color of the galley light sources should be white.

3.2 General:

3.2.1 Lighting Location: Light sources should be carefully located to minimize the casting of shadows on work areas by personnel occupying normal work positions. Light from the galley area should be confined to that area by directional light sources or by curtains around the galley area. Light sources should be located and trim materials selected to minimize glare in the eyes of an attendant working in the galley.

3.2.2 Controls: All controls within the galley area should be so located or protected as to prevent injury to an attendant in the event of a violent airplane movement.

3.2.2.1 All lighting controls within the galley area should be placed on a single control panel and located within convenient reach of the attendant. Individual controls shall be arranged to conform generally to the physical location of the light sources. Light controls for continuous dimming shall rotate clockwise to increase intensity and shall provide an "off" position at the extreme of counter-clockwise rotation. For step dimming or on/off control, the toggle controls shall be full bright/on in the up position.

3.2.2.2 Incandescent lamps should be operated at not more than 90% rated voltage to extend lamp life. Operation at 90% rated voltage will result in four times rated lamp life. Long life lamps (rated for 2000 h or more) should be operated at not more than 95% rated voltage.

3.2.2.3 Ballast and transformers should contain replaceable fuses or other circuit protectors to prevent overheating and smoke. If fuses are used, replacement fuses should be available.

3.2.3 Fixture Temperature: While installed, no exposed lighting fixture surface should exceed a stabilized temperature of 65.5°C (150°F) with an ambient temperature of 23.8°C (75°F).

3.2.4 Fixture Bonding: All exposed metal surfaces should be electrically bonded to airframe structure to prevent electrical shock hazard to personnel.

3.2.4.1 If input voltage to the fixture exceeds 30 V, an electrical ground should be provided.

3.2.5 Maintenance: Consistent with general galley design, lighting fixtures should be designed and fabricated to provide smooth, easily cleanable surfaces with a minimum of cracks and crevices.