

# Draft Requirements for Emergency Lighting

## 1. General requirements

1.1 The emergency lighting system shall be independent of the vehicle's main battery in order to avoid loss of emergency lighting as a result of loss of the vehicle's main power supply. The charge of the emergency lighting system shall be maintained by means of the vehicle's main power supply system during normal operation.

1.2 The power supply for the emergency lighting shall be suitably located within the vehicle to minimise the risk of its continued operation being prejudiced as the result of an accident.

1.3 The emergency lighting system shall be designed to ensure that it will be switched on automatically in the event of the vehicle:

- (i) experiencing a deceleration of at least  $[X]g$  in the forward direction or
- (ii) being tilted to either side to an angle of at least  $[X]^\circ$  to the horizontal.

1.4 All units providing the emergency lighting shall produce a white light.

## 2. Emergency lighting in passenger compartments and other self-contained areas e.g. toilets and galleys

2.1 The emergency lighting system shall provide a minimum illuminance of  $[15]$  lux directly under each light unit in the passenger compartment at a height of  $[750]$  mm above the gangway for at least  $[90]$  minutes from initiation of the emergency lighting.

2.2 The uniformity of the illuminance over the length of the passenger compartment at a height of  $[750]$  mm above the gangway shall be between  $[0.15]$  and  $2$ .

2.3 The emergency lighting system shall provide a minimum illuminance of  $[1]$  lux at floor level in the gangway.

2.4 The uniformity at floor level over the length of the gangway shall not exceed  $[1.5]$ .

2.5 Conformity with the uniformity requirements shall be demonstrated by measurements taken at intervals not exceeding  $[1]$  metre.

## 3. Emergency lighting at service doors and emergency doors

3.1 Emergency lighting shall be provided directly above each service door and each emergency door. The emergency lighting system shall provide a minimum illuminance of  $[15]$  lux directly under each light unit in the doorway at a height of  $[750]$  mm above the floor of the access passage for at least  $[90]$  minutes from initiation of the emergency lighting.

3.2 The emergency lighting system shall provide a minimum illuminance of  $[1]$  lux at floor level in the access passage.

3.3 Door operating handles, door locking emergency overrides and their associated signage, required for use in an emergency, shall be included within the field of illumination referred to in paragraph 3.1.

3.4 In addition to the lighting required by paragraph 3.1, emergency lighting shall be provided to achieve a minimum illuminance of  $[40]$  lux at each door threshold when the service doors and emergency doors are open.

#### **4. Emergency lighting in emergency exit routes**

In the case of emergency exit routes other than the passenger compartment gangway and the access passage, the emergency lighting system shall provide a minimum illuminance at a height of [750] mm above the floor and at floor level in accordance with the levels and uniformities in paragraph 2.

#### **5. Emergency lighting adjacent to emergency equipment**

The emergency lighting system shall illuminate emergency equipment locations for a period of [90] minutes from initiation of the emergency lighting. The minimum level of illuminance shall be no less than the average passenger compartment lighting level achieved by the emergency lighting system at a height of [750] mm above the gangway.

A. McKenzie 23<sup>rd</sup> August 2011