Federal Aviation Administration, DOT

§ 25.1393 Minimum intensities in any vertical plane of forward and rear position lights.

Each position light intensity must equal or exceed the applicable values in the following table:

<table>
<thead>
<tr>
<th>Angle above or below the horizontal plane</th>
<th>Intensity, I</th>
</tr>
</thead>
<tbody>
<tr>
<td>0° ........................................</td>
<td>1.00</td>
</tr>
<tr>
<td>0° to 5° ..................................</td>
<td>0.90</td>
</tr>
<tr>
<td>5° to 10° ..................................</td>
<td>0.80</td>
</tr>
<tr>
<td>10° to 15° ..................................</td>
<td>0.70</td>
</tr>
<tr>
<td>15° to 20° ..................................</td>
<td>0.50</td>
</tr>
<tr>
<td>20° to 30° ..................................</td>
<td>0.30</td>
</tr>
<tr>
<td>30° to 40° ..................................</td>
<td>0.10</td>
</tr>
<tr>
<td>40° to 90° ..................................</td>
<td>0.05</td>
</tr>
</tbody>
</table>

§ 25.1395 Maximum intensities in overlapping beams of forward and rear position lights.

No position light intensity may exceed the applicable values in the following table, except as provided in § 25.1389(b)(3).

<table>
<thead>
<tr>
<th>Overlaps</th>
<th>Maximum intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Area A (candles)</td>
</tr>
<tr>
<td>Green in dihedral angle L ..........</td>
<td>10</td>
</tr>
<tr>
<td>Red in dihedral angle R ............</td>
<td>10</td>
</tr>
<tr>
<td>Green in dihedral angle A ..........</td>
<td>5</td>
</tr>
<tr>
<td>Red in dihedral angle A ............</td>
<td>5</td>
</tr>
<tr>
<td>Rear white in dihedral angle L .....</td>
<td>5</td>
</tr>
<tr>
<td>Rear white in dihedral angle R .....</td>
<td>5</td>
</tr>
</tbody>
</table>

Where—

(a) Area A includes all directions in the adjacent dihedral angle that pass through the light source and intersect the common boundary plane at more than 0 degrees but less than 20 degrees; and

(b) Area B includes all directions in the adjacent dihedral angle that pass through the light source and intersect the common boundary plane at more than 20 degrees.

§ 25.1397 Color specifications.

Each position light color must have the applicable International Commission on Illumination chromaticity coordinates as follows:

(a) Aviation red—

\[ y \text{ is not greater than 0.335; and } z \text{ is not greater than 0.002.} \]

(b) Aviation green—

\[ x \text{ is not greater than 0.440} - 0.320y ; \]

\[ z \text{ is not greater than } y - 0.170; \text{ and } y \text{ is not less than 0.390} - 0.170z. \]

(c) Aviation white—

\[ x \text{ is not less than 0.300 and not greater than 0.540; } \]

\[ y \text{ is not less than } x - 0.040; \text{ or } y_b - 0.010, \text{ whichever is the smaller; and } \]

\[ y \text{ is not greater than } x + 0.020 \text{ nor } 0.636 - 0.400; \text{ Where } y_b \text{ is the } y \text{ coordinate of the Planckian radiator for the value of } x \text{ considered.} \]


§ 25.1399 Riding light.

(a) Each riding (anchor) light required for a seaplane or amphibian must be installed so that it can—

(1) Show a white light for at least 2 nautical miles at night under clear atmospheric conditions; and

(2) Show the maximum unbroken light practicable when the airplane is moored or drifting on the water.

(b) Externally hung lights may be used.

§ 25.1401 Anticollision light system.

(a) General. The airplane must have an anticollision light system that—

(1) Consists of one or more approved anticollision lights located so that their light will not impair the crew’s vision or detract from the conspicuity of the position lights; and

(2) Meets the requirements of paragraphs (b) through (f) of this section.

(b) Field of coverage. The system must consist of enough lights to illuminate the vital areas around the airplane considering the physical configuration and flight characteristics of the airplane. The field of coverage must extend in each direction within at least 75 degrees above and 75 degrees below the horizontal plane of the airplane, except that a solid angle or angles of obstructed visibility totaling not more than 0.03 steradians is allowable within a solid angle equal to 0.15 steradians centered about the longitudinal axis in the rearward direction.

(c) Flashing characteristics. The arrangement of the system, that is, the number of light sources, beam width, speed of rotation, and other characteristics, must give an effective flash frequency of not less than 40, nor more than 100 cycles per minute. The effective flash frequency is the frequency at
§ 25.1403 Wing icing detection lights.

Unless operations at night in known or forecast icing conditions are prohibited by an operating limitation, a means must be provided for illuminating or otherwise determining the formation of ice on the parts of the wings that are critical from the standpoint of ice accumulation. Any illumination that is used must be of a type that will not cause glare or reflection that would handicap crewmembers in the performance of their duties.


SAFETY EQUIPMENT

§ 25.1411 General.

(a) Accessibility. Required safety equipment to be used by the crew in an emergency must be readily accessible.

(b) Stowage provisions. Stowage provisions for required emergency equipment must be furnished and must—

(1) Be arranged so that the equipment is directly accessible and its location is obvious; and

(2) Protect the safety equipment from inadvertent damage.

(c) Emergency exit descent device. The stowage provisions for the emergency exit descent devices required by § 25.810(a) must be at each exit for which they are intended.

(d) Liferafts. (1) The stowage provisions for the liferafts described in § 25.1415 must accommodate enough rafts for the maximum number of occupants for which certification for ditching is requested.

(2) Liferafts must be stowed near exits through which the rafts can be launched during an unplanned ditching.

(3) Rafts automatically or remotely released outside the airplane must be attached to the airplane by means of the static line prescribed in § 25.1415.

(4) The stowage provisions for each portable liferaft must allow rapid detachment and removal of the raft for use at other than the intended exits.

(e) Long-range signaling device. The stowage provisions for the long-range signaling device required by § 25.1415 must be near an exit available during an unplanned ditching.

(5) Life preserver stowage provisions. The stowage provisions for life preservers described in § 25.1415 must accommodate one life preserver for each occupant for which certification for ditching is requested. Each life preserver must be within easy reach of each seated occupant.