

§ 29.1391

§ 29.1391 Minimum intensities in the horizontal plane of forward and rear position lights.

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

Dihedral angle (light included)	Angle from right or left of longitudinal axis, measured from dead ahead	Intensity (candles)
L and R (forward red and green).	0° to 10°	40
	10° to 20°	30
	20° to 110°	5
A (rear white)	110° to 180°	20

§ 29.1393 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:

Angle above or below the horizontal plane	Intensity, <i>I</i>
0°	1.00
0° to 5°90
5° to 10°80
10° to 15°70
15° to 20°50
20° to 30°30
30° to 40°10
40° to 90°05

§ 29.1395 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 § 29.1389(b)(3).

Overlaps	Maximum intensity	
	Area A (candles)	Area B (candles)
Green in dihedral angle L	10	1
Red in dihedral angle R	10	1
Green in dihedral angle A	5	1
Red in dihedral angle A	5	1
Rear white in dihedral angle L ..	5	1
Rear white in dihedral angle R ..	5	1

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 10 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.

§ 29.1397 Color specifications.

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

(a) *Aviation red*—

y is not greater than 0.335; and
z is not greater than 0.002.

(b) *Aviation green*—

x is not greater than 0.440 - 0.320*y*;
x is not greater than *y* - 0.170; and
y is not less than 0.390 - 0.170*x*.

(c) *Aviation white*—

x is not less than 0.300 and not greater than 0.540;

y is not less than *x* - 0.040 or *y_c* - 0.010, whichever is the smaller; and

y is not greater than *x* + 0.020 nor 0.636 - 0.400*x*;

Where *Y_c* is the *y* coordinate of the Planckian radiator for the value of *x* considered.

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§ 29.1399 Riding light.

(a) Each riding light required for water operation must be installed so that it can—

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

(2) Show a maximum practicable unbroken light with the rotorcraft on the water.

(b) Externally hung lights may be used.

§ 29.1401 Anticollision light system.

(a) *General*. If certification for night operation is requested, the rotorcraft must have an anticollision light system that—

(1) Consists of one or more approved anticollision lights located so that their emitted 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 rotorcraft, considering the physical configuration