

Table 19.9 Lighting recommendations for fitness training

Class	Horizontal illuminance (lx)	Illuminance uniformity	Colour rendering index
I, II and III	500	0.8	60

19.3.6 Football (Association, Gaelic and American)

Football involves the rapid passage of a ball combined with physical contact between players. At high levels, these sports attract large numbers of spectators which means that attention should be paid to emergency lighting and the lighting requirements may be specified by UEFA or FIFA. For lower classes, football is in TV group B. The purpose of the general lighting is to provide uniform illumination of the pitch, with good modelling of players and without shadows or glare to players or spectators. This purpose can be met by a number of different approaches, from pole-mounted floodlights to continuous lines of floodlights mounted on the roofs of grandstands. If the former approach is used, it is important to note that for Association and Gaelic football, lighting masts should not be located within 10 degrees of the goal line axis.

Table 19.10 Lighting recommendations for Association, Gaelic and American football

Class	Horizontal illuminance (lx)	Illuminance uniformity	Glare rating	Colour rendering index
I	500	0.7	50	60
II	200	0.6	50	60
III	75	0.5	55	20

19.3.7 Lawn tennis

The main visual requirements in tennis are for the players, match officials and spectators to see the ball, player and court clearly. The flight of the ball indoors will be seen easily if the ball is seen against a dark background. The reflectance of any vertical fabrics or surfaces surrounding the court should not be greater than 0.5. The ceiling above the court and extending 3 m behind the base lines should be kept free from luminaires. Typical lighting systems for indoor courts use luminaires that are mounted parallel to the sidelines, extend beyond the baselines and are outside the court area. For outdoor courts, sharp cutoff floodlights mounted on columns to the sides of the court are the usual choice. The choice of light source depends on the material forming the court. For both indoor and outdoor courts, the Lawn Tennis Association has specific illuminance requirements for the total area and the principal area (see Section 19.2.2). Lawn tennis is in TV group B.

Table 19.11 Lighting recommendations for tennis (indoor)

Class	Horizontal illuminance (lx)	Illuminance uniformity	Colour rendering index
I	750	0.7	60
II	500	0.7	60
III	300	0.5	20