

## 19.3 Lighting recommendations

The following tables summarise the recommendations for the lighting of sports facilities in the different lighting classes. The recommendations are given for sports of majority interest. Recommendations for lighting sports of minority interest are available in the SLL Lighting Guide 4: *Sports lighting*. The following notes are essential for interpreting the recommendations.

The horizontal and vertical illuminances given are both minimum maintained average values. Horizontal illuminance is for the playing surface. Vertical illuminance is usually on a specified plane at a given height above the ground. Methods for measuring or calculating the mean illuminance are given in SLL Lighting Guide 4: *Sports lighting*.

Illuminance uniformity is the ratio of minimum illuminance to the mean illuminance over the actual playing area. Methods for measuring or calculating the illuminance uniformity are given in SLL Lighting Guide 4: *Sports lighting*.

For indoor facilities, glare control is achieved by specifying a maximum unified glare rating (UGR). For outdoor facilities, glare control is achieved by specifying a maximum glare rating (see Section 17.3.2 and CIE Publication 112-1994).

### 19.3.1 Athletics

Athletics can take place outdoors in a stadium or indoors in an arena. The lighting in both sorts of facility should be adequate for both field and track events. Where sports involving flying missiles such as the discus, javelin and hammer are to take place, the lighting should ensure the missile is visible throughout its flight. For the track, the vertical illuminance at the finishing line should be at least 1000 lx to enable the photo-finish equipment to operate. For class III outdoor tracks, the recommended horizontal illuminance can be reduced to 50 lx for jogging. Athletics falls into TV group A.

**Table 19.1** Lighting recommendations for indoor athletics

Class	Horizontal illuminance (lx)	Illuminance uniformity	Colour rendering index
I	500	0.7	60
II	300	0.6	60
III	200	0.5	20

**Table 19.2** Lighting recommendations for outdoor athletics

Class	Horizontal illuminance (lx)	Illuminance uniformity	Colour rendering index	Glare rating
I	500	0.7	60	50
II	200	0.7	60	50
III	100	0.5	20	55