

Athletics

In considering lighting for athletics, events can be divided into two groups. These are:

- Those events which take place essentially at ground level – track events, horizontal jumps and shot putt
- Those events which involve the space significantly above ground level - throwing events (except shot) and vertical jumps.

For events in the first group, it is sufficient to consider horizontal illuminance at ground level.

For events in the second group, the full volume within which the event takes place must be considered – for instance, the maximum height of the flight of the javelin or hammer and the maximum height of the pole vault bar.

In most cases the stadium or indoor arena will be lit to a standard where the requirements of both groups of events are met simultaneously. (See sections 5.0 & 6.0 of *CIBSE Lighting Guide 4*).

Proper lighting of the full volume required for events in the second group is a very important safety consideration. It is essential for the hammer and javelin and discus to be visible throughout their flight. High jumpers and pole vaulters must be able to see the bar. Note that it can be very expensive to light the volume above an athletics track. For an outdoor track which is not enclosed by a stadium, lighting this volume without producing overspill light and without creating glare for distant observers may be very difficult. If, for whatever reason, it is not practicable to light the entire volume for a given event, that event should not take place under lights.

The Table below gives a partial summary of the recommendations of the *International Association of Athletics Federations (IAAF)*, as published in the *Track and Field Facilities Manual 2008 Edition*. For televised events, different standards will apply.

Level of play	Horizontal Illuminance		Colour rendering index	Glare rating
	Outdoor Athletics			
	Eave lux	Emin / Eave		
International / Premier	500	0.7	≥ 80	≥ 50
Club	200	0.7	≥ 65	≥ 50
Community	100	0.5	≥ 20	≥ 50

Notes

- Glare should be controlled by careful positioning of luminaries, e.g. over the pole vault area.
- The vertical illuminance at the finishing line should be at least 1000 lux for photo finish equipment.
- For outdoor tracks (community level of play), the level of horizontal illuminance can be reduced to 50 lux for jogging (see Section 5.0 of *CIBSE LG4, Stadia - large and small*).