



Lighting an athletics track

When lighting an athletic track the objective is to ensure good visibility for athletes, competition judges and team officials to see clearly all that is going on in the competition or training area, so that they can produce their best possible performances, and/or make accurate decisions.

Spectators should be able to follow the performances of the athletes and other action in an agreeable environment. It follows that they must be able to see not only the field area but also its immediate surroundings. The lighting should also enable spectators to safely enter and leave the sports facility.

Where athletics facilities are to be used for non-televised activities, it is only necessary to provide a horizontal illuminance suitable for the required level of activity.

Source: IAAF lighting requirements

Non-televised athletics lighting recommendations

EN12193 Requirements

	Class		
	I	II	III
Horizontal Illuminance (Lux)	500	200	100
Uniformity (Min/Ave)	0.7	0.5	0.5
Glare Rating	50	55	55

Recommendations for televised events

Major events

	Horizontal illuminance	Uniformity Min/Ave	Uniformity Min/Max	Vertical Illuminance	Uniformity Min/Ave	Uniformity Min/Max	Colour Rendering	Glare Rating
HDTV	1500-3000	0.8	0.7	2200	0.7	0.6	>90	<50
Slow-motion Camera	1500-3000	0.8	0.6	1800	0.7	0.5	>80	<50
Fixed Camera	1500-3000	0.8	0.6	1400	0.7	0.5	>80	<50
Mobile Camera	1500-3000	0.8	0.6	1200	0.5	0.3	>80	<50

Average horizontal and vertical illuminance ratios: It is recommended that the ratio for horizontal illuminance (Field of Play) is between 0.75 and 1.5 of the vertical illuminance for cameras. Where there is HDTV all horizontal values for other cameras are as for HDTV

National events

	Horizontal illuminance	Uniformity Min/Ave	Uniformity Min/Max	Vertical Illuminance	Uniformity Min/Ave	Uniformity Min/Max	Colour Rendering	Glare Rating
Camera	1000-2000	0.7	0.5	1000	0.6	0.4	>80	<50

Measurements should be taken 1.5 m above the track surface.

Luxtronik offers Athletics LED lighting that emits bright, uniform illumination. Our high-quality LED luminaires are lighting Tracks and Sports grounds around the world.

Recommended Products



PANDORA (MFL)
50-600w



APOLLO (FL)
60-800w



JUPITER (FLS)
400-1500w

For more information or project and lighting design support, please contact our team sales@luxtronik-tech.com