



Lighting a hockey field

There is an increasing desire to use an outdoor hockey facility over a long period of time each day. This will often entail the use of artificial lighting. At one level, this maximizes the value of an investment in a synthetic turf pitch because of the longer periods of use for evening training or local matches. At another level, it enables international competition matches to be held in the evening when spectators are more able to attend and, in some climates, when it is cooler.

Good quality illumination is essential for sports like hockey where players are expected to act quickly on a small but fast-moving ball. This demands a uniform light distribution and a color temperature that matches that of daylight.

For non-televised matches, the illuminance horizontally on the pitch is considered as the plane of reference for the pitch. This approach in practice will then provide sufficient illuminance for players to see each other and for the ball to be seen clearly. For Class I, II, III events it is important for the light levels to be uniform across the entire pitch as well as a 1.5 m perimeter surrounding the field of play.

Source: FIH lighting requirements

Non-televised hockey lighting recommendations

EN12193 Requirements

	Class		
	I	II	III
Horizontal Illuminance (Lux)	750	500	300
Uniformity (Min/Ave)	0.7	0.7	0.7
Glare Rating	50	50	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 playing surface.

Luxtronik offers Hockey LED lighting that emits bright, uniform illumination, so matches can be played at any time of the day or night with great visibility. Our high-quality LED luminaires are used on various hockey pitches and sports grounds around the world.

Recommended Products



APOLLO (FL)
60-800w



JUPITER (FLS)
400-1500w



HERCULES (PLS)
400-1500w

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