

Q&A for Webinar - Lighting University - Crowd Management for sports venues

June 28th 2018.

Q: How far in advance do you begin planning for a new venue?

A>

More than 2 years in advance if the stadium is existing and has existing lighting which needs to be revived or lux level is to be improved.

This process may take more than 2 years (up to 4 years) in case the new stadium is to be constructed and it also depends on the size of structure construction. In any case, at least 6 months before event the venues must be ready for test event

Q: How to know where to point all the luminaires of a tower of luminaries that point to the field of play? Is there any standard?

A>>

FIFA Technical Recommendation 5th Edition 2011-chapter 9 Lighting and power supply

Q: At what point could a lighting fixture manufacturer get their products specified?

A>>

For a lighting fixture manufacturer, the right time to get the products specified is after the concept design is ready and budget is known.

Q: What level of protection against external mechanical impacts do you recommend for the exterior lighting of stadiums?

A>>

See chapter 9 Lighting and power supply, FIFA Technical Recommendation 5th Edition 2011 page 178 9.4 Environmental impact
Preferable high mast/anti vandal

Q: Which lighting is best whether conventional lighting or LED lighting for sports and why?

A>>

There are more advantages with LED Lighting than conventional because of following features:

- 1) 3 times life time as compared to conventional metal halide luminaires.
- 2) Easy and fast to switch on the lighting (immediately) because conventional need approx. 20 minutes
- 3) Multiple control interface with options available for DMX / DALI / ON-OFF. Special features like integration with music and stage lighting makes stadium / sports arena more flexible to be used whole year , rather than only to be used for sports like light shows at the time of opening ceremony , Closing Ceremony and music concerts .
- 4) As shared during the webinar, the lighting control over specific set of luminaires can be used to guide the spectators to evacuation path in case of emergency.

Q: Is there any overlap between connected stadium lighting and behavioural sciences to predict and respond to dis functional crowd/individual behaviour?

A>>

- 1) In the panic situation, spectator need clear direction to safety area
- 2) Need enough lighting to illuminate the evacuation access
- 3) Dark area encourages the feeling of unsafety

Q: What lighting color temperature was considered best for safety?

A>>

Colour temperature describes the feeling or appearance of how warm (red) or cool (Blue) is the colour. Lighting for safety / evacuation can be preferably in warm colour (3000 k / 4000 k) because it gives a sense of security in hazy conditions.

Q: Was battery storage used for emergency lighting?

A>>

The battery only UPS for data or sensitive electronic equipment

Follow the building codes from local Authority normally power for emergency lighting from back up genset

Q: What is illuminance?

A>>

an artificial illumination source to reproduce natural lighting.