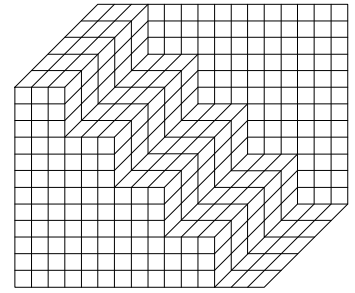


Appendix 16.4



Buro Happold

Everton FC Stadium- Kirby **External Lighting – Planning Statement**

Lighting to the external perimeter access areas of the stadium shall be provided to enable the safe passage of persons around the stadium and to ensure security equipment such as CCTV cameras can operate correctly

This shall be achieved by the use of single or multiple lights around the four sides mounted on columns typically 8m high or mounted directly onto the façade of the stadium structure at a similar height. The illuminance levels shall be an extension of the site wide external lighting provision and are anticipated to be 20 lux horizontal average.

All luminaires shall be aimed directly vertically downward to ensure minimal sky glow and be specified with a suitable cut-off angle to ensure minimum overspill to adjacent areas

Control of external lighting around the stadium perimeter shall be via time clocks and automatic photocells, with override manual switching for match day occasions.

Feature lighting shall be provided to selected elements of the stadium facades to give a low level (anticipated 5-10 lux) uniform illuminance on the external surface. In addition back lit club and sponsors signage will be incorporated on each corner and side of the stadium elevations, these will typically consist of linear fluorescent lamps contained with the relevant signage.

Lighting is anticipated to be provided for the visually exposed seating underside at level 3 and above, this shall typically consist of linear fluorescent luminaires mounted within the external plant areas at level 3. These shall be manually controllable and typically be used during match times.

Pitch lighting shall be achieved by lights mounted on the underside of the stadium roof approximately 30m above ground level and 16m inward from the outer stadium roof edge. The pitch floodlights shall be aimed no greater than 70 degrees from the downward vertical to ensure glare and light spilled outside the facility are kept to a minimum.

The pitch lighting shall be designed and installed to meet the glare, colour rendering and lux values required and specified by the football governing bodies UEFA and FIFA. The lighting levels are anticipated to be 1400 lux (vertical illuminance) for playing times and 500 lux for training and general non match times such as ground maintenance periods