

**TABLE 1**  
**LIGHTING CRITERIA**

Level of play	Maintained horizontal illuminance <sup>1,2</sup> $E_{mh}$	Minimum horizontal uniformities <sup>3</sup>		Maximum glare rating $GR_{max}$	Minimum colour rendering index $R_{a\ min}$	Maximum uniformity gradient
		$U_1$	$U_2$			
<b>Amateur and semi-professional level</b>						
Ball and physical training	50	0.3	N/A	N/A	20	N/A
Club competition and match practice	100	0.5	0.3	50	65	N/A
Semi-professional competition	200	0.6	0.4	50	65 <sup>4</sup>	N/A
<b>Professional level</b>						
Ball and physical training	100	0.5	0.3	50	20	N/A
Match practice	200	0.6	0.4	50	65	N/A
Professional competition	500	0.7	0.5	50	65 <sup>4</sup>	20% per 5m

- 1 For the height above the playing surface at which the illuminance is to be measured, refer to Clause 6.3.1.
- 2 Values of illuminance measured at the time of commissioning an installation (ie: initial or close to) should be higher than the maintained illuminance values (see Clause 6.2)
- 3 Being ratios,  $U_1$  and  $U_2$  can be calculated with equal accuracy by using either all initial or all maintained values.
- 4 If future upgrading to a level suitable for television broadcasting is intended or likely, the selection of light sources with  $R_a \geq 90$  should be considered.

NOTE: The above values are chosen to be adequate to provide for the safety of the participants and the level of visual tasks anticipated. Factors such as large crowds (e.g.  $\geq 10000$ ) with consequent longer viewing distances, might require higher values to be chosen than initially indicated above.

## 7 UNIFORMITY OF ILLUMINANCE

### 7.1 General

As the participants are required to observe the football well above the PPA, the distribution of light across the space above the PPA needs to be reasonably uniform as large variations in illuminance across this space will cause apparent uneven flight of the ball and hence poor judgement by the participants.

This Standard specifies requirements for the uniformity of horizontal illuminance of the PPA only. It sets no requirements for the uniformity of vertical illuminance at any height, however this parameter can be addressed by considering items (a), (b) and (c) of Clause 6.1.

### 7.2 Determination requirements

Except where specifically stated otherwise in this Standard, determination (by calculation or measurement) of horizontal illuminance uniformity shall be made in accordance with the relevant sections of AS 2560.1.