

UEFA Stadium Infrastructure Regulations

Edition 2018

## Contents

Preamble		6	
I-General	Provisi	ions	7
Δr	ticle 1	Scope of application	7
	ticle 2	Connection with competition regulations	7
	ticle 3		7
	ticle 4	Definition of terms	8
II - Areas R	elating	to Players and Officials	9
Ar	ticle 5	Field of play	9
Ar	ticle 6	Warm-up area	9
Ar	ticle 7	Goals and spare goal	10
Ar	ticle 8	Substitutes' benches	10
Ar	ticle 9	Flagpoles	10
Ar	ticle 10		10
Ar	ticle 11		11
Ar	ticle 12	3	11
	ticle 13		11
	ticle 14		11
	ticle 15	51	11
Ar	ticle 16	Floodlighting	11
III - Specta	tor-rela	ated Areas	13
Ar	ticle 17	Spectator capacity	13
Ar	ticle 18	Stands and spectator facilities	13
Ar	ticle 19	Public access, exit and circulation routes	14
Ar	ticle 20	Emergency lighting system	14
	ticle 21	<b>,</b>	14
		Sanitary facilities for spectators	15
		First-aid facilities for spectators	15
	ticle 24		15
	ticle 25		15
	ticle 26	51	16
		Control room	16
Ar	ticle 28	Closed-circuit television system	16
IV - Media	Areas_		18
Ar	ticle 29	Media working area	18
Ar	ticle 30		18
Ar	ticle 31	Media seating	19
Ar	ticle 32	Camera platforms	19

Article 34 Article 35 Article 36 Article 37	TV commentary positions TV studios Flash interview positions TV compound Press conference room Mixed zone	20 21 21 22 22 23
V - Closing Provis	ions	_ 24
Article 39	Non-compliance	24
Article 40	Annexes	24
Article 41	Implementation	24
Article 42	Authoritative version	24
	ation of the floodlighting average illuminance (see Articles	25
16.01 and 16.02) A.1	Definition of terms	25 25
		25 25
A.2	Testing	20
Annex B - Pitch O	rganisation (see Article 5.07)	_ 27

## Preamble

The following regulations have been adopted on the basis of Article 50(1) of the UEFA Statutes.

## I General Provisions

#### Article 1 Scope of application

- 1.01 These regulations apply whenever expressly referred to by specific regulations governing a UEFA competition.
- 1.02 They govern the minimum structural criteria to be fulfilled by a stadium in order for it to be classified (in ascending rank order) as UEFA category 1, 2, 3 or 4. The higher the category is, the stricter and more numerous the criteria (Articles 5-38). The structural criteria applicable to specific categories are presented in the form of tables showing the criteria gradation between the different categories. Structural criteria that are not presented in the form of tables apply to all categories.
- 1.03 These regulations further set out the responsibilities for monitoring compliance with the structural criteria for the required stadium category and specify the conditions under which the UEFA administration may grant an exception to a specific structural criterion (Article 3).
- 1.04 These regulations do not affect the legal obligations arising from national law applicable to stadium facilities.

Article 2 Connection with competition regulations

- 2.01 The relevant UEFA competition regulations:
  - a. specify the minimum category of stadium required for matches in the competition concerned;
  - b. may define further and/or stricter structural criteria for the required category than those set out in these regulations.

#### Article 3 Roles and responsibilities

- 3.01 Each association on whose territory matches in a UEFA competition are played is responsible for:
  - a. inspecting every stadium concerned and completing the corresponding online form confirming to the UEFA administration that each stadium meets the structural criteria of the required stadium category;
  - b. confirming to the UEFA administration that the stadiums, including their stands and facilities (emergency lighting system, first aid facilities, protection against intrusion by spectators into the playing area, etc.), have been thoroughly inspected by the competent public authorities and that the latter have confirmed in writing that the stadiums meet all the safety requirements laid down by the applicable national law.
- 3.O2 The UEFA administration makes decisions on stadiums to be used on the basis of the above form and confirmation, and any other information gathered by UEFA. Such decisions are final.

- 3.O3 The UEFA administration may inspect stadiums at any time before and during the UEFA competition in which they are used, to check whether the required structural criteria are met.
- 3.04 The UEFA administration may grant an exception to a specific structural criterion in cases of particular hardship and upon reasoned request, for instance owing to the current national legislation or if the fulfilment of all the required criteria would force a club or association to play its home matches on the territory of another association. Exceptions are always granted for a limited period of time. Such decisions are final.

#### Article 4 Definition of terms

- 4.01 For the purpose of these regulations, the following definitions and abbreviations apply:
  - a. IFAB: the International Football Association Board;
  - b. control room: room reserved for staff and officials with overall responsibility for all match-related safety and security matters, namely the chief police officer, the stadium security officer and their staff;
  - c. VIP: very important persons invited to attend the match by its organiser.
- 4.02 In these regulations, the use of the masculine form refers equally to the feminine.

## II Areas Relating to Players and Officials

#### Article 5 Field of play

- 5.01 The field of play must be smooth and level and comply with the *IFAB Laws of the Game*. Its surface must be green and the line markings white.
- 5.02 No lines other than football ones, as defined in the *IFAB Laws of the Game*, may be visible on the field of play.
- 5.O3 The field of play must be entirely covered with either a natural playing surface (100% natural grass), reinforced natural grass (hybrid) or artificial football turf (100% artificial fibres).
- 5.04 Artificial football turf must:
  - a. have been granted the required FIFA certification, which can only be delivered after the turf in question has been tested by a FIFA-accredited laboratory and confirmed as meeting the latest FIFA standards;
  - b. meet all the requirements of the national legislation in force (if any).
- 5.05 Stadiums must be constructed and equipped in such a way that the field of play is playable on all matchdays in the UEFA competition season.
- 5.06 No object may be located less than 21m above the field of play.
- 5.07 The area immediately adjacent to the field of play must be safe for players and referees. All pitch-side equipment and associated structural elements must be positioned so that they pose no danger to the players, coaches or match officials (as set out in <u>Annex B</u>, space permitting).
- 5.08 In addition, the field of play must meet the following requirements:

Category	Length	Width	Additional requirement
1 and 2	100–105m	64–68m	N/a
3 and 4	105m	68m	Pitch heating and/or pitch cover (depending on the location and climatic conditions).

#### Article 6 Warm-up area

6.01 A warm-up area for substitutes must be available along the touchline behind the first assistant referee. It must be covered with grass or artificial turf securely fixed to the ground and, ideally, it should be the same surface as the field of play. If space is not available along the touchline behind the first assistant referee, a solution must be foreseen behind one of the goals, behind the advertising boards (if installed).

#### Article 7 Goals and spare goal

- 7.01 Goals must be made out of aluminium or a similar material, be round or elliptical and not pose any danger to players. Moreover, they must comply with the *IFAB Laws* of the Game, which means, in particular, that:
  - a. the distance between the inside of the posts must be 7.32m;
  - b. the distance from the lower edge of the crossbar to the ground must be 2.44m;
  - c. the goalposts and the crossbar must be white and have the same width and depth, which must not exceed 12cm;
  - d. the goals must be firmly secured to the ground.
- 7.02 A spare goal which can be easily installed if the circumstances so require must be available within the stadium.
- 7.03 In addition, all goals (including spare goals) must meet the following requirements:

Category	
1 and 2	N/a
3 and 4	No additional structural elements or physical support may be used inside the net or in its immediate surroundings other than bars fixing the goal net to the ground and goal net stanchions behind and outside the net. Portable goals must not be used.

#### Article 8 Substitutes' benches

- 8.01 Stadiums must be equipped with two covered benches at pitch level, each with seating for at least 14 people and positioned at least 4m from the touchline.
- 8.02 A position with a seat and a desk must be provided for the fourth official, ideally covered and between the substitutes' benches.

Article 9 Flagpoles

9.01 Stadiums must be equipped with a minimum of five flagpoles or another adequate structure allowing five flags to be flown.

Article 10 Rooms for players and officials

10.01 All rooms in the following articles located in areas relating to players and officials must be well lit, ventilated and/or heated, clearly signposted and equipped with Wi-Fi.

#### Article 11 Dressing rooms

- 11.01 Stadiums must be equipped with at least one dressing room for each team with a minimum of five showers, two separate seated toilets, seating for at least 25 people, one massage table, one tactical board and clothes-hanging facilities or lockers.
- 11.02 Stadiums must be equipped with a referees' dressing room which meets the following requirements:

Category	Minimum installations	Dimensions
1 and 2	One shower, one individual seated toilet, five seats, a desk and clothes-hanging facilities or lockers.	N/a
3 and 4	Two showers, one individual seated toilet, six seats, a desk and clothes-hanging facilities or lockers.	At least 20m <sup>2</sup>

11.03 Stadiums must guarantee direct, private and secure access for both teams and the referees from their dressing rooms to the playing area.

Article 12 Delegate's room

12.01 Stadiums must be equipped with a room that is exclusively reserved for the UEFA delegate and referee observer (if any), with an easy access to the teams' and referees' dressing rooms.

Article 13 Emergency medical room for players and officials

13.01 Stadiums must be equipped with an emergency medical room as set out in the UEFA Medical Regulations.

Article 14 Doping control station

14.01 Stadiums must be equipped with a dedicated doping control station as set out in *UEFA Anti-Doping Regulations*.

Article 15 Parking spaces

15.01 Parking space for a minimum of two buses and ten cars must be available for the teams and officials in a safe and secure area in the immediate vicinity of the players' and officials' entrance. If such parking is not located in the immediate vicinity of players' and officials' entrance, a safe and secure drop-off area must be organised.

Article 16 Floodlighting

16.01 For matches that are being played under floodlights, stadiums must be equipped with a floodlighting system that is capable of maintaining an average horizontal illuminance, measured according to <u>Annex A</u>, of at least 350 Eh(lux).

16.02 For matches that are being broadcast, stadiums must be equipped with a floodlighting system that is capable of maintaining at least the following average illuminance, measured according to <u>Annex A</u>:

Category	Horizontal illuminance	Vertical illuminance
1	Sufficient to allow the host broadcasting of the match.	broadcaster to ensure adequate
2	800 Eh(lux) with uniformity ratios of U1h >0.4 and U2h >0.5	350 Ev(lux) on each reference plane with uniformity ratios of U1 >0.35 and U2 >0.45
3	1,200 Eh(lux) with uniformity ratios of U1h >0.4 and U2h >0.6	750 Ev(lux) on each reference plane with uniformity ratios of U1 >0.4 and U2 >0.45
4	1,400 Eh(lux) with uniformity ratios of U1h >0.5 and U2h >0.7	1,000 Ev(lux) on each reference plane with uniformity ratios of U1 >0.4 and U2 >0.5

16.03 In addition, to ensure that matches can proceed in the event of a power failure, an independent backup power supply must be available and able to provide at least the following average horizontal illuminance:

-		
Category	For matches played under floodlights	For broadcast matches
1	N/a	N/a
2	350 Eh(lux)	350 Eh(lux)
3	350 Eh(lux)	800 Eh(lux)
4	350 Eh(lux)	900 Eh(lux) no more than 15 minutes after the power failure.

## III Spectator-related Areas

#### Article 17 Spectator capacity

17.01 Stadiums must have the following minimum capacity (including all standard and VIP seating):

Category	
1	200 spectators
2	1,500 seats
3	4,500 seats
4	8,000 seats

17.02 At least 5% of the total stadium capacity must be in a segregated area of the stadium (for visiting spectators).

#### Article 18 Stands and spectator facilities

- 18.01 Seats for spectators must be individual, numbered, firmly fixed in place, robust, made of a shatterproof, non-flammable material, and have a backrest of a minimum height of 30cm when measured from the surface of the seat.
- 18.02 Stands must be fixed to a load-bearing foundation and may not be based on or contain any tubular/scaffolding structures. The material, design and construction of the stands must be clearly intended for permanent use.
- 18.03 Standing accommodation, terraces, platforms, benches and seats without backrest are permitted/prohibited as follows:

Category	
1	Permitted provided that benches and seats without backrest are firmly fixed in place.
2 to 4	Prohibited.

- 18.04 Stadiums must be equipped with catering facilities for all spectators in every sector.
- 18.05 Stadiums must be in good condition and all public areas must be well lit. There must be no loose material (e.g. stones, concrete) which may be hazardous, thrown or otherwise misused.

#### Article 19 Public access, exit and circulation routes

- 19.01 Approach routes to the stadium, entrances, exits and all public areas inside the stadium must be clearly indicated and adequately signposted (for example by means of letters and numbers) to guide spectators to and from their seats.
- 19.02 Entry gates and/or turnstiles must be designed in such a way as to avoid congestion and ensure the smooth flow of spectators.
- 19.03 Ground rules indicating prohibited items, ideally in the form of internationally recognised pictograms, must be available at every entrance.
- 19.04 All public access, exit and circulation routes must be clearly distinguished from the seating areas. Entry gates, exit gates and doors must be operational and indicated by signs which are universally understood.
- 19.05 All doors and gates that form part of exit or evacuation routes, and all gates leading from the public areas to the field of play (if applicable), must:
  - a. be operational and designed so that they can remain unlocked (but manned) while spectators are in the stadium;
  - b. open outwards in the direction of the egress and evacuation routes.
- 19.06 In addition, stadiums must meet the following requirements in terms of access controls:

Category	
1 and 2	N/a
3 and 4	All public entrances must be equipped with turnstiles and an electronic ticket control system designed to prevent the use of counterfeit tickets and deliver real-time flow rates and entrance numbers to a central point with a view to preventing overcrowding in the stadium as a whole or in individual sectors. The ratio should be of 1 turnstile per 660 seats.

#### Article 20 Emergency lighting system

20.01 For the purposes of ensuring safety and guiding spectators and staff in the event of a general lighting failure, stadiums must be equipped with an emergency lighting system that has been approved by the competent local authorities and covers all areas of the stadium, including all egress and evacuation routes.

Article 21 Public address system

21.01 Stadiums must be equipped with an electronic public address system of loudspeakers capable of conveying spoken messages to all areas of the stadium instantaneously.

21.02 The public address system must cover both the inside and outside of the stadium and be connected to an independent power supply.

Article 22 Sanitary facilities for spectators

- 22.01 A sufficient number of clean and hygienic sanitary facilities must be distributed evenly throughout all sectors based on an 80:20 ratio of men to women. Seated toilets and urinals must be equipped with flushes. Sinks and toilet paper and soap dispensers must be provided and firmly fixed in place.
- 22.02 The minimum requirements for sanitary facilities are as follows:
  - a. 1 seated toilet per 250 men;
  - b. 1 urinal per 125 men;
  - c. 1 seated toilet per 125 women.

Article 23 First-aid facilities for spectators

- 23.01 Fully equipped first-aid facilities that have been approved by the competent local authorities must be available for spectators in each sector.
- 23.02 All first-aid facilities must be clearly indicated and adequately signposted.

Article 24 Facilities for spectators with disabilities

- 24.01 Stadiums must have dedicated access, exit routes and seats for spectators with disabilities and their helpers. All such seats must provide an unobstructed view of the field of play.
- 24.02 Stadiums must have accessible catering and dedicated sanitary facilities in sectors containing seats for spectators with disabilities.
- 24.03 One disabled toilet must be available for every 15 disabled spectators.

Article 25 VIP seats and hospitality area

25.01 Stadiums must have the following minimum number of VIP seats:

Category	
1 and 2	50
3	75
4	100

- 25.02 VIP seats must be covered and located, in the main stand, between the two 16m lines, as close to the halfway line as possible.
- 25.03 Stadiums must be equipped with a dedicated hospitality area for VIP guests, which is easy to access from the VIP seats.

#### Article 26 Parking spaces

26.01 Stadiums must have the following minimum number of parking spaces available in a safe and secure area for VIPs, other guests and staff:

Category	
1	20
2	50
3	100
4	150

#### Article 27 Control room

27.01 Stadiums must meet the following requirements in terms of control room facilities:

Category	Basic facilities	Additional requirements
1	N/a	N/a
2	A control room providing an overall view of the stadium interior and equipped with radio communications enabling communication between staff and officials responsible for safety and security at the stadium.	N/a
3 and 4	A control room providing an overall view of the stadium interior and equipped with radio communications enabling communication between staff and officials responsible for safety and security at the stadium.	The control room must be equipped with colour- monitors that are connected to the closed- circuit television system and additional monitors that display the live data from the electronic ticket control system.

#### Article 28 Closed-circuit television system

28.01 Stadiums must meet the following requirements in terms of closed-circuit television:

#### Category

1 and 2 N/a

Category	
3 and 4	Closed-circuit television system that uses colour surveillance cameras with pan, tilt and zoom functions and covers all stadium approaches and entrances, and all public areas within the stadium. Areas of the stadium interior not capable of being directly viewed from the control room must be covered by the closed-circuit television system. The cameras must be capable of recording moving images as well as still photographs.

## IV Media Areas

#### Article 29 Media working area

- 29.01 Stadiums must have at least one room equipped with desks, a power supply and internet connections for use as a working area for media representatives.
- 29.02 The media working area must provide the following minimum of working positions for media representatives:

Category	
1	10
2	20
3 and 4	30

#### Article 30 Photographers' working area

**30.01** A working area for photographers must be able to accommodate the following minimum number of working positions and meet the following additional requirements:

Category	Minimum number of working positions	Additional requirements
1 and 2	N/a	N/a
3	15	The photographers' working area must contain tables, chairs, power sockets and internet connections and have easy access to the pitch. It may be a dedicated section of the media working area (with the overall space increased accordingly), but should preferably be a separate room.
4	20	The photographers' working area must contain tables, chairs, power sockets and internet connections and have easy access to the pitch. It may be a dedicated section of the media working area (with the overall space increased accordingly), but should preferably be a separate room.

#### Article 31 Media seating

- 31.01 Stadiums must have media seating that is reserved for the written press and radio commentators. It must be covered and centrally located in the main stand, with an unobstructed view of the entire field of play and its immediate vicinity and easy access to the other media areas.
- 31.02 In addition, stadiums must meet the following requirements in terms of covered media seating:

Category	Minimum number of seats	Minimum number of seats equipped with desks
1	10	5
2	20	10
3	30	15
4	60	30

**31.03** Each desk must be big enough to accommodate a laptop computer and equipped with a power supply and internet connection.

#### Article 32 Camera platforms

- 32.01 One main camera platform must be installed in the main or opposite stand.
- 32.02 The main camera platform must be covered, positioned exactly in line with the halfway line and at a height above the pitch which guarantees an optimum and unobstructed view on the entire field of play and its immediate vicinity. The base of the platform must be level, solid and non-vibrating.
- 32.03 In addition, the main camera platform must meet the following requirements:

Category	
1	At least 2m wide x 2m deep, to accommodate one camera (only for matches that are being broadcast).
2 and 3	At least 4m wide x 2m deep, to accommodate two cameras.
4	At least 6m wide x 2m deep, to accommodate at least three cameras, located in the stand facing away from the sun.

32.04 Additional camera platforms are required as follows:

Category		
Category		
1 and 2	N/a	N/a
3	Two 16m camera platforms, each at least 2m wide x 2m deep, to accommodate one camera in the main stand exactly on the 16m lines, at the same level or higher than the main camera platform.	N/a
4	Two 16m camera platforms, each at least 2m wide x 2m deep, to accommodate one camera in the main stand exactly on the 16m lines, at the same level or higher than the main camera platform.	One reverse angle-camera platform centrally located in the opposite stand, to accommodate at least one camera, and one other camera platform of at least 2m wide x 2m deep in the stands behind each goal, to accommodate one camera on each, at a height permitting an unobstructed view of the penalty spot from above the crossbar.

#### Article 33 TV commentary positions

33.01 Stadiums must have the following minimum number of TV commentary positions:

Category	
1	1 (only for matches that are being broadcast)
2	3
3	5
4	10

33.02 TV commentary positions must be covered and centrally located between the two 16m lines, on the same side as the main camera platform. They must have an unobstructed view of the entire field of play and its immediate vicinity, allow easy access to the other media areas and be secure and accessible only to authorised persons. There must be sufficient space behind the seats for other commentators to move into their positions. 33.O3 Each commentary position must be equipped with a desk with a minimum width of 180cm, at least three seats, a phone line, a power supply, lighting and an internet connection.

Article 34 TV studios

34.01 Stadiums must be equipped with rooms which fulfil the following requirements and can be used as TV studios, if required:

Category	Minimum number of rooms	Minimum size	Additional requirements
1 and 2	1 room	5m long x 5m wide x 2.5m high	N/a
3	2 rooms	5m long x 5m wide x 2.5m high	N/a
4	2 rooms	5m long x 5m wide x 2.5m high	At least one of the two TV studios must be a pitch- view studio with an unobstructed view of the entire field of play.

#### Article 35 Flash interview positions

- 35.01 Stadiums must be equipped with an area between the pitch and the dressing rooms that can be used for flash interview positions, where live TV and radio interviews can be conducted.
- 35.02 In addition, the area designated for flash interview positions must meet the following requirements:

Category	
1 and 2	N/a
3 and 4	Large enough to accommodate at least four positions, each $4m$ deep x $3m$ wide.

#### Article 36 TV compound

36.01 Stadiums must have a secure area that can be used as a TV compound for parking TV companies' outside broadcast vans. The area must be at least the following size:

Category	
1	300m <sup>2</sup>
2	400m <sup>2</sup>
3	600m <sup>2</sup>
4	1,000m <sup>2</sup>

36.02 The TV compound must:

- a. be located adjacent to the stadium, ideally on the same side as the main camera platform, and with a power supply available;
- b. provide a clear, solid and flat parking area for large and heavy vehicles (i.e. 43 tons trucks);
- c. have sufficient drainage such that no cables, equipment or vehicles are in danger of being in contact with standing water;
- d. be free of any obstructions, such as trees, buildings and curbs, and offer unimpeded access to emergency vehicles;
- e. either provide a clear, unobstructed view of the southwestern to the southeastern horizon, or be within 50m of a separate satellite uplink area (measured from the edge of the TV compound).

Article 37 Press conference room

37.01 Stadiums must meet the following requirements in terms of press conference rooms:

Category	Location and facilities	Minimum number of seats
1	If space allows it, a press conference room must be located within the stadium. It may be part of the media working area.	N/a
2	A press conference room must be available within the stadium. It may be part of the media working area and must be equipped with a top table and podium, a camera platform, a sound system (microphones,	20

Category	Location and facilities	Minimum number of seats
	speakers and split box) and adequate lighting for broadcasting.	
3	A press conference room must be available within the stadium. It may be part of the media working area and must be equipped with a top table and podium, a camera platform, a sound system (microphones, speakers and split box) and adequate lighting for broadcasting.	30
4	A press conference room must be available within the stadium. It must be equipped with a top table and podium, a camera platform large enough to accommodate a minimum of 8 cameras, a sound system (microphones, speakers and split box with a minimum of 16 outputs) and adequate lighting for broadcasting.	50

#### Article 38 Mixed zone

- 38.01 Stadiums must have an area between the dressing rooms and the area reserved for the team buses that can be converted into a mixed zone where accredited media representatives can interview players after the match.
- 38.02 In addition, the mixed zone must meet the following requirements:

Category	
1 to 3	N/a
4	To be covered and large enough to accommodate at least 50 media representatives.

## V Closing Provisions

Article 39 Non-compliance

39.01 Any breach of these regulations may be penalised by UEFA in accordance with the UEFA Disciplinary Regulations.

Article 40 Annexes

40.01 All annexes form an integral part of these regulations.

Article 41 Implementation

- 41.01 The UEFA administration is entitled to adopt any guidelines, directives, manuals, guides or any other tools to assist with the implementation of these regulations.
- 41.02 The associations and clubs shall be regularly informed of the existence and issuance of such informative tools by means of a circular letter.

Article 42 Authoritative version

42.01 If there is any discrepancy in the interpretation of the English, French or German versions of these regulations, the English version prevails.

Article 43 Adoption, entry into force and abrogation

- 43.01 These regulations were adopted by the UEFA Executive Committee at its meeting on 25 February 2018.
- 43.02 They come into force on 1 May 2018.
- 43.03 They replace the UEFA Stadium Infrastructure Regulations (Edition 2010).

For the UEFA Executive Committee:

Aleksander Čeferin President Theodore Theodoridis General Secretary

Bratislava, 25 February 2018

# Annex A Calculation of the floodlighting average illuminance (see Articles 16.01 and 16.02)

#### A.1 Definition of terms

#### A.1.1 Horizontal illuminance

Illuminance falling on a horizontal plane 1m above and parallel to the playing surface.

#### Vertical illuminance

Illuminance falling on a vertical plane 1m above and perpendicular to the playing surface.

#### Uniformity

The uniformity of illuminance in terms of how evenly light is distributed over a given reference plane. The uniformity of illuminance is expressed using two illuminance ratios: U1 and U2.

#### U1

The total illuminance range, from minimum to maximum, that a person or camera will be exposed to. The U1 value contributes to visual performance.

#### U2

The difference between a person's normal adapted exposure and the lowest illuminance level on the given plane. The U2 value contributes to visual comfort.

#### Lux

The unit of illuminance incident on a pitch surface (1lx = 1lm/m2).

#### Е

The quantity of light falling on a surface at a given point, measured in lux.

#### A.2 Testing

- A.2.1 Testing equipment: The illuminance meter used for the illuminance test must be suitable for a floodlit environment, with a wide angle receptive light sensor. The meter must be recalibrated annually.
- A.2.2 Test procedure: The field of play is divided up into a grid containing 96 points. At each point, an illuminance test is carried out to measure both the horizontal illuminance (at one angle) and the vertical illuminance (at four different angles). Thus, the test procedure requires 480 illuminance tests in total. The illuminance meter must always be positioned at the correct angle for the intended measurement. Personnel carrying out the test must not create any shadows that could influence the readings. The meter must be 1m above the playing surface. The illuminance reading for each grid point must be recorded on the relevant illuminance grid plan.

- A.2.3 Horizontal test: The meter is positioned facing upwards, 1m above the playing surface, and parallel to the pitch, at every grid point.
- A.2.4 Vertical test: The meter is positioned perpendicular to the pitch, 1m above the playing surface, at every grid point. The meter must then be adjusted for each of the four test positions. The test positions are indicated on the vertical illuminance grid plan and are at 0°, 90°, 180° and 270°. This procedure must be repeated at all 96 grid points.
- A.2.5 Uniformity ratios are calculated as follows:
  - a. U1: E min/E max
  - b. U2: E min/E med



## Annex B Pitch Organisation (see Article 5.07)



UEFA ROUTE DE GENÈVE 46 CH-1260 NYON 2 SWITZERLAND TELEPHONE: +41 848 00 27 27 TELEFAX: +41 848 01 27 27 UEFA.com

WE CARE ABOUT FOOTBALL