

Imam Khomeini Stadium pitch Illuminance Test Report



AFC illuminance test procedure

AFC requires that all venues which could potentially host a televised match undergo assessments of their pitch illuminance systems.

Such illuminance tests must be conducted in accordance with the AFC Lighting Guidelines to ensure a consistent and objective analysis of the illuminance conditions at all relevant stadiums.

The illuminance test procedure and requirements are detailed below.

Inspection equipment

The illuminance meter used for the illuminance test should be suitable for a floodlighting environment, with a wide angle receptive light sensor. The meter must be recalibrated on an annual basis.

Test procedure

A football pitch measures 68m by 105m. This area is divided up into a grid containing 96 points. At each point, an illuminance test is carried out to measure both the horizontal illuminance and the vertical illuminance at four different angles. Thus, the test will require 480 illuminance tests in total. Please ensure that the correct orientation is used when marking out the grid positions. The orientation can be seen in the pitch orientation plan.

Care should be taken when recording illuminance readings. The illuminance meter should always be positioned at the correct angle for the intended measurement. Personnel carrying out the test must not create any shadows that could impinge upon the illuminance meter. The meter should be 1m above the playing surface. The illuminance reading for each grid point should be recorded on the relevant illuminance grid plan.

Horizontal test: The meter is positioned facing upwards, 1m above the playing surface, and parallel to the pitch, at every grid point.

Vertical test: The meter is positioned perpendicular to the pitch, 1m above the playing surface, at every grid point. The meter should 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 should be repeated at all 96 grid points.

illuminance report

Name of Stadium :

Imam khomeini Stadium

Name of Club :

Aluminium Arak FC

Date of inspection :

5/11/2026

time :

4 hours

Luminaire :

2000W Metal Halide Floodlight

Manufacturer :

Philips

Model :

ArenaVision MVF403

Lamp :

HID Lamp HQI-TS 2000W

Illuminance meter :

Light Meter LX-1108

Serial Number :

LS16031986

Calibration Date :

1/7/2026

Illuminance Test Company

Shayan Bargh Industrial Group

Address :

Mobtakeran Ave. Kheirabad Industrial Zone. Arak .Iran

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Inspection by :

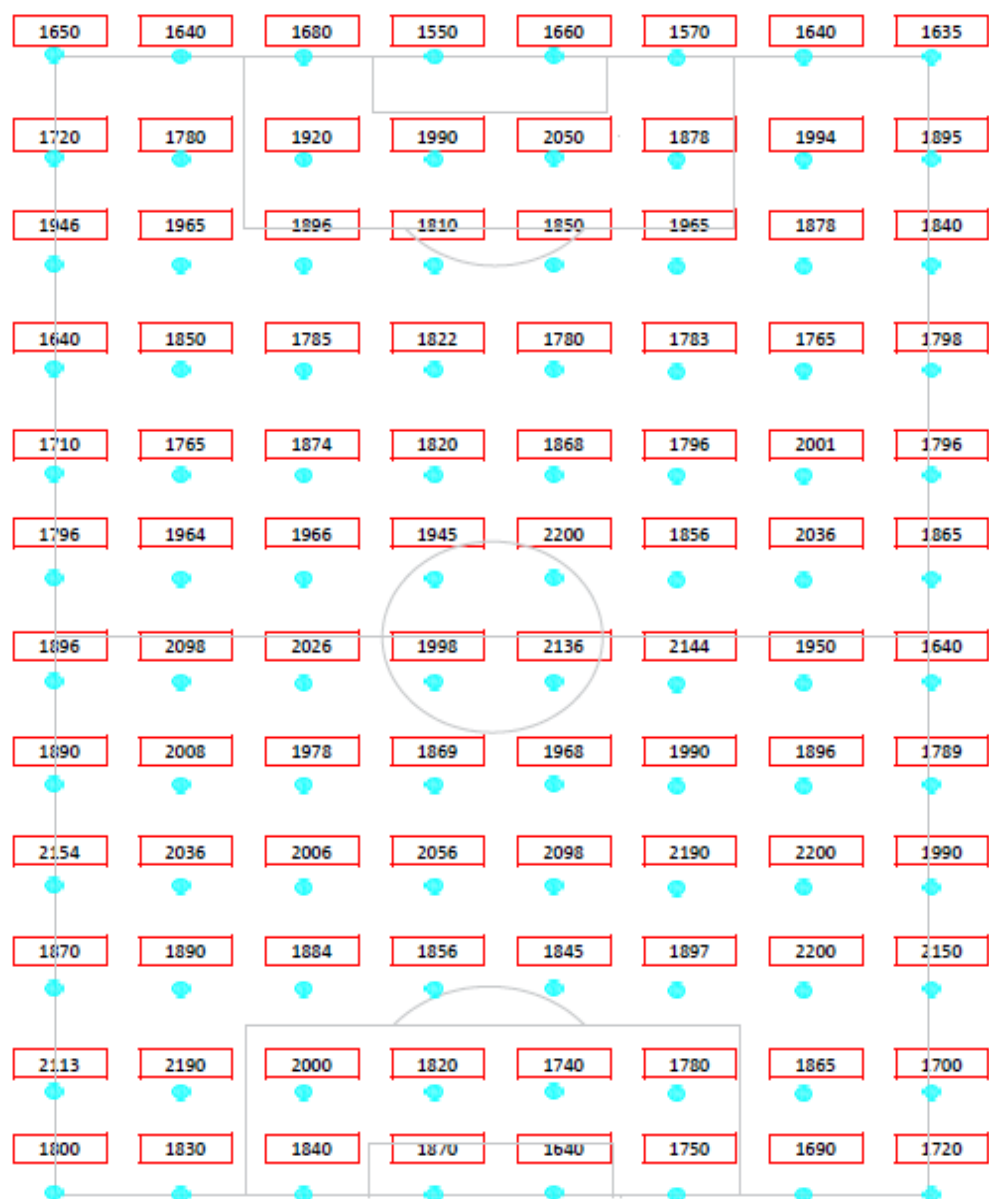
Executive Engineer :

A.Asadi

Photos of the lighting test report operation



average illuminance horizontal plane



Eav [lx]
1883

Emin [lx]
1550

Emax [lx]
2200

Emin / Eav
0.81

Emin / Emax
0.7

average illuminance vertical plane



0°	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	E_{min} / E_{av}	E_{min} / E_{max}
	1399	400	2255	0.29	0.18
9.1°	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	E_{min} / E_{av}	E_{min} / E_{max}
	1469	380	2700	0.26	0.14
18.0°	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	E_{min} / E_{av}	E_{min} / E_{max}
	1248	320	2115	0.26	0.15
27.0°	E_{av} [lx]	E_{min} [lx]	E_{max} [lx]	E_{min} / E_{av}	E_{min} / E_{max}
	1438	320	2940	0.22	0.11

Summary of report data

Test measurements	Stadium readings
Eh ave (average horizontal lux value)	1883 lux
Eh max (maximum horizontal lux value)	2200 lux
Eh min (minimum horizontal lux value)	1550 lux
Uniformity U1h	0.81
Uniformity U2h	0.7
Ev ave-0° (average illuminance on 0° vertical plane)	1399 lux
Uniformity U1v-0°	0.18
Uniformity U2v-0°	0.29
Ev ave-90° (average illuminance on 90° vertical plane)	1438 lux
Uniformity U1v-90°	0.11
Uniformity U2v-90°	0.22
Ev ave-180° (average illuminance on 180° vertical plane)	1248lux
Uniformity U1v-180°	0.15
Uniformity U2v-180°	0.26
Ev ave-270° (average illuminance on 270° vertical plane)	1469 lux
Uniformity U1v-270°	0.14
Uniformity U2v-270°	0.26