

Highlights Floodlighting Ltd

Specialist Floodlighting Installation Contractors

Manor Farm Court, Manor Road, Lower Sundon, Beds. LU3 3NZ.

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Approved Contractor

FLOODLIGHT INSPECTION REPORT

NAME OF CLUB: _____ Northwood Football Club

CLUB ADDRESS: _____ Northwood Park
Chestnut Avenue
Northwood
HA6 1HR

LIGHTING CONTRACTOR: _____ Highlights Floodlighting Ltd

DATE OF INSPECTION: _____ 3-Nov-22

TIME AT WHICH READINGS WERE TAKEN: _____ 6-30 PM

WEATHER CONDITIONS: _____ Fine

NUMBER OF TOWERS: _____ 6

APPROXIMATE HEIGHT OF TOWERS: _____ 15 metre

NUMBER OF FITTINGS: _____ 18

TYPE OF LIGHT SOURCE: _____ Optivision MHN-LA

MAKERS / INSTALLERS OF SYSTEM: _____ Highlights Floodlighting Ltd

DATE OF INSTALLATION IF KNOWN: _____ 15-Aug-02

WATTAGE PER LAMP: _____ 2000 watt

NUMBER OF LAMPS NOT WORKING: _____ Nil

AVERAGE LUX VALUE: _____ 171 Lux

MAXIMUM LUX VALUE: _____ 335 Lux

MINIMUM LUX VALUE: _____ 85 Lux

MINIMUM / MAXIMUM UNIFORMITY: _____ 0.25

MINIMUM / AVERAGE UNIFORMITY: _____ 0.50

LIGHT METER WITH CALIBRATION CERTIFICATE: _____ Konica Minolta Meter 'A'

GENERAL CONDITION OF SYSTEM: _____ Good

COULD THE AVERAGE LUX LEVEL OF THE
INSTALLATION BE INCREASED BY FITTING
ADDITIONAL LAMPS, TAKING INTO
CONSIDERATION THE CABLE SIZES
AND EQUIPMENT: _____ No

MARK PECKHAM
COMPANY DIRECTOR

88 POINT ILLUMINATION REPORT FOR FLOODLIGHTING SURVEY

CLUB NAME: **Northwood Football Club**

TEST DATE: **3-Nov-22**

TIME: **6-30 PM**

AVERAGE LUX LEVEL: **171 LUX**

MAXIMUM LUX LEVEL: **335 LUX**

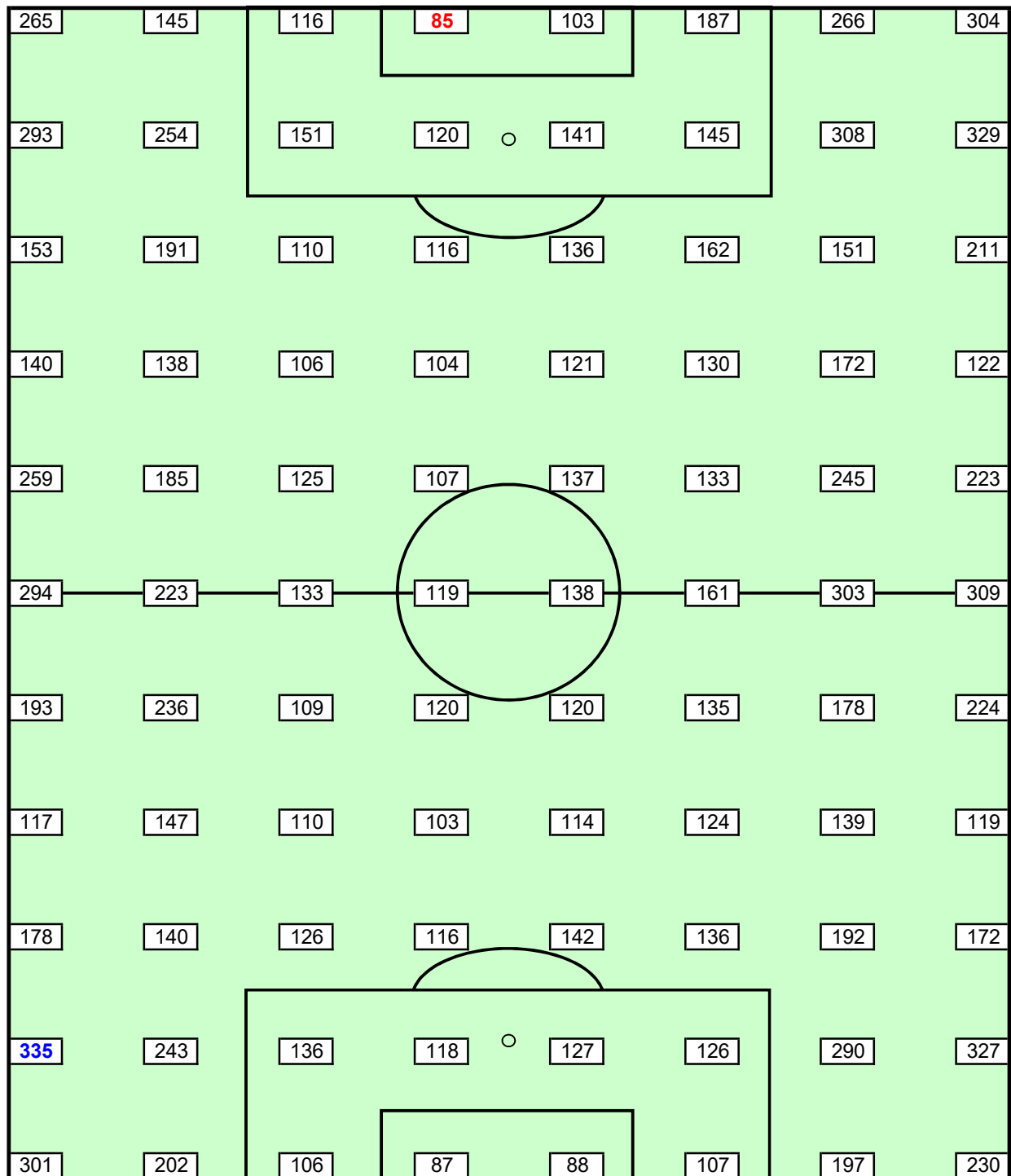
MINIMUM LUX LEVEL: **85 LUX**

UNIFORMITY FACTORS

MIN / MAX: **0.25**

MIN / AVG: **0.50**

SWITCHING POSITION



CERTIFICATE OF CALIBRATION

ISSUED BY OPTICAL TEST and CALIBRATION LTD.

DATE OF ISSUE: 19 April 2022

Certificate Number 138471/ACU



0286



Optical Test and Calibration Ltd.

19-23 Campus Road
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Approved Signatory

Name Jenny Harris

Signature QC028

Customer: Highlights Floodlighting Ltd
Unit 3 Manor Farm Court
Manor Road
LOWER SUNDON
LU3 3NZ

Equipment Information

Make: KONICA MINOLTA

Model:
T10A
T-10A

Description:
LUXMETER
SENSOR

Serial No:
20012750
30014173

Reference No:

Date of Calibration: 19 April 2022

Calibrated By: J Grabowski

This instrument has been calibrated by direct intercomparison to traceable standards in accordance with approved procedure RAD02 which follows the general principles of BS 667:2005.

The calibration was undertaken with the instrument being operated in accordance with the manufacturer's handbook where appropriate.

The uncertainties shown are consistent with the requirements of M3003 and are inclusive of the uncertainty contribution of the instrument under test. The results, statements and uncertainties relate only to the measured values as displayed by the instrument, and do not carry any implication regarding the stability of the instrument or its performance outside the measured range.

Laboratory Conditions: Temperature 21 °C ± 2 °C
Relative Humidity 50 %rh ± 20 %rh

The reported expanded uncertainty is based on a standard uncertainty multiplied by a coverage factor of $k = 2$ unless otherwise shown, providing a coverage probability of approximately 95 %. The uncertainty evaluation has been carried out in accordance with UKAS requirements.

This certificate is issued in accordance with the laboratory accreditation requirements of the United Kingdom Accreditation Service. It provides traceability of measurement to the SI system of units and/or to units of measurement realised at the National Physical Laboratory or other recognised national metrology institutes. This certificate may not be reproduced other than in full, except with the prior written approval of the issuing laboratory.

CERTIFICATE OF CALIBRATION

UKAS ACCREDITED CALIBRATION LABORATORY No 0286

Certificate number
138471/ACU

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Calibration Undertaken

Illuminance in the range 1 lux to 20000 lux using a tungsten lamp at a colour temperature of 2856 K.
The reference plane of the sensor was taken to be the front face of the diffuser, with a diameter of 25 mm.
The zero offset has not been taken into account.
Results shown on receipt and after adjustment
Manufacturer specification: $\pm 2\% + 1$ digit of displayed value (Ref: 14328)
Results as received with no CCF factor set. Results as despatched with the CCF factor set to 1.017

Calibration Results

Reference Meter CAL1070	Unit Under Test						
	Range	As Received			As Despatched		
Applied		Displayed		p _c	Displayed		p _c
0.00 lux	Auto	0.00 lux *	N/A	N/A	0.00 lux *	N/A	N/A
10.0 lux	Auto	9.93 lux	PASS	77.1%	10.11 lux	PASS	70.7%
50.0 lux	Auto	49.3 lux	PASS	74.9%	50.2 lux	PASS	91.7%
150.0 lux	Auto	147.6 lux	PASS	66.1%	150.1 lux	PASS	93.1%
500.0 lux	Auto	490 lux	PASS	57.6%	498 lux	PASS	95%
1500 lux	Auto	1465 lux	OOS	40.4%	1491 lux	PASS	89.4%
5000 lux	Auto	4870 lux	OOS	36.1%	4950 lux	PASS	84.9%
15000 lux	Auto	14540 lux	OOS	22.4%	14800 lux	PASS	70.1%

Calibrations marked '*' in this certificate are not UKAS accredited and have been included for completeness.
Any measurements indicated as 'OOS' are outside the specification used.
'p_c' indicates probability of conformance to the specification used.

Calibrated by: J. Grabowski

Date: 19 April 2022

UNCERTAINTY OF MEASUREMENT

The estimated uncertainty in the measured value of illuminance from 1 lux to 20000 lux when the instrument is used under the same conditions as when calibrated is ± 1 incremental digit in the least significant figure of the displayed value due to the resolution of the meter plus:

- | | |
|---|--|
| a) $\pm 3.1\%$ in the 1.0 lux to 10.0 lux range ($k = 2.00$) | b) $\pm 3.1\%$ in the 10 lux to 20 lux range ($k = 2.00$) |
| c) $\pm 2.2\%$ in the 20 lux to 200 lux range ($k = 2.00$) | d) $\pm 1.9\%$ in the 200 lux to 1000 lux range ($k = 2.00$) |
| e) $\pm 2.2\%$ in the 1000 lux to 2000 lux range ($k = 2.00$) | f) $\pm 2.3\%$ in the 2000 lux to 10000 lux range ($k = 2.00$) |
| g) $\pm 2.7\%$ in the 10000 lux to 20000 lux range ($k = 1.99$) | |