MOTT MACDONALD

Chapter 13 - Appendix 13.1

Illuminance Meter Certificate of Calibration

October 2023

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Chapter 13 - Appendix 13.1

Illuminance Meter Certificate of Calibration

October 2023

Issue and Revision Record

Revision	Date	Originator	Checker	Approver	Description
P01	20/10/2023	DS	JM	CS	Appendix 13.1 to ES Chapter 13 - Lighting. Illuminance Meter Certificate of Calibration.

Information class: Standard

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1 Illuminance Meter Certificate of Calibration

Certificate of Calibration

Issued by: BSRIA Instrument Solutions - A division of BSRIA Limited

Date of issue: 25 September 2023

Certificate number STD_146944

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BSRIA

Laboratory address:
Old Bracknell Lane West, Bracknell,
Berkshire RG12 7AH
T: +44 (0) 1344 459 314 | 0800 254 5566
E: instruments@bsria.co.uk
W: www.bsria.com/uk/instrument/

[redacted]

DANIEL LINFIELD
Approved signatory

Customer: Instrument Solutions
Old Bracknell Lane West
Bracknell Berkshire RG12 7AH

Date received: 04 July 2023

Instrument:

BSRIA I.D.:	202960
Description:	Light meter
Manufacturer:	Konica Minolta
Model:	T-10A
Serial number:	20017001
Procedure version:	U6F11V4

Laboratory conditions:

Temperature: 20 °C ± 4 °C Relative humidity: < 75 %rh
Mains voltage: 240 V ± 10 V Mains frequency: 50 Hz ± 1 Hz

Comments:

Instrument calibration conducted as found - no adjustments undertaken.

Instrument was zeroed prior to the start of the calibration.

Calibration information:

The instrument was calibrated by comparison against laboratory reference equipment whose values are traceable to recognised National Standards. This is an electronic document that has been signed digitally.

The uncertainties quoted refer to the calibration only and are not intended to indicate any long-term instrument specification/performance. This certificate only relates to the items calibrated and was performed at the above laboratory address.

Calibrated by: M. Rule [redacted] **Date of calibration:** 25 September 2023

Figure 1.1: Konica Minolta T-10A illuminance meter Certificate of Calibration Page 1

Certificate of Calibration

As Found Results

Certificate number
STD_146944

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Reference equipment used in the calibration:

Instrument description	Serial number	Certificate number	Last cal. date	Cal. period
Light Bench (ZZMLB02)	18425/2 & 18426/1	ZZMLB02 - 2023	02/03/2023	12 Months
Light Bench (ZZMLB03)	18425/1 & 18427/1	ZZMLB03 - 2023	02/03/2023	12 Months
Distance Measuring System (ZZMLB04)	4816	ZZMLB04 - FEB 2023	08/02/2023	12 Months

Calibration uncertainties:

The reported measurement uncertainty values shown have been calculated taking into account the device resolution and stability at the time of calibration.

Instrument contents:

Main unit	Yes
Detector head	Yes
Zero cap	Yes
Meter adapter head	Yes
Cat 5 cable	Yes
Receptor head	Yes
x2 batteries fitted	Yes
x2 batteries spare	Yes
Manual	Yes
Certificate	Yes
Soft case	Yes
Hard carry case	Yes

Inspection results:

Visual inspection	Pass
Integrity seals	Pass
Memory cleared	Pass
Mode set to lx	Pass

Figure 1.2: Konica Minolta T-10A illuminance meter Certificate of Calibration Page 2

Certificate of Calibration

As Found Results

Certificate number
STD_146944

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Calibration procedure:

The instrument was calibrated against laboratory standards which are themselves traceable back to National Standards. The illuminance measurements were conducted in accordance with the methodology contained in BS667 using a tungsten filament lamp with a colour temperature of 2856 k. Illuminance levels were calculated using an inverse square law with respect to distance away from a tungsten filament lamp source.

Calibration results:

Illuminance - lux range

Unit under test display zeroed before test — Pass

Applied	Indicated	Correction	Specification	% of Spec.	Uncertainty
50.00 lux	51.0 lux	-1.00 lux	±2.50 lux	40.0 %	2.5 lux
100.0 lux	101.6 lux	-1.6 lux	±5.0 lux	32.0 %	5.0 lux
200.0 lux	201.5 lux	-1.5 lux	±10.0 lux	15.0 %	10 lux
500.0 lux	500 lux	0.0 lux	±25.0 lux	0.0 %	25 lux
1000.0 lux	985 lux	15.0 lux	±70.0 lux	21.4 %	50 lux
2000.0 lux	1945 lux	55.0 lux	±140.0 lux	39.3 %	100 lux

Any test points marked with a * do not comply with instrument specification.

End.

Figure 1.3: Konica Minolta T-10A illuminance meter Certificate of Calibration Page 3