

|                            |            |                             |            |
|----------------------------|------------|-----------------------------|------------|
| <b>Date of Calibration</b> | 30.10.2024 | <b>Recommended due date</b> | 29.10.2025 |
|----------------------------|------------|-----------------------------|------------|

## Optical Laboratory Certificate of Calibration For ILLUMINANCE / LUX METER

Jayasree Reva Phoenix Metrology (JRPM) certifies that the equipment has been calibrated / tested in accordance with a quality system registered to ISO 9001:2015 and conform to ISO/IEC 17025:2017 JRPM applicable procedures.

The measurement expanded uncertainties is expressed at 95% confidence level with a coverage factor equal to two (k=2).

Jayasree Reva Phoenix Metrology (JRPM) measurement standards are traceable through unbroken chain of comparison to the India's National Physical Laboratory and / or to National Standards. Calibration of all instruments, meters used are traceable to National Standards and their calibration are current.

This calibration report contains the results of calibration and / or other relevant data about the calibration. This report applies only to the item identified and shall not be reproduced except in full, without specific written approval by Jayasree Reva Phoenix Metrology (JRPM).

No statement of compliance with specifications is made or implied on this report. However, the results are reviewed to establish where any measurement results exceeded the manufacturers specifications and communicate results by means of this report.



Lab QR Code



Certificate QR Code

| <b>Calibration Procedure</b> | <b>As Received Conditions</b> | <b>As Shipped Condition</b> |
|------------------------------|-------------------------------|-----------------------------|
| RPL-L03-DI-025-OPT-001       | Ok                            | Cleaned & Calibrated        |

|                       |               |                                   |  |
|-----------------------|---------------|-----------------------------------|--|
| <b>Calibrated by</b>  |               | <b>Reviewed &amp; Approved by</b> |  |
| <b>Identification</b> | RPL-SCode-448 | <b>Identification</b>             |  |

|                            |            |                             |            |
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|   |            |                             |            |
|---|------------|-----------------------------|------------|
| <b>Date of Performance of Calibration</b> | 30.10.2024 | <b>Date of Issue</b>        | 30.10.2024 |
|   |            | <b>Recommended Due Date</b> | 29.10.2025 |

|                                       |   |                               |                   |
|---------------------------------------|---|-------------------------------|-------------------|
| <b>Name &amp; address of Customer</b> | <b>UL INDIA PRIVATE LIMITED</b><br>Address: Sy.No.129/4, Kalyani Platina, Phase II, EPIP Zone, White Field Bangalore, Karnataka, India - 560066. Reference Through: Godrej Calibration services | <b>Date Receipt</b>           | 14.10.2024        |
|                                       |   | <b>CSRF Number</b>            | RPL/SRF/2024/1000 |
|                                       |   | <b>Location-Calibrated at</b> | In House          |

**Description of the Unit Under Calibration (UUC)**

|                    |   |                          |                    |
|--------------------|---|--------------------------|--------------------|
| <b>Description</b> | ILLUMINANCE / LUX METER   | <b>Model</b>             | LX-1102            |
| <b>Range</b>       | 0 to 400000 lx  | <b>Serial No</b>         | T.021618           |
| <b>Least Count</b> | 0.01 lux (0 to 40 lux), 0.1 lux (40 to 400 lux), 1 lux (400 to 4,000 lux), 10 lux (4000 to 40,000 lux), 100 lux (upto 4,00,000 lux) | <b>Identification No</b> | LM05               |
| <b>Make</b>        | Lutron  | <b>Accuracy</b>          | ±(3% rdg+0.5% F.S) |
| <b>Location</b>    | --  | <b>Operating Range</b>   | 1 to 5000 lx       |

|   |                        |
|---|------------------------|
| <b>Condition of unit under calibration on receipt</b> | Ok                     |
| <b>Method used - RPL Work Instruction Number</b>      | RPL-L03-DI-025-OPT-001 |
| <b>Reference Standard (International / National)</b>  | --                     |

|                              |                          |              |         |            |         |                   |         |
|------------------------------|--------------------------|--------------|---------|------------|---------|-------------------|---------|
| <b>Environmental details</b> | <b>Temperature</b>       | <b>Start</b> | 25.2 °C | <b>End</b> | 24.9 °C | <b>Difference</b> | 0.3 °C  |
|                              | <b>Relative Humidity</b> |              | 58 %RH  |            | 59 %RH  |                   | 1.0 %RH |

**Details of Traceability - Master Equipment / Standard used for Calibration**

| Sl. No. | Description Master Equipment / Standard used for calibration   | Traceable to National standards through                              |
|---------|--|--|
| 1       | Optical Photometer with Indicator                              | 24101017/D1.04/C197, Valid till : 29.10.2025                         |
| 2       | Standard Light Source (Color Temperature & Luminous Intensity) | 24101017/D1.04/C-198 & 24101017/D1.04/C-199, Valid till : 29.10.2025 |

|                       |               |                                   |  |
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| <b>Identification</b> | RPL-SCode-448 | <b>Identification</b>             |  |

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**Discipline :** Optical Laboratory

**Calibration Results**

| <b>Sl. No.</b> | <b>Photometer Readings (Arithmetic Mean of Five Readings)</b> | <b>DUC Readings (Arithmetic Mean of Five Readings)</b> | <b>Observed Error</b> | <b>Expanded Uncertainty (±)</b> |
|----------------|---|--|-----------------------|---------------------------------|
|                | <b>lx</b>   | <b>lx</b>  | <b>lx</b>             | <b>%</b>                        |
| 1              | 1.0012  | 1.05   | 0.0488                | 2.70                            |
| 2              | 20.027  | 20.35  | 0.323                 | 2.70                            |
| 3              | 100.05  | 102.8  | 2.75                  | 2.70                            |
| 4              | 500.3   | 532  | 31.7                  | 2.70                            |
| 5              | 5003  | 5106   | 103                   | 2.70                            |

**Remarks :**

1. Type of light source used a) Tungsten Halogen lamp for up to 1000 lx and LED lights for up to 2,00,000 lx
2. This Illuminance meter is not verified for Spectral responsivity

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### Mandatory Annexure to Calibration Certificate

1. Calibration Certificate includes all the information as agreed with Customer and as necessary for the interpretation of the results and all information required by the method used, including, additions to deviations, or exclusions from the method, where applicable.
2. All issued reports are retained as technical records by our Laboratory as per ISO/IEC 17025: 2017 requirements.
3. Metrological traceability to National | International Standards as per ISO/IEC 17025: 2017 requirements is maintained by our Laboratory and Calibration reports do not contain any recommendation on Calibration interval, except where this has been agreed with the Customer.
4. Laboratory is responsible for all the information provided in the report, except when information is provided by the customer. Data provided by a customer, where applicable, is clearly identified, as they can affect the validity of results.
5. Measurement Uncertainty reported is at approximately 95% confidence level with  $k=2$ ; Unit of measurement result and measurement uncertainty are same as that of range selected, unless otherwise indicated in the Calibration certificate.
6. Calibration Certificate is issued in accordance with the terms and conditions laid down by our accreditation body (NABL) which has assessed our measurement capability and its traceability to recognized National | International standards.
7. The metrological traceability of Masters to National and International Standard is established through unbroken chain of calibration.
8. Calibration Certificate pertains only to the particular item(s) submitted and reported for calibration and shall not be reproduced except in full, without the written approval from our Laboratory.
9. Results reported in the Calibration Certificate are valid at the time of and stated conditions of measurement of the Unit under Calibration.
10. Error(s), if any, in the Calibration Certificate, shall be brought to the notice of Laboratory within 30 days from the date of issue. Amendments to Certificate will not be entertained thereafter.
11. Calibration Certificate is issued based on Customer requirements for Scientific and Industrial purposes and not meant for other purpose and shall not be produced in the court of law.
12. Legal Aspects: Calibration of Weights, Density of solids, Load cell, UTM, Pressure Dead Weight Tester, Pressure Gauge. Liquid-in-glass Thermometer done by our Laboratory is meant for scientific and industrial purpose only. However, if used for commercial trading, additional recognition/ approval shall be complied as required by Department of Legal Metrology, Regulatory body, etc.
13. Laboratory is not liable for any change in the reported data and performance specification on account of malfunctioning of Standards | Instruments | Equipment covered by this Certificate due to damage caused to it after the issue of this Certificate.
14. Any corrections | changes | erasing | modifications | unauthorized Seal, Stamp or Signature on this Calibration Certificate invalidate this Certificate.
15. Unless otherwise specified, the measurement data reported is considered "As found data - without any adjustments."
16. Decision Rule: No conformity statement (Pass | Fail | Accepted | Rejected) is provided, unless otherwise indicated clearly on this report.
17. NABL Guideline 133 is adopted for the use of NABL Symbol.
18. This report pertains only to the sample | equipment submitted and shall not be reproduced in part or full, without explicit written permission from our Laboratory.

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**For any further information, assistance or feedback; please contact:**

Director | Managing Director  
Reva Phoenix Labs & Consultants Private Limited  
Reva Phoenix Complex, No.14, 4th Street, Rajarajeswari Nagar,  
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Website: www.revacalibration.com | www.revaphoenix.com

**Our Accredited Calibration Laboratories:**

- Acceleration, Speed & Vibration, Acoustics
- Mechanical - Density & Viscosity
- Mechanical - Dimension - Basic Measuring Instrument, Gauge etc.
- Mechanical - Dimension - Precision Instruments
- Electro Technical - Time & Frequency, Simulation, Electrical Equipment, AC & DC
- Fluid Flow, Air & Water - Flow Measuring Devices
- Mechanical - Force, Push Pull, UTM, Durometer, Mobile Force Measuring System
- Mechanical - Hardness Testing Machines
- Mechanical - Impact Testing Machine
- Mechanical - Mass & Volume, Weighing Scale & Balance, Weights
- Optical Metrology, Lux Meter & Lamp
- Mechanical - Pressure Indicating Devices
- Thermal - Temperature, Specific Heat & Humidity
- Torque - Generating Devices, Torque Wrench
- Torque - Measuring Devices, Torque Sensors

**Calibration Services:**

Mechanical | Dimension – All Basic & Precision Equipment| CMM Calibration | Pressure – Upto 4000 Bar | Torque – upto 3000 Nm | Mass E1| Volume – Micro Pipette| Electro-Technical MFC & Oscilloscope | Thermal – Furnace Mapping & Pyrometer upto 1750°C | Force | Optics | Light Source | Lux Meter (1 to 2,00,000 Lux) | Acceleration | Speed | Tachometer | Rubber Hardness Tester | Fluid Flow | Anemometer | Acoustics | Mechanical Calibration | Rockwell | Brinell | Vickers | Micro-Vickers | UTM Calibration | UTM CTM TTM | Impact Testing Machine Calibration | Force Gauge | Push Pull Gauge | Leeb's Hardness | Portable Hardness Tester | Dynamic Hardness Tester | E1 Calibration | Density & Viscosity | Air Flow Meters | pH Meter | Conductivity Meter | Lab Master Equipment Calibration

**Scope of Accreditation:**

Please contact our Laboratory to get a copy of our ISO/IEC 17025: 2017 Accredited Certificate and Scope of Calibration. You may also download the same directly from NABL Website.