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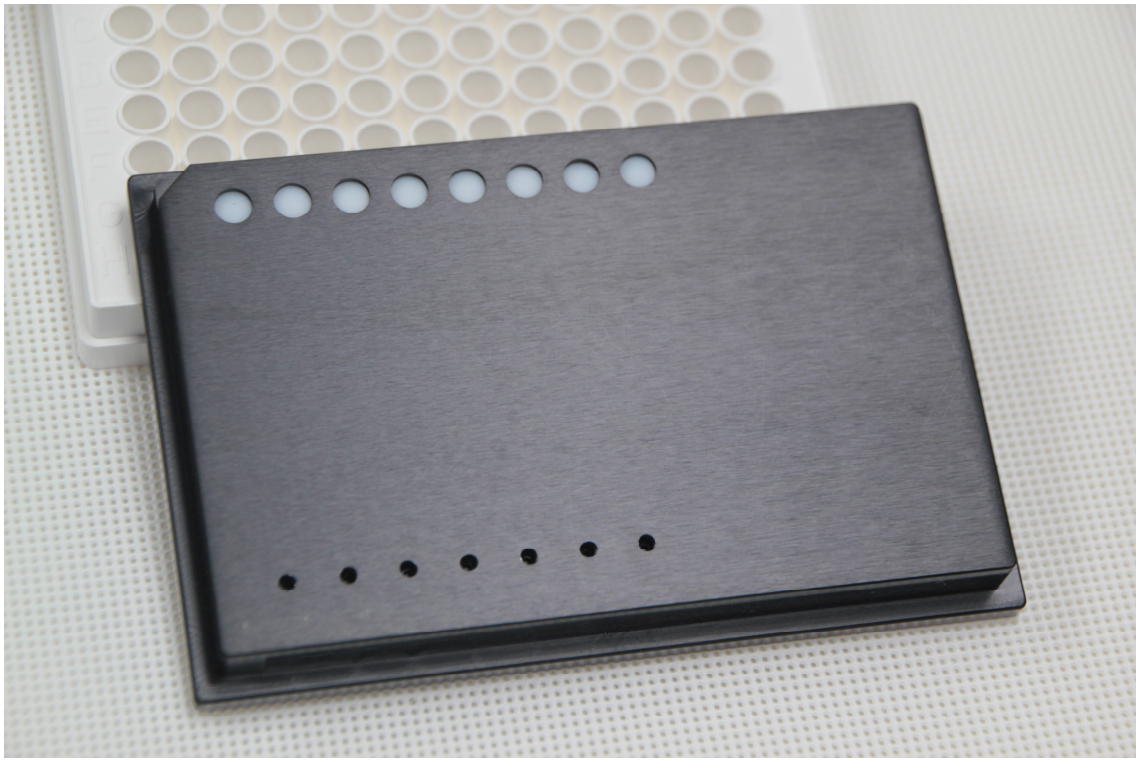


NIST Traceable Luminometer Reference Microplate:

Features:

- NIST traceable
- CE compliant
- 7 decades of stable light sources, checks:
  - Accuracy
  - Sensitivity
  - Dynamic Range
  - Linearity
  - Stability / repeatability
- Lowest level of light is equivalent to approximately 10^{-18} moles of luciferase using Promega Bright-Glo™ luciferase assay
- Works in any standard 96 well luminometer
- Dual redundancy light sources for the plate's own performance verification
- Built-in battery check plus weak battery indicator
- Extended life lithium batteries
- On-Off switch
- Robust CNC machined aircraft grade aluminum construction
- Supplied with padded hard storage case, spare battery pack, 2 switching tools, screwdriver and spare screws for the battery compartment
- All electronics / optics system, no radioactive materials used in the plate

The performance of a luminometer is largely dependent on the performance of a very delicate Photomultiplier Tube (PMT). The PMT which is actually an old vacuum tube technology device, is easily

affected by mechanical shock and vibration, accidental exposure to light, temperature variation and aging. Other factors can affect the reading of luminometers such as, lint, dirt or liquid fumes collected by the optic, liquid splashed on the optic, and mechanical or optical misalignment of the reading mechanism. In most application, especially in clinical applications, it is very important to verify the performance of luminometers, because faulty readings can result in misdiagnosis of patients.

Good Laboratory Practice (GLPs) and many regulatory agencies, laws (such as CLIA 88) require the luminometers be periodically checked to ensure that the machine works as per factory specs.

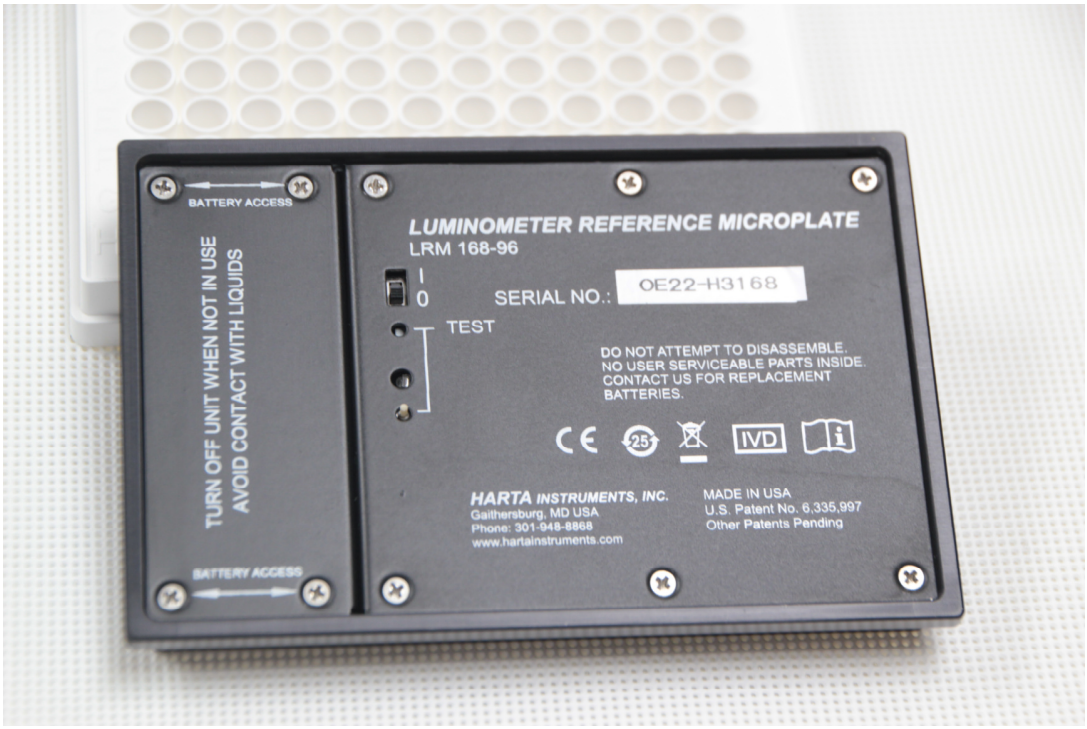
Quite often when the reading of a certain samples are not correct, the lab personnel automatically blames the luminometer, and they ship the machine back to the manufacturer, when the problem is with the reagent, (bad reagent, wrong temperature, contamination, etc), the process of preparing the reagent, or any myriad of problems associated with anything but the machine. This causes a lot of unnecessary expenses and interruption of service, when all that needs to be done is to read a reference plate to verify the performance of the luminometer.

The Reference plate has dual redundancy light sources, so one light source can be compared against the other. The reference plate has a built in battery check system. As long as the battery check light is ON, the batteries are OK. These are provided to check the performance of the reference plate itself. When the battery goes below a safe level, well A8 will turn off to indicate weak battery.

The Harta RM-168-96 luminometer reference plate can be used with any standard 96 well microtiterplate luminometers.

Since 1999, the Harta luminometer reference plate has been used by thousands of satisfied customers in over 25 countries worldwide.

BOTTOM VIEW OF THE REFERENCE PLATE.



SPECIFICATION
NIST Traceable Luminometer Reference Microplate RM 168-96N

Dimension: 5.0" x 3.4" x 0.57"

Weight: 8 Oz

Construction: CNC machined Aluminum body
Stainless steel back covers
TEFLON (opaque white) or Polycarbonate (translucent) lenses

Finish: Aluminum: Black anodized
Stainless steel: Black matte painted

Battery: Lithium battery pack, 6.4V, 1 Ah

Light sources: Two independently closed-loop controlled, constant light level LEDs

Wavelengths: available in 430nm, 470 nm and 540 nm

Light outputs: 7 levels (wells A1 – A7) derived from primary LED source, ranging over 7 decades of dynamic range
1 (well A8) derived from the secondary LED source

Stability: LED based lights: +/- 5%

Battery check: Red LED ON indicates the battery voltage >4.5V

Features:

- NIST traceable
- CE, IVD compliant
- ON/OFF switch
- Activation switch
- Permanently sealed optical chamber
- User accessible battery compartment
- Battery check switch
- Battery check LED
- The system will work with the battery voltage down to 3.5V, but it will not be reliable, the BATTERY CHECK will cut off at 4.5V, guaranteeing reliable performance. When battery voltage is below 4.5V, the secondary LED (well A8) will be turned off, while wells A1 – A7 will stay lit-up, and become dimmer as the battery slowly discharges.

Safety: The optical chamber is semi-permanently locked to prevent alteration.
The device is battery operated, battery connectors are polarized, to prevent polarity reversion.

Contact:
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