Quick Reference Guide

Deposit and Surface Analysis Test Kit

Product #: DSA-25 / DSA-100

LUMINULTRA® SEE THE LIGHT

NOTE: Please refer to Test Kit Instructions during first product use and for additional details including legal statements.

Certified System — ISO 9001

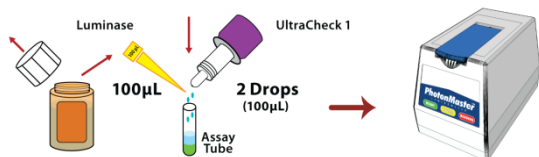## Step 1 - UltraCheck™ 1 Calibration

Perform one UltraCheck 1 calibration per day or per each set of samples analyzed.


Luminase 100µL · UltraCheck 1 · 2 Drops (100µL) · Assay Tube · PhotonMaster

NOTE: If $RLU_{ATP1} \leq 5,000$ using a PhotonMaster or Lumitester C-110, rehydrate a new bottle of Luminase for maximum sensitivity.

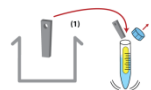## Step 2 - Sample Preparation → Select one of the following options:

Option A - SURFACE SWAB

LumiSolve · 5cm × 5cm · 5mL UltraLyse 7 Tube

OR
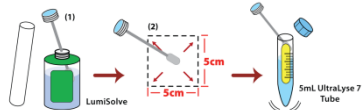
Option B: MEASURED DEPOSIT

5mL UltraLyse 7 Tube

OR
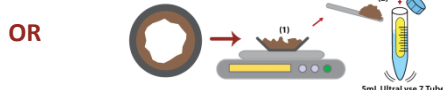
Option C: BIOFILM COLLECTOR

5mL UltraLyse 7 Tube

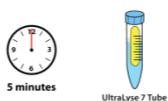### Interpretations Guidelines

Application	Good Control (pg cATP/mL)	Preventative Action (pg cATP/mL)	Corrective Action (pg cATP/mL)
Surface, Deposits, Coupons*	< 10x	10x to 100x	> 100x

*Guidelines are provided as a ratio of ATP on your surface/deposit/collector to bulk fluid ATP.

NOTE: Interpretation Guidelines provided for general guidance. For best results, establish your own baseline and control levels.

Step 3 – Total ATP (tATP™) Analysis → Then perform the following steps:

3.1 – INCUBATION
Allow time for complete extraction.

5 minutes · UltraLyse 7 Tube

3.2 – DILUTION
Dilute out interferences.

1mL · UltraLyse 7 Tube · 9mL UltraLute Tube
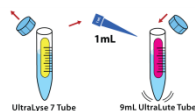
3.3 – ASSAY
Measure ATP concentration.

100µL · 100µL · UltraLute Tube · Assay Tube · Luminase · Assay Tube · PhotonMaster

NOTE: If $RLU_{tATP} \leq 10$ using a PhotonMaster or Lumitester C-110, you are below the low-detection limit.

NOTE: If $RLU_{tATP} \leq 50$ using a PhotonMaster or Lumitester C-110, consider accounting for background (RLU_{bg}). See Test Kit Instructions for guidance.

Calculations → Carry out calculations that correspond to the selected preparation method:

A - Surface Swab (Default A_{sample} = 25cm²):

$$tATP\left(pg\,ATP/cm^2\right) = \frac{RLU_{tATP}}{RLU_{ATP1}} \times \frac{50{,}000\,(pg\,ATP)}{A_{Sample}\left(cm^2\right)}$$

$$tATP\left(\frac{ME}{cm^2}\right) = tATP\left(\frac{pg\,ATP}{cm^2}\right) \times \frac{1\,ME}{0.001\,pg\,ATP}$$

OR

B - Measured Deposit (Default m_{sample} = 1g):

$$tATP\left(pg\,ATP/g\right) = \frac{RLU_{tATP}}{RLU_{ATP1}} \times \frac{50{,}000\,(pg\,ATP)}{m_{Sample}\left(g\right)}$$

$$tATP\left(\frac{ME}{g}\right) = tATP\left(\frac{pg\,ATP}{g}\right) \times \frac{1\,ME}{0.001\,pg\,ATP}$$

OR

C - Biofilm Collector:

$$tATP\left(pg\,ATP/device\right) = \frac{RLU_{tATP}}{RLU_{ATP1}} \times \frac{50{,}000\,(pg\,ATP)}{1\,device}$$

$$tATP\left(\frac{ME}{device}\right) = cATP\left(\frac{pg\,ATP}{device}\right) \times \frac{1\,ME}{0.001\,pg\,ATP}$$

NOTE: 1 ME (Microbial Equivalent) assumes 0.001 pg (1fg) ATP per cell.