

# APPLICATION NOTE

## RTI Light Probe

### A comparison of Luminance measurements on image viewing monitors

This application note contain a comparison of the RTI Light Probe and a few light probes for checking x-ray image viewing monitors.

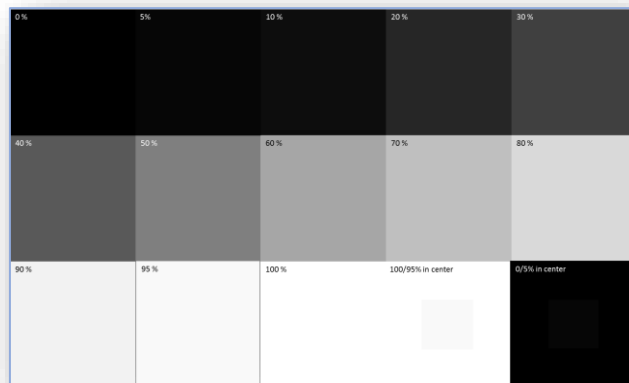


## Introduction

A range of Light Probes have been compared for measurement of gray scales on a standard monitor. Greyscales from 0 to 100% were used. See image (right).

Following light probes have been compared:

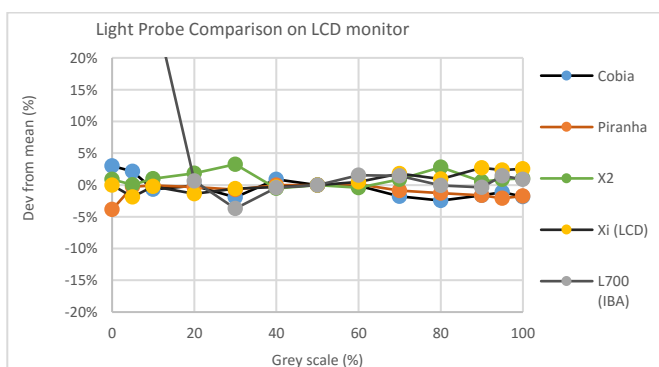
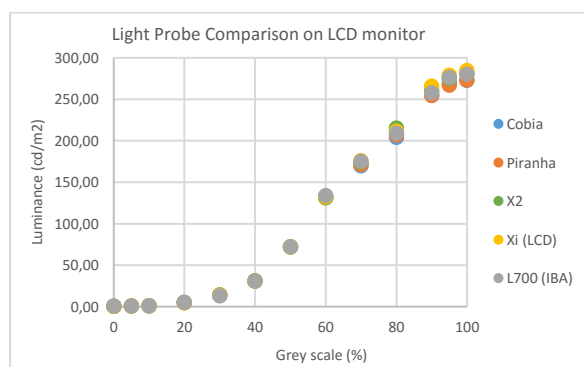
- RTI Light Probe with Piranha and Ocean QC
- RTI Light Probe with Cobia
- Raysafe Xi
- Raysafe X2 Light Probe
- IBA L700



Measurements were made by “contact measuring” method. I.e. with the light probe placed in contact with the monitor, and no scattered light or glare present.

## Results

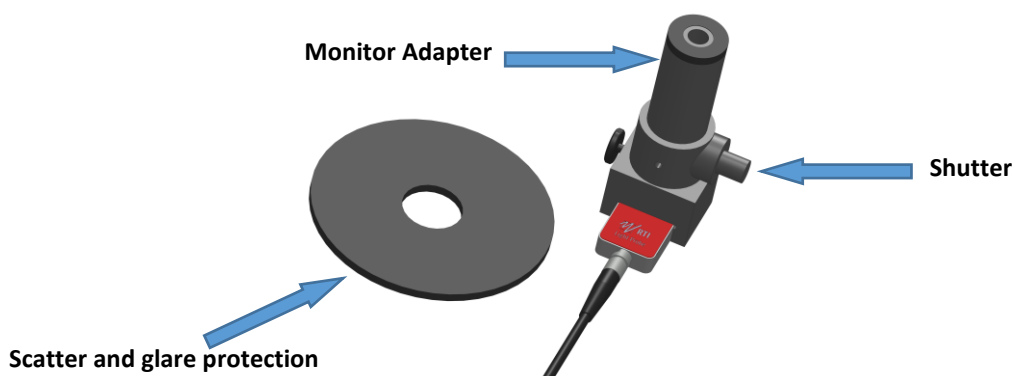
The graphs below show the measuring results. All meters with exception of the IBA L700 are well within  $\pm 5\%$ . The IBA L700 shows an increasing over estimation of the Luminance towards the darkest areas. The measurements were compensated by applying calibration factor derived at  $72 \text{ cd/m}^2$  (grayscale = 50%).



## How to use the RTI Light Probe with the Piranha in the best way

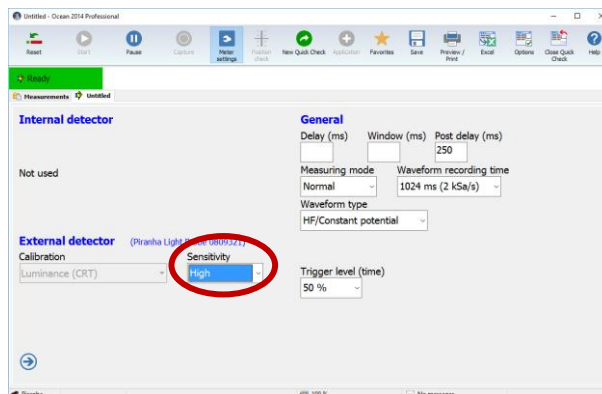
The measurements above were performed using the RTI Light Probe with the Piranha and Ocean Quick Check. The RTI Light probe is used with the Monitor Adapter. See image (below).

For accurate measurements with the Piranha the reset procedure is of importance.

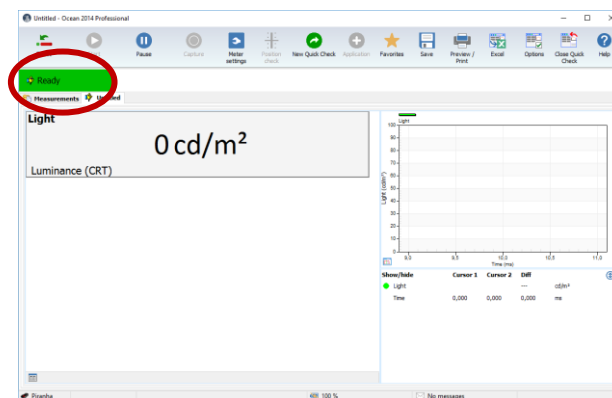


## Before making the first measurement of the darkest field

1. Make sure that High Sensitivity mode is enabled, under Meter Settings in Ocean Quick Check. See image (right).

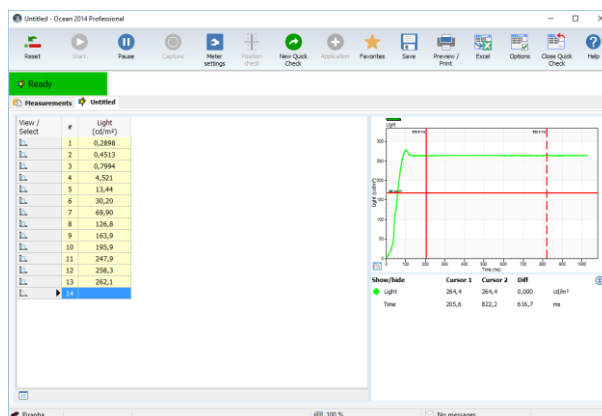


2. Make a reset with the shutter closed on the Monitor Adapter of the RTI Light Probe. See image (right).



## Measure

3. Start to measure by pressing the shutter on the Monitor adapter.
4. When the value is stable, release the shutter (close) and move to next area.
5. Repeat point 3 to 4 above until finished.  
 At some point on light fields around 300 cd/m<sup>2</sup> the Piranha will have to switch to *Low Sensitivity*. Then just make sure the shutter is closed, perform a new reset (2), and continue measure (3-4).
6. In the Quick Check Grid (see right image) all measured data can be viewed, data can be saved and/or copied for used in other applications such as MS Excel.



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