
lasercalibrationdocumentation

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CHAPTER 1

Area Calibration

The photometer sensor is not sensible to area, i.e. the value measured corresponds to an integration over the full sensor area. In order to map power distribution over area, we developed a protocol consisting of a running white square over a black background.

The background is a square 2×2 , that can be divided in a lattice such that $xstep$ and $ystep$ are divisors of 2. The white square will go through all the possible positions such that the full 2×2 area is filled over the full area calibration run. The square starts at position $(-1, -1)$, being incremented according to its size $(-1+xstep, -1+ystep)$, and so forth. At each (x, y) position, a measurement of power is made.

CHAPTER 2

Protocol

Consists of a shader with black background and a smaller white square, whose position may change over time. The placement and size of the white square depends on the type of calibration chosen and on the values of the variables `xstep` and `ystep` (free only on the area calibration).

CHAPTER 3

Logs and output

The log files are the same of both calibration types. The structure is the following:

- laser power
- x centroid
- y centroid
- power measured at the specimen plane

3.1 Plots

There is the built in option of creating a plots for

CHAPTER 4

Troubleshooting

- Verify powermeter connection
- Verify connection to COM port

CHAPTER 5

License

CHAPTER 6

Help

6.1 Need further help?

Contact

CHAPTER 7

Indices and tables

- `genindex`
- `modindex`
- `search`