



LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY

LIGO Laboratory / LIGO Scientific Collaboration

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Photon Calibrator Maintenance and Calibration Plan

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1 Introduction

The purpose of this document is to detail the proposed Photon Calibrator maintenance and calibration schedule for both LHO and LLO. Note that the proposed schedule is subject to some float due to constraints regarding scheduled maintenance day activities, stand-down time related to Observing Runs, and availability of personnel.

2 Schedule table of Photon Calibrator Maintenance and Calibrations

Task	Frequency	Site	Notes
Gold Standard (GS) calibration	Once per year	LHO	Send the GS to NIST for calibration.
Working Standard 1 (WS1) / GS and Checking Standard (CS) ratio measurements	Every 2 weeks	LHO	Bench top ratio measurements in the PCal lab.
Working Standard 2 (WS2) / GS ratio measurement	Twice per year (January and July)	LLO	LLO sends WS2 to LHO for lab ratio measurements.
End station calibration (WS/RX and WS/TX measurements)	Every 2 months (X end first Tuesday of even months Y end first Tuesday of odd months)	LHO and LLO	Independent end station calibration measurements at each site.
Alignment and power budget check of RX and TX modules.	Twice per year	LHO and LLO	Check powers and alignments at both end station RX and TX modules for possible issues.

All other non-routine maintenance activities will be scheduled on an as-needed/target of opportunity basis.