



COC QA TEST REPORT

ITM07 Transmission

| | | | |
|--------------------|--|---------------|-----------------|
| Test Date | Jun. 12-14, 2017 | | |
| Author(S) | Liyuan Zhang, Stephen Appert, GariLynn Billingsley | | |
| Approval(s) | | | |
| Specification Doc. | LIGO-E0900041 | Specification | 0.013-0.015 |
| Procedure Doc. | LIGO-E1000863 | Mean ± Error* | 0.0150 ± 0.0003 |
| Conclusion | Qualified. | | |

*Error is the calibration error, which is ~2%.

Discussions and Comments:

The scan was done over central 160 mm in diameter with the beam and step sizes of 1 mm and positioning the arrow on barrel at Y+ direction, as shown in Fig.1. The calibration is done by normalizing the transmitted signal to the signal without mirror and the variation of laser power during scan is monitored and corrected.

ITM07 Transmission

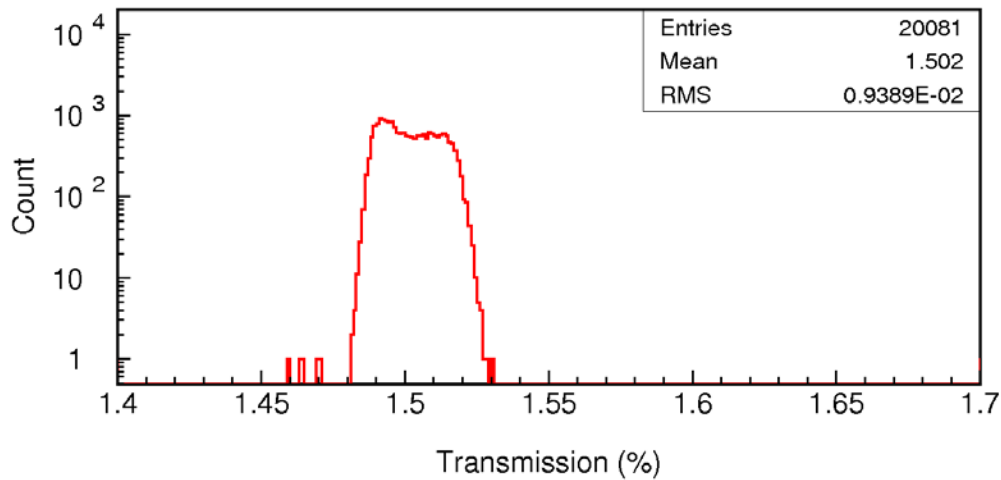
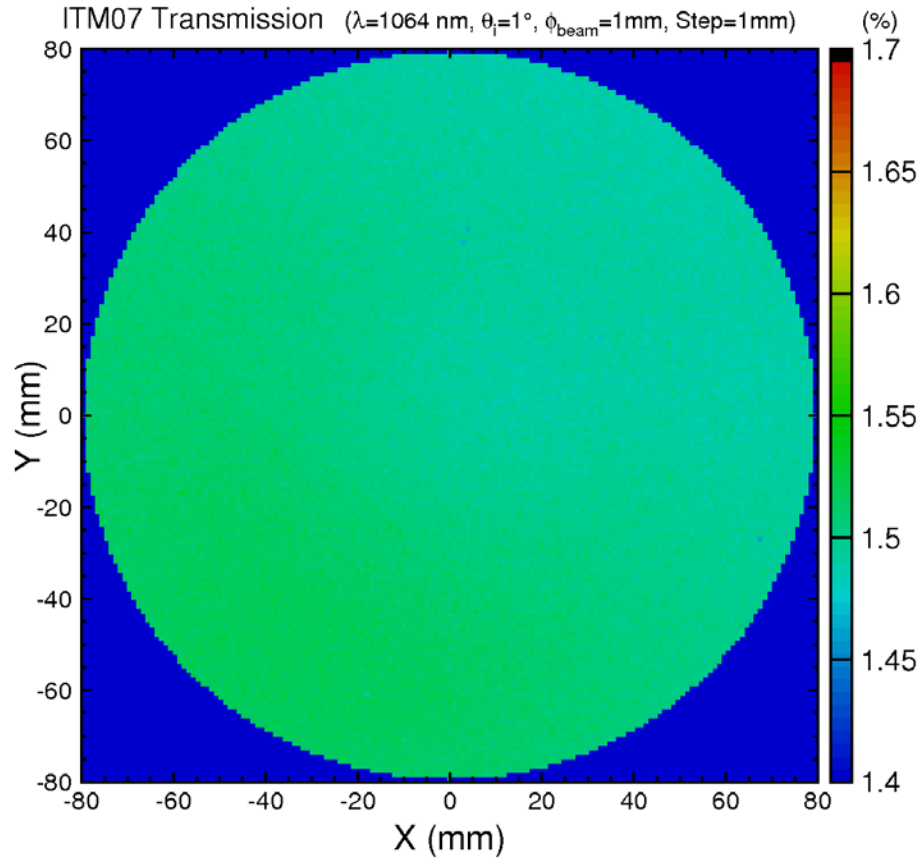


Fig. 1 ITM07 transmission over a 160 mm diameter aperture.