

LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY

# COC QA TEST REPORT

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# **ITM01 Transmission**

Test Date	Jun. 9-12, 2017		
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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  $\sim 2\%$ .

### **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.



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