



LIGO Laboratory / LIGO Scientific Collaboration

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AOS SLC BS Elliptical Baffle Fabrication, Installation, and
Test Plan

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Abstract

This document describes the plan for acceptance testing of the BS Elliptical Baffle during manufacturing, and for testing the final assembly before installing in the aLIGO chambers.

1 Introduction

This document describes the plan for acceptance testing of the BS Elliptical Baffle during manufacturing, and for testing the final assembly before installing in the aLIGO chambers.

2 Tests

2.1 Vendor Tests

The first article BS Elliptical will be assembled by the vendor and witnessed by LIGO QA personnel.

The vendor shall provide the following reports: 1) Materials certifications, 2) Dimensional and QC inspection reports--this shall include a report showing that parts have been inspected and fall within specified tolerances, and 3) Certificate or statement of compliance with all contract and drawing process restrictions.

2.2 LIGO Tests

2.2.1 Vibration Test

The BS Elliptical Baffle will be impulse-tested to determine the amplitude and frequencies of the internal modes of the free standing baffle and to confirm that the quality factor of the suspended BS Elliptical Baffle meets the ISC baffle clipping requirement, [G1200467](#) ITM Elliptical Baffle: Clipping Noise.