



SPECIFICATION

0.5" Turning mirrors for the PZT actuators of the H1 squeezer

APPROVALS	DATE	RE V	DCN NO.	BY	CHECK	DCC	DATE
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1 Description

0.5" flat/flat fused silica mirrors used as turning mirrors for PZT actuators

2 Material

Corning HPFS 7980 (high purity fused silica, UV grade)
Grade 0A (Low inclusion class: <0.3 mm² cross section, 0.1 mm max. size;
Homogeneity < 1ppm)

3 Dimensions

FLAT-FLAT

Diameter: 12.7mm +0/-0.2mm

Thickness (center): 3.175mm ± 0.050mm

4 Surface Roughness

Side 1

Super-polished

< 1 Angstrom over central 80% of diameter with 10-5
scratch-dig; best effort for 0/0 20-10 scratch-dig outside central 80% of diameter.

Side 2

< 5 Angstrom over central 80% of diameter

5 Surface Figure

Side 1

Flat < λ/10 at 632.8 over central 80%

Side 2

Flat < λ/4 at 632.8 over central 80%

**SPECIFICATION**

DrawingNo Vers

Sheet 2 of 2

0.5" Turning mirrors for the PZT actuators of the H1 squeezer**6 Coating**

Wavelength: 1064nm and 532nm

AOI: **6 degrees (shared coating run, see E1000023-v4 O3 and O4)****Side 1**

HR@1064 > 99.99% (best effort)

HR@532 > 99.9%

Side 2

AR@1064 < 0.1%

AR@532 < 0.2%