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| **APPROVALS** | **DATE** | **REV** | **DCN NO.**  | **BY**  | **CHECK**  | **DCC** | **DATE** |
| **AUTHOR: S. Waldman** | **11-08-2011** |  |  |  |  |  |  |
| **CHECKED:** |  |  |  |  |  |  |  |
| **APPROVED:**  |  |  |  |  |  |  |  |
| **DCC RELEASE** |  |  |  |  |  |  |  |

# Description

0.5” diameter curved/flat fused silica mirrors used as cavity optics for the Output Mode Cleaner

# 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)

# Dimensions

CURVED-FLAT

Diameter: 12.7mm +0/-0.2mm

Thickness (center): Uniform within lot to 0.1mm

3.1mm minimum thickness

6.5mm maximum thickness

Chamfers: 0.25–0.76 mm face width 45° ±15°

Arrow marking Side 1 on barrel

Drawing number E1101088 etched onto barrel, if possible

# Surface Specification

**Side 1**

Super-polished

Micro-roughness: < 1 Angstrom rms over central 80% of diameter with 10-5 scratch-dig

best effort for 20-10 scratch-dig outside central 80% of diameter

Surface Figure: 250cm ± 1% concave radius of curvature

**Side 2**

Micro-roughness: < 5 Angstrom rms over central 80% of diameter

Surface figure: Flat to λ/4 at 632.8 over central 80%

**Barrel**

Inspection polish

# Coatings

As per coating specification E1101095 and statement of work E1101096

# Metrology

Vendor to provide Side 1 surface figure measurement