



SPECIFICATION

Curved Mirror Specifications

APPROVALS	DATE	RE V	DCN NO.	BY	CHECK	DCC	DATE
AUTHOR: L. BARSOTTI	3-5-10						
CHECKED:							
APPROVED: D. SIGG							
DCC RELEASE							

1 Description

2" Ø Plano-concave mirror @ 1064nm

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

2"Ø +.000/-.005" X 0.375" ± .020" tk., plano-concave
ROC = 2000mm ± 2% (concave)

4 Wedge

<60 arc seconds

5 Surface Roughness

Side 1 (concave)

Super polish
Surface Roughness: <1Å RMS in CA
Surface Quality: 10-5

Side 2 (plano)

Commercial Polish
Surface Roughness: <5Å RMS in CA
Surface Quality: 40-20

6 Surface Figure

Side 1 (concave)

Flat < λ/10 at 632.8 over central 80%

Side 2 (plano)

Flat < λ/4 at 632.8 over central 80%



SPECIFICATION

Curved Mirror Specifications**7 Coating**

Wavelength: 1064nm

Angle of incidence: 0°- 45°

Side 1 (concave)

R > 99.95% @ 1064nm and AOI 0°- 45°, both s and p pol

Side 2 (plano)

AR coating, R<1% @ 1064nm and AOI 0°- 45°, both s and p pol

Coating vendor to provide:

1. Two spectrophotometer graphs of the reflectance and transmittance of the HR coatings; one covering the spectrum from 530nm to 1200nm; the other, with increased sensitivity, showing wavelengths from 900nm to 1100nm
2. Spectrophotometer graphs of the reflectance of the AR coating taken as cited above.