Curved Mirror Specifications

APPROVALS	DATE	REV	DCN NO.	BY	CHECK	DCC	DATE
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1 Description

2” Ø Plano-convex mirror @ 1064nm

2 Material

Corning HPFS 7980 (high purity fused silica, UV grade)
Grade 0A (Low inclusion class: <0.3 mm^2 cross section, 0.1 mm max. size;
Homogeneity < 1ppm)

3 Dimensions

2"Ø +.000/-.005" X 0.375" ± .020" tk., plano-convex
ROC = 515.1mm ± 2% (convex)

4 Wedge

<60 arc seconds

5 Surface Roughness

Side 1 (convex)
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 (convex)
Flat < λ/10 at 632.8 over central 80%
Side 2 (plano)
Flat < λ/4 at 632.8 over central 80%

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7 Coating

Wavelength: 1064nm
Angle of incidence: 0°- 45°
Side 1 (convex)
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.