# LASER INTERFEROMETER GRAVITATIONAL WAVE OBSERVATORY LIGO

## **SPECIFICATION**

E050114 02 D

Drawing No Rev. Group

> of 1 Sheet 1

## **PMC - Concave Mirror Specifications**

APPROVALS	DATE	REV	DCN NO.	BY	CHECK	DCC	DATE
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CHECKED: R. Savage - D. Cook							
APPROVED: Fritschel							
DCC RELEASE	_						

#### 1 Substrate

REO's 100cm cc/pl - Fused Silica 7.75mm dia. DWG# 30731 - Rev. A

## Coating

Wavelength: 1064 nm

Angle of incidence: 0 degrees

### Side 1

HR:  $T \le 10 \text{ ppm}$ Uniformity: 1 nm rms Absorption:  $\leq 1$  ppm Scatter < 15 ppm

### Side 2

 $\mathbf{AR} - \mathbf{R} \le 0.1\%$ 

Coating vendor to provide:

- 1. One 1" witness sample from each coating run
- 2. Two spectrophotometer graphs of the reflectance and transmittance of the HR coatings must be provided; one covering the spectrum from 530nm to 1200nm; the other, with increased sensitivity, to show wavelengths from 900nm to 1100nm
- 3. Spectrophotometer graphs of the reflectance of the AR coating taken as cited above.