

40m upgrade ~ Optics summary

As of Nov. 09 2009

PRM (Coating Ver. E080458-02)
 Dim: d75.5mm t25mm w2deg
 S1: Rc=115.5m +/- 5m
 HR T:5.5% +/- 0.3% (0deg)
 S2: Rc>+/-5625m
 AR T:<300ppm (2deg P)

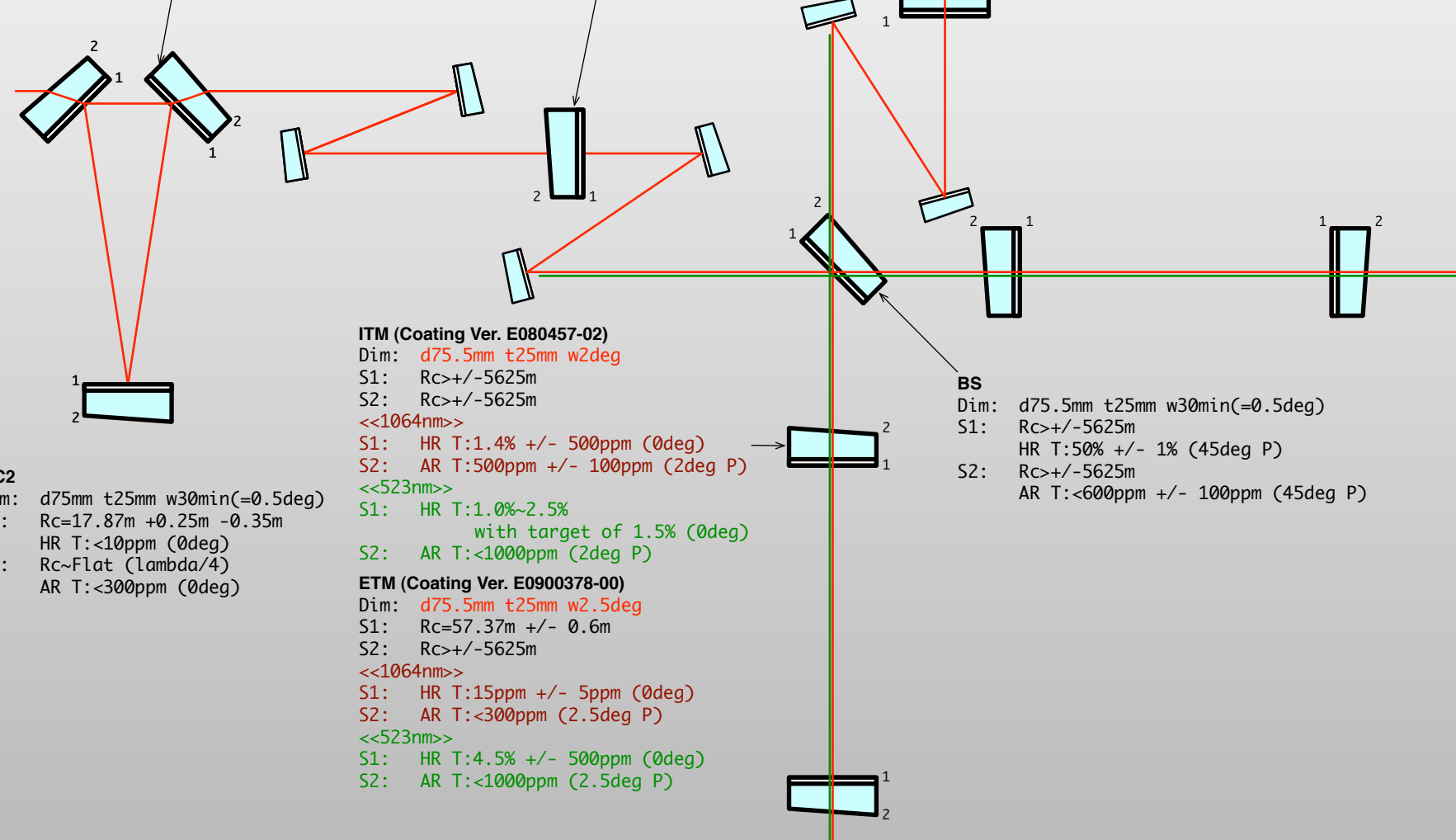
SRM (Coating Ver. E080459-01)
 Dim: d75.5mm t25mm w2deg
 S1: Rc=142m +/- 5m
 HR T:10.0% +/- 0.5% (0deg)
 S2: Rc>+/-5625m
 AR T:<300ppm (2deg P)

ITM (Coating Ver. E080457-02)
 Dim: d75.5mm t25mm w2deg
 S1: Rc>+/-5625m
 S2: Rc>+/-5625m
 <<1064nm>>
 S1: HR T:1.4% +/- 500ppm (0deg)
 S2: AR T:500ppm +/- 100ppm (2deg P)
 <<523nm>>
 S1: HR T:1.0%~2.5%
 with target of 1.5% (0deg)
 S2: AR T:<1000ppm (2deg P)

ETM (Coating Ver. E0900378-00)
 Dim: d75.5mm t25mm w2.5deg
 S1: Rc=57.37m +/- 0.6m
 S2: Rc>+/-5625m
 <<1064nm>>
 S1: HR T:15ppm +/- 5ppm (0deg)
 S2: AR T:<300ppm (2.5deg P)
 <<523nm>>
 S1: HR T:4.5% +/- 500ppm (0deg)
 S2: AR T:<1000ppm (2.5deg P)

BS
 Dim: d75.5mm t25mm w30min(=0.5deg)
 S1: Rc>+/-5625m
 HR T:50% +/- 1% (45deg P)
 S2: Rc>+/-5625m
 AR T:<600ppm +/- 100ppm (45deg P)

MC1/MC3
 Dim: d75mm t25mm w15min(=0.25deg)
 S1: Rc>8000m
 HR T:2000ppm +/- 100ppm (45deg S)
 S2: Rc>8000m
 AR T:<300ppm (45deg S)



MC2
 Dim: d75mm t25mm w30min(=0.5deg)
 S1: Rc=17.87m +0.25m -0.35m
 HR T:<10ppm (0deg)
 S2: Rc~Flat (lambda/4)
 AR T:<300ppm (0deg)

40m OLD Optics summary

<http://www.ligo.caltech.edu/~gari/40MAsBuilt.htm>

MC1/MC3

Dim: d75mm t25mm w15min(=0.25deg)
 S1: Rc>8000m
 HR T:2000ppm +/- 100ppm (45deg S)
 S2: Rc>8000m
 AR T:<300ppm (45deg S)

PRM

Dim: d75.5mm t25mm w2.5deg
 S1: Rc=348m +/- 20m
 HR T:7.0% +/- 0.7% (0deg)
 S2: Rc>+/-5625m
 AR T:<300ppm (2.5deg P)

SRM

Dim: d75.5mm t25mm w2.5deg
 S1: Rc=365m +/- 25m
 HR T:7.0% +/- 0.7% (0deg)
 S2: Rc>+/-5625m
 AR T:<300ppm (2.5deg P)

ITM

Dim: d125mm t50mm w1deg
 S1: Rc>+/-5625m
 HR T:5000ppm +/- 500ppm (0deg)
 S2: Rc>+/-5625m
 AR T:600ppm +/- 100ppm (0deg)

BS

Dim: d75.5mm t25mm w30min(=0.5deg)
 S1: Rc>+/-5625m
 HR T:50% +/- 1% (45deg P)
 S2: Rc>+/-5625m
 AR T:<600ppm +/- 100ppm (45deg P)

ETM

Dim: d125mm t50mm w2.5deg
 S1: Rc=57.37m +/- 0.6m
 HR T:15ppm +/- 5ppm (0deg)
 S2: Rc>+/-5625m
 AR T:<300ppm (2.5deg P)

MC2

Dim: d75mm t25mm w30min(=0.5deg)
 S1: Rc=17.87m +0.25m -0.35m
 HR T:<10ppm (0deg)
 S2: Rc~Flat ($\lambda/4$)
 AR T:<300ppm (0deg)

