

Parameter	Unit	Hanford				Livingston	
		2k IO		4k IO		4k IO	
		Design	Measured	Design	Measured	Design	Measured
MC1 refl.		0.998	0.9977	0.998	SMI	0.998	SMI
MC1 trans.		0.002	0.002255	0.002	SMI	0.002	SMI
MC2 refl.		0.9999	>0.999	0.9999	>0.999	0.9999	>0.999
MC2 trans.		0.00001	0.000002	0.00001	0.000002	0.00001	0.000002
MC3 refl.		0.998	0.9977	0.998	SMI	0.998	SMI
MC3 trans.		0.002	0.002255	0.002	SMI	0.002	SMI
MC1 radius of curv.	m	Inf.	> 100	Inf.	>8000	Inf.	>8000
MC2 radius of curv.	m	21.5	SMI	17.25	SMI	17.25	SMI
MC3 radius of curv.	m	Inf.	> 100	Inf.	>8000	Inf.	>8000
MC Length	m	15.251	15.2395	12.454	12.401	12.454	12.3996
MC Free Spectral Range	MHz	9.829	9.836	12.036	12.087	12.036	12.089
MC Finesse		1550	1346	1550	NYM	1550	1500
MC Visibility		----	SMI	----	SMI	----	97%
Power Gain		493.3803	428.44511	493.3803	NYK	493.3803	477.4648
Mode Matching into MC		>99%	SMI	>99%	> 98%	>99%	SMI
Maximum MC Intensity	W/cm ²	1.52E+05	----	1.89E+05	----	1.89E+05	----
Mode Matching into IFO		100%	SMI	100%	NYM	100%	>94%

Overall throughput of the IOO, ~ 80% from PSL to RM.

Notes:

NYM = not yet measured

NYK = not yet known (derived from measured quantity)

SMI = still mining information

Design information taken from IOODRD (T980009-01); 4k MC lengths have been revised since last rev of T98

Comment

Reflectivity and Transmission refer to power

2k 4k MC lengths will be reset to design values

Will change when lengths are reset

MC Mirrors have been/will be replaced; finesse will be remeasured

Measured values are best case

Measured values are best case; different values reported depending on power

Assumes 8 W input power

80009; see E000053-00 for latest #s)