

ETMX Wide Angle Baffle, H1
 Lambertian Scatter on ETM
 4/27/2010

PSL Power, W	125
Arm Cavity Power, W	834000
scatter loss factor	1.00E-05
wavelength, m	1.06E-06
DARM transfer fcn	1.00E-09
ISI motion, m/rtHerz	2.00E-10
manifold motion, m/rtHerz	1.00E-08
k	5.91E+06
BRDF porcelainized SS	5.00E-04
BRDF chamber wall	5.00E-02

Description	Object	rel power incident on baffle, W	fractional scattering	incident power, W	BRDF, sr ⁻¹	distance to scattering surface, L	incident angle at COC	power scattered into IFO, W	displacem ent noise, m/rtHerz
ETMX Wide Angle Baffle, H1									
baffle bottom	884	0.0384	0.033	0.272	5.00E-04	0.707	0	9.80E-22	6.62E-24
	885	0.0567	0.048	0.401	5.00E-04	0.476	0	3.19E-21	1.19E-23
	886	0.0783	0.066	0.554	5.00E-04	0.707	0	2.00E-21	9.45E-24
	887	0.0775	0.066	0.549	5.00E-04	0.707	0	1.98E-21	9.40E-24
	888	0.0238	0.020	0.168	5.00E-04	1.2	0	2.11E-22	3.07E-24
baf plate 2	889	0.1312	0.111	0.929	5.00E-04	1	0	1.67E-21	4.32E-22
baf plate 3	890	0.1156	0.098	0.818	5.00E-04	0.8	0	2.30E-21	5.07E-22
baf plate 4	891	0.2891	0.245	2.047	5.00E-04	0.7	0	7.53E-21	9.17E-22
	892	0.0221	0.019	0.156	5.00E-04	0.6	0	7.83E-22	5.92E-24
bottom ledge	893	0.175	0.149	1.239	5.00E-04	0.3	0	2.48E-20	3.33E-23
adapter flange +manifold	894	0.1704							
manifold	895	0.1203	0.102	0.852	5.00E-02	3.34	0	1.38E-20	1.24E-21
total		1.1781	1.000	0.554					

adapter flange scatter		0.0501	0.043	0.355	5.00E-02	3.341	0	5.72E-21	8.00E-22
adapter flange reflected		0.0501	0.043	0.355		3.341	0	1.14E-14	1.13E-18

ITMY Wide Angle Baffle, H1

AC baffle top	916	0.0312	0.028		5.00E-04	0.707	45	6.05E-22	5.20E-24
AC baffle bottom	917	0.0395	0.036		5.00E-04	0.476	20	2.25E-21	1.00E-23
AC baf plate 2	919	0.0844	0.077		5.00E-04	0.6	45	2.27E-21	1.01E-23
AC baf plate 4	921	0.0336	0.031		5.00E-04	0.5	30	1.60E-21	8.45E-24
AC baf plate 7	928	0.017	0.016		5.00E-04	0.5	15	9.00E-22	6.34E-24
total AC baffle				0.188	5.00E-04			7.62E-21	1.85E-23
WA baffle top	931	0.0288	0.026		5.00E-04	1	65	1.67E-22	2.73E-24
WA baffle bottom	932	0.1912	0.174		5.00E-04	0.8	72	1.27E-21	7.52E-24
total WA baffle				0.201				1.43E-21	8.00E-24
WA baf plate 1	933	0.1494	0.136		5.00E-04	0.6	77	1.28E-21	3.78E-22
WA baf plate 2	934	0.2804	0.256		5.00E-04	1.2	45	1.89E-21	4.59E-22
WA baf plate 3	935	0.0637	0.058		5.00E-04	1	75	2.26E-22	1.59E-22
WA baf plate 4	936	0.0908	0.083		5.00E-04	2	45	2.20E-22	1.57E-22
total WA baf plate				0.533					
adapter flange	938	0.0862							
wide angle block	945	0.0046	0.0046	28	5.00E-02	4	5	4.30E-22	2.19E-22
spool piece cylinder		0.0816	0.074		5.00E-04	2	5	2.79E-22	1.76E-22

total 1.0962 1.000

fraction into manifold 0.082832

BRDF porcelainized SS 5.00E-04
BRDF chamber wall 5.00E-02