Detector Viewer Summary

File : H:\ADLIGO\IFO\full_ifo_layout\D0901920 H1 Zemax layout.zmx
Title: D0901920-v4, Advanced LIGO, H1 Layout
Date : 8/15/2012

Incoherent Data

Surface	Power, W	fractional scatter	scattering length, mm	incident angle, deg	incident angle, rad	Power1	Power2	Power3
Annular Volume 1080: spool 7A2 large dia	1.22	0.01	7446	5.5	0.10	6.67E-01	1.00E+00	2.00E+00
PCal structure	2.78	0.03	2371	5	0.09	4.00E+00	3.00E+00	1.33E+00
BSC bottom	3.11	0.03	2248	103	1.80	3.33E+00	2.33E+00	3.67E+00
BSC front	5.44	0.05	1566	105	1.83	5.33E+00	5.00E+00	6.00E+00
BSC back	0.44	0.004	1967	99	1.73	3.33E-01	0.00E+00	1.00E+00
ITM/ETM middle envelope	4.56	0.05	172	103	1.81	5.00E+00	5.00E+00	3.67E+00
ARM CAVITY BAF PLATE top ETMX	0.44	0.00	764	57	0.99	0.00E+00	3.33E-01	1.00E+00
ARM CAVITY BAF PLATE BOTTOM ETMX	2.78	0.03	572	39	0.67	1.67E+00	4.00E+00	2.67E+00
ARM CAVITY BAF PLATE 2 ETMX	6.89	0.07	716	47	0.82	5.67E+00	8.33E+00	6.67E+00
ARM CAVITY BAF PLATE 3 ETMX	2.11	0.02	605	35	0.61	4.00E+00	1.00E+00	1.33E+00
ARM CAVITY BAF PLATE 4 ETMX	0.89	0.01	468	26	0.45	0.00E+00	2.00E+00	6.67E-01
ARM CAVITY BAF PLATE 5 ETMX	5.78	0.06	475	19	0.34	8.00E+00	7.33E+00	2.00E+00
ARM CAVITY BAF PLATE 6 ETMX	6.33	0.06	443	18	0.31	3.67E+00	7.33E+00	8.00E+00
ARM CAVITY BAF PLATE 7 ETMX	0.78	0.01	231	9	0.15	0.00E+00	1.33E+00	1.00E+00
WIDE ANGLE BAF TOP LEDGE ETMX	7.22	0.07	901	41	0.71	8.33E+00	8.33E+00	5.00E+00
WIDE ANGLE BAF BOTTOM LEDGE ETMX	21.89	0.22	748	29	0.51	2.03E+01	2.33E+01	2.20E+01
acb_wide-angle-baffle-side_H1_ITMx.POB Right	19.22	0.19	895	31	0.54	2.10E+01	1.63E+01	2.03E+01
acb_wide-angle-baffle-side_H1_ITMx.POB Left	5.67	0.06	788	26	0.46	8.33E+00	4.33E+00	4.33E+00
TOTAL DETECTOR	97.56	0.98				7.03E+01	7.97E+01	6.80E+01
Detector Surface 1169: total scatter ETMX	100.00	1.00				1.00E+02	9.93E+01	9.93E+01
Rectangle 1170: total ACB baffle	14.33	0.14						
Detector Surface 1171: ADAPTER FLANGE OPENING	5.67	0.06						
Detector Surface 1172: MANIFOLD OPENING	5.67	0.06						

Surface	Incident Power	Power Scattered into IFO	BRDF, sr^-1	Motion Spectrum		
Annular Volume 1080: spool 7A2 large dia	0.099	1.28E-21	0.1	MANIFOLD		
Detector Surface 1084: PCal structure	0.226	2.88E-20	0.1	MANIFOLD		
Detector Surface 1118: BSC bottom	0.253	2.26E-20	0.1	BSC		
Detector Surface 1119: BSC front	0.442	6.23E-22	0.1	BSC		
Detector Surface 1120: BSC back	0.036	2.59E-21	0.1	BSC		
Rectangular Volume 1115: ITM/ETM middle envelope	0.370	6.42E-19	0.05	ISI		
Rectangular Volume 1127: ARM CAVITY BAF PLATE top ETMX	0.036	7.33E-21	0.05	ACB		
Rectangular Volume 1128: ARM CAVITY BAF PLATE BOTTOM ETMX	0.226	1.17E-19	0.05	ACB		
Rectangular Volume 1130: ARM CAVITY BAF PLATE 2 ETMX	0.560	1.78E-19	0.05	ACB		
Rectangular Volume 1131: ARM CAVITY BAF PLATE 3 ETMX	0.171	8.33E-20	0.05	ACB		
Rectangular Volume 1132: ARM CAVITY BAF PLATE 4 ETMX	0.072	6.36E-20	0.05	ACB		
Rectangular Volume 1133: ARM CAVITY BAF PLATE 5 ETMX	0.470	4.00E-19	0.05	ACB		
Rectangular Volume 1147: ARM CAVITY BAF PLATE 6 ETMX	0.514	5.12E-19	0.05	ACB		
Rectangular Volume 1161: ARM CAVITY BAF PLATE 7 ETMX	0.063	2.49E-19	0.05	ACB		
Rectangular Volume 1163: WIDE ANGLE BAF TOP LEDGE ETMX	0.587	9.70E-20	0.05	ACB		
Rectangular Volume 1164: WIDE ANGLE BAF BOTTOM LEDGE ETMX	1.779	5.04E-19	0.05	ACB		
Polygon Object 1165: acb_wide-angle-baffle-side_H1_ITMx.POB Right	1.560	2.63E-19	0.05	ACB		
Polygon Object 1166: acb_wide-angle-baffle-side_H1_ITMx.POB Left	0.461	1.13E-19	0.05	ACB		

Surface	Displacement Noise
spool 7A2	2.35E-24
PCal structure	1.12E-23
BSC	9.91E-24
ITM/ETM middle envelope	1.97E-26
ARM CAVITY BAF	7.97E-25