

Reflectivity measurement - WHT Primary, before and after ALUMINIZATION

Equipment:	uscan reflectometer		
Mirror:	WHT Primary mirror		
Person:	Neil O'Mahony		
Date:	20091102 - 20091103		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

WHT Primary mirror before ALU

No#	BSDF - 0°,0° detector position	BSDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
6	6.32E-03	2.08E-03	0.85	60.1	15:31:21	11/2/2009
7	6.32E-03	2.04E-03	0.846	60.3	15:31:27	11/2/2009
8	7.43E-03	3.00E-03	0.859	63.3	15:31:44	11/2/2009
9	7.47E-03	3.04E-03	0.854	63.6	15:31:53	11/2/2009
10	1.01E-02	4.66E-03	0.855	73.4	15:32:25	11/2/2009
11	8.16E-03	3.78E-03	0.86	65.6	15:32:32	11/2/2009
12	7.59E-03	2.29E-03	0.866	65.9	15:33:03	11/2/2009
13	8.09E-03	5.15E-03	0.805	66.7	15:33:10	11/2/2009
14	8.64E-03	3.95E-03	0.839	68.4	15:33:27	11/2/2009
15	8.69E-03	3.96E-03	0.836	68.8	15:33:33	11/2/2009
16	8.19E-03	4.11E-03	0.838	66.3	15:33:46	11/2/2009
average	7.913E-03	3.460E-03	0.846	65.673		
standard dev	1.089E-03	1.048E-03	0.017	3.851		

WHT Primary mirror after ALU

No#	BSDF - 0°,0° detector position	BSDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
1	1.13E-03	8.36E-05	0.866	50.3	13:52:06	11/3/2009
2	1.13E-03	8.33E-05	0.866	50.4	13:52:11	11/3/2009
3	1.06E-03	5.82E-05	0.865	67.4	13:52:26	11/3/2009
4	1.06E-03	5.85E-05	0.846	67.7	13:52:32	11/3/2009
5	1.30E-03	1.78E-04	0.867	34.4	13:52:43	11/3/2009
6	1.31E-03	1.82E-04	0.862	34.4	13:52:48	11/3/2009
7	1.56E-03	9.82E-05	0.846	70.1	13:53:06	11/3/2009
8	1.53E-03	9.66E-05	0.847	69.7	13:53:15	11/3/2009
9	1.11E-03	6.88E-05	0.833	61	13:53:34	11/3/2009
10	1.12E-03	6.96E-05	0.84	60.5	13:53:39	11/3/2009
11	9.33E-04	5.19E-05	0.866	62	13:53:48	11/3/2009
12	9.34E-04	5.19E-05	0.866	62.1	13:53:54	11/3/2009
13	9.08E-04	5.57E-05	0.866	54.7	13:54:35	11/3/2009
14	9.07E-04	5.62E-05	0.867	54	13:54:44	11/3/2009
15	1.16E-03	6.61E-05	0.866	67	13:55:23	11/3/2009
16	1.16E-03	6.64E-05	0.868	66.5	13:55:28	11/3/2009
17	1.01E-03	8.81E-05	0.866	40.8	13:55:48	11/3/2009
18	1.01E-03	8.89E-05	0.866	40.7	13:55:54	11/3/2009
19	9.05E-04	5.47E-05	0.866	55.6	13:56:12	11/3/2009
20	9.05E-04	5.52E-05	0.862	55.1	13:56:17	11/3/2009
21	1.17E-02	2.54E-03	0.933	84.2	13:58:12	11/3/2009
22	8.61E-03	1.64E-03	0.936	74.9	13:58:19	11/3/2009

23	5.53E-03	2.00E-03	0.928	53.1	13:58:26	11/3/2009
24	5.53E-03	2.01E-03	0.928	53.1	13:58:32	11/3/2009
25	4.51E-03	1.32E-03	0.935	49.2	13:58:39	11/3/2009
26	4.51E-03	1.32E-03	0.937	49.1	13:58:44	11/3/2009
27	4.63E-03	1.33E-03	0.932	50	13:58:50	11/3/1909
average	2.486E-03	5.100E-04	0.879	56.963		
standard dev	2.717E-03	7.735E-04	0.034	12.003		

Notes:
RMS - Root Mean Square surface roughness in Angstrom,
BSDF - Bidirectional scatter distribution function, it is equal to the scattered power per unit solid angle