

Reflectivity measurement - before and after snow-cleaning

Equipment:	uscan reflectometer		
Mirror:	WHT Primary mirror		
Person:	Tibor Agocs		
Date:	24/07/2007		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

Primary mirror BEFORE snow cleaning

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
1	6.09E-03	3.94E-03	0.903	54.6	08:45:35	07-24-1907
2	6.08E-03	3.93E-03	0.877	55.4	08:45:40	07-24-1907
3	6.10E-03	3.93E-03	0.887	55.2	08:45:45	07-24-1907
4	5.86E-03	3.65E-03	0.871	54.6	08:46:01	07-24-1907
5	5.86E-03	3.65E-03	0.878	54.4	08:46:06	07-24-1907
6	5.85E-03	3.65E-03	0.87	54.6	08:46:11	07-24-1907
7	5.34E-03	2.88E-03	0.87	52.4	08:46:33	07-24-1907
8	5.33E-03	2.87E-03	0.868	52.4	08:46:38	07-24-1907
9	5.33E-03	2.87E-03	0.869	52.4	08:46:42	07-24-1907
10	8.29E-03	5.49E-03	0.896	63.9	08:46:57	07-24-1907
11	8.37E-03	5.58E-03	0.853	65.9	08:47:01	07-24-1907
12	8.44E-03	5.58E-03	0.853	66.1	08:47:06	07-24-1907
13	6.72E-03	4.58E-03	0.851	59.1	08:47:28	07-24-1907
14	6.72E-03	4.62E-03	0.849	59.1	08:47:33	07-24-1907
15	6.77E-03	4.66E-03	0.849	59.3	08:47:38	07-24-1907
16	6.23E-03	3.80E-03	0.874	56.2	08:47:49	07-24-1907
17	6.21E-03	3.80E-03	0.873	56.1	08:47:54	07-24-1907
average	6.447E-03	4.086E-03	0.870	57.159		
standard dev	1.017E-03	8.854E-04	0.016	4.459		

Primary mirror AFTER snow cleaning

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
1	2.57E-03	7.71E-04	0.887	38	09:08:11	07-24-1907
2	2.57E-03	7.63E-04	0.885	38.1	09:08:16	07-24-1907
3	2.57E-03	7.62E-04	0.883	38.1	09:08:20	07-24-1907
4	2.41E-03	5.48E-04	0.877	39	09:08:29	07-24-1907
5	2.41E-03	5.34E-04	0.876	39.3	09:08:33	07-24-1907
6	2.38E-03	5.22E-04	0.884	38.9	09:08:38	07-24-1907
7	2.88E-03	8.51E-04	0.896	40	09:09:04	07-24-1907
8	3.16E-03	8.51E-04	0.913	42.2	09:09:09	07-24-1907
9	3.16E-03	8.72E-04	0.91	42.2	09:09:13	07-24-1907
10	2.10E-03	4.99E-04	0.918	35.3	09:09:23	07-24-1907
11	2.09E-03	4.94E-04	0.909	35.3	09:09:28	07-24-1907
12	2.12E-03	5.07E-04	0.893	35.8	09:09:32	07-24-1907
13	2.85E-03	8.59E-04	0.877	40.2	09:09:51	07-24-1907
14	2.86E-03	8.76E-04	0.873	40.2	09:09:55	07-24-1907
15	2.85E-03	8.77E-04	0.87	40.2	09:10:00	07-24-1907
16	1.09E-02	4.46E-03	0.889	75.5	09:10:08	07-24-1907
17	1.09E-02	4.44E-03	0.871	76.2	09:10:12	07-24-1907

18	3.00E-03	1.79E-03	0.968	37.1	09:19:13	07-24-1907
19	3.00E-03	1.79E-03	0.966	37.1	09:19:17	07-24-1907
20	2.99E-03	1.79E-03	0.967	37	09:19:22	07-24-1907
21	2.03E-03	1.11E-03	0.961	30.7	09:19:30	07-24-1907
22	2.03E-03	1.11E-03	0.965	30.6	09:19:34	07-24-1907
average	3.358E-03	1.231E-03	0.906	41.227		
standard dev	2.480E-03	1.118E-03	0.035	11.596		

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 normalized by the incident power and $\cos\theta$