

Reflectivity measurement

Equipment:	uscan reflectometer		
Mirror:	WHT Primary mirror - left side as seen from AP3		
Person:	Servando Rodriguez, Neil O'Mahony, Tibor Agocs		
Date:	29/11/2006		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

LEFT HALF OF THE MIRROR - BEFORE

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
4	1.32E-02	5.04E-03	0.778	89.3	09:56:57	11-29-1906
5	8.64E-03	2.71E-03	0.818	72	09:57:15	11-29-1906
6	1.05E-02	4.08E-03	0.791	78.6	09:57:36	11-29-1906
7	1.01E-02	3.77E-03	0.813	76.5	09:58:19	11-29-1906
8	1.07E-02	4.12E-03	0.788	79.6	09:58:28	11-29-1906
9	1.12E-02	4.37E-03	0.811	80.2	09:58:37	11-29-1906
10	1.18E-02	5.00E-03	0.815	81.4	09:58:48	11-29-1906
11	1.28E-02	4.65E-03	0.808	86.5	09:58:57	11-29-1906
12	1.49E-02	5.89E-03	0.813	92.2	09:59:04	11-29-1906
average	1.153E-02	4.402E-03	0.804	81.811		
standard dev	1.868E-03	8.997E-04	0.014	6.407		

LEFT HALF OF THE MIRROR - AFTER

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
3	5.22E-03	9.99E-04	0.82	62.2	12:08:03	11-29-1906
4	8.15E-03	2.01E-03	0.814	73.1	12:09:42	11-29-1906
5	9.16E-03	2.11E-03	0.831	77.9	12:09:52	11-29-1906
6	1.05E-02	2.99E-03	0.828	80.3	12:10:06	11-29-1906
7	5.41E-03	1.13E-03	0.805	62.4	12:10:15	11-29-1906
8	2.61E-03	5.09E-04	0.812	44	12:10:47	11-29-1906
9	1.93E-03	2.39E-04	0.81	45.8	12:10:57	11-29-1906
10	2.32E-03	3.60E-04	0.818	44.7	12:11:05	11-29-1906
11	2.57E-03	4.00E-04	0.805	47.4	12:11:14	11-29-1906
12	3.01E-03	3.81E-04	0.858	55	12:11:24	11-29-1906
13	3.08E-03	3.99E-04	0.861	54.9	12:11:31	11-29-1906
14	4.67E-03	6.57E-04	0.866	64.6	12:11:45	11-29-1906
15	3.68E-03	5.57E-04	0.858	55.8	12:12:00	11-29-1906
16	3.78E-03	5.72E-04	0.871	56	12:12:08	11-29-1906
17	3.78E-03	6.17E-04	0.855	54.8	12:12:16	11-29-1906
average	4.660E-03	9.275E-04	0.834	58.593		
standard dev	2.634E-03	8.058E-04	0.024	11.552		

Notes:

RMS - Root Mean Square surface roughness in Angstrom,
 BPDF - Bidirectional scatter distribution function, it is equal to the scattered power per unit solid angle normalized by the incident power and $\cos\theta$