

## Reflectivity measurement - before, after CO2 cleaning INT primary mirror

Equipment:	uscan reflectometer		
Mirror:	INT Primary mirror		
Person:	Tibor Agocs		
Date:	20100112		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

### INT mirror - before CO2

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
10	1.14E-02	3.79E-03	0.78	84	09:47:47	1/12/2010
11	1.14E-02	3.80E-03	0.773	84.5	09:47:51	1/12/2010
12	1.10E-02	3.20E-03	0.798	83.2	09:51:19	1/12/2010
13	1.10E-02	3.29E-03	0.798	82.9	09:51:24	1/12/2010
14	1.10E-02	3.29E-03	0.797	83	09:51:28	1/12/2010
15	1.25E-02	4.34E-03	0.821	85.2	09:51:37	1/12/2010
16	1.24E-02	4.37E-03	0.819	85	09:51:42	1/12/2010
17	1.25E-02	4.41E-03	0.656	95.4	09:51:47	1/12/2010
18	1.96E-02	6.90E-03	0.744	112.1	09:51:54	1/12/2010
19	1.96E-02	6.87E-03	0.753	111.2	09:51:59	1/12/2010
20	1.95E-02	6.86E-03	0.798	107.8	09:52:04	1/12/2010
21	1.63E-02	6.34E-03	0.784	98.5	09:52:18	1/12/2010
22	1.62E-02	6.34E-03	0.784	98.2	09:52:23	1/12/2010
23	1.62E-02	6.35E-03	0.765	99.5	09:52:27	1/12/2010
24	1.62E-02	5.24E-03	0.791	99.6	09:52:36	1/12/2010
25	1.62E-02	5.26E-03	0.785	100.1	09:52:41	1/12/2010
<b>average</b>	<b>1.456E-02</b>	<b>5.039E-03</b>	<b>0.778</b>	<b>94.388</b>		
<b>standard dev</b>	<b>3.255E-03</b>	<b>1.397E-03</b>	<b>0.039</b>	<b>10.519</b>		

### INT mirror - after CO2

No#	BPDF - 0°,0° detector position	BPDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
26	1.53E-02	3.91E-03	0.803	100	10:07:56	1/12/2010
27	1.54E-02	3.93E-03	0.801	100.4	10:08:00	1/12/2010
28	1.54E-02	3.94E-03	0.795	100.9	10:08:05	1/12/2010
29	1.42E-02	4.15E-03	0.792	95	10:08:13	1/12/2010
30	1.43E-02	4.18E-03	0.788	95.4	10:08:17	1/12/2010
31	1.43E-02	4.17E-03	0.774	96.4	10:08:22	1/12/2010
32	1.55E-02	5.04E-03	0.799	97.2	10:08:31	1/12/2010
33	1.55E-02	5.05E-03	0.778	98.5	10:08:36	1/12/2010
34	1.55E-02	5.05E-03	0.776	98.5	10:08:41	1/12/2010
35	1.88E-02	6.54E-03	0.759	108.9	10:08:49	1/12/2010
36	1.90E-02	6.57E-03	0.755	109.6	10:08:54	1/12/2010
37	1.91E-02	6.64E-03	0.724	112.1	10:08:59	1/12/2010
38	1.41E-02	3.88E-03	0.753	97.7	10:09:10	1/12/2010
39	1.41E-02	3.87E-03	0.803	94.7	10:09:15	1/12/2010
40	1.40E-02	3.87E-03	0.8	94.7	10:09:20	1/12/2010
41	1.41E-02	3.88E-03	0.802	94.6	10:09:25	1/12/2010
42	1.40E-02	3.88E-03	0.799	94.8	10:09:30	1/12/2010

43	1.57E-02	4.94E-03	0.76	100.8	10:09:37	1/12/2010
44	1.57E-02	4.92E-03	0.789	98.8	10:09:41	1/12/2010
45	1.57E-02	4.91E-03	0.795	98.4	10:09:46	1/12/2010
46	1.46E-02	4.36E-03	0.783	96.4	10:09:57	1/12/2010
47	1.60E-02	4.71E-03	0.756	102.9	10:10:02	1/12/2010
<b>average</b>	<b>1.547E-02</b>	<b>4.654E-03</b>	<b>0.781</b>	<b>99.395</b>		
<b>standard dev</b>	<b>1.573E-03</b>	<b>9.073E-04</b>	<b>0.022</b>	<b>5.004</b>		

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