

## Reflectivity measurement - WHT Primary, before and after CO2 cleaning

Equipment:	uscan reflectometer		
Mirror:	<b>WHT Primary mirror</b>		
Person:	Neil O'Mahony		
Date:	02/09/2008		
Lambda (micron):	0.67		
Incident angle (degree):	25		
BW (Bandwidth) limits:	1	0.1	

### WHT Primary mirror before the CO2 cleaning

No#	BSDF - 0°,0° detector position	BSDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
2	1.25E-02	5.90E-03	0.791	84.5	08:47:01	09/02/2008
3	1.27E-02	6.29E-03	0.799	84.7	08:47:14	09/02/2008
4	1.29E-02	7.11E-03	0.796	85.1	08:47:23	09/02/2008
5	1.89E-02	8.98E-03	0.771	105.4	08:47:32	09/02/2008
6	1.51E-02	7.52E-03	0.815	91.4	08:47:44	09/02/2008
7	1.40E-02	6.99E-03	0.804	88.6	08:47:55	09/02/2008
8	1.15E-02	5.28E-03	0.796	81	08:48:10	09/02/2008
9	1.39E-02	6.51E-03	0.791	89.4	08:48:18	09/02/2008
10	1.12E-02	5.91E-03	0.789	79.7	08:48:28	09/02/2008
11	1.25E-02	7.09E-03	0.805	83.3	08:48:39	09/02/2008
12	1.29E-02	6.38E-03	0.739	88.6	08:48:55	09/02/2008
13	1.53E-02	7.31E-03	0.768	94.9	08:49:16	09/02/2008
14	1.40E-02	7.13E-03	0.791	89	08:49:30	09/02/2008
<b>average</b>	<b>1.365E-02</b>	<b>6.799E-03</b>	<b>0.789</b>	<b>88.123</b>		
<b>standard dev</b>	<b>2.006E-03</b>	<b>9.260E-04</b>	<b>0.020</b>	<b>6.689</b>		

### WHT Primary mirror after the CO2 cleaning

No#	BSDF - 0°,0° detector position	BSDF - 50°,180° detector position	reflectivity	rms (Ångstrom)	time	date
23	8.99E-03	2.93E-03	0.782	74.7	09:32:09	09/02/2008
24	1.02E-02	3.97E-03	0.807	76.6	09:32:25	09/02/2008
25	8.57E-03	2.69E-03	0.823	71.5	09:32:35	09/02/2008
26	8.99E-03	3.01E-03	0.808	73.3	09:32:45	09/02/2008
27	1.12E-02	4.05E-03	0.783	82.2	09:32:57	09/02/2008
28	1.16E-02	4.04E-03	0.791	83.5	09:33:11	09/02/2008
29	7.75E-03	2.05E-03	0.794	71.1	09:33:22	09/02/2008
30	5.47E-03	1.66E-03	0.8	58.2	09:33:33	09/02/2008
31	7.38E-03	2.35E-03	0.799	67.2	09:33:47	09/02/2008
32	3.39E-02	1.27E-02	0.774	143.5	09:34:00	09/02/2008
33	7.47E-03	2.42E-03	0.855	65.2	09:34:15	09/02/2008
34	5.50E-03	1.55E-03	0.828	58.1	09:34:25	09/02/2008
35	1.02E-02	3.53E-03	0.835	76.5	09:34:40	09/02/2008
36	5.16E-03	1.67E-03	0.825	55.2	09:35:00	09/02/2008
37	4.32E-03	1.53E-03	0.808	50.5	09:35:14	09/02/2008
<b>average</b>	<b>9.773E-03</b>	<b>3.340E-03</b>	<b>0.807</b>	<b>73.820</b>		
<b>standard dev</b>	<b>7.039E-03</b>	<b>2.736E-03</b>	<b>0.022</b>	<b>21.626</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