

SMS on WHT Secondary mirror in April 2013, taking advantage of change to AF2. CT7 measurements not available. Measurements, Analysis and Report by Neil O'Mahony. Published 13/4/2018.

As usual, measurements in pairs without moving head: should be repeatable to within 0.05 (0.5%).

Positions discernible by very similar scattering values. If R is not repeatable, omit from statistics.

Lambda	0.67 micron	
Incident Angle	25 deg	<--SMS Summary characteristics
BW Limits	1	0.01

datum #	Scattering at angles $\Theta, \Phi$			Reflectivity	user comment	Roughness RMS(Å)	TIME	DATE
	$\Theta$ s->	0	50 180					
1 pos 1	2.11E-03	1.76E-04	0.855		61.8	09:41:24	26/04/2013	
2	2.11E-03	1.80E-04	0.857		60.4	09:41:30	26/04/2013	
3 pos 2	1.44E-03	1.08E-04	0.880	not rep	55.5	09:41:42	26/04/2013	
4	1.43E-03	1.05E-04	0.867		56.5	09:41:49	26/04/2013	
5	1.46E-03	1.07E-04	0.860		58	09:41:54	26/04/2013	
6 pos 3	2.00E-03	2.36E-04	0.862		46.5	09:42:02	26/04/2013	
7	2.00E-03	2.36E-04	0.854	ok rep	46.7	09:42:06	26/04/2013	
8 pos 4	2.08E-03	1.40E-04	0.846	lowest	76	09:42:21	26/04/2013	
9	2.10E-03	1.42E-04	0.855	not rep	75.7	09:42:26	26/04/2013	
<b>Average ALL</b>	<b>1.9E-03</b>	<b>1.6E-04</b>	<b>0.860</b>		<b>60</b>			
Average of selected			0.859					
Standard error	1E-04	2E-05	0.003		4			

This %R average is 1.5% higher than last year. Both sets of measurements are small samples with many untrusted values. More surprisingly scattering is also better, although this tends to improve proportionally with %R. May have sampled better areas.