

In the tables below I have put:

1) Andrey's values for the spill-over efficiency in the nominal beam direction, which he takes as (0,-0.94) and then my values using his data and that sent by Josh. I use (0,-.955) for the nominal beam but the differences are small.

2) Andrey's beam direction and again my calculations, along with widths, eccentricity, etc.

3) Andrey's values for the phase centre and also for the overall efficiency  
In all these the results from NSI are for the average of the beam 1 and beam 2 results but those are very similar

FFT	Calc		Peak dB	Edge dB	spill %	u & v moments mrad	eta_spill	eta_taper	eta_ill
1)									
Andrey	Andrey						<b>0.9509</b>		
Andrey	my sheet		<b>6.64</b>	<b>-10.52</b>	<b>5.06</b>	<b>-0.98</b> <b>-0.48</b>	<b>0.9494</b>	<b>0.8991</b>	0.8536
NSI	ditto	No probe	<b>0.00</b>	<b>-10.87</b>	<b>5.12</b>	<b>-2.53</b> <b>-1.84</b>	<b>0.9488</b>	<b>0.8882</b>	0.8427
NSI	ditto	With probe	<b>-95.65</b>	<b>-10.57</b>	<b>5.50</b>	<b>-2.53</b> <b>-2.12</b>	<b>0.9450</b>	<b>0.8925</b>	0.8434

2)			amp_err	amp	width(deg)	u_off(deg)	v_off(deg)	D_0-90	D_45-135
Andrey	Andrey					<b>-0.09</b>	<b>-1.00</b>		
Andrey	my sheet		<b>0.22</b>	<b>0.962</b>	<b>2.699</b>	<b>-0.11</b>	<b>-1.01</b>	<b>-0.065</b>	<b>0.014</b>
NSI	ditto	No probe	<b>0.65</b>	<b>0.942</b>	<b>2.674</b>	<b>-0.27</b>	<b>-1.16</b>	<b>-0.061</b>	<b>0.015</b>
NSI	ditto	With probe	<b>0.65</b>	<b>0.941</b>	<b>2.705</b>	<b>-0.28</b>	<b>-1.20</b>	<b>-0.063</b>	<b>0.015</b>

3)			phi_err	X,Y&Z off in frame of nom beam	eta_phi	eta_tot_np	X,Y&Z off in frame of scanner		
Andrey	Andrey					<b>0.8510</b>	<b>-2.80</b>	<b>3.78</b>	<b>296.75</b>
Andrey	my sheet		<b>0.40</b>	<b>2.81</b> <b>-8.69</b> <b>297.37</b>	<b>0.9960</b>	<b>0.8501</b>	<b>2.81</b>	<b>-3.74</b>	<b>297.37</b>
NSI	ditto	No probe	<b>0.47</b>	<b>3.32</b> <b>-8.35</b> <b>304.78</b>	<b>0.9953</b>	<b>0.8388</b>	<b>3.32</b>	<b>-3.27</b>	<b>304.78</b>
NSI	ditto	With probe	<b>0.46</b>	<b>3.32</b> <b>-8.35</b> <b>304.77</b>	<b>0.9954</b>	<b>0.8395</b>	<b>3.32</b>	<b>-3.27</b>	<b>304.77</b>