

3/21/2008

magnet-studiesIV.xlsb -JJL

Paul's magnet of 3/18/08

Magnet Map leadlumi.table

leadlumi.map

pivot to map origin 700.00 mm

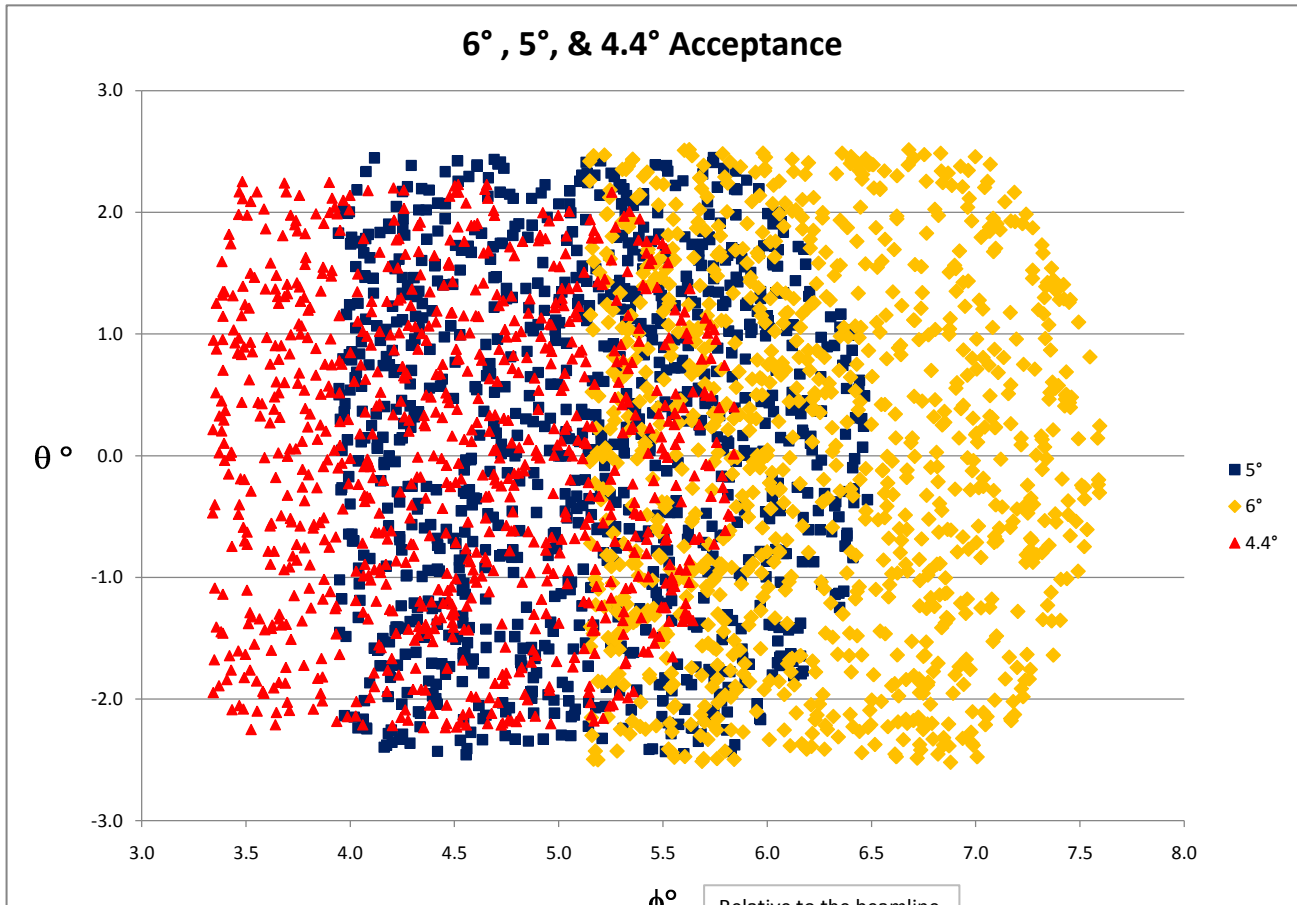
HRS angle 12.5°

vertical acceptance (θ)

horizontal acceptance (ϕ)

SNAKE directive file	central angle	target to pivot	vertical acceptance (θ)				horizontal acceptance (ϕ)				"Nominal" $\Delta\Omega$	min angle	max angle
			min	max	min	max	min	max	min	max			
s6_dir.dat	6.0°	756.50 mm	-0.044	0.044	-2.52°	2.51°	-0.028	0.015	-1.59°	0.85°	0.00375	5.15°	7.59°
s5_dir.dat	5.0°	1,053.79 mm	-0.043	0.043	-2.46°	2.45°	-0.026	0.018	-1.48°	1.06°	0.00380	3.94°	6.48°
s44_dir.dat	4.4°	1,287.03 mm	-0.039	0.039	-2.25°	2.25°	-0.025	0.019	-1.44°	1.06°	0.00343	3.34°	5.84°

Re "Nominal $\Delta\Omega$ ": This is a slight overestimate. Value given is $(\phi_{\max}-\phi_{\min}) * (\theta_{\max}-\theta_{\min})$. See the figure below.



First Order Matrices

	x0	θ_0	y0	ϕ_0	δ		
s6_dir.dat	-2.871	0.0026	-0.0051	-0.019	14.219	x	D/M= -4.95
	-0.342	-0.348	0.001	-0.002	2.514	θ	
	0.011	0.013	0.322	-2.228	-0.309	y	
	0.007	0.009	0.606	-1.085	-0.224	ϕ	

	x0	θ_0	y0	ϕ_0	δ		
s5_dir.dat	-2.507	-0.0148	-0.0089	0.000	14.161	x	D/M= -5.65
	-0.309	-0.401	0.000	0.002	2.501	θ	
	0.008	0.013	0.321	-2.182	-0.351	y	
	0.007	0.008	0.610	-1.030	-0.270	ϕ	

	x0	θ_0	y0	ϕ_0	δ		
s44_dir.dat	-2.246	-0.0242	-0.0129	-0.003	14.091	x	D/M= -6.27
	-0.286	-0.448	-0.001	0.002	2.484	θ	
	0.009	0.016	0.317	-2.181	-0.392	y	
	0.007	0.011	0.609	-1.039	-0.314	ϕ	