The final outcome was a selection of thirteen lines, given in the table below, upon which all the measures were based. When all the measures were completed a table of residuals of each line, from the mean given by the plate as a whole, was formed and new wave-lengths were derived so that the sum of the residuals equalled zero for each line. The first column gives the wave-length as assumed at the start, the second the number of times measured, the third the average residual and the last the wave-length as corrected for this star. Outside of H, it will be noticed that practically all the lines selected were those due to iron or blends of iron.

LINES USED IN d BOOTIS

λ	Times Measured	Average Residual	Corrected λ
4549.766	34	0.0 km.	4549.766
4415.293	41	− 3.4	4415.343
4340.634	31	− .8	4340.666
4325.820	43	+ 1.2	4325.812
4308.081	54	+ 2.7	4308.042
4271.760	53	− 0.0	4271.773
4200.540	50	+ 3.2	4200.495
4143.928	49	− 0.7	4143.938
4071.901	26	− 2.0	4071.940
4063.756	38	− 2.0	4063.795
4045.975	52	− 0.2	4045.978
4005.430	47	+ 5.1	4005.362

With the exception of the last line, whose wave-length was very uncertain at the commencement of the measures, none of the wave-lengths as assumed are in very great need of correction. An unpublished investigation by the writer of the effect on the elements of an orbit of the use of wave-lengths which, treated similarly, gave residuals somewhat as those above, shows that the changes are almost inappreciable. However, as the last line needed correction it was decided to use the corrected wave-lengths throughout and the measured velocities were revised accordingly.

In the table following is given a summary of the measures. The phases are reckoned from the periastron passage finally