Atc = 2180cm^2

18.2593 [46.4]

Internal width = 47cm???

I would calculate Vtc from the shaded area times internal box width, minus the driver volume.

I would also suggest to move S1/S2 slightly around the corner, and to use soho54's method for the corner duct length.

Area=181in^2 (1168cm^2)