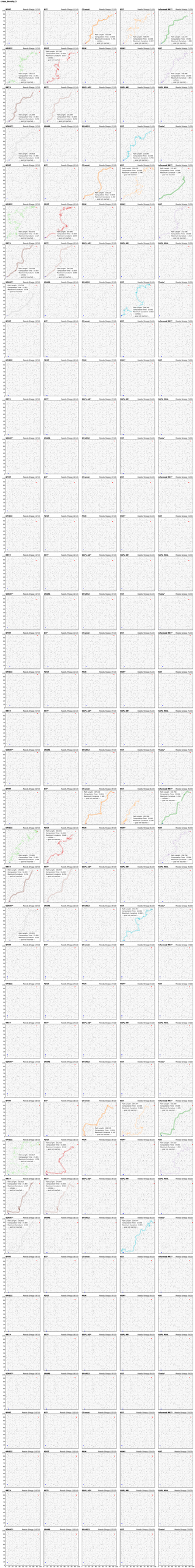cross_density_5