



Figure S10: Assembly PCR scheme for DAE-E and DAO-E nucleating strands. In each case the bottom strand (solid) is the all-ACT nucleating strand drawn in an orientation to match the previous schema. In the DAE-E nucleating strand construction, due to the splint strands used in assembly PCR, BridgeNUERE always appears 3' of NRE5, while either BridgeNUERE or BridgeNRERE may appear 3' of NUE5. Thus, the sequence of input tiles determined by each nucleating strand is in the regular language ($NRE\ NUE^+)^*$, as illustrated by the state transition diagram. The density of NRE5 subsequences (which output a '1' to their right) is determined by the proportion of SplintNREUE2 and SplintNUERE2 relative to other strands in the assembly PCR reaction. In the DAO-E nucleating strand construction, there is a single repeating sequence. The density of input tiles outputting a '1' is determined by the proportion of A4SV relative to A4-S00 in the input strand mix used during annealing.