The A368140(3) = 22 ways of tiling the 3×3 torus by tiles in

$$\left\{ \blacksquare, \blacksquare \right\}$$
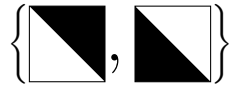
up to reflection of the square over the diagonal or antidiagonal: