F can be "cleared" if and only if the formula
(+X1 or -X3 or +X2) and (X1 or X3 or -X2)
is satisfiable.

NOTE: only "corridors" are shown; in order to complete the grid, N,S,W,E blocks and fill blocks should be added; then make a symmetric copy of the grid with a central wall that can be cleared if and only if F can be cleared. See:

https://cstheory.stackexchange.com/questions/50928/how-to-show-that-color-tiles-is-np-complete