We build the following bipartite graph $G = (V, E)$. V is partitioned into sets X and Y, with a node $x_i \in X$ representing switch i, and a node $y_j \in Y$ representing fixture j. (x_i, y_j) is an edge in E if and only if the line segment from x_i to y_j does not intersect any of the m walls in the floor plan. Thus, whether $(x_i, y_j) \in E$ can be determined initially by m segment-intersection tests; so G can be built in time $O(n^2 m)$.

Now, we test in $O(n^3)$ time whether G has a perfect matching, and declare the floor plan to be "ergonomic" if and only if G does have a perfect matching. Our answer is always correct, since a perfect matching in G is a pairing of the n switches and the n fixtures in such a way that each switch can see the fixture it is paired with, by the definition of the edge set E; conversely, such a pairing of switches and fixtures defines a perfect matching in G.

[1] ex527.636.149