Let \( P \) and \( F \) be sets of \( n \geq 2 \) and \( m \geq 2 \) points in a plane, respectively. We study the problem of finding the minimum angle \( \alpha \in [2\pi/m, 2\pi] \) such that one can install at each point of \( F \) a stationary rotating floodlight with illumination angle \( \theta \), initially oriented in a suitable direction, in such a way that, at all times, every target point of \( P \) is illuminated by at least one floodlight. All floodlights rotate clockwise at unit speed. We provide bounds for the case in which the elements of \( P \cup F \) are on a given line, and present exact results for the case in the plane in which we have two floodlights and many target points. We further consider the non-rotating version of the problem and look for the minimum angle \( \theta \) such that one can install a non-rotating floodlight with illumination angle \( \theta \) at each point of \( F \), in such a way that every target point of \( P \) is illuminated by at least one floodlight. We show that this problem is NP-hard and hard to approximate.