Config Challenge
07/05/2020
Automated Emergency Light Testing

User Story:
As the facilities manager of a large office building we need to regularly undertake emergency lighting tests and make a log of them. Originally a member of staff was tasked with doing this but they kept forgetting and we kept missing tests.

We then engaged the services of a company to carry this out for us, and while we never missed a test it meant that the time the test was run became very inflexible and arrangements needed to be made that no staff were left in the building. Also it added a cost to the business that hadn't originally been planned.

I would like a way that these tests can be automatically carried out and at a time where no one will be in the offices.

Details:
The HSE dictates that emergency lighting in commercial premises and multi-storey units must be regularly tested to ensure that there will be adequate lighting in the event of power failure, or an emergency such as a fire so that occupants can evacuate safely.

This requires a monthly short test for an adequate amount of time to test backup while not risking damage to the components. Then an annual test to the full rated backup time of the fittings, commonly 3 hours.

In addition to the above, log books must be kept of the various tests and the outcomes of these.

The emergency lighting in this building will run through a coupling relay that we can switch to remove permanent power.

The regulation for emergency lighting is 1 lux at a height of 0.5m from the floor.

At all the points of our emergency tests being due we want to automatically run it and to log the start and end times as well as lux levels throughout the test.