Osram Nightlux

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This battery powered LED-light is really useful.
We use it in an old house, where appropriate light switches are rare. E.g. the entry hall with 6 doors in total has only one light switch.

Now i have 6 pieces of them installed and I have to change the batteries (3 pieces Sanyo Eneloop AAA, 750mAh) in one of the devices nearly every day. So I measured the current consumption:

Measurements

Light on: 48...50mA @ 3×1.40V
Light off, approximation sensor active (in dark environment): 300uA
Light off, approximation sensor inactive (in bright environment): 60uA

Battery life estimations

When we assume a dark installation site, where the AS is active all the time, the batteries should last for about 104 days. When the Light is on 1 hour per day, it should still last 13 days. This seems to be quite realistic. I think, in the average, my devices last for about 10-14 days.

Deep discharging

Sadly, no deep discharge protection is implemented. The Light gets weak, when one of the batteries goes below 0.9V, since the impedance of this cell increses.
Once I measured nearly 0V of one NiMH cell, wich is not good. Hopefully the cell recovers. For now, I'm measuring every cell voltage before replacing it with freshly charged ones.

english, product, led, battery, technical