

Lighting Zoning

Zoning refers to lighting design practices that offer greater flexibility for light switching, making it easier to light only occupied areas. Electricity consumption from lighting can represent up to two-thirds of the total electricity bill. Decreasing the size of lighting zones allows for greater control over lighting, and the ability to reduce electricity consumption and costs by only lighting areas that are occupied. Optimized lighting zoning is most cost-effective in buildings with variable and unpredictable occupancy patterns.



Recommendations

- ❑ All individual or enclosed spaces should have at least one control device to independently control the general lighting within that space. For example: storerooms have their own switches (not linked to corridors).
- ❑ The size of individually switched lighting zones should not exceed 100m².
- ❑ Switching is clearly labelled and easily accessible by building occupants. Occupants should be able to operate and override controls easily.
- ❑ As-built drawing(s) should clearly indicate the location of the switches, each individually switched lighting zone and its area.
- ❑ Some building types will benefit greatly from using automated lighting control in conjunction with optimal zoning. Consider:
 - ❑ Occupancy control
 - ❑ Daylight harvesting control

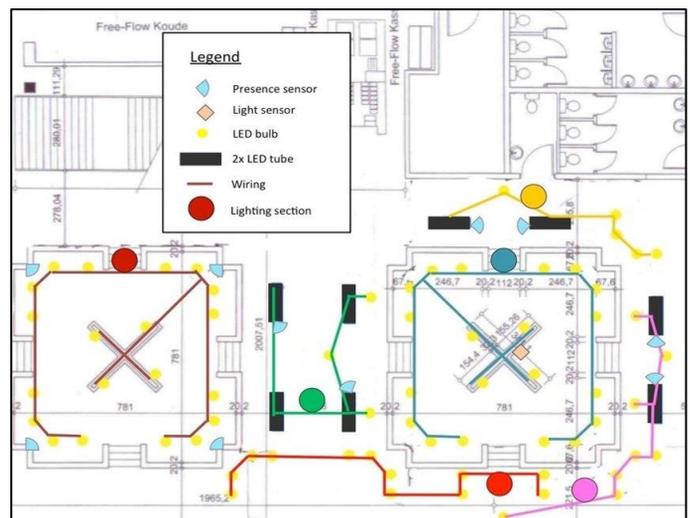
Environmental Improvement	Medium
Awareness Impact	Medium
Capital	Medium
Payback	< 1 year

Savings and Benefits

- ❑ Reduces energy usage.
- ❑ Improves control.
- ❑ Reduces cooling loads.
- ❑ Improves security.



(SycamoreLED, 2018)



(DC grids for smart LED-based lighting, 2018)