



Lightning Systems in Building



Problem Statement: Lightning Systems in Building



- . Consumption of energy in places where its not needed
 - . Artificial Lights are costly
 - . No Smart-lights
- . Still using the old technologies when cost efficient and sustainable methods are accessible

LIGHTNING SYSTEMS FOR BUILDING

SOLUTION:

Technical Aspects:

1) DAYLIGHT INTEGRATED BUILDINGS

SCOPE OF DAYLIGHTING:

- Improved light quality
- Better occupant comfort and health
- Labor cost savings
- Light load reduction
- Energy cost savings

2) Installing efficient lighting devices such as LED, CF and fluorescent lights

3) Task Lighting

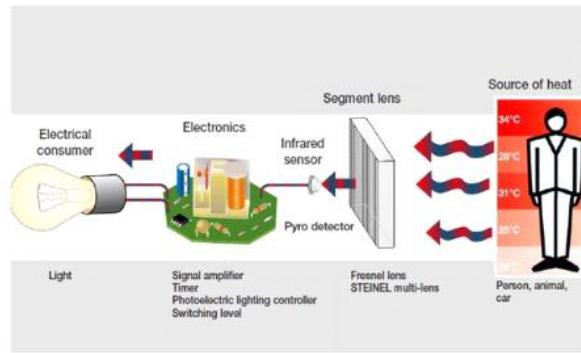
OCCUPANCY SENSORS

Occupancy sensors work off of sound or motion control – they automatically dim or switch lights off when an area has not been occupied for a specified amount of time and switch lights back on when motion is detected. This can result in 35-45 percent energy savings.

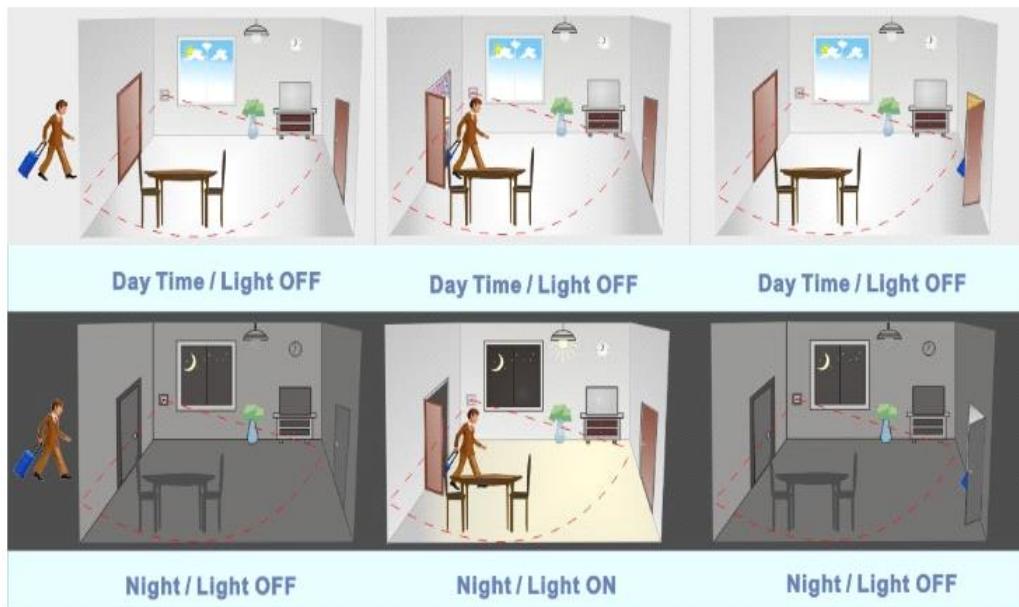
Working:



Passive infra-red (PIR) sensor that detects even slight motion. A Fresnel lens gives the sensor a panoramic view.



Occupancy Sensors



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FOOT MOTION SENSOR

This sensor is a motion switch , which turns on the light on detection of people movement, and turns off after a pre-selected holdtime when there is no people around. A daylight sensor is also built-in to switch off the light when there is sufficient natural light.



With sufficient natural light, the light does not switch on, even when movement is detected.



With insufficient natural light ,the sensor switches ON the light automatically when people enter into the detection range.



With insufficient natural light ,the sensor switches OFF the light automatically when no more movement is detected.

BENEFITS:

- Occupant Satisfaction
- Occupant Comfort
- Time orientation
- Reduced electrical load