



# Shaw AFB Energy Efficient Lighting Projects



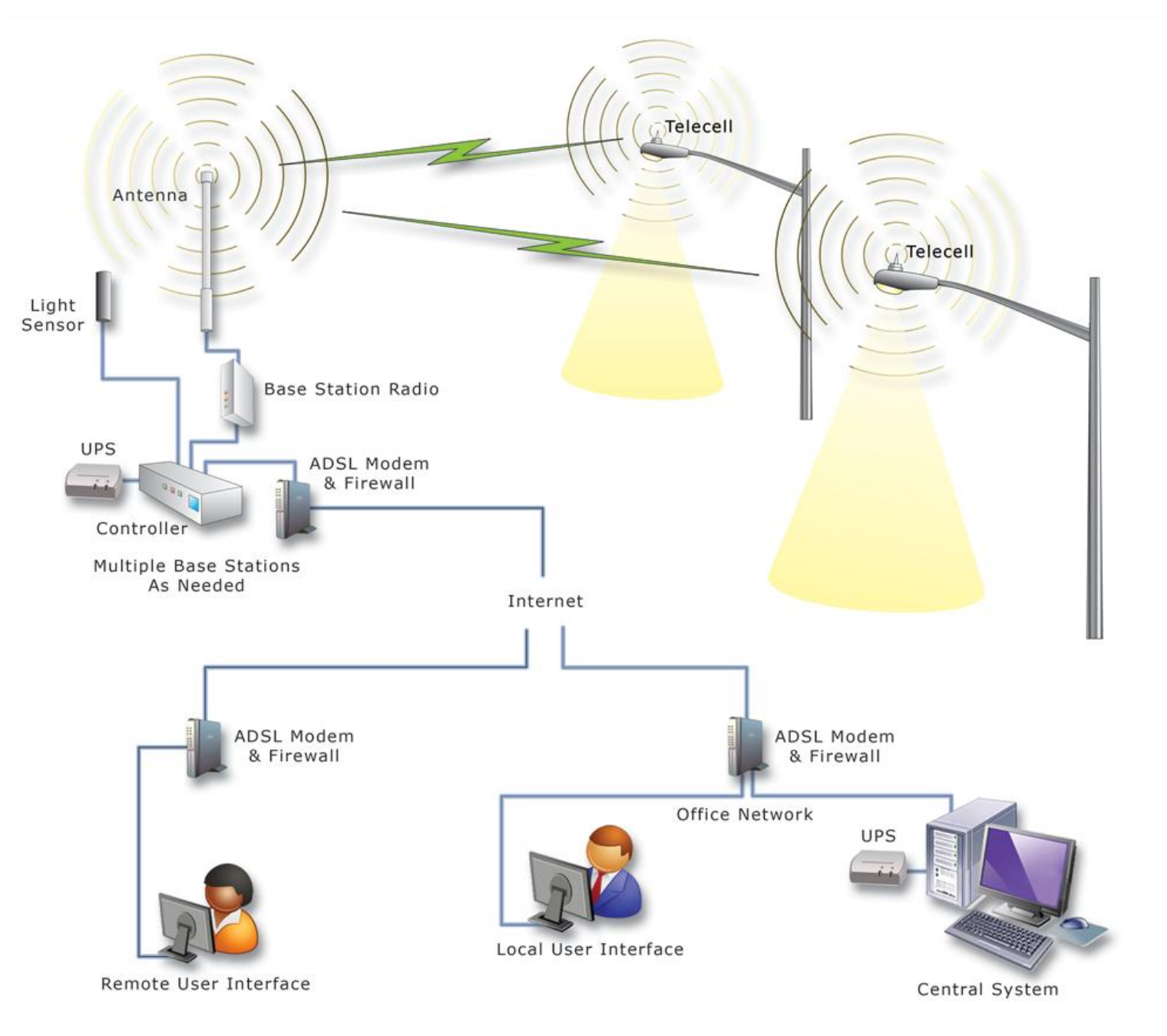
## Technologies Implemented:

- \* **LED Lighting**
  - \* Light Emitting Diodes
- \* **Induction Lighting**
  - \* No electrodes; uses electromagnetic fields for power to generate light
- \* **Daylighting Controls**
  - \* Adjusts interior lighting based on ambient daylight levels
- \* **Wireless Lighting Controls**
  - \* Offers group programming, power consumption monitoring, and lifespan detail
- \* **High Efficiency Fluorescent**
  - \* Smaller design, lower wattage, same light output



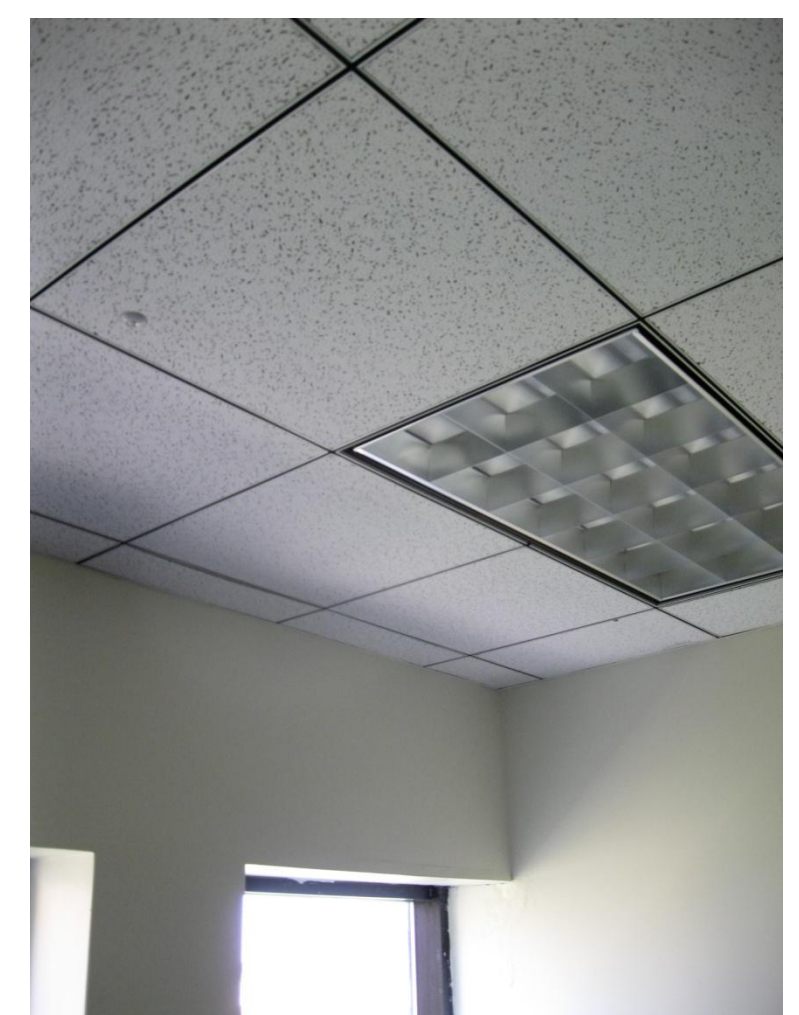
## Energy/Cost Savings:

- \* **Daylighting Controls** save Shaw approximately:
  - \* \$90,000/yr & 6,600 MBTUs/yr
- \* **HID lighting replacement with T5 fluorescents:**
  - \* Increases lamp life by ~30%
  - \* Reduces maintenance costs by ~\$6,000/yr
  - \* Saves approximately 2000 MBTUs/yr
- \* **Interior LED lighting install in B250:**
  - \* Reduced wattage of lamps required for illumination levels by greater than 50%
- \* **Occupancy sensors installed in multiple facilities:**
  - \* Eliminates wasted lighting burn hours during unoccupied times



## Example Facilities Included:

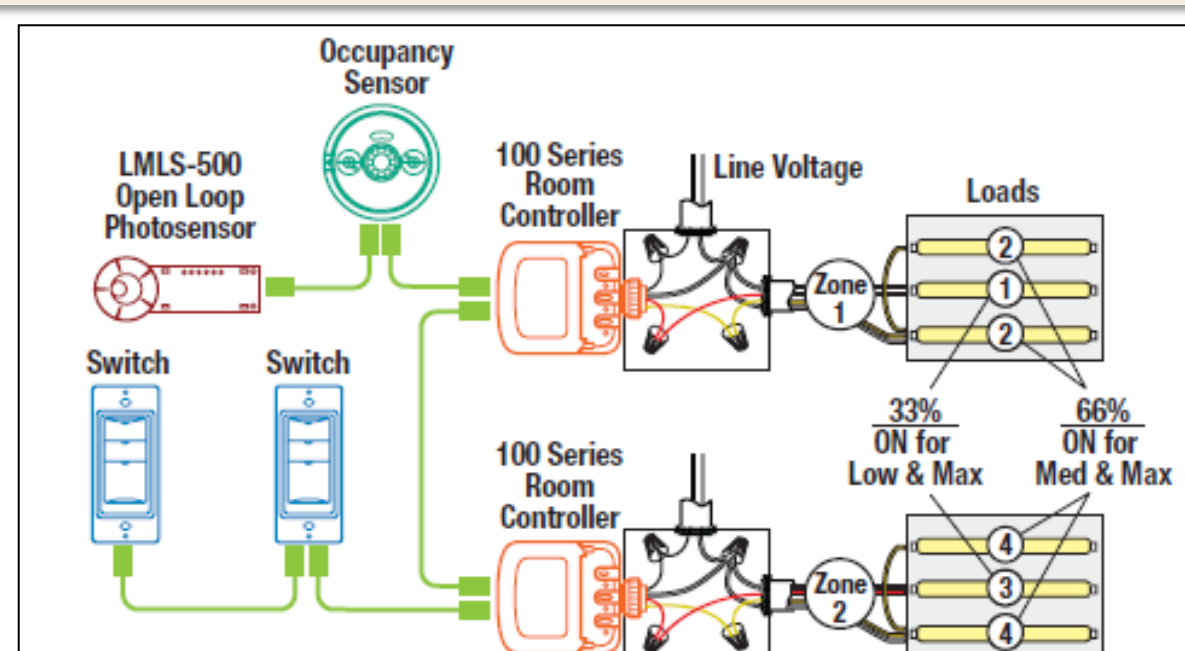
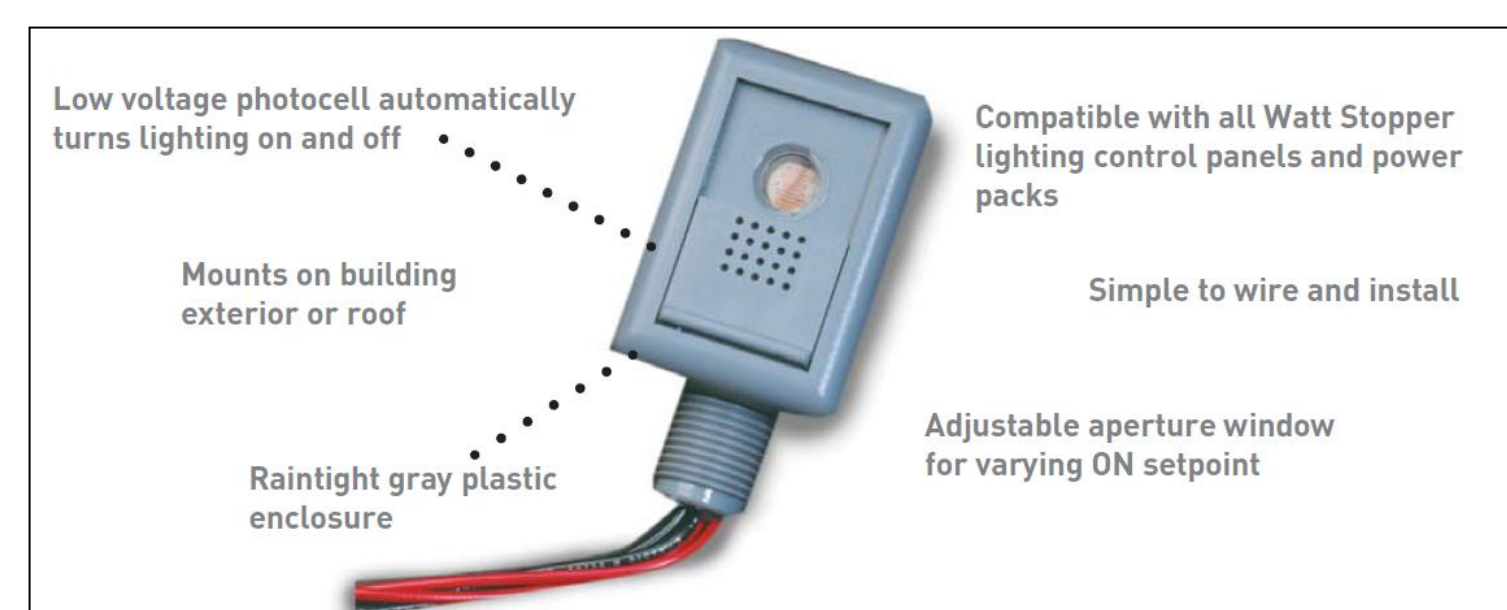
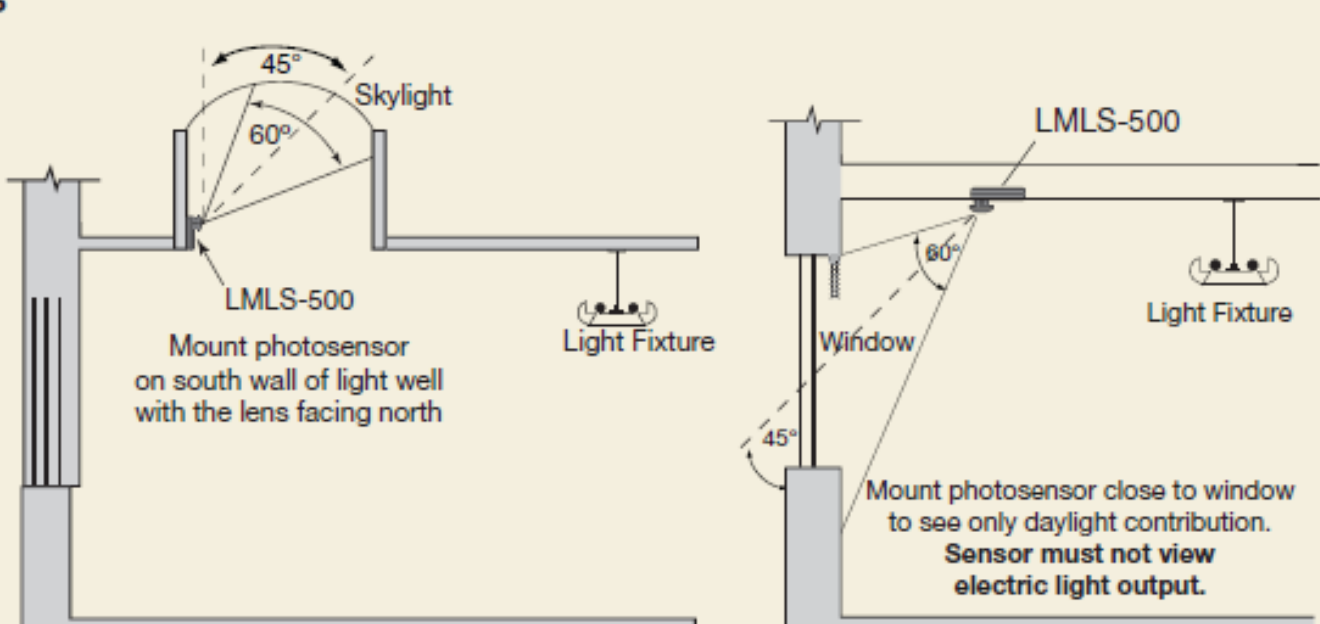
- \* **B250 – Civil Engineering Squadron**
  - \* Install Interior LED Lighting
- \* **Munitions Area**
  - \* Install Induction Lighting with Wireless Control
- \* **B1118 & 1122 – MSG & Wing HQ**
  - \* Install Daylighting Controls
- \* **B1904 – Comm. Facility Warehouse**
  - \* Replace High Bay Metal Halides with T5 Fluorescents



## Photosensor features and applications

The LMLS-500 is a multi-zone, open loop photosensor, characterized by the following attributes:

- Measures daylight level only
- Requires manual entry of target illuminance levels for calibration
- Features simplified commissioning
- Can automatically switch or dim up to three zones of lighting



## Future Projects:

- \* Replace additional high intensity discharge lighting with energy efficient LED lamps
- \* Upgrade exterior parking lot and street lighting to LED technology
- \* Install additional occupancy sensors in multiple facilities