

Daylight Harvesting

Daylight harvesting is the active use of lighting level sensors to dim and switch perimeter lighting in response to fluctuating daylight intensity entering through windows. This system uses free daylight when it is available and automatically switches to the appropriate amount of electric light to maintain design lighting levels. Lighting electricity consumption is reduced and indoor lighting levels are kept constant.



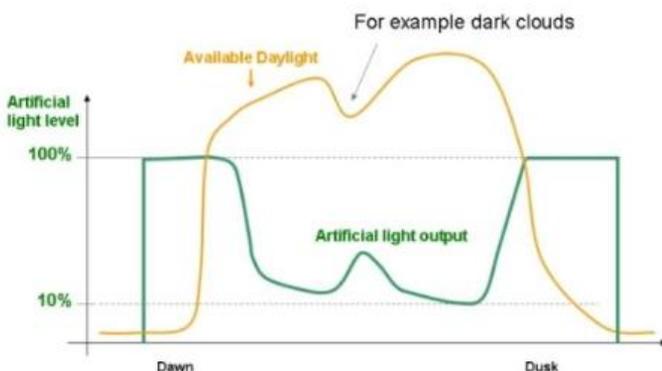
Recommendations

- ❑ Highly recommended for glazed perimeter zones or areas near an atrium or roof light.
- ❑ Ensure sensors are correctly located and commissioned to maximise the effect.
- ❑ Test dimming effectiveness and control before selecting the final system.
 - Especially note minimum dimming settings
 - Gradual dimming is preferred over stepped control. Stepped control may upset building occupants if very notable.
- ❑ Use daylight harvesting in conjunction with
 - Building management system (BMS) or scheduled control during unoccupied hours.
 - efficient lighting such as LED.
 - solar window coverings to reduce daylight or glare.
- ❑ Consider having daylight simulation done to learn how your building performs.
- ❑ Contact [Ecolution](#) for more details.

Environmental Improvement	Medium
Awareness Impact	High
Capital	Low
Payback	2 – 7 years

Savings and Benefits

- ❑ Increase indoor comfort and productivity at workplace or sales area.
- ❑ Make effective use of free daylight.
- ❑ Reduce lighting energy consumption.
- ❑ Reduce electricity cost.
- ❑ Improves indoor plant growth.



(Warfel, 2018)



(Bhargava, 2013)