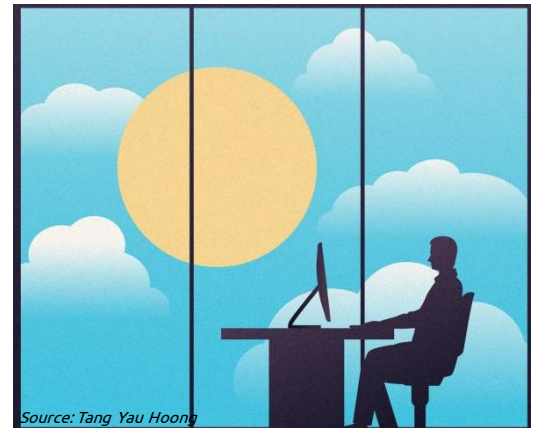


Description

Daylight is a combination of direct and indirect sunlight during the daytime. It has proved that daylight provides health and comfort benefits and also increases occupants productivity. It also provides mental and visual stimulation that is necessary to regulate the human circadian rhythms. Additionally, if controlled and admitted properly into the building, it helps to reduce the need of electric lighting.



Benefits



Workers are 18% MORE PRODUCTIVE



Mental Function & Memory 10-25% BETTER



15-40% INCREASE in Retail Sales



Call Processing 6-12% FASTER

Strategies

- Optimize the building footprint
- Optimize the window to wall area ratio
- Use high performance glazing
- Optimize the fenestration design
- Skylight
- Tubular daylight devices
- Solar shading devices
- Daylight controls
- Optimize the interior design

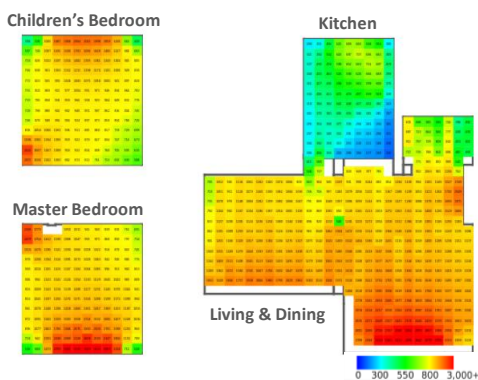
Recommendations

- Daylight Modelling
- On site Measurement
- Compliance with Green Building Rating Systems
- Compliance with the standards

Case Study

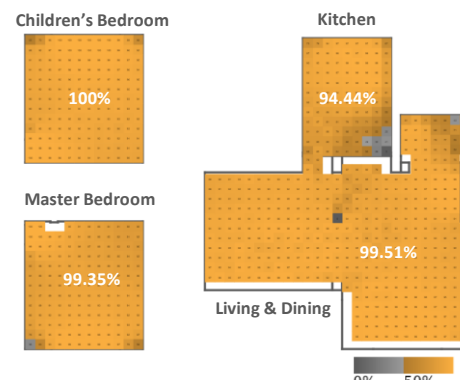
Daylight analysis of a 2BHK apartment for a Pharma Residential Colony in Dahej, Gujarat.

Point in Time Illuminance



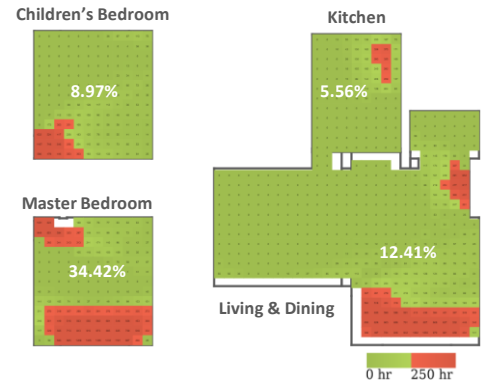
Threshold – 110 – 2200 lux

Spatial Daylight Autonomy (sDA)



Threshold - sDA >75%

Annual Sunlight Exposure (ASE)



Threshold - ASE <10%

References

- Saddler, A., & Smith, M. (2014). *Doubling energy productivity of the built environment by 2030* by Anita Saddler, Mike Smith et al.
- <https://www.wbdg.org/resources/daylighting>

