

Daylight & Sunlight Assessments

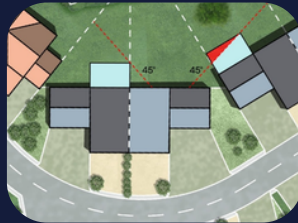
Daylight & Sunlight assessments are used to test how a development impacts natural light to both neighbouring properties and proposed spaces, forming a key part of many planning applications. Daylight Assessments fall into two key areas: 1) impact of a proposal on neighbouring buildings 2) internal provision to the proposal itself. In the UK, standards are led by the **BRE guidance (2022)**.

Neighbouring Impact

Quick early design checks for potential impact:

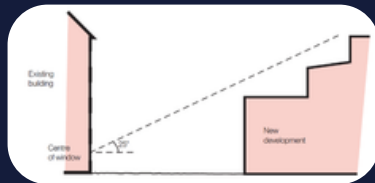
45° Rule (plan view):

Drawn from neighbouring windows, to assess the potential impact of residential extensions.



25° Rule (vertical section):

Drawn from window centre to the top of an obstruction, to assess the potential impact of new adjacent buildings.



Tests involved:

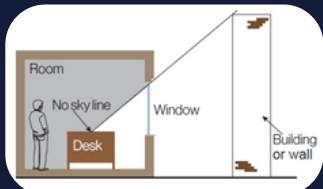
Vertical Sky Component (VSC):

The percentage of sky that can be seen from a window. Target: 27% or retain 0.80 of the existing value.



No Sky Line (NSL / DD):

How evenly light spreads within a room. Target: 50% or retain 0.80 of the existing value.

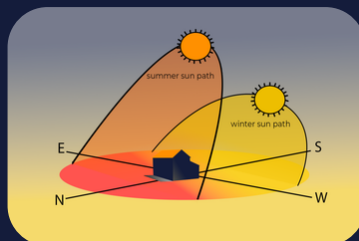


Annual Probable Sunlight Hours (APSH):

Average sunlight hours to a window over the year.

Design Influence:

Cutbacks to the massing of a proposal are a common mitigation strategy to reduce the potential neighbouring impacts.



Example: 2-storey upwards extension in Croydon was cutback to minimise the potential impact to the neighbours.

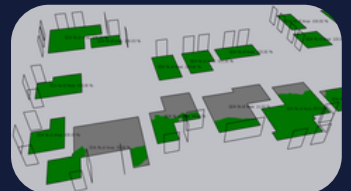


Internal Provision

Tests involved:

✦ Illuminance (SDA):

Natural light quality within a room. Target: 50%.



✦ Daylight Factor (DF):

Isolated Daylight quality within a room. Target 50%.

✦ Sunlight Exposure (SE):

Direct sunlight within a room.

Target: Minimum of 1.5 hours per day for at least one room per dwelling (preferably to main living spaces).



✦ Design Influence:

Common ways to improve internal natural light quality:

- Bigger windows / Higher window head height
- Adjusting room layouts (to decrease room depth)
- Lighter finishes, which increases internal reflectance

✦ Example: Class Q barn conversion to residential space.

Rooflights were added to ensure the large, deep Kitchen Dinners will receive enough daylight.

