



**MEC**  
Consulting Group

Birmingham | Brighton | Leicester | Nottingham

## **Daylight, Sunlight & Overshadowing:**

Maximising Development  
Potential, ensuring  
Smoother Planning  
Outcomes



## Daylight and Sunlight Assessments

Daylight and Sunlight assessments evaluate how a development affects natural light to both neighbouring properties and proposed spaces, forming a key part of many planning applications. It is often one of the key design constraints on urban development and can significantly influence building massing, layout and planning risk.

In the UK, standards are led by the Building Research Establishment (BRE) guidance. Daylight design rarely achieves full compliance in urban areas; the focus is on optimising the design and justifying the impact.

### Three key areas of Daylight Assessments:

- Impact of a proposal on neighbouring buildings
- Internal provision to the proposal itself
- Overshadowing analysis to external amenity areas

## When do you need one?

Usually, any planning application where there is potential adverse impact upon the current level of daylight/sunlight within the habitable rooms of adjacent residential buildings, and those of the proposed building(s).



Dense urban or infill sites



Taller/massing-heavy schemes



Close to neighbouring properties



Low-density or well-separated developments

Early assessment helps identify planning risks before design freeze, optimise massing and layouts, and reduce costly redesign later in the project.



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## Daylight and Sunlight tests

**Neighbouring Impact Assessments** evaluate the impact a proposal may have on the natural light received by neighbouring buildings.

### Technical BRE tests

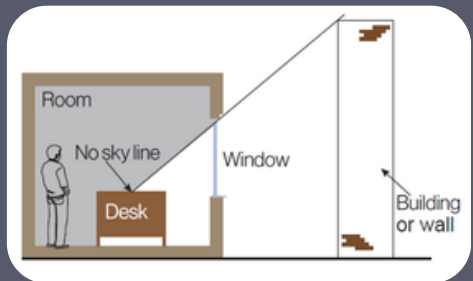
#### **Vertical Sky Component (VSC):**

The percentage of sky visible from a window. Target: 27% or retain 0.80 of the existing value. Often the primary Daylight metric considered by planning officers when reviewing impacts on neighbouring properties.



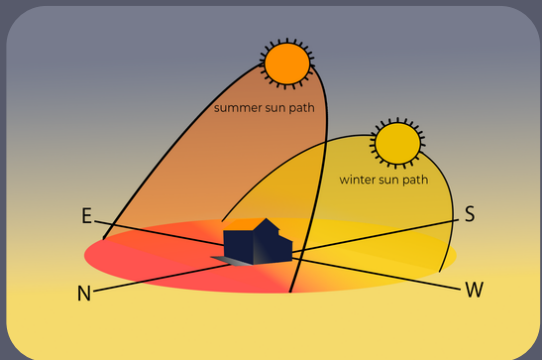
#### **No Sky Line (NSL / DD):**

Measures how evenly daylight spreads within a room by calculating the amount of sky visible across the working plane (typically 0.85m above floor level / desk height). Target: 50% of the working plane area or retain 0.80 of the existing value.



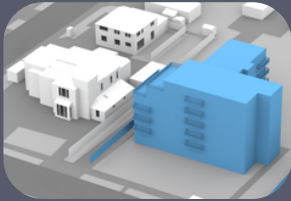
#### **Annual Probable Sunlight Hours (APSH):**

Measures the amount of sunlight received by a window over the course of the year, including the winter months.



## Design influence

Cutbacks to the massing of a proposal are a common mitigation strategy to reduce the potential loss of natural light to the neighbouring buildings.



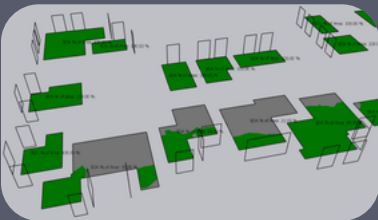
The assessment identified material daylight loss to windows serving No. 25.

**Example:** A proposed 2-storey upwards extension to Sunnihilme Court raised concerns regarding daylight impacts to neighbouring properties.



**Solution:** Cutbacks were introduced, reducing the impact to No. 25. The resulting rooftop space was repurposed as roof gardens, providing valuable additional amenity for future occupants.

**Internal Provision Assessments** evaluate the quality of daylight and sunlight within proposed habitable spaces.



## Technical BRE tests

### **Illuminance (SDA):**

Measures natural light quality within a room (both daylight and sunlight).

Target: 50% of the floor area. Often the primary metric considered by planning officers when reviewing internal daylight quality, as it reflects real-world conditions throughout the year.



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### **Daylight Factor (DF):**

Measures isolated daylight quality within a room (when the sky is in overcast condition). Target: 50% of the floor area. Often the main constraint on deeper layouts.

### **Sunlight Exposure (SE):**

Direct sunlight within a room. Target: Minimum of 1.5 hours per day (preferably to main living spaces) for one room per dwelling. Only windows within 90° of due south are considered, and so it is strongly influenced by orientation.



## **Design Influence**

### **Common ways to improve internal natural light quality:**

- Dual aspect layouts where feasible
- Larger windows / Higher window head height
- Adjusting room layouts (to decrease room depth)
- Orientating main living spaces towards the Sun
- Lighter finishes, which increases internal reflectance

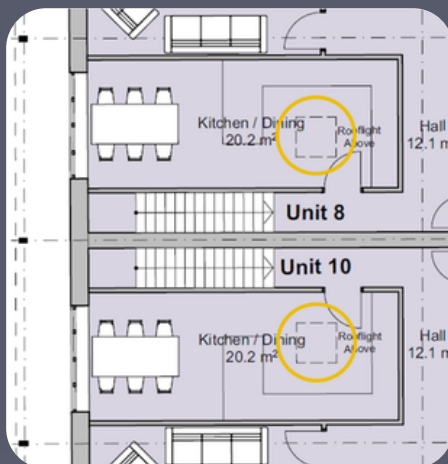
Sometimes rooflights can be added.

**Example:** Class Q barn conversion to residential use. The Council requested a Daylight Assessment due to concerns that a proposed overhang above the top floor windows could restrict daylight.



The assessment identified limited daylight penetration into the rear of the deep Kitchen/Diner spaces.

**Solution:** Rooflights were added above the rear of the Kitchen/Diners, and lighter internal finishes were introduced to improve daylight quality throughout the top floor.



**Overshadowing Assessments** evaluate the impact a proposal may have on the amount of sunlight received by external amenity areas e.g. private gardens, courtyards and shared public spaces.

**Sun Hours on Ground (SHOG):** SHOG measures direct sunlight received by external amenity areas.

**Target:** 2 hours of direct sunlight on the 21st March (vernal equinox) or retain 0.80 of the existing value.

Sometimes more sensitive areas require a Transient Overshadowing Assessment, such as school playgrounds that are only used at specific times. Shadow plots are produced at selected hours and assessed qualitatively.



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## Daylight and Sunlight tests

Both concern natural light, however, are dealt with in different ways. Planning approval does not remove legal risk, and vice versa.

| Daylight and Sunlight                                 | Rights of Light                                            |
|-------------------------------------------------------|------------------------------------------------------------|
| Planning matter                                       | Legal matter (can be insured against)                      |
| BRE Guidance                                          | Legal precedent                                            |
| Considered by planning officers                       | Concerning affected neighbours                             |
| Design optimisation                                   | Risk management                                            |
| Supports planning applications                        | Supports development strategy                              |
| Failure may result in refusal of planning application | Failure may result in financial compensation or injunction |

Rights generally apply to windows that have enjoyed natural light for at least 20 years.

## Why involve us early?

Early-stage Daylight advice can unlock development potential, reduce planning risk and minimise redesign. We work with architects, developers and planners to shape massing, test options and support planning strategies across residential and mixed-use schemes.

## Bring us in when you're:

- Reviewing a site before acquisition
- Developing initial design concepts
- Preparing a planning application
- Optimising building massing and layouts
- Addressing planning officer comments
- Considering amendments to a proposed scheme



## A bit about us

Established in 2009, MEC Consulting Group is a multidisciplinary development consultancy supporting projects across the UK. With expertise spanning planning, engineering and environmental services, we work collaboratively to help clients overcome complex development challenges and deliver successful planning outcomes.



## MEC's Daylight team

### Nathan Allen

#### Associate Environmental Consultant



nathan.allen@m-ec.co.uk



01530 444272



Nathan leads the Lighting team at MEC, where he heads up project management and day-to-day running of the discipline. He's been in the industry for around 14 years, where he started undertaking noise and light surveys, before moving into daylight and lighting within a multi-disciplinary environmental context. Nathan's experience includes producing Daylight and Sunlight Assessments across diverse developments, from large tower blocks to commercial units, stadiums and small kitchen extensions.

### Humza Ahmed

#### Assistant Environmental Consultant



humza.ahmed@m-ec.co.uk



01530 444223



Humza provides specialist Daylight and Sunlight advice alongside support on Lighting Impact Assessments across a wide range of developments. Humza has gained experience across leading SME consultancies, with expertise in Daylight and Sunlight. His project portfolio spans major masterplans such as Canada Water, extensions within London boroughs and residential conversions across the UK.