APPENDIX 3: BRE 2022 Guidance

Daylight to existing buildings

The BRE Guidelines stipulate that the diffuse daylighting of the existing building may be adversely affected if either:

- the vertical sky component (VSC) measured at the centre of an existing main window is less than 27%, and less than 0.8 times its former value (or reduced by more than 20%), known as the “VSC test” or
- the area of the working plane in a room which can receive direct skylight is reduced to less than 0.8 times its former value known as the “NSL test” (no sky line).

Sunlight to existing buildings

The BRE Guidelines stipulate that the sunlight of an existing window may be adversely affected if the centre of the window:

- receives less than 25% of annual probable sunlight hours (APSH), or less than 5% of annual winter probable sunlight hours between 21 September and 21 March (WPSH); and
- receives less than 0.8 times its former sunlight hours (or a 20% reduction) during either period; and
- has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

If one of the above tests is met, the dwelling is not considered to be adversely affected.

Daylight to new buildings

The vertical sky component (see above) may be used to calculate daylight into new buildings.

For daylight provision in buildings, BS EN 17037 provides two methodologies. One is based on target illuminances from daylight to be achieved over specified fractions of the reference plane for at least half of the daylight hours in a typical year. One of the methodologies that can be used to interrogate this data is Spatial Daylight Autonomy (sDA).

The Spatial Daylight Autonomy (sDA) seeks to establish how often each point of a room’s task area sees illuminance levels at or above a specific threshold. BS EN 17037 sets out minimum illuminance levels (300lx) that should be exceeded over 50% of the space for more than half of the daylight hours in the year. The National Annex suggest targets comparable with the previous recommendations for Average Daylight Factor (ADF). The targets considered relevant for this application are:

- 100 lux for bedrooms
- 150 lux for living rooms
- 200 lux for living/kitchen/diners, kitchens, and studios.

Paragraph C17 of the BRE states that “*Where a room has a shared use, the highest target should apply. For example in a bed sitting room in student accommodation, the value for a living room should be used if students would often spend time in their rooms during the day. Local authorities could use discretion here. For example, the target for a living room could be used for a combined living/dining/kitchen area if the kitchens are not treated as habitable spaces, as it may avoid small separate kitchens in a design*”.

Sunlight to new buildings

The BRE guidelines state that in general, a dwelling or non-domestic building which has a particular requirement for sunlight, will appear reasonably sunlit provided that:

- At least one main window faces within 90 degrees of due south, and
- a habitable room, preferably a main living room, can receive a total of at least 1.5 hours of sunlight on 21 March. This is assessed at the inside centre of the window(s); sunlight received by different windows can be added provided they occur at different times and sunlight hours are not double counted.

Sunlight to gardens and outdoor spaces

The BRE guidelines look at the proportion of an amenity area that received at least 2 hours of sun on 21st March. For amenity to be considered well sunlight through the year, it stipulates that at least 50% of the space should enjoy these 2 hours of direct sunlight on 21st March.