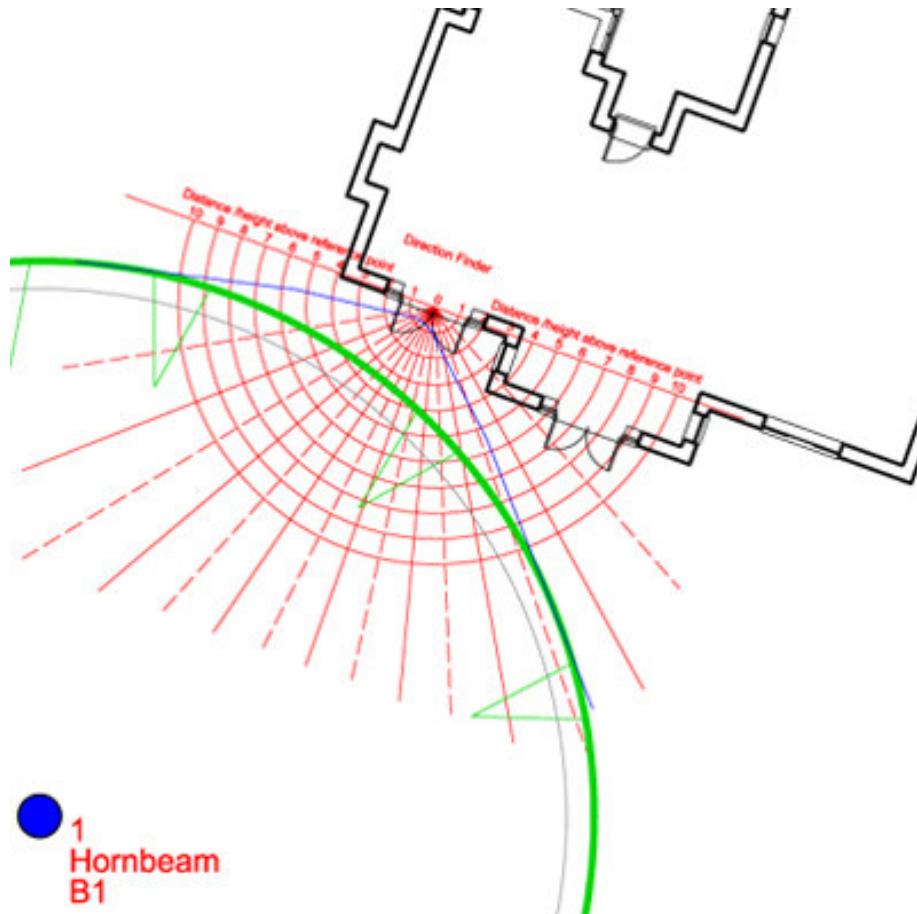


Example Daylight Study.

This Daylight Study is based upon the guide lines laid out in BRE Digest 209 'Site Planning for Daylight and Sunlight: a guide to good practice.'

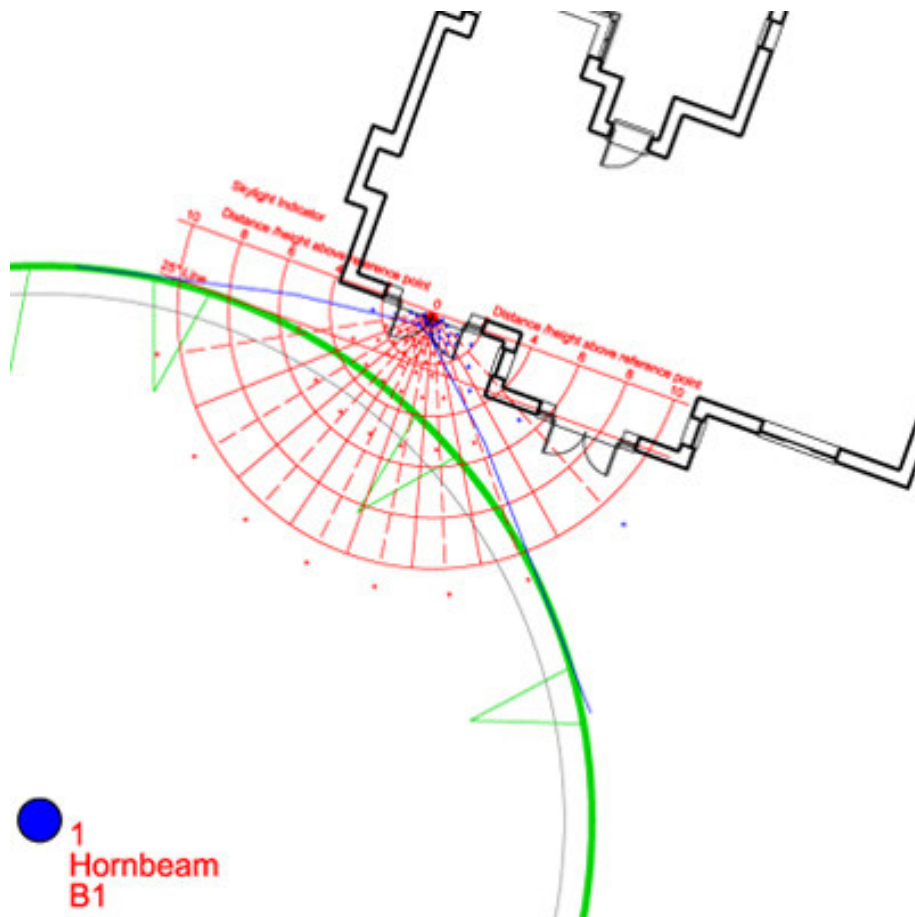
The first stage of the investigation was to use the direction finder to establish the obstructions to daylight:



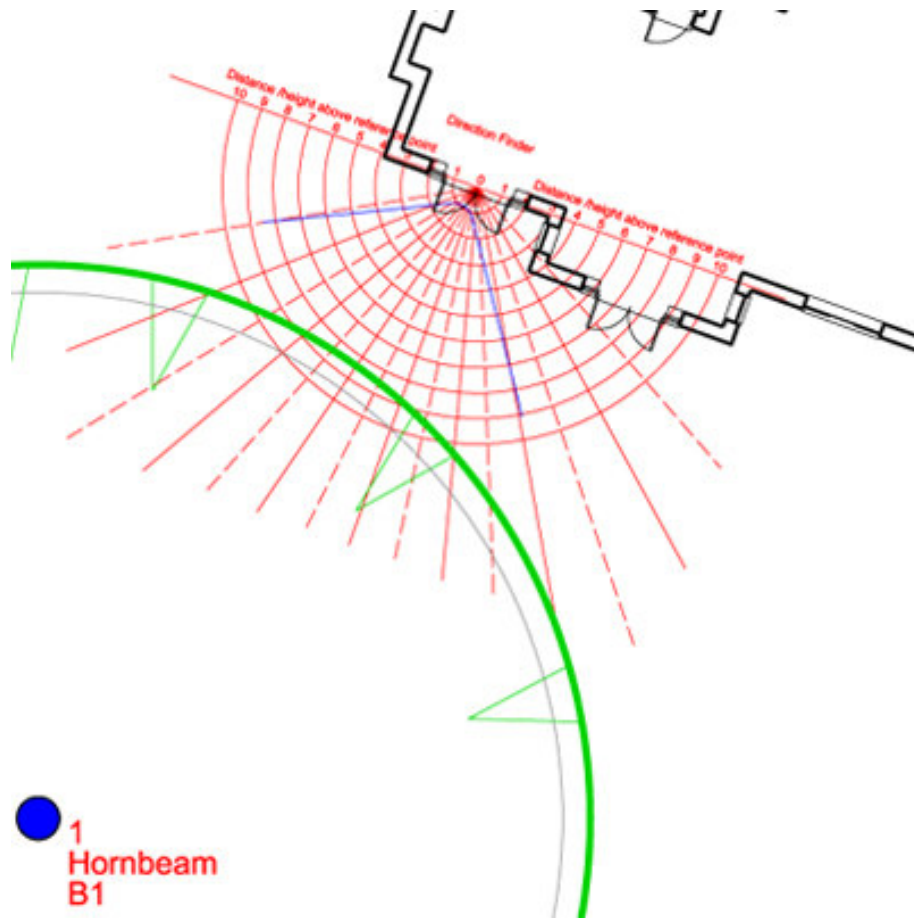
The reference point was taken as the mid point of the double doors to the lounge. The blue line shows the obstructions. This is then used to form the basis for the following calculations.

The first calculation uses the Skylight Indicator. This gives the percentage of vertical sky component (VSC) available to a reference point, measuring the amount of unobstructed skylight. The guidelines are that if the VSC falls below 27% there is unlikely to be sufficient daylight. If it is above this level, there is a potential for acceptable light levels.

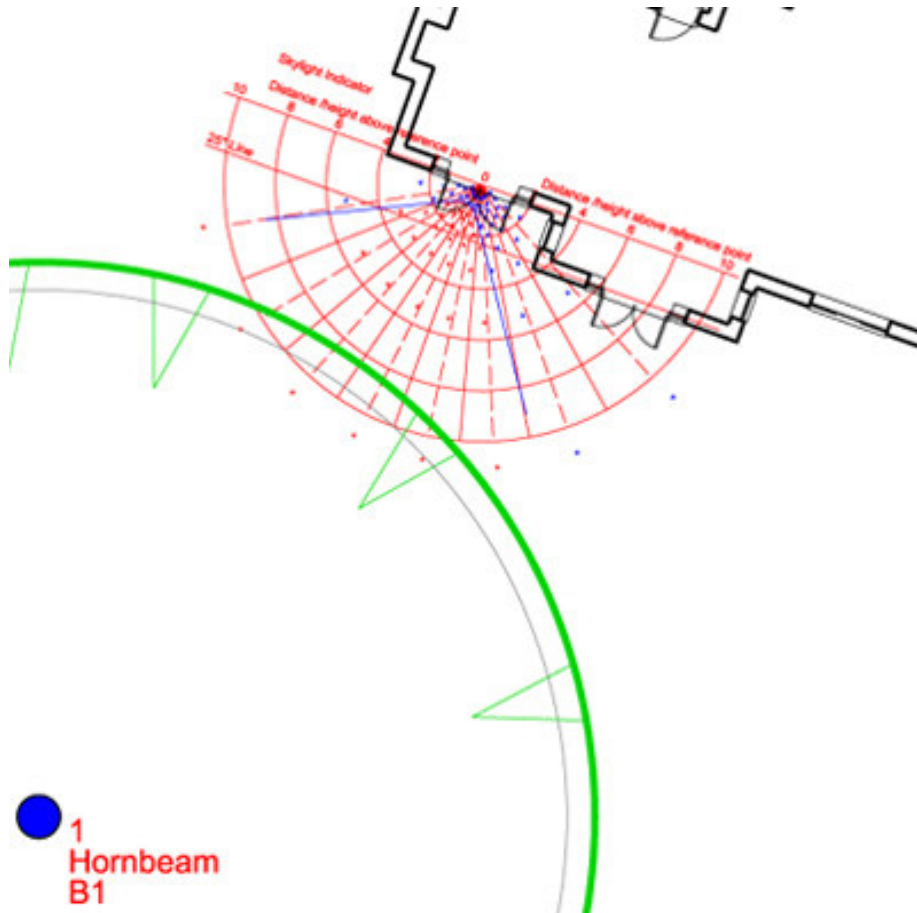
In this original site layout, the VSC is 16%, suggesting that there is unlikely to be sufficient daylight. (See below).



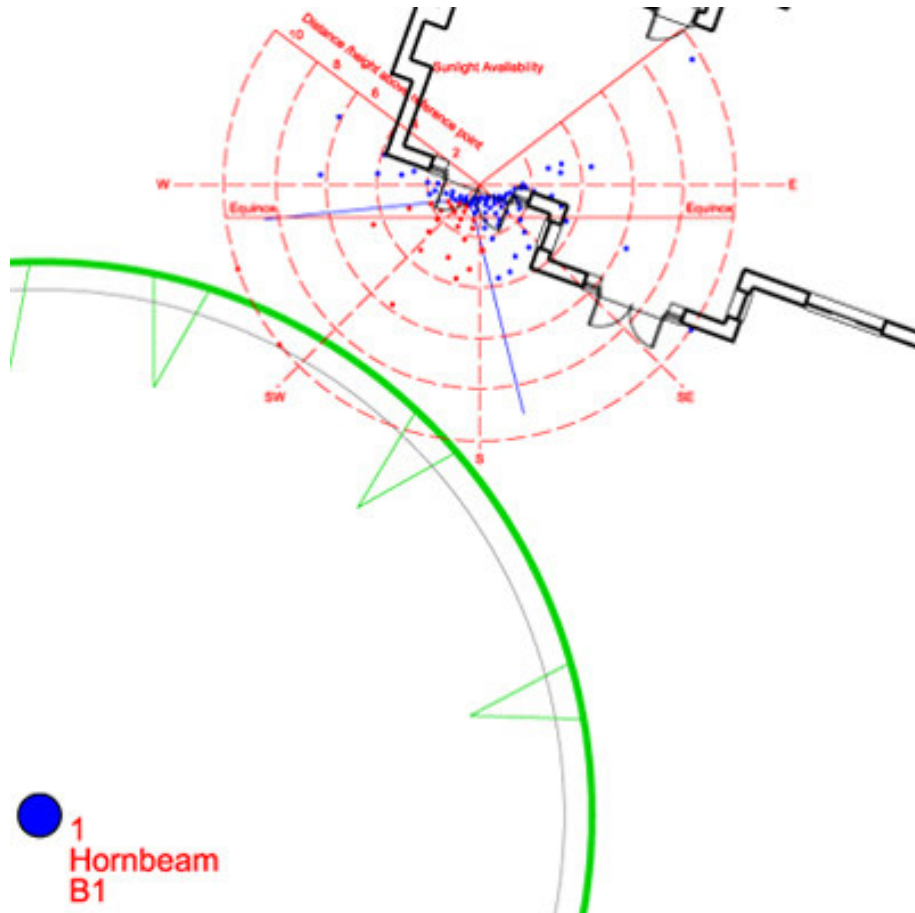
The investigation was then carried out to the same reference point, but with the building located 3m further away from the tree. (See Below).



This gave a VSC of 22.5%. However, this is assuming that the tree would be 100% opaque. BRE suggest that when this calculation is applied to trees, the principle of adjustment is acceptable. Taken with a mid-summer density of 70%, this then produces a VSC of 27.5%, showing that there is a potential for acceptable light levels.



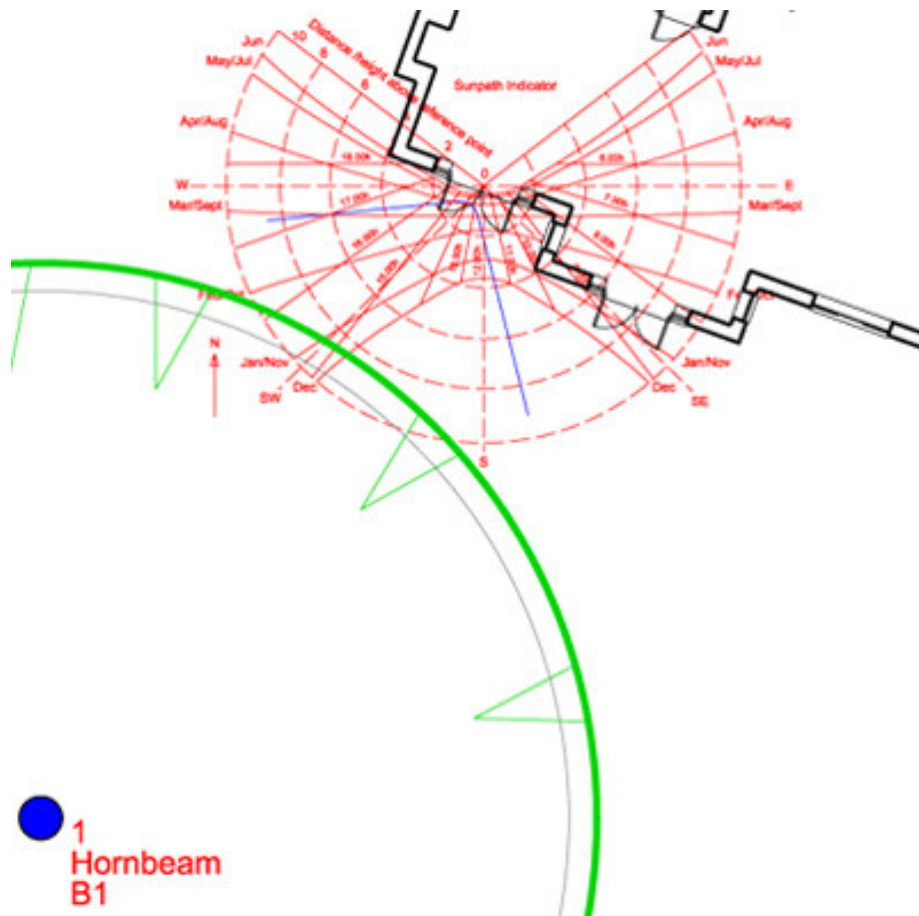
The next process is to use the Sunlight Availability Indicator to find the probable sunlight hours received by the reference point. (See Below).



The British Standard recommends that at least 25% of annual probable sunlight hours be available at the reference point, including at least 5% of annual sunlight hours in the winter months.

This reference point shows that 75% of annual probable sunlight hours are available, including 14% of annual sunlight hours in the winter months.

The final calculation uses the Sun Path Indicator which finds the times of day and year for which sunlight is available for a reference point. (See Below).



The results for this reference point were that during the months:

1. May, June and July, there would be no obstructions.
2. August and April, there would be obstructions between 1 and 3pm.
3. March and September, there would be obstructions between 12.30 and 5pm.
4. February and October, there would be obstructions between 12.00 and 5pm.
5. January and November, there would be obstructions between 11.30 and 5pm.
6. December there would be obstructions from 11.30 onwards.