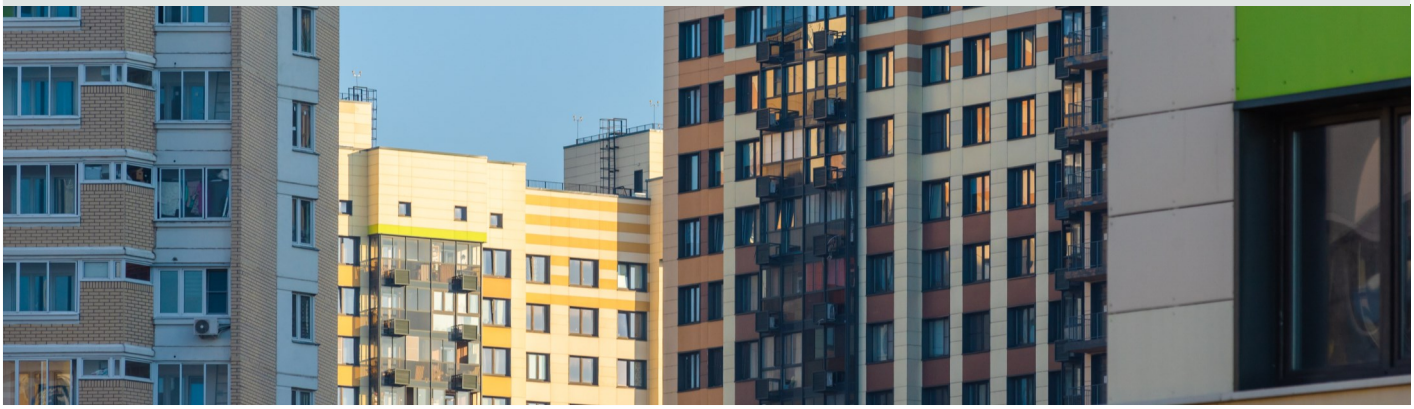
RAPLEYS

NEWSLETTER: FEBRUARY 2019

Setting a New European Standard for Daylighting (EN 17037)



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Those of us in the surveying world of Daylight & Sunlight have been waiting with baited breath to understand the implications of the new European Standard for Daylighting and its ever so snappy title EN17037. With great thanks to the CIBSE Daylight Group and the many great speakers at their event, all was revealed recently.

EN17037 does consider other factors, such as sunlight, view and glare but the most interesting topic of conversation was the new provisions for daylight. Very helpfully, Paul Littlefair of the Building Research Establishment, was on hand to translate the new provisions and explain how these deviated from the current standards used by consultants and Planning Authorities contained within the Building Research Establishment's Report 209 "Site Layout Planning for Daylight and Sunlight – A Guide to Good Practice" (2011 2nd Edition).

The new standard, EN17037, recommends using daylight illuminance testing; requiring that a room obtains certain lux levels over 50% and 95% of the space for 50% of daylight hours. Minimum, medium and high levels are recommended as a means by which to judge the performance of a room. The recommendations are as follows:

- Minimum – 300 lux exceeded over 50% of the space (median illuminance) and 100 lux exceeded over 95% of the space (minimum illuminance), for 50% of daylight hours
- Medium – 500 lux for median and 300 for minimum for 50% of daylight hours
- High – 750 lux for median and 500 lux for minimum for 50% daylight hours

The procedure for this testing requires that the daylight illuminance is calculated on a grid of points for every hour of the year. Taking the hourly median daylight illuminance exceeded over half the space and the minimum daylight illuminance. Choose the values equalled or exceeded for 2190 hours.

Comparing this to the current recommendations for Average Daylight Factor the recommendations for median daylight factor translate to an ADF figure around 1.5 times higher. As an example, looking at the minimum recommendations of EN17037, 2.1% median daylight factor equates to roughly 3.2% average daylight factor. Therefore, even the minimum recommendations of EN17037 are likely to be difficult to achieve and are certainly an uplift on the current highest targets of 2% for any room containing a kitchen. This will be especially problematic for dwellings in urban areas, such as London. It is also worth noting that the recommendations are the same for all room types, so the increase in light that needs to be achieved will be more apparent for rooms that had lower ADF targets, such as bedrooms (1%).

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In reality this will reflect the current situation, in that it is likely the units on upper floors will have the best chance of meeting the high recommendations. With each floor moving down the façade of the building going from high, through medium and minimum and some even below that.

This reality naturally causes some concern and worry about the difficulty this would create in designing schemes that would meet these higher targets. Thankfully, the National Annex, soon to be proposed by the BRE would seek to relieve this.

Currently, a few options are on the table in terms of proposals for the National Annex, these are summarised below:

1. Use minimum values of average daylight factor in BS 8206 Part 2 (or largely that contained within the BRE guide) as an alternative method for dwellings
2. Adapt EN17037 methodology, but use lower illuminances for dwellings, resulting in lower recommended median daylight factors
3. A combination of the above two options.

A vote among the event attendees was taken at the time, giving a clear winner, however final decisions of course remain to be seen. In short, Rapleys are in favour of the proposed method changes, but certainly agree that there will be difficulty in achieving the recommendations. If these can be reduced to a more achievable level we can see only good things for the industry going forward.

With the changing climate and potential impact this may have on developers moving forward Rapleys are acutely aware that this may pose challenges in the future.

The market may also question, due to Brexit, whether this Standard has to be embraced or can be ignored. As with any Daylight & Sunlight Study, those reviewing a design should always consider the requirements outlined by each specific local authority, so best to consider on a case by case basis. Although, it should not be forgotten that all designs should strive to ensure the best levels of Daylight & Sunlight and not the minimum.

As well as **Daylight & Sunlight,** Rapleys advise on other Neighbourly Matters including Rights to Light, Party Walls and Access Arrangements.