



Appendix 20.3
Average Daylight Factor Calculations Assumptions and Sensitivity

20.3 Average Daylight Factor Calculations Assumptions and Sensitivity

20.3.1 This section describes the assumptions used for calculation of average daylight factor (ADF) for the existing residential properties at Llyod George Avenue (E2). Sensitivity to the assumptions is also described.

20.3.2 ADF was calculated for the façade of the property affected by the detailed masterplan portion of the Proposed Development, specifically the Arena. this façade faces Schooner Way.



Figure 20.1 View of façade assessed for Existing Residential Building E2 on Llyod George Avenue.

Legislation

20.3.3 British Standard (BS) 8206-2:2008: ‘Lighting for Buildings – Part 2: Code of Practice for Daylighting’ provide guidance on ADF assessments. The guidance states:

- *“...The average daylight factor is used as the measures of general illumination from skylight. It is considered good practice to ensure that rooms in dwellings and in most other buildings have a predominantly daylight appearance...”*
- *“...Even if a predominantly daylight appearance is not achievable in a dwelling, it is recommended that the average daylight factor should be at least the relevant value...”*
- *Bedroom = 1%; Living Rooms = 1.5%, Kitchens = 2 %*

Assumptions

20.3.4 The best available information was used to carry out the daylight factor calculation.

20.3.5 Room type was estimated from information of apartment layouts available through the property estate agency Zoopla for Amalfi House

(<https://www.zoopla.co.uk/property/4076040/>)

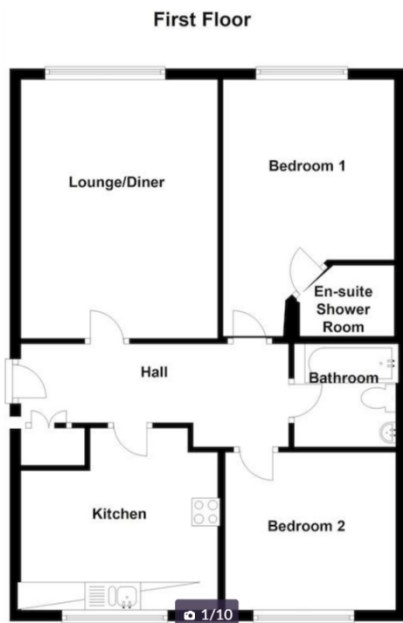


Figure 20.2 Typical apartment layout

20.3.6 Room categorisation are shown in Figure 20.2 and Table 20.1. A total of 44 kitchens and 52 bedrooms have been assessed.



Figure 20.2 Façade Layout

Table 20.1 Room layout for façade E2. Where K denotes kitchen and B denotes Bedroom

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26
Floor 3	K	B	B	B	K	K	B	B	K	-	-	-	-	-	-	-	-	K	B	B	K	K	B	B	B	K
Floor 2	K	B	B	B	K	K	B	B	K	B	K	K	B	B	K	K	B	K	B	B	K	K	B	B	B	K
Floor 1	K	B	B	B	K	K	B	B	K	B	K	K	B	B	K	K	B	K	B	B	K	K	B	B	B	K
Floor G	K	B	B	B	K	K	B	B	K	B	K	K	B	B	K	K	B	K	B	B	K	K	B	B	B	K

20.3.7 Notional room layouts have been used for the ADF assessment. Four different rooms were used with assumptions on the dimensions and window properties shown.

Room	Room Type	Window Type	Room Dimensions
1	Bedroom	2 bay Juliet (1.36m x 2.52m)	L 2.87m x W 3.07m
2	Bedroom	Mid-size (1.25m x 1.35m)	L 2.87m x W 3.07m
3	Bedroom	Small (1.25m x 1.15m)	L 2.87m x W 3.07m
4	Kitchen	Small (1.25m x 1.15m)	L 3.28m x W 2.92m

20.3.8 Window were assumed to have a visible light transmission (VLT) of 79.2% (typical double glazed) and a framing of 20%.

20.3.9 Sensitivity to changing these parameters is shown below:

	Room Type	VLT = 79.2		VLT = 90	
		Frame=20%	Frame = 10%	Frame = 20%	Frame = 10%
Existing	No. of Kitchens non-complaint	2	0	0	0
	No. of bedroom non-complaint	0	0	0	0
With Proposed Development	No. of Kitchens non-complaint	4	2	2	0
	No. of bedroom non-complaint	0	0	0	0