

**Right of Light Consulting** 

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# Daylight and Sunlight Study 6 Coptic Street, London WC1A 1NH

18 May 2016



# Right of Light Consulting

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#### **1 EXECUTIVE SUMMARY**

#### 1.1 Overview

- 1.1.1 Right of Light Consulting has been commissioned to undertake a daylight and sunlight study of the proposed development at 6 Coptic Street, London WC1A 1NH
- 1.1.2 The aim of the study is to assess the impact of the development on the light receivable by the neighbouring properties at 3, 7, 30 & 27 to 31 Coptic Street and 21 to 40 Streatham Chambers. The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair 2011.
- 1.1.3 The window key in Appendix 1 identifies the windows analysed in this study. Appendix 2 gives the numerical results of the various daylight and sunlight tests. The results confirm that all neighbouring windows pass the BRE diffuse daylight and direct sunlight tests. The development also satisfies the BRE overshadowing to gardens and open spaces requirements.
- 1.1.4 In summary, the proposed development will have a low impact on the light receivable by its neighbouring properties. Right of Light Consulting confirms that the development design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'.

# 2 INFORMATION SOURCES

#### 2.1 Documents Considered

2.1.1 This report is based on drawings:

# HUT Architecture

H359 09	Proposed Basement	Rev A
H359 10	Proposed Ground Floor Plan	Rev A
H359 11	Proposed First Floor Plan	Rev A
H359 12	Proposed Second Floor Plan	Rev A
H359 13	Proposed Third Floor Plan	Rev A
H359 14	Proposed Fourth Floor Plan	Rev B
H359 15	Proposed Roof	Rev B
H359 30	Proposed Front Elevation	Rev B
H359 31	Proposed Rear Elevation	Rev B
H359 40	Proposed Section	Rev B
H359 41	Proposed Section 02	Rev –

# 3 METHODOLOGY OF THE STUDY

#### 3.1 BRE Guide : Site Layout Planning for Daylight and Sunlight

- 3.1.1 The study is based on the various numerical tests laid down in the Building Research Establishment (BRE) guide 'Site Layout Planning for Daylight and Sunlight: a guide to good practice' by P J Littlefair 2011. In general, the BRE tests are based on the requirements of the British Standard, BS 8206 Part 2.
- 3.1.2 The standards set out in the BRE guide are intended to be used flexibly. The following statement is quoted directly from the BRE guide:
- 3.1.3 "The guide is intended for building designers and their clients, consultants and planning officials. The advice given here is not mandatory and the guide should not be seen as an instrument of planning policy; its aim is to help rather than constrain the designer. Although it gives numerical guidelines, these should be interpreted flexibly since natural lighting is only one of many factors in site layout design."

#### 3.2 Daylight to Windows

3.2.1 Diffuse daylight is the light received from the sun which has been diffused through the sky. Even on a cloudy day when the sun is not visible, a room will continue to be lit with light from the sky. This is diffuse daylight.

Diffuse daylight calculations should be undertaken to all rooms where daylight is required, including living rooms, kitchens and bedrooms. Usually, if a kitchen is less than 13m<sup>2</sup> it is considered to be a non-habitable room and the daylight tests need not be applied. The BRE guide states that windows to bathrooms, toilets, storerooms, circulation areas and garages need not be analysed.

3.2.2 The BRE guide contains two tests which measure diffuse daylight:

#### 3.2.3 Test 1 Vertical Sky Component

The percentage of the sky visible from the centre of a window is known as the Vertical Sky Component. Diffuse daylight may be adversely affected if after a development the Vertical Sky Component is both less than 27% and less than 0.8 times its former value.

#### 3.2.4 Test 2 Daylight Distribution

The BRE guide states that where room layouts are known, the impact on the daylighting distribution can be found by plotting the 'no sky line' in each of the main rooms. The no-sky line is a line which separates areas of the working plane that can and cannot have a direct view of the sky. Daylight may be adversely affected if after the development 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.

#### 3.3 Sunlight availability to Windows

- 3.3.1 The BRE sunlight tests should be applied to all main living rooms and conservatories which have a window which faces within 90 degrees of due south. The guide states that kitchens and bedrooms are less important, although care should be taken not to block too much sunlight.
- 3.3.2 The BRE guide states that sunlight availability may be adversely affected if the centre of the window:
  - receives less than 25% of annual probable sunlight hours, or less than 5% of annual probable sunlight hours between 21 September and 21 March and
  - receives less than 0.8 times its former sunlight hours during either period and
  - has a reduction in sunlight received over the whole year greater than 4% of annual probable sunlight hours.

#### 3.4 Overshadowing to Gardens and Open Spaces

- 3.4.1 The availability of sunlight should be checked for all open spaces where sunlight is required. This would normally include:
  - Gardens, usually the main back garden of a house
  - Parks and playing fields
  - Children's playgrounds
  - Outdoor swimming pools and paddling pools
  - Sitting out areas, such as those between non-domestic buildings and in public squares
  - Focal points for views such as a group of monuments or fountains.

3.4.2 The BRE guide recommends that at least 50% of the area of each amenity space listed above should receive at least two hours of sunlight on 21<sup>st</sup> March. If as a result of new development an existing garden or amenity area does not meet the above, and the area which can receive two hours of sun on 21<sup>st</sup> March is less than 0.8 times its former value, then the loss of light is likely to be noticeable.

# 4 RESULTS OF THE STUDY

#### 4.1 Windows & Amenity Areas Considered

4.1.1 Appendix 1 provides a plan and photographs to indicate the positions of the windows and gardens analysed in this study.

#### 4.2 Numerical Results

4.2.1 Appendix 2 lists the detailed numerical daylight and sunlight test results. The results are interpreted below.

#### 4.3 Daylight to Windows

4.3.1 All main habitable room windows pass the Vertical Sky Component test. The proposed development therefore satisfies the BRE daylight requirements.

#### 4.4 Sunlight to Windows

4.4.1 All windows which face within 90 degrees of due south have been tested for direct sunlight. All main habitable room windows pass both the total annual sunlight hours test and the winter sunlight hours test. The proposed development therefore satisfies the BRE direct sunlight to windows requirements.

#### 4.5 Overshadowing to Gardens and Open Spaces

4.5.1 The results show that 56% or more of the area of the amenity space will receive at least two hours of sunlight on 21<sup>st</sup> March. This is better than the BRE recommendation which states that at least 50% of any garden or amenity area should receive at least two hours of sunlight on the 21<sup>st</sup> March. The proposed development therefore passes the BRE overshadowing to gardens and open spaces test.

#### 4.6 Conclusion

4.6.1 In summary, the proposed development will have a low impact on the light receivable by its neighbouring properties. Right of Light Consulting confirms that the development design satisfies all of the requirements set out in the BRE guide 'Site Layout Planning for Daylight and Sunlight'.

### **5 CLARIFICATIONS**

#### 5.1 General

- 5.1.1 The report provided is solely for the use of the client and no liability to anyone else is accepted.
- 5.1.2 We have undertaken the survey following the guidelines of the RICS publication "Surveying Safely".
- 5.1.3 We have used our best endeavours to ensure all relevant windows within the neighbouring properties have been identified.
- 5.1.4 Where limited access is available, reasonable assumptions will have been made.
- 5.1.5 We have adopted the conventional approach of assessing all habitable rooms within domestic properties.
- 5.1.6 Right of Light Consulting have endeavoured to include in the report those matters, which they have knowledge of or of which they have been made aware, that might adversely affect the validity of the opinion given.

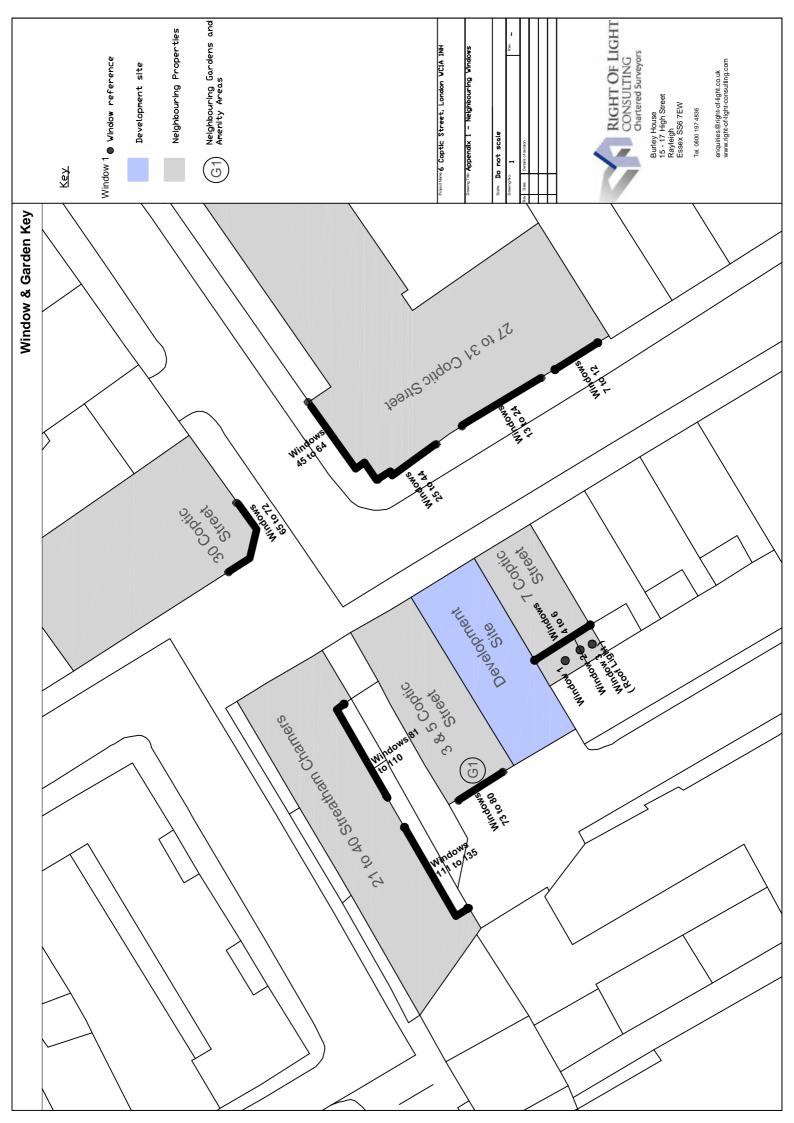
#### 5.2 Project Specific

5.2.1 None.

APPENDICES

# **APPENDIX 1**

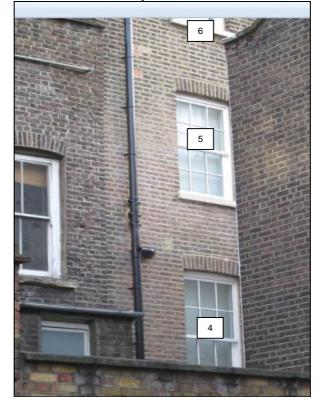
WINDOW & GARDEN KEY



# Neighbouring Windows

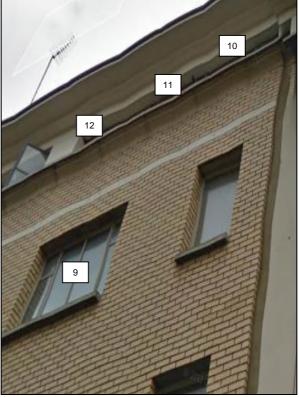


7 Coptic Street





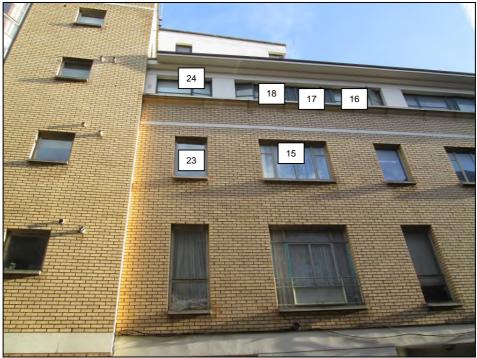
27 Coptic Street



27 Coptic Street



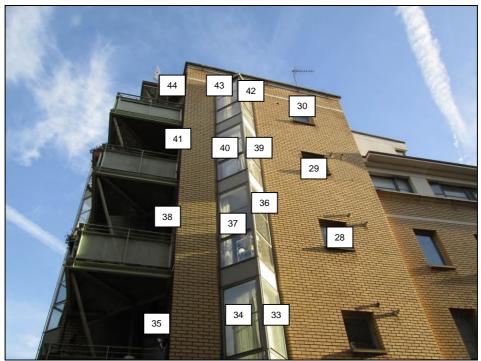
29 to 31 Coptic Street



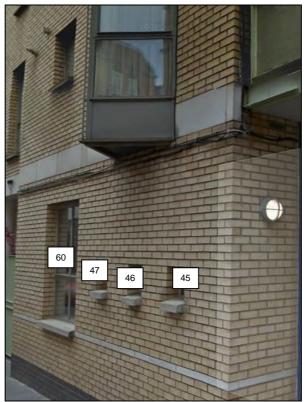
29 to 31 Coptic Street



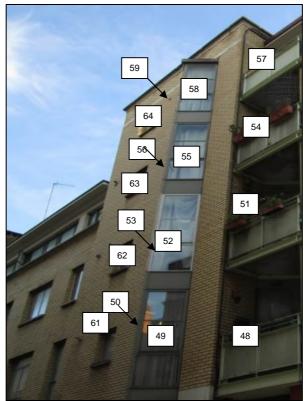
29 to 31 Coptic Street



29 to 31 Coptic Street



29 to 31 Coptic Street



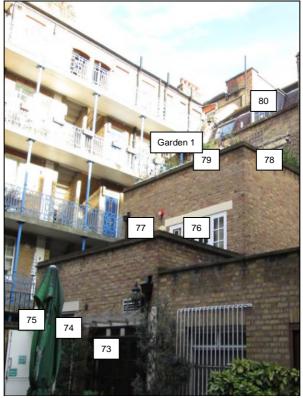
29 to 31 Coptic Street



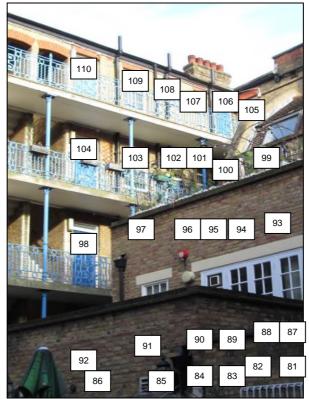
30 Coptic Street



30 Coptic Street



**3 Coptic Street** 



21 to 40 Streatham Chambers



21 to 40 Streatham Chambers



21 to 40 Streatham Chambers

**APPENDIX 2** 

DAYLIGHT AND SUNLIGHT RESULTS

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
7 Coptic Street					
Window 1	Habitable	6.7%	6.7%	0.0%	1.0
Window 2 (Secondary)	Habitable	6.8%	5.6%	1.2%	0.82
Window 3	Habitable	25.7%	25.5%	0.2%	0.99
Window 4	Habitable	25.9%	25.9%	0.0%	1.0
Window 5	Habitable	29.6%	29.6%	0.0%	1.0
Window 6	Habitable	33.0%	33.0%	0.0%	1.0
27 to 31 Coptic Street					
Window 7	Habitable	9.2%	9.1%	0.1%	0.99
Window 8	Habitable	11.5%	11.4%	0.1%	0.99
Window 9	Habitable	15.5%	15.4%	0.1%	0.99
Window 10	Habitable	21.2%	21.2%	0.0%	1.0
Window 11	Habitable	21.4%	21.4%	0.0%	1.0
Window 12	Habitable	21.6%	21.6%	0.0%	1.0
Window 13	Habitable	9.2%	9.1%	0.1%	0.99
Window 14	Habitable	11.8%	11.6%	0.2%	0.98
Window 15	Habitable	16.1%	16.0%	0.1%	0.99
Window 16	Habitable	21.8%	21.8%	0.0%	1.0
Window 17	Habitable	22.1%	22.1%	0.0%	1.0
Window 18	Habitable	22.5%	22.4%	0.1%	1.0
Window 19	Habitable	8.6%	8.5%	0.1%	0.99
Window 20	Habitable	8.3%	8.2%	0.1%	0.99
Window 21	Habitable	9.9%	9.8%	0.1%	0.99
Window 22	Habitable	12.2%	12.0%	0.2%	0.98
Window 23	Habitable	16.9%	16.6%	0.3%	0.98
Window 24	Habitable	23.1%	22.9%	0.2%	0.99
Window 25	Kitchen	9.8%	9.6%	0.2%	0.98
Window 26	Kitchen	9.6%	9.4%	0.2%	0.98
Window 27	Kitchen	13.9%	13.3%	0.6%	0.96
Window 28	Kitchen	19.4%	18.8%	0.6%	0.97
Window 29	Kitchen	24.7%	24.2%	0.5%	0.98
Window 30	Kitchen	30.9%	30.9%	0.0%	1.0
Window 31	Habitable	9.7%	9.5%	0.2%	0.98

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
Window 32	Habitable	9.8%	9.6%	0.2%	0.98
Window 33	Habitable	13.8%	13.4%	0.4%	0.97
Window 34	Habitable	17.4%	16.8%	0.6%	0.97
Window 35	Habitable	17.5%	17.0%	0.5%	0.97
Window 36	Habitable	18.4%	17.8%	0.6%	0.97
Window 37	Habitable	22.9%	22.0%	0.9%	0.96
Window 38	Habitable	21.6%	21.0%	0.6%	0.97
Window 39	Habitable	23.2%	22.7%	0.5%	0.98
Window 40	Habitable	28.3%	27.5%	0.8%	0.97
Window 41	Habitable	26.6%	26.2%	0.4%	0.98
Window 42	Habitable	28.9%	28.9%	0.0%	1.0
Window 43	Habitable	32.7%	32.7%	0.0%	1.0
Window 44	Habitable	31.2%	31.2%	0.0%	1.0
Window 45	Habitable	14.8%	14.7%	0.1%	0.99
Window 46	Habitable	14.0%	14.0%	0.0%	1.0
Window 47	Habitable	13.6%	13.6%	0.0%	1.0
Window 48	Habitable	17.1%	16.7%	0.4%	0.98
Window 49	Habitable	17.7%	17.4%	0.3%	0.98
Window 50	Habitable	17.8%	17.8%	0.0%	1.0
Window 51	Habitable	21.0%	20.6%	0.4%	0.98
Window 52	Habitable	22.7%	22.4%	0.3%	0.99
Window 53	Habitable	21.3%	21.3%	0.0%	1.0
Window 54	Habitable	25.7%	25.5%	0.2%	0.99
Window 55	Habitable	28.2%	28.1%	0.1%	1.0
Window 56	Habitable	26.1%	26.1%	0.0%	1.0
Window 57	Habitable	28.8%	28.8%	0.0%	1.0
Window 58	Habitable	33.8%	33.8%	0.0%	1.0
Window 59	Habitable	32.6%	32.6%	0.0%	1.0
Window 60	Kitchen	13.2%	13.2%	0.0%	1.0
Window 61	Kitchen	16.4%	16.4%	0.0%	1.0
Window 62	Kitchen	21.6%	21.6%	0.0%	1.0
Window 63	Kitchen	27.0%	27.0%	0.0%	1.0
Window 64	Kitchen	33.7%	33.7%	0.0%	1.0

Reference	Use Class		Vertical Sky	Component	
		Before	After	Loss	Ratio
30 Coptic Street					
Window 65	Habitable	22.8%	22.8%	0.0%	1.0
Window 66	Habitable	21.8%	21.8%	0.0%	1.0
Window 67	Habitable	27.8%	27.8%	0.0%	1.0
Window 68	Habitable	27.1%	27.1%	0.0%	1.0
Window 69	Habitable	32.3%	32.3%	0.0%	1.0
Window 70	Habitable	31.8%	31.8%	0.0%	1.0
Window 71	Habitable	36.5%	36.5%	0.0%	1.0
Window 72	Habitable	36.1%	36.1%	0.0%	1.0
5 Coptic Street					
Window 73	Habitable	12.4%	12.4%	0.0%	1.0
Window 74	Habitable	12.5%	12.5%	0.0%	1.0
Window 75	Habitable	11.8%	11.8%	0.0%	1.0
Window 76	Habitable	17.7%	17.7%	0.0%	1.0
Window 77	Habitable	16.2%	16.2%	0.0%	1.0
Window 78 (Secondary)	Habitable	23.2%	20.1%	3.1%	0.87
Window 79	Habitable	23.0%	22.9%	0.1%	1.0
Window 80	Habitable	27.5%	27.4%	0.1%	1.0
21 to 40 Streatham Chambers					
Window 81	Habitable	0.1%	0.1%	0.0%	1.0
Window 82	Habitable	0.1%	0.1%	0.0%	1.0
Window 83	Habitable	0.1%	0.1%	0.0%	1.0
Window 84	Habitable	0.1%	0.1%	0.0%	1.0
Window 85	Habitable	0.1%	0.1%	0.0%	1.0
Window 86	Habitable	0.1%	0.1%	0.0%	1.0
Window 87	Habitable	0.9%	0.9%	0.0%	1.0
Window 88	Habitable	0.1%	0.1%	0.0%	1.0
Window 89	Habitable	0.1%	0.1%	0.0%	1.0
Window 90	Habitable	0.1%	0.1%	0.0%	1.0
Window 91	Habitable	1.0%	1.0%	0.0%	1.0
Window 92	Habitable	0.1%	0.1%	0.0%	1.0

Reference	Use Class	Vertical Sky Component			
		Before	After	Loss	Ratio
Window 93	Habitable	1.9%	1.9%	0.0%	1.0
Window 94	Habitable	0.1%	0.1%	0.0%	1.0
Window 95	Habitable	0.1%	0.1%	0.0%	1.0
Window 96	Habitable	0.2%	0.2%	0.0%	1.0
Window 97	Habitable	3.6%	3.6%	0.0%	1.0
Window 98	Habitable	0.1%	0.1%	0.0%	1.0
Window 99	Habitable	5.2%	5.2%	0.0%	1.0
Window 100	Habitable	0.1%	0.1%	0.0%	1.0
Window 101	Habitable	1.5%	1.5%	0.0%	1.0
Window 102	Habitable	1.9%	1.9%	0.0%	1.0
Window 103	Habitable	7.2%	7.2%	0.0%	1.0
Window 104	Habitable	0.4%	0.4%	0.0%	1.0
Window 105	Habitable	24.5%	24.5%	0.0%	1.0
Window 106	Habitable	27.0%	27.0%	0.0%	1.0
Window 107	Habitable	29.6%	29.6%	0.0%	1.0
Window 108	Habitable	31.4%	31.3%	0.1%	1.0
Window 109	Habitable	31.7%	31.6%	0.1%	1.0
Window 110	Habitable	33.0%	33.0%	0.0%	1.0
Window 111	Habitable	1.7%	1.7%	0.0%	1.0
Window 112	Habitable	3.5%	3.5%	0.0%	1.0
Window 113	Habitable	5.8%	5.8%	0.0%	1.0
Window 114	Habitable	9.6%	9.5%	0.1%	0.99
Window 115	Habitable	31.9%	31.8%	0.1%	1.0
Window 116	Habitable	0.2%	0.2%	0.0%	1.0
Window 117	Habitable	0.3%	0.3%	0.0%	1.0
Window 118	Habitable	0.1%	0.1%	0.0%	1.0
Window 119	Habitable	1.8%	1.7%	0.1%	0.94
Window 120	Habitable	0.7%	0.7%	0.0%	1.0
Window 121	Habitable	0.8% 0.8% 0.0%		1.0	
Window 122	Habitable	0.1%	0.1%	0.0%	1.0
Window 123	Habitable	2.9%	2.7%	0.2%	0.93
Window 124	Habitable	1.6%	1.6%	0.0%	1.0
Window 125	Habitable	1.7%	1.6%	0.1%	0.94

Reference	Use Class	Vertical Sky Component						
		Before	After	Loss	Ratio			
Window 126	Habitable	0.2%	0.2%	0.0%	1.0			
Window 127	Habitable	4.4%	4.2%	0.2%	0.95			
Window 128	Habitable	3.5%	3.4%	0.1%	0.97			
Window 129	Habitable	3.6%	3.5%	0.1%	0.97			
Window 130	Habitable	0.8%	0.8%	0.0%	1.0			
Window 131	Habitable	6.1%	6.0%	0.1%	0.98			
Window 132	Habitable	32.1%	32.1%	0.0%	1.0			
Window 133	Habitable	31.4%	31.4%	0.0%	1.0			
Window 134	Habitable	28.0%	28.0%	0.0%	1.0			
Window 135	Habitable	23.5%	23.5%	0.0%	1.0			

				Ş	Sunlight to	o Windov	VS		
Reference	Use Class	Т	otal Sur	light Hou	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
7 Coptic Street									
Window 1	Habitable	3%	3%	0%	1.0	0%	0%	0%	1.0
Window 4	Habitable	44%	44%	0%	1.0	6%	6%	0%	1.0
Window 5	Habitable	51%	51%	0%	1.0	10%	10%	0%	1.0
Window 6	Habitable	57%	57%	0%	1.0	16%	16%	0%	1.0
27 to 31 Coptic Street									
Window 7	Habitable	19%	19%	0%	1.0	9%	9%	0%	1.0
Window 8	Habitable	20%	20%	0%	1.0	8%	8%	0%	1.0
Window 9	Habitable	27%	27%	0%	1.0	8%	8%	0%	1.0
Window 10	Habitable	37%	37%	0%	1.0	9%	9%	0%	1.0
Window 11	Habitable	38%	38%	0%	1.0	9%	9%	0%	1.0
Window 12	Habitable	42%	42%	0%	1.0	11%	11%	0%	1.0
Window 13	Habitable	19%	19%	0%	1.0	7%	7%	0%	1.0
Window 14	Habitable	19%	19%	0%	1.0	6%	6%	0%	1.0
Window 15	Habitable	24%	24%	0%	1.0	6%	6%	0%	1.0
Window 16	Habitable	38%	38%	0%	1.0	9%	9%	0%	1.0
Window 17	Habitable	40%	40%	0%	1.0	10%	10%	0%	1.0
Window 18	Habitable	41%	41%	0%	1.0	11%	11%	0%	1.0
Window 19	Habitable	15%	15%	0%	1.0	5%	5%	0%	1.0
Window 20	Habitable	15%	15%	0%	1.0	5%	5%	0%	1.0
Window 21	Habitable	17%	17%	0%	1.0	5%	5%	0%	1.0
Window 22	Habitable	19%	19%	0%	1.0	5%	5%	0%	1.0
Window 23	Habitable	28%	26%	2%	0.93	7%	7%	0%	1.0
Window 24	Habitable	44%	43%	1%	0.98	10%	10%	0%	1.0
Window 25	Kitchen	15%	15%	0%	1.0	4%	4%	0%	1.0
Window 26	Kitchen	14%	14%	0%	1.0	4%	4%	0%	1.0
Window 27	Kitchen	21%	20%	1%	0.95	5%	5%	0%	1.0
Window 28	Kitchen	33%	32%	1%	0.97	7%	7%	0%	1.0
Window 29	Kitchen	46%	45%	1%	0.98	10%	10%	0%	1.0
Window 30	Kitchen	57%	57%	0%	1.0	16%	16%	0%	1.0
Window 31	Habitable	14%	14%	0%	1.0	4%	4%	0%	1.0
Window 32	Habitable	14%	14%	0%	1.0	4%	4%	0%	1.0
Window 33	Habitable	22%	21%	1%	0.95	5%	5%	0%	1.0

				Ş	Sunlight to	window	VS		
Reference	Use Class	Т	otal Sun	light Hou	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 36	Habitable	35%	33%	2%	0.94	6%	6%	0%	1.0
Window 39	Habitable	49%	48%	1%	0.98	12%	11%	1%	0.92
Window 42	Habitable	56%	56%	0%	1.0	14%	14%	0%	1.0
30 Coptic Street									
Window 65	Habitable	49%	49%	0%	1.0	8%	8%	0%	1.0
Window 66	Habitable	47%	47%	0%	1.0	6%	6%	0%	1.0
Window 67	Habitable	62%	62%	0%	1.0	12%	12%	0%	1.0
Window 68	Habitable	59%	59%	0%	1.0	10%	10%	0%	1.0
Window 69	Habitable	71%	71%	0%	1.0	20%	20%	0%	1.0
Window 70	Habitable	71%	71%	0%	1.0	20%	20%	0%	1.0
Window 71	Habitable	77%	77%	0%	1.0	26%	26%	0%	1.0
Window 72	Habitable	78%	78%	0%	1.0	27%	27%	0%	1.0
5 Coptic Street									
Window 73	Habitable	23%	23%	0%	1.0	0%	0%	0%	1.0
Window 74	Habitable	26%	26%	0%	1.0	0%	0%	0%	1.0
Window 75	Habitable	25%	25%	0%	1.0	0%	0%	0%	1.0
Window 76	Habitable	31%	31%	0%	1.0	2%	2%	0%	1.0
Window 77	Habitable	33%	33%	0%	1.0	4%	4%	0%	1.0
Window 78 (Secondary)	Habitable	42%	29%	13%	0.69	8%	1%	7%	0.13
Window 79	Habitable	41%	40%	1%	0.98	8%	7%	1%	0.88
Window 80	Habitable	46%	46%	0%	1.0	12%	12%	0%	1.0
21 to 40 Streatham Chambers									
Window 81	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 82	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 83	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 84	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 85	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 86	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 87	Habitable	2%	2%	0%	1.0	2%	2%	0%	1.0
Window 88	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 89	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0

				ç	Sunlight to	windov	VS		
Reference	Use Class	Т	otal Sun	light Hou	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 90	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 91	Habitable	4%	4%	0%	1.0	3%	3%	0%	1.0
Window 92	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 93	Habitable	2%	2%	0%	1.0	2%	2%	0%	1.0
Window 94	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 95	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 96	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 97	Habitable	8%	8%	0%	1.0	7%	7%	0%	1.0
Window 98	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 99	Habitable	15%	15%	0%	1.0	9%	9%	0%	1.0
Window 100	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 101	Habitable	3%	3%	0%	1.0	3%	3%	0%	1.0
Window 102	Habitable	3%	3%	0%	1.0	3%	3%	0%	1.0
Window 103	Habitable	15%	15%	0%	1.0	11%	11%	0%	1.0
Window 104	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 105	Habitable	49%	49%	0%	1.0	18%	18%	0%	1.0
Window 106	Habitable	62%	62%	0%	1.0	21%	21%	0%	1.0
Window 107	Habitable	69%	69%	0%	1.0	23%	23%	0%	1.0
Window 108	Habitable	73%	73%	0%	1.0	24%	24%	0%	1.0
Window 109	Habitable	74%	74%	0%	1.0	23%	23%	0%	1.0
Window 110	Habitable	75%	75%	0%	1.0	23%	23%	0%	1.0
Window 111	Habitable	3%	3%	0%	1.0	1%	1%	0%	1.0
Window 112	Habitable	5%	5%	0%	1.0	3%	3%	0%	1.0
Window 113	Habitable	9%	9%	0%	1.0	6%	6%	0%	1.0
Window 114	Habitable	17%	17%	0%	1.0	11%	11%	0%	1.0
Window 115	Habitable	73%	73%	0%	1.0	21%	21%	0%	1.0
Window 116	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 117	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 118	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 120	Habitable	2%	2%	0%	1.0	2%	2%	0%	1.0
Window 121	Habitable	2%	2%	0%	1.0	2%	2%	0%	1.0
Window 122	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 124	Habitable	3%	3%	0%	1.0	3%	3%	0%	1.0

				ç	Sunlight to	o Windov	vs		
Reference	Use Class	Т	otal Sun	light Hou	urs	W	inter Su	nlight Ho	ours
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 125	Habitable	3%	3%	0%	1.0	3%	3%	0%	1.0
Window 126	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 128	Habitable	4%	4%	0%	1.0	4%	4%	0%	1.0
Window 129	Habitable	5%	5%	0%	1.0	5%	5%	0%	1.0
Window 130	Habitable	1%	1%	0%	1.0	1%	1%	0%	1.0
Window 132	Habitable	71%	71%	0%	1.0	19%	19%	0%	1.0
Window 133	Habitable	70%	70%	0%	1.0	18%	18%	0%	1.0
Window 134	Habitable	59%	59%	0%	1.0	12%	12%	0%	1.0

# Appendix 2 - Overshadowing to Gardens and Open Spaces 6 Coptic Street, London WC1A 1NH

Reference	Total Area	Area receiving at least two hours of sunlight on 21st March			
		Before	After	Loss	Ratio
5 Coptic Street					
Garden 1	16.51 m2	12.43 m2 75%	9.27 m2 56%	3.16 m2 19%	0.75

**APPENDIX 3** 

OVERSHADOWING TO GARDENS AND OPEN SPACES



**APPENDIX 4** 

NEIGHBOURING WINDOW MEASUREMENTS



