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Daylight and Sunlight Study Natwest, High Holborn, London WC1V 7BF

23 June 2017



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1 EXECUTIVE SUMMARY

1.1 Overview

- 1.1.1 Right of Light Consulting has been commissioned by Austringer Capital Limited to undertake a daylight and sunlight study of the proposed development at 212 to 214 High Holborn, London WC1V 7BF.
- 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 215 to 222 High Holborn, 1 to 40 Aria House, 1 to 3 Newton Street, 123 to 126, 127 to 129 & 210 High Holborn. 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.
- 1.1.4 The results confirm that the proposed development does not fully comply with the BRE numerical guidelines. However, the guide makes it clear that in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings. We are of the opinion that this principle applies to this scheme given the existing high rise buildings in the area. The BRE guide explains that the numerical guidelines should be interpreted flexibly since natural lighting is only one of many factors in site layout design. The local authority should therefore balance daylight and sunlight considerations against all other material planning considerations when deciding whether to grant planning permission.

2 INFORMATION SOURCES

2.1 Documents Considered

2.1.1 This report is based on drawings:

CTE Surveys

YB (214 High Holborn) FP	Floor Plans	Rev –
Cassidy + Ashton		
8918-P12 8918-P13 8918-P14 8918-P15 8918-P16 8918-P17 8918-P18 8918-P19 8918-P20 8918-P21 8918-P21	Ground Floor Plan Mezzanine Floor Plan First Floor Plan Second Floor Plan Third Floor Plan Fourth and Fifth Floor Plan Front Elevation Side Elevation	Rev – Rev – Rev – Rev – Rev – Rev – Rev – Rev – Rev –
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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 13m² 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 21st 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 21st 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 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 habitable room windows pass the Vertical Sky Component test with the exception of 11 windows at 1 to 40 Aria House (see results highlighted in bold in Appendix 2).
- 4.3.2 Where windows do not meet the standard BRE targets it does not automatically follow that daylight will be adversely affected. As explained below with reference to the windows that do not meet the standard BRE targets, the BRE guide contains special provisions in certain situations. For example, in the case of an urban location or whether the window is sited close to the common boundary with a development site.
- 4.3.3 Firstly, the analysis confirms that of the 11 windows, 3 fall only marginally short of the VSC target (windows achieve a reduction ratio of 0.7 and above against the target of 0.8).
- 4.3.4 Secondly, the BRE guide notes that an important issue is whether the existing building itself is a good neighbour, standing a reasonable distance from the boundary and taking no more than its fair share of light. We note that the windows at 1 to 40 Aria House are sited close to the common boundary and therefore, in this instance, a higher degree of obstruction is unavoidable.
- 4.3.5 Finally, the guide acknowledges that in a historic city centre, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings. We note that the proposed development is to be of similar height and proportion to that of the existing surrounding buildings. In

particular, we note that the proposal seeks to match the height and proportions of the property at 210 High Holborn to which the development adjoins. We are therefore of the opinion that the daylight impact on the windows at 1 to 40 Aria House is unavoidable in this instance.

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 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 There are no nearby gardens or amenity areas directly to the north of the development. The proposed development will therefore not create any new areas which receive less than two hours of sunlight on 21st March. The proposed development satisfies the BRE overshadowing to gardens and open spaces requirements.

4.6 Conclusion

4.6.1 The results confirm that the proposed development does not fully comply with the BRE numerical guidelines. However, the guide makes it clear that in an area with modern high rise buildings, a higher degree of obstruction may be unavoidable if new developments are to match the height and proportions of existing buildings. We are of the opinion that this principle applies to this scheme given the existing high rise buildings in the area. The BRE guide explains that the numerical guidelines should be interpreted flexibly since natural lighting is only one of many factors in site layout design. The local authority should therefore balance daylight and sunlight considerations against all other material planning considerations when deciding whether to grant planning permission.

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.

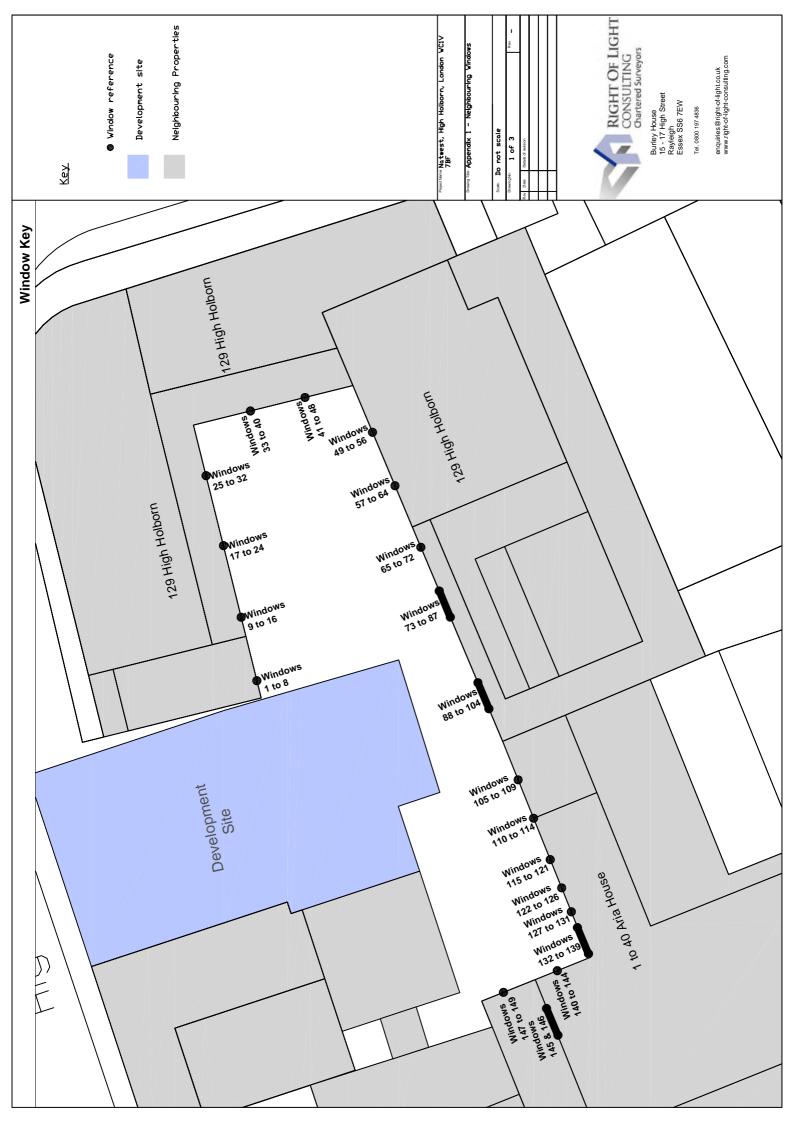
5.2 Project Specific

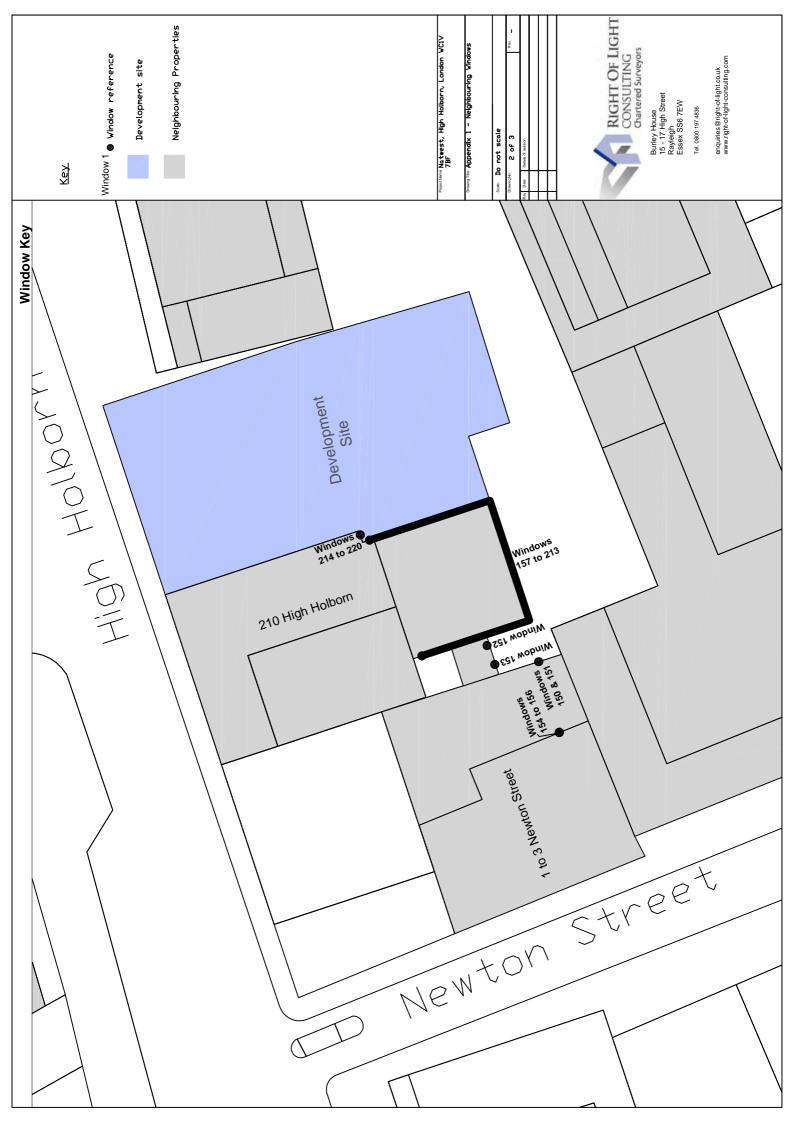
5.2.1 None

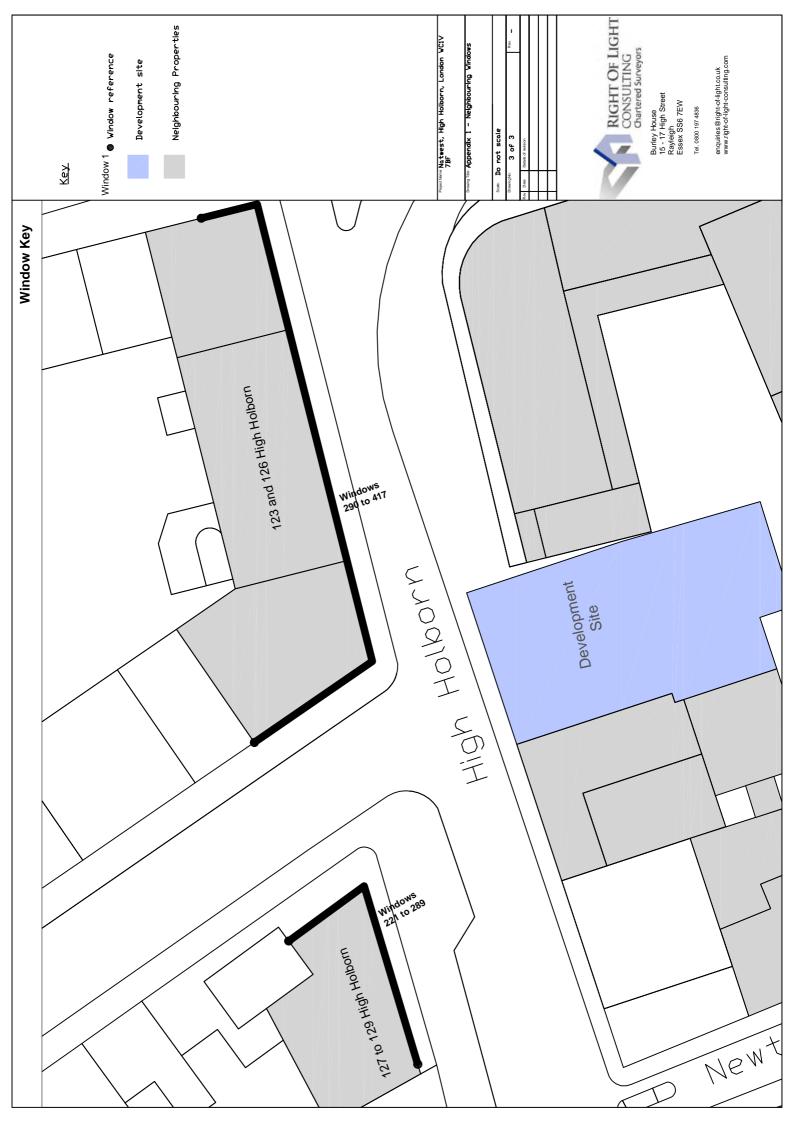


APPENDIX 1
WINDOW KEY

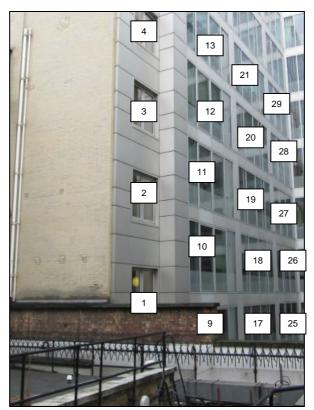
APPENDIX 2	
DAYLIGHT AND SUNLIGHT RE	ESULTS



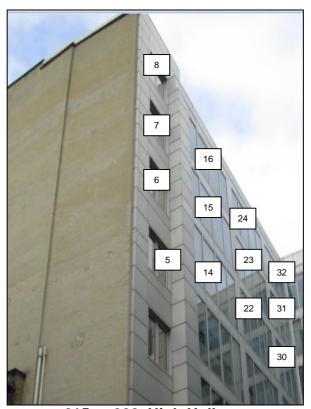




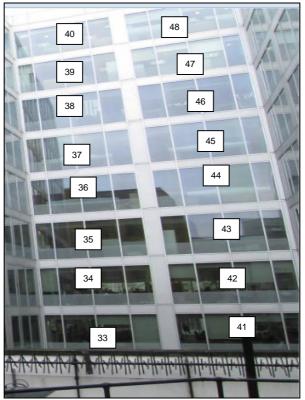
Neighbouring Windows



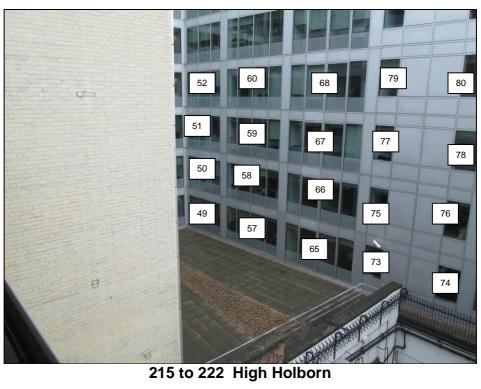
215 to 222 High Holborn

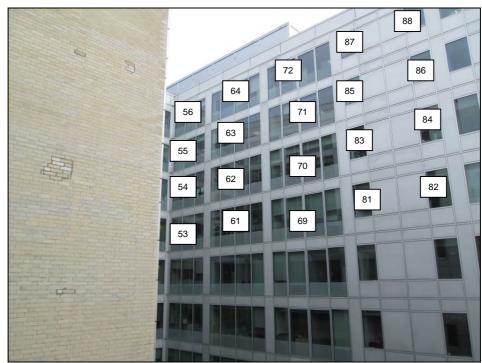


215 to 222 High Holborn

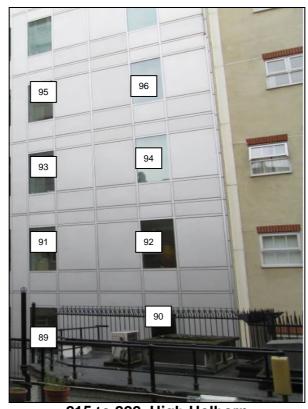


215 to 222 High Holborn

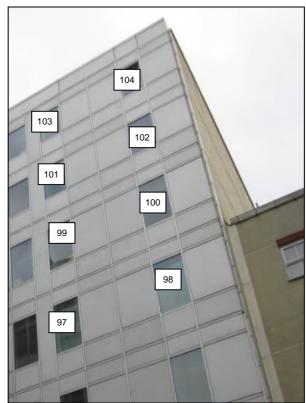




215 to 222 High Holborn



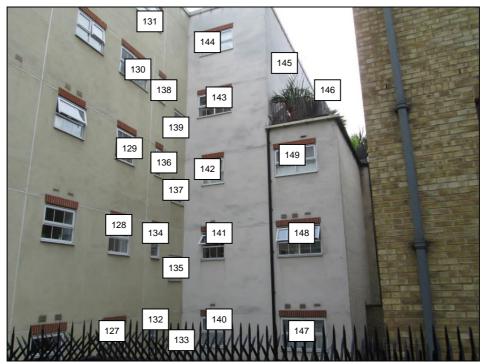
215 to 222 High Holborn



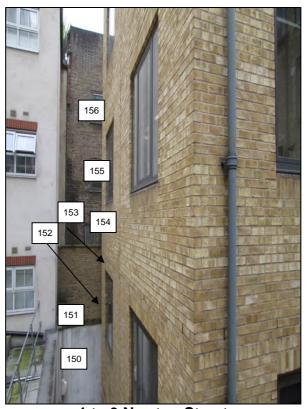
215 to 222 High Holborn



1 to 40 Aria House



1 to 40 Aria House

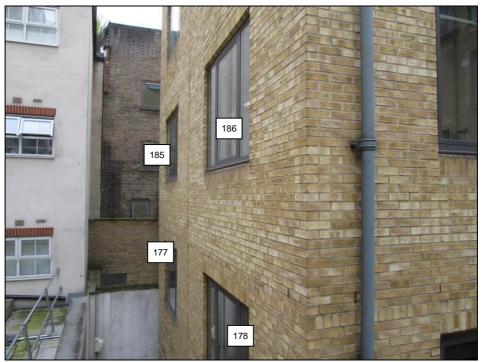


1 to 3 Newton Street



210 High Holborn

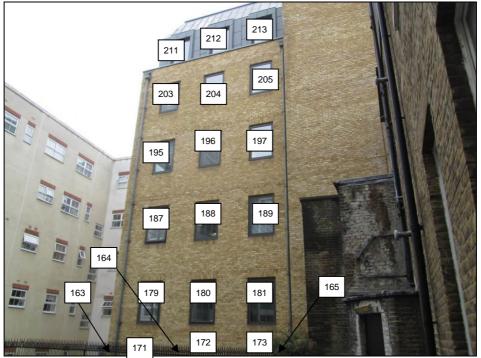




210 High Holborn



210 High Holborn



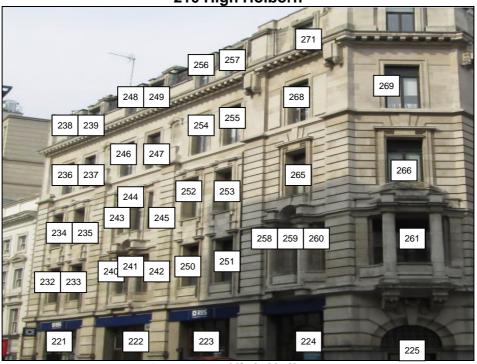
210 High Holborn



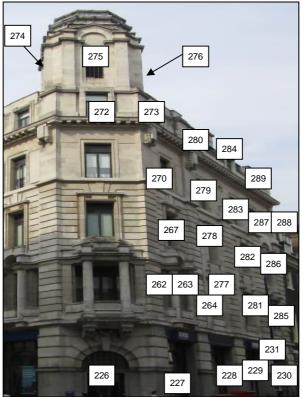
210 High Holborn



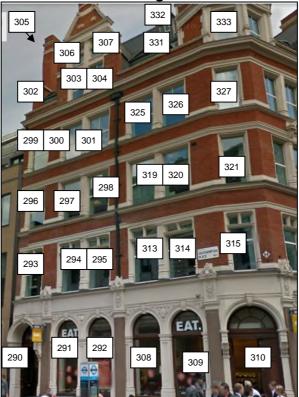
210 High Holborn



127 to 129 High Holborn



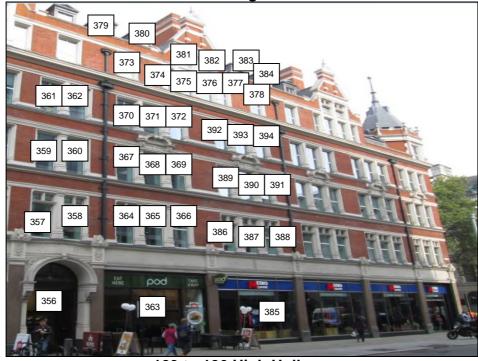
127 to 129 High Holborn



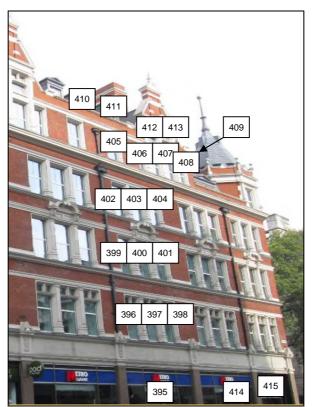
123 to 126 High Holborn



123 to 126 High Holborn



123 to 126 High Holborn



123 to 126 High Holborn



123 to 126 High Holborn

APPENDIX 3
OVERSHADOWING TO GARDENS AND OPEN SPACES

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference	Use Class	Vertical Sky Component			
Reference	USE Class	v Before	After	Loss	Ratio
		501010	7 (110)	2000	rtatio
215 to 222 High Holborn					
Window 1	Non Domestic	8.3%	2.7%	5.6%	0.33
Window 2	Non Domestic	10.3%	3.8%	6.5%	0.37
Window 3	Non Domestic	12.9%	5.7%	7.2%	0.44
Window 4	Non Domestic	15.9%	9.4%	6.5%	0.59
Window 5	Non Domestic	19.5%	19.1%	0.4%	0.98
Window 6	Non Domestic	23.2%	23.2%	0.0%	1.0
Window 7	Non Domestic	27.2%	27.2%	0.0%	1.0
Window 8	Non Domestic	32.5%	32.5%	0.0%	1.0
Window 9	Non Domestic	7.3%	4.0%	3.3%	0.55
Window 10	Non Domestic	8.9%	5.5%	3.4%	0.62
Window 11	Non Domestic	11.0%	7.8%	3.2%	0.71
Window 12	Non Domestic	13.6%	11.3%	2.3%	0.83
Window 13	Non Domestic	16.7%	16.1%	0.6%	0.96
Window 14	Non Domestic	20.6%	20.6%	0.0%	1.0
Window 15	Non Domestic	25.1%	25.1%	0.0%	1.0
Window 16	Non Domestic	30.3%	30.3%	0.0%	1.0
Window 17	Non Domestic	5.9%	4.5%	1.4%	0.76
Window 18	Non Domestic	7.1%	5.9%	1.2%	0.83
Window 19	Non Domestic	8.8%	7.8%	1.0%	0.89
Window 20	Non Domestic	10.8%	10.2%	0.6%	0.94
Window 21	Non Domestic	13.5%	13.4%	0.1%	0.99
Window 22	Non Domestic	17.2%	17.2%	0.0%	1.0
Window 23	Non Domestic	21.9%	21.9%	0.0%	1.0
Window 24	Non Domestic	27.8%	27.8%	0.0%	1.0
Window 25	Non Domestic	4.5%	3.9%	0.6%	0.87
Window 26	Non Domestic	5.4%	4.9%	0.5%	0.91
Window 27	Non Domestic	6.5%	6.1%	0.4%	0.94
Window 28	Non Domestic	7.9%	7.7%	0.2%	0.97
Window 29	Non Domestic	9.9%	9.8%	0.1%	0.99
Window 30	Non Domestic	12.6%	12.6%	0.0%	1.0
Window 31	Non Domestic	16.3%	16.3%	0.0%	1.0
Window 32	Non Domestic	21.8%	21.8%	0.0%	1.0
Window 33	Non Domestic	9.8%	7.8%	2.0%	8.0

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Har Olara	Vant	ol Clay Com	
			1.5% 0.86
			1.1% 0.91
			0.5% 0.97
			0.1% 0.99
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
			1.6% 0.85
			1.1% 0.91
			0.6% 0.96
			0.1% 0.99
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
			0.9% 0.84
			0.7% 0.89
			0.4% 0.95
			0.1% 0.99
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
			2.0% 0.74
			1.6% 0.82
			1.1% 0.9
			0.5% 0.96
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
			0.0% 1.0
n Domestic 10	1.7%	6.1%	4.6% 0.57
	n Domestic	Before Aft n Domestic 11.1% 9 n Domestic 12.6% 13 n Domestic 14.3% 13 n Domestic 16.2% 16 n Domestic 21.8% 23 n Domestic 26.2% 26 n Domestic 10.7% 9 n Domestic 12.0% 10 n Domestic 13.6% 13 n Domestic 15.4% 18 n Domestic 20.2% 20 n Domestic 27.7% 25 n Domestic 5.5% 23 n Domestic 7.8% 3 n Domestic 11.7% 13 n Domestic 14.9% 14 n Domestic 19.2% 13 n Domestic 7.6% 25 n Domestic 10.8% 3 n Domestic 10.8% 3 n Domestic 19.8% 15 n Domestic 19.8% 15	Before After Los In Domestic 11.1% 9.6% 6 In Domestic 12.6% 11.5% 6 In Domestic 14.3% 13.8% 6 In Domestic 16.2% 16.1% 6 In Domestic 18.7% 18.7% 6 In Domestic 21.8% 21.8% 6 In Domestic 26.2% 26.2% 6 In Domestic 10.7% 9.1% 6 In Domestic 12.0% 10.9% 6 In Domestic 13.6% 13.0% 6 In Domestic 15.4% 15.3% 6 In Domestic 20.2% 20.2% 6 In Domestic 23.5% 23.5% 6 In Domestic 5.5% 4.6% 6 In Domestic 7.8% 7.4% 6 In Domestic 11.7% 11.7% 6 In Domestic 14.9% 14.9% 6 In Domestic

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Deference	Han Olana		lautiaal Clus	`a man an an t	
Reference	Use Class	v Before	ertical Sky C After	Component Loss	Ratio
Window 67	Non Domestic	15.1%	11.2%	3.9%	0.74
Window 68	Non Domestic	17.9%	15.4%	2.5%	0.86
Window 69	Non Domestic	21.0%	20.6%	0.4%	0.98
Window 70	Non Domestic	24.5%	24.5%	0.0%	1.0
Window 70 Window 71	Non Domestic	28.7%	28.7%	0.0%	1.0
Window 71 Window 72	Non Domestic	32.9%	32.9%	0.0%	1.0
Window 72 Window 73	Non Domestic	13.2%	6.2%	7.0%	0.47
Window 73 Window 74	Non Domestic	14.6%	6.1%	8.5%	0.47
Window 74 Window 75	Non Domestic	15.8%	8.4%	7.4%	0.42
Window 75 Window 76	Non Domestic	17.6%	8.3%	9.3%	0.53
Window 77	Non Domestic	18.6%	11.8%	6.8%	0.47
Window 77 Window 78	Non Domestic	20.8%	11.8%	9.0%	0.63
	Non Domestic	21.7%	17.0%	9.0 <i>%</i> 4.7%	0.57
Window 79	Non Domestic		17.0%	4.7% 6.7%	0.76
Window 80		24.2%			
Window 81	Non Domestic	24.8%	23.8%	1.0%	0.96
Window 82	Non Domestic	27.4%	25.6%	1.8%	0.93
Window 83	Non Domestic	28.1%	28.1%	0.0%	1.0
Window 84	Non Domestic	30.6%	30.6%	0.0%	1.0
Window 85	Non Domestic	31.7%	31.7%	0.0%	1.0
Window 86	Non Domestic	33.6%	33.6%	0.0%	1.0
Window 87	Non Domestic	34.8%	34.8%	0.0%	1.0
Window 88	Non Domestic	36.0%	36.0%	0.0%	1.0
Window 89	Non Domestic	15.0%	6.3%	8.7%	0.42
Window 90	Non Domestic	15.3%	6.7%	8.6%	0.44
Window 91	Non Domestic	18.1%	8.6%	9.5%	0.48
Window 92	Non Domestic	18.6%	9.3%	9.3%	0.5
Window 93	Non Domestic	21.4%	12.2%	9.2%	0.57
Window 94	Non Domestic	22.1%	13.2%	8.9%	0.6
Window 95	Non Domestic	24.9%	18.0%	6.9%	0.72
Window 96	Non Domestic	25.8%	19.1%	6.7%	0.74
Window 97	Non Domestic	28.2%	26.1%	2.1%	0.93
Window 98	Non Domestic	29.4%	27.0%	2.4%	0.92
Window 99	Non Domestic	31.4%	31.4%	0.0%	1.0

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference	Use Class	\	ertical Sky 0	`omnonent	
Kelelelice	Use Class	Before	After	Loss	Ratio
Window 100	Non Domestic	32.7%	32.7%	0.0%	1.0
Window 101	Non Domestic	34.2%	34.2%	0.0%	1.0
Window 102	Non Domestic	35.4%	35.4%	0.0%	1.0
Window 103	Non Domestic	36.4%	36.4%	0.0%	1.0
Window 104	Non Domestic	37.1%	37.1%	0.0%	1.0
1 to 40 Aria House					
Window 105	Habitable	15.1%	7.1%	8.0%	0.47
Window 106	Habitable	18.4%	10.1%	8.3%	0.55
Window 107	Habitable	22.1%	14.3%	7.8%	0.65
Window 108	Habitable	25.9%	20.4%	5.5%	0.79
Window 109	Habitable	30.0%	28.0%	2.0%	0.93
Window 110	Habitable	14.7%	7.6%	7.1%	0.52
Window 111	Habitable	18.1%	10.8%	7.3%	0.6
Window 112	Habitable	21.9%	15.2%	6.7%	0.69
Window 113	Habitable	25.8%	21.0%	4.8%	0.81
Window 114	Habitable	30.1%	28.4%	1.7%	0.94
Window 115	Habitable	13.7%	8.2%	5.5%	0.6
Window 116	Habitable	17.0%	11.6%	5.4%	0.68
Window 117	Habitable	21.1%	16.3%	4.8%	0.77
Window 118	Habitable	25.2%	21.8%	3.4%	0.87
Window 119	Habitable	30.2%	28.8%	1.4%	0.95
Window 120	Habitable	30.0%	28.8%	1.2%	0.96
Window 121	Habitable	29.6%	28.6%	1.0%	0.97
Window 122	Habitable	10.6%	7.6%	3.0%	0.72
Window 123	Habitable	13.9%	11.1%	2.8%	0.8
Window 124	Habitable	18.3%	15.9%	2.4%	0.87
Window 125	Habitable	22.9%	21.2%	1.7%	0.93
Window 126	Habitable	29.0%	28.4%	0.6%	0.98
Window 127	Habitable	7.8%	6.5%	1.3%	0.83
Window 128	Habitable	10.7%	9.5%	1.2%	0.89
Window 129	Habitable	15.0%	14.1%	0.9%	0.94
Window 130	Habitable	19.7%	19.1%	0.6%	0.97
Window 131	Habitable	27.8%	27.6%	0.2%	0.99

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference	Use Class	\	ertical Sky C	Component	
recording	000 01400	Before	After	Loss	Ratio
Window 132	Habitable	5.8%	5.0%	0.8%	0.86
Window 133	Habitable	4.2%	3.8%	0.4%	0.9
Window 134	Habitable	8.0%	7.5%	0.5%	0.94
Window 135	Habitable	5.5%	5.2%	0.3%	0.95
Window 136	Habitable	11.6%	11.2%	0.4%	0.97
Window 137	Habitable	7.4%	7.3%	0.1%	0.99
Window 138	Habitable	15.8%	15.6%	0.2%	0.99
Window 139	Habitable	10.0%	9.9%	0.1%	0.99
Window 140	Habitable	7.5%	6.9%	0.6%	0.92
Window 141	Habitable	8.9%	8.7%	0.2%	0.98
Window 142	Habitable	11.0%	11.0%	0.0%	1.0
Window 143	Habitable	14.5%	14.4%	0.1%	0.99
Window 144	Habitable	21.4%	21.4%	0.0%	1.0
Window 145	Habitable	32.4%	32.4%	0.0%	1.0
Window 146	Habitable	34.3%	34.3%	0.0%	1.0
Window 147	Habitable	7.6%	6.6%	1.0%	0.87
Window 148	Habitable	9.3%	8.8%	0.5%	0.95
Window 149	Habitable	11.8%	11.6%	0.2%	0.98
1 to 3 Newton Street					
Window 150	Non Habitable	1.6%	1.0%	0.6%	0.63
Window 151	Non Habitable	2.3%	1.8%	0.5%	0.78
Window 152	Habitable	0.4%	0.4%	0.0%	1.0
Window 153	Habitable	0.5%	0.5%	0.0%	1.0
Window 154	Non Habitable	3.0%	2.9%	0.1%	0.97
Window 155	Habitable	5.4%	5.4%	0.0%	1.0
Window 156	Habitable	8.4%	8.4%	0.0%	1.0
210 High Holborn					
Window 157	Non Domestic	3.9%	3.9%	0.0%	1.0
Window 158	Non Domestic	4.0%	4.0%	0.0%	1.0
Window 159	Non Domestic	3.7%	3.7%	0.0%	1.0
Window 160	Non Domestic	1.5%	1.5%	0.0%	1.0
Window 161	Non Domestic	1.7%	1.6%	0.1%	0.94

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference		ertical Sky 0	Component		
recipion	Use Class	Before	After	Loss	Ratio
Window 162	Non Domestic	1.9%	1.8%	0.1%	0.95
Window 163	Non Domestic	2.4%	0.5%	1.9%	0.21
Window 164	Non Domestic	2.0%	0.2%	1.8%	0.1
Window 165	Non Domestic	1.7%	0.1%	1.6%	0.06
Window 166	Non Domestic	9.7%	9.7%	0.0%	1.0
Window 167	Non Domestic	10.0%	10.0%	0.0%	1.0
Window 168	Non Domestic	8.9%	8.9%	0.0%	1.0
Window 169	Non Domestic	3.8%	3.8%	0.0%	1.0
Window 170	Non Domestic	4.4%	4.2%	0.2%	0.95
Window 171	Non Domestic	8.7%	0.7%	8.0%	0.08
Window 172	Non Domestic	8.4%	0.3%	8.1%	0.04
Window 173	Non Domestic	7.7%	0.1%	7.6%	0.01
Window 174	Non Domestic	15.6%	15.6%	0.0%	1.0
Window 175	Non Domestic	16.7%	16.7%	0.0%	1.0
Window 176	Non Domestic	15.2%	15.2%	0.0%	1.0
Window 177	Non Domestic	6.1%	6.0%	0.1%	0.98
Window 178	Non Domestic	6.8%	6.7%	0.1%	0.99
Window 179	Non Domestic	11.1%	1.0%	10.1%	0.09
Window 180	Non Domestic	10.9%	0.4%	10.5%	0.04
Window 181	Non Domestic	10.0%	0.2%	9.8%	0.02
Window 182	Non Domestic	23.4%	23.4%	0.0%	1.0
Window 183	Non Domestic	25.6%	25.6%	0.0%	1.0
Window 184	Non Domestic	24.7%	24.7%	0.0%	1.0
Window 185	Non Domestic	10.2%	10.2%	0.0%	1.0
Window 186	Non Domestic	10.7%	10.6%	0.1%	0.99
Window 187	Non Domestic	14.1%	1.5%	12.6%	0.11
Window 188	Non Domestic	14.1%	0.6%	13.5%	0.04
Window 189	Non Domestic	13.5%	0.3%	13.2%	0.02
Window 190	Non Domestic	28.9%	28.9%	0.0%	1.0
Window 191	Non Domestic	32.3%	32.3%	0.0%	1.0
Window 192	Non Domestic	32.2%	32.2%	0.0%	1.0
Window 193	Non Domestic	16.9%	16.9%	0.0%	1.0
Window 194	Non Domestic	17.0%	16.9%	0.1%	0.99

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Defenses	Han Olan		lautiaal Cluss	`a man an and	
Reference	Use Class	v Before	ertical Sky C After	Component Loss	Ratio
Window 195	Non Domestic	17.6%	2.4%	15.2%	0.14
Window 196	Non Domestic	18.1%	1.2%	16.9%	0.07
Window 197	Non Domestic	18.0%	0.7%	17.3%	0.04
Window 198	Non Domestic	31.8%	31.8%	0.0%	1.0
Window 199	Non Domestic	35.8%	35.8%	0.0%	1.0
Window 200	Non Domestic	36.2%	36.2%	0.0%	1.0
Window 201	Non Domestic	26.0%	26.0%	0.0%	1.0
Window 202	Non Domestic	25.3%	25.3%	0.0%	1.0
Window 203	Non Domestic	21.2%	5.5%	15.7%	0.26
Window 204	Non Domestic	21.9%	4.4%	17.5%	0.2
Window 205	Non Domestic	22.0%	3.0%	19.0%	0.14
Window 206	Non Domestic	34.3%	34.3%	0.0%	1.0
Window 207	Non Domestic	37.9%	37.9%	0.0%	1.0
Window 208	Non Domestic	38.8%	38.8%	0.0%	1.0
Window 209	Non Domestic	34.5%	34.5%	0.0%	1.0
Window 210	Non Domestic	33.0%	33.0%	0.0%	1.0
Window 211	Non Domestic	24.9%	24.9%	0.0%	1.0
Window 212	Non Domestic	25.4%	25.4%	0.0%	1.0
Window 213	Non Domestic	25.5%	25.5%	0.0%	1.0
Window 214	Non Domestic	2.1%	0.7%	1.4%	0.33
Window 215	Non Domestic	5.5%	1.0%	4.5%	0.18
Window 216	Non Domestic	6.9%	1.4%	5.5%	0.2
Window 217	Non Domestic	8.8%	1.9%	6.9%	0.22
Window 218	Non Domestic	10.9%	2.7%	8.2%	0.25
Window 219	Non Domestic	13.9%	5.0%	8.9%	0.36
Window 220	Non Domestic	17.9%	17.8%	0.1%	0.99
127 to 129 High Holborn					
Window 221	Unknown	16.0%	16.0%	0.0%	1.0
Window 222	Unknown	13.3%	13.3%	0.0%	1.0
Window 223	Unknown	13.2%	13.2%	0.0%	1.0
Window 224	Unknown	11.2%	11.2%	0.0%	1.0
Window 225	Unknown	11.4%	11.4%	0.0%	1.0
Window 226	Unknown	12.4%	12.4%	0.0%	1.0

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

		,			
Reference	Use Class		ertical Sky C		Detie
Window 227	Linknown	Before	After	Loss	Ratio
Window 227	Unknown	15.2%	15.2%	0.0%	1.0
Window 228	Unknown	17.5%	17.5%	0.0%	1.0
Window 229	Unknown	19.2%	19.2%	0.0%	1.0
Window 230	Unknown	3.8%	3.8%	0.0%	1.0
Window 231	Unknown	0.1%	0.1%	0.0%	1.0
Window 232	Unknown	19.4%	19.4%	0.0%	1.0
Window 233	Unknown	18.6%	18.6%	0.0%	1.0
Window 234	Unknown	22.6%	22.6%	0.0%	1.0
Window 235	Unknown	21.8%	21.8%	0.0%	1.0
Window 236	Unknown	26.2%	26.2%	0.0%	1.0
Window 237	Unknown	25.6%	25.6%	0.0%	1.0
Window 238	Unknown	30.1%	30.1%	0.0%	1.0
Window 239	Unknown	29.5%	29.5%	0.0%	1.0
Window 240	Unknown	15.7%	15.7%	0.0%	1.0
Window 241	Unknown	13.9%	13.9%	0.0%	1.0
Window 242	Unknown	13.5%	13.5%	0.0%	1.0
Window 243	Unknown	20.8%	20.8%	0.0%	1.0
Window 244	Unknown	20.6%	20.6%	0.0%	1.0
Window 245	Unknown	20.2%	20.2%	0.0%	1.0
Window 246	Unknown	24.6%	24.6%	0.0%	1.0
Window 247	Unknown	24.0%	24.0%	0.0%	1.0
Window 248	Unknown	28.7%	28.7%	0.0%	1.0
Window 249	Unknown	28.1%	28.1%	0.0%	1.0
Window 250	Unknown	16.1%	16.1%	0.0%	1.0
Window 251	Unknown	15.6%	15.6%	0.0%	1.0
Window 252	Unknown	19.3%	19.3%	0.0%	1.0
Window 253	Unknown	18.7%	18.7%	0.0%	1.0
Window 254	Unknown	23.0%	23.0%	0.0%	1.0
Window 255	Unknown	22.2%	22.2%	0.0%	1.0
Window 256	Unknown	27.0%	27.0%	0.0%	1.0
Window 257	Unknown	26.1%	26.1%	0.0%	1.0
Window 258	Unknown	12.2%	12.2%	0.0%	1.0
Window 259	Unknown	11.6%	11.6%	0.0%	1.0
VVIIIUUW ZJJ	CHRIDWH	11.070	11.070	0.070	1.0

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Deference	Lloo Close		Vertical Sky Component					
Reference	Use Class	v Before	After	Loss	Ratio			
Window 260	Unknown	11.9%	11.9%	0.0%	1.0			
Window 261	Unknown	12.6%	12.6%	0.0%	1.0			
Window 262	Unknown	19.1%	19.1%	0.0%	1.0			
Window 263	Unknown	19.7%	19.6%	0.1%	0.99			
Window 264	Unknown	19.1%	19.1%	0.0%	1.0			
Window 265	Unknown	17.7%	17.6%	0.1%	0.99			
Window 266	Unknown	15.1%	14.9%	0.2%	0.99			
Window 267	Unknown	23.1%	23.1%	0.0%	1.0			
Window 268	Unknown	20.9%	20.9%	0.0%	1.0			
Window 269	Unknown	18.1%	18.0%	0.1%	0.99			
Window 270	Unknown	26.9%	26.9%	0.0%	1.0			
Window 271	Unknown	24.5%	24.5%	0.0%	1.0			
Window 272	Unknown	0.1%	0.1%	0.0%	1.0			
Window 273	Unknown	30.8%	30.8%	0.0%	1.0			
Window 274	Unknown	30.0%	30.0%	0.0%	1.0			
Window 275	Unknown	27.1%	27.1%	0.0%	1.0			
Window 276	Unknown	35.5%	35.5%	0.0%	1.0			
Window 277	Unknown	20.7%	20.7%	0.0%	1.0			
Window 278	Unknown	24.0%	24.0%	0.0%	1.0			
Window 279	Unknown	27.7%	27.7%	0.0%	1.0			
Window 280	Unknown	31.5%	31.5%	0.0%	1.0			
Window 281	Unknown	22.2%	22.2%	0.0%	1.0			
Window 282	Unknown	25.3%	25.3%	0.0%	1.0			
Window 283	Unknown	28.7%	28.7%	0.0%	1.0			
Window 284	Unknown	32.2%	32.2%	0.0%	1.0			
Window 285	Unknown	24.3%	24.3%	0.0%	1.0			
Window 286	Unknown	27.0%	27.0%	0.0%	1.0			
Window 287	Unknown	29.8%	29.8%	0.0%	1.0			
Window 288	Unknown	30.3%	30.3%	0.0%	1.0			
Window 289	Unknown	33.1%	33.1%	0.0%	1.0			
123 to 126 High Holborn								
Window 290	Unknown	19.0%	18.9%	0.1%	0.99			
Window 291	Unknown	19.7%	19.7%	0.0%	1.0			

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference	Reference Use Class		Vertical Sky Component					
Kelelelice	Use Class	Before	After	Loss	Ratio			
Window 292	Unknown	20.0%	20.0%	0.0%	1.0			
Window 293	Unknown	22.7%	22.5%	0.2%	0.99			
Window 294	Unknown	22.9%	22.8%	0.1%	1.0			
Window 295	Unknown	23.0%	22.9%	0.1%	1.0			
Window 296	Unknown	27.1%	26.9%	0.2%	0.99			
Window 297	Unknown	27.1%	26.8%	0.3%	0.99			
Window 298	Unknown	26.9%	26.6%	0.3%	0.99			
Window 299	Unknown	31.4%	31.2%	0.2%	0.99			
Window 300	Unknown	31.1%	30.9%	0.2%	0.99			
Window 301	Unknown	30.7%	30.5%	0.2%	0.99			
Window 302	Unknown	34.7%	34.5%	0.2%	0.99			
Window 303	Unknown	34.5%	34.3%	0.2%	0.99			
Window 304	Unknown	34.1%	33.9%	0.2%	0.99			
Window 305	Unknown	36.4%	36.4%	0.0%	1.0			
Window 306	Unknown	35.8%	35.6%	0.2%	0.99			
Window 307	Unknown	35.5%	35.3%	0.2%	0.99			
Window 308	Unknown	20.1%	20.1%	0.0%	1.0			
Window 309	Unknown	19.7%	19.7%	0.0%	1.0			
Window 310	Unknown	12.6%	12.6%	0.0%	1.0			
Window 311	Unknown	7.3%	7.3%	0.0%	1.0			
Window 312	Unknown	7.3%	7.3%	0.0%	1.0			
Window 313	Unknown	22.9%	22.8%	0.1%	1.0			
Window 314	Unknown	22.3%	22.3%	0.0%	1.0			
Window 315	Unknown	15.1%	15.1%	0.0%	1.0			
Window 316	Unknown	9.6%	9.6%	0.0%	1.0			
Window 317	Unknown	9.6%	9.6%	0.0%	1.0			
Window 318	Unknown	9.6%	9.6%	0.0%	1.0			
Window 319	Unknown	26.5%	26.2%	0.3%	0.99			
Window 320	Unknown	25.8%	25.6%	0.2%	0.99			
Window 321	Unknown	18.6%	18.4%	0.2%	0.99			
Window 322	Unknown	12.8%	12.8%	0.0%	1.0			
Window 323	Unknown	12.7%	12.7%	0.0%	1.0			
Window 324	Unknown	12.6%	12.6%	0.0%	1.0			

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference	Use Class		ertical Sky C	component	
		Before	After	Loss	Ratio
Window 325	Unknown	30.1%	29.7%	0.4%	0.99
Window 326	Unknown	29.5%	29.1%	0.4%	0.99
Window 327	Unknown	22.9%	21.8%	1.1%	0.95
Window 328	Unknown	17.1%	16.0%	1.1%	0.94
Window 329	Unknown	16.9%	15.8%	1.1%	0.93
Window 330	Unknown	16.5%	15.6%	0.9%	0.95
Window 331	Unknown	32.9%	32.6%	0.3%	0.99
Window 332	Unknown	32.5%	32.5%	0.0%	1.0
Window 333	Unknown	26.6%	25.7%	0.9%	0.97
Window 334	Unknown	21.0%	19.9%	1.1%	0.95
Window 335	Unknown	19.7%	18.6%	1.1%	0.94
Window 336	Unknown	23.6%	23.0%	0.6%	0.97
Window 337	Unknown	7.4%	7.2%	0.2%	0.97
Window 338	Unknown	7.6%	7.4%	0.2%	0.97
Window 339	Unknown	9.7%	9.5%	0.2%	0.98
Window 340	Unknown	9.7%	9.5%	0.2%	0.98
Window 341	Unknown	9.7%	9.5%	0.2%	0.98
Window 342	Unknown	12.4%	12.2%	0.2%	0.98
Window 343	Unknown	12.3%	12.1%	0.2%	0.98
Window 344	Unknown	12.2%	11.9%	0.3%	0.98
Window 345	Unknown	15.9%	15.1%	0.8%	0.95
Window 346	Unknown	15.5%	14.8%	0.7%	0.95
Window 347	Unknown	15.1%	14.5%	0.6%	0.96
Window 348	Unknown	19.5%	18.5%	1.0%	0.95
Window 349	Unknown	18.8%	18.0%	0.8%	0.96
Window 350	Unknown	18.2%	17.6%	0.6%	0.97
Window 351	Unknown	17.7%	17.3%	0.4%	0.98
Window 352	Unknown	17.1%	16.8%	0.3%	0.98
Window 353	Unknown	20.9%	20.2%	0.7%	0.97
Window 354	Unknown	20.2%	19.6%	0.6%	0.97
Window 355	Unknown	19.6%	19.5%	0.1%	0.99
Window 356	Unknown	7.6%	7.4%	0.2%	0.97
Window 357	Unknown	9.8%	9.6%	0.2%	0.98

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Reference	Reference Use Class		ertical Sky C	`ompopent	
Kelelelice	Use Class	Before	After	Loss	Ratio
Window 358	Unknown	9.9%	9.7%	0.2%	0.98
Window 359	Unknown	12.1%	11.8%	0.3%	0.98
Window 360	Unknown	12.0%	11.7%	0.3%	0.98
Window 361	Unknown	14.6%	14.2%	0.4%	0.97
Window 362	Unknown	14.3%	14.0%	0.3%	0.98
Window 363	Unknown	8.3%	8.2%	0.1%	0.99
Window 364	Unknown	10.1%	10.0%	0.1%	0.99
Window 365	Unknown	10.4%	10.2%	0.2%	0.98
Window 366	Unknown	10.6%	10.5%	0.1%	0.99
Window 367	Unknown	12.1%	11.9%	0.2%	0.98
Window 368	Unknown	12.2%	12.0%	0.2%	0.98
Window 369	Unknown	12.3%	12.2%	0.1%	0.99
Window 370	Unknown	14.2%	14.0%	0.2%	0.99
Window 371	Unknown	14.2%	14.0%	0.2%	0.99
Window 372	Unknown	14.3%	14.2%	0.1%	0.99
Window 373	Unknown	16.6%	16.5%	0.1%	0.99
Window 374	Unknown	16.6%	16.5%	0.1%	0.99
Window 375	Unknown	16.6%	16.6%	0.0%	1.0
Window 376	Unknown	16.8%	16.8%	0.0%	1.0
Window 377	Unknown	17.1%	17.1%	0.0%	1.0
Window 378	Unknown	17.6%	17.6%	0.0%	1.0
Window 379	Unknown	19.2%	19.2%	0.0%	1.0
Window 380	Unknown	17.6%	17.6%	0.0%	1.0
Window 381	Unknown	18.2%	18.2%	0.0%	1.0
Window 382	Unknown	18.4%	18.4%	0.0%	1.0
Window 383	Unknown	18.9%	18.9%	0.0%	1.0
Window 384	Unknown	20.3%	20.3%	0.0%	1.0
Window 385	Unknown	9.9%	9.9%	0.0%	1.0
Window 386	Unknown	11.3%	11.2%	0.1%	0.99
Window 387	Unknown	11.7%	11.6%	0.1%	0.99
Window 388	Unknown	12.2%	12.2%	0.0%	1.0
Window 389	Unknown	12.9%	12.8%	0.1%	0.99
Window 390	Unknown	13.3%	13.2%	0.1%	0.99

Appendix 2 - Vertical Sky Component Natwest, High Holborn, London WC1V 7BF

Deference	Usa Olass		lautiaal Clus) a ma m a m a m t	
Reference	Use Class	v Before	ertical Sky C After	Loss	Ratio
Window 391	Unknown	13.8%	13.7%	0.1%	0.99
Window 392	Unknown	14.7%	14.7%	0.0%	1.0
Window 393	Unknown	15.1%	15.1%	0.0%	1.0
Window 394	Unknown	15.6%	15.5%	0.1%	0.99
Window 395	Unknown	12.5%	12.5%	0.0%	1.0
Window 396	Unknown	13.4%	13.4%	0.0%	1.0
Window 397	Unknown	14.1%	14.1%	0.0%	1.0
Window 398	Unknown	14.9%	14.9%	0.0%	1.0
Window 399	Unknown	14.9%	14.9%	0.0%	1.0
Window 400	Unknown	15.6%	15.6%	0.0%	1.0
Window 401	Unknown	16.4%	16.4%	0.0%	1.0
Window 402	Unknown	16.7%	16.6%	0.1%	0.99
Window 403	Unknown	17.3%	17.3%	0.0%	1.0
Window 404	Unknown	18.1%	18.1%	0.0%	1.0
Window 405	Unknown	18.9%	18.9%	0.0%	1.0
Window 406	Unknown	20.0%	20.0%	0.0%	1.0
Window 407	Unknown	20.6%	20.6%	0.0%	1.0
Window 408	Unknown	21.5%	21.5%	0.0%	1.0
Window 409	Unknown	22.3%	22.3%	0.0%	1.0
Window 410	Unknown	20.9%	20.9%	0.0%	1.0
Window 411	Unknown	19.9%	19.9%	0.0%	1.0
Window 412	Unknown	22.1%	22.1%	0.0%	1.0
Window 413	Unknown	22.9%	22.9%	0.0%	1.0
Window 414	Unknown	15.9%	15.9%	0.0%	1.0
Window 415	Unknown	19.2%	19.2%	0.0%	1.0
Window 416	Unknown	26.4%	26.4%	0.0%	1.0
Window 417	Unknown	24.9%	24.9%	0.0%	1.0

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

				5	Sunlight to	o Window	Sunlight to Windows					
Reference	Use Class	To	otal Sun	light Hou	ırs	W	inter Sur	nlight Ho	urs			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio			
215 to 222 High Holborn												
Window 1	Non Domestic	19%	3%	16%	0.16	2%	0%	2%	0.01			
Window 2	Non Domestic	25%	4%	21%	0.16	4%	0%	4%	0.0			
Window 3	Non Domestic	32%	8%	24%	0.25	7%	0%	7%	0.0			
Window 4	Non Domestic	41%	21%	20%	0.51	7%	0%	7%	0.0			
Window 5	Non Domestic	46%	46%	0%	1.0	9%	9%	0%	1.0			
Window 6	Non Domestic	59%	59%	0%	1.0	16%	16%	0%	1.0			
Window 7	Non Domestic	65%	65%	0%	1.0	21%	21%	0%	1.0			
Window 8	Non Domestic	73%	73%	0%	1.0	28%	28%	0%	1.0			
Window 9	Non Domestic	18%	4%	14%	0.22	2%	0%	2%	0.01			
Window 10	Non Domestic	25%	8%	17%	0.32	4%	0%	4%	0.0			
Window 11	Non Domestic	30%	15%	15%	0.5	5%	0%	5%	0.0			
Window 12	Non Domestic	33%	28%	5%	0.85	5%	2%	3%	0.4			
Window 13	Non Domestic	44%	41%	3%	0.93	8%	5%	3%	0.63			
Window 14	Non Domestic	53%	53%	0%	1.0	10%	10%	0%	1.0			
Window 15	Non Domestic	68%	68%	0%	1.0	16%	16%	0%	1.0			
Window 16	Non Domestic	75%	75%	0%	1.0	20%	20%	0%	1.0			
Window 17	Non Domestic	16%	9%	7%	0.56	1%	0%	1%	0.01			
Window 18	Non Domestic	18%	12%	6%	0.67	2%	0%	2%	0.01			
Window 19	Non Domestic	24%	19%	5%	0.79	3%	0%	3%	0.0			
Window 20	Non Domestic	29%	27%	2%	0.93	3%	2%	1%	0.67			
Window 21	Non Domestic	36%	35%	1%	0.97	5%	4%	1%	0.8			
Window 22	Non Domestic	44%	44%	0%	1.0	8%	8%	0%	1.0			
Window 23	Non Domestic	54%	54%	0%	1.0	11%	11%	0%	1.0			
Window 24	Non Domestic	69%	69%	0%	1.0	18%	18%	0%	1.0			
Window 25	Non Domestic	13%	11%	2%	0.85	1%	1%	0%	1.0			
Window 26	Non Domestic	17%	15%	2%	0.88	2%	2%	0%	1.0			
Window 27	Non Domestic	22%	21%	1%	0.95	2%	2%	0%	1.0			
Window 28	Non Domestic	25%	25%	0%	1.0	2%	2%	0%	1.0			
Window 29	Non Domestic	29%	29%	0%	1.0	4%	4%	0%	1.0			
Window 30	Non Domestic	35%	35%	0%	1.0	6%	6%	0%	1.0			
Window 31	Non Domestic	43%	43%	0%	1.0	9%	9%	0%	1.0			
Window 32	Non Domestic	53%	53%	0%	1.0	16%	16%	0%	1.0			
Window 33	Non Domestic	13%	10%	3%	0.77	0%	0%	0%	1.0			

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

				5	Sunlight to	o Window	/S		
Reference	Use Class	To	otal Sun	light Hou	ırs	W	inter Sur	nlight Ho	urs
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 34	Non Domestic	16%	14%	2%	0.88	0%	0%	0%	1.0
Window 35	Non Domestic	17%	16%	1%	0.94	0%	0%	0%	1.0
Window 36	Non Domestic	21%	20%	1%	0.95	1%	0%	1%	0.01
Window 37	Non Domestic	27%	27%	0%	1.0	3%	3%	0%	1.0
Window 38	Non Domestic	30%	30%	0%	1.0	4%	4%	0%	1.0
Window 39	Non Domestic	35%	35%	0%	1.0	6%	6%	0%	1.0
Window 40	Non Domestic	41%	41%	0%	1.0	11%	11%	0%	1.0
Window 41	Non Domestic	9%	5%	4%	0.56	0%	0%	0%	1.0
Window 42	Non Domestic	11%	8%	3%	0.73	0%	0%	0%	1.0
Window 43	Non Domestic	15%	14%	1%	0.93	2%	2%	0%	1.0
Window 44	Non Domestic	16%	16%	0%	1.0	2%	2%	0%	1.0
Window 45	Non Domestic	18%	18%	0%	1.0	2%	2%	0%	1.0
Window 46	Non Domestic	20%	20%	0%	1.0	2%	2%	0%	1.0
Window 47	Non Domestic	25%	25%	0%	1.0	2%	2%	0%	1.0
Window 48	Non Domestic	33%	33%	0%	1.0	3%	3%	0%	1.0
1 to 3 Newton Street									
Window 152	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 153	Habitable	0%	0%	0%	1.0	0%	0%	0%	1.0
210 High Holborn									
Window 157	Non Domestic	4%	4%	0%	1.0	0%	0%	0%	1.0
Window 158	Non Domestic	1%	1%	0%	1.0	0%	0%	0%	1.0
Window 159	Non Domestic	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 160	Non Domestic	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 161	Non Domestic	0%	0%	0%	1.0	0%	0%	0%	1.0
Window 162	Non Domestic	1%	1%	0%	1.0	0%	0%	0%	1.0
Window 166	Non Domestic	14%	14%	0%	1.0	0%	0%	0%	1.0
Window 167	Non Domestic	8%	8%	0%	1.0	0%	0%	0%	1.0
Window 168	Non Domestic	1%	1%	0%	1.0	0%	0%	0%	1.0
Window 169	Non Domestic	2%	2%	0%	1.0	0%	0%	0%	1.0
Window 170	Non Domestic	5%	5%	0%	1.0	0%	0%	0%	1.0
Window 174	Non Domestic	26%	26%	0%	1.0	1%	1%	0%	1.0
Window 175	Non Domestic	23%	23%	0%	1.0	0%	0%	0%	1.0

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

					Sunlight t	o Window	/S		
Reference	Use Class	T ₁	otal Sun	light Hou	ırs	W	inter Sur	nlight Ho	urs
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 176	Non Domestic	13%	13%	0%	1.0	0%	0%	0%	1.0
Window 177	Non Domestic	8%	8%	0%	1.0	0%	0%	0%	1.0
Window 178	Non Domestic	13%	13%	0%	1.0	0%	0%	0%	1.0
Window 182	Non Domestic	38%	38%	0%	1.0	6%	6%	0%	1.0
Window 183	Non Domestic	37%	37%	0%	1.0	5%	5%	0%	1.0
Window 184	Non Domestic	31%	31%	0%	1.0	1%	1%	0%	1.0
Window 185	Non Domestic	25%	25%	0%	1.0	1%	1%	0%	1.0
Window 186	Non Domestic	26%	26%	0%	1.0	0%	0%	0%	1.0
Window 190	Non Domestic	50%	50%	0%	1.0	14%	14%	0%	1.0
Window 191	Non Domestic	49%	49%	0%	1.0	12%	12%	0%	1.0
Window 192	Non Domestic	44%	44%	0%	1.0	7%	7%	0%	1.0
Window 193	Non Domestic	41%	41%	0%	1.0	3%	3%	0%	1.0
Window 194	Non Domestic	39%	39%	0%	1.0	3%	3%	0%	1.0
Window 198	Non Domestic	56%	56%	0%	1.0	20%	20%	0%	1.0
Window 199	Non Domestic	56%	56%	0%	1.0	19%	19%	0%	1.0
Window 200	Non Domestic	52%	52%	0%	1.0	15%	15%	0%	1.0
Window 201	Non Domestic	59%	59%	0%	1.0	17%	17%	0%	1.0
Window 202	Non Domestic	55%	55%	0%	1.0	17%	17%	0%	1.0
Window 206	Non Domestic	56%	56%	0%	1.0	20%	20%	0%	1.0
Window 207	Non Domestic	57%	57%	0%	1.0	20%	20%	0%	1.0
Window 208	Non Domestic	57%	57%	0%	1.0	20%	20%	0%	1.0
Window 209	Non Domestic	74%	74%	0%	1.0	25%	25%	0%	1.0
Window 210	Non Domestic	71%	71%	0%	1.0	24%	24%	0%	1.0
Window 214	Non Domestic	3%	2%	1%	0.67	0%	0%	0%	1.0
Window 215	Non Domestic	5%	3%	2%	0.6	0%	0%	0%	1.0
Window 216	Non Domestic	10%	3%	7%	0.3	0%	0%	0%	1.0
Window 217	Non Domestic	17%	3%	14%	0.18	2%	0%	2%	0.01
Window 218	Non Domestic	23%	4%	19%	0.17	2%	0%	2%	0.01
Window 219	Non Domestic	29%	7%	22%	0.24	4%	1%	3%	0.25
Window 220	Non Domestic	34%	34%	0%	1.0	6%	6%	0%	1.0
127 to 129 High Holborn									
Window 221	Unknown	44%	44%	0%	1.0	8%	8%	0%	1.0
Window 222	Unknown	37%	37%	0%	1.0	6%	6%	0%	1.0

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

				S	Sunlight to	o Window	/S		
Reference	Use Class	Т	otal Sun	light Hou	rs	W	inter Sur	nlight Ho	urs
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 223	Unknown	33%	33%	0%	1.0	4%	4%	0%	1.0
Window 224	Unknown	35%	35%	0%	1.0	3%	3%	0%	1.0
Window 225	Unknown	14%	14%	0%	1.0	0%	0%	0%	1.0
Window 226	Unknown	17%	17%	0%	1.0	0%	0%	0%	1.0
Window 232	Unknown	52%	52%	0%	1.0	10%	10%	0%	1.0
Window 233	Unknown	51%	51%	0%	1.0	9%	9%	0%	1.0
Window 234	Unknown	60%	60%	0%	1.0	14%	14%	0%	1.0
Window 235	Unknown	58%	58%	0%	1.0	13%	13%	0%	1.0
Window 236	Unknown	69%	69%	0%	1.0	19%	19%	0%	1.0
Window 237	Unknown	68%	68%	0%	1.0	19%	19%	0%	1.0
Window 238	Unknown	75%	75%	0%	1.0	23%	23%	0%	1.0
Window 239	Unknown	76%	76%	0%	1.0	24%	24%	0%	1.0
Window 240	Unknown	42%	42%	0%	1.0	6%	6%	0%	1.0
Window 241	Unknown	36%	36%	0%	1.0	5%	5%	0%	1.0
Window 242	Unknown	35%	35%	0%	1.0	7%	7%	0%	1.0
Window 243	Unknown	53%	53%	0%	1.0	10%	10%	0%	1.0
Window 244	Unknown	53%	53%	0%	1.0	10%	10%	0%	1.0
Window 245	Unknown	52%	52%	0%	1.0	10%	10%	0%	1.0
Window 246	Unknown	66%	66%	0%	1.0	18%	18%	0%	1.0
Window 247	Unknown	63%	63%	0%	1.0	16%	16%	0%	1.0
Window 248	Unknown	74%	74%	0%	1.0	23%	23%	0%	1.0
Window 249	Unknown	71%	71%	0%	1.0	20%	20%	0%	1.0
Window 250	Unknown	41%	41%	0%	1.0	5%	5%	0%	1.0
Window 251	Unknown	41%	41%	0%	1.0	5%	5%	0%	1.0
Window 252	Unknown	47%	47%	0%	1.0	9%	9%	0%	1.0
Window 253	Unknown	48%	48%	0%	1.0	10%	10%	0%	1.0
Window 254	Unknown	62%	62%	0%	1.0	14%	14%	0%	1.0
Window 255	Unknown	59%	59%	0%	1.0	13%	13%	0%	1.0
Window 256	Unknown	71%	71%	0%	1.0	20%	20%	0%	1.0
Window 257	Unknown	71%	71%	0%	1.0	19%	19%	0%	1.0
Window 258	Unknown	35%	35%	0%	1.0	5%	5%	0%	1.0
Window 259	Unknown	32%	32%	0%	1.0	3%	3%	0%	1.0
Window 260	Unknown	34%	34%	0%	1.0	6%	6%	0%	1.0

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

				Sunlight to Windows						
Reference	Use Class	T	otal Sun	light Hou	ırs	W	inter Sur	nlight Ho	urs	
		Before	After	Loss	Ratio	Before	After	Loss	Ratio	
Window 261	Unknown	16%	16%	0%	1.0	0%	0%	0%	1.0	
Window 265	Unknown	47%	47%	0%	1.0	8%	8%	0%	1.0	
Window 266	Unknown	21%	21%	0%	1.0	0%	0%	0%	1.0	
Window 268	Unknown	57%	56%	1%	0.98	13%	12%	1%	0.92	
Window 269	Unknown	24%	24%	0%	1.0	1%	1%	0%	1.0	
Window 271	Unknown	63%	63%	0%	1.0	14%	14%	0%	1.0	
Window 272	Unknown	0%	0%	0%	1.0	0%	0%	0%	1.0	
Window 274	Unknown	64%	64%	0%	1.0	19%	19%	0%	1.0	
Window 275	Unknown	36%	36%	0%	1.0	4%	4%	0%	1.0	
123 to 126 High Holborn										
Window 290	Unknown	26%	26%	0%	1.0	3%	3%	0%	1.0	
Window 291	Unknown	26%	26%	0%	1.0	1%	1%	0%	1.0	
Window 292	Unknown	25%	25%	0%	1.0	1%	1%	0%	1.0	
Window 293	Unknown	32%	31%	1%	0.97	5%	4%	1%	0.8	
Window 294	Unknown	34%	33%	1%	0.97	3%	2%	1%	0.67	
Window 295	Unknown	29%	29%	0%	1.0	2%	2%	0%	1.0	
Window 296	Unknown	46%	45%	1%	0.98	9%	8%	1%	0.89	
Window 297	Unknown	43%	42%	1%	0.98	7%	6%	1%	0.86	
Window 298	Unknown	43%	41%	2%	0.95	6%	4%	2%	0.67	
Window 299	Unknown	54%	54%	0%	1.0	12%	12%	0%	1.0	
Window 300	Unknown	54%	53%	1%	0.98	12%	11%	1%	0.92	
Window 301	Unknown	52%	50%	2%	0.96	11%	9%	2%	0.82	
Window 302	Unknown	58%	57%	1%	0.98	17%	16%	1%	0.94	
Window 303	Unknown	59%	58%	1%	0.98	17%	16%	1%	0.94	
Window 304	Unknown	57%	56%	1%	0.98	15%	14%	1%	0.93	
Window 305	Unknown	61%	61%	0%	1.0	19%	19%	0%	1.0	
Window 306	Unknown	61%	61%	0%	1.0	19%	19%	0%	1.0	
Window 307	Unknown	60%	60%	0%	1.0	18%	18%	0%	1.0	
Window 308	Unknown	27%	27%	0%	1.0	3%	3%	0%	1.0	
Window 309	Unknown	25%	25%	0%	1.0	3%	3%	0%	1.0	
Window 310	Unknown	22%	22%	0%	1.0	2%	2%	0%	1.0	
Window 311	Unknown	19%	19%	0%	1.0	0%	0%	0%	1.0	
Window 312	Unknown	21%	21%	0%	1.0	1%	1%	0%	1.0	

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

		Sunlight to Windows							
Reference	Use Class	Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 313	Unknown	35%	35%	0%	1.0	4%	4%	0%	1.0
Window 314	Unknown	31%	31%	0%	1.0	3%	3%	0%	1.0
Window 315	Unknown	28%	28%	0%	1.0	2%	2%	0%	1.0
Window 316	Unknown	28%	28%	0%	1.0	2%	2%	0%	1.0
Window 317	Unknown	29%	29%	0%	1.0	2%	2%	0%	1.0
Window 318	Unknown	29%	29%	0%	1.0	2%	2%	0%	1.0
Window 319	Unknown	42%	42%	0%	1.0	5%	5%	0%	1.0
Window 320	Unknown	42%	41%	1%	0.98	5%	4%	1%	0.8
Window 321	Unknown	39%	39%	0%	1.0	2%	2%	0%	1.0
Window 322	Unknown	36%	36%	0%	1.0	2%	2%	0%	1.0
Window 323	Unknown	37%	37%	0%	1.0	2%	2%	0%	1.0
Window 324	Unknown	37%	37%	0%	1.0	2%	2%	0%	1.0
Window 325	Unknown	51%	49%	2%	0.96	10%	8%	2%	0.8
Window 326	Unknown	48%	48%	0%	1.0	7%	7%	0%	1.0
Window 327	Unknown	49%	47%	2%	0.96	8%	6%	2%	0.75
Window 328	Unknown	46%	44%	2%	0.96	6%	4%	2%	0.67
Window 329	Unknown	46%	44%	2%	0.96	7%	5%	2%	0.71
Window 330	Unknown	45%	43%	2%	0.96	7%	5%	2%	0.71
Window 331	Unknown	58%	57%	1%	0.98	16%	15%	1%	0.94
Window 332	Unknown	52%	52%	0%	1.0	15%	15%	0%	1.0
Window 333	Unknown	57%	55%	2%	0.96	12%	10%	2%	0.83
Window 334	Unknown	56%	54%	2%	0.96	11%	9%	2%	0.82
Window 335	Unknown	54%	52%	2%	0.96	12%	10%	2%	0.83
Window 336	Unknown	60%	60%	0%	1.0	12%	12%	0%	1.0
Window 337	Unknown	20%	19%	1%	0.95	0%	0%	0%	1.0
Window 338	Unknown	22%	22%	0%	1.0	1%	1%	0%	1.0
Window 339	Unknown	29%	29%	0%	1.0	2%	2%	0%	1.0
Window 340	Unknown	31%	31%	0%	1.0	2%	2%	0%	1.0
Window 341	Unknown	32%	32%	0%	1.0	2%	2%	0%	1.0
Window 342	Unknown	38%	38%	0%	1.0	2%	2%	0%	1.0
Window 343	Unknown	40%	39%	1%	0.98	3%	2%	1%	0.67
Window 344	Unknown	41%	41%	0%	1.0	2%	2%	0%	1.0
Window 345	Unknown	45%	44%	1%	0.98	6%	5%	1%	0.83

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

		Sunlight to Windows							
Reference	Use Class	Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 346	Unknown	46%	45%	1%	0.98	6%	5%	1%	0.83
Window 347	Unknown	48%	46%	2%	0.96	7%	5%	2%	0.71
Window 348	Unknown	52%	51%	1%	0.98	9%	8%	1%	0.89
Window 349	Unknown	53%	51%	2%	0.96	10%	8%	2%	0.8
Window 350	Unknown	54%	52%	2%	0.96	10%	8%	2%	0.8
Window 351	Unknown	52%	51%	1%	0.98	9%	8%	1%	0.89
Window 352	Unknown	48%	47%	1%	0.98	6%	5%	1%	0.83
Window 353	Unknown	58%	56%	2%	0.97	11%	9%	2%	0.82
Window 354	Unknown	58%	56%	2%	0.97	11%	9%	2%	0.82
Window 355	Unknown	54%	54%	0%	1.0	8%	8%	0%	1.0
Window 356	Unknown	20%	19%	1%	0.95	0%	0%	0%	1.0
Window 357	Unknown	30%	30%	0%	1.0	2%	2%	0%	1.0
Window 358	Unknown	32%	32%	0%	1.0	2%	2%	0%	1.0
Window 359	Unknown	38%	38%	0%	1.0	2%	2%	0%	1.0
Window 360	Unknown	39%	38%	1%	0.97	3%	2%	1%	0.67
Window 361	Unknown	42%	42%	0%	1.0	4%	4%	0%	1.0
Window 362	Unknown	43%	43%	0%	1.0	4%	4%	0%	1.0
Window 363	Unknown	21%	21%	0%	1.0	1%	1%	0%	1.0
Window 364	Unknown	36%	35%	1%	0.97	4%	4%	0%	1.0
Window 365	Unknown	37%	36%	1%	0.97	4%	4%	0%	1.0
Window 366	Unknown	35%	34%	1%	0.97	3%	3%	0%	1.0
Window 367	Unknown	42%	41%	1%	0.98	5%	4%	1%	0.8
Window 368	Unknown	43%	43%	0%	1.0	4%	4%	0%	1.0
Window 369	Unknown	41%	41%	0%	1.0	3%	3%	0%	1.0
Window 370	Unknown	46%	46%	0%	1.0	6%	6%	0%	1.0
Window 371	Unknown	46%	46%	0%	1.0	6%	6%	0%	1.0
Window 372	Unknown	47%	47%	0%	1.0	6%	6%	0%	1.0
Window 373	Unknown	51%	51%	0%	1.0	8%	8%	0%	1.0
Window 374	Unknown	52%	52%	0%	1.0	8%	8%	0%	1.0
Window 375	Unknown	51%	51%	0%	1.0	7%	7%	0%	1.0
Window 376	Unknown	51%	51%	0%	1.0	7%	7%	0%	1.0
Window 377	Unknown	53%	53%	0%	1.0	8%	8%	0%	1.0
Window 378	Unknown	54%	54%	0%	1.0	9%	9%	0%	1.0

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

		Sunlight to Windows							
Reference	Use Class	Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 379	Unknown	54%	54%	0%	1.0	8%	8%	0%	1.0
Window 380	Unknown	46%	46%	0%	1.0	5%	5%	0%	1.0
Window 381	Unknown	55%	55%	0%	1.0	8%	8%	0%	1.0
Window 382	Unknown	54%	54%	0%	1.0	7%	7%	0%	1.0
Window 383	Unknown	49%	49%	0%	1.0	4%	4%	0%	1.0
Window 384	Unknown	57%	57%	0%	1.0	8%	8%	0%	1.0
Window 385	Unknown	26%	26%	0%	1.0	1%	1%	0%	1.0
Window 386	Unknown	33%	33%	0%	1.0	2%	2%	0%	1.0
Window 387	Unknown	35%	35%	0%	1.0	3%	3%	0%	1.0
Window 388	Unknown	37%	37%	0%	1.0	3%	3%	0%	1.0
Window 389	Unknown	41%	41%	0%	1.0	3%	3%	0%	1.0
Window 390	Unknown	44%	44%	0%	1.0	5%	5%	0%	1.0
Window 391	Unknown	44%	44%	0%	1.0	5%	5%	0%	1.0
Window 392	Unknown	44%	44%	0%	1.0	4%	4%	0%	1.0
Window 393	Unknown	46%	46%	0%	1.0	5%	5%	0%	1.0
Window 394	Unknown	47%	47%	0%	1.0	6%	6%	0%	1.0
Window 395	Unknown	31%	31%	0%	1.0	3%	3%	0%	1.0
Window 396	Unknown	38%	38%	0%	1.0	4%	4%	0%	1.0
Window 397	Unknown	42%	42%	0%	1.0	5%	5%	0%	1.0
Window 398	Unknown	43%	43%	0%	1.0	5%	5%	0%	1.0
Window 399	Unknown	47%	47%	0%	1.0	6%	6%	0%	1.0
Window 400	Unknown	49%	49%	0%	1.0	7%	7%	0%	1.0
Window 401	Unknown	49%	49%	0%	1.0	7%	7%	0%	1.0
Window 402	Unknown	51%	51%	0%	1.0	7%	7%	0%	1.0
Window 403	Unknown	52%	52%	0%	1.0	8%	8%	0%	1.0
Window 404	Unknown	52%	52%	0%	1.0	7%	7%	0%	1.0
Window 405	Unknown	55%	55%	0%	1.0	8%	8%	0%	1.0
Window 406	Unknown	56%	56%	0%	1.0	9%	9%	0%	1.0
Window 407	Unknown	59%	59%	0%	1.0	11%	11%	0%	1.0
Window 408	Unknown	59%	59%	0%	1.0	11%	11%	0%	1.0
Window 409	Unknown	61%	61%	0%	1.0	11%	11%	0%	1.0
Window 410	Unknown	57%	57%	0%	1.0	8%	8%	0%	1.0
Window 411	Unknown	48%	48%	0%	1.0	5%	5%	0%	1.0

Appendix 2 - Sunlight to Windows Natwest, High Holborn, London WC1V 7BF

		Sunlight to Windows							
Reference	Use Class	Total Sunlight Hours				Winter Sunlight Hours			
		Before	After	Loss	Ratio	Before	After	Loss	Ratio
Window 412	Unknown	60%	60%	0%	1.0	11%	11%	0%	1.0
Window 413	Unknown	62%	62%	0%	1.0	11%	11%	0%	1.0
Window 414	Unknown	37%	36%	1%	0.97	5%	5%	0%	1.0
Window 415	Unknown	41%	41%	0%	1.0	7%	7%	0%	1.0
Window 416	Unknown	40%	40%	0%	1.0	8%	8%	0%	1.0