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Daylight & Sunlight Assessments of Amendments to Residential Development Permitted under Reg. Ref.: LRD6057/24-S3A at No.23 - 28 Prussia St, Dublin 7.

Applicant: Randalswood Construction Ltd.
Date: 12th December 2025

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1. Introduction

1.1 Executive Summary

Randalswood Ltd. intends to apply to amend the granted application number LRD6057/24-S3A. The proposed amendment will provide a revised apartment mix, resulting in a total of 110 units distributed as follows:

- Block A: 25 Units
- Block B: 32 Units
- Block C: 53 Units

The quality of daylight and sunlight within the amended Blocks B & C are assessed in this report. This analysis is carried out based on the drawings of C+W O'Brien Architects.

The report has been prepared by John Healy - Diploma Architectural Technology, M.Sc Environmental Design of Buildings, PG Dip Digital Media. John is a Director at Digital Dimensions for the last 25 Years.

John has been working as a Daylight and Sunlight consultant for the last 15 years following completion of a Masters of Science in Environmental Design of Buildings at Cardiff University. The Masters focused on passive design strategies including daylight and sunlight optimisation. John has worked on an extensive list of projects over the years varying in scale and location from restricted city sites to urban and rural projects throughout Ireland. Some previous work include;

- Oscar Traynor Wood; 850 unit housing and apartment development for Glenveagh Homes / Dublin City Council.
- Belcamp North Dublin; 2527 unit residential scheme for Gannon Homes.
- Taylor's Lane Apartment Development; 402 units apartment development for Shannon Homes.
- Social Housing Bundles (SHB) 4&5; 17 social housing sites for the NDFA.
- No.9 -12 Dawson Street: Extension to listed office block in Dublin for Oakmount.

1.2 Assessment of Potential Impact to Daylight and Sunlight Availability on Adjacent Properties

The proposed development has the same mass as the development permitted under Reg. Ref.: LRD6057/24-S3A. The impact of the proposed development on the neighbouring buildings is consistent with this permitted development.

1.3 Assessment of the Quality of Daylight and Sunlight within the Proposed Development

The residential units were designed in line with the recommendations of the BRE guidelines (2022). A number of design iterations were conducted to improve the daylight and sunlight within the proposed development. The guidelines clearly state that the targets are recommendations only and flexibility is required when setting and interpreting the targets.

The BRE guidelines (2022) recommends assessment methods set out in BS EN 17037 for daylight provision. BS EN 17037 contains a National Annex which sets out minimum daylight levels to be achieved in the UK and channel Islands. Ireland has a similar latitude and climate to the UK. The UK annex to BS EN 17037 states that the target values set out in EN 17037 Table A1 may be hard to achieve in the UK, it sets alternative minimum values for rooms to dwellings. The minimum illuminance levels set out in BS EN17037:2018+A1:2021 are: Kitchens and living spaces containing a kitchen 200lux (1.3%DF). Living rooms 150lux (1%DF) and bedrooms 100lux (DF0.7%).

The levels set out in the UK annex are used in this assessment, as the primary results to be achieved, because these are referenced in the BRE guidelines (2022), as recommended by the local authority. The BRE guidelines (2022) deals with daylight and sunlight to adjacent properties and defers to BS EN17037:2018+A1:2021 for daylight and sunlight within the proposed development and allows for a complete assessment of the proposed development and its surroundings. The BRE guidelines (2022) presents a discussion on aspects of daylight and sunlight and interpreting the results of these assessments.

IS EN17037:2018 does not set out any guidance for assessing the impact to daylight and sunlight from a proposed development on neighbouring buildings nor is there any Irish governmental guidance on interpreting results and percentages of units to achieve the target results in multi unit developments. IS EN17037:2018 does not set out room use specific targets but instead designates a Minimum and Target lux level to be achieved in all rooms regardless of use. The function of a room historically has been the key factor in informing the design of a building and the window sizes to allow adequate daylight levels for the task typical to that room to be achieved. The lack of variance in target levels for the tasks typical to a room can lead to substantially oversized windows in rooms with a lower requirement for daylight levels, for example bedrooms. The aim to achieve the minimum target lux level to all rooms in a multi unit residential building is not practical and could lead to overheating of units that have greater access to the sky and sunlight. This could also lead to higher energy usage due to oversized windows and a balance needs to be met.

The results for the Minimum and Target levels set out in Table A1 in IS EN17037:2018 are presented in the assessment as supplementary for completeness, however, conclusions can not be made due to lack of clear guidance on interpenetration of results.

There are no existing mature trees within the vicinity of any of the proposed units that would influence the daylight levels and the assessment is carried out without any trees.

1.3.1 Assessment of Daylight in Accordance with BR209:2022 and BS EN 17037:2018+A1:2021

100% of the Living, Dining, Kitchen and Bedroom spaces within the proposed development achieve the target values set out in BS EN 17037:2018+A1:2021 Table NA1. These are the minimum values, per specified use, to be achieved in habitable rooms and meets the recommendations of the BRE guidelines (2022).

1.3.2 Sunlight within the Proposed Development

This scheme is well designed for sunlight, with 90.6% of units meeting the minimum recommended 1.5 direct sunlight hours. This is in line with the BRE guideline example for an apartment layout where 4 in 5 achieves the target sunlight hours.

As the massing of the proposed development has not changed from that of the permitted development there will be no change to public and communal amenity spaces. They are replicated in this document for consistency. All achieve sunlight levels that exceed 2 hours sunlight over 50% of the required amenity space on the 21st March.

The proposed development meets the recommendations for sunlight in the BRE guidelines BR209:2022 (third edition).

1.4 Supplementary Information - Assessment of Daylight in Accordance with IS EN 17037:2018

EN 17037:2018 sets out values for target illuminance, minimum target illuminance and fractions of reference plane to be achieved. The target and minimum target levels set out in EN17037:2018 are for any type of building; they do not take into account room use or make allowance for rooms that have a lesser requirement for daylight. The results of this assessment indicate a high level of daylight provision, with 94.4% of rooms achieving Minimum Illuminance and 86.9% achieving Target Illuminance. Appendix B identifies any rooms which do not achieve minimum illuminance or target illuminance levels.

To date there is no guidance from governmental bodies on the use or interpretation of IS EN 17037:2018. Apartment guidelines and local authorities guidelines refer to BR209 2022: “Site layout planning for daylight and sunlight” (third edition) which in turn references BS EN 17037. BS EN17037:2018+A1:2021 is the same as IS EN 17037:2018 with the addition of a National Annex (NA1) and the annex specifically refers to and sets room specific values for dwellings in the UK and Channel Islands. Therefore the assessment against IS EN 17037:2018 is included as supplementary information only, noting there are no room specific recommendations for daylight and because of this limitation, it is considered the recommendations made in the BRE guidelines (2022) are more appropriate.

Appendix 16- Sunlight and Daylight of the Dublin City Development Plan 2022-2028 gives guidance on the two daylight provision metrics as follows:
Section 3.3 BS EN 17037:2018 – Daylight in Buildings states that:*“The minimum daylight provision targets given within the national annex have relevance.”*
Section 3.4 IS EN 17037:2018 – Daylight in Buildings states that due to the lack of localisation and provision for specific guidance on individual room use that: *“These limitations make it unsuitable for use in planning policy or during planning applications. BR 209 must still be used for this purpose.“*

1.5 Conclusions

Overall the design team worked in response to the context to ensure the proposed development performs with regards to achieving the best possible daylight and sunlight quality. All habitable rooms meet the minimum standard for daylight provision as per BS EN 17037:2018+A1:2021 as referred to in the BRE guidelines BR209:2022 (third edition).

In the assessment of daylight in accordance with IS EN 17037:2018, shown for supplementary information, the vast majority of habitable rooms achieve daylight provision as set out in IS EN 17037:2018

With regard to internal daylighting, Section 3.2 of the Urban Development and Building Heights: Guidelines for Planning Authorities (2018) states:

> *“Where a proposal may not be able to fully meet all the requirements of the daylight provisions above, this must be clearly identified and a rationale for any alternative, compensatory design solutions must be set out, in respect of which the planning authority or An Bord Pleanála should apply their discretion, having regard to local factors including specific site constraints and the balancing of that assessment against the desirability of achieving wider planning objectives. Such objectives might include securing comprehensive urban regeneration and or an effective urban design and streetscape solution.”*

It is our opinion that all habitable rooms within the proposed development achieve the minimum target daylight levels set out in BS EN 17037:2018+A1:2021, as referred to in the BRE guidelines BR209:2022 (third edition) and no compensatory measures are required.

2. Methodology

2.1 Standards and Guidelines

Ministerial guidance is provided in Sustainable Residential Development and Compact Settlements: Guidelines for Planning Authorities (2024) Section 5.3.7(b).

> *"In cases where a technical assessment of daylight performance is considered by the planning authority to be necessary regard should be had to quantitative performance approaches to daylight provision outlined in guides like A New European Standard for Daylighting in Buildings IS EN17037:2018, UK National Annex BS EN17037:2019 and the associated BRE Guide 209 2022 Edition (June 2022), or any relevant future standards or guidance specific to the Irish context."*

The Daylight and Sunlight assessments included in this report demonstrates the level of compliance with these three documents:

- BR209:2022 Site Layout Planning for Daylight and Sunlight (third edition), also referred to as the BRE guidelines (2022).
- BS EN 17037:2018+A1:2021 Daylight in Buildings, also referred to as the UK Annex.
- IS EN 17037:2018 Daylight in Buildings.

As Appendix 16- Sunlight and Daylight of the Dublin City Development Plan 2022-2028 references BRE 'Site Layout Planning for Daylight and Sunlight' 2011 (2nd edition), it is considered that the guidance in the Development Plan has been superseded by the BRE guidelines (2022) and therefore it is not necessary to assess the scheme against the recommendations in Appendix 16 also.

2.2 BRE Guidance Document BR209:2022 Site Layout Planning for Daylight and Sunlight (third edition)

In its opening summary, the BRE guidelines (2022) states that the report "is purely advisory and the numerical target values within it may be varied to meet the needs of the development and its location." The recommendations of the BRE guidelines (2022) are not suitable for rigid application to all developments in all contexts. This is of particular importance in the context of national and local policies for the consolidation and densification of urban areas.

When assessing the quality of interior spaces in proposed developments, the BRE guidelines (2022) Appendix C states; "The guidance contained in this publication is intended to be used with BS EN 17037 and its UK National Annex." The BRE guidelines (2022) also states in Section 1.7 that "The guidance here is intended for use in the United Kingdom and in the Republic of Ireland, though recommendations in the Irish Standard IS EN 17037 may vary from those in BS EN17037."

2.3 Daylight in Buildings EN 17037:2018

EN 17037 is a unified daylighting standard published by the European Committee for Standardization (CEN) in 2018. It is applicable across all countries within the EU including Ireland, with the Irish edition IS EN17037:2018. The standard is enacted in Britain under BS EN 17037:2018+A1:2021 with a UK National Annex for regional assessments. The daylight and sunlight assessment methods for internal daylight and sunlight provision are common to both the Irish Standard version and the UK version. The EN17037:2018 Standard deals exclusively with new developments and does not give guidance or metrics on loss of light or sunlight to existing properties.

The UK National Annex (NA) provides further recommendations for daylight provision in the UK and Channel Islands. The UK annex states that the daylight target levels in BS EN 17037:2018 Clause A.2 may be hard to achieve in buildings in the UK, in particular dwellings in urban areas with significant obstructions or tall trees outside. The UK annex sets out minimum daylight provision to be achieved in UK dwellings. Table NA.1 sets out room specific minimum values to be achieved in the UK and Channel Islands. All the rooms achieve the minimum DF factor levels set out in A1 for Bedrooms (DF0.7%), Living Rooms (1%DF) and Kitchens and Living Spaces containing a Kitchen(1.3%). The Daylight Factor percentage values are derived from minimum room specific illuminance levels set out in NA+1 and the Median External Diffuse Illuminance ($E_{v,d,med}$) for Dublin from Table A.3 EN17037:2018. The illuminance levels and corresponding DF% are given in Table 3 below.

2.4 Daylight in the Proposed Development.

The BRE guidelines (2022) Appendix C sets out interior daylight recommendations, it states; "BS EN 17037 supersedes BS8206 Part 2 'Code of practice for daylighting' which contained a method of assessment based on Average Daylight Factor, which is now no longer recommended."

BS EN 17037 sets out two methods for assessing daylight provision in proposed buildings. One method is called the **Illuminance method.** This is based on Target illuminances for daylight to be achieved across specified fractions of a reference plane at working plane height (0.85m) for half the daylight hours in a year. The Illuminance Method requires the use of a suitable weather file with local climate conditions and takes into account the orientation of the space.

The alternative method is called the **Daylight Factor Method.** This method is based on calculating the daylight factors achieved over specific fractions of a reference plane. The Daylight factor is the illuminance at a point on a reference plane in a space, divided by the illuminance on an unobstructed horizontal surface outdoors. This method uses an overcast sky for calculation and the assessment of the space is orientation independent. BS EN 17037 gives the Median External Diffuse Illuminance (Ev,d,med) for the

capital cities throughout Europe to account for external local illuminance levels.

The UK committee formed the opinion that the Target Illuminance recommendations in Clause A.2 of BS EN 17037 may not be achievable for some buildings, particularly dwellings. The UK committee believes this could be the case for dwellings with basement rooms or those with significant external obstructions. In BS EN 17037:2018+A1:2021, the UK National Annex (NA) sets out additional minimum room specific Target Daylight Factor values for the UK. Clause NA.2 sets out illuminance values to be exceeded over at least 50% of the points on a reference plane 0.85m above the floor for at least half the daylight hours.

EN 17037:2018 sets out values for Minimum and Target levels to be achieved with a minimum, medium and high compliance level for each. The guideline recommends that the minimum level should be achieved for both target levels but it does not give guidance on the number of units or fraction within a multiple residential unit development that should achieve these values. Additionally it does not differentiate between room use and weighted targets for rooms which would have a lesser requirement. The UK annex sets out factors for UK specific settings where it is difficult to achieve natural daylighting.

The compliance calculation is based on an annual, climate-based simulation of interior illuminance distributions. The BRE guidelines (2022) refers to this method as the Illuminance Method. For each hour of the year, the percentage of the floor area achieving minimum and target illuminance thresholds are measured on a room-by-room basis. Two target types are set with the following criteria:

- Target Illuminance: 300 lux over 50% of floor area for at least 50% of daylight hours.
- Minimum Illuminance: 100 lux over 95% of floor area for at least 50% of daylight hours.

BS EN 17037 gives three levels of recommendation for daylight provision in an interior space: Minimum, Medium and High. The BRE guidelines (2022) Section C3 recommends for compliance with the standard, a space should achieve the Minimum level.

Daylight hours are defined as the 4380 hours with the most diffuse horizontal illuminance in the weather file. In addition to this baseline (Minimum) requirement, rooms can achieve Medium and High levels of compliance by meeting higher illuminance thresholds, as outlined in the table below:

Target Illuminance from Daylight over at least half the daylight hours		
Level of recommendation	Target illuminance E_T(lx) for half of the assessment grid	Minimum illuminance E_{TM}(lx) for 95% of the assessment grid
Minimum	300 lux	100 lux
Medium	500 lux	300 lux
High	750 lux	500 lux

Table 1: IS / BS EN 17037:2018 Target Illuminance from Daylight over at least half the daylight hours.

Target Daylight Factor (D) for Dublin*		
Level of recommendation	Target daylight factor D for half of the assessment grid	Minimum daylight factor D for 95% of the assessment grid
Minimum	2%	0.7%
Medium	3.5%	2%
High	5%	3.5%

Table 2: IS / BS EN 17037:2018 Target Daylight Factor (D) for Dublin.

Target Minimum Daylight Factor (D) for Dublin* based on UK National Annex		
Room Type	Target illuminance E_T(lx) for half of the assessment grid	Target daylight factor D from Table A.3 EN17037 $E_{v,d,med}$ for Dublin -14,900
Bedroom	100 lux	0.7%
Living Room	150 lux	1%
Kitchen	200 lux	1.3%

* EN17037 uses the latitude of the capital city of each European country to set individual values for daylight and sunlight metrics for use in setting the target levels to be achieved in a particular country.

Table 3: BS EN 17037:2018+A1:2021 Target Illuminance levels and Daylight Factor (D) for Dublin.

2.5 Sunlight within Proposed Developments

The BRE guidelines (2022) Section 3.1.7 states “that for large residential developments the overall sunlight potential can be initially assessed by counting the number of windows facing south, east and west and the aim should be to minimise the number of living rooms facing solely north, north-east or north-west unless there is some compensating factor such as an appealing view to the north.” In Section 3.1.8 the guideline acknowledges that it may not be possible to have every living room facing within 90° of south in large developments, however, it recommends maximising the number of units with a southerly aspect.

The BRE guidelines (2022) Section 3.1.10 recommends that BS EN 17037 should be used to assess for interior access to direct sunlight. BS EN 17037 Table A.6 sets recommendations for access to sunlight and notes three levels of achievement; Minimum, Medium and High. In dwellings at least one habitable room, preferably a living room, should achieve the Minimum of 1.5 direct hours on a specified date between 1st February and 21st March, with a cloudless sky. This assessment uses the 21st March. The guidelines recommend a time step of 5 minutes or less for the assessment interval. The Minimum level to achieve is 1.5, the Medium level is 3 hours and the High level is 4 hours direct sunlight.

2.6 Sunlight to Gardens and Open Spaces

For calculations of sunlight analysis it is general practice to use March 21st. The BRE guidelines (2022) Section 3.3.17 states:

> *"It is recommended that for it to appear adequately sunlit throughout the year, at least half of a garden or amenity area should receive at least two hours of sunlight on 21 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 March is less than 0.8 times its former value, then the loss of sunlight is likely to be noticeable. If a detailed calculation cannot be carried out, it is recommended that the centre of the area should receive at least two hours of sunlight on 21 March."*

2.7 BRE Guidelines (2022) Appendix G: Calculations of Trees & Hedges

The BRE guidelines (2022) recommends that sometimes trees should be taken into account for the proposed development where the new development is proposed near large existing trees. This needs to be done by modelling a representative of the existing trees. Reflectance and transparency should be taken into account. Table G1 in BR209:2022 gives values for transparencies of tree crowns in summer and winter for deciduous trees, dense evergreen can be assessed as opaque. Table G2 gives general reflectance values for shades of trees.

2.8 Assessment Model Parameters

The BRE guidelines (2022) recommends surface reflectances should represent real conditions and where reflectance values have not been measured or specified default values are set out in Table C4 of the guidance document. The surface reflectances have been specified and are set out in Table 4 below. This table also shows the input values for material used and additional assessment model input parameters.

Input Values for Assessment Model			
Surface Reflectance			
Element	Reflectance	Transmittance	Material Description
Internal walls	80%	0%	White Painted Walls
Internal ceiling	80%	0%	White Painted Ceiling
Floor - light wood	40%	0%	Light wood Flooring
External walls - proposed development	50%	0%	Brick
External walls - outside site	50%	0%	CIBSE
External ground	20%	0%	CIBSE
Glass		68%	Triple glazed clear glass
Maintenance Factor for Glass		Assessment Plane	
Suburban Vertical no overhang	0.96	Sensor Grid spacing	0.3m
Suburban Vertical sheltered by balcony or overhang	0.88	Sensor grid inset	0.35m
Framing Factor: Patio Doors	0.77	Minimum inset	0.3m
		Work plane offset	0.85m

Table 4: Surface reflectance parameters and input values for model calculations

2.10 Daylight in the Proposed Development.

The BRE guidelines (2022) Appendix C sets out interior daylight recommendations, it states; "BS EN 17037 supersedes BS8206 Part 2 'Code of practice for daylighting' which contained a method of assessment based on Average Daylight Factor, which is now no longer recommended."

BS EN 17037 sets out two methods for assessing daylight provision in proposed buildings. One method is called the **Illuminance method.** This is based on Target illuminances for daylight to be achieved across specified fractions of a reference plane at working plane height (0.85m) for half the daylight hours in a year. The Illuminance Method requires the use of a suitable weather file with local climate conditions and takes into account the orientation of the space.

The alternative method is called the **Daylight Factor Method.** This method is based on calculating the daylight factors achieved over specific fractions of a reference plane. The Daylight factor is the illuminance at a point on a reference plane in a space, divided by the illuminance on an unobstructed horizontal surface outdoors. This method uses an overcast sky for calculation and the assessment of the space is orientation independent. BS EN 17037 gives the Median External Diffuse Illuminance (Ev,d,med) for the capital cities throughout Europe to account for external local illuminance levels.

The UK committee formed the opinion that the Target Illuminance recommendations in Clause A.2 of BS EN 17037 may not be achievable for some buildings, particularly dwellings. The UK committee believes this could be the case for dwellings with basement rooms or those with significant external obstructions. In BS EN 17037:2018+A1:2021, the UK National Annex (NA) sets out additional minimum room specific Target Daylight Factor values for the UK. Clause NA.2 sets out illuminance values to be exceeded over at least 50% of the points on a reference plane 0.85m above the floor for at least half the daylight hours.

EN 17037:2018 sets out values for Minimum and Target levels to be achieved with a minimum, medium and high compliance level for each. The guideline recommends that the minimum level should be achieved for both target levels but it does not give guidance on the number of units or fraction within a multiple residential unit development that should achieve these values. Additionally it does not differentiate between room use and weighted targets for rooms which would have a lesser requirement. The UK annex sets out factors for UK specific settings where it is difficult to achieve natural daylighting.

The compliance calculation is based on an annual, climate-based simulation of interior illuminance distributions. The BRE guidelines (2022) refers to this method as the Illuminance Method. For each hour of the year, the percentage of the floor area achieving minimum and target illuminance thresholds are measured on a room-by-room basis. Two target types are set with the following criteria:

- Target Illuminance: 300 lux over 50% of floor area for at least 50% of daylight hours.
- Minimum Illuminance: 100 lux over 95% of floor area for at least 50% of daylight hours.

BS EN 17037 gives three levels of recommendation for daylight provision in an interior space: Minimum, Medium and High. The BRE guidelines (2022) Section C3 recommends for compliance with the standard, a space should achieve the Minimum level.

Daylight hours are defined as the 4380 hours with the most diffuse horizontal illuminance in the weather file. In addition to this baseline (Minimum) requirement, rooms can achieve Medium and High levels of compliance by meeting higher illuminance thresholds, as outlined in the table below:

Target Illuminance From Daylight Over At Least Half The Daylight Hours		
Level of recommendation	Target illuminance E_T(lx) for half of the assessment grid	Minimum illuminance E_{TM}(lx) for 95% of the assessment grid
Minimum	300 lux	100 lux
Medium	500 lux	300 lux
High	750 lux	500 lux

Table 5: IS / BS EN 17037:2018 Target Illuminance from Daylight over at least half the daylight hours.

Target Daylight Factor (D) for Dublin*		
Level of recommendation	Target daylight factor D for half of the assessment grid	Minimum daylight factor D for 95% of the assessment grid
Minimum	2%	0.7%
Medium	3.5%	2%
High	5%	3.5%

Table 6: IS / BS EN 17037:2018 Target Daylight Factor (D) for Dublin.

Target Minimum Daylight Factor (D) for Dublin* based on UK National Annex		
Room Type	Target illuminance E_T(lx) for half of the assessment grid	Target daylight factor D from Table A.3 EN17037 $E_{v,d,med}$ for Dublin -14,900
Bedroom	100 lux	0.7%
Living Room	150 lux	1%
Kitchen	200 lux	1.3%

* EN17037 uses the latitude of the capital city of each European country to set individual values for daylight and sunlight metrics for use in setting the target levels to be achieved in a particular country.

Table 7: BS EN 17037:2018+A1:2021 Target Illuminance levels and Daylight Factor (D) for Dublin.

2.11 Sunlight within Proposed Developments

The BRE guidelines (2022) Section 3.1.7 states:

> *"that for large residential developments the overall sunlight potential can be initially assessed by counting the number of windows facing south, east and west and the aim should be to minimise the number of living rooms facing solely north, north-east or north-west unless there is some compensating factor such as an appealing view to the north."*

In Section 3.1.8 the guideline acknowledges that it may not be possible to have every living room facing within 90° of south in large developments, however, it recommends maximising the number of units with a southerly aspect.

The BRE guidelines (2022) Section 3.1.10 recommends that BS EN 17037 should be used to assess for interior access to direct sunlight. BS EN 17037 Table A.6 sets recommendations for access to sunlight and notes three levels of achievement; Minimum, Medium and High. In dwellings at least one habitable room, preferably a living room, should achieve the Minimum of 1.5 direct hours on a specified date between 1st February and 21st March, with a cloudless sky. This assessment uses the 21st March. The guidelines recommend a time step of 5 minutes or less for the assessment interval. The Minimum level to achieve is 1.5, the Medium level is 3 hours and the High level is 4 hours direct sunlight.

3. Daylight within the Proposed Development

All habitable rooms within the units were assessed for daylight provision by illuminance method. The Illuminance method assesses the daylight levels over at least 50% daylight hours in the year and uses a weather file data set. These methods take into account the orientation of the space. They provide an accurate representation of the daylight provision to a specific room in the context of the proposed environment.

Compliance is demonstrated by a calculation of Daylight Provision with the illuminance method under BS EN 17037:2018+A1:2021. A summary of the results are presented in Table 8 below and a complete set of room results are shown in Appendix A.

For supplementary information, an assessment of Daylight Provision with the illuminance method under IS /BS EN 17037:2018 is undertaken. A summary of the results are presented in Table 9 below and a complete set of room results are shown in Appendix B.

3.1 Assessment for Daylight Provision BS EN 17037:2018+A1:2021

The UK National Annex (A1) contains minimum room specific target values for dwellings in the UK. Ireland has a similar latitude and climate to the UK. The minimum illuminance levels are kitchens and living spaces containing a kitchen 200lux, living rooms 150lux and bedrooms 100lux. It is recommended that these target illuminance values are exceeded over at least 50% of the points on a reference plane 0.85m above the floor, for at least half of the daylight hours.

The UK committee supports the recommendations of EN17037:2018 but considers the target daylight levels may be hard to achieve in UK dwellings, in particular in urban areas and areas with mature trees. The Target and Minimum levels set out in IS / BS EN17037:2018 does not take into account room use or make allowance for room that have a lesser requirement for daylight.

Minimum daylight provision UK NA.1 - BS EN 17037:2018+A1:2021					
	Room Use	Number of rooms	Target illuminance E_T(lx) for half of the assessment grid	Number of rooms to achieve target Lux over 50% of the assessment grid	Percentage of rooms achieving Target
Blocks B & C	LKD	85	200	85	100.0%
	Bedrooms	113	100	113	100.0%
Total		198		198	100.0%

Table 8: Summary of room for Target Illuminance compliance with BS EN 17037:2018+A1:2021. Individual room results can be viewed in Appendix A.

3.2 Conclusion

BR209:2022 recommends assessment methods set out in BS EN 17037 for daylight provision. 100% of the Living, Dining, Kitchen and Bedroom spaces achieve the target values set out in BS EN 17037:2018+A1:2021 section NA1. These are the minimum values, per specified use, to be achieved in habitable rooms.

3.3 Supplementary Information - Assessment for Daylight Provision IS / BS EN 17037:2018

A summary of Minimum and Target Illuminance levels under IS EN 17037:2018 Annex A Table A1 are set out in the table below.

Daylight provision Illuminance Method IS EN 17037:2018						
		Below Target	Minimum	Medium	High	Percentage of rooms achieving Target
Overall total	Target Illuminance	13.1%	23.2%	31.3%	32.3%	86.9%
	Minimum Illuminance	5.6%	30.8%	34.8%	28.8%	94.4%

Table 9: Percentage of rooms at each level to IS/BS EN 17037:2018. Individual room results can be viewed in Appendix B.

The results indicate a high level of daylight provision, with 94.4% of rooms achieving Minimum Illuminance and 86.9% achieving Target Illuminance. The rooms will be bright and pleasant spaces.

The recommendations for Daylight provision in Table A1 are not specific for dwellings and do not make allowance for room use. BS EN 17037:2018+A1:2021 address this with the National Annex NA.1 which sets out room specific targets for dwellings and compliance for this is presented in Section 3.2.

4. Sunlight within the Proposed Development

4.1 Sunlight Hours

The BRE guidelines BR209:2022 (third edition) and BS EN 17037:2018+A1:2021 set out recommendations for sunlight hours to be achieved. It states that; *"For dwellings, at least one habitable room, preferably a main living room, should meet at least the minimum criterion."* The guidelines recommend the sunlight hours should be assessed preferably on the 21st March over the course of the day. The guidelines set three levels of achievement. Minimum 1.5h, Medium 3h and High 4h. The guideline does not set the percentage of units that need the achieve the recommendations but they do give an example of a well designed floor layout in the figure below where 4 out of 5 units in an apartment building would achieve the target sunlight.

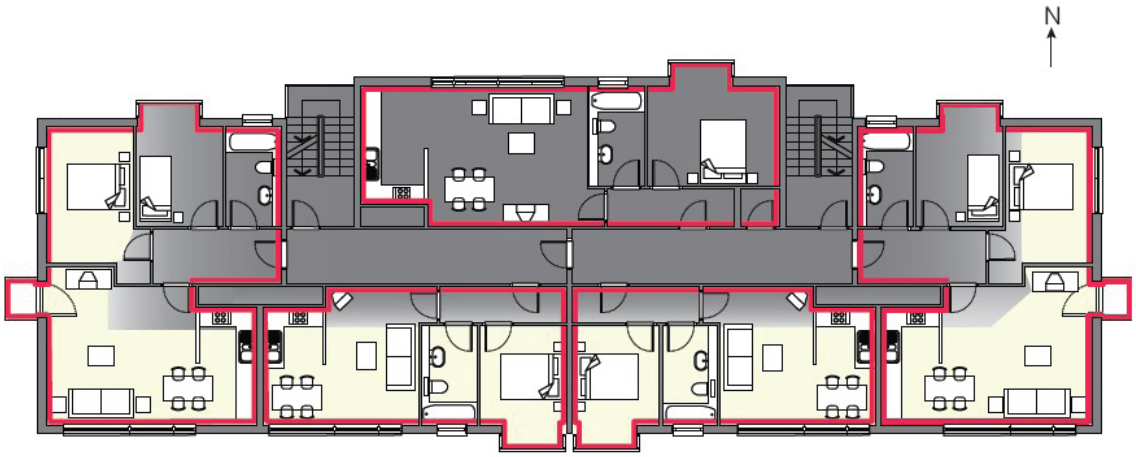


Figure 26: Careful layout design means that four out of the five flats shown have a south-facing living room

Figure 1: Extract from BR209:2022 Section 3 Sun-lighting: Diagram indicating sample floor plan to maximise units with a main living space facing south.

In dual aspect units the southerly facing rooms have been selected for assessment. In the assessment preference is given to living spaces, however the recommendations of the BRE guidelines are met if minimum sunlight hours are achieved in any habitable room within a dwelling.

Detailed results are presented in Appendix C. It indicates if the habitable room has a relevant south facing window, together with the number of hours it receives sunlight, on the 21st March. A summary of these results are displayed in the table below.

Sunlight Hours Summary Table									
Apartments Units	Total Units	Habitable room with a window within 90° south		Below recommendation <1.5 hours	Minimum >1.5 hours	Medium >3 Hours	High >4 Hours	Number meets criteria	Ratio meets criteria
		No.	Ratio						
Habitable Rm	85	61	71.8%	8	17	23	37	77	90.6%

Table 10: Summary of Results of Assessment of Sunlight Hours

4.2 Comment on EN 17037 Sunlight Hours

The BRE Guidelines recommend maximising the amount of units that have a window within 90° due south but does not have set targets. The guidelines acknowledge that for large developments with site constraints its not possible to achieve south facing windows to all main living spaces and that achieving sunlight hours in another habitable room meets the criteria. In these revised Blocks B & C, of 85 no. units, 71.8% (61 no.) have window to a habitable room which faces within 90° south.

Windows with an aspect of greater than 90° due south, to the north west or north east, will still receive sunlight, but it is likely to be lesser amounts especially in the winter period. In these revised Blocks B & C, of 85 no. units, 90.6% (77 no.) have a habitable room which achieves the minimum recommended 1.5 direct sunlight hours.

4.3 Conclusion

This scheme is well designed for sunlight, with 90.6% of units meeting the minimum recommended 1.5 direct sunlight hours. This is in line with the BRE guideline example for an apartment layout where 4 in 5 achieves the target sunlight hours

5. Sunlight to Amenity Spaces within the Proposed Development

The BRE guidelines BR209:2022 (third edition) indicates that for an amenity area to have good quality sunlight throughout the year, 50% should receive in excess of 2 hours sunlight on the 21st March.

5.1 Sunlight to Amenity Within the Proposed Development

As the massing of the proposed development has not changed from that of the permitted development there will be no change to public and communal amenity spaces. They are replicated in this document for consistency.

Generated analysis is shown in Figure 2 and the results are set out in Table 11 below. All achieve sunlight levels that exceed 2 hours sunlight over 50% of the required amenity space on the 21st March.

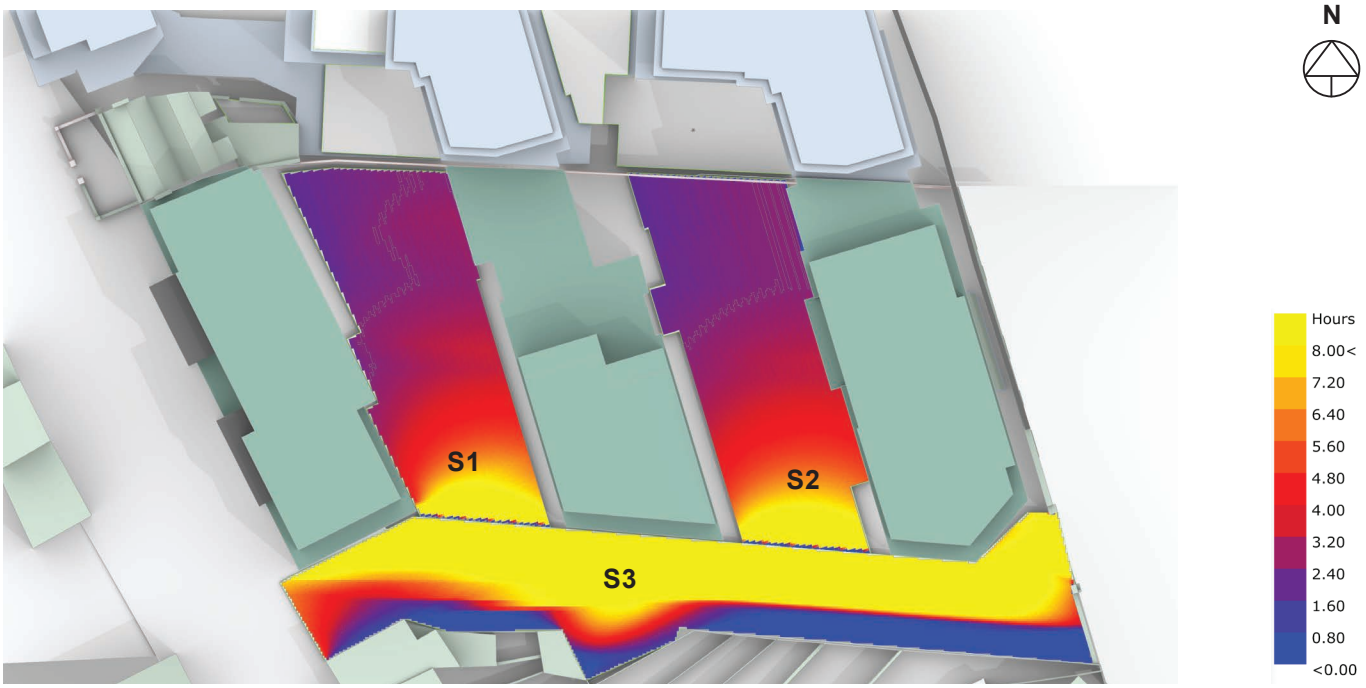


Figure 2: Radiation map of amenity within the proposed development, showing available sunlight on 21st March. The scale represents the sunlight received from 0 - 8 hours.

Sunlight on the ground - within development			
No.	Use	Proposed	Meets criteria of >50% area
S1	Communal Residential	76.8%	Yes
S2	Communal Residential	68.1%	Yes
S3	Public open space	76.8%	Yes

Table 11: Calculation of Sun on the Ground to amenity area within the proposed development.

5.2 Conclusion

The communal amenity space is well oriented for sunlight and will achieve 2 hours sunlight on the 21st March in excess of 50% of the area. The proposed development meets the recommendations of the BRE guidelines for gardens and open spaces.

Appendix A -BS EN17037:2021+A1 Minimum room specific Daylight Provision in accordance with UK National Annex Table NA.1.

Block B **Block C**

Ground Floor

First Floor

Figure 3: Floor plans indicating Daylight Provision to BS EN17037:2021+A1 Table NA.1

Block B

Block C

Second Floor

Third Floor

Figure 4: Floor plans indicating Daylight Provision to BS EN17037:2021+A1 Table NA.1

Block B

Block C

Fourth Floor

Fifth Floor

Figure 5: Floor plans indicating Daylight Provision to BS EN17037:2021+A1 Table NA.1

Block C

Sixth Floor

Block C

Seventh Floor

Figure 6: Block C - Floor plans indicating Daylight Provision to BS EN17037:2021+A1 Table NA.1

Block B - Minimum Illuminance Levels to BS EN17037:2018+A1:2021 - Table NA.1							
Space ID	Use	Area m2	Sensor Count	Target Lux	Mean Lux	% of grid target exceeded - Minimum 50% of Grid	Meets Criteria
B0-01.1	LKD	29.3	273	200	771	93.4%	Y
B0-01.2	Bed	11.2	84	100	465	100.0%	Y
B0-01.3	Bed	13.5	111	100	554	100.0%	Y
B0-02.1	LKD	29.5	270	200	356	64.1%	Y
B0-02.2	Bed	11.8	102	100	716	100.0%	Y
B0-03.1	LKD	17.9	156	200	2135	100.0%	Y
B0-03.2	Bed	12.4	92	100	2071	100.0%	Y
B0-04.1	LKD	25.6	220	200	1988	100.0%	Y
B0-04.2	Bed	10.6	85	100	1524	100.0%	Y
B0-05.1	LKD	22.5	188	200	659	95.7%	Y
B0-05.2	Bed	11.3	97	100	1190	100.0%	Y
B1-01.1	LKD	31.7	303	200	354	68.6%	Y
B1-01.2	Bed	11.4	90	100	1216	100.0%	Y
B1-01.3	Bed	11.6	95	100	724	100.0%	Y
B1-02.1	LKD	25.0	235	200	303	58.7%	Y
B1-02.2	Bed	11.5	99	100	662	100.0%	Y
B1-03.1	LKD	28.1	251	200	279	51.4%	Y
B1-03.2	Bed	11.2	96	100	747	100.0%	Y
B1-04.1	LKD	17.5	144	200	1889	100.0%	Y
B1-04.2	Bed	12.0	93	100	1355	100.0%	Y
B1-05.1	LKD	25.6	220	200	2121	100.0%	Y
B1-05.2	Bed	10.7	86	100	1384	100.0%	Y
B1-06.1	LKD	23.7	217	200	553	93.1%	Y
B1-06.2	Bed	11.0	98	100	1142	100.0%	Y
B1-07.1	LKD	25.5	222	200	302	52.7%	Y
B1-07.2	Bed	8.6	66	100	466	93.9%	Y
B1-07.3	Bed	12.2	110	100	955	100.0%	Y
B2-01.1	LKD	31.7	303	200	439	93.4%	Y
B2-01.2	Bed	11.4	90	100	1305	100.0%	Y
B2-01.3	Bed	11.6	95	100	800	100.0%	Y
B2-02.1	LKD	25.0	235	200	318	62.1%	Y
B2-02.2	Bed	11.5	99	100	761	100.0%	Y
B2-03.1	LKD	28.1	251	200	290	57.0%	Y
B2-03.2	Bed	11.2	96	100	815	100.0%	Y
B2-04.1	LKD	17.5	144	200	1916	100.0%	Y
B2-04.2	Bed	12.0	93	100	1387	100.0%	Y
B2-05.1	LKD	25.6	220	200	2187	100.0%	Y
B2-05.2	Bed	10.7	86	100	1558	100.0%	Y
B2-06.1	LKD	23.7	217	200	640	99.5%	Y
B2-06.2	Bed	11.0	98	100	1425	100.0%	Y
B2-07.1	LKD	25.5	222	200	340	54.1%	Y
B2-07.2	Bed	8.6	66	100	530	87.9%	Y
B2-07.3	Bed	12.2	110	100	1207	100.0%	Y
B3-01.1	LKD	31.7	303	200	841	100.0%	Y
B3-01.2	Bed	11.4	90	100	1560	100.0%	Y
B3-01.3	Bed	11.6	95	100	960	100.0%	Y
B3-02.1	LKD	25.0	235	200	607	98.3%	Y
B3-02.2	Bed	11.5	99	100	884	100.0%	Y
B3-03.1	LKD	28.1	251	200	495	85.3%	Y
B3-03.2	Bed	11.2	96	100	894	100.0%	Y
B3-04.1	LKD	17.5	144	200	2276	100.0%	Y

Block B - Minimum Illuminance Levels to BS EN17037:2018+A1:2021 - Table NA.1							
Space ID	Use	Area m2	Sensor Count	Target Lux	Mean Lux	% of grid target exceeded - Minimum 50% of Grid	Meets Criteria
B3-04.2	Bed	12.0	93	100	1403	100.0%	Y
B3-05.1	LKD	25.6	220	200	2466	100.0%	Y
B3-05.2	Bed	10.7	86	100	1710	100.0%	Y
B3-06.1	LKD	23.7	217	200	796	100.0%	Y
B3-06.2	Bed	11.0	98	100	1703	100.0%	Y
B3-07.1	LKD	25.5	222	200	870	99.1%	Y
B3-07.2	Bed	8.6	66	100	671	97.0%	Y
B3-07.3	Bed	12.2	110	100	1456	100.0%	Y
B4-01.1	LKD	25.4	236	200	1568	100.0%	Y
B4-01.2	Bed	12.2	98	100	1039	100.0%	Y
B4-01.3	Bed	10.5	80	100	975	100.0%	Y
B4-02.1	LKD	24.8	202	200	2005	100.0%	Y
B4-02.2	Bed	9.9	72	100	3159	100.0%	Y
B4-03.1	LKD	23.9	204	200	897	100.0%	Y
B4-03.2	Bed	10.1	80	100	1956	100.0%	Y
B5-01.1	LKD	25.4	236	200	2251	100.0%	Y
B5-01.2	Bed	12.2	98	100	1208	100.0%	Y
B5-01.3	Bed	10.5	80	100	1159	100.0%	Y
B5-02.1	LKD	24.8	202	200	2603	100.0%	Y
B5-02.2	Bed	9.9	72	100	3168	100.0%	Y
B5-03.1	LKD	23.9	204	200	1383	100.0%	Y
B5-03.2	Bed	10.1	80	100	2086	100.0%	Y

Table 12: Minimum Daylight Provision Compliance for Habitable Rooms to BS EN17037:2018+A1:2021

Block C - Minimum Illuminance Levels to BS EN17037:2018+A1:2021 - Table NA.1							
Space ID	Use	Area m2	Sensor Count	Target Lux	Mean Lux	% of grid target exceeded - Minimum 50% of Grid	Meets Criteria
C0-01.1	LKD	25.0	209	200	728	98.6%	Y
C0-01.2	Bed	10.6	80	100	343	100.0%	Y
C0-01.3	Bed	10.7	90	100	418	100.0%	Y
C0-02.1	LKD	25.8	230	200	488	91.3%	Y
C0-02.2	Bed	7.3	54	100	156	53.7%	Y
C0-02.3	Bed	10.5	83	100	241	100.0%	Y
C0-03.1	LKD	25.5	215	200	2012	100.0%	Y
C0-03.2	Bed	11.7	100	100	741	100.0%	Y
C0-03.3	Bed	11.9	99	100	564	100.0%	Y
C0-04.1	LKD	24.1	206	200	975	95.6%	Y
C0-04.2	Bed	11.9	90	100	1029	100.0%	Y
C0-04.3	Bed	8.7	55	100	1967	100.0%	Y
C0-05.1	LKD	23.8	215	200	488	97.2%	Y
C0-05.2	Bed	10.5	84	100	1522	100.0%	Y
C0-06.1	LKD	22.2	197	200	453	93.9%	Y
C0-06.2	Bed	11.5	91	100	1241	100.0%	Y
C1-01.1	LKD	24.7	219	200	618	94.5%	Y
C1-01.2	Bed	10.7	79	100	656	100.0%	Y
C1-02.1	LKD	20.2	172	200	600	100.0%	Y
C1-02.2	Bed	11.4	88	100	840	100.0%	Y
C1-03.1	LKD	22.8	190	200	670	100.0%	Y
C1-03.2	Bed	11.7	88	100	750	100.0%	Y
C1-04.1	LKD	27.8	239	200	1780	100.0%	Y
C1-04.2	Bed	10.8	90	100	1036	100.0%	Y
C1-04.3	Bed	11.3	89	100	882	100.0%	Y
C1-05.1	LKD	27.8	245	200	2104	100.0%	Y
C1-05.2	Bed	10.1	87	100	819	100.0%	Y
C1-05.3	Bed	8.6	72	100	1436	100.0%	Y
C1-06.1	LKD	25.5	236	200	426	78.0%	Y
C1-06.2	Bed	11.5	94	100	976	100.0%	Y
C1-07.1	LKD	22.6	193	200	368	65.3%	Y
C1-07.2	Bed	12.6	100	100	1041	100.0%	Y
C2-01.1	LKD	24.7	219	200	744	98.6%	Y
C2-01.2	Bed	10.7	79	100	780	100.0%	Y
C2-02.1	LKD	20.2	172	200	673	100.0%	Y
C2-02.2	Bed	11.4	88	100	1009	100.0%	Y
C2-03.1	LKD	22.8	190	200	741	100.0%	Y
C2-03.2	Bed	11.7	88	100	1038	100.0%	Y
C2-04.1	LKD	27.8	239	200	1864	100.0%	Y
C2-04.2	Bed	10.8	90	100	1506	100.0%	Y
C2-04.3	Bed	11.3	89	100	1366	100.0%	Y
C2-05.1	LKD	27.8	245	200	2451	100.0%	Y
C2-05.2	Bed	10.1	87	100	841	100.0%	Y
C2-05.3	Bed	8.6	72	100	1539	100.0%	Y
C2-06.1	LKD	25.5	236	200	476	89.4%	Y
C2-06.2	Bed	11.5	94	100	1089	100.0%	Y
C2-07.1	LKD	22.6	193	200	438	75.1%	Y
C2-07.2	Bed	12.6	100	100	1216	100.0%	Y
C3-01.1	LKD	24.7	219	200	881	100.0%	Y
C3-01.2	Bed	10.7	79	100	818	100.0%	Y
C3-02.1	LKD	20.2	172	200	678	100.0%	Y

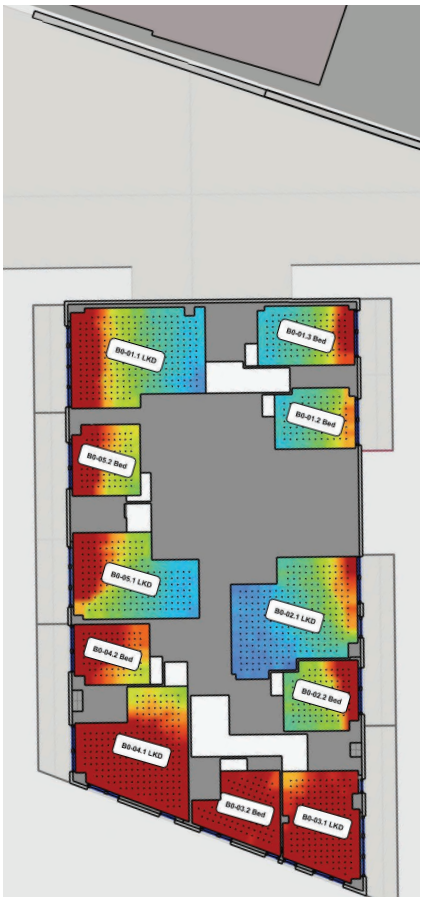
Block C - Minimum Illuminance Levels to BS EN17037:2018+A1:2021 - Table NA.1							
Space ID	Use	Area m2	Sensor Count	Target Lux	Mean Lux	% of grid target exceeded - Minimum 50% of Grid	Meets Criteria
C3-02.2	Bed	11.4	88	100	869	100.0%	Y
C3-03.1	LKD	22.8	190	200	696	100.0%	Y
C3-03.2	Bed	11.7	88	100	1053	100.0%	Y
C3-04.1	LKD	27.8	239	200	1241	100.0%	Y
C3-04.2	Bed	10.8	90	100	1139	100.0%	Y
C3-04.3	Bed	11.3	89	100	973	100.0%	Y
C3-05.1	LKD	27.8	245	200	2243	100.0%	Y
C3-05.2	Bed	10.1	87	100	896	100.0%	Y
C3-05.3	Bed	8.6	72	100	1667	100.0%	Y
C3-06.1	LKD	25.5	236	200	591	100.0%	Y
C3-06.2	Bed	12.6	100	100	1408	100.0%	Y
C3-06.2	Bed	11.5	94	100	1241	100.0%	Y
C3-07.1	LKD	22.6	193	200	568	93.3%	Y
C4-01.1	LKD	24.7	219	200	1013	100.0%	Y
C4-01.2	Bed	10.7	79	100	832	100.0%	Y
C4-02.1	LKD	20.2	172	200	674	100.0%	Y
C4-02.2	Bed	11.4	88	100	1540	100.0%	Y
C4-03.1	LKD	22.8	190	200	703	100.0%	Y
C4-03.2	Bed	11.7	88	100	1104	100.0%	Y
C4-04.1	LKD	27.8	239	200	1845	100.0%	Y
C4-04.2	Bed	10.8	90	100	1144	100.0%	Y
C4-04.3	Bed	11.3	89	100	1201	100.0%	Y
C4-05.1	LKD	27.8	245	200	2282	100.0%	Y
C4-05.2	Bed	10.1	87	100	945	100.0%	Y
C4-05.3	Bed	8.6	72	100	1745	100.0%	Y
C4-06.1	LKD	25.5	236	200	729	100.0%	Y
C4-06.2	Bed	11.5	94	100	1398	100.0%	Y
C4-07.1	LKD	22.6	193	200	721	97.9%	Y
C4-07.2	Bed	12.6	100	100	1570	100.0%	Y
C5-01.1	LKD	24.7	219	200	1126	100.0%	Y
C5-01.2	Bed	10.7	79	100	835	100.0%	Y
C5-02.1	LKD	20.2	172	200	673	100.0%	Y
C5-02.2	Bed	11.4	88	100	1024	100.0%	Y
C5-03.1	LKD	22.8	190	200	754	100.0%	Y
C5-03.2	Bed	11.7	88	100	915	100.0%	Y
C5-04.1	LKD	27.8	239	200	1870	100.0%	Y
C5-04.2	Bed	10.8	90	100	1447	100.0%	Y
C5-04.3	Bed	11.3	89	100	1320	100.0%	Y
C5-05.1	LKD	27.8	245	200	2314	100.0%	Y
C5-05.2	Bed	10.1	87	100	985	100.0%	Y
C5-05.3	Bed	8.6	72	100	1788	100.0%	Y
C5-06.1	LKD	25.5	236	200	856	100.0%	Y
C5-06.2	Bed	11.5	94	100	1498	100.0%	Y
C5-07.1	LKD	22.6	193	200	866	100.0%	Y
C5-07.2	Bed	12.6	100	100	1725	100.0%	Y
C6-01.1	LKD	24.7	219	200	1704	100.0%	Y
C6-01.2	Bed	10.7	79	100	870	100.0%	Y
C6-02.1	LKD	20.2	172	200	668	100.0%	Y
C6-02.2	Bed	11.4	88	100	997	100.0%	Y
C6-03.1	LKD	22.8	190	200	835	100.0%	Y
C6-03.2	Bed	11.7	88	100	983	100.0%	Y

Block C - Minimum Illuminance Levels to BS EN17037:2018+A1:2021 - Table NA.1							
Space ID	Use	Area m2	Sensor Count	Target Lux	Mean Lux	% of grid target exceeded - Minimum 50% of Grid	Meets Criteria
C6-04.1	LKD	27.8	239	200	2008	100.0%	Y
C6-04.2	Bed	10.8	90	100	1367	100.0%	Y
C6-04.3	Bed	11.3	89	100	1328	100.0%	Y
C6-05.1	LKD	27.8	245	200	2791	100.0%	Y
C6-05.2	Bed	10.1	87	100	1591	100.0%	Y
C6-05.3	Bed	8.6	72	100	1900	100.0%	Y
C6-06.1	LKD	25.5	236	200	924	100.0%	Y
C6-06.2	Bed	11.5	94	100	1574	100.0%	Y
C6-07.1	LKD	22.6	193	200	938	100.0%	Y
C6-07.2	Bed	12.6	100	100	1812	100.0%	Y
C7-01.1	LKD	23.0	204	200	1153	100.0%	Y
C7-01.2	Bed	8.5	64	100	2126	100.0%	Y
C7-02.1	LKD	27.4	246	200	1090	100.0%	Y
C7-02.2	Bed	10.1	75	100	1557	100.0%	Y
C7-02.3	Bed	9.5	72	100	1210	100.0%	Y
C7-03.1	LKD	22.6	195	200	2190	100.0%	Y
C7-03.2	Bed	8.2	61	100	1861	100.0%	Y
C7-03.3	Bed	10.7	88	100	1478	100.0%	Y
C7-04.1	LKD	24.2	203	200	2745	100.0%	Y
C7-04.2	Bed	9.4	75	100	2061	100.0%	Y
C7-04.3	Bed	7.3	50	100	1750	100.0%	Y
C7-05.1	LKD	24.3	207	200	1285	96.1%	Y
C7-05.2	Bed	12.2	96	100	1591	100.0%	Y

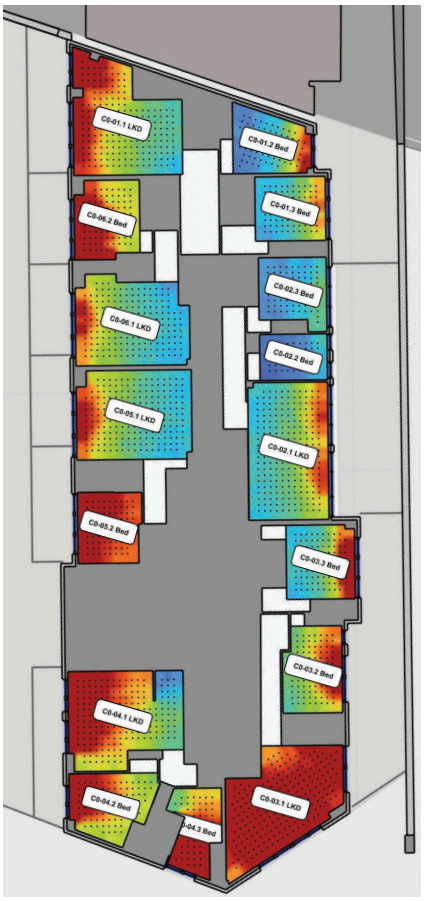
Table 13: Minimum Daylight Provision Compliance for Habitable Rooms to BS EN17037:2018+A1:2021

Appendix B - Supplementary Information - IS/ BS EN17037:2018 Table A.1 Daylight Provision Room Results

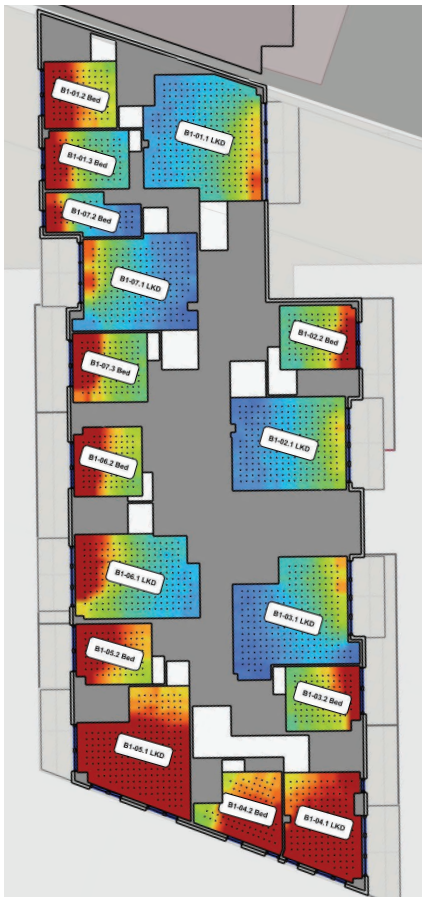
Block B

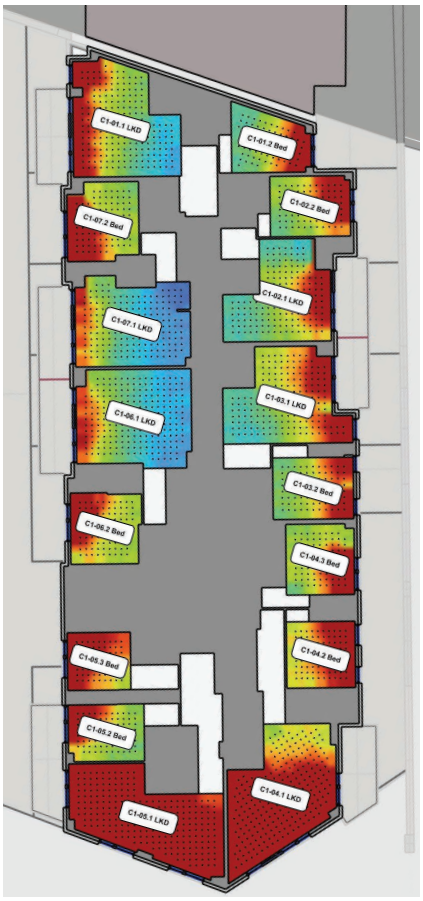


Block C



Ground Floor



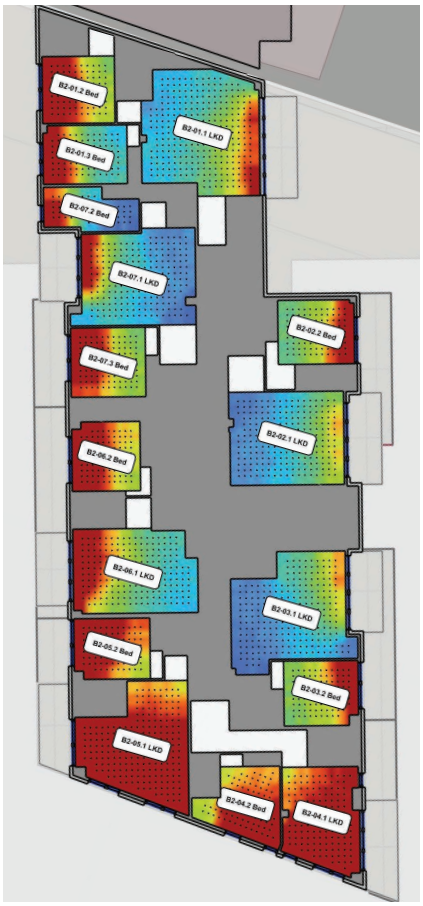


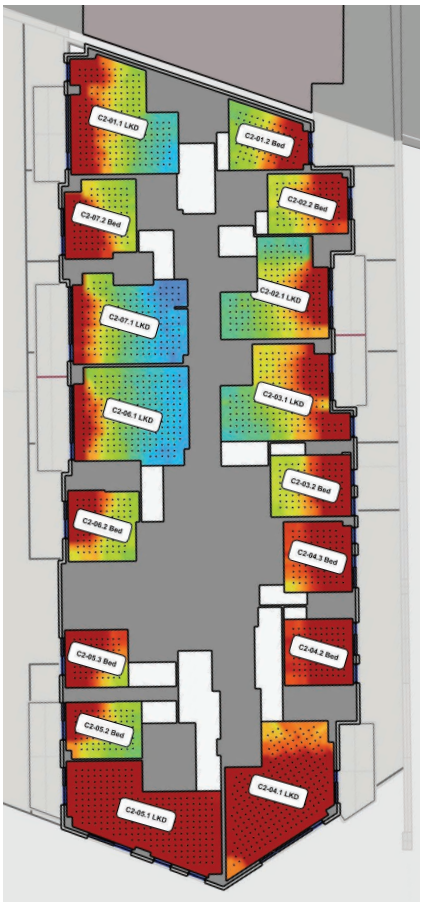
First Floor

Figure 7: Daylight Provision and Annual Average Illuminance to all habitable rooms

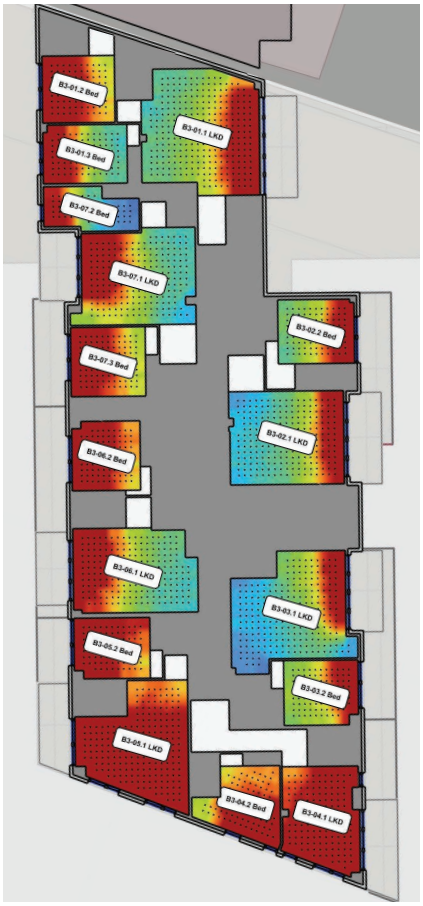
Block B

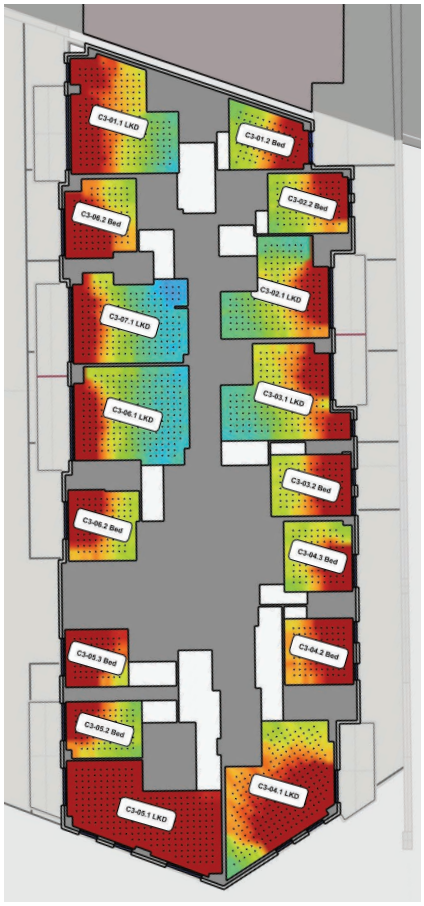
Block C





Second Floor



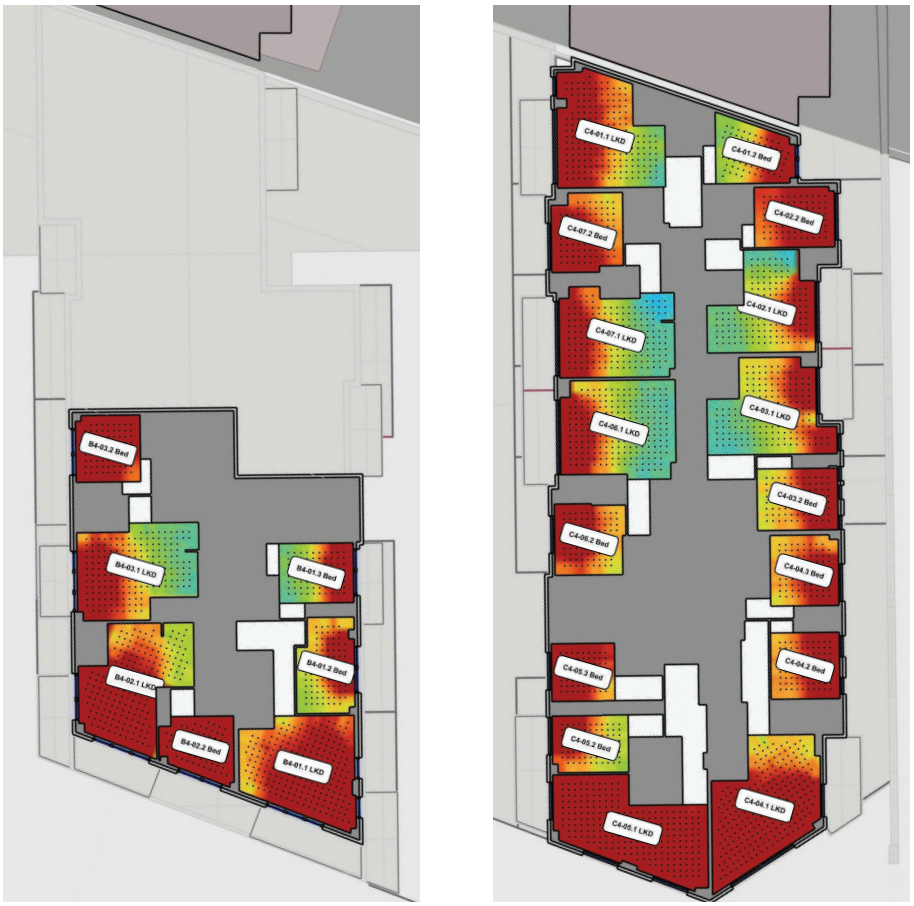


Third Floor

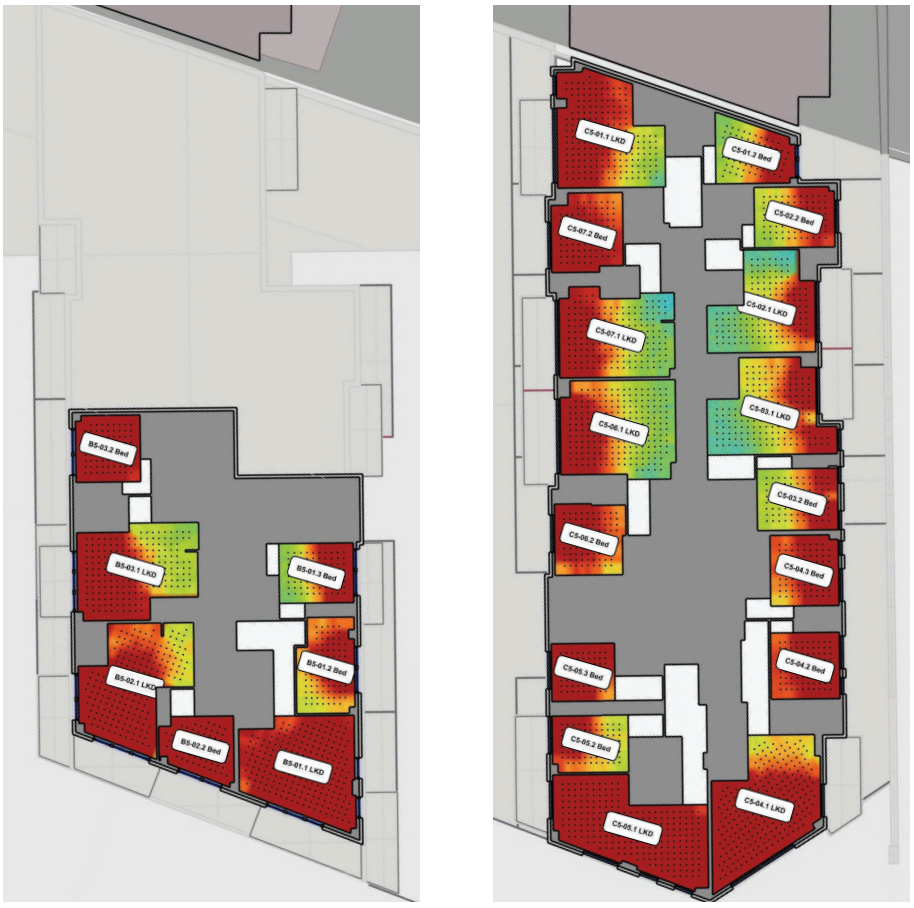
Figure 8: Daylight Provision and Annual Average Illuminance to all habitable rooms

Block B

Block C



Fourth Floor



Fifth Floor

Figure 9: Daylight Provision and Annual Average Illuminance to all habitable rooms

Figure 10: Daylight Provision and Annual Average Illuminance to all habitable rooms

Block B - EN17037:2018 Table A.1 Daylight Provision Room Schedule

Space ID	Description	Area m2	Sensor Count	Target Illuminance	300lux_50	500lux_50	750lux_50	Minimum Target Illuminance	100lux_95	300lux_95	500lux_95
B0-01.1	LKD	29.3	273	Minimum	53.6%	34.3%	17.1%	Minimum	63.4%	23.9%	5.5%
B0-01.2	Bed	11.2	84	Minimum	50.2%	30.6%	12.5%	Minimum	70.3%	34.3%	11.3%
B0-01.3	Bed	13.5	111	Minimum	50.7%	32.1%	16.2%	Minimum	68.6%	31.6%	10.3%
B0-02.1	LKD	29.5	270	Fail	37.7%	15.9%	3.9%	Minimum	51.3%	4.6%	0.2%
B0-02.2	Bed	11.8	102	Minimum	59.7%	43.6%	26.9%	Minimum	77.0%	47.5%	27.5%
B0-03.1	LKD	17.9	156	High	80.3%	71.0%	61.5%	High	86.1%	69.8%	56.7%
B0-03.2	Bed	12.4	92	High	76.0%	65.0%	54.4%	High	85.9%	69.1%	55.9%
B0-04.1	LKD	25.6	220	High	77.8%	67.1%	57.6%	Medium	82.1%	60.2%	45.9%
B0-04.2	Bed	10.6	85	Medium	74.0%	60.8%	48.3%	Medium	83.3%	61.6%	46.1%
B0-05.1	LKD	22.5	188	Minimum	54.9%	37.2%	18.5%	Minimum	62.2%	22.5%	5.9%
B0-05.2	Bed	11.3	97	Medium	67.1%	53.0%	37.9%	Medium	81.1%	56.5%	38.0%
B1-01.1	LKD	31.7	303	Fail	36.2%	15.1%	3.8%	Minimum	56.7%	14.2%	2.0%
B1-01.2	Bed	11.4	90	Medium	68.7%	54.6%	40.2%	Medium	81.2%	56.3%	38.0%
B1-01.3	Bed	11.6	95	Minimum	52.4%	33.1%	16.4%	Minimum	69.5%	31.6%	12.8%
B1-02.1	LKD	25.0	235	Fail	31.3%	9.9%	2.6%	Fail	49.8%	5.8%	0.0%
B1-02.2	Bed	11.5	99	Minimum	56.5%	39.7%	23.2%	Minimum	74.5%	41.4%	21.9%
B1-03.1	LKD	28.1	251	Fail	27.5%	8.3%	0.0%	Fail	43.7%	0.8%	0.0%
B1-03.2	Bed	11.2	96	Minimum	60.8%	46.0%	29.7%	Medium	78.1%	50.9%	30.5%
B1-04.1	LKD	17.5	144	High	78.8%	68.6%	59.4%	High	84.9%	67.3%	53.7%
B1-04.2	Bed	12.0	93	Medium	70.5%	57.3%	45.5%	Medium	81.6%	58.7%	44.2%
B1-05.1	LKD	25.6	220	High	81.4%	73.2%	63.3%	High	83.7%	65.4%	51.5%
B1-05.2	Bed	10.7	86	Medium	71.8%	58.4%	45.7%	Medium	81.8%	58.5%	42.1%
B1-06.1	LKD	23.7	217	Fail	47.4%	27.2%	8.1%	Minimum	61.8%	20.5%	5.2%
B1-06.2	Bed	11.0	98	Medium	65.4%	51.8%	37.3%	Medium	79.8%	53.6%	35.5%
B1-07.1	LKD	25.5	222	Fail	26.8%	6.9%	4.1%	Fail	46.3%	5.3%	0.5%
B1-07.2	Bed	8.6	66	Fail	31.0%	12.3%	4.6%	Fail	39.4%	4.0%	1.5%
B1-07.3	Bed	12.2	110	Minimum	59.2%	43.1%	25.6%	Minimum	76.8%	47.2%	26.2%
B2-01.1	LKD	31.7	303	Fail	44.5%	25.0%	9.1%	Minimum	62.1%	23.9%	4.0%
B2-01.2	Bed	11.4	90	Medium	70.3%	56.4%	43.4%	Medium	80.1%	54.7%	36.2%
B2-01.3	Bed	11.6	95	Minimum	51.6%	32.0%	12.4%	Minimum	67.2%	29.8%	6.8%
B2-02.1	LKD	25.0	235	Fail	33.6%	10.8%	2.2%	Minimum	52.2%	5.2%	0.0%
B2-02.2	Bed	11.5	99	Minimum	59.4%	43.7%	28.9%	Minimum	75.8%	44.7%	27.0%
B2-03.1	LKD	28.1	251	Fail	31.3%	9.4%	0.3%	Fail	46.0%	0.8%	0.0%
B2-03.2	Bed	11.2	96	Minimum	62.5%	48.2%	32.6%	Medium	78.8%	52.8%	33.2%
B2-04.1	LKD	17.5	144	High	79.6%	69.8%	61.0%	High	85.1%	68.2%	54.6%
B2-04.2	Bed	12.0	93	Medium	71.6%	58.9%	47.1%	Medium	81.6%	58.0%	43.6%
B2-05.1	LKD	25.6	220	High	81.8%	74.1%	64.5%	High	84.6%	67.4%	53.9%
B2-05.2	Bed	10.7	86	High	75.2%	62.6%	50.9%	Medium	83.7%	63.4%	48.2%
B2-06.1	LKD	23.7	217	Minimum	52.6%	33.2%	13.6%	Minimum	65.4%	27.3%	6.5%
B2-06.2	Bed	11.0	98	Medium	72.6%	59.5%	46.8%	Medium	82.3%	59.4%	43.2%
B2-07.1	LKD	25.5	222	Fail	29.1%	8.1%	4.8%	Fail	49.2%	5.4%	1.5%
B2-07.2	Bed	8.6	66	Fail	32.0%	8.3%	4.5%	Fail	38.0%	3.6%	0.8%
B2-07.3	Bed	12.2	110	Medium	66.8%	53.3%	38.5%	Medium	78.9%	53.0%	33.3%
B3-01.1	LKD	31.7	303	Minimum	60.1%	44.4%	27.3%	Minimum	75.7%	44.0%	21.6%
B3-01.2	Bed	11.4	90	High	76.2%	64.0%	52.2%	Medium	83.2%	61.8%	46.8%
B3-01.3	Bed	11.6	95	Minimum	61.4%	46.0%	26.3%	Minimum	73.3%	39.2%	13.7%
B3-02.1	LKD	25.0	235	Minimum	53.5%	33.8%	13.7%	Minimum	67.4%	28.4%	3.1%
B3-02.2	Bed	11.5	99	Minimum	62.2%	47.4%	32.2%	Minimum	77.8%	49.6%	29.7%
B3-03.1	LKD	28.1	251	Fail	47.5%	25.2%	4.4%	Minimum	60.5%	14.2%	1.8%
B3-03.2	Bed	11.2	96	Medium	64.9%	51.7%	36.3%	Medium	80.7%	55.8%	37.5%

Block B - EN17037:2018 Table A.1 Daylight Provision Room Schedule											
Space ID	Description	Area m2	Sensor Count	Target Illuminance	300lux_50	500lux_50	750lux_50	Minimum Target Illuminance	100lux_95	300lux_95	500lux_95
B3-04.1	LKD	17.5	144	High	81.9%	74.0%	64.5%	High	86.9%	72.8%	60.7%
B3-04.2	Bed	12.0	93	Medium	71.6%	59.2%	47.4%	Medium	82.4%	60.6%	45.4%
B3-05.1	LKD	25.6	220	High	82.7%	75.6%	66.2%	High	85.9%	69.2%	56.5%
B3-05.2	Bed	10.7	86	High	77.1%	65.3%	54.7%	High	85.6%	67.7%	54.0%
B3-06.1	LKD	23.7	217	Minimum	59.5%	41.7%	21.5%	Minimum	72.2%	37.7%	11.4%
B3-06.2	Bed	11.0	98	High	77.2%	65.5%	54.2%	High	85.4%	66.0%	52.1%
B3-07.1	LKD	25.5	222	Minimum	56.4%	37.8%	21.3%	Minimum	69.1%	31.8%	12.4%
B3-07.2	Bed	8.6	66	Fail	45.5%	19.8%	7.9%	Fail	49.9%	5.7%	2.3%
B3-07.3	Bed	12.2	110	Medium	74.8%	61.3%	49.8%	Medium	82.4%	60.4%	44.4%
B4-01.1	LKD	25.4	236	High	77.1%	66.4%	56.1%	High	84.5%	66.1%	52.8%
B4-01.2	Bed	12.2	98	Medium	72.3%	59.0%	45.1%	Medium	82.4%	60.0%	43.3%
B4-01.3	Bed	10.5	80	Medium	69.1%	56.0%	40.7%	Medium	78.2%	50.5%	30.0%
B4-02.1	LKD	24.8	202	High	81.9%	74.6%	65.0%	Medium	81.8%	59.5%	45.5%
B4-02.2	Bed	9.9	72	High	84.1%	77.4%	69.4%	High	89.2%	78.8%	68.6%
B4-03.1	LKD	23.9	204	Medium	66.8%	52.2%	34.6%	Minimum	76.7%	45.1%	20.0%
B4-03.2	Bed	10.1	80	High	80.9%	72.6%	61.3%	High	87.4%	73.4%	59.3%
B5-01.1	LKD	25.4	236	High	81.2%	72.4%	62.9%	High	86.7%	72.6%	60.1%
B5-01.2	Bed	12.2	98	High	76.6%	63.6%	50.9%	High	85.3%	66.1%	50.2%
B5-01.3	Bed	10.5	80	Medium	75.7%	62.6%	49.6%	Medium	81.4%	57.6%	39.0%
B5-02.1	LKD	24.8	202	High	83.1%	76.5%	67.5%	Medium	82.8%	62.3%	48.2%
B5-02.2	Bed	9.9	72	High	84.0%	77.4%	69.4%	High	89.2%	78.6%	67.9%
B5-03.1	LKD	23.9	204	Medium	75.4%	62.2%	49.2%	Medium	80.9%	55.6%	34.7%
B5-03.2	Bed	10.1	80	High	82.1%	74.3%	63.7%	High	88.2%	76.2%	63.0%

Table 14: Block B - Daylight Provision individual values for all habitable rooms to EN 17037 Table A.1.

Block C - EN17037:2018 Table A.1 Daylight Provision Room Schedule

Space ID	Description	Area m2	Sensor Count	Target Illuminance	300lux_50	500lux_50	750lux_50	Minimum Target Illuminance	100lux_95	300lux_95	500lux_95
C0-01.1	LKD	25.0	209	Minimum	56.4%	40.0%	24.3%	Minimum	69.7%	33.6%	17.1%
C0-01.2	Bed	10.6	80	Fail	27.1%	10.6%	2.3%	Fail	46.0%	6.9%	0.9%
C0-01.3	Bed	10.7	90	Fail	36.8%	19.0%	6.9%	Minimum	64.2%	20.8%	5.7%
C0-02.1	LKD	25.8	230	Fail	42.1%	23.8%	12.1%	Minimum	69.0%	26.1%	11.4%
C0-02.2	Bed	7.3	54	Fail	8.4%	3.4%	1.3%	Fail	26.2%	2.4%	0.0%
C0-02.3	Bed	10.5	83	Fail	20.8%	5.8%	3.2%	Fail	49.1%	10.9%	3.1%
C0-03.1	LKD	25.5	215	High	78.5%	68.2%	57.0%	High	86.0%	69.6%	56.1%
C0-03.2	Bed	11.7	100	Minimum	62.9%	42.1%	26.6%	Minimum	77.2%	41.7%	22.2%
C0-03.3	Bed	11.9	99	Fail	39.9%	21.2%	9.6%	Minimum	66.9%	24.3%	9.7%
C0-04.1	LKD	24.1	206	Medium	66.7%	52.8%	38.2%	Minimum	66.8%	28.9%	9.7%
C0-04.2	Bed	11.9	90	Medium	64.2%	50.9%	35.7%	Medium	80.0%	53.6%	35.3%
C0-04.3	Bed	8.7	55	Medium	71.3%	58.4%	46.7%	Minimum	75.4%	48.2%	33.4%
C0-05.1	LKD	23.8	215	Fail	46.6%	26.3%	9.4%	Minimum	63.3%	25.6%	5.6%
C0-05.2	Bed	10.5	84	High	75.7%	63.2%	51.7%	High	86.6%	69.7%	54.5%
C0-06.1	LKD	22.2	197	Fail	45.1%	25.6%	8.4%	Minimum	63.8%	24.0%	4.5%
C0-06.2	Bed	11.5	91	Medium	68.5%	53.7%	40.5%	Medium	82.0%	57.5%	40.5%
C1-01.1	LKD	24.7	219	Minimum	54.1%	36.3%	20.8%	Minimum	61.8%	24.8%	7.2%
C1-01.2	Bed	10.7	79	Minimum	62.4%	39.4%	19.3%	Minimum	78.7%	42.0%	15.7%
C1-02.1	LKD	20.2	172	Minimum	60.2%	35.9%	17.7%	Minimum	77.4%	37.3%	11.7%
C1-02.2	Bed	11.4	88	Minimum	67.1%	47.7%	26.8%	Minimum	80.8%	49.7%	23.4%
C1-03.1	LKD	22.8	190	Minimum	64.6%	44.2%	22.7%	Minimum	76.4%	38.2%	11.5%
C1-03.2	Bed	11.7	88	Minimum	65.4%	45.9%	24.4%	Medium	81.0%	50.4%	24.2%
C1-04.1	LKD	27.8	239	High	78.9%	68.9%	57.9%	Medium	83.5%	62.8%	47.3%
C1-04.2	Bed	10.8	90	Medium	75.0%	60.3%	43.1%	Medium	85.5%	65.7%	46.4%
C1-04.3	Bed	11.3	89	Minimum	64.9%	44.6%	24.3%	Medium	81.9%	53.7%	28.3%
C1-05.1	LKD	27.8	245	High	80.7%	71.2%	61.9%	High	87.3%	74.7%	63.3%
C1-05.2	Bed	10.1	87	Minimum	61.1%	46.0%	29.2%	Medium	78.2%	50.7%	28.2%
C1-05.3	Bed	8.6	72	Medium	74.3%	61.2%	49.1%	Medium	83.0%	61.3%	45.8%
C1-06.1	LKD	25.5	236	Fail	41.8%	20.5%	6.8%	Minimum	58.2%	16.1%	3.5%
C1-06.2	Bed	11.5	94	Minimum	62.7%	48.2%	32.9%	Medium	80.1%	54.2%	36.6%
C1-07.1	LKD	22.6	193	Fail	37.6%	15.4%	5.3%	Minimum	50.8%	5.7%	0.5%
C1-07.2	Bed	12.6	100	Minimum	61.0%	46.7%	30.8%	Medium	78.4%	50.3%	31.2%
C2-01.1	LKD	24.7	219	Minimum	59.5%	44.5%	27.4%	Minimum	68.4%	33.9%	10.9%
C2-01.2	Bed	10.7	79	Medium	68.9%	51.4%	32.2%	Medium	82.4%	54.8%	31.8%
C2-02.1	LKD	20.2	172	Minimum	64.7%	45.7%	24.5%	Minimum	78.9%	46.4%	19.6%
C2-02.2	Bed	11.4	88	Medium	73.3%	57.5%	41.3%	Medium	84.2%	61.7%	41.8%
C2-03.1	LKD	22.8	190	Minimum	67.5%	50.0%	30.0%	Minimum	79.1%	47.5%	21.0%
C2-03.2	Bed	11.7	88	Medium	73.6%	58.2%	41.6%	Medium	84.3%	62.2%	42.6%
C2-04.1	LKD	27.8	239	High	79.6%	70.0%	59.0%	High	85.3%	68.9%	54.2%
C2-04.2	Bed	10.8	90	High	81.4%	71.6%	59.5%	High	88.8%	76.1%	62.8%
C2-04.3	Bed	11.3	89	High	79.7%	68.6%	55.5%	High	88.1%	74.0%	59.0%
C2-05.1	LKD	27.8	245	High	83.0%	76.0%	66.8%	High	88.4%	77.4%	66.2%
C2-05.2	Bed	10.1	87	Minimum	62.9%	47.9%	31.7%	Medium	79.0%	52.3%	30.5%
C2-05.3	Bed	8.6	72	High	76.1%	63.2%	51.8%	Medium	82.9%	61.3%	45.7%
C2-06.1	LKD	25.5	236	Fail	46.3%	26.8%	8.0%	Minimum	61.6%	21.8%	5.0%
C2-06.2	Bed	11.5	94	Medium	66.0%	52.3%	38.0%	Medium	80.9%	56.5%	39.1%
C2-07.1	LKD	22.6	193	Fail	46.1%	24.2%	6.5%	Minimum	54.8%	8.9%	3.2%
C2-07.2	Bed	12.6	100	Medium	67.3%	53.0%	38.3%	Medium	79.2%	52.3%	35.0%
C3-01.1	LKD	24.7	219	Medium	65.8%	51.1%	35.0%	Minimum	75.3%	42.9%	19.2%
C3-01.2	Bed	10.7	79	Medium	70.0%	53.0%	34.6%	Medium	82.8%	56.5%	33.9%

Block C - EN17037:2018 Table A.1 Daylight Provision Room Schedule

Space ID	Description	Area m2	Sensor Count	Target Illuminance	300lux_50	500lux_50	750lux_50	Minimum Target Illuminance	100lux_95	300lux_95	500lux_95
C3-02.1	LKD	20.2	172	Minimum	65.0%	45.9%	24.9%	Minimum	78.6%	45.8%	19.2%
C3-02.2	Bed	11.4	88	Medium	69.4%	52.2%	35.3%	Medium	82.9%	57.8%	36.5%
C3-03.1	LKD	22.8	190	Minimum	66.1%	48.1%	27.8%	Minimum	77.9%	44.3%	16.2%
C3-03.2	Bed	11.7	88	Medium	73.6%	58.3%	42.3%	Medium	84.5%	63.3%	43.8%
C3-04.1	LKD	27.8	239	Medium	73.1%	59.2%	45.6%	Medium	82.3%	59.5%	41.2%
C3-04.2	Bed	10.8	90	Medium	77.3%	64.0%	49.0%	High	86.5%	68.9%	52.1%
C3-04.3	Bed	11.3	89	Medium	68.4%	51.3%	34.2%	Medium	83.6%	60.2%	39.3%
C3-05.1	LKD	27.8	245	High	82.2%	74.5%	65.2%	High	88.1%	76.8%	65.5%
C3-05.2	Bed	10.1	87	Medium	65.8%	51.6%	34.7%	Medium	80.2%	54.7%	33.8%
C3-05.3	Bed	8.6	72	High	77.6%	66.2%	54.7%	Medium	83.8%	63.1%	49.3%
C3-06.1	LKD	25.5	236	Minimum	51.9%	32.7%	12.6%	Minimum	67.3%	30.9%	7.5%
C3-06.2	Bed	12.6	100	Medium	72.5%	58.4%	46.1%	Medium	81.4%	57.3%	40.3%
C3-06.2	Bed	11.5	94	Medium	71.2%	57.0%	44.7%	Medium	82.3%	58.7%	42.9%
C3-07.1	LKD	22.6	193	Minimum	53.5%	34.1%	12.8%	Minimum	64.2%	21.5%	5.9%
C4-01.1	LKD	24.7	219	Medium	70.9%	56.6%	42.5%	Medium	78.6%	50.8%	27.6%
C4-01.2	Bed	10.7	79	Medium	68.7%	52.0%	34.7%	Medium	83.0%	57.4%	36.2%
C4-02.1	LKD	20.2	172	Minimum	64.5%	45.6%	24.1%	Minimum	79.3%	47.3%	20.0%
C4-02.2	Bed	11.4	88	High	81.3%	71.7%	59.5%	High	88.1%	74.5%	59.8%
C4-03.1	LKD	22.8	190	Minimum	66.4%	48.6%	28.0%	Minimum	77.6%	43.4%	15.3%
C4-03.2	Bed	11.7	88	Medium	76.2%	62.4%	47.1%	Medium	85.6%	66.3%	48.7%
C4-04.1	LKD	27.8	239	High	79.9%	70.5%	60.0%	High	84.5%	66.6%	51.3%
C4-04.2	Bed	10.8	90	Medium	77.6%	64.6%	49.8%	High	86.6%	69.8%	53.0%
C4-04.3	Bed	11.3	89	Medium	74.9%	60.9%	46.1%	High	86.2%	67.7%	50.7%
C4-05.1	LKD	27.8	245	High	82.1%	74.7%	65.2%	High	88.5%	77.7%	66.5%
C4-05.2	Bed	10.1	87	Medium	68.4%	54.5%	38.3%	Medium	82.1%	58.7%	39.7%
C4-05.3	Bed	8.6	72	High	78.6%	67.9%	55.9%	High	86.0%	67.6%	53.7%
C4-06.1	LKD	25.5	236	Minimum	58.4%	41.4%	22.7%	Minimum	73.0%	40.4%	14.9%
C4-06.2	Bed	11.5	94	Medium	74.1%	60.5%	48.5%	Medium	83.8%	63.0%	48.7%
C4-07.1	LKD	22.6	193	Minimum	61.1%	43.9%	24.3%	Minimum	70.7%	33.5%	10.2%
C4-07.2	Bed	12.6	100	High	75.7%	62.6%	50.8%	Medium	84.1%	63.2%	48.2%
C5-01.1	LKD	24.7	219	Medium	75.0%	62.0%	49.1%	Medium	81.3%	56.9%	37.2%
C5-01.2	Bed	10.7	79	Medium	70.4%	53.9%	36.0%	Medium	83.5%	58.1%	36.8%
C5-02.1	LKD	20.2	172	Minimum	64.7%	46.0%	24.2%	Minimum	79.1%	47.1%	19.8%
C5-02.2	Bed	11.4	88	Medium	74.3%	59.2%	43.8%	Medium	84.5%	63.1%	44.3%
C5-03.1	LKD	22.8	190	Medium	67.3%	50.3%	30.5%	Minimum	78.5%	46.1%	18.9%
C5-03.2	Bed	11.7	88	Medium	71.8%	56.1%	39.0%	Medium	83.8%	60.5%	40.8%
C5-04.1	LKD	27.8	239	High	79.9%	70.6%	60.2%	High	84.6%	66.6%	51.2%
C5-04.2	Bed	10.8	90	High	80.6%	70.0%	57.9%	High	88.3%	75.1%	60.5%
C5-04.3	Bed	11.3	89	High	79.2%	67.7%	54.6%	High	87.5%	72.1%	56.8%
C5-05.1	LKD	27.8	245	High	82.7%	75.6%	66.5%	High	88.5%	78.0%	66.8%
C5-05.2	Bed	10.1	87	Medium	70.6%	56.7%	41.5%	Medium	83.0%	61.7%	43.7%
C5-05.3	Bed	8.6	72	High	79.7%	69.8%	58.7%	High	86.9%	70.9%	56.6%
C5-06.1	LKD	25.5	236	Minimum	64.1%	49.2%	31.9%	Minimum	78.1%	49.8%	25.3%
C5-06.2	Bed	11.5	94	High	76.3%	64.3%	52.5%	High	86.4%	68.4%	54.1%
C5-07.1	LKD	22.6	193	Medium	66.4%	51.3%	32.1%	Minimum	77.2%	46.3%	19.8%
C5-07.2	Bed	12.6	100	High	78.0%	66.7%	55.0%	High	86.7%	71.0%	55.9%
C6-01.1	LKD	24.7	219	High	79.6%	69.2%	58.2%	High	85.4%	66.4%	50.6%
C6-01.2	Bed	10.7	79	Medium	70.8%	54.3%	37.2%	Medium	83.1%	57.6%	36.0%
C6-02.1	LKD	20.2	172	Minimum	64.5%	45.8%	23.9%	Minimum	78.7%	46.3%	18.5%
C6-02.2	Bed	11.4	88	Medium	72.3%	57.0%	41.4%	Medium	84.2%	61.9%	43.0%

Block C - EN17037:2018 Table A.1 Daylight Provision Room Schedule											
Space ID	Description	Area m2	Sensor Count	Target Illuminance	300lux_50	500lux_50	750lux_50	Minimum Target Illuminance	100lux_95	300lux_95	500lux_95
C6-03.1	LKD	22.8	190	Medium	69.7%	53.0%	34.8%	Minimum	78.9%	47.4%	20.8%
C6-03.2	Bed	11.7	88	Medium	72.1%	56.6%	40.3%	Medium	83.9%	60.9%	41.3%
C6-04.1	LKD	27.8	239	High	81.3%	73.7%	63.2%	High	85.6%	69.2%	54.2%
C6-04.2	Bed	10.8	90	High	80.0%	68.9%	56.4%	High	88.1%	74.1%	59.4%
C6-04.3	Bed	11.3	89	High	79.1%	67.4%	54.0%	High	87.6%	72.6%	57.9%
C6-05.1	LKD	27.8	245	High	84.0%	78.2%	69.7%	High	89.3%	79.3%	68.7%
C6-05.2	Bed	10.1	87	High	77.8%	66.3%	53.8%	High	86.4%	68.7%	53.8%
C6-05.3	Bed	8.6	72	High	80.4%	71.5%	60.3%	High	87.9%	74.2%	60.8%
C6-06.1	LKD	25.5	236	Medium	67.6%	53.0%	36.0%	Medium	80.8%	55.7%	33.7%
C6-06.2	Bed	11.5	94	High	78.0%	66.7%	54.9%	High	87.2%	72.4%	58.1%
C6-07.1	LKD	22.6	193	Medium	69.5%	55.2%	38.1%	Medium	79.1%	52.1%	26.5%
C6-07.2	Bed	12.6	100	High	79.2%	68.8%	57.8%	High	87.4%	74.0%	59.7%
C7-01.1	LKD	23.0	204	Medium	68.0%	53.2%	37.6%	Medium	81.0%	55.9%	36.2%
C7-01.2	Bed	8.5	64	High	81.9%	74.5%	64.3%	High	88.4%	76.6%	63.9%
C7-02.1	LKD	27.4	246	Medium	74.5%	59.5%	44.0%	Medium	84.4%	62.1%	42.4%
C7-02.2	Bed	10.1	75	High	81.6%	72.1%	60.1%	High	88.2%	75.0%	61.2%
C7-02.3	Bed	9.5	72	High	77.8%	65.0%	50.6%	Medium	85.7%	66.6%	49.5%
C7-03.1	LKD	22.6	195	High	82.7%	75.5%	65.5%	High	88.4%	76.8%	64.5%
C7-03.2	Bed	8.2	61	High	83.6%	76.1%	65.7%	High	89.2%	77.9%	65.5%
C7-03.3	Bed	10.7	88	High	79.4%	68.3%	55.8%	High	88.1%	74.8%	60.6%
C7-04.1	LKD	24.2	203	High	82.8%	75.6%	66.6%	High	88.6%	77.1%	66.3%
C7-04.2	Bed	9.4	75	High	81.8%	73.9%	63.8%	High	87.9%	75.3%	62.4%
C7-04.3	Bed	7.3	50	High	78.9%	68.6%	57.6%	High	86.2%	68.8%	54.8%
C7-05.1	LKD	24.3	207	Medium	71.1%	56.5%	41.2%	Minimum	68.9%	32.8%	13.6%
C7-05.2	Bed	12.2	96	High	78.3%	67.4%	55.5%	High	87.2%	72.1%	57.8%

Table 15: Daylight Provision individual values for all habitable rooms to EN 17037 Table A.1.

Appendix C - Sunlight Hours to Habitable Rooms Within the Proposed Development

Sunlight Hours Apartments Block B				
Unit ID	Room Use	Habitable room window within 90° south	No. sunlight hours on 21st March	EN17037:2018 Level of exposure to sunlight
B0-01.1	LKD	Yes	2.2	Minimum
B0-02.2	Bed	No	1.9	Minimum
B0-03.1	LKD	Yes	9.8	High
B0-04.1	LKD	Yes	9.8	High
B0-05.2	Bed	Yes	2.3	Minimum
B1-01.2	Bed	Yes	2.3	Minimum
B1-02.1	LKD	No	0.8	Below criteria
B1-03.2	Bed	No	1.9	Minimum
B1-04.1	LKD	Yes	9.8	High
B1-05.1	LKD	Yes	9.8	High
B1-06.2	Bed	Yes	2.6	Minimum
B1-07.3	Bed	Yes	2.3	Minimum
B2-01.2	Bed	Yes	3.0	Medium
B2-02.1	LKD	No	0.8	Below criteria
B2-03.2	Bed	No	2.3	Minimum
B2-04.1	LKD	Yes	9.8	High
B2-05.1	LKD	Yes	9.8	High
B2-06.1	LKD	Yes	4.0	High
B2-07.1	LKD	Yes	1.8	Minimum
B3-01.1	LKD	No	2.2	Minimum
B3-02.1	LKD	No	1.0	Below criteria
B3-03.2	Bed	No	2.3	Minimum
B3-04.1	LKD	Yes	9.8	High
B3-05.1	LKD	Yes	9.8	High
B3-06.1	LKD	Yes	2.4	Minimum
B3-07.1	LKD	Yes	3.3	Medium
B4-01.1	LKD	Yes	10.0	High
B4-02.1	LKD	Yes	9.8	High
B4-03.1	LKD	Yes	4.5	High
B5-01.1	LKD	Yes	10.6	High
B5-02.1	LKD	Yes	10.6	High
B5-03.1	LKD	Yes	6.3	High

Table 16: Sunlight Hours

Sunlight Hours Apartments Block C				
Unit ID	Room Use	Habitable room window within 90° south	No. sunlight hours on 21st March	EN17037:2018 Level of exposure to sunlight
C0-01.1	LKD	Yes	0.1	Below criteria
C0-02.1	LKD	No	0.7	Below criteria
C0-03.1	LKD	Yes	7.9	High
C0-04.1	LKD	Yes	3.6	Medium
C0-05.2	Bed	Yes	2.3	Minimum
C0-06.2	Bed	Yes	1.3	Below criteria
C1-01.2	Bed	No	0.6	Below criteria
C1-02.1	LKD	No	3.1	Medium
C1-03.1	LKD	No	3.8	Medium
C1-04.1	LKD	Yes	7.9	High
C1-05.1	LKD	Yes	9.9	High
C1-06.2	Bed	Yes	3.2	Medium

Sunlight Hours Apartments Block C				
Unit ID	Room Use	Habitable room window within 90° south	No. sunlight hours on 21st March	EN17037:2018 Level of exposure to sunlight
C1-07.2	Bed	Yes	1.9	Minimum
C2-01.2	Bed	No	0.6	Below criteria
C2-02.1	LKD	No	3.1	Medium
C2-03.1	LKD	No	3.8	Medium
C2-04.1	LKD	Yes	7.9	High
C2-05.1	LKD	Yes	10.3	High
C2-06.2	Bed	Yes	3.2	Medium
C2-07.2	Bed	Yes	2.4	Minimum
C3-01.1	LKD	Yes	3.2	Medium
C3-02.1	LKD	No	3.1	Medium
C3-03.1	LKD	No	3.6	Medium
C3-04.1	LKD	Yes	6.9	High
C3-05.1	LKD	Yes	9.9	High
C3-06.2	Bed	Yes	3.2	Medium
C3-07.2	Bed	Yes	3.3	Medium
C4-01.1	LKD	Yes	3.8	Medium
C4-02.1	LKD	No	3.1	Medium
C4-03.1	LKD	No	3.6	Medium
C4-04.1	LKD	Yes	7.9	High
C4-05.1	LKD	Yes	9.9	High
C4-06.1	LKD	Yes	2.2	Minimum
C4-07.1	LKD	Yes	2.2	Minimum
C5-01.1	LKD	Yes	4.2	High
C5-02.1	LKD	No	3.1	Medium
C5-03.1	LKD	No	3.8	Medium
C5-04.1	LKD	Yes	7.9	High
C5-05.1	LKD	Yes	9.9	High
C5-06.1	LKD	Yes	3.3	Medium
C5-07.1	LKD	Yes	3.6	Medium
C6-01.1	LKD	Yes	6.3	High
C6-02.1	LKD	No	3.0	Medium
C6-03.1	LKD	No	3.6	Medium
C6-04.1	LKD	Yes	7.9	High
C6-05.1	LKD	Yes	10.3	High
C6-06.1	LKD	Yes	4.2	High
C6-07.1	LKD	Yes	4.3	High
C7-01.1	LKD	Yes	6.3	High
C7-02.1	LKD	No	4.5	High
C7-03.1	LKD	Yes	7.8	High
C7-04.1	LKD	Yes	10.7	High
C7-05.1	LKD	Yes	6.4	High

Table 17: Sunlight Hours