

ENERGY STATEMENT

WHITWORTH STREET WEST, MANCHESTER - PBSA

VERSION 1.1

Project No:	B3006
Date:	April 2026
Client:	Atri7 6 Limited
Document Reference:	FVM-AMES-00-XX-RP-ME-ES

Amber Management & Engineering Services Ltd.
Company number: 03791501. 87-89 High Street, Kings Court, Nailsea, BS48 1AW

This page is intentionally blank to allow duplex printing

CONTENTS

Executive Summary 3
1.0 Introduction 4
1.1 Site Location 4
1.2 Development Proposal 4
2.0 Local Planning 5
2.1 National Planning Policy Framework (December 2024) 5
2.2 Building Regulations Part L 5
2.3 Local Development Framework – Core Strategy (Adopted July 2012) 5
2.4 Places for Everyone Joint Development Plan 7
3.0 Design Principles 9
3.1 Lean Measures 9
3.2 Clean Measures 10
3.3 Green Measures 11
4.0 Proposed Strategy 12
5.0 Conclusion 13
Appendix A – Low / Zero Carbon Technology Feasibility Assessment 14
Appendix B – Part L 2021 BRUKL Simulation 21

PROJECT REVISION SHEET

Version	Details	Comments	Prepared by	Checked by	Issued
1.0	First Issue	First Issue	PC	CC	08/04/26
1.1	Second Issue	Updated in accordance with comments	PC	CC	27/04/26

Executive Summary

This Energy Statement outlines the proposed development's energy efficiency and low/zero carbon technology strategies to meet the requirements of Manchester City Council Policies EN4, EN5 and EN6 and the Places for Everyone Joint Development Plan JP-S1, S2, S3. The proposed development involves the construction of a purpose built student accommodation block, with a variety of room types.

The strategy follows an iterative approach, starting with passive design measures to minimise energy demand. High-performance building materials and fabric have been selected to optimise thermal efficiency, alongside stringent control of air permeability.

Energy-efficient technologies have been implemented for lighting, ventilation, and energy distribution to further reduce energy consumption while maintaining functionality and occupant comfort.

Finally, low and zero carbon technologies were explored to assess which would be the most effective for this bespoke development. Due to the continued decarbonisation of the electricity network the use of electrical energy as a fuel source for all building requirements was deemed most appropriate. Air source heat pumps have been selected to produce low temperature hot water for space heating and domestic hot water generation. This is deemed particularly suitable due to the high seasonal efficiencies of the heat pumps and their ability to produce in excess of three units of heat for every unit of electricity consumed.

Other technologies, including wind turbines, biomass heating, ground source heat pumps, and solar hot water systems, were considered during the assessment process in Section 3.4.7 of this report. However, these were deemed unsuitable due to site constraints, compatibility issues, or the superior effectiveness of the chosen solutions.

The Part L modelling exercise demonstrates that the proposed development would have an improvement over the target emission rate and an improvement over the target primary energy rate based upon the current design philosophy and may be subject to future design development.

Target CO_2 emission rate (TER), $kgCO_2/m^2annum$	3.87	
Building CO_2 emission rate (BER), $kgCO_2/m^2annum$	3.84	
Target primary energy rate (TPER), kWh_{PE}/m^2annum	41.33	
Building primary energy rate (BPER), kWh_{PE}/m^2annum	41.17	
Do the building's emission and primary energy rates exceed the targets?	BER =< TER	BPER =< TPER

Figure 4.1 - BER/TER and BPER/TPER comparison showing Part L 2021 compliance

Results	
HVAC System	ASHP, MVHR + VRF
Renewables	ASHP
BER kgCO2/m2	3.84
TER kgCO2/m2	3.87
% betterment over part L 2021	1.00%
% Energy produced by LZC sources	52%
EPC Rating	A
Part L 2021 Compliance Achieved	Yes

1.0 Introduction

This Energy Statement has been prepared for Atri7 6 Limited to support their planning application for the development of the site at 10-12 Whitworth Street West, Manchester. It has been developed by Amber Management and Engineering Services Ltd as a response to the local planning requirements. The statement is intended to respond to the issues raised in the Manchester City Council Policies EN4, EN5 and EN6, Manchester Places for Everyone Joint Development Plan JP-S1, S2 and S3, Part L of Building Regulations and the National Planning Framework and provide the information required within an Energy Statement.

1.1 Site Location

The site comprises a vacant plot bounded by Whitworth Street West to the north, City Road Inn to the east, the railway line to the south, and Hobs to the west.

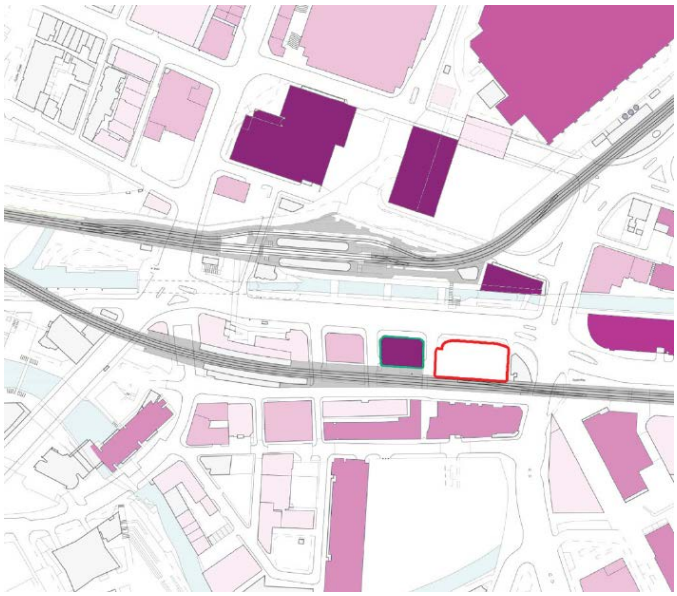


Figure 1: Site Location Plan

1.2 Development Proposal

The proposed development involves the construction of 818 beds of purpose built student accommodation (PBSA), arranged in a single tower of 38 floors with a typical floor seen in figure 2. The building allows for mid-level plant rooms split across the 20th and 21st floor and amenity space spanning the Ground, 1st, 2nd and 38th floor. The bed spaces are arranged in a mix of en-suite rooms, studios, large studios and twodios.

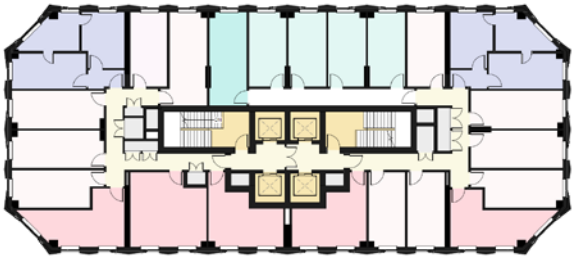


Figure 3: Typical floor plan

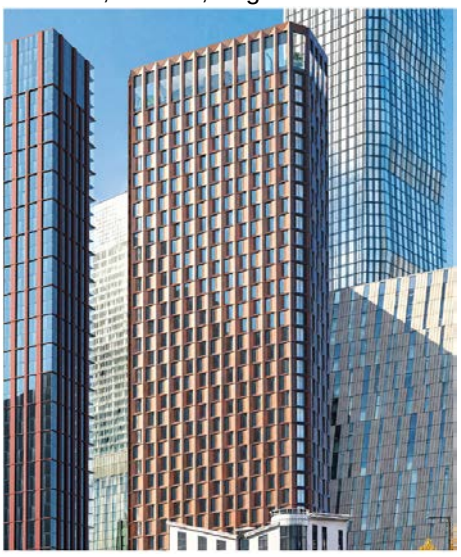


Figure 2: 3D Massing View

2.0 Local Planning

Several planning policies are applicable to the proposed development. This section summarises the key carbon and sustainability policies relevant to the project. These include the National Planning Policy Framework, Part L of the Building Regulations, the Manchester Local Development Framework, and the associated Supplementary Planning Guidance.

2.1 National Planning Policy Framework (December 2024)

The National Planning Policy Framework (NPPF) forms a central part of the UK Government's planning reforms, aimed at simplifying the planning system, enhancing accessibility, protecting the environment, and promoting sustainable development. It outlines national planning policies for England and guides their practical application.

The NPPF replaces previous national planning documents, including Planning Policy Statements (PPS), Planning Policy Guidance Notes (PPG), and certain Circulars—excluding PPS10 on Waste.

In relation to energy and sustainability, paragraph 165 of the NPPF encourages local planning authorities to:

- Develop a positive strategy for renewable and low-carbon energy and heat, including provisions for future repowering and life extension, while mitigating any adverse effects (e.g., visual and cumulative impacts).
- Consider designating suitable areas for renewable and low-carbon energy generation and related infrastructure.
- Promote opportunities for developments to utilise decentralised, renewable, or low-carbon energy systems, and support co-location of heat producers and users.

2.2 Building Regulations Part L

The Proposed Development will need to comply with Building Regulations AD Part L: Vol 2 England and Wales 2010 (2021 edition). These regulations (Conservation of Fuel and Power) are focused on limiting the heat losses by adhering the minimum fabric and HVAC efficiency standards. Limiting carbon dioxide emissions and establish that the Building Emission Rate (BER) and Building Primary Energy Target (BPER) must not be greater than the Target Emissions Rate (TER) and Target Primary Energy Rate (TPER) set through the National Calculation Methodology (NCM).

2.3 Local Development Framework – Core Strategy (Adopted July 2012)

The Adopted Local Plan sets out Manchester City Council's vision and strategic objectives for sustainable development through to 2027. The Core Strategy serves as the principal document within the Local Plan, guiding development across the city. It is supported by the Guide to Development in Manchester SPD, which provides further detail on design and planning expectations.

Manchester has committed to becoming a zero carbon city by 2038, with all new development expected to align with this ambition. While no interim carbon reduction targets are set in current planning policy, it is anticipated that developments will demonstrate support for this goal through the adoption of low and zero-carbon energy technologies, and by avoiding the use of direct-emission heating systems.

The following Core Strategy policies are relevant to energy and carbon performance in new development proposals:

Policy EN 4: Reducing CO_2 Emissions by Enabling Low and Zero Carbon Development

Policy EN 4 requires all development to follow the principles of the Energy Hierarchy, which includes:

- Minimising energy demand through passive design measures (e.g. natural lighting, passive heating and cooling).

- Incorporating high levels of energy efficiency through enhanced insulation, glazing, and efficient systems.
- Meeting residual energy demand through on-site low or zero carbon energy generation.

Additional policy requirements include:

- Optimising the siting and design of new development and retrofit schemes to benefit from low and zero carbon energy supply opportunities.
- Where appropriate, connecting to or contributing towards decentralised energy networks, or designing in the capacity for future connection.
- Promoting the use of low embodied carbon materials in construction and refurbishment.

The scheme has been developed in accordance with the energy hierarchy, prioritising a fabric-first approach to limit heat loss and reduce overall energy demand. By enhancing the thermal performance of the building envelope, the need for space heating is significantly reduced, resulting in lower operational energy consumption. Renewable and low-carbon technologies form a key part of the design strategy, with a Low and Zero Carbon (LZC) assessment undertaken to inform the selected approach. Air Source Heat Pumps are proposed to deliver both space heating and domestic hot water efficiently. Whilst the potential to connect to a district heat network has been reviewed, this has been discounted due to practical delivery constraints and viability considerations. Despite this, the development places a strong emphasis on sustainability, incorporating energy-efficient lighting and advanced heat recovery systems to optimise performance and ensure compliance with relevant planning policy.

Policy EN5 Strategic Areas for low and zero carbon decentralised energy infrastructure

Policy EN5 of Manchester's Core Strategy focuses on promoting renewable energy within the city. It encourages the integration of renewable energy technologies, such as solar panels and wind turbines, into new developments and existing structures. The policy also supports the establishment of district heating networks and other decentralised energy systems to enhance energy efficiency and reduce carbon emissions. Additionally, EN5 advocates for retrofitting existing buildings with energy-efficient measures to improve their environmental performance. These initiatives aim to transition Manchester towards a more sustainable, low-carbon future by incorporating renewable energy solutions into urban planning and development.

As referenced in the previous section, renewable technologies have been incorporated where feasible, and this has been especially utilised in place of district heating to show that the design has fully considered carbon reduction. The development achieves a reduction over Approved Document L 2021 ensuring compliance with the current building regulations and improving upon them. The potential for roof-mounted solar PV has been considered, but the building's 40-storey height results in a very limited roof area relative to its floor space. Additionally, the roof must accommodate essential plant and life-safety equipment, leaving insufficient space for meaningful PV installation. The development instead focuses on other low-carbon technologies and energy efficiency measures to minimise energy use and carbon emissions.

Policy EN 6: Target Framework for CO_2 Reduction from Low or Zero Carbon Energy Supplies

Policy EN 6 sets out performance targets for non-domestic developments exceeding 1,000 m² in floor space. These targets are benchmarked against the Target Emission Rate (TER) from Part L 2010 of the Building Regulations:

In line with the other policies referenced in the Core Strategy, this development follows the energy hierarchy, incorporating passive design measures to minimise energy demand. Renewable and low-carbon technologies have also been integrated to reduce carbon emissions and support Manchester's objectives for a more sustainable, low-carbon city.

2.4 Places for Everyone Joint Development Plan

Places for Everyone is a joint development plan covering nine Greater Manchester boroughs, replacing individual local plans, including the Manchester Core Strategy. It provides a strategic framework for housing, employment, infrastructure, and environmental planning up to 2039, with an emphasis on sustainable growth and carbon reduction. Unlike the Manchester Core Strategy, which focused solely on the city, Places for Everyone takes a region-wide approach, ensuring consistency across Greater Manchester. It establishes a unified vision for the city-region, guiding future planning decisions and policies at a broader strategic level.

2.4.1 JP-S1 Sustainable Growth

This policy focuses on ensuring that Greater Manchester's growth is balanced, sustainable, and inclusive. It encourages developments that provide a mix of homes, jobs, and community amenities, while prioritising environmental protection and social wellbeing. Specific to energy efficiency, it is expected that the development will apply a Net Zero approach to the carbon emissions as laid out under the UK Green Building Council. Unregulated energy should be reported with regulated energy and new developments must follow the energy hierarchy, with any carbon emissions remaining after this has been demonstrated, offset through payment.

The proposed development achieves an Energy Use Intensity (EUI) of approximately **41 kWh/m²/year**, representing a highly efficient building performance. This is in line with industry best practice for residential developments and supports net zero operational carbon objectives, consistent with UK Green Building Council principles. In addition, a comprehensive approach to carbon reduction will be adopted, and where residual emissions remain, these will be addressed through a carbon offsetting strategy, including potential investment in verified renewable energy schemes. This approach ensures that the development contributes positively towards Greater Manchester's 2038 net zero target while maintaining flexibility to enhance performance as the project evolves.

2.4.2 JP–S2 Carbon and Energy

This policy sets a clear ambition for Greater Manchester to become a zero-carbon city-region by 2038. It requires new developments to contribute to reducing carbon emissions through energy efficiency measures, the integration of renewable energy sources, and the use of low-carbon technologies. The aim is to drastically reduce the city's overall carbon footprint by ensuring that all new developments meet high environmental standards. From adoption of this plan, new developments must be 'Net Zero' as defined by the UK Net Zero Carbon Buildings Standard, if technically feasible. All non-residential developments must achieve BREEAM 'Excellent' for ENE01 and demonstrate how the site has reduced carbon emissions, along with overheating risks.

The proposed development has been designed to align with the zero-carbon ambitions of the Greater Manchester Combined Authority, targeting a BREEAM 'Excellent' rating at planning stage, with a commitment to further review opportunities to achieve 'Outstanding' as the design progresses. The scheme incorporates a range of energy efficiency measures and low-carbon technologies to minimise operational emissions and reduce overheating risk in accordance with policy requirements.

2.4.3 JP–S3 Heat and Energy Networks

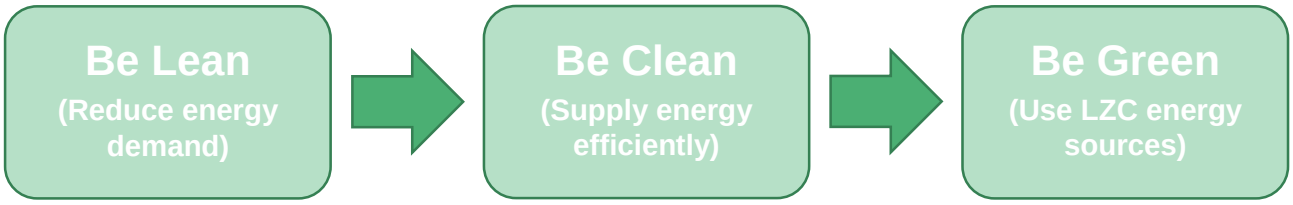
This policy promotes the use of district heating systems and local energy networks to provide sustainable energy solutions across the region. It encourages new developments to connect to existing or planned heat networks, which can significantly reduce carbon emissions and improve energy efficiency. The policy supports the development of resilient, low-carbon energy infrastructure to help meet the region's long-term energy needs and ensure that growth is supported by sustainable energy systems. New residential schemes that exceed 1000m2 must connect to existing or planned network if 500m within network unless able to provide effective alternative to reducing carbon emissions or if not financially/practically viable.

Connection to the existing district heat network within Manchester Civic Quarter has been carefully considered in line with the requirements of Manchester City Council PFE framework. However, it has been determined that connection is not currently feasible due to a combination of technical and viability constraints, including the lack of nearby connections point, potential network capacity limitations, and the extent of infrastructure required to extend the network to the site. The existing network is carbon-intensive, relying on fossil fuel–powered gas boilers and combined heat and power (CHP) systems. In contrast, the proposed development will utilise more sustainable air source heat pumps (ASHPs), significantly reducing carbon emissions and

improving overall energy efficiency. Nevertheless, the development has been designed to be future-proofed, with appropriate safeguarding measures incorporated to enable connection to a more suitable district heat network should one become available and viable in the future.

3.0 Design Principles

The design intent of the development is to reduce the annual energy consumption, whilst ensuring that the energy consumed is done so in the most efficient manner possible, minimising CO_2 emissions. The services strategy to achieve this and to comply with the Building Regulations has followed the following principles:



- **Lean**: Prioritise passive design strategies to reduce energy demand. This includes optimising building orientation, insulation and airtightness to minimise heating and cooling needs.
- **Clean**: After reducing demand, focus on improving energy efficiency through the use of high efficiency systems, such as LED lighting, energy-efficient heating, ventilation, and air conditioning (HVAC) systems.
- **Green**: Finally, meet the reduced energy demand through renewable energy sources and LCGT, such as PV, Wind turbines or heat pumps. This reduces the building's carbon footprint and contributes to net-zero goals by offsetting non- renewable energy use.

3.1 Lean Measures

3.1.1 Building Fabric

The thermal insulation standards will be specified to exceed the minimum standards contained within Approved Document L2A 2021 to limit the heat loss through the building fabric. This will reduce the heat energy required to maintain internal comfort levels and so reducing the CO_2 emissions associated with space heating.

The building will also be designed to achieve air permeability standards in excess of the requirements of Approved Document L2A, targeting an air permeability of 2.5 $m^3/(h.m^2)$ at 50 Pa. This will reduce the infiltration of external ambient air and so reduce the heating requirement of the building.

3.1.2 Solar Gain

Solar control glazing will be provided to the windows on the south elevation to limit summertime solar gains and overheating, so reducing the requirement for mechanical cooling systems and increased mechanical ventilation rates.

Table 3.1 – Building Fabric Performance

Parameter	Part L Minimum Standard	Design Proposal	Percentage improvement over Part L
Ground Floor U-Vales (W/m^2K)	0.18	0.11	39%
Roof U-Value (W/m^2K)	0.18	0.10	44%
External Wall U-Value (W/m^2K)	0.26	0.14	46%
Window U-Value (average including frame) (W/m^2K)	1.6	1.2	25%
Doors U-Value	1.6	1.3	19%
Glazing G-Value	-	0.3	-
Glazing Visible Light Transmission	-	0.7	-
Air Permeability ($m^3/hr/m^2$ @50 Pa)	8.0	2.5	69%

3.2 Clean Measures

3.2.1 Heating Plant

Heating and hot water will be provided by centralised high efficiency Air Source Heat Pumps (ASHP). These will be selected to have an efficiency that exceeds the minimum standards required by the Non-Domestic Building Services Compliance Guide 2021 Edition. Heating will be supplied to each room via a central distribution network feeding high efficiency radiators. TRV's will be provided to each radiator, with weather compensated controls varying the boiler flow temperatures. All central controls will be linked to the Building Management System to provide central monitoring and control.

3.2.2 Mechanical Ventilation

Due to acoustic requirements all areas shall require Mechanical Ventilation with Heat Recovery (MVHR), these shall incorporate high efficiency heat exchangers to minimise the CO_2 emissions related to heating the incoming fresh air to the room temperature.

3.2.3 Internal Lighting

Internal lighting contributes to a significant proportion of the operational energy requirements of buildings of this type, and so offers significant scope for the reduction of annual CO_2 emissions. The energy consumption associated with internal lighting will be minimised by using efficient LED luminaires wherever possible, with high frequency fluorescent luminaires elsewhere.

Automatic lighting controls will be provided, via passive infra-red detectors (PIR's), throughout all communal and circulation spaces to ensure lighting is not left on unnecessarily.

3.2.4 Energy Metering

All main incoming utilities, major energy consuming plant, and individual electrical distribution boards will be metered to enable the end use to be identified. All meters will be linked to the Building Management System (BMS) to provide central monitoring. While metering does not in itself reduce energy consumption, this will allow high energy consumption to be identified and targeted for improvements.

3.3 Green Measures

A variety of low/zero carbon technologies (LZCTs) were assessed for potential inclusion in the scheme in Appendix D of this report. The results of the findings are as shown in the table below:

Table 3.2 LZCT Inclusion Table

LZCT	Included	Justification
Wind Turbine	No	Considered to have a negative visual impact in a primarily residential area.
Solar PV	No	PV panels have not been incorporated into the design as the available rooftop area is occupied by essential plant equipment, leaving no suitable space for the installation of solar arrays.
CHP	No	The carbon factor for electricity is now less than natural gas and therefore the carbon impact of using gas as an energy source is far higher, especially when using heat pumps with a Coefficient of Performance in the region of 300%.
Solar Hot Water	No	The highest yields occur while the building is at lowest capacity, during the summer holidays. Once all hot water storages are satisfied it is complicated and expensive to build heat rejection plant to displace the excess yields.
Heat Pump	Yes	
Biomass	No	A large fuel store will be needed, requiring regular deliveries to keep the building operational. The Clean Air Act would also require a detailed analysis of the dispersal of the flue emissions to be carried out to ensure there are no air quality issues.
Geothermal	No	This technology requires a lot of capital expenditure, time and space to drill the boreholes. Space is not a commodity in this development due to its location in the city centre.
Fuel Cell	No	Due to constant operation and high base load, fuel cells not deemed as necessary to store energy produced on site.
Heat Recovery	No	No local industrial waste to take advantage of.
Micro Wind / Hydro	No	Not a suitable for use on a development of this scale.
District Heating Network	No	The existing network is carbon-intensive, relying on fossil fuel–powered gas boilers and combined heat and power (CHP) systems. In contrast, the proposed development will utilise more sustainable air source heat pumps (ASHPs), significantly reducing carbon emissions and improving overall energy efficiency.

4.0 Proposed Strategy

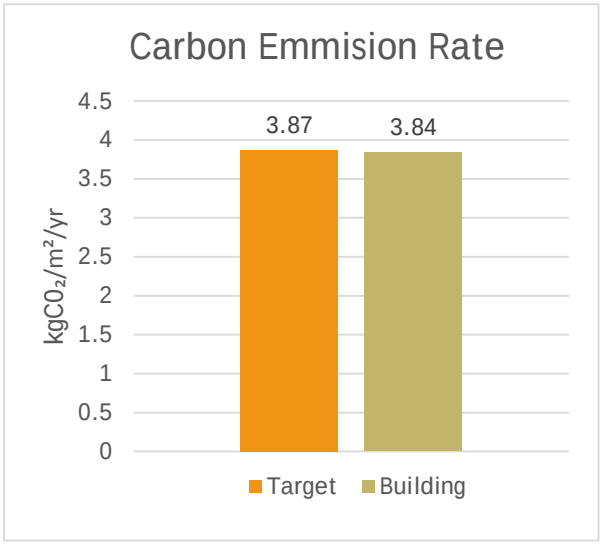
This report has calculated the amount of energy consumed by the proposed building, and the associated CO_2 emission, through the use of SBEM calculations and detailed the passive design measures and energy efficiency design measures that will be employed to minimise the operational energy use as far as reasonably possible.

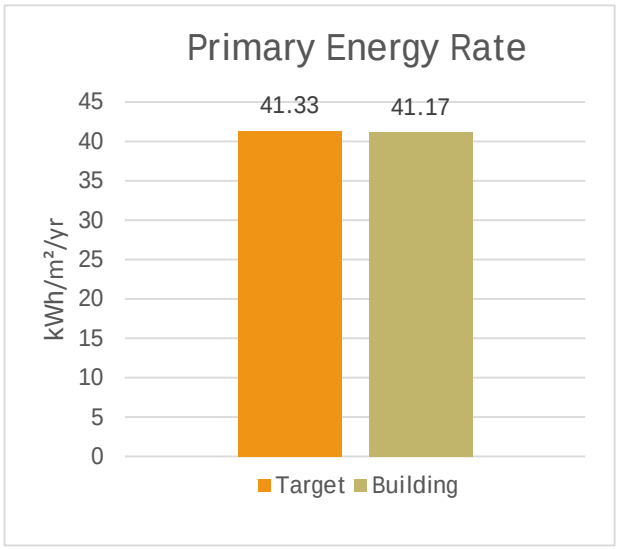
In additional to the measures employed to reduce energy consumption, this report has also analysed the feasibility of various renewable and low/zero carbon energy sources. A number of potential renewable and low/zero carbon energy sources, such as biomass, wind turbines, solar hot water and ground source heat pumps, have been shown to not be technically or financially feasible for this development.

Table 4.1 – Energy Demand from BRUKL

Energy Use	Energy Demand (kWh/yr)	CO_2 Emissions (kg/yr)
Heating	219,554	43,911
Hot Water	110,351	22,070
Lighting	166,099	33,220
Auxiliary (Fans, pumps etc.)	137,422	27,484
Cooling	1,377	275
Equipment *(not included with Part L calculation)*	*634,802*	*126,960*
Total	**634,802**	**126,960**

For Part L 2021, utilising an ASHP plant gives a Building Emission Rate (BER) of **3.84 kgCO_2/m²/yr** against a Target Emission Rate (TER) of **3.87 kgCO_2/m²/yr**. Also a Building Primary Energy Rate (BPER) of **41.17 kWh/m²/yr** against a Target Primary Energy Rate (TPER) of **41.33 kWh/m²/yr.**





Target CO_2 emission rate (TER), kgCO_2/m²annum	3.87	
Building CO_2 emission rate (BER), kgCO_2/m²annum	3.84	
Target primary energy rate (TPER), kWh$_{PE}$/m²annum	41.33	
Building primary energy rate (BPER), kWh$_{PE}$/m²annum	41.17	
Do the building's emission and primary energy rates exceed the targets?	BER =< TER	BPER =< TPER

Figure 4.1 - BER/TER and BPER/TPER comparison showing Part L 2021 compliance

As detailed in Table 4.2, 52% of the onsite energy consumption is provided for by low/zero carbon sources, with all of the heating & hot water used on-site to be provided for by the on-site air source heat pump plant.

Table 4.2 - Annual Energy production from Low/Zero Carbon Sources	
Heating (ASHP)	219,554 (kWh/yr)
Hot Water (ASHP)	110,351 (kWh/yr)
Total Produced by LZC Sources	329,905(kWh/yr)
Total Consumed	634,802 (kWh/yr)
% Energy production form LZC Sources	**52%**

5.0 Conclusion

Following a review of relevant national and local planning policies, this Energy Assessment sets out a strategy that positively responds to the energy and sustainability requirements of Manchester City Council. The carbon dioxide (CO_2) emissions associated with the proposed development have been assessed in accordance with Manchester City Council guidance and benchmarked against Part L 2021.

The proposed development achieves an overall CO_2 reduction of 1% compared to the baseline emissions, in line with the principles of the energy hierarchy. This reduction is supported by the inclusion of high-performance thermal building elements and the integration of energy-efficient technologies, including air source heat pumps and low-energy lighting systems.

Appendix A – Low / Zero Carbon Technology Feasibility Assessment

Each of the following technologies will be assessed for the potential implementation within the development. Incorporating low/zero carbon technologies into a new building design is essential for reducing energy demand, lowering running costs, and minimising environmental impact. By generating renewable energy on-site, these systems decrease reliance on fossil fuels, reduce greenhouse gas emissions, and provide long-term savings on utility bills, while also insulating the building from fluctuating energy prices. Additionally, these technologies enhance energy efficiency by minimising transmission losses and increase energy resilience, offering independence from the nation-wide energy grid.

Wind Turbines
Wind turbines in city centre locations experience poor yields for electricity generation as the obstruction caused by similar height buildings, and natural variations in topography, inevitably lead to turbulent air flow around the building.

In reaction to this, the invention and development of Vertical-Axis Wind Turbines (VAWTs) has arisen. They require far less space than their horizontal-axis (HAWTs) counterparts, are unaffected by changes in wind direction and are much more quiet making them perfect for residential/urban areas. VAWTs are also cheaper and easier to maintain as they only have 2 main components, HAWTs have 4. The drawback is that the technology is still relatively new and commercial availability is currently scarce. On average, wind turbines harness 60% of the energy that passes through them, a far greater efficiency than solar panels, which average 18-22% energy capture.

HAWTs are less expensive (circa £20,000 for a 6kW turbine) but produce vibration, VAWTs are approximately 10% more expensive but are almost vibration free.

The British Wind Energy Association recommends that a site be monitored over the course of a year to assess the potential efficacy of a wind turbine.

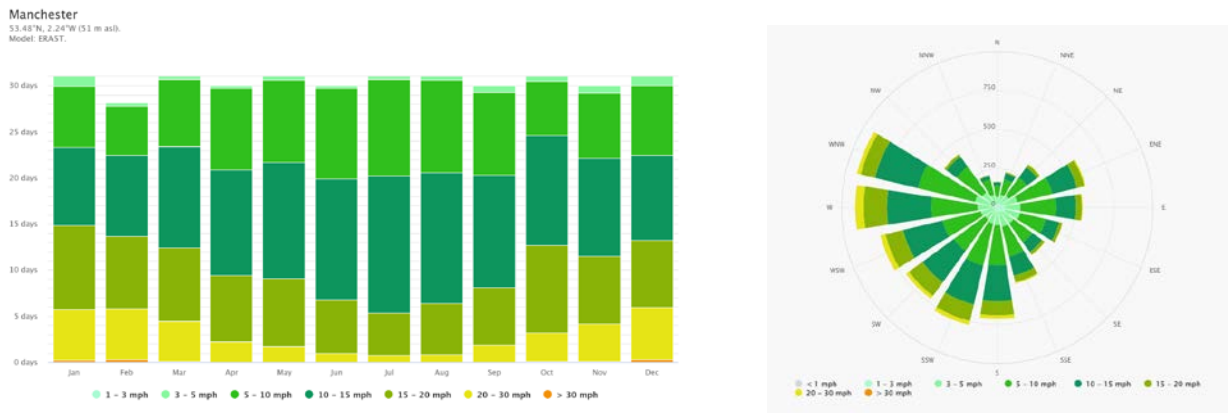


Figure A.1 – Data for Average Wind Speed in Manchester.

Wind turbines are generally considered to have a negative visual impact, and therefore wind turbines are not considered to be viable for this development.

Solar Photovoltaic Panels
Roof mounted photovoltaic panels (PV) have been identified as a possible means of generating zero carbon electrical energy. Due to the wide variation in occupancy of student accommodation, the electrical base load is generally constant throughout the day. This can be, in part, covered by the output of the photovoltaic system.

Once the photovoltaic panels are installed, there are minimal maintenance requirements. However, access and a water supply will be needed to roof level for annual cleaning of the panels and to enable panel replacement should any fail. Installation of technology subject to approval for embedded generators.

A blue roof can be installed in addition to the Solar PV present on the roof, in a similar fashion to Figure A.2, with the PV panels being securely suspended above the vegetation at a pitch angle of 10 degrees. Meaning that the lower section of the panel is approximately 500-550mm above the soil, and the higher section 800-850mm above.



Figure A.2 Example of PV being used in alignment with a living roof (Roofland.com)

Installing a blue roof alongside solar photovoltaic (PV) panels offers synergistic benefits that enhance the performance and sustainability of both systems. The vegetation on a living roof helps to regulate the temperature around the PV panels, keeping them cooler and thereby improving their efficiency, as solar panels operate more effectively at lower temperatures. Additionally, the blue roof reduces the building's overall energy consumption by providing natural insulation, which complements the energy generated by the solar panels.

Due to the constrained roof area on this project, and the requirement to accommodate essential plant equipment and life safety systems, there is no remaining space available for the installation of photovoltaic (PV) panels.

Combined Heat and Power (CHP)
A CHP unit generates electricity on-site, and recovers the waste heat from this process to be used for heating or domestic hot water generation.

To ensure that a CHP is running as efficiently as possible, a steady, continuous heat demand is required. The large quantity of domestic hot water required for high density residential developments satisfies this requirement. The electricity generated will also contribute to the building base load.

However, due to the ongoing decarbonisation of the UK electricity generating network, the carbon factor for electricity is now less than natural gas and therefore the carbon impact of using gas as an energy source is far higher, especially when using heat pumps with a Coefficient of Performance in the region of 300%. Therefore, CHP machines are not deemed to be a viable technology for this development.

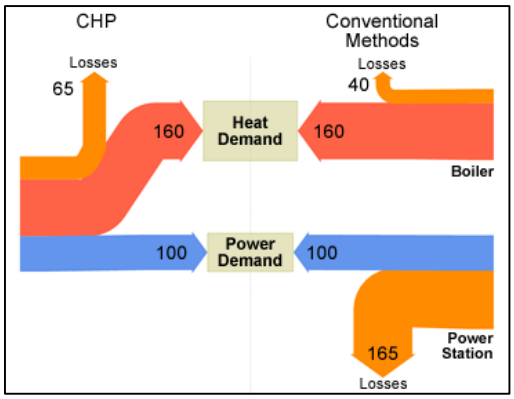


Figure A.3 – Sankey diagram illustrating CHP energy flows

Solar Hot Water

Roof mounted solar thermal collectors are used to provide a pre-heat to the domestic hot water requirements from solar energy. The proposed development will have a high domestic hot water demand and so a solar hot water system has the potential to provide a significant reduction in CO_2 emissions.

However, a solar hot water system is not considered viable, as the available roof space is required to accommodate essential plant and life safety equipment. As such, this technology has not been incorporated into the development.

Additionally, when the building may be experiencing periods of low occupancy due to student summer holidays, this aligns with the highest yields which are very difficult to manage once all hot water storage requirements are satisfied and therefore complicated and expensive heat rejection plant is required which in theory 'wastes' the energy.

For these reasons, solar hot water is not deemed suitable for this development.

Air Source Heat Pump

An air source heat pump (ASHP) extracts heat energy from the ambient air and uses this to provide space heating and/or domestic hot water, via either an air system or a wet system with radiators/underfloor heating and calorifiers for domestic hot water generation. The cool refrigerant enters the compressor which decreases the volume, thus raising the temperature. The hot refrigerant is then circulated through the internal heat exchanger for space heating, as seen in Figure A.4. The process can also be reversed during summer months to remove heat from the building.

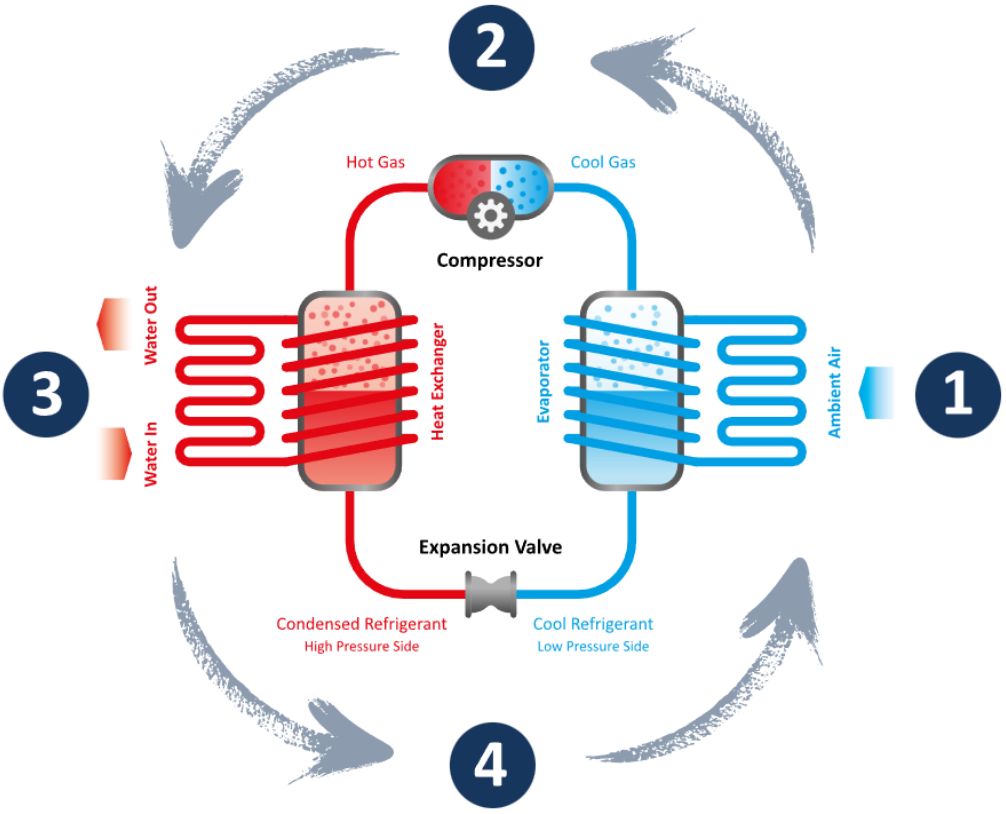


Figure A.4 – Air Source Heat Pump Functionality Diagram

The heat pumps operate on grid-supplied electricity and often have seasonal coefficients of performance (SCoP) in excess of 3. This efficiency coupled with the decarbonised electricity grid means that ASHP can provide a highly energy efficient means of supplying heat energy.

Further recent developments with ASHP technology has optimised designs to better suit the higher temperature requirements of domestic hot water generation which generally requires storing water over 60°C. Additionally, the refrigerant used in modern heat pumps have lower a Global Warming Potential (GWP) than they have previously. With the rise in commercial availability of the refrigerant known as R32, heat pumps have become even more of an eco-friendly option. R32 is now the most used refrigerant with a GWP of 675 replacing the former most popular refrigerant of R410A which had a GWP of 2088.

At the time of producing this document, Amber Management is taking note of the increasing availability of natural refrigerants such as CO_2 & Propane. CO_2/propane heat pumps incredibly versatile, with a wider range of ambient temperature applications. In response to environmental regulations and the phase-out of high GWP refrigerants, CO_2/propane heat pumps are becoming a much more attractive option but come at a higher capital cost.

For this project, it is proposed at this stage that CO_2 air source heat pumps (ASHPs) will be installed to provide hot water generation, domestic heating, and a portion of the amenity cooling demand.

Ground/Water Source Heat Pump
Due to the fact that the ground remains at a stable temperature of between 10-12°C, a ground source heat pump (GSHP) can be used to extract heat energy from the ground in winter and reject unwanted heat energy into the ground during summer.

The proposed development site has a large footprint with the potential to provide the required space to install a closed loop ground collector for a GSHP. However, due to the high cost of installation and internal plant space requirements, this system has been deemed inappropriate for the development.

With the city being above a shallow urban aquifer, water source heat pumps (WSHP's) can be a potential low zero-carbon technology (LZCT) that allows for the supply of water at a more stable and consistent temperature than ASHP's.

WSHP's work by extracting energy from the water whilst allowing unwanted heat to dissipate into a river or aquifer to be removed by the flowing water. There are two types of WSHP's. Firstly, a closed loop WSHP works by utilising a heat exchanger or coil in the river that allows for the energy exchange between the water in the system and the water in the river without the cross contamination of the two water sources that occurs in an open loop system. Figure A.5 depicts this.

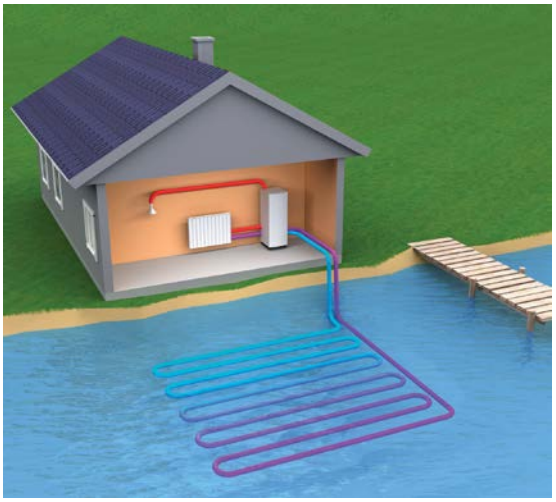


Figure A.5 – Example of a closed loop WSHP. (https://senergyheating.co.uk/heat-pumps/)

The benefit of utilising a closed loop WSHP on this site is that it would not require an Abstraction licence because it will not extract any water from the aquifer. An Abstraction licence is required if the development plans to remove more than 20m^3 per day.

However, as the aquifer water is "usually much cleaner than the water of reservoirs at the earth's surface" (SDWF, 2024), there is not necessarily a clear reason to use an open loop WSHP in an aquifer.

Alternatively, open loop WSHP's do not require a heat exchanger to be situated in the aquifer. This is because they operate by extracting water. This water is then transferred to a plate heat exchanger in the plant room of the building. Once the heat transfer has taken place, the water is re-deposited in the aquifer resulting in a net extraction of 0m^3/s. Figure A.6 Depicts this.

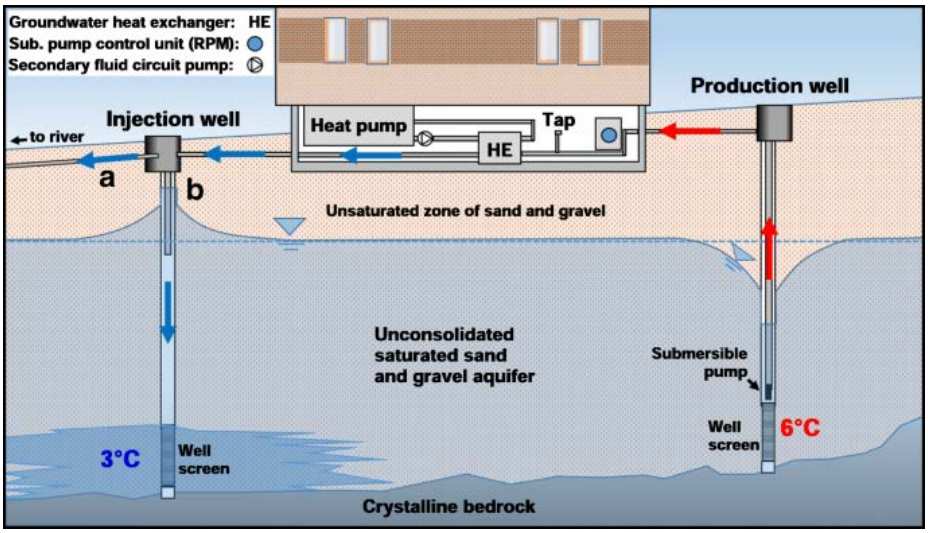


Figure A.6 – Example of an open loop WSHP. (Gjengedal, S., Ramstad, R.K., Hilmo, B.O. et al. Fouling and clogging surveillance in open loop GSHP systems. Bull Eng Geol Environ 79, 69–82 (2020).)

However, it will still need an Abstraction licence as it does remove water from the aquifer temporarily. Furthermore, the application charge to remover water depends on how many mega litres per year (ML/yr) of water the development is applying for. Annually, this development will likely be placed within the highest band of payment for water abstraction.

Alongside an Abstraction licence, for most open loop installations, a groundwater or surface water point source discharge activity environmental permit is required under the Environmental Permitting (England and Wales) Regulations 2010.

Furthermore, an open loop system will require regular maintenance to clean filters due to the high level of sand and silt that are prevalent in many aquifers. This would place a higher financial cost of maintenance compared to ASHP's.

Biomass Heating

Biomass in the form of logs, wood pellets or wood chips is classified as a renewable energy source because the CO_2 emitted during burning has been taken out of the atmosphere by the plant while it was growing. Therefore, locally sourced biomass fuel has the potential to significantly reduce the CO_2 emissions related to heating and hot water generation.

Due to the complicated feeding mechanisms, large plant space and reduced availability, the cost of an automated biomass heating system is far greater than that of a more conventional heating system. The use of a biomass heating system also invites debate about how sustainable the fuel used truly is and because of this, such systems should only be selected following caution.

The UK sources only 18% of its consumed liquid biofuels domestically, with 30% originating from brazil, sparking a broader discussion on the sustainability of their production due to the resulting deforestation. This information is made readily available by the Renewables Fuels Agency.

However, due to the location of the development site, a number of difficulties exist in relation to the delivery and storage of the fuels and operation of the boiler. Biomass heating can result in air quality problems, especially in city centre locations such as this development.

A large fuel store will be needed, requiring regular deliveries to keep the building operational. The Clean Air Act would also require a detailed analysis of the dispersal of the flue emissions to be carried out to ensure there are no air quality issues. Therefore, this technology is not proposed to form part of the development. The low-carbon DHN network will be used to provide heat to the development.

Geothermal

Geothermal technology uses deep geothermal boreholes in the Earth's surface, along with a thermodynamic refrigeration cycle to generate hot water. This technology requires a lot of capital expenditure, time and space to drill the boreholes. Space is not a commodity in this development due to its location in the city centre and thus this technology is not recommended for the development.

Fuel Cells

A fuel cell is an electrochemical device that converts chemical energy directly into electrical energy through a reaction between a fuel (such as hydrogen) and an oxidizing agent (usually oxygen). It produces electricity, water, and heat as by-products, offering a clean and efficient power generation method.

This technology is only appropriate for inclusion in developments that have continuous access to chemical energy and as such is not suitable for this development.

Heat Recovery Systems

A heat recovery system captures and reuses waste heat from industrial processes to enhance energy efficiency. By identifying and utilising sources of waste heat, such as exhaust gases or hot water runoff, the system aims to reduce carbon emissions.

This technology is only appropriate for inclusion in developments that either directly or indirectly come into contact with industrial waste and as such is not suitable for this development.

Micro Hydro/ Micro Wind

Micro hydro refers to small-scale hydroelectric power systems that generate electricity from flowing water, typically streams or rivers. Micro wind refers to small-scale wind turbine systems that harness wind energy to generate electricity. Both micro hydro and micro wind are decentralised, renewable energy solutions suitable for smaller-scale applications.

These technologies are more suitable to small scale residential developments so have been ruled out of this development.

Appendix B – Part L 2021 BRUKL Simulation

BRUKL Output Document

HM Government

Compliance with England Building Regulations Part L 2021

Project name

26.03.18 Fusion Vision

As designed

Date: Wed Mar 18 10:35:53 2026

Administrative information

Building Details

Address: Fusion Vision, Manchester, M1

Certification tool

Calculation engine: Apache

Calculation engine version: 7.0.28

Interface to calculation engine: IES Virtual Environment

Interface to calculation engine version: 7.0.28

BRUKL compliance module version: v6.1.e.1

Certifier details

Name: Amber Management

Telephone number:

Address: , ,

Foundation area [m^2]: 442.53

The CO_2 emission and primary energy rates of the building must not exceed the targets

Target CO_2 emission rate (TER), $kgCO_2/m^2.annum$	3.87	
Building CO_2 emission rate (BER), $kgCO_2/m^2.annum$	3.84	
Target primary energy rate (TPER), $kWh_{PE}/m^2.annum$	41.33	
Building primary energy rate (BPER), $kWh_{PE}/m^2.annum$	41.17	
Do the building's emission and primary energy rates exceed the targets?	BER =< TER	BPER =< TPER

The performance of the building fabric and fixed building services should achieve reasonable overall standards of energy efficiency

Fabric element	$U_{a\text{-}Limit}$	$U_{a\text{-}Calc}$	$U_{i\text{-}Calc}$	First surface with maximum value
Walls*	0.26	0.14	0.14	GF000005:Surf[2]
Floors	0.18	0.11	0.12	GF000005:Surf[0]
Pitched roofs	0.16	-	-	No pitched roofs in building
Flat roofs	0.18	0.1	0.1	36000000:Surf[0]
Windows** and roof windows	1.6	1.2	1.2	GF000005:Surf[1]
Rooflights***	2.2	-	-	No roof lights in building
Personnel doors^	1.6	1.3	1.3	GF000005:Surf[5]
Vehicle access & similar large doors	1.3	-	-	No vehicle access doors in building
High usage entrance doors	3	-	-	No high usage entrance doors in building

$U_{a\text{-}Limit}$ = Limiting area-weighted average U-values [$W/(m^2K)$] $U_{i\text{-}Calc}$ = Calculated maximum individual element U-values [$W/(m^2K)$]

$U_{a\text{-}Calc}$ = Calculated area-weighted average U-values [$W/(m^2K)$]

* Automatic U-value check by the tool does not apply to curtain walls whose limiting standard is similar to that for windows.

** Display windows and similar glazing are excluded from the U-value check. *** Values for rooflights refer to the horizontal position.

^ For fire doors, limiting U-value is 1.8 W/m^2K

NB: Neither roof ventilators (inc. smoke vents) nor swimming pool basins are modelled or checked against the limiting standards by the tool.

Air permeability	Limiting standard	This building
$m^3/(h.m^2)$ at 50 Pa	8	2.5

Building services

For details on the standard values listed below, system-specific guidance, and additional regulatory requirements, refer to the Approved Documents.

Whole building lighting automatic monitoring & targeting with alarms for out-of-range values	NO
Whole building electric power factor achieved by power factor correction	>0.95

1- Amenity Areas

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	3.3	5.5	0	1.2	0.85
Standard value	2.5*	N/A	N/A	2^	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.

^ Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.

2- Heat Pump HTG + MVHR

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	3.3	-	0	-	0.85
Standard value	2.5*	N/A	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					YES

* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.

3- Top Flor Amenity

	Heating efficiency	**Cooling efficiency**	**Radiant efficiency**	**SFP [W/(l/s)]**	**HR efficiency**
This system	4.5	5.5	0	-	0.85
Standard value	2.5*	1.6	N/A	N/A	N/A
Automatic monitoring & targeting with alarms for out-of-range values for this HVAC system					NO

* Standard shown is for all types >12 kW output, except absorption and gas engine heat pumps.

"No HWS in project, or hot water is provided by HVAC system"

Zone-level mechanical ventilation, exhaust, and terminal units

ID	**System type in the Approved Documents**
A	Local supply or extract ventilation units
B	Zonal supply system where the fan is remote from the zone
C	Zonal extract system where the fan is remote from the zone
D	Zonal balanced supply and extract ventilation system
E	Local balanced supply and extract ventilation units
F	Other local ventilation units
G	Fan assisted terminal variable air volume units
H	Fan coil units
I	Kitchen extract with the fan remote from the zone and a grease filter

NB: Limiting SFP may be increased by the amounts specified in the Approved Documents if the installation includes particular components.

Zone name	**SFP [W/(l/s)]**									**HR efficiency**	
ID of system type	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	**Zone**	**Standard**
03 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
03 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
03 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
04 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Plant Room	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Plant Room	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
20 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Plant Room	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Plant Room	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
21 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
22 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
23 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
23 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
23 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
24 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
25 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
26 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
27 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
28 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
29 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
29 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
30 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
30 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
30 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
31 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
32 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
33 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
34 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
35 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
36 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Club Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Club Studio Living	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
37 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Premium Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Shower	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Studio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Twodio	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
37 Twodio Kitchen	-	-	-	0.7	-	-	-	-	-	-	N/A
38 Amenity	-	-	-	1.2	-	-	-	-	-	-	N/A

Zone name	SFP [W/(l/s)]									HR efficiency	
ID of system type	A	B	C	D	E	F	G	H	I		
Standard value	0.3	1.1	0.5	2.3	2	0.5	0.5	0.4	1	Zone	Standard
38 Amenity	-	-	-	1.2	-	-	-	-	-	-	N/A

General lighting and display lighting	General luminaire	Display light source	
Zone name	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
Standard value	95	80	0.3
00 Amenity	95	-	-
00 Circulation	125	-	-
00 Circulation	125	-	-
00 Generator	140	-	-
00 Lift Lobby	125	-	-
00 LSSR	140	-	-
00 LV Switchroom	140	-	-
00 Stairs	129	-	-
00 Stairs	129	-	-
00 Substation 1	140	-	-
01 Amenity	95	-	-
01 Amenity	95	-	-
01 Circulation	128	-	-
01 Circulation	131	-	-
01 Lift Lobby	125	-	-
01 Plant Room	140	-	-
01 Potable Water	140	-	-
01 Sprinkler Pump Room	140	-	-
01 Sprinkler Tank Room	140	-	-
01 Stairs	129	-	-
01 Stairs	129	-	-
01 Wet Riser Tank	140	-	-
02 Amenity	95	-	-
02 Amenity	95	-	-
02 Amenity	95	-	-
02 Circulation	95	-	-
02 Circulation	125	-	-
02 Circulation	125	-	-
02 Lift Lobby	125	-	-
02 Plant Room	140	-	-
02 Stairs	129	-	-
02 Stairs	129	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Circulation	125	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Club Studio	121	-	-
03 Club Studio	121	-	-
03 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Lift Lobby	125	-	-
03 Lift Lobby	125	-	-
03 Lift Lobby	125	-	-
03 Lift Lobby	125	-	-
03 Lift Lobby	125	-	-
03 Lift Lobby	125	-	-
03 Lift Lobby	125	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Premium Studio	121	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Shower	180	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Stairs	129	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Studio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-
03 Twodio Kitchen	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Circulation	125	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Club Studio	121	-	-
04 Club Studio	121	-	-
04 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Lift Lobby	125	-	-
04 Lift Lobby	125	-	-
04 Premium Studio	121	-	-
04 Premium Studio	121	-	-
04 Premium Studio	121

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
Standard value	95	80	0.3
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Shower	180	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Stairs	129	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Studio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
04 Twodio Kitchen	121	-	-
20 Circulation	125	-	-
20 Circulation	125	-	-
20 Circulation	125	-	-
20 Circulation	125	-	-
20 Club Studio	121	-	-
20 Club Studio	121	-	-
20 Club Studio	121	-	-
20 Club Studio	121	-	-
20 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
20 Club Studio Living	125	-	-
20 Lift Lobby	125	-	-
20 Plant Room	121	-	-
20 Plant Room	121	-	-
20 Premium Studio	121	-	-
20 Premium Studio	121	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Shower	180	-	-
20 Stairs	129	-	-
20 Stairs	129	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Studio	121	-	-
20 Twodio	121	-	-
20 Twodio	121	-	-
20 Twodio	121	-	-
20 Twodio	121	-	-
20 Twodio Kitchen	121	-	-
20 Twodio Kitchen	121	-	-
21 Circulation	125	-	-
21 Circulation	125	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
21 Circulation	125	-	-
21 Circulation	125	-	-
21 Club Studio	121	-	-
21 Club Studio	121	-	-
21 Club Studio	121	-	-
21 Club Studio	121	-	-
21 Club Studio	121	-	-
21 Club Studio Living	121	-	-
21 Lift Lobby	125	-	-
21 Plant Room	121	-	-
21 Plant Room	121	-	-
21 Premium Studio	121	-	-
21 Premium Studio	121	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Shower	180	-	-
21 Stairs	129	-	-
21 Stairs	129	-	-
21 Studio	121	-	-
21 Studio	121	-	-
21 Studio	121	-	-
21 Studio	121	-	-
21 Studio	121	-	-
21 Studio	121	-	-
21 Studio	121	-	-
21 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
21 Twodio	121	-	-
21 Twodio	121	-	-
21 Twodio	121	-	-
21 Twodio	121	-	-
21 Twodio Kitchen	121	-	-
21 Twodio Kitchen	121	-	-
22 Circulation	125	-	-
22 Circulation	125	-	-
22 Circulation	125	-	-
22 Circulation	125	-	-
22 Club Studio	121	-	-
22 Club Studio	121	-	-
22 Club Studio	121	-	-
22 Club Studio	121	-	-
22 Club Studio	121	-	-
22 Club Studio Living	125	-	-
22 Lift Lobby	125	-	-
22 Premium Studio	121	-	-
22 Premium Studio	121	-	-
22 Premium Studio	121	-	-
22 Premium Studio	121	-	-
22 Premium Studio	121	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
22 Shower	180	-	-
22 Shower	180	-	-
22 Shower	180	-	-
22 Stairs	129	-	-
22 Stairs	129	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Studio	121	-	-
22 Twodio	121	-	-
22 Twodio	121	-	-
22 Twodio	121	-	-
22 Twodio	121	-	-
22 Twodio Kitchen	121	-	-
22 Twodio Kitchen	121	-	-
23 Circulation	125	-	-
23 Circulation	125	-	-
23 Circulation	125	-	-
23 Circulation	125	-	-
23 Club Studio	121	-	-
23 Club Studio	121	-	-
23 Club Studio	121	-	-
23 Club Studio	121	-	-
23 Club Studio	121	-	-
23 Club Studio Living	121	-	-
23 Lift Lobby	125	-	-
23 Premium Studio	121	-	-
23 Premium Studio	121	-	-
23 Premium Studio	121	-	-
23 Premium Studio	121	-	-
23 Premium Studio	121	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Shower	180	-	-
23 Stairs	129	-	-
23 Stairs	129	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Studio	121	-	-
23 Twodio	121	-	-
23 Twodio	121	-	-
23 Twodio	121	-	-
23 Twodio	121	-	-
23 Twodio Kitchen	121	-	-
23 Twodio Kitchen	121	-	-
24 Circulation	125	-	-
24 Circulation	125	-	-
24 Circulation	125	-	-
24 Circulation	125	-	-
24 Club Studio	121	-	-
24 Club Studio	121	-	-
24 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
24 Club Studio	121	-	-
24 Club Studio	121	-	-
24 Club Studio Living	125	-	-
24 Lift Lobby	125	-	-
24 Premium Studio	121	-	-
24 Premium Studio	121	-	-
24 Premium Studio	121	-	-
24 Premium Studio	121	-	-
24 Premium Studio	121	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Shower	180	-	-
24 Stairs	129	-	-
24 Stairs	129	-	-
24 Studio	121	-	-
24 Studio	121	-	-
24 Studio	121	-	-
24 Studio	121	-	-
24 Studio	121	-	-
24 Studio	121	-	-
24 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
24 Studio	121	-	-
24 Studio	121	-	-
24 Twodio	121	-	-
24 Twodio	121	-	-
24 Twodio	121	-	-
24 Twodio	121	-	-
24 Twodio Kitchen	121	-	-
24 Twodio Kitchen	121	-	-
25 Circulation	125	-	-
25 Circulation	125	-	-
25 Circulation	125	-	-
25 Circulation	125	-	-
25 Club Studio	121	-	-
25 Club Studio	121	-	-
25 Club Studio	121	-	-
25 Club Studio	121	-	-
25 Club Studio	121	-	-
25 Club Studio Living	121	-	-
25 Lift Lobby	125	-	-
25 Premium Studio	121	-	-
25 Premium Studio	121	-	-
25 Premium Studio	121	-	-
25 Premium Studio	121	-	-
25 Premium Studio	121	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Shower	180	-	-
25 Stairs	129	-	-
25 Stairs	129	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Studio	121	-	-
25 Twodio	121	-	-
25 Twodio	121	-	-
25 Twodio	121	-	-
25 Twodio	121	-	-
25 Twodio Kitchen	121	-	-
25 Twodio Kitchen	121	-	-
26 Circulation	125	-	-
26 Circulation	125	-	-
26 Circulation	125	-	-
26 Circulation	125	-	-
26 Club Studio	121	-	-
26 Club Studio	121	-	-
26 Club Studio	121	-	-
26 Club Studio	121	-	-
26 Club Studio	121	-	-
26 Club Studio Living	125	-	-
26 Lift Lobby	125	-	-
26 Premium Studio	121	-	-
26 Premium Studio	121	-	-
26 Premium Studio	121	-	-
26 Premium Studio	121	-	-
26 Premium Studio	121	-	-
26 Premium Studio	121	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Shower	180	-	-
26 Stairs	129	-	-
26 Stairs	129	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Studio	121	-	-
26 Twodio	121	-	-
26 Twodio	121	-	-
26 Twodio	121	-	-
26 Twodio	121	-	-
26 Twodio Kitchen	121	-	-
26 Twodio Kitchen	121	-	-
27 Circulation	125	-	-
27 Circulation	125	-	-
27 Circulation	125	-	-
27 Circulation	125	-	-
27 Club Studio	121	-	-
27 Club Studio	121	-	-
27 Club Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
27 Club Studio	121	-	-
27 Club Studio	121	-	-
27 Club Studio Living	121	-	-
27 Lift Lobby	125	-	-
27 Premium Studio	121	-	-
27 Premium Studio	121	-	-
27 Premium Studio	121	-	-
27 Premium Studio	121	-	-
27 Premium Studio	121	-	-
27 Premium Studio	121	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Shower	180	-	-
27 Stairs	129	-	-
27 Stairs	129	-	-
27 Studio	121	-	-
27 Studio	121	-	-
27 Studio	121	-	-
27 Studio	121	-	-
27 Studio	121	-	-
27 Studio	121	-	-
27 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
27 Twodio	121	-	-
27 Twodio	121	-	-
27 Twodio	121	-	-
27 Twodio	121	-	-
27 Twodio Kitchen	121	-	-
27 Twodio Kitchen	121	-	-
28 Circulation	125	-	-
28 Circulation	125	-	-
28 Circulation	125	-	-
28 Circulation	125	-	-
28 Club Studio	121	-	-
28 Club Studio	121	-	-
28 Club Studio	121	-	-
28 Club Studio	121	-	-
28 Club Studio	121	-	-
28 Club Studio Living	125	-	-
28 Lift Lobby	125	-	-
28 Premium Studio	121	-	-
28 Premium Studio	121	-	-
28 Premium Studio	121	-	-
28 Premium Studio	121	-	-
28 Premium Studio	121	-	-
28 Premium Studio	121	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
28 Shower	180	-	-
28 Shower	180	-	-
28 Shower	180	-	-
28 Stairs	129	-	-
28 Stairs	129	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Studio	121	-	-
28 Twodio	121	-	-
28 Twodio	121	-	-
28 Twodio	121	-	-
28 Twodio	121	-	-
28 Twodio Kitchen	121	-	-
28 Twodio Kitchen	121	-	-
29 Circulation	125	-	-
29 Circulation	125	-	-
29 Circulation	125	-	-
29 Circulation	125	-	-
29 Club Studio	121	-	-
29 Club Studio	121	-	-
29 Club Studio	121	-	-
29 Club Studio	121	-	-
29 Club Studio	121	-	-
29 Club Studio Living	121	-	-
29 Lift Lobby	125	-	-
29 Premium Studio	121	-	-
29 Premium Studio	121	-	-
29 Premium Studio	121	-	-
29 Premium Studio	121	-	-
29 Premium Studio	121	-	-
29 Premium Studio	121	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Shower	180	-	-
29 Stairs	129	-	-
29 Stairs	129	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Studio	121	-	-
29 Twodio	121	-	-
29 Twodio	121	-	-
29 Twodio	121	-	-
29 Twodio	121	-	-
29 Twodio Kitchen	121	-	-
29 Twodio Kitchen	121	-	-
30 Circulation	125	-	-
30 Circulation	125	-	-
30 Circulation	125	-	-
30 Circulation	125	-	-
30 Club Studio	121	-	-
30 Club Studio	121	-	-
30 Club Studio	121	-	-
30 Club Studio	121	-	-
30 Club Studio	121	-	-
30 Club Studio Living	125	-	-
30 Lift Lobby	125	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
30 Premium Studio	121	-	-
30 Premium Studio	121	-	-
30 Premium Studio	121	-	-
30 Premium Studio	121	-	-
30 Premium Studio	121	-	-
30 Premium Studio	121	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Shower	180	-	-
30 Studio	129	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	121	-	-
30 Studio	129	-	-
30 Twodio	121	-	-
30 Twodio	121	-	-
30 Twodio	121	-	-
30 Twodio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
30 Twodio Kitchen	121	-	-
30 Twodio Kitchen	121	-	-
31 Circulation	125	-	-
31 Circulation	125	-	-
31 Circulation	125	-	-
31 Circulation	125	-	-
31 Club Studio	121	-	-
31 Club Studio	121	-	-
31 Club Studio	121	-	-
31 Club Studio	121	-	-
31 Club Studio	121	-	-
31 Club Studio Living	121	-	-
31 Lift Lobby	125	-	-
31 Premium Studio	121	-	-
31 Premium Studio	121	-	-
31 Premium Studio	121	-	-
31 Premium Studio	121	-	-
31 Premium Studio	121	-	-
31 Premium Studio	121	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Shower	180	-	-
31 Stairs	129	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
31 Stairs	129	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Studio	121	-	-
31 Twodio	121	-	-
31 Twodio	121	-	-
31 Twodio	121	-	-
31 Twodio	121	-	-
31 Twodio Kitchen	121	-	-
31 Twodio Kitchen	121	-	-
32 Circulation	125	-	-
32 Circulation	125	-	-
32 Circulation	125	-	-
32 Circulation	125	-	-
32 Club Studio	121	-	-
32 Club Studio	121	-	-
32 Club Studio	121	-	-
32 Club Studio	121	-	-
32 Club Studio	121	-	-
32 Club Studio Living	125	-	-
32 Lift Lobby	125	-	-
32 Premium Studio	121	-	-
32 Premium Studio	121	-	-
32 Premium Studio	121	-	-
32 Premium Studio	121	-	-
32 Premium Studio	121	-	-
32 Premium Studio	121	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Shower	180	-	-
32 Stairs	129	-	-
32 Stairs	129	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Studio	121	-	-
32 Twodio	121	-	-
32 Twodio	121	-	-
32 Twodio	121	-	-
32 Twodio	121	-	-
32 Twodio Kitchen	121	-	-
32 Twodio Kitchen	121	-	-
33 Circulation	125	-	-
33 Circulation	125	-	-
33 Circulation	125	-	-
33 Circulation	125	-	-
33 Club Studio	121	-	-
33 Club Studio	121	-	-
33 Club Studio	121	-	-
33 Club Studio	121	-	-
33 Club Studio	121	-	-
33 Club Studio Living	121	-	-
33 Lift Lobby	125	-	-
33 Premium Studio	121	-	-
33 Premium Studio	121	-	-
33 Premium Studio	121	-	-
33 Premium Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
33 Premium Studio	121	-	-
33 Premium Studio	121	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Shower	180	-	-
33 Stairs	129	-	-
33 Stairs	129	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Studio	121	-	-
33 Twodio	121	-	-
33 Twodio	121	-	-
33 Twodio	121	-	-
33 Twodio	121	-	-
33 Twodio Kitchen	121	-	-
33 Twodio Kitchen	121	-	-
34 Circulation	125	-	-
34 Circulation	125	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
34 Circulation	125	-	-
34 Circulation	125	-	-
34 Club Studio	121	-	-
34 Club Studio	121	-	-
34 Club Studio	121	-	-
34 Club Studio	121	-	-
34 Club Studio	121	-	-
34 Club Studio Living	125	-	-
34 Lift Lobby	125	-	-
34 Premium Studio	121	-	-
34 Premium Studio	121	-	-
34 Premium Studio	121	-	-
34 Premium Studio	121	-	-
34 Premium Studio	121	-	-
34 Premium Studio	121	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Shower	180	-	-
34 Stairs	129	-	-
34 Stairs	129	-	-
34 Studio	121	-	-
34 Studio	121	-	-
34 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
34 Studio	121	-	-
34 Studio	121	-	-
34 Studio	121	-	-
34 Studio	121	-	-
34 Studio	121	-	-
34 Twodio	121	-	-
34 Twodio	121	-	-
34 Twodio	121	-	-
34 Twodio	121	-	-
34 Twodio Kitchen	121	-	-
34 Twodio Kitchen	121	-	-
35 Circulation	125	-	-
35 Circulation	125	-	-
35 Circulation	125	-	-
35 Circulation	125	-	-
35 Club Studio	121	-	-
35 Club Studio	121	-	-
35 Club Studio	121	-	-
35 Club Studio	121	-	-
35 Club Studio	121	-	-
35 Club Studio Living	121	-	-
35 Lift Lobby	125	-	-
35 Premium Studio	121	-	-
35 Premium Studio	121	-	-
35 Premium Studio	121	-	-
35 Premium Studio	121	-	-
35 Premium Studio	121	-	-
35 Premium Studio	121	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Shower	180	-	-
35 Stairs	129	-	-
35 Stairs	129	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Studio	121	-	-
35 Twodio	121	-	-
35 Twodio	121	-	-
35 Twodio	121	-	-
35 Twodio	121	-	-
35 Twodio Kitchen	121	-	-
35 Twodio Kitchen	121	-	-
36 Circulation	125	-	-
36 Circulation	125	-	-
36 Circulation	125	-	-
36 Circulation	125	-	-
36 Circulation	125	-	-
36 Circulation	125	-	-
36 Club Studio	121	-	-
36 Club Studio	121	-	-
36 Club Studio	121	-	-
36 Club Studio	121	-	-
36 Club Studio	121	-	-
36 Club Studio Living	125	-	-
36 Lift Lobby	125	-	-
36 Lift Lobby	125	-	-
36 Premium Studio	121	-	-
36 Premium Studio	121	-	-
36 Premium Studio	121	-	-
36 Premium Studio	121	-	-
36 Premium Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
36 Premium Studio	121	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Shower	180	-	-
36 Stairs	129	-	-
36 Stairs	129	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Studio	121	-	-
36 Twodio	121	-	-
36 Twodio	121	-	-
36 Twodio	121	-	-
36 Twodio	121	-	-
36 Twodio Kitchen	121	-	-
36 Twodio Kitchen	121	-	-
37 Circulation	125	-	-
37 Circulation	125	-	-
37 Circulation	125	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	**Efficacy [lm/W]**	**Efficacy [lm/W]**	**Power density [W/m²]**
Standard value	95	80	0.3
37 Circulation	125	-	-
37 Club Studio	121	-	-
37 Club Studio	121	-	-
37 Club Studio	121	-	-
37 Club Studio	121	-	-
37 Club Studio	121	-	-
37 Club Studio Living	121	-	-
37 Lift Lobby	125	-	-
37 Premium Studio	121	-	-
37 Premium Studio	121	-	-
37 Premium Studio	121	-	-
37 Premium Studio	121	-	-
37 Premium Studio	121	-	-
37 Premium Studio	121	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Shower	180	-	-
37 Stairs	129	-	-
37 Stairs	129	-	-
37 Studio	121	-	-
37 Studio	121	-	-
37 Studio	121	-	-
37 Studio	121	-	-

General lighting and display lighting	General luminaire	Display light source	
Zone name	Efficacy [lm/W]	Efficacy [lm/W]	Power density [W/m²]
Standard value	95	80	0.3
37 Studio	121	-	-
37 Studio	121	-	-
37 Studio	121	-	-
37 Studio	121	-	-
37 Twodio	121	-	-
37 Twodio	121	-	-
37 Twodio	121	-	-
37 Twodio	121	-	-
37 Twodio Kitchen	121	-	-
37 Twodio Kitchen	121	-	-
38 Amenity	95	-	-
38 Amenity	95	-	-
38 Circulation	125	-	-
38 Circulation	125	-	-
38 Stairs	129	-	-
38 Stairs	129	-	-

The spaces in the building should have appropriate passive control measures to limit solar gains in summer

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
00 Amenity	YES (+5.8%)	NO
01 Amenity	N/A	N/A
01 Amenity	NO (-29.9%)	NO
02 Amenity	NO (-33.2%)	NO
02 Amenity	NO (-55.3%)	NO
02 Amenity	NO (-57.4%)	NO
02 Circulation	N/A	N/A
03 Club Studio	NO (-65.7%)	NO
03 Club Studio	NO (-67.7%)	NO
03 Club Studio	NO (-67.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-67.6%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-67.7%)	NO
03 Club Studio	NO (-67.7%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-67.7%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.7%)	NO
03 Club Studio	NO (-65.7%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-67.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-67.7%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Club Studio	NO (-67.7%)	NO
03 Club Studio	NO (-65.8%)	NO
03 Premium Studio	NO (-51.6%)	NO
03 Premium Studio	NO (-49.5%)	NO
03 Premium Studio	NO (-49.4%)	NO
03 Premium Studio	NO (-51%)	NO
03 Premium Studio	NO (-51.7%)	NO
03 Premium Studio	NO (-43.4%)	NO
03 Premium Studio	NO (-52.2%)	NO
03 Premium Studio	NO (-52.5%)	NO
03 Premium Studio	NO (-41.5%)	NO
03 Premium Studio	NO (-51%)	NO
03 Premium Studio	NO (-51.4%)	NO
03 Premium Studio	NO (-43.3%)	NO
03 Premium Studio	NO (-41.3%)	NO
03 Premium Studio	NO (-52.7%)	NO
03 Premium Studio	NO (-52.4%)	NO
03 Premium Studio	NO (-41.4%)	NO
03 Premium Studio	NO (-43.1%)	NO
03 Premium Studio	NO (-51.7%)	NO
03 Premium Studio	NO (-51%)	NO
03 Premium Studio	NO (-43.2%)	NO
03 Premium Studio	NO (-51.5%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03 Premium Studio	NO (-51.1%)	NO
03 Premium Studio	NO (-42.3%)	NO
03 Premium Studio	NO (-40.2%)	NO
03 Premium Studio	NO (-50%)	NO
03 Premium Studio	NO (-52.8%)	NO
03 Premium Studio	NO (-41.4%)	NO
03 Premium Studio	NO (-43.1%)	NO
03 Premium Studio	NO (-51.4%)	NO
03 Premium Studio	NO (-51%)	NO
03 Premium Studio	NO (-51.1%)	NO
03 Premium Studio	NO (-51.7%)	NO
03 Premium Studio	NO (-43.3%)	NO
03 Premium Studio	NO (-41.4%)	NO
03 Premium Studio	NO (-52.3%)	NO
03 Premium Studio	NO (-52.5%)	NO
03 Premium Studio	NO (-41.3%)	NO
03 Premium Studio	NO (-43.4%)	NO
03 Premium Studio	NO (-51.1%)	NO
03 Premium Studio	NO (-52.5%)	NO
03 Premium Studio	NO (-41.2%)	NO
03 Premium Studio	NO (-43.3%)	NO
03 Premium Studio	NO (-51.6%)	NO
03 Premium Studio	NO (-51.1%)	NO
03 Premium Studio	NO (-41.3%)	NO
03 Studio	NO (-49%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-46.9%)	NO
03 Studio	NO (-48.8%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-48.7%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-48.9%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-44.1%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-48.6%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-49.1%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-48.6%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-49.4%)	NO
03 Studio	NO (-49.3%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-48.9%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-49.3%)	NO
03 Studio	NO (-47.5%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-48.9%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-49%)	NO
03 Studio	NO (-47%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-48.1%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-49.3%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-64.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-42%)	NO
03 Studio	NO (-41.7%)	NO
03 Studio	NO (-66.9%)	NO
03 Studio	NO (-64.8%)	NO
03 Studio	NO (-43.6%)	NO
03 Studio	NO (-44.1%)	NO
03 Studio	NO (-45.4%)	NO
03 Studio	NO (-48.9%)	NO
03 Studio	NO (-46.8%)	NO
03 Studio	NO (-47.4%)	NO
03 Studio	NO (-49.1%)	NO
03 Twodio	NO (-42.3%)	NO
03 Twodio	NO (-70.8%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-71%)	NO
03 Twodio	NO (-42.4%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-42.2%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-71%)	NO
03 Twodio	NO (-42.2%)	NO
03 Twodio	NO (-42.5%)	NO
03 Twodio	NO (-71%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-42.1%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-42.2%)	NO
03 Twodio	NO (-42.5%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-44.6%)	NO
03 Twodio	NO (-70.9%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
03 Twodio	NO (-70.9%)	NO
03 Twodio	NO (-42.4%)	NO
03 Twodio	NO (-71%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.7%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.7%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.7%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.7%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-66.5%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.7%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-68.4%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Club Studio	NO (-66.6%)	NO
04 Premium Studio	NO (-52%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Premium Studio	NO (-51%)	NO
04 Premium Studio	NO (-51.6%)	NO
04 Premium Studio	NO (-42.1%)	NO
04 Premium Studio	NO (-39.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04 Premium Studio	NO (-51.9%)	NO
04 Premium Studio	NO (-51.6%)	NO
04 Premium Studio	NO (-51.8%)	NO
04 Premium Studio	NO (-51.6%)	NO
04 Premium Studio	NO (-51.6%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Premium Studio	NO (-51.9%)	NO
04 Premium Studio	NO (-51.6%)	NO
04 Premium Studio	NO (-51.6%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Premium Studio	NO (-50.8%)	NO
04 Premium Studio	NO (-42.1%)	NO
04 Premium Studio	NO (-52.2%)	NO
04 Premium Studio	NO (-42.1%)	NO
04 Premium Studio	NO (-51%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Premium Studio	NO (-51.5%)	NO
04 Premium Studio	NO (-51.9%)	NO
04 Premium Studio	NO (-42.1%)	NO
04 Premium Studio	NO (-42.2%)	NO
04 Premium Studio	NO (-51.5%)	NO
04 Premium Studio	NO (-42.1%)	NO
04 Premium Studio	NO (-50.9%)	NO
04 Premium Studio	NO (-51%)	NO
04 Premium Studio	NO (-42%)	NO
04 Premium Studio	NO (-52%)	NO
04 Premium Studio	NO (-50.9%)	NO
04 Premium Studio	NO (-51%)	NO
04 Premium Studio	NO (-42.2%)	NO
04 Premium Studio	NO (-50.9%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Premium Studio	NO (-52.1%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Premium Studio	NO (-39.6%)	NO
04 Studio	NO (-48.5%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-48.7%)	NO
04 Studio	NO (-44.8%)	NO
04 Studio	NO (-44.8%)	NO
04 Studio	NO (-48.9%)	NO
04 Studio	NO (-48.1%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-51.4%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-44.8%)	NO
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-51%)	NO
04 Studio	NO (-48.3%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-48.5%)	NO
04 Studio	NO (-44.8%)	NO
04 Studio	NO (-44.9%)	NO
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-48.2%)	NO
04 Studio	NO (-51.4%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-51.2%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-51.1%)	NO
04 Studio	NO (-48.3%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-44.8%)	NO
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-48.1%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-51.4%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-44.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-51.4%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-44.8%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-67.7%)	NO
04 Studio	NO (-44.6%)	NO
04 Studio	NO (-45.4%)	NO
04 Studio	NO (-51.3%)	NO
04 Studio	NO (-48.3%)	NO
04 Studio	NO (-47.6%)	NO
04 Studio	NO (-65.6%)	NO
04 Studio	NO (-67.6%)	NO
04 Studio	NO (-47.9%)	NO
04 Studio	NO (-48.4%)	NO
04 Studio	NO (-44.8%)	NO
04 Twodio	NO (-43.4%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-43.2%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-43.2%)	NO
04 Twodio	NO (-43.2%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-43.2%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-43.3%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-43.3%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-43.3%)	NO
04 Twodio	NO (-45.4%)	NO
04 Twodio	NO (-71.6%)	NO
04 Twodio	NO (-71.5%)	NO
04 Twodio	NO (-45.4%)	NO
20 Club Studio	NO (-66.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
20 Club Studio	NO (-68.4%)	NO
20 Club Studio	NO (-66.6%)	NO
20 Club Studio	NO (-66.5%)	NO
20 Club Studio	NO (-66.6%)	NO
20 Plant Room	NO (-51.8%)	NO
20 Plant Room	NO (-50.4%)	NO
20 Premium Studio	NO (-42.1%)	NO
20 Premium Studio	NO (-43.1%)	NO
20 Studio	NO (-45.4%)	NO
20 Studio	NO (-44.8%)	NO
20 Studio	NO (-44.6%)	NO
20 Studio	NO (-67.7%)	NO
20 Studio	NO (-47.7%)	NO
20 Studio	NO (-65.6%)	NO
20 Studio	NO (-48%)	NO
20 Studio	NO (-50%)	NO
20 Twodio	NO (-71.5%)	NO
20 Twodio	NO (-45.4%)	NO
20 Twodio	NO (-43.3%)	NO
20 Twodio	NO (-71.6%)	NO
21 Club Studio	NO (-67.8%)	NO
21 Club Studio	NO (-65.8%)	NO
21 Club Studio	NO (-65.8%)	NO
21 Club Studio	NO (-65.8%)	NO
21 Club Studio	NO (-65.8%)	NO
21 Plant Room	NO (-51.9%)	NO
21 Plant Room	NO (-52.8%)	NO
21 Premium Studio	NO (-41.4%)	NO
21 Premium Studio	NO (-43.1%)	NO
21 Studio	NO (-41.8%)	NO
21 Studio	NO (-44.1%)	NO
21 Studio	NO (-66.9%)	NO
21 Studio	NO (-64.8%)	NO
21 Studio	NO (-46.8%)	NO
21 Studio	NO (-43.6%)	NO
21 Studio	NO (-47.3%)	NO
21 Studio	NO (-45.4%)	NO
21 Twodio	NO (-70.9%)	NO
21 Twodio	NO (-42.2%)	NO
21 Twodio	NO (-44.6%)	NO
21 Twodio	NO (-71%)	NO
22 Club Studio	NO (-66.6%)	NO
22 Club Studio	NO (-66.5%)	NO
22 Club Studio	NO (-66.5%)	NO
22 Club Studio	NO (-68.4%)	NO
22 Club Studio	NO (-66.7%)	NO
22 Premium Studio	NO (-50.8%)	NO
22 Premium Studio	NO (-39.6%)	NO
22 Premium Studio	NO (-51.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
22 Premium Studio	NO (-51.9%)	NO
22 Premium Studio	NO (-42%)	NO
22 Studio	NO (-47.8%)	NO
22 Studio	NO (-48.3%)	NO
22 Studio	NO (-67.7%)	NO
22 Studio	NO (-65.6%)	NO
22 Studio	NO (-44.8%)	NO
22 Studio	NO (-44.6%)	NO
22 Studio	NO (-45.4%)	NO
22 Studio	NO (-48.2%)	NO
22 Studio	NO (-51.4%)	NO
22 Studio	NO (-47.6%)	NO
22 Twodio	NO (-71.6%)	NO
22 Twodio	NO (-43.2%)	NO
22 Twodio	NO (-45.4%)	NO
22 Twodio	NO (-71.5%)	NO
23 Club Studio	NO (-65.8%)	NO
23 Club Studio	NO (-65.8%)	NO
23 Club Studio	NO (-65.8%)	NO
23 Club Studio	NO (-65.8%)	NO
23 Club Studio	NO (-67.8%)	NO
23 Premium Studio	NO (-41.3%)	NO
23 Premium Studio	NO (-51.1%)	NO
23 Premium Studio	NO (-52.8%)	NO
23 Premium Studio	NO (-43.1%)	NO
23 Premium Studio	NO (-51.5%)	NO
23 Studio	NO (-47.3%)	NO
23 Studio	NO (-48.9%)	NO
23 Studio	NO (-44.5%)	NO
23 Studio	NO (-45.7%)	NO
23 Studio	NO (-66.9%)	NO
23 Studio	NO (-49.3%)	NO
23 Studio	NO (-41.8%)	NO
23 Studio	NO (-44.2%)	NO
23 Studio	NO (-46.8%)	NO
23 Studio	NO (-64.8%)	NO
23 Twodio	NO (-71%)	NO
23 Twodio	NO (-42.1%)	NO
23 Twodio	NO (-44.6%)	NO
23 Twodio	NO (-70.9%)	NO
24 Club Studio	NO (-66.5%)	NO
24 Club Studio	NO (-68.4%)	NO
24 Club Studio	NO (-66.6%)	NO
24 Club Studio	NO (-66.6%)	NO
24 Club Studio	NO (-66.5%)	NO
24 Premium Studio	NO (-41.7%)	NO
24 Premium Studio	NO (-39.8%)	NO
24 Premium Studio	NO (-51.6%)	NO
24 Premium Studio	NO (-51.9%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
24 Premium Studio	NO (-50.8%)	NO
24 Studio	NO (-48.3%)	NO
24 Studio	NO (-44.8%)	NO
24 Studio	NO (-44.6%)	NO
24 Studio	NO (-45.4%)	NO
24 Studio	NO (-51.5%)	NO
24 Studio	NO (-47.9%)	NO
24 Studio	NO (-67.7%)	NO
24 Studio	NO (-48.2%)	NO
24 Studio	NO (-65.6%)	NO
24 Studio	NO (-48.9%)	NO
24 Twodio	NO (-71.6%)	NO
24 Twodio	NO (-71.5%)	NO
24 Twodio	NO (-45.4%)	NO
24 Twodio	NO (-43.2%)	NO
25 Club Studio	NO (-67.7%)	NO
25 Club Studio	NO (-65.8%)	NO
25 Club Studio	NO (-65.8%)	NO
25 Club Studio	NO (-65.8%)	NO
25 Club Studio	NO (-65.8%)	NO
25 Premium Studio	NO (-43%)	NO
25 Premium Studio	NO (-52.9%)	NO
25 Premium Studio	NO (-41.4%)	NO
25 Premium Studio	NO (-51.1%)	NO
25 Premium Studio	NO (-51.6%)	NO
25 Studio	NO (-43.5%)	NO
25 Studio	NO (-41.7%)	NO
25 Studio	NO (-46.8%)	NO
25 Studio	NO (-64.8%)	NO
25 Studio	NO (-49.3%)	NO
25 Studio	NO (-66.9%)	NO
25 Studio	NO (-45.4%)	NO
25 Studio	NO (-48.8%)	NO
25 Studio	NO (-47.4%)	NO
25 Studio	NO (-44.1%)	NO
25 Twodio	NO (-70.9%)	NO
25 Twodio	NO (-42.2%)	NO
25 Twodio	NO (-70.9%)	NO
25 Twodio	NO (-44.6%)	NO
26 Club Studio	NO (-66.5%)	NO
26 Club Studio	NO (-66.5%)	NO
26 Club Studio	NO (-68.4%)	NO
26 Club Studio	NO (-66.7%)	NO
26 Club Studio	NO (-66.6%)	NO
26 Premium Studio	NO (-51.9%)	NO
26 Premium Studio	NO (-51.6%)	NO
26 Premium Studio	NO (-39.8%)	NO
26 Premium Studio	NO (-50.8%)	NO
26 Premium Studio	NO (-41.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
26 Premium Studio	NO (-50%)	NO
26 Studio	NO (-48.4%)	NO
26 Studio	NO (-44.7%)	NO
26 Studio	NO (-45.5%)	NO
26 Studio	NO (-48.3%)	NO
26 Studio	NO (-44.8%)	NO
26 Studio	NO (-67.7%)	NO
26 Studio	NO (-48.7%)	NO
26 Studio	NO (-65.6%)	NO
26 Twodio	NO (-71.5%)	NO
26 Twodio	NO (-45.5%)	NO
26 Twodio	NO (-71.5%)	NO
26 Twodio	NO (-43.3%)	NO
27 Club Studio	NO (-65.8%)	NO
27 Club Studio	NO (-65.8%)	NO
27 Club Studio	NO (-65.8%)	NO
27 Club Studio	NO (-67.7%)	NO
27 Club Studio	NO (-65.8%)	NO
27 Premium Studio	NO (-50.9%)	NO
27 Premium Studio	NO (-51%)	NO
27 Premium Studio	NO (-52.9%)	NO
27 Premium Studio	NO (-43%)	NO
27 Premium Studio	NO (-51.6%)	NO
27 Premium Studio	NO (-41.4%)	NO
27 Studio	NO (-43.6%)	NO
27 Studio	NO (-41.8%)	NO
27 Studio	NO (-44.1%)	NO
27 Studio	NO (-64.8%)	NO
27 Studio	NO (-46.8%)	NO
27 Studio	NO (-66.9%)	NO
27 Studio	NO (-47.3%)	NO
27 Studio	NO (-45.5%)	NO
27 Twodio	NO (-42.1%)	NO
27 Twodio	NO (-70.9%)	NO
27 Twodio	NO (-44.6%)	NO
27 Twodio	NO (-70.8%)	NO
28 Club Studio	NO (-66.5%)	NO
28 Club Studio	NO (-68.4%)	NO
28 Club Studio	NO (-66.7%)	NO
28 Club Studio	NO (-66.6%)	NO
28 Club Studio	NO (-66.5%)	NO
28 Premium Studio	NO (-50.1%)	NO
28 Premium Studio	NO (-50.8%)	NO
28 Premium Studio	NO (-41.7%)	NO
28 Premium Studio	NO (-39.8%)	NO
28 Premium Studio	NO (-51.6%)	NO
28 Premium Studio	NO (-51.9%)	NO
28 Studio	NO (-48.4%)	NO
28 Studio	NO (-44.7%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
28 Studio	NO (-45.4%)	NO
28 Studio	NO (-48.3%)	NO
28 Studio	NO (-67.7%)	NO
28 Studio	NO (-44.8%)	NO
28 Studio	NO (-48.7%)	NO
28 Studio	NO (-65.6%)	NO
28 Twodio	NO (-71.5%)	NO
28 Twodio	NO (-45.5%)	NO
28 Twodio	NO (-43.3%)	NO
28 Twodio	NO (-71.4%)	NO
29 Club Studio	NO (-65.8%)	NO
29 Club Studio	NO (-65.7%)	NO
29 Club Studio	NO (-65.8%)	NO
29 Club Studio	NO (-65.8%)	NO
29 Club Studio	NO (-67.7%)	NO
29 Premium Studio	NO (-51.5%)	NO
29 Premium Studio	NO (-43.2%)	NO
29 Premium Studio	NO (-52.9%)	NO
29 Premium Studio	NO (-41.4%)	NO
29 Premium Studio	NO (-51%)	NO
29 Premium Studio	NO (-51%)	NO
29 Studio	NO (-47.3%)	NO
29 Studio	NO (-66.9%)	NO
29 Studio	NO (-46.8%)	NO
29 Studio	NO (-41.8%)	NO
29 Studio	NO (-43.6%)	NO
29 Studio	NO (-64.8%)	NO
29 Studio	NO (-44.1%)	NO
29 Studio	NO (-45.5%)	NO
29 Twodio	NO (-44.6%)	NO
29 Twodio	NO (-70.9%)	NO
29 Twodio	NO (-70.9%)	NO
29 Twodio	NO (-42.1%)	NO
30 Club Studio	NO (-66.5%)	NO
30 Club Studio	NO (-66.5%)	NO
30 Club Studio	NO (-68.4%)	NO
30 Club Studio	NO (-66.5%)	NO
30 Club Studio	NO (-66.6%)	NO
30 Premium Studio	NO (-41.7%)	NO
30 Premium Studio	NO (-50.8%)	NO
30 Premium Studio	NO (-39.8%)	NO
30 Premium Studio	NO (-51.7%)	NO
30 Premium Studio	NO (-51.9%)	NO
30 Premium Studio	NO (-49.9%)	NO
30 Studio	NO (-44.8%)	NO
30 Studio	NO (-44.5%)	NO
30 Studio	NO (-45.4%)	NO
30 Studio	NO (-48.4%)	NO
30 Studio	NO (-48.1%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
30 Studio	NO (-67.6%)	NO
30 Studio	NO (-48.7%)	NO
30 Studio	NO (-65.6%)	NO
30 Twodio	NO (-71.5%)	NO
30 Twodio	NO (-45.4%)	NO
30 Twodio	NO (-71.5%)	NO
30 Twodio	NO (-43.4%)	NO
31 Club Studio	NO (-65.8%)	NO
31 Club Studio	NO (-65.8%)	NO
31 Club Studio	NO (-65.8%)	NO
31 Club Studio	NO (-65.8%)	NO
31 Club Studio	NO (-67.8%)	NO
31 Premium Studio	NO (-51.5%)	NO
31 Premium Studio	NO (-43.1%)	NO
31 Premium Studio	NO (-52.5%)	NO
31 Premium Studio	NO (-41.3%)	NO
31 Premium Studio	NO (-51.1%)	NO
31 Premium Studio	NO (-51.1%)	NO
31 Studio	NO (-45.9%)	NO
31 Studio	NO (-47.3%)	NO
31 Studio	NO (-44.1%)	NO
31 Studio	NO (-46.8%)	NO
31 Studio	NO (-41.7%)	NO
31 Studio	NO (-66.9%)	NO
31 Studio	NO (-64.8%)	NO
31 Studio	NO (-43.4%)	NO
31 Twodio	NO (-44.6%)	NO
31 Twodio	NO (-70.9%)	NO
31 Twodio	NO (-42.1%)	NO
31 Twodio	NO (-70.9%)	NO
32 Club Studio	NO (-66.5%)	NO
32 Club Studio	NO (-66.5%)	NO
32 Club Studio	NO (-66.5%)	NO
32 Club Studio	NO (-68.4%)	NO
32 Club Studio	NO (-66.6%)	NO
32 Premium Studio	NO (-41.7%)	NO
32 Premium Studio	NO (-50.8%)	NO
32 Premium Studio	NO (-39.8%)	NO
32 Premium Studio	NO (-51.5%)	NO
32 Premium Studio	NO (-51.9%)	NO
32 Premium Studio	NO (-49.9%)	NO
32 Studio	NO (-44.7%)	NO
32 Studio	NO (-45.5%)	NO
32 Studio	NO (-44.9%)	NO
32 Studio	NO (-48.4%)	NO
32 Studio	NO (-47.9%)	NO
32 Studio	NO (-48.9%)	NO
32 Studio	NO (-67.7%)	NO
32 Studio	NO (-65.6%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
32 Twodio	NO (-71.5%)	NO
32 Twodio	NO (-71.5%)	NO
32 Twodio	NO (-43.2%)	NO
32 Twodio	NO (-45.5%)	NO
33 Club Studio	NO (-65.8%)	NO
33 Club Studio	NO (-65.8%)	NO
33 Club Studio	NO (-65.8%)	NO
33 Club Studio	NO (-65.8%)	NO
33 Club Studio	NO (-67.8%)	NO
33 Premium Studio	NO (-51.4%)	NO
33 Premium Studio	NO (-43.1%)	NO
33 Premium Studio	NO (-41.4%)	NO
33 Premium Studio	NO (-51%)	NO
33 Premium Studio	NO (-51.1%)	NO
33 Premium Studio	NO (-52.5%)	NO
33 Studio	NO (-46.8%)	NO
33 Studio	NO (-41.8%)	NO
33 Studio	NO (-43.6%)	NO
33 Studio	NO (-45.4%)	NO
33 Studio	NO (-66.9%)	NO
33 Studio	NO (-64.8%)	NO
33 Studio	NO (-47.4%)	NO
33 Studio	NO (-44.1%)	NO
33 Twodio	NO (-42.2%)	NO
33 Twodio	NO (-70.9%)	NO
33 Twodio	NO (-70.9%)	NO
33 Twodio	NO (-44.6%)	NO
34 Club Studio	NO (-66.5%)	NO
34 Club Studio	NO (-66.6%)	NO
34 Club Studio	NO (-68.4%)	NO
34 Club Studio	NO (-66.5%)	NO
34 Club Studio	NO (-66.5%)	NO
34 Premium Studio	NO (-41.7%)	NO
34 Premium Studio	NO (-50.8%)	NO
34 Premium Studio	NO (-39.8%)	NO
34 Premium Studio	NO (-51.5%)	NO
34 Premium Studio	NO (-51.9%)	NO
34 Premium Studio	NO (-49.9%)	NO
34 Studio	NO (-44.6%)	NO
34 Studio	NO (-45.4%)	NO
34 Studio	NO (-44.8%)	NO
34 Studio	NO (-48.3%)	NO
34 Studio	NO (-47.8%)	NO
34 Studio	NO (-48.3%)	NO
34 Studio	NO (-65.6%)	NO
34 Studio	NO (-67.6%)	NO
34 Twodio	NO (-43.2%)	NO
34 Twodio	NO (-71.5%)	NO
34 Twodio	NO (-71.5%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
34 Twodio	NO (-45.4%)	NO
35 Club Studio	NO (-67.7%)	NO
35 Club Studio	NO (-65.8%)	NO
35 Club Studio	NO (-65.8%)	NO
35 Club Studio	NO (-65.8%)	NO
35 Club Studio	NO (-65.8%)	NO
35 Premium Studio	NO (-51.6%)	NO
35 Premium Studio	NO (-43%)	NO
35 Premium Studio	NO (-52.6%)	NO
35 Premium Studio	NO (-41.3%)	NO
35 Premium Studio	NO (-51.1%)	NO
35 Premium Studio	NO (-51%)	NO
35 Studio	NO (-43.6%)	NO
35 Studio	NO (-66.9%)	NO
35 Studio	NO (-45.5%)	NO
35 Studio	NO (-47.3%)	NO
35 Studio	NO (-44.1%)	NO
35 Studio	NO (-46.8%)	NO
35 Studio	NO (-41.7%)	NO
35 Studio	NO (-64.8%)	NO
35 Twodio	NO (-70.9%)	NO
35 Twodio	NO (-70.9%)	NO
35 Twodio	NO (-42.1%)	NO
35 Twodio	NO (-44.6%)	NO
36 Club Studio	NO (-66.5%)	NO
36 Club Studio	NO (-68.4%)	NO
36 Club Studio	NO (-66.6%)	NO
36 Club Studio	NO (-66.5%)	NO
36 Club Studio	NO (-66.5%)	NO
36 Premium Studio	NO (-51.9%)	NO
36 Premium Studio	NO (-51.5%)	NO
36 Premium Studio	NO (-39.8%)	NO
36 Premium Studio	NO (-50.8%)	NO
36 Premium Studio	NO (-41.7%)	NO
36 Premium Studio	NO (-49.9%)	NO
36 Studio	NO (-45.4%)	NO
36 Studio	NO (-44.7%)	NO
36 Studio	NO (-49.1%)	NO
36 Studio	NO (-65.6%)	NO
36 Studio	NO (-67.7%)	NO
36 Studio	NO (-47.9%)	NO
36 Studio	NO (-48.3%)	NO
36 Studio	NO (-44.9%)	NO
36 Twodio	NO (-43.2%)	NO
36 Twodio	NO (-45.5%)	NO
36 Twodio	NO (-71.5%)	NO
36 Twodio	NO (-71.5%)	NO
37 Club Studio	NO (-65.8%)	NO
37 Club Studio	NO (-65.8%)	NO

Zone	Solar gain limit exceeded? (%)	Internal blinds used?
37 Club Studio	NO (-65.8%)	NO
37 Club Studio	NO (-65.8%)	NO
37 Club Studio	NO (-67.8%)	NO
37 Premium Studio	NO (-51.1%)	NO
37 Premium Studio	NO (-41.4%)	NO
37 Premium Studio	NO (-52.8%)	NO
37 Premium Studio	NO (-51.4%)	NO
37 Premium Studio	NO (-50.9%)	NO
37 Premium Studio	NO (-43%)	NO
37 Studio	NO (-43.6%)	NO
37 Studio	NO (-66.9%)	NO
37 Studio	NO (-45.5%)	NO
37 Studio	NO (-47.3%)	NO
37 Studio	NO (-44.1%)	NO
37 Studio	NO (-46.8%)	NO
37 Studio	NO (-41.8%)	NO
37 Studio	NO (-64.8%)	NO
37 Twodio	NO (-70.9%)	NO
37 Twodio	NO (-70.9%)	NO
37 Twodio	NO (-42.1%)	NO
37 Twodio	NO (-44.6%)	NO
38 Amenity	NO (-20.4%)	NO
38 Amenity	NO (-46.2%)	NO

Regulation 25A: Consideration of high efficiency alternative energy systems

Were alternative energy systems considered and analysed as part of the design process?	NO
Is evidence of such assessment available as a separate submission?	NO
Are any such measures included in the proposed design?	NO

Technical Data Sheet (Actual vs. Notional Building)

Building Global Parameters

	Actual	Notional
Floor area [m^2]	22941.9	22941.9
External area [m^2]	16246.1	16394.8
Weather	MAN	MAN
Infiltration [m^3/hm^2@ 50Pa]	3	3
Average conductance [W/K]	7992.58	10563.2
Average U-value [W/m^2K]	0.49	0.64
Alpha value* [%]	25.15	10

* Percentage of the building's average heat transfer coefficient which is due to thermal bridging

Building Use

% Area	Building Type
	Retail/Financial and Professional Services
	Restaurants and Cafes/Drinking Establishments/Takeaways
	Offices and Workshop Businesses
	General Industrial and Special Industrial Groups
	Storage or Distribution
	Hotels
	Residential Institutions: Hospitals and Care Homes
	Residential Institutions: Residential Schools
100	**Residential Institutions: Universities and Colleges**
	Secure Residential Institutions
	Residential Spaces
	Non-residential Institutions: Community/Day Centre
	Non-residential Institutions: Libraries, Museums, and Galleries
	Non-residential Institutions: Education
	Non-residential Institutions: Primary Health Care Building
	Non-residential Institutions: Crown and County Courts
	General Assembly and Leisure, Night Clubs, and Theatres
	Others: Passenger Terminals
	Others: Emergency Services
	Others: Miscellaneous 24hr Activities
	Others: Car Parks 24 hrs
	Others: Stand Alone Utility Block

Energy Consumption by End Use [kWh/m^2]

	Actual	Notional
Heating	9.57	8.47
Cooling	0.06	0.07
Auxiliary	5.99	3.54
Lighting	7.24	9.42
Hot water	4.81	6.24
Equipment*	18.87	18.87
TOTAL**	**27.67**	**27.72**

* Energy used by equipment does not count towards the total for consumption or calculating emissions.
** Total is net of any electrical energy displaced by CHP generators, if applicable.

Energy Production by Technology [kWh/m^2]

	Actual	Notional
Photovoltaic systems	0	0
Wind turbines	0	0
CHP generators	0	0
Solar thermal systems	0	0
Displaced electricity	*0*	*0*

Energy & CO_2 Emissions Summary

	Actual	Notional
Heating + cooling demand [MJ/m^2]	108.18	85.74
Primary energy [kWh_{PE}/m^2]	41.17	41.33
Total emissions [kg/m^2]	3.84	3.87

HVAC Systems Performance

System Type		Heat dem MJ/m2	Cool dem MJ/m2	Heat con kWh/m2	Cool con kWh/m2	Aux con kWh/m2	Heat SSEEF	Cool SSEER	Heat gen SEFF	Cool gen SEER
[ST] Split or multi-split system, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	160.8	5	10.6	0.4	9	4.19	3.91	4.5	5.5
	Notional	163.3	6.1	16.3	0.6	2.4	2.78	2.84	----	----
[ST] Central heating using water: radiators, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	146.6	0	13.1	0	7	3.1	0	3.3	0
	Notional	115.8	0	11.6	0	4.3	2.78	0	----	----
[ST] Water loop heat pump, [HS] ASHP, [HFT] Electricity, [CFT] Electricity										
	Actual	138	28.3	11.7	2.1	39.9	3.28	3.69	3.3	5.5
	Notional	91.3	37.4	9.1	2.2	16.3	2.78	4.63	----	----
[ST] No Heating or Cooling										
	Actual	0	0	0	0	0	0	0	0	0
	Notional	0	0	0	0	0	0	0	----	----

Key to terms

Heat dem [MJ/m2] = Heating energy demand
Cool dem [MJ/m2] = Cooling energy demand
Heat con [kWh/m2] = Heating energy consumption
Cool con [kWh/m2] = Cooling energy consumption
Aux con [kWh/m2] = Auxiliary energy consumption
Heat SSEFF = Heating system seasonal efficiency (for notional building, value depends on activity glazing class)
Cool SSEER = Cooling system seasonal energy efficiency ratio
Heat gen SSEFF = Heating generator seasonal efficiency
Cool gen SSEER = Cooling generator seasonal energy efficiency ratio
ST = System type
HS = Heat source
HFT = Heating fuel type
CFT = Cooling fuel type